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## **JOI BRAZIL**

EVIDENCE IN LABOR MARKET POLICIES AND  
IMPLICATIONS FOR BRAZIL:

**JOB TRAINING PROGRAMS**



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# EVIDENCE IN LABOR MARKET POLICIES AND IMPLICATIONS FOR BRAZIL: JOB TRAINING PROGRAMS

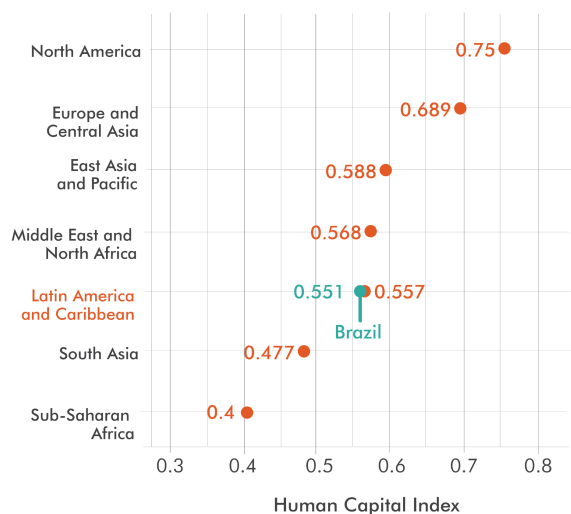
Authors: **Filipe Cavalcanti**, JOI Brazil. **Laísa Ratcher**, IDB. **Livia Gouvêa**, IDB. **Luiz Felipe Fontes**, JOI Brazil. Technical support: **Edivaldo Constantino**, JOI Brazil. **Kelly Miranda**, IDB.



## INTRODUCTION

Skills are an important factor for people to access high-quality jobs and be more productive. However, in Brazil, as in other countries in Latin America and the Caribbean (LAC), many people neither receive adequate training nor develop skills that are in-demand in the labor market. This point is illustrated by the Human Capital Index (HCI) in Figure 1. The HCI calculates the expected productivity of the next generation of workers if circumstances remain as they are. Brazil's HCI—which is close to the LAC average—is significantly lower than those of high-income regions such as North America and Europe. This suggests that Brazil has a lot of untapped talent.

**Figure 1** - Human Capital Index, 2020, by region



Source: [World Bank](#)

A survey conducted in forty countries and territories found that employers are experiencing increasing difficulty in finding employees with the technical knowledge necessary to fill vacancies in their companies. The survey also showed that Brazil is one of the ten countries with the most severe talent

shortage ([Manpowergroup, 2022](#)). One potential strategy to address this gap is through job training programs.

While job training programs are generally successful in providing job seekers with new skills, results on employment and earnings are mixed. Further, the programs are often expensive, ranging from a few hundred US dollars to over US\$10,000 per person trained ([McKenzie, 2017](#), [Blattman and Ralston, 2015](#)). Given the mixed results and often high program costs, it is important to identify the most promising features of job trainings to improve future programming.

This publication examines the available evidence on job training programs and considers its implications for public policy in Brazil. The review supplements previous efforts by the Abdul Latif Jameel Poverty Action Lab (J-PAL) and the Inter-American Development Bank (IDB) to address this issue (see [J-PAL \(2022\)](#), [IDB \(2020\)](#), and [IDB \(2021\)](#)).

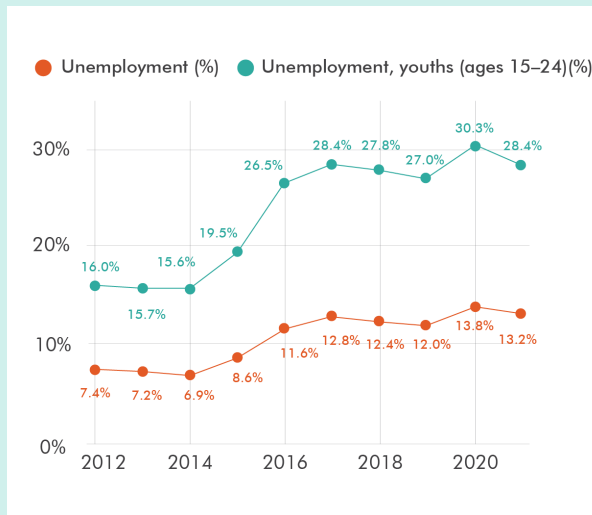
## PROMISING FEATURES OF JOB TRAINING PROGRAMS

While the evidence from randomized evaluations on job training programs has been mixed, several programs demonstrate promising features that often increased the probability of employment and the earnings of participants.<sup>1</sup> The following section explores these features.

<sup>1</sup> A randomized evaluation is one in which participants are randomly assigned to one or more groups that receive several types of benefits, or a comparison group.

## YOUNG PEOPLE IN THE JOB MARKET

**Figure 2** - Unemployment rate in Brazil, total and for young people (15 to 24 years)



**Source:** PNAD-C (quarterly), annual average

Young people face additional challenges in the labor market such as longer than average time periods to find a suitable job ([Cunningham, 2009](#)), constraints due to existing regulations, misalignment between their aspirations and labor-market realities, lack of knowledge about labor market demands, and lower skills and competencies than older age groups ([IDB, 2021](#)). Such barriers tend to be reflected in higher youth unemployment rates. In Brazil, youth unemployment reached 28.4 percent in 2021 (Figure 2), 12.4 percentage points higher than in 2012 (16 percent). This unemployment increase among youth was much higher than that of the general population during the same period.<sup>2</sup> As a result, it is critical to develop efficient, evidence-based approaches to improve living and working conditions for young job seekers.

<sup>2</sup> In the same period, the overall unemployment rate increased by 6 percentage points, rising from 7.4 percent in 2012 to 13.2 percent in 2021.



## Matching to labor market demands

Tailoring the curriculums and courses of job training programs to the demands of local labor markets can improve the impact of these programs on employment and earnings. In **Turkey**, the positive effects of training on short-term employment seemed strongest when courses were offered by private providers that had both the incentives and the ability to respond to market demand ([Hirshleifer et al., 2016](#)). In the **United States**, sectoral employment programs that targeted occupations with strong labor demand and opportunities for longer-term career advancement increased earnings and placed trainees in high-paying jobs ([Katz et al., 2020](#)).



## Financial incentives for training providers

Preliminary evidence suggests that paying training providers based on participants' outcomes could encourage providers to deliver quality programs. A meta-analysis found that programs offering pay-for-performance incentives to training providers were more effective at meeting their goals ([Kluve et al., 2018](#)).<sup>3</sup> In **Colombia**, the payment structure of a program incentivized training centers to help their trainees to graduate and secure jobs thereafter, which may have contributed to the

<sup>3</sup> Meta-analysis is a method of conducting a literature review that employs statistical techniques to aggregate results from multiple academic articles. This particular meta-analysis aggregated results from quasi-experimental studies and randomized evaluations.

positive effects on participants' employment and earnings ([Attanasio et al., 2011](#)). In **Nepal**, a quasi-experimental evaluation found that paying providers a bonus for placing participants in jobs within six months of the training may have supported the program's positive impact on employment ([Chakravarty et al., 2016](#)).



## On-the-job training

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Programs that provided participants with hands-on work experience, such as internships and apprenticeships, often helped them transition into the workforce. Job training programs that combined practical experience with classroom-based technical training led to positive outcomes in most cases and were more successful than only on-the-job training programs. In **Bangladesh**, combining classroom-based training with a cash stipend and a paid internship opportunity in the same occupation was more effective in increasing employment and earnings than providing only classroom-based training and a cash stipend ([Shonchoy et al., 2018](#)). An evaluation conducted in **Uganda** compared the efficiency of a six-month in-class vocational training at a private training institute to a subsidized in-firm apprenticeship. The gains for vocational trainees were both larger and sustained over a longer period, likely because they acquired more certifiable skills and could move back into employment from unemployment more easily than firm apprentices ([Alfonsi et al., 2020](#)).



## Soft skills

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Workers' soft (or socioemotional) skills, such as communication, group work, problem-solving, and personal awareness, are increasingly valued ([Deming, 2017](#)). Developing soft skills has often improved employment outcomes for job seekers when combined with hard skills training or internships. In **Egypt**, a training that mixed hard and soft skills led to better employment outcomes than trainings that focused on either hard skills or soft skills eighteen months later ([Osman and Speer, 2022](#)). In the **Dominican Republic**, a soft skills training program combined with an internship improved women's labor market outcomes in the short term ([Acevedo et al., 2020](#)).



## Job search assistance

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When looking for a job, workers face many challenges. These can include financial and geographical constraints, a lack of knowledge about labor market opportunities, or inexperience in communicating their skills ([J-PAL, 2022](#)). In **Kenya**, providing job referrals to work at a large company with a high probability of being hired alongside training induced additional effort among the programs' participants during the course and led to better employment outcomes ([Atkin et al., 2021](#)). In the **United States**, job search assistance was a component of many successful job training programs ([J-PAL, 2022](#)). The effect of job search assistance programs will be discussed further in another publication of this series.



## Financial assistance

Credit constraints have often prevented participants from taking up training programs or fully participating in them. Financial assistance increased the effectiveness of these programs in most cases where it was measured in randomized evaluations ([J-PAL, 2022](#)). In **Bangladesh** and **Colombia**, offering financial assistance to cover food and transportation costs during the training period increased enrollment and completion rates. In both evaluations, training only increased the probability of finding a job when combined with financial support ([Shonchoy et al., 2018](#), [Barrera-Osorio, Kugler and Silliman, 2020](#)).

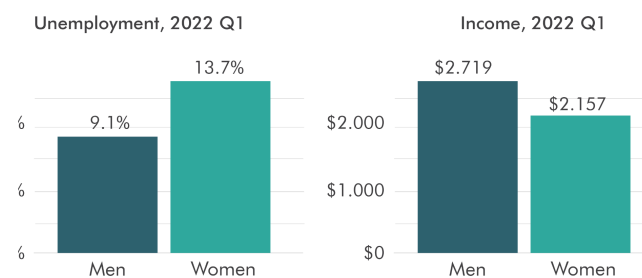
## GENDER-SPECIFIC BARRIERS

Women face specific barriers in the labor market, including a disproportionate burden of household chores and family care, corporate promotion cultures based on gender norms, and unconscious biases and gender stereotypes that make career advancement difficult. This is reflected in higher unemployment rates and lower wages ([Goldin, 2021](#), [ILO, 2017](#)). In the first quarter of 2022, the unemployment rate for women in Brazil was 13.7 percent, 4.6 percentage points higher than that of men at 9.1 percent (Figure 3). Furthermore, women earned only 79.3 percent of what men earned.

Job training programs can improve labor-market inequalities, but there are differences across studies about which groups benefit the most from these interventions. For example, [Da Mata et al. \(2021\)](#), [Camargo et al. \(2021\)](#), and [Attanasio et al. \(2011\)](#) found that women

benefited more from training programs than men, increasing their income and employment trajectory more sharply after training completion. [Alzúa et al. \(2016\)](#), [Cho et al. \(2013\)](#), and [Hirshleifer et al. \(2016\)](#) found the opposite effect. Overall, women seemed to benefit more from training that promotes socioemotional skills ([Camargo et al., 2021](#), [Acevedo et al., 2020](#)).

**Figure 3** - Gender inequalities in the labor market, Brazil



**Source:** PNAD-C (2022, first quarter)

Gender differences in occupational choices have been found as an important determinant of the gender pay gap. An example is the underrepresentation of women in high-paying STEM jobs ([Blau and Kahn, 2017](#)).<sup>4</sup> Programs in **Peru** and **Mexico** have included a successful female professional example (*role model*) on their application page to encourage women to participate in a technology training. Researchers found that including role models was effective in increasing female enrollment ([Del Carpio and Guadalupe, 2021](#)).

Women-only training programs may accelerate women's participation in occupations where they are underrepresented but evaluations also found limitations. Evaluations in **Argentina** and **Colombia** found that while women-only

<sup>4</sup> STEM refers to Science, technology, engineering, and mathematics.

training programs increased the likelihood of working in the technology sector in the short run, the program decreased the likelihood of finding work in other sectors, resulting in a negative aggregate effect on employment ([Aramburu et al., 2021](#)). Evidence from **Kenya** indicates that women's income and employment rates only increased when a digital skills training was complemented with job referrals at a technology company ([Atkin et al., 2021](#)). This evidence suggests that providing specific training in areas where women are underrepresented alone may not be sufficient to address complex barriers, and a broader approach, with additional assistance, is needed.

Women may also face additional barriers to joining job training programs and thriving in them such as family obligations and partner resistance (e.g., in **Bangladesh**, [Shonchoy et al., 2018](#), and in **Malawi**, [Cho et al., 2013](#)). However, there are few evaluations that rigorously test programs that seek to address these issues.

## **JOB TRAINING PROGRAMS FROM LATIN AMERICA AND THE CARIBBEAN**

This section highlights evidence from Brazil and the LAC region on innovative and impactful programming relevant to the Brazilian context.

In **Brazil**, the federal government established the National Program for Access to Technical Education and Employment (PRONATEC) in 2011 with the goal of increasing the supply of professional and technological education courses. A specific component of PRONATEC, Brasil Maior, offered training requested by companies through a direct channel with the government and was, therefore, aligned with the current demands of the labor market. A

quasi-experimental evaluation of Brasil Maior suggests that the program was effective in increasing employment. The component had a greater impact than other PRONATEC courses that did not previously connect with the private sector ([O'Connell and Mation, 2021](#)).

Another component of PRONATEC, Bolsa Formação, offered scholarships for students to attend job training sessions at private institutions at no cost. A randomized evaluation conducted in the state of Santa Catarina found that scholarships increased enrollment by 64 percentage points ([Camargo et al., 2021](#)). The evaluation did not identify any effects on men's employment or earnings. Researchers argue that the success of these courses in increasing socioemotional skills did not occur among men. Researchers found that the scholarship led to increases in employment and earnings for women participants two years after completing the course.

In the state of Bahia, the Program of Subsequent Education to High School (PROSUB) consists of eighteen months of classroom-based training combined with six months of on-the-job training. Skills training is offered in various fields, such as agriculture, manufacturing, information technology, and health. Graduates receive a certification upon program completion. A randomized evaluation showed that the program increased women's employment when they did not graduate during a period of economic recession and had no effects on men ([Da Mata, Oliveira and Silva, 2021](#)). During times of crisis, the program was ineffective in improving both men's and

## CASE STUDY: JÓVENES EN ACCIÓN, COLOMBIA

In 2001, the Colombian government launched the *Jóvenes en Acción* program targeting 18–25 years old, low-income job seekers. The program offered courses primarily in the administrative sector, though some were in manual and technological occupations. Among the activities and benefits provided were:

- Three months of classroom instruction provided by private institutions.
- Three months of internship or on-the-job training provided by selected companies.
- Financial aid to cover transportation and food costs.

Providers of the classroom training were chosen based on trainer quality and their ability to place students in internships at authorized companies. A large fraction of the training center's total payment was conditional on the number of students that successfully completed the course, obtained an apprenticeship, and completed it. The training centers received an additional bonus if the firm hired the trainee on a formal contract.

Evaluations of the program indicate that women increased their chance of finding a job upon program completion and their earnings increased 12 to 15 months after the course ([Attanasio et al., 2011](#); [Attanasio et al., 2017](#); [Kugler et al., 2019](#)). The program also increased men's employment in the formal sector. In the long run, the program increased participants' employment, earnings, and the likelihood of working at a large corporation.<sup>5</sup> Finally, participation in the program also increased the number of formal education courses (high school and college) taken by both beneficiaries and their families.

women's employment and earnings, highlighting the importance of local labor market conditions on the impact of training programs.

Similar programs throughout LAC that combine classroom-based training with practical experiences have also led to positive impacts for participants. In **Peru**, the *Projovent* program combined three months of classroom-based training with a three-month internship. The program was ineffective in increasing employment and wages up to three years after program completion but did improve the proportion of workers in formal employment ([Diaz and Rosas, 2016](#)). In **Argentina**, the *entra21* program provided four months of training in technical and socioemotional skills, as well as a four-month internship. The program increased beneficiaries' employment up to eighteen months after the program ended, but this effect faded in the medium and long term ([Alzúa et al., 2016](#)). The fading of long-term effects highlights both the complexity of developing job training programs and the importance of conducting more evaluations to understand how to preserve short-term effects.

The **Dominican Republic's** *Juventud y Empleo* program has been evaluated several times ([Card et al., 2011](#), [Ibarrarán et al., 2014](#), [Ibarrarán et al., 2019](#)). Most recently, [Acevedo et al. \(2020\)](#) measured the effects of two versions of the program: one focused purely on socioemotional skills, and one focused on the combination of technical and socioemotional skills. The two programs were effective in increasing women's socioemotional skills as well as employment and earnings in the short term. For men, neither program led to improved socioemotional skills and, while the first had no effect on labor market outcomes, the second reduced employment. This may have occurred because

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<sup>5</sup> Such companies typically offer more benefits to workers.



participation in the second program could have caused men to be overconfident about their prospects in the labor market and reject more job offers. In the long term, the programs had no effect on both men's and women's employment, but improved women's well-being and self-esteem. Training that emphasizes socioemotional skills can have positive impacts on labor market outcomes, but it might also have fading long-term effects.

## FINAL REMARKS

One of Brazil's major challenges in the coming years is to address unemployment and help people get into quality, high-paying jobs. Policymakers interested in meeting these goals should consider the promising features of job training programs highlighted here.

## Connecting with the labor market

Successful job training programs often tailor their course offerings and curriculum to the needs of the labor market. Many of them also offer internships and/or on-the-job training to their participants. Therefore, many job training programs include some form of connection to current labor market demands.

## Understanding the needs of job seekers

People who attend job training programs can be financially constrained or face structural barriers because of social markers such as race and gender. Successful programs typically provide financial assistance or other forms of support, such as job search assistance and the development of soft skills.

## Looking to the future

The world is currently experiencing rapid and complex technological changes, which have the potential to affect the labor market by changing the skill set required of workers ([IDB, 2018](#)). New skills will also be needed if countries are to achieve greener and more sustainable economies ([OECD, 2012](#)), while other skills will increasingly become obsolete due to automation and robotization. Further evaluations about how to design efficient training programs in light of these rapid changes in labor demand would be valuable.

## THE IMPORTANCE OF RANDOMIZED EVALUATIONS

Randomized evaluations are a powerful tool to identify the impact of a particular program or policy and can provide insights into the reasons behind an intervention's impact. These insights can help practitioners seeking to improve the design of their programs and use their resources efficiently. J-PAL's Jobs and Opportunity Initiative (JOI) Brazil was created in 2021 to expand the evidence on solutions to labor market challenges in Brazil by supporting randomized evaluations. If your company, organization, or government agency is implementing an intervention related to labor markets and would like to explore the opportunity to collaborate with researchers to evaluate your intervention, please contact us at [joibr@povertyactionlab.org](mailto:joibr@povertyactionlab.org).

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