Youth unemployment is a serious problem in both developed and developing economies. The International Labor Organization (ILO) estimates that at the end of 2010 there were 75 million young people in the world struggling to find work—5 million more than in 2007. Employment prospects for young people often become particularly bleak during economic downturns, as young workers tend to be the “last in and the first out” of the labor market.

A lack of skills is often thought to be one of the key determinants of youth unemployment. In many developing countries, education systems fail to equip young people with the skills they need to get a job, especially one in the formal sector. To address this gap, governments throughout the world, including many across Latin America, have introduced training programs for disadvantaged youth. Although the evidence from evaluations of similar programs in developed countries has been mixed, this may not be applicable to the different contexts and needs of middle- and low-income countries, where skill levels are lower to begin with and formal jobs are often limited to more educated workers.

J-PAL affiliate Orazio Attanasio (University College London), Adriana Kugler (Georgetown University), and J-PAL affiliate Costas Meghir (Yale University), designed a randomized evaluation to estimate the impact of a vocational training program on the earnings and job status of disadvantaged youth in Colombia. The program provided participants in several major cities with three months of classroom training followed by three months of on-the-job training.

- The training increased earnings and employment among women. Women who participated in the training program were 6.8 percentage points more likely to have a paid job, and their earnings increased by 19.6 percent. No significant impact was found in these outcomes among men.

- Program participation improved access to jobs in the formal sector for both women and men. Much of the gain in employment for women resulted from transitioning from unemployment into formal-sector jobs. However, men appeared to switch from the informal to the formal sector without net employment gains. Both of these shifts resulted in higher formal earnings.

- Cost-benefit analysis suggests the vocational training program had high returns for women. The estimated employment and earning gains for women were almost double the cost of operating the program per participant.
Following a recession in the late 1990s, the government of Colombia implemented a set of social programs that included Jóvenes en Acción (Youth in Action), a free vocational training program targeted to youth 18 to 25 years old. Youth who were unemployed and part of the bottom fifth of the income distribution were eligible. The training program was implemented in the seven largest cities of the country, reaching 80,000 people over the course of four years starting in 2002.

The evaluation dealt with the last cohort of participants, which received training in 2005. Each of the 114 training institutions participating in the program was instructed to select up to 50 percent more applicants than they could accommodate. Applicants were randomly selected from this list to fill over 26,000 total available slots, with the remaining people on the list forming the comparison group. This methodology allowed researchers to control for self-selection into the training program; all individuals in both the treatment and comparison groups had chosen to apply for the training and had been selected as suitable by the training institutions.

The program consisted of three months of classroom instruction and three months of on-the-job training. Classroom training was provided by private institutions, which were selected via a bidding process. These institutions offered a diverse set of courses, which focused on providing skills that were in demand in the local labor market.

Following the classroom-based course, participants took part in three months of on-the-job training through unpaid internships with companies that specialized in manufacturing, retail and trade, or services. On average, the internship consisted of 5.2 hours of work per day.

Throughout the six months of the program, participants received a stipend of US$2.20 per day to cover transportation and food costs. Women with children under 7 years old received an extra US$0.80 per day to help cover the costs of childcare.

Due to the large scale of the experiment, researchers surveyed a random sample of approximately 2,000 applicants from both the treatment and comparison groups. Surveys were conducted between 13 and 15 months after the conclusion of the program.


**RESULTS**

Women who participated in the program were more likely to be employed. Employment among women who participated in the training program was 5.4 percentage points higher than in the comparison group, while paid employment was 6.8 percentage points higher (Figure 1). The program, however, had no detectable impact on the probability of employment for men.

**FIGURE 1: VOCATIONAL TRAINING INCREASED EMPLOYMENT AMONG WOMEN BUT NOT AMONG MEN**

![Graph showing employment rates for women and men before and after vocational training](photo by oscar pocasangre)

Vocational training increased women’s earnings. Participation in the program increased women’s earnings by almost US$18 per month, which represents a 19.6 percent increase over women who did not receive the training. The program had no detectable impact on the earnings of men.

Program participants were more likely to work in the formal sector. Male and female participants were 5.8 and 6.9 percentage points more likely to have a formal sector job, respectively. Compared to male participants, who seem to have moved to the formal sector from the informal sector without a net gain in employment, female participants transitioned into formal jobs from unemployment, producing overall gains in employment and wages. These results may have additional welfare implications, as formal jobs have many benefits beyond higher wages that are not easily quantifiable, such as better access to health insurance, pensions, and injury compensation.

**COST-BENEFIT ANALYSIS**

A simple comparison of the program’s costs with its benefits for women suggests that the vocational training program was a worthwhile investment. The cost of implementing the program for the Colombian government was US$750 per participant. In addition, participants bore an opportunity cost from foregone earnings of about US$62 from being out of the labor force during the program. Researchers estimate that the net gains in women’s future income derived from the training ranged from $666 to $2,993, depending on the assumptions used about how quickly the benefits of training fade over time. These estimates may understate the benefits of the program because they do not include potential non-wage benefits from working in the formal sector.
Specific skills training may help facilitate young people's integration into the labor market, particularly in the formal sector. Low levels of skill among disadvantaged youth, combined with high demand for skilled labor among formal-sector employers (especially in middle-income countries such as Colombia), suggest a need for vocational training. By providing skills valued by employers and direct contact with formal-sector businesses through on-the-job training, this type of program can facilitate access to formal jobs, which offer higher salaries and potentially many non-wage benefits.

Making vocational training more accessible can extend job opportunities and benefits to many disadvantaged youth. The intensive six-month training program had a high cost-benefit ratio for female participants and helped participants transition to the formal sector. There are, however, many barriers—from lack of information to high tuition costs—that can keep disadvantaged youth from enrolling in vocational training programs. Making training programs available and accessible can help some youth reduce unemployment and obtain the many benefits associated with employment.

EXPLAINING THE SUCCESS OF JÓVENES EN ACCIÓN

Most evaluations of vocational training programs to date have not found training to be an effective policy (see J-PAL’s Youth Initiative Review Paper), making the success of the Jóvenes en Acción program an important exception. Several context- and program-specific factors, might help explain these results.

The program was implemented in a country where the limited size of the formal sector means that access to decent jobs is often restricted to more educated workers, implying greater gains for relevant skills training. Furthermore, the program combined in-classroom training, which may improve the skills and productivity of participants, with internships, which allow employers to obtain useful information about the quality of potential employees. While this particular evaluation did not seek to disentangle the impact of the different program components, this may be an important question for labor markets research in order to design better vocational training programs and policies.

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About J-PAL The Abdul Latif Jameel Poverty Action Lab (J-PAL) is a network of affiliated professors around the world who are united by their use of randomized evaluations to answer questions critical to poverty alleviation. J-PAL’s mission is to reduce poverty by ensuring that policy is based on scientific evidence.

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