# Youth and Employment Program, Ministry of Labor, Dominican Republic

Impact Evaluation Report. 2008-2009 Cohorts

Evelyn Vezza,\* Brígida García,<sup>†</sup> Guillermo Cruces<sup>‡</sup> and Julian Amendolaggine<sup>§</sup>

September 2014

This document is a report on the impact evaluation of the "Programa Juventud y Empleo", implemented by the Dominican Republic's Ministry of Labor. Funding for this evaluation was provided by BNPP, GAP and SIEF - World Bank's loan N. 7371-DO, which financed the evaluation surveys. This report builds on the work of professionals from the Dominican Republic's Ministry of Labor and staff and consultants from the World Bank. These teams designed and carried out the intervention, its evaluation strategy and the data collection tools, and produced documentation that has been partially incorporated to this document. The members of these teams are:

Ministerio de Trabajo, República Dominicana:

José Luis Polanco (PJyE), Douglas Hasbún (PJyE), Brígida García (PJyE) and Isabel Taveras (INFOTEP)

#### World Bank:

Paul Gertler - Co-Principal Investigator, Sebastian Martinez - Co-Principal Investigator, Juan Martín Moreno - Team Task Leader, Cornelia Tesliuc - Original Task Team Leader at the start of the process, Paloma Acevedo - Impact Evaluation Manager, Rodrigo Muñoz - World Bank Consultant for survey and data quality control, Juan Muñoz - World Bank Consultant on sign up form (baseline), Carlos Asenjo - Coordinated Life Skills survey module, Mayra Brea - World Bank Consultant on Life Skills survey module, Sigrid Vivo - World Bank Consultant for initial experimental design, Gustavo Bobonis - World Bank Consultant for initial experimental design, Mary Claux - World Bank Consultant on Life Skills survey module and María Isabel de la Rosa - World Bank Consultant on Life Skills survey module.

<sup>\*</sup>CEDLAS-FCE-Universidad Nacional de La Plata.

<sup>&</sup>lt;sup>†</sup>Ministerio de Trabajo, República Dominicana.

<sup>&</sup>lt;sup>‡</sup>CEDLAS-FCE-Universidad Nacional de La Plata, CONICET and IZA. Corresponding author: gcruces@cedlas.org. <sup>§</sup>CEDLAS-FCE-Universidad Nacional de La Plata and CONICET.

#### Abstract

This report presents the results of the impact evaluation of the 2008 and 2009 cohorts of the Dominican Republic's Ministry of Labor's "Programa Juventud y Empleo", a job training program for youth at risk which included classroom-based vocational and life-skills training as well as an internship with a private sector employer. The main feature of these two cohorts of the program was the use an impact evaluation strategy designed to attribute the overall effect of the program to its different components. This evaluation design relied on the implementation of two types of training: one included classroom-based vocational training and life-skills elements, while a second group was offered only the life-skills component (both types also included internships with private employers). The experimental impact evaluation relies on the random assignment of participants to a control group or to one of the two types of training. This allows us to establish the overall impact of the program (comparing those in the treatment and control groups), on the one hand, and the additional effect of the hard skills training module, on the other (comparing the outcomes from individuals in the two treatment groups). Another notable feature of the program and its evaluation is that we study impacts in the short term (from 12 to 18 months after the start of the program's courses) but also, exceptionally for Latin America and the Caribbean, for the medium term (3.5-4 years after the start of the program's courses). The results indicate sizable employment gains for women and virtually no employment effects for men in the short term. The positive effects for women seem to partially dissipate in the medium run. Male participants, in turn, exhibit significantly lower levels of formal employment and higher levels of on the job search (for those employed) in the medium run. Female beneficiaries who work exhibit higher levels of job satisfaction in the short and in the medium run, and all beneficiaries have a lower propensity of looking for work in areas or occupations other than in the ones in which they were trained. Both male and female participants exhibit higher expectations about job and life prospects in the short and in the medium run, as well as better cognitive and interpersonal skills and more participation in organizations (especially religious organizations) in the medium run. Finally, we also find modest reductions in the number of children for those who already had children, and higher awareness of HIV-AIDS among men. Most of these effects can be attributed to the combination of the life skills module and the internship, which were common to the two versions of the program. The hard skills classroom training module induced few differential effects of the program, altough it induced a lower willingness to search for work in areas other than the ones in which participants were trained.

*JEL Classification:* J08, J24, J31, J68. *Keywords:* job training, field experiment, cognitive and non-cognitive skills.

# Contents

1	Introduction	10
2	The Program         2.1       The Original Program Design and Previous Evaluations         2.2       The 2008-2009 Cohorts under World Bank Funding: Specificity and Outcomes of Interest	<b>13</b> 13 14
3	Evaluation Strategy: Program Characteristics and the Random AssignmentProcess3.1 Eligibility and Program Characteristics of the 2008-2009 Cohorts3.2 The Random Assignment Process	<b>16</b> 16
4	Data Sources and Estimation Strategy         4.1       Data Sources and Evaluation Sample         4.2       Sample Characteristics and Experimental Balance         4.3       Estimation Strategy and Presentation of Results	22
5	Empirical Results         5.1       Short Term Effects         5.2       Medium Term Effects	
6	Concluding remarks	42
A	Causal Effect of Program Completion: Medium Term Local Average Treatment Effects	i
в	Appendix: Heterogeneous Program Effects by Age and by Region	iv
С	Appendix: Short Term Effects by Round of the Telephone Survey	xii
D	Appendix: Alternative Presentation of PJyE Effects by Type of Treatment Group	xxi

# List of Tables

1	Data sources and sample sizes	22
2	Applicants socio-economic characteristics compared to the general population in the	
	16-29 age group	23
3	Experimental balance: Basic characteristics in the baseline, by treatment and control	
	groups	24
4	Short term effects on basic employment outcomes - telephone survey, third round	30
5	Short term effects on the number of children, risk behaviors and expectations - telephone	
	survey, third round	31
6	Medium term effects on basic labor outcomes	37
7	Medium term effects on other labor outcomes	38
8	Medium term effects on participation and number of children	39
9	Medium term effects on risk behaviors	40
10	Medium term effects on expectations	41
A.1	First stage of estimates for instrumental variables	ii
A.2	Effect of course completion on outcomes of interest: Estimates by instrumental variables	
	(LATE)	iii
B.1	Short term effects by age and by region on basic employment outcomes	v
B.2	Short term effects by age and by region on the number of children, risk behaviors and	
	expectations	vi

B.3	Medium term effects by age and by region on basic labor outcomes	vii
<b>B.</b> 4	Medium term effects by age and by region on other labor outcomes	viii
B.5	Medium term effects by age and by region on participation and number of children	ix
B.6	Medium term effects by age and by region on risk behaviors	x
B.7	Medium term effects by age and by region on expectations	xi
C.1	Short term effects on basic employment outcomes - telephone survey, first round	xiii
C.2	Short term effects on basic employment outcomes - telephone survey, second round	xiv
C.3	Short term effects on basic employment outcomes - telephone survey, third round	xv
C.4	Short term effects on basic employment outcomes, telephone survey rounds 1-3 (pooled)	xvi
C.5	Short term effects on the number of children, risk behaviors and expectations - telephone	
	survey, first round	xvii
C.6	Short term effects on the number of children, risk behaviors and expectations - telephone	
	survey, second round	xviii
C.7	Short term effects on the number of children, risk behaviors and expectations - telephone	
	survey, third round	xix
C.8	Short term effects on the number of children, risk behaviors and expectations, telephone	
	survey rounds 1-3 (pooled)	XX
D.1	Medium term effects on basic labor outcomes (by treatment group)	xxii
D.2	Medium term effects on other labor outcomes	xxiii
D.3	Medium term effects on participation and number of children (by treatment group) $\ $	xxiv
D.4	Medium term effects on risk behavior (by treatment group)	xxv
D.5	Medium term effects on expectations (by treatment group)	xxvi

# List of Figures

Random assignment process, 2008-2009 program cohorts.	19
2008-2009 program cohorts and impact evaluation data-collection timeline	19
PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP	
differential effect (right). Labor market outcomes.	xxvii
PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP	
differential effect (right). Labor market expectations	xxviii
PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP	
differential effect (right). Employment status	xxix
PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP	
	XXX
differential effect (right). Participation and fertility.	xxxi
PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP	
differential effect (right). Self esteem, basic skills and family issues	xxxii
PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP	
differential effect (right). STDs and AIDS awareness	xxxiii
PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP	
differential effect (right). Expectations	xxxiv
	2008-2009 program cohorts and impact evaluation data-collection timeline PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Labor market outcomes

## Executive summary

- 1. This report presents the results of the impact evaluation of the 2008 and 2009 cohorts of the Dominican Republic's Ministry of Labor's "Programa Juventud y Empleo", a job training program for youth at risk. The program was targeted to yuong people between 16 and 29 years old from poorest 40% of households (according to the government's social assistance database, SIUBEN) who had not completed secondary school and who were unemployed, under-employed or inactive. The Ministry of Labor's objective for the program was to improve the employment opportunities of at-risk youth by building their technical skills, work experience and life-skills. The Ministry of Labor included in the program classroom-based vocational and life-skills training as well as an internship with a private sector employer.
- 2. The main features of these two cohorts of the program was the use of the impact evaluation to gauge the effect of different components of the program, and an evaluation carried out over a relatively long period of time (3.5-4 years after the start of the program's courses). This evaluation design relied on the implementation of two types of training: one included classroom-based vocational training and life-skills elements (TTP+DCB), while a second group was offered only the life-skills component, DCB only. Both types also included internships with private employers. The experimental impact evaluation relies on the random assignment of participants to a control group or to one of the two types of training. This allows us to establish the overall impact of the program (comparing those in the treatment and control groups), on the one hand, and the additional effect of the hard skills training module, on the other (comparing the outcomes from individuals in the two treatment groups).
- 3. A notable feature of the 2008-2009 cohorts of the PJyE and its evaluation is that we can study impacts in the short term (from 12 to 18 months after the program) but also, exceptionally for Latin America and the Caribbean, also for the medium term. For the latter, we rely on the programs' impact evaluation household survey carried out from October 2012 to March 2013, about 3.5-4 years after the program. This is a longer post-treatment period than the existing experimental evaluations of job training programs in the region.
- 4. The short term effects are based on the data collected from a short telephone follow-up survey implemented between 12 to 18 months after enrollment into the program. The estimates of the short term effects of PJyE on basic labor market outcomes indicates that, overall, the program had a positive and significant effect on the probability of working of 2.82 percentage points, an 8.4% increase with respect to the employment rate of 33.67% for the control group. This sizable effect seems to be driven mainly by the DCB only treatment group. Moreover, the results by gender indicate that most of the short term effect of the program can be attributed to women, with an even larger average program effect of 4.2 percentage points, which represents a very large increase of 18% with respect to the mean employment rate of 23.02% for women in the control group. Both versions of the program (TTP+DCB and DCB only) had a positive and roughly similar effect on employment. There do not seem to be significant effects on on-the-job search, hours worked or monthly salary in the short term, but the program had a large positive effect on job satisfaction for those working, again concentrated on women and with no significant differential effect of the TTP module.
- 5. Before these positive employment effects, during the course and training period and shortly after, program participants had significantly lower levels of inactivity and significantly higher levels of unemployment, and they did not exhibit higher employment rates with respect to those in the control group. These results indicate that program participants entered the labor force (exited inactivity) during or shortly after their participation in the course and training phase of the program, which was reflected in higher levels of unemployment. This "activation" seems to have paid off after some time when all beneficiaries had completed their participation in the program, with higher levels of employment for participants (especially for women) than for those

in the control group. This suggests a pattern of "activation" from inactivity to unemployment and then to employment for program beneficiaries in the short run.

- 6. Taken together, these results indicate that, in the short run, the two versions of the program successfully and substantially increased employment and job satisfaction for all participants, although these effects were stronger for women. This effect can be attributed to the combination of the DCB life skills module and the internship, which were common to both treatment groups: the hard skills TTP module on its own did not have statistically significant differential effects on employment for participants compared to those who only had access to the DCB and internship phases.
- 7. Also in the short run, the program had positive effects on the expectation of improving employment conditions and life conditions, and again, these positive and significant effects can be attributed mostly to women. The program also induced in the short term a small but statistically significant negative effect on the number of children of about 6% for those who already had children, again concentrated on women. As with employment, these effects are driven by the average effect of the program, with no differential impact of the TTP component. This indicates that the DCB module was responsible for these higher expectations. Notably, this positive and significant effect in expectations was present in the short run and also in the medium run, years after participation in the program .
- 8. While there were substantial employment gains and positive effects on expectations in the short run from the DCB soft skills component, especially for women, the challenge faced by these programs is whether they manage to boost employment and other positive outcomes in the longer run. In contrast with the results for the short term, the results for the medium term indicate that there were no statistically significant effects of the program on the probability of working, on inactivity levels, or on unemployment, nor on hours worked, monthly earnings or employment status for those working.
- 9. The medium term results indicate that men who were selected to participate in the program had a 6.06 percentage point lower probability of working formally (defined as jobs with access to social insurance benefits), 13% lower than the control group.
- 10. There are, however, some medium term effects of the program on other dimensions of employment for those who were working. The program had a large positive and significant effect on the probability of on the job search for men (6.65 percentage points - 29% higher than for men in the control group), which was even larger for those who were selected for the hard skills TTP training (although the difference is not statistically significant). On the job search might be considered a positive outcomes, in the sense that beneficiaries seem to be more open to new opportunities, but at the same time it can reflect dissatisfaction with the current employment conditions. For women, the program effect on on the job search was negative but smaller than for men (2.06 percentage points) and not statistically significant. However, we can complement these results with the effects of the program on the desire to change job (for those working). The overall effect of the program on this outcome is negative and significant, and similar for the TTP+DCB and the DCB only groups, and it seems to be driven by women - those selected for any version of the program have a 5.2 percentage points lower probability of desiring to change job with respect to women in the control group. Moreover, all those selected for the program were 2.8 percentage points more likely to reject a job offer (10% higher than the control group), and while there do not appear to be substantial differences between the two program versions, this effect was also driven mainly by the impact of the program on women.
- 11. The individuals selected for the program had a substantially lower willingness to look for work in other areas/sectors in which they were trained or in which they had prior experience: the average effect for the two versions of the program is -5.63 percentage points (-5.02 for men and -6.22 for women) compared to the control group (with a mean of 77.76%), and these coefficients are strongly significant overall and for men and women separately. Besides this relatively large

average effect, the TTP module seems to have induced an even higher attachment to the sector or occupation of beneficiaries.

- 12. Taken together, these results indicate that the large gains in employment for women participants with respect to those in the control group in the short term seem to dissipate in the longer term. The program also seems to have induced higher levels of informal employment for employed men in the medium term compared to those in the control group. Male beneficiaries of the PJyE who were employed in the medium term were less satisfied with their jobs, as reflected by their higher propensity to search while employed. At the same time, however, women participants, while not exhibiting higher employment rates as in the short run, seemed to be more satisfied with their jobs than those in the control group, as manifested by their lower desire to change job and by their higher propensity to reject job offers.
- 13. Most of these effects were similar for the TTP+DCB and the DCB only treatment groups. Since all beneficiaries were exposed to the DCB life skills component and the internship, the TTP vocational training module does not appear to have added much both in terms of the positive or the negative impacts of PJyE. However, both men and women selected for the program were less willing to look for jobs in areas or sectors different from the ones in which they were trained, and this effect was even stronger for the TTP+DCB group. This indicates that the vocational training generates a higher attachment to the sector or occupation in which participants were trained, which is positive, although the lack of overall employment effects and the lower job satisfaction for men could suggest that this type of training may also generated some lack of flexibility among beneficiaries.
- 14. The program also had effects in the medium term in other dimensions beyond the labor market. The program induced an increase in participation in organizations in general for both men and women of 2.77 percentage points, about 9% higher than the control group, and this effect was larger for those in the DCB only treatment group. This effect was mainly driven by an increase in participation in religious organizations for men and women, and by a fall in participation in political organizations for men, especially for those in the TTP+DCB treatment group. The effect on participation in religious organizations was concentrated on the beneficiaries that resided outside of Santo Domingo and were less than twenty years old at the time of the original application. This pattern of effects in participation may be related to the characteristics of some of the COS training providers, which in some cases were affiliated with religious organizations.
- 15. The medium term effects on fertility outcomes are similar to those in the short term: the program did not have an effect on pregnancies or on the probability of having a child, but it did reduce the number of children for beneficiaries who already had children (compared to those in the control group).
- 16. The DCB module also included extensive work on risk behavior awareness. Despite the risk behavior components of the DCB module, the program seem to have induced an increase in the proportion of those smoking regularly. This effect is most significant for women, and for those selected for the TTP+DCB variation of the program. Those selected for the TTP+DCB treatment group also exhibited a significantly higher propensity to drink alcohol in the medium run. The program does not seem to have had an impact on being involved in a traffic accident, in a fight in the previous year nor in the probability of being diagnosed with a sexually transmitted disease. However, the program seems to have substantially increased the HIV-AIDS awareness among men.
- 17. The program did not have a significant impact on a self reported measure of self esteem, although participants exhibit higher levels in a scale of basic skills and personal characteristics (which included basic qualities like leadership, capacity to relate to others, order and empathy), which were also explicit objectives of the DCB training. The program also had a positive effect on different measures of expectations. Participants manifested higher expected levels of future wealth with respect to the control group, with a much stronger effect for those who were selected

for the TTP+DCB group. The same pattern appears in the expectation of having a desired job. The program also had an overall positive effect on the expectation of having one's own business in the future, and this effect is driven mainly by women and by men in the DCB only group. Finally, the program seems to have induced a higher awareness about interpersonal problems with family members, driven mainly by male beneficiaries.

- 18. The results for the short term are similar to those for the evaluation of other training programs in the region over a similar time frame: the are some employment gains mainly concentrated in women, as well as a host of positive effects on measures of expectations and soft skills. Several experimental evaluations of training programs in the region find postive effects for women and nil effects for men, which contrats to the aggregate evidence from developing countries of no differential effects of active labor market policies on men versus women.
- 19. The evaluation design allows to add nuances to these results that are in line with other experiences in the region. On the one hand, the short term effects on employment seem to dissipate over the medium run. This contrasts with the available evidence for developed countries, which typically finds positive medium-term impacts of training programs that often appear ineffective in the short term. On the other hand, the evaluation design allows to measure the added benefit of including classroom-based vocational training. Our experimental results indicate that this type of training (when provided jointly with an internship and life-skills training) does not add much in terms of employment or other outcomes: compared to those in the control group, the medium and longer term impacts on participant's employment, soft skills and expectations can be attributed to the life skills and the internship elements of the program. The evaluation design allows us to validate previous analysis for the region that suggested that technical training in the classroom generates only moderate positive impacts.
- 20. These results allows us to draw some conclusions. First, the impact evaluation of training programs in the region should explicitly attempt to follow beneficiaries over a longer horizon, since most of the evidence we have from other programs refers to the short term. The PJyE illustrates the benefits of having a longer evaluation period.
- 21. Although the short term effects on employment and the medium term effects on expectations signal the program's effectiveness, the dissipation of the employment effects in the medium term suggests that the program deals with a population with characteristics that make it necessary to provide continuous support over time. The contacts, social networks and general connections with the world of employment developed during the program may have been only transitory or too scarce to create a durable link to employment and training opportunities for the target population (youth at risk). More follow up of beneficiaries may be needed to maintain the employment gains obtained in the short run. For instance, the program could contemplate a connection with an employment services component after graduation.
- 22. The evaluation design also allows us to establish that, at least in these PJyE editions, the overall program induced some employment gains, but the classroom-based vocational training was not effective, even when (as in the PJyE) it was discussed and developed jointly with private sector employers. Programs of this type might delegate the vocational training elements directly to employers. This suggestion originates in our findings and is reinforced by the evaluations of programs of this type in developed countries, in which on-the-job training has proven to be particularly effective in comparison to classroom training. This is all the more important given the relative costs of the training modules: the life skills only course costs about one half to one third of the full vocational and life skills course (the 150 hours vocational training costed about \$6,000 pesos \$160 USD per student, while the 75hours life skills training costed about \$3,000 pesos \$80 USD per student). These figures do not take into account the negative locking-in effect from youngsters withdrawing form the the labor market to attend the training courses (González-Velosa et al., 2012), nor a certain lack of flexibility in accepting employment opportunities outside the area in which beneficiaries have been trained, which we found in this evaluation.

- 23. The Ministry of Labor was successful in its objectives related to the life skills and non-cognitive abilities modules. The program managed to raise expectations and basic skills in the short run that were sustained in the the medium run. The positive impact of the program on soft skills indicates that program might be more effective in transmitting general cognitive skills and developing non-cognitive abilities than in fostering specific vocational competences. Moreover, the results suggest the hypothesis that the internship component (common to all participants) is more likely to develop the mix of soft and hard skills required for sustained employment. Indeed, experience in entry-level jobs allow participants to gain work readiness skills which are more associated to soft than to the hard/vocational components that can be aquired through classroom training with private providers. Moreover, the positive employment gains in the short term are compatible with a setting in which the effects on employment are due to the program's implicit labor intermediation (through the internship) rather than on the training component.
- 24. Future research could concentrate on separating the implicit intermediation from the training components of program of this type. It is also important to establish why there is a pattern of differential impacts by gender in these programs in the region. A hypothesis is that soft skills might be more important in jobs selected by women (hair dressing, sales, tourism, etc). Moreover, future versions of the program could evaluate the alternatives for feasible and effective learning plans, tasks responsibilities involved in internships, and help understand which skills acquired in this phase might help sustain employability in the longer run. , to correlate them with the in-classroom training.

## 1 Introduction

Over the last two decades, young people have become one of the groups most targeted in innovative social policy, with a rise in global and regional active labor market programs that aim to improve employment among this group. In both developed and developing countries, the challenges youth face in their transition to employment have been recognized, and have inspired action from the public sector. In developing countries, policy interventions have centered on youth at-risk, including low income youth who have not completed their education, are poor or have experienced poverty, and are either unemployed or working under precarious conditions (see Vezza, 2014, for an overview of these initiatives in Latin America). However, evidence regarding the effectiveness of these programs in developing countries is still relatively scarce. A notable exception is the "Programa Juventud y Employ" (Youth Employment Program, hereafter, PJvE), part of a series of initiatives created by the Ministry of Labor of the Dominican Republic that have attempted to mitigate youth unemployment. The PJyE figures as one of the region's pioneer programs aimed at addressing to the problems faced by youth at-risk. The program was implemented by the Ministry of Labor with funding from international institutions (IDB and World Bank). It began in 2001, and since that time, has undergone several revisions and modifications, although it remains focused on the same demographic target. Other early programs in Latin America include Chile Joven, Jóvenes en Acción in Colombia (Attanasio et al., 2011), and PROJOVEN in Peru. Unlike most programs of its kind, the Ministry of Labor incorporated in the PJyE an experimental evaluation design for several of its different editions, allowing for a precise identification of its causal effects (Card et al., 2011). The program has also included several innovations, for instance the incorporation of "soft" skills as a complement of the more traditional vocational training features of programs of its type.

The Ministry of Labor's main objective with the PJyE is to improve the employment opportunities of at-risk youth by building their technical skills, work experience and life-skills. To do this, the program enrolls participants in training and internships in the private sector. The target population is individuals between 16 and 29 years old who have not completed secondary school and are unemployed, under-employed or inactive, and who come from the poorest 40% of households (according to the government's information system for social assistance, SIUBEN). Since its beginnings in 2001, the program had several designs. In the 2009-2009 editions on which this report focuses, training activities address both theoretical and practical module (TTP) dedicated to the development of specific technical and vocational skills and a module of basic skills (DCB) to strengthen non-cognitive abilities (values, attitudes and basic interpersonal skills). The vocational (or technical/"hard") skills module included 150 hours of training in occupations such as sales, beauty saloons, tourism and hospitality, carpentry, electricity and others. The life skills (or "soft" skills) component included a shorter module of 75 hours and focused on promoting self-esteem and self-realization, communication skills, conflict resolution resources, life planning, time management, team work, decision making, hygiene and health, and coaching on risky behaviors. All participants were also assigned to 240 hours apprenticeships in private companies. The program financed training for participants in two phases: classroom training and internships, during which participants received a daily stipend of about US\$2. The program also covered commuting costs and basic medical and workplace accidents insurance for participants during the training period.

Evidence obtained from previous PJyE cohorts suggests that the program generates greater effects among certain sectors and specific groups, and that impact is concentrated on job quality and salary for those employed, but the program does not affect significantly the employment status of beneficiaries (Card et al., 2011; Ibarraran et al., 2012). The objective of this report is to evaluate the effects of PJyE on the 2008-9 cohorts, particularly to identify the differential effect of the main innovation of that edition, the incorporation of two components of the training program (technical and vocational skills and basic skills) in a way that allows us to gauge their relative contribution to the beneficiaries labor market and other outcomes. The main feature of the 2008-2009 two cohorts of the program was the way in which the Ministry of Labor implemented two types of training: one included the TTP classroom-based vocational training and the DCB life-skills elements, while a second group was offered only the DCB life-skills component (both types also included internships with private employers). This type of implementation was an innovation introduced for the 2008-2009 cohorts of the program, and it allows us to quantify the contribution of the TTP module to the program's total impact. The experimental impact evaluation relies on the random assignment of participants to a control group or to one of the two types of training. Another notable feature of the program and its evaluation is that we study impacts in the short term (from 12 to 18 months after the program) but also, exceptionally for Latin America and the Caribbean, also for the medium term (3.5-4 years after the program).<sup>1</sup> We examine both medium and short term effects over a broad set of outcome variables.

The results indicate sizable employment gains for women and virtually no employment effects for men in the short term, but these effects seem to dissipate in the longer run. In fact, male participants exhibit significantly lower levels of formal employment and higher levels of on the job search in the medium run. Female beneficiaries who work exhibit higher levels of job satisfaction in the short and in the medium run, and all beneficiaries have a lower propensity of looking for work in areas or occupations other than in the ones they were trained. Both male and female participants exhibit higher expectations about job and life prospects in the short and in the medium run, as well as better cognitive and interpersonal skills and more participation in organizations (especially religious organizations) in the medium run. Finally, we also find modest reductions in the number of children

<sup>&</sup>lt;sup>1</sup>Card et al.'s (2011) meta-review classifies the timeframe of programs of this type as "short-term impact estimate – measuring the effect on participant outcomes approximately one year after the completion of the programme", a "medium-term estimate giving the effect approximately 2 years after completion," and "longer-term (3 year) impacts". We refer to the 3.5-4 year effects of the program as medium term.

for those who already had children, and higher awareness of HIV-AIDS among men. Most of these effects can be attributed to the combination of the life skills module and the internship, which were common to the two versions of the program. The hard skills classroom training module induced few differential effects of the program, most notably in terms of the participants' lower willingness to search for work in areas other than the ones in which they specialized.

These results allows us to draw some conclusions. The impact evaluation of training programs should explicitly attempt to follow beneficiaries over a broader horizon. Our results in the short term coincide with other similar programs evaluated over similar time periods in the region (for instance, employment gains concentrated on women). However, most of these employment gains dissipate in the longer run, which contrasts with the available evidence for developed countries, which typically finds positive medium-term impacts of training programs that often appear ineffective in the short term (Card et al., 2010).

The evaluation design also allows us to establish that, at least in these PJyE editions, the classroombased vocational training was not very effective, even when (as in the PJyE) it was discussed and developed jointly with private sector employers. The program seems to have been more successful in raising expectations and basic skills rather than on changing labor market outcomes in the longer run. The positive impact of the program on soft skills indicates that the program's processes (organization of training activities and courses, contents of the courses, training of facilitators, adaptation of courses to labor market demand requirements, etc.) might be more effective in transmitting general cognitive skills and developing non-cognitive abilities than in fostering specific vocational competences. Moreover, the positive employment gains in the short term are compatible with a setting in which the effects on employment are due to the program's implicit labor intermediation (through the internship) rather than on the training component. Future research could concentrate on separating the implicit intermediation from the training components of program of this type.

This document is structured as follows. Section 2 presents a summary of the PJyE program, including a description of its previous versions, of the specific aspects of the cohorts that will be evaluated here, and of the outcomes of interest for these cohorts. Section 3 describes the evaluation design, including the random assignment procedure, sample selection, and further details about modifications made in the 2008-9 cohorts. Section 4 describes the data sources and the estimation strategy. Section 5 details both the short and medium term empirical results. The final section presents some conclusions from the analysis.

## 2 The Program

### 2.1 The Original Program Design and Previous Evaluations

The PJyE was created in 2001 by the Ministry of Labor of the Dominican Republic, at which time it fell under the auspices of an initiative funded by the Inter-American Development Bank (IDB) called the "Programa de Capacitación y Modernización Laboral." The PJyE functioned as a job-training component of this program. Although the original loan that funded this initiative concluded in 2006, the PJyE had a second phase of financing by the IDB in 2007-8.<sup>2</sup>

The motivation for the program was the relatively high level of unemployment for youth. The aggregate unemployment rate was relatively low at 4.7% in 2000 and 5.5 in 2001, but the respective rates were substantially higher for youth: it was 9.2% in 2000 and 11.4% in 2001 for those aged 15 to 24, while it was 3.6% and 4.1% for the same respective years for those aged between 25 and 65 (SEDLAC-CEDLAS and World Bank, 2014). The primary goal of this early job training initiative was to address problems surrounding labor insertion by offering training in specific skills that were considered in demand by the private sector.

The original PJyE program targeted low-income youth between the ages of 16 and 29 who experienced difficulty finding employment, and who had not completed secondary education. The Ministry of Labor made a special effort to reach women for participation in the program.<sup>3</sup> The program funded training in two phases: an in-classroom training phase and an internship phase, and also financed participants' transportation, a stipend, medical and accident insurance. The first courses were held in 2002. During the 2002-8 period, the IDB financed the program for 27,500 beneficiaries, of which 57.7% were women (IDB, 2006). From 2008 to 2013, the program has been financed by the World Bank and has conducted an additional 1,924 courses. In total, the program has conducted 3,627 courses since 2002. The courses and internships were administered by private providers, Centers for Operating System (COS) - see the following subsection for more details.

One of the most innovative aspects of the original PJyE structure and of several of the subsequent versions was the inclusion from the onset of an experimental impact evaluation design based on the random allocation of potential beneficiaries to treatment and control groups. While this has been a feature of several training programs in developed countries, such as the Job Training Partnership Act and the Job Corps in the United States, this type of experimental design was relatively uncommon in active labor market programs in Latin America. Individuals applied to receive benefits by filling out an application form, which was in turn used to check applicants' socioeconomic and work background and confirm they met all program requirements. Following this initial screening, participants were selected randomly and two groups were generated: the first group was composed of individuals enrolled

<sup>&</sup>lt;sup>2</sup>This second initiative was carried out as part of the Programa de Mercados Laborales y Transferencias Sociales.

 $<sup>^{3}</sup>$ At least 45% of beneficiaries would be women, and this ratio would be also applied for the randomized selection of applicants.

in the program and the second group was composed of those who qualified, but were not selected to participate. The impact evaluations of previous versions of the program relied on representative sample from both groups, which were polled in several follow-up surveys to measure the program's effect on outcomes of interest.

Experimental evidence for previous editions of the PJyE is available for both the 2004 and the 2008 cohorts. Results for the 2004 cohort were obtained by comparing the results of baseline surveys and the follow-up surveys conducted between 10 and 14 months after the end of the course. The 2004 program had statistically significant but modest effects on the salaries of those youth who were employed and had been selected for the program, as compared to those who were employed and had not been selected. Analysis also shows improved quality of work for program participants as compared to non-participants with similar levels of education, (here provision of health insurance was used as the measure of work quality). However, there was no statistically significant effect on employment indicators (Card et al., 2011).

The results from the first evaluation informed the design of future versions. In keeping with its innovative tradition, the Ministry of Labor incorporated explicitly in the new version of the PJyE the results from the literature that stressed the importance of non-cognitive ability and life-skills in the labor market (Heckman, Stixrud and Urzua, 2006). A second evaluation was conducted for the 2008 cohort. This cohort experienced a modified version of the program in which there was a more substantial focus on basic non-cognitive skills as compared to employer-recommended training. The baseline survey and the household survey taken 18 to 24 months following the completion of training were compared using a representative sample of selected participants and non-selected applicants. Analysis showed that PJyE had significant positive effects on job quality among men (defined as a job with health benefits) and in salaries among those individuals who were already employed. Compared to the control group, selected participants also demonstrated improved perceptions and expectations of the future, as well as improved non-cognitive abilities. Studies of this cohort also found a reduction in teen pregnancy among participants (Ibarrarán et al., 2012). However, there were no significant effects on overall employment, as in Card et al. (2011).

# 2.2 The 2008-2009 Cohorts under World Bank Funding: Specificity and Outcomes of Interest

The Ministry of Labor's PJyE continued to be financed by the World Bank until 2013 and maintained the same eligibility requirements used in 2007 and 2008. During the period considered in this report, two bidding processes took place with financial support from World Bank. In each of the bidding processes, the different centers or institutes (COS, Centers for Operating System) in which courses would be taught postulated to the Ministry of Labor to assume the provision of services inherent to the components of training and internships. These institutions were key in the implementation of the program. The PJyE follows what Card et al. (2011) call the "Chilean model" of job training programs in Latin America, were private institutions (rather than employers) provide classroom training and arrange for internships for beneficiaries. The COS are private institutions authorized by the National Institute for Professional Training (INFOTEP for Instituto Nacional de Formación Profesional). In addition to certifying the COS, INFOTEP controlled curriculum content of courses offered in the PJyE. The Ministry of Labor (MT), particularly the Program Coordination Unit (UCP-MT for Unidad Coordinadora de Programas), oversaw the program and the COS conducted the courses and ensured they met the supervising agency's standards. The COS not only oversaw instruction but also coordinated with companies where internships were arranged and adjusted training contents to suit the needs of the private sector. COS also promoted the program in the targeted priority areas, maintained the applicant registries, and evaluated applicant eligibility, ensuring that each individual in the lottery complied with the program's basic requirements. The UCP-MT further complemented these actions by providing a second review of the applicant registry and examining each candidate's application for inconsistencies.

Previous versions of the program incorporated specific elements to develop life skills and other general cognitive and non-cognitive abilities, and these have been incorporated as additional outcomes of interest (beyond the typical labor market outcomes) in evaluations of previous versions of the program, as detailed in Ibarraran et al. (2012). The main innovation of the 2008-2009 cohorts of the program under World Bank funding was its evaluation strategy, built into the program. This strategy consisted in offering a group of participants both hard and soft skills, and only soft skills to another group. This design allows to separate the differential effects of the traditional hard skills elements from those of the relatively newer soft skills components of the program, as detailed in the following section.

As a job training program, labor market outcomes, such as employment, labor force participation, type of employment, type of contract, and wages (among others), constitute the first set of outcomes of interest. The program emphasized "soft skills": in fact, one of the groups of beneficiaries did not receive any vocational training, which has usually been considered a cornerstone of job training programs. For this reason, a second set of outcomes is related to perceptions and expectations in the labor market, such as job satisfaction and expectations about work prospects, and to indirect effects of any potential impact on labor force participation (for instance, fertility outcomes). A third set of outcomes of interest is more directly related to the life skills component of the program. On the one hand, we will evaluate its effect on life satisfaction, self esteem and expectations in general, as well as participation in organizations, satisfaction with interpersonal relations, and non-cognitive skills. On the other hand, given the content of the specific modules carried out in the 2008-2009 cohorts, we will also analyze any potential impact of the program on attitudes and risk behavior.

# 3 Evaluation Strategy: Program Characteristics and the Random Assignment Process

#### 3.1 Eligibility and Program Characteristics of the 2008-2009 Cohorts

Young persons registered to the program were considered eligible if they met the following qualifications: participants must be between the ages of 16 and 29, found to be at-risk, and were Dominican Republic citizens in possession of a personal identification card. At-risk was defined as either unemployed, under-employed or inactive, or not having completed either secondary school or "adult education."<sup>4</sup> Moreover, applicants must have income levels and place of residency categorized as below the poverty line. Specifically, eligible applicants must belong to households with a per capita income that did not exceed US\$120 per month, and be located in regions known as Priority I and II, according the official poverty map. Poverty I and II zones are defined by the SIUBEN<sup>5</sup> quality of life index. These measures and restrictions were put in place in order to guarantee that the PJyE accurately targets the poorest sectors of the population.

Enrollment for the 2008 and 2009 cohorts was carried out over the year 2009. Most of the 2008 cohort enrolled in January 2009 (3,481 potential beneficiaries) and February 2009 (994 candidates), although the enrollment period remained open until May 2009. Most of the 2009 cohort enrolled in July 2009 (6,024 potential beneficiaries) and August 2009 (2,787), with some cases entering the program as late as October of the same year.

In this version of the program, participants enrolled in an in-classroom training phase and an internship phase and received the benefits previously outlined - a stipend and insurance. The TTP ("Técnica Teórico-Práctica", practical-theoretical and technical training) vocational skills module included 150 hours of training in occupations such as sales, beauty saloon assistant, tourism and hospitality, carpentry, electricity and others. According to the Ministry of Labor's documentation, the DCB ("Desarrollo de Competencias Basicas", development of basic skills) life skills component included a shorter module of 75 hours and focused on promoting self-esteem and self-realization, communication skills, conflict resolution resources, life planning, time management, team work, decision making, hygiene and health, and coaching on risky behaviors. Once the in-classroom training phase was completed, all participants were also assigned to 240 hours apprenticeships or internships in private companies. The program financed training for participants in two phases: classroom training and internships, during which participants received a daily stipend of about US\$2. The program also covered commuting

 $<sup>^{4}</sup>$ The education level of the beneficiaries had to be below the overall average level. A maximum of 30% of young persons registered could be composed of youth that fit the other requirements but were attending adult education courses or distance learning.

<sup>&</sup>lt;sup>5</sup>SIUBEN (for Unified System of Beneficiaries), part of the Dominican government, is the institution responsible for creating and managing the database of poor households across the country and the register of eligible households for benefits offered by different social programs and government subsidies like the Solidaridad CCT or subsidies for electricity and gas.

costs and basic medical and workplace accidents insurance for participants during the training period. During this period, participants received oversight and job counseling. Moreover, after finishing the PJyE about 20% of participants returned to adult education programs.

The content of the in-classroom TTP training module was developed jointly with the private sector, and was designed to cover the skills that the beneficiaries would need for the subsequent internship phase. The COS selected for the 2008-2009 cohorts studied in this report administered 520 courses. Over 60% of those were concentrated in six occupations: sales (23%), waiter-waitress (10%), beauty saloon assistant (9%), pharmaceutical assistant (7%), sales assistant (7%) and secretarial assistant (6%). However, the 2008-2009 PJyE edition offered training in 49 occupations, with innovations such as the inclusion of graphic and web design, network technician, network administrator, PC repair, assistant for agro-industry manufacturing, tractor operator and private security guard, among others. Over 91% of courses in 2008-2009 targeted the commerce and service sectors, with only 3% in agriculture and 6% in others.

The DCB life-skills component required 75 hours of classroom training, as well as homework to be completed by students after class. The module was designed to provide training in citizen and worker's rights and obligations, as well as developing values to carry out an ethical and socially responsible life. The stated objective of this module was to develop the skills to allow beneficiaries to fulfill a successful family, social and work life, to contribute to their integral development as human beings, and to provide tools to face and manage social risks. The module thus reinforces three areas: values, attitudes and basic skills (self-fulfillment, basic cognitive abilities, and social skills).

### 3.2 The Random Assignment Process

As in previous editions of the program, there were more applicants than vacancies available for each cohort. This situation facilitated the random selection of beneficiaries from the pool of applicants, since a lottery is an inherently fair way to allocate limited places. The main difference of the 2008-2009 WB cohorts was the evaluation strategy, which was designed to identify the differential effect of the two components of the training program (technical and vocational skills and basic skills) and to gauge their relative contribution to the beneficiaries labor market and other outcomes. The applicants were not simply divided into a control group and a treatment group: once determined to be eligible, the beneficiaries were also randomly assigned to one of two possible versions of the program: one included the TTP classroom-based vocational training and the DCB life-skills elements, while a second group was offered only the DCB life-skills component (both types also included internships with private employers). The experimental impact evaluation relies on the random assignment of participants to a control group or to one of the two types of training.

The random assignment process was accomplished by means of a lottery under the coordination of the UCP-MT. Its implementation was delegated among various actors with shared roles and responsibilities. The lottery was conducted in two stages. The COS needed to obtain 35 applicants from a pool of 35 candidates for each of the 520 courses that were organized in the 2008-2009 cohorts. Applicants' names and ID numbers were released to the UCP-MT to be entered in a computerized random lottery. In the first stage, the program selected individuals at random from a group of 35 applicants per course, maintaining gender rates among the participants in the first model of the in-classroom training phase (TTP+DCB).<sup>6</sup> From the lottery, 20 individuals were selected for the treatment group, a further 5 for the "pure" control group, a further 5 for the waiting list (the one that could replace those selected who did not enroll), and a further 5 were assigned to the DCB-only treatment group. The 5 individuals in the waiting list could replace individuals in any of the two modalities of the program.

Once courses with two modules (TTP and DCB) were formed, a second lottery was conducted. From the pool of applicants that were not selected in the first lottery, this second lottery randomly selected 5 participants for a second version of the coursework phase. This group only received DCB instruction. The DCB courses were composed of five applicants from the control group (once the 10 day replacement period was over), of four COS courses, making up a total of 20 individuals per DCB course.<sup>7</sup> Figure 1 illustrates this process.

Thus, a group of applicants were randomly selected to participate in the PJyE's first mode of training (TTP+DCB) and the internship; and another group of applicants were selected to participate in the second mode of training (DCB) and the internship. This stratified treatment plan allowed for the measurement of potential effects of the DCB as compared to the TTP and enabled the possibility of studying the cost-effectiveness of each module. Finally, the participants that were not assigned to either program became part of a control group. Of the more than 20,000 young people that applied for the 2008-2009 cohorts of the PJyE, 16,373 fulfilled the eligibility requirements and were selected by their respective COS to be part of the random lottery assignment. Of this group, by means of random selection, 10,397 were selected for the first model (TTP+DCB). Of the 5,976 applicants that were not selected, 1,604 were randomly selected for the second model (DCB) and the remaining 4,372 remained part of the control group.

<sup>&</sup>lt;sup>6</sup>In other words, if a third of the applicants are male, then a third of the spots would be randomly assigned among male applicants and two thirds would be randomly assigned among female applicants.

<sup>&</sup>lt;sup>7</sup>In some cases, when COS were smaller, DCB courses were formed by integrating three courses, which is to say with 15 individuals. Thus integrated DCB courses were made up of individuals of different COS when it was considered operationally convenient.

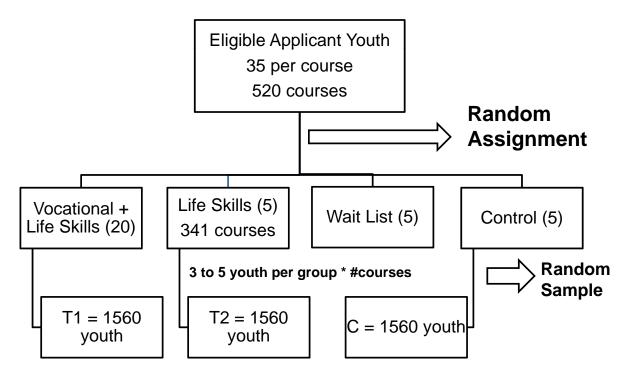


Figure 1: Random assignment process, 2008-2009 program cohorts.

Figure 2: 2008-2009 program cohorts and impact evaluation data-collection timeline

 	t. N 9 20	• • •	Feb. 2011		larch 013
Program registration for the 2008 (JanMay 09) and 2009 (JunOct. 09) cohorts.		Three CATI telephone survey rounds (Nov. 09-March 10, May-July 10 and Nov. 10-Feb. 11)		Household survey fieldwork (Oct. 12-Mar. 13)	
Baseline data (program administrative records)		Short term outcomes (short telephone survey)		Medium term outcomes (household survey)	
Random assignment of eligible applicants: -Control group -Vocational (TTP) +life skills training (DCB) -Life skills only (DCB)		 			
·			·	·	ر

Pre-treatment period

Post-treatment period

## 4 Data Sources and Estimation Strategy

### 4.1 Data Sources and Evaluation Sample

The data used in this study come from three separate instances of data collection, as illustrated in Figure 2. First, upon applying to PJyE, prospective participants had to complete an enrollment application form, which was akin to a survey of basic individual and household socioeconomic characteristics, and contained also some information on labor market outcomes. This source was created when the Ministry of Labor began the program lottery and the COS began the process of applicant registration. Each COS conducted a preliminary screening of candidates who expressed interest in enrolling in courses, to ensure that they met the program's target criteria. Eligibility screening included a crosscheck of the applicant's identity card with the official national identity database, as well as other sources of auxiliary information. The UCP-MT also intervened on occasion to help confirm an applicant's eligibility and supervised promotion of the program and pre-selection of youth by crosschecking each of the courses' participants with other available data, prior to enrollment. Information gathered in the application form created the baseline dataset against which program effects were measured. The form was a necessary condition for applying, and it requested information about employment and educational history, participation in social networks, motivation, characteristics of other household members and housing conditions.

Following this initial screening, COS selected the application forms from qualified candidates. 16,373 applicants filled out the application form and passed eligibility requirements. Applicants enrolled in 2009 composed the majority (64%). From this baseline group, treatment and control groups were selected.

The second and third data sources consist of telephone and household surveys conducted after the program's selection process, and targeted to a random sample of individuals in both treatment groups and in the control group from the baseline group. The UCP-MT and the COS created a representative sample from the eligible applicant pool, divided into a treatment group and a control group, which would be monitored and followed after the program was complete. The size of the evaluation sample was calculated by considering the distribution of applicants among the 520 courses and establishing a minimum of applicants per course to maximize the ability to observe changes in the main outcomes of interest (labor market outcomes and cognitive and non-cognitive abilities), considering the budgetary restrictions for the surveys at the individual level.<sup>8</sup> Finally the selected sample included 4,700 young people, of whom 1,638 applicants conformed to the TTP+DCB treatment, 1,613 to the DCB treatment and 1,449 applicants belonged to the control group (see Figure 1).<sup>9</sup>

<sup>&</sup>lt;sup>8</sup>The statistical analysis program Optimal Design Software was used to determine the minimum number of individuals per course that would be required to find the effect of indicators of interest at 80% (90% in the case of employment rates).

<sup>&</sup>lt;sup>9</sup>Over the course of implementation of the randomized design, the groups that were initially defined became revised due to difficulties in the treatment group formulation. During the first days of the course it was permitted to replace

Based on this random sample of the control and treatment groups, three rounds of a telephone survey were implemented shortly after the start of the program (see Figure 2). The purpose of these telephone surveys was to keep in touch with participants, and to evaluate the short term results from the program. The three rounds were conducted with the same short questionnaire which included only a minimum set of questions on labor market outcomes and more general perceptions and expectations. In most cases, individuals in the sample were reached using a Computer Assisted Telephone Interview (CATI), which was supplemented by personal interviews for a sub-sample of young people who could not be reached by telephone.<sup>10</sup> The main purpose of conducting three rounds of this longitudinal survey was to maintain contact information, and, thus, only a few questions on employment outcomes and risk behaviors were included. With regard to labor market outcomes, the surveys asked if the individual was employed, actively seeking work, and, if employed, the number of hours they worked, their wages and job satisfaction. Participants were also asked how many children they had, about risk behaviors and their expectations for the future.

These rounds of surveying were conducted at different intervals between November 2009 and February 2011. The first round of surveys covered the period from November 2009 to March 2010, the second covered the period from May to July 2010 and the third covered the period from November 2010 to February 2011. The response rate improved to 90% when both telephone and personal interviews were used. Most beneficiaries from the 2008 and 2009 cohorts were participating in the program during the first round of the telephone survey, and a significant number were also enrolled at the time of the second round. For this reason, the analysis of short term impacts in Section 5 is based on data from the third round of the telephone survey.

Finally, also based on the evaluation sample, the Ministry of Labor conducted a household survey with a long and detailed questionnaire covering several dimensions where the program could be expected to have an impact. The *Encuesta de Hogares para la Evaluación de Impacto de Programa Juventud y Empleo* survey was conducted between October 2012 and March 2013. It was implemented by the Centro de Estudios Sociales y Demográficos (CESDEM) for the Ministry of Labor.<sup>11</sup> This household survey covered outcomes reflecting the medium term impact of the program, since it was implemented 3.5-4 years after the program. The questionnaire asked individuals about the level and quality of employment and sought to assess the impact of training on aspects of life beyond job opportunities, including risk behaviors, attitudes about personal development and health, participation

students who were chronically absent or who dropped-out. The Information System of the PJyE (SIPJyE) only kept registration of selected applicants in treatment or control once replacements had been made. Thus, the lottery used is not strictly the original lottery, but rather the selection in place 10 days following training beginnings. During this period of corrections (guided by the UCP-MT) following the initial lottery, there was an increase in the number persons that went through the lottery process for treatment and, conversely a reduction of the size of the control group.

 $<sup>^{10}</sup>$ The size of this sub-sample was 10% of the total sample.

<sup>&</sup>lt;sup>11</sup>In 2012, almost all of the participants in Bahoruco, Independencia, San Juan and San Cristóbal were successfully interviewed. The first stage of surveys was completed by December 20. On January 9, 2013, the second stage began, covering the provinces of Azua, Elías Piña, San José de Ocoa, Barahona, Duarte, Puerto Plata, Sánchez Ramírez, María Trinidad Sánchez, Samaná, San Pedro de Macorís and Monte Plata, concluding on February 25, 2013.

	Baseline	$\mathbf{Short}$	term foll	ow-up	Medium term follow-up		
	Application form	CATI 1	CATI 2	CATI 3	Household survey		
Observations	4,700	$4,\!115$	4,238	4,221	3,873		
Treatment	3,251	2,856	$2,\!940$	2,935	2,697		
TTP+DCB	$1,\!638$	1,419	$1,\!481$	$1,\!470$	1,366		
DCB	1,613	1,437	$1,\!459$	1,465	1,331		
Control	1,449	1,259	1,298	1,286	1,176		

Table 1: Data sources and sample sizes

Source: Baseline registry data, 2008-2009 cohorts; CATI 1 (2009-10), CATI 2 (2010) and CATI 3 (2011); and household survey for the Impact Evaluation of PJyE (2012-13).

in social networks, and life skills, in general. It was not possible to contact the entire sample and thus, the response rate was lower than in the first case, although it still exceeded 80%. Contrasting the final measurements with the baseline data illustrates that data loss in this study stayed at acceptable levels, and as detailed below, the attrition patterns were similar for the treatment and control groups.

The three datasets (the baseline registries, the short term telephone survey and the medium term household survey) made up the data for evaluating the differences in outcomes of interest between the treatment groups and the control group.

### 4.2 Sample Characteristics and Experimental Balance

The analysis of the characteristics of the individuals applying to the 2008-2009 cohorts of the program indicates that, as in previous editions, the selection process was successful in reaching the program's target population: the program focuses on young Dominicans with low education levels who are unemployed or underemployed, and from poor households.

	Moon DlyF	Mean
	Mean PJyE	
	applicants	16-29 population, ENFT
Male	39%	50%
Age	21.6	20.9
HH members	3.8	4.7
Education (maximum le	evel attained, no	t necessarily completed)
Elemetary	27%	31%
Secondary	70%	49%
College	0%	17%
Graduate	0%	3%
Do not know	3%	0%
Marital Status		
Single	79%	69%
Unido	18%	22%
Married	2%	3%
Divorced	0%	6%
Widower	0%	0%
Worked previous week	16%	39%

 Table 2: Applicants socio-economic characteristics compared to the general population

 in the 16-29 age group

Source: PJyE baseline registry data and ENFT 2009.

A detailed analysis of the baseline administrative registry information indicates that the program drew applicants from the lower range of the eligible age range: on average, applicants were 21 years old, and 50% were aged between 16 and 20. The mode of the distribution of age for both men and women is 19 years old. A further 37% of applicants belonged to the 21-25 age range, with the remaining 23% was 26 to 29 years old.

The baseline PJyE population is also characterized by a higher proportion of young women - 61% (Table 2). These women represent the majority of applicants with children: of the 38.5% of applicants with children, 33 percentage points correspond to women and only 5.5 to men.<sup>12</sup> Moreover, 45.8% of women with children had more than one child, and 55% were single. The predominant marital status for applicants was being single, with 78.5%, followed by a 18.6% in non-married couples. Finally, only 2.3% were married.

In keeping with the program eligibility rules, there was a very high incidence of unemployment among applicants, higher than the unemployment levels for the same age group in the general population. About 95.7% of applicants declared to be unemployed during the week before their application,

 $<sup>^{12}</sup>$ The existing evidence from the Dominican Republic indicates a relatively high incidence of teenage pregnancy, with about 20% of women aged 15 to 19 pregnant or with at least one child (ONE, 2011; CESDEM, 2008).

	1	Baseline		p-value			
	TTP+DCB	DCB	Control	TTP+DCB vs Control	DCB vs Control	TTP+DCB vs DCB	
Age	20.9	21.0	21.1	0.044	0.310	0.365	
Male $=1$	39.5	37.7	41.5	0.218	0.029	0.306	
Urban $=1$	81.4	82.4	80.7	0.541	0.203	0.458	
Santo Domingo $=1$	29.9	25.3	28.6	0.255	0.057	0.003	
Studying $=1$	25.7	26.2	25.6	0.947	0.684	0.723	
Single $=1$	80.0	78.4	78.3	0.248	0.956	0.308	
Has children $=1$	37.5	37.7	38.4	0.620	0.712	0.892	
Unemployed $=1$	62.1	61.0	60.0	0.231	0.615	0.507	
Previous work $=1$	15.3	15.2	15.3	0.951	0.969	0.917	
Related experience $=1$	12.3	12.0	13.5	0.264	0.206	0.831	
Participation $=1$	98.2	98.0	97.6	0.253	0.442	0.759	
Remittances $=1$	6.0	6.0	7.7	0.073	0.074	0.919	

Table 3: Experimental balance: Basic characteristics in the baseline, by treatment and control groups

Source: Baseline for the 2008-2009 cohorts.

whereas 24% of those from the same age group were unemployed according to the national household survey, the Encuesta Nacional de Fuerza de Trabajo (ENFT), during the first semester of 2009. The level of underemployment is similar among applicants to the program with respect to the general population of the same age range. Applicants with temporary or occasional employment represented 71.6% of those employed in the baseline, compared to 68.5% for those in the 16-29 age range. Finally, only 25% were students—a number which complies with the participation quota for students; 70% declared to have not completed secondary school, a reflection of the program's focus on youth that have either dropped out or who have put off completion of their secondary education.

An important issue for the evaluation strategy is the balance in observable characteristics between the control group and the treatment groups. Measures of initial characteristics or outcomes of the respective groups reveal that the lottery assignment among the groups was adequate and that the groups are comparable. The individual characteristics and the differences by experimental group, presented in Table 3, indicate the presence of only a few statistically significant differences between the groups, and no economically meaningful differences. The only exception is the relatively low level of those in the DCB treatment group for Santo Domingo - 25.3% compared to 29.9% in the TTP+DCB and 28.6% in the control group, but this isolated difference can be attributed to chance. Moreover, an analysis (not reported) of the attrition patterns for the telephone and household surveys indicates that there was no correlation between treatment status and participation in the follow-up surveys.

### 4.3 Estimation Strategy and Presentation of Results

The main analysis is based on a measurement of the difference in results between individuals assigned to the treatment and the control groups, irrespective of whether the individuals assigned to the program actually completed the training and internship phases. This type of causal effects are known in the experimental literature as intention to treat (ITT hereafter) effects, because they capture the difference between offering participation in a program and not offering it - they only provide a lower bound for the causal effects of actually completing all the stages of the program. It can be argued, however, that these ITT effects capture the policy relevant parameter, since policy makers in most cases can only offer programs - as job training programs are entirely voluntary (even though participants have applied and been selected they are not obligated to take the courses), the information that is of most interest in policy design is the effect and outcomes produced by making the courses available to youth. Section A briefly presents an analysis that approximates the causal effect of completing the training (Local Average Treatment Effects) based on administrative information on completion by individuals.

Previous evaluations of the PJyE relied on the random assignment of applicants to the program or to the control group, comparing then post-treatment outcomes of interest between the two groups see Card et al. (2011), and Ibarrarán et al. (2012). The evaluation strategy for the 2008-2009 cohorts (described in detail in Section 3) provides a richer mechanism experiment setup beyond the simple treatment and control dichotomy. There are two treatment groups, one with TTP+DCB training and the other with DCB training only. This design allows us to make the usual impact evaluation comparison between any of the treatment categories and the control group, but also to gauge the potential value added of the TTP vocational training component by comparing the differences in outcomes between the two treatment groups. For the cohorts evaluated in this report, we distinguish between individuals who were initially assigned to the group offered both the TTP and DCB courses (225 hours of instruction as well as an internship), the group only offered the DCB course (75 hours of coursework and an internship), or, finally, the group that was not offered any courses, which is to say, the control group.

The simplest way to present the results on the effect of the two PJyE versions on the outcomes of interest would be by means of regressions of these outcomes against binary variables representing each of the two treatment groups. However, we opted for an alternative presentation to highlight the main results from the evaluation and to maximize the statistical power. In the tables below, PJyE effects are estimated for each outcome as the dependent variable in a specification that allows us to recover, on the one hand, the average effect of the two versions of the PJyE program (TTP+DCB and DCB only) with respect to the control group, and on the other hand, the difference in outcomes between the TTP+DCB and the DCB versions, which in effect captures the differential impact of the TTP component over and above the (common) DCB component. In the tables, the difference in outcomes between those offered to participate in any of the versions of the program and the control group is the Average Treatment, whereas the differential effect of PJyE on those selected for the TTP+DCB model relative to those young people selected for DCB model is the TTP Difference. All estimates are generated by a least squares regression of each outcome variable as a function of the two treatment

variables,<sup>13</sup> as well as a series of control variables.

A positive value of the coefficient on *Average Treatment* indicates that the program, on average, generated a positive effect in the outcome of interest with respect to the control group. It is worth noting that a positive value for the *TTP Difference* coefficient does not mean that the TTP+DCB beneficiaries had higher levels of the outcome of interest than those in the treatment group. The correct interpretation of a positive *TTP Difference* coefficient is that participants in the TTP+DCB version attained a higher level of the outcome than those in the DCB only version.<sup>14</sup>

In the tables in the following section, we present the empirical results as described above, with the same model for all outcomes for the short and the medium term. In the main tables, we present the results for all participants, and then for men and women separately to capture heterogeneous effects along the gender dimension. In Appendix B, we present a set of additional tables to account for potential heterogeneous effects by age (younger or older than 20 years at the time of registration) and by geographic location (residents of Santo Domingo or of the rest of the country). The tables only display the two coefficients that correspond to the effects of the program, but all the regressions incorporate as controls the same set of observable characteristics obtained from the baseline survey (application form).<sup>15</sup> These controls are used with the intention of improving estimate precision.<sup>16</sup>

In terms of inference, the standard errors are clustered by a combination of cohort, type of course and the COS where the participants were enrolled. Finally, each table also presents the average value of the outcome variable for the control group.

<sup>&</sup>lt;sup>13</sup>These variables are linear combinations of the two binary variables that identify individuals selected for the TTP+DCB  $(t_1)$  and DCB  $(t_2)$  components. More specifically, the variable behind the *Treatment Average* coefficient is defined as  $t_1 + t_2$  and the variable for *TTP Difference* is  $(t_1 - t_2)/2$ .

<sup>&</sup>lt;sup>14</sup>The Figures in Appendix D present our main results graphically, and also illustrate the difference between the simple presentation of results and the one we chose for the paper. Specifically, the Figures on the left column present the results fro our main specification in terms of *Average Treatment* and *TTP Difference*, whereas the right column presents the results for the simple specification in which each outcome of interest is regressed on the indicators for the two treatment groups, TTP+DCB  $(t_1)$  and DCB only  $(t_2)$ .

<sup>&</sup>lt;sup>15</sup>These variables, which are correlated to status at the time of program enrollment, are: sex, age and educational level of the applicant, number of household members, a binary variable to indicate whether the applicant was unmarried, another to indicate whether the applicant had children, and another to indicate whether the applicant worked in the two years prior to registration. Also included are: a variable to identify the cohort to which the individual belonged at the time of application, a set of variables that identify the individuals' province of residence and the COS at which the individual registered.

<sup>&</sup>lt;sup>16</sup>Although the point value for the coefficients of interest should not change significantly, the inclusion of these controls decreases variance of the estimates, particularly if a lagged value of the result variable, or an observable feature that explains a significant part of its variability, is included. See Duflo et al. (2008).

## 5 Empirical Results

### 5.1 Short Term Effects

This section evaluates the short and medium term effects of the PJyE on individuals' basic employment outcomes, risk behaviors and expectations, among other outcomes. The tables follow the format described in the previous section. Thus, for each outcome variable a general specification is presented, as well as a specification differentiated by sex.

The short term effects are based on the data collected from the third round of the telephone follow-up survey, which collected information for a period of about 12 to 18 months after enrollment into the program. As described in Section 4, some beneficiaries were still enrolled at the time of the first and second rounds of the telephone survey, and thus only the third round collected data for the post-treatment period for the treatment and control groups (see Figure 2).<sup>17</sup>

Table 4 presents the short term effects of PJyE on basic labor market outcomes. The coefficient on Average Treatment indicates that, overall, the program had a positive and significant effect on the probability of working of 2.82 percentage points, an 8.4% increase with respect to the employment rate of 33.67% for the control group. This sizable effect seems to be driven mainly by the DCB only treatment group: the coefficient for the TTP Difference is negative and equal to -1.9 percentage points, which means that this treatment had a negligible positive effect on employment (not statistically significant). Moreover, the results by sex indicate that most of the effect of the program can be attributed to women, with an even larger average program effect of 4.2 percentage points, which represents a very large increase of 18% with respect to the mean employment rate of 23.02% for the control group. The TTP Difference coefficient for women is small (0.15 percentage points) and not significant, which indicates that both versions of the program (TTP+DCB and DCB only) had a positive and roughly similar effect on employment. The coefficients for men, while not significant, are fairly large, and indicate a positive effect of the DCB only version combined with a larger and negative effect on employment from the TTP+DCB version. While there do not seem to have significant effects on on-the-job search, hours worked or monthly salary (columns 4, 5 and 6 in Table 4), the results in Column 7 indicate that the program had a large positive effect on job satisfaction for those working, again concentrated on women and with no significant differential effect of the TTP module (the results for men are also positive but smaller and not statistically significant). Taken together, these results indicate that, in the short run, the two versions of the program successfully and substantially increased employment and job satisfaction for women but not for men, and that the hard skills TTP module had at most a negligible positive effect on employment for women, and a non significant but large negative effect for men.

<sup>&</sup>lt;sup>17</sup>For completeness, Appendix C presents the estimates similar to those in the tables presented in this section for each of the rounds of the telephone survey, and for a pool of data from the three rounds.

The results from the second and third column of Table 4 indicate that neither version of the 2008-2009 cohorts of the PJyE program had a significant effect on the levels of inactivity and unemployment: the coefficients for Average Treatment and TTP Difference are relatively small, and none are statistically significant (for all participants, and for women and men separately). These results can be complemented with the short term estimates for the first two rounds of the telephone survey presented in Appendix C. Program participants had significantly lower levels of inactivity and significantly higher levels of unemployment at the time of the first two rounds of the telephone survey, when they were still in training or just finishing their participation in the program. They did not exhibit higher employment rates. Taken together, these results indicate that program participants entered the labor force (exited inactivity) during or shortly after their participation in the program, which was reflected in higher levels of unemployment with respect to those in the control group, and this seems to have paid off after some time, with higher levels of employment than those in the control group (especially for women) at time of the third telephone survey (when all beneficiaries had completed their participation in the program). This suggests a pattern of "activation" from inactivity to unemployment and then to employment for program beneficiaries in the short run.

Table 5 presents the estimates of the short term effects of the program on fertility outcomes, risk behaviors and expectations, also based on the third round of the telephone survey. While the program did not seem to have a significant effect on the probability of having a child (column 1) or being pregnant (column 7) in the short run, the results in column 2 indicate a small but statistically significant negative effect on the number of children of about 6% (-0.101 with a mean of 1.77 for the control group) for those who already had children, again concentrated on women and with no significant differences between the two versions of the program.

The telephone survey included only a small number of questions on risk behaviors, and the results in columns 3 and 4 of Table 5 indicate that the program had virtually no effect on smoking or drinking alcohol in the short run, with small and not significant coefficients. However, the effect may be underestimated given that there was a low mean value calculated for the control group.<sup>18</sup>

Finally, the program seems to have been successful in increasing job expectations, self esteem and a positive outlook of life conditions in general. The results in columns 5 and 6 of Table 5 indicate positive effects on the expectation of improving employment conditions and life conditions, and again, these positive and significant effects can be attributed mostly to women, with small and not significant coefficients for men. As with employment and fertility, this effect is driven by the *Average Treatment* of the program, with no differential impact of the TTP component. This indicates that the DCB module was responsible for these higher expectations. Notably, and contrary to the evidence for employment, the complementary evidence by round of the telephone survey presented in Appendix C indicates that

<sup>&</sup>lt;sup>18</sup>This value could be the result of under-reporting of at-risk behavior among applicants who wish to provide a more socially desirable answer.

this positive and significant effect in expectations was present from the very onset of the program.

	Working=1	Inactive=1	Unemployed=1	Working and looking	Hours per week	Log of monthly	Satisfied
	-	0.0100	0.0100	for another job $=1$	(working=1)	salary (working=1)	with job=1
(1) Average Treatment	0.0282*	-0.0122	-0.0160	0.0291	0.4225	0.0619	0.0610**
	[0.0158]	[0.0158]	[0.0150]	[0.0266]	[1.0623]	[0.0380]	[0.0304]
(2) TTP Difference	-0.0190	0.0137	0.0053	-0.0310	1.7453	0.0250	0.0288
	[0.0176]	[0.0180]	[0.0184]	[0.0294]	[1.1535]	[0.0388]	[0.0349]
N	4,221	4,221	4,221	1,479	1,487	1,408	1,479
Control Mean	0.3367	0.3733	0.2900	0.2494	42.5770	8.6324	0.5196
By Sex							
Female							
(1) Average Treatment	$0.0420^{**}$	-0.0138	-0.0283	-0.0287	-0.4051	0.0790	$0.0920^{*}$
	[0.0190]	[0.0219]	[0.0214]	[0.0437]	[1.6962]	[0.0687]	[0.0528]
(2) TTP Difference	0.0015	0.0163	-0.0178	-0.0010	-0.6811	-0.0092	0.0386
	[0.0212]	[0.0241]	[0.0234]	[0.0434]	[1.5988]	[0.0612]	[0.0514]
N	2,566	2,566	2,566	655	663	634	655
Control Mean	0.2302	0.4537	0.3161	0.2644	41.3864	8.4547	0.4598
Male							
(1) Average Treatment	0.0226	-0.0223	-0.0003	0.0485	1.9358	0.0436	0.0343
	[0.0292]	[0.0257]	[0.0244]	[0.0376]	[1.4723]	[0.0507]	[0.0398]
(2) TTP Difference	-0.0447	0.0013	0.0434	-0.0372	3.6765**	0.0525	0.0274
× /	[0.0319]	[0.0272]	[0.0282]	[0.0430]	[1.7467]	[0.0515]	[0.0469]
N	1,655	1,655	1,655	824	824	774	824
Control Mean	0.4887	0.2585	0.2528	0.2394	43.3861	8.7580	0.5598

Table 4: Short term effects on basic employment outcomes - telephone survey, third round

Note: Based on data from the PJyE short term evaluation telephone survey. Regressions include controls for baseline characteristics (sex, age, level of education, civil status, children, number of persons in household, prior experience, program cohort, province of residence and COS in which registered). Average Treatment refers to the difference in outcomes between the two treatment groups and the control group. TTP Difference refers to the difference in outcomes between the TTP+DCB treatment group and the DCB only treatment group. Using binary variables for TTP+DCB  $(t_1)$  and for DCB  $(t_2)$ , the variable for Average Treatment coefficient is  $t_1 + t_2$  and the variable for the TTP Difference is  $(t_1 - t_2)/2$ . Standard errors clustered by course. \* p<0.1; \*\* p<0.05; \*\*\* p<0.01

	Has children=1	Number of children (for children>0)	Smoked last week=1	Drank alcohol last week=1	Expectation of improving employment conditions=1	Expectation of improving life conditions=1	Pregnant at time of survey=1
(1) Average Treatment	-0.0108	-0.1010**	0.0011	0.0089	0.0241***	0.0190***	
	[0.0107]	[0.0429]	[0.0030]	[0.0137]	[0.0080]	[0.0069]	
(2) TTP Difference	0.0001	-0.0134	-0.0005	0.0018	0.0025	-0.0023	
	[0.0103]	[0.0499]	[0.0032]	[0.0151]	[0.0075]	[0.0065]	
N	4,220	1,932	4,220	4,220	4,220	4,220	
Control Mean	0.4736	1.7701	0.0070	0.2045	0.9316	0.9502	
By Sex							
Female							
(1) Average Treatment	-0.0114	-0.0881*	-0.0014	0.0146	0.0332***	$0.0324^{***}$	-0.0081
	[0.0139]	[0.0487]	[0.0033]	[0.0169]	[0.0108]	[0.0091]	[0.0109]
(2) TTP Difference	-0.0035	-0.0269	-0.0006	-0.0178	0.0024	-0.0041	0.0042
	[0.0132]	[0.0573]	[0.0034]	[0.0183]	[0.0098]	[0.0077]	[0.0127]
N	2,565	1,576	2,565	2,565	2,565	2,565	2,563
Control Mean	0.6415	1.8515	0.0053	0.1640	0.9272	0.9418	0.0689
Male							
(1) Average Treatment	-0.0127	-0.0500	0.0043	0.0123	0.0114	-0.0025	
	[0.0175]	[0.0828]	[0.0060]	[0.0237]	[0.0123]	[0.0111]	
(2) TTP Difference	0.0037	0.0138	0.0016	0.0380	-0.0006	-0.0050	
	[0.0188]	[0.1000]	[0.0061]	[0.0282]	[0.0135]	[0.0119]	
N	1,655	356	1,655	1,655	1,655	1,655	
Control Mean	0.2340	1.4516	0.0094	0.2623	0.9377	0.9623	

Table 5: Short term effects on the number of children, risk behaviors and expectations - telephone survey, third round

Note: Based on data from the PJyE short term evaluation telephone survey. Regressions include controls for baseline characteristics (sex, age, level of education, civil status, children, number of persons in household, prior experience, program cohort, province of residence and COS in which registered). Average Treatment refers to the difference in outcomes between the two treatment groups and the control group. TTP Difference refers to the difference in outcomes between the TTP+DCB treatment group and the DCB only treatment group. Using binary variables for TTP+DCB ( $t_1$ ) and for DCB ( $t_2$ ), the variable for Average Treatment coefficient is  $t_1 + t_2$  and the variable for the TTP Difference is ( $t_1 - t_2$ )/2. Standard errors clustered by course. \* p<0.1; \*\* p<0.05; \*\*\* p<0.01

### 5.2 Medium Term Effects

The short term effects of the PJyE program presented in the previous pages were based on data collected about 12 to 18 months after enrollment in the program. While there were substantial employment gains and positive effects on expectations in the short run from the DCB soft skills component, especially for women, the challenge faced by these programs and the relevant policy question is whether they manage to boost employment and other positive outcomes in the longer run.

The 2008-2009 cohorts of the PJyE have the relatively rare feature (for Latin America at least) of having follow-up data on outcomes for the short term and for the medium term. For the latter, we rely on the programs' impact evaluation household survey (described in Section 4.1), carried out from October 2012 to March 2013, about 3.5-4 years after the program. This is a longer post-treatment period than the existing experimental evaluations of job training programs in the region. For instance, Card et al.'s (2011) evaluation of the 2004 cohort of the PJyE program is based on a follow-up survey conducted 10 to 14 months after the program; Ibarraran et al.'s (2012) evaluation of an earlier 2008 PJyE cohort is based on a follow-up survey conducted 18 to 24 months after most trainees had finished their initial course work; and Attanasio et al.'s (2011) study of a similar program in Colombia is based on data collected between 19 and 21 months after the beginning of the program. The only experimental evaluation of a job training program with a comparable time frame is Alzua et al.'s (2014) study of the Entra21 program in Argentina, which relies on data from up to 36 months after completion of the training.

The tables presented in this section are structured as the previous ones. The program evaluation household survey was substantially more comprehensive than the short term telephone surveys, and this allows us to examine the medium term effects of the PJyE on more detailed labor market outcomes, as well as participation in organizations and social networks, risk behaviors, cognitive and non-cognitive ability, self-esteem and expectations, among others. The structure of the tables is the same used to present the program's short term effects.

Table 6 presents the effects of PJyE on the main employment outcomes. In contrast with the results for the short term in Table 4, there are no statistically significant effects of the program on the probability of working, on inactivity levels, or on unemployment (columns 1 to 3). The coefficients for the whole evaluation sample and for men and women separately are all close to zero. The additional heterogeneous effects estimates by age and region in Table B.3 do not indicate any noteworthy pattern for these employment outcomes either. Moreover, the program did not seem to have any substantial effect on hours worked or monthly earnings (columns 6 and 7, Table 6), nor on employment status - being salaried, self-employed, an employer, or working as paid domestic help or unemployed homemaker (columns 5 to 8, Table 7).

The results in column 5 of Table 6, in turn, indicate that men who were selected to participate

in the program have a 6.06 percentage points lower probability of working formally (i.e., with access to social insurance benefit), 13% lower than the control group. This effect was also larger for men in the TTP+DCB treatment group than for the DCB group, although the difference is not statistically significant.

There are, however, some effects of the program on other dimensions of employment for those who are working. The results in column 4 Table 6 indicate that the program had a large positive and significant effect on the probability of on the job search for men (6.65 percentage points - 29%higher than for men in the control group), which was even larger for those who were selected for the hard skills TTP training (although the difference is not statistically significant). On the job search might be considered a positive outcomes, in the sense that beneficiaries seem to be more open to new opportunities, but at the same time it can reflect dissatisfaction with the current employment conditions. For women, the program effect on on the job search is negative but smaller than for men (2.06 percentage points) and not statistically significant. However, we can complement these results with the effects of the program on the desire to change job (for those working), presented in column 1 of Table 7. The overall effect of the program is negative and significant, and similar for the TTP+DCB and the DCB only groups, and it seems to be driven by women - those selected for any version of the program have a 5.2 percentage points lower probability of desiring to change job with respect to women in the control group. While on the job search by men reflects an action and desiring to change job can be considered as a simple statement, women also seem to take action on this regard. The results in column 2 of Table 7 indicate that all those selected for the program were 2.8 percentage points more likely to reject a job offer (10% higher than the control group), and while there do not appear to be substantial differences between the two program versions, this effect is also driven mainly by the impact of the program on women (the coefficient for men is very close to zero and not statistically significant).

A noteworthy impact of the program is captured by the results in column 4 in Table 7. The evaluation survey asked individuals if they were willing to search for work in sectors or occupations different from the ones in which they were trained or had previous work experience. Those selected for the program have a substantially lower willingness to look for work in other areas/sectors: the average effect for the two versions of the program is -5.63 percentage points (-5.02 for men and - 6.22 for women) compared to the control group (with a mean of 77.76%), and these coefficients are strongly significant overall and for men and women separately. Besides this relatively large average effect, the TTP module seems to have induced an even higher attachment to the sector or occupation of beneficiaries. The negative and significant TTP Difference coefficient indicates that those in the TTP+DCB group were even less likely to respond that they would look for work in other areas or sectors than those in the DCB only group. Finally, the TTP component also seems to have lowered men's expected labor earnings (column 3 in Table 7).

Taken together, these results indicate that the large gains in employment for women that we found in the short term seem to dissipate in the longer term, and that the program seems to have induced worse employment conditions for working men in the medium term. Male beneficiaries of the PJyE who were employed in the medium term had worse labor market conditions than those in the control group (i.e., working informally) and they were less satisfied with their jobs, as reflected by their higher propensity to search while employed. At the same time, however, women participants, while not exhibiting higher employment rates as in the short run, seemed to be more satisfied with their jobs than those in the control group, as manifested by their lower desire to change job and by their higher propensity to reject job offers. All these effects were similar for the TTP+DCB and the DCB only treatment groups. Since all beneficiaries were exposed to the DCB life skills component, the TTP vocational training module does not appear to have added much both in terms of the positive or the negative impacts of PJyE. However, both men and women selected for the program were less willing to look for jobs in areas or sectors different from the ones in which they were trained, and this effect was even stronger for the TTP+DCB group. This indicates that the vocational training generates a higher attachment to the sector or occupation in which participants were trained, which is positive, although the lack of overall employment effects and the lower job satisfaction for men could suggest that this type of training may also generate some lack of flexibility among beneficiaries.

Further results in Table 8 show that the program did have some effects on other dimensions beyond the labor market. One of the objectives of the DCB life skills components was to help beneficiaries fulfill a successful social life. The results in columns 1 indicate that the program induced an increase in participation in organizations in general for both men and women of 2.77 percentage points, about 9% higher than the control group, and the negative *TTP Difference* coefficient indicates that this effect was larger for those in the DCB only treatment group (although the difference is not statistically significant). Further disaggregation (columns 2 and 3) indicates that this effect was mainly driven by an increase in participation in religious organizations for men and women, and a fall in participation in political organizations for men, especially for those in the TTP+DCB treatment group, as indicated by the negative average effect of the program and the positive and significant *TTP Difference* coefficient. The effect on participation in religious organizations is concentrated on the beneficiaries that reside outside of Santo Domingo and are less than twenty years old at the time of the original application (Table B.5). This pattern of effects in participation may be related to the characteristics of some of the COS training providers, which in some cases were affiliated with religious organizations.

The short term results in the previous section indicated that the program did not have an effect on pregnancies or on the probability of having a child, but it did reduce the number of children for beneficiaries who already had children (compared to those in the control group). Table 8 shows a similar pattern for the medium term: both versions of the program have a similar negative effect on the aggregate number of children for those who already had children (column 5), and moreover women who were selected for the TTP+DCB treatment group had a lower probability of being pregnant at the time of the household survey.

The DCB module also included extensive work on risk behavior awareness. The evaluation survey included questions to capture the effects of the program on attitudes and awareness on risk behaviors. These results are presented in Table 9. Despite the risk behavior components of the DCB module, the program seem to have induced an increase in the proportion of those smoking regularly (column 1). This effect is most significant for women, and for those selected for the TTP+DCB variation of the program. However, it should be noted that the rates of smoking are very low (about 4.8% for the control group), suggesting a potential problem of underreporting as in the short term results, and the same may be true for the outcome "Tried drugs", with very low baseline levels and no significant effects of the program (column 3). The results in column 2 indicate that many more Dominican youth admit to drink alcohol (47.7% for the control group), and that those selected for the TTP+DCB treatment group exhibit significantly higher levels for this variable. The program does not seem to have had an impact on being involved in a traffic accident or in a fight in the previous year (columns 4 and 5). It does not appear either to have affected the probability of being diagnosed with a sexually transmitted disease (again, with very low levels for this variable) nor on the expectation of contracting AIDS. However, the program seems to have substantially increased the HIV-AIDS awareness among men (column 8).

Finally, Table 10 presents the medium term effects of the program on measures of skills and expectations. Columns 1 to 3 present the results on self esteem, basic skills and personal characteristics, respectively.<sup>19</sup> The first column indicates that the program did not have a significant impact on a self reported measure of self esteem based on 10 questions from the Rosenberg scale. The results in columns 2 and 3 are based on two survey modules designed to measure participants basic skills and personal characteristics, which were also explicit objectives of the DCB training. The evaluation survey included a module called *Escala de Competencias Personales y Sociales*, which includes information on basic qualities like leadership, capacity to relate to others, order and empathy. For both basic skills and personal characteristics, we find a positive and significant average effect of the program on these standardized measures, with no additional effect from the TTP training and with higher impact for female than for male participants. Columns 4 to 7, in turn, indicate that the program had a positive effect on different measures of expectations. Participants manifested higher expected levels of future wealth with respect to the control group, with a much stronger effect for those who were selected for the TTP+DCB group (column 4). The same pattern appears in the expectation of having a desired job, with higher levels overall and a substantially higher effect for those in the TTP+DCB

<sup>&</sup>lt;sup>19</sup>The first three outcomes analyzed contain information related to self-esteem, basic skills, and personal qualifications. Each variable results in the standardization of the sum of a series of questions in which individuals responded by indicating if they are, or are not in agreement, or if the question relates or does not relate to their personality. Scales were created so that questions that obtained a higher rating had a positive connotation.

group (column 7). The program also had an overall positive effect on the expectation of having one's own business in the future, and this effect is driven mainly by women and by men in the DCB only group, as signaled by the negative *TTP Difference* coefficient. Finally, the program seems to have induced a higher awareness about interpersonal problems with family members, driven mainly by male beneficiaries.

In the medium term, the program seems to have been more successful in raising expectations and basic skills rather than on changing labor market outcomes.

	<b>XX7 1 · 1</b>	т., т. т.	TT 1 1 1	Working and looking	Formal=1	Hours per week	Log of monthly
	Working=1	Inactive=1	Unemployed = 1	for another job $=1$	(working=1)	(working=1)	salary (working=1)
(1) Average Treatment	0.0013	0.0032	-0.0032	0.0266	-0.0118	-0.5996	-0.0049
	[0.0168]	[0.0145]	[0.0122]	[0.0197]	[0.0221]	[0.9652]	[0.0409]
(2) TTP Difference	-0.0262	0.0061	0.0202	-0.0135	0.0158	-0.3000	-0.0065
	[0.0184]	[0.0166]	[0.0136]	[0.0239]	[0.0251]	[1.0684]	[0.0479]
Ν	3,951	3,948	3,948	2,425	2,425	2,426	2,214
Control Mean	0.6359	0.2242	0.1383	0.2648	0.3898	40.8401	8.4834
By Sex							
Female							
(1) Average Treatment	-0.0027	0.0100	-0.0050	-0.0206	0.0353	-0.8029	0.0485
	[0.0249]	[0.0220]	[0.0171]	[0.0296]	[0.0294]	[1.4328]	[0.0665]
(2) TTP Difference	-0.0216	-0.0049	0.0265	-0.0475	-0.0024	0.0999	0.0735
	[0.0254]	[0.0235]	[0.0183]	[0.0341]	[0.0346]	[1.5413]	[0.0762]
Ν	$2,\!442$	$2,\!439$	2,439	1,221	1,220	1,221	1,084
Control Mean	0.5214	0.3125	0.1639	0.3003	0.3113	36.5565	8.2200
Male							
(1) Average Treatment	0.0102	-0.0074	-0.0028	$0.0665^{**}$	-0.0606*	-0.1111	-0.0282
	[0.0216]	[0.0158]	[0.0170]	[0.0284]	[0.0322]	[1.3558]	[0.0497]
(2) TTP Difference	-0.0222	0.0172	0.0050	0.0299	0.0318	-0.4710	-0.0919
	[0.0258]	[0.0195]	[0.0214]	[0.0338]	[0.0370]	[1.4803]	[0.0652]
Ν	1,509	1,509	1,509	1,204	1,205	1,205	1,130
Control Mean	0.8083	0.0917	0.1000	0.2310	0.4646	44.9213	8.7230

Table 6: Medium term effects on basic labor outcomes

	Desires to change job=1	Rejected a job offer=1	Log of expected salary for next job	Searching for work in a new area/sector=1	Employee=1	Self-employed=1	Employer=1	Domestic servant=1
(1) Average Treatment	-0.0358*	0.0280*	0.0071	-0.0563***	-0.0213	0.0256	0.0037	-0.0080
	[0.0191]	[0.0158]	[0.0164]	[0.0154]	[0.0215]	[0.0191]	[0.0059]	[0.0133]
(2) TTP Difference	-0.0017	-0.0162	-0.0072	-0.0470***	0.0028	0.0128	0.0015	-0.0172
	[0.0218]	[0.0176]	[0.0175]	[0.0176]	[0.0254]	[0.0221]	[0.0071]	[0.0148]
Ν	2,426	3,852	3,733	$3,\!849$	2,240	2,240	2,240	2,240
Control Mean	0.7796	0.2746	9.3505	0.7776	0.6912	0.2044	0.0132	0.0912
By Sex								
Female								
(1) Average Treatment	-0.0520*	0.0441**	0.0298	-0.0502**	-0.0067	0.0269	0.0060	-0.0263
	[0.0277]	[0.0200]	[0.0209]	[0.0206]	[0.0334]	[0.0291]	[0.0074]	[0.0248]
(2) TTP Difference	-0.0085	-0.0096	0.0316	-0.0404*	-0.0034	0.0214	0.0047	-0.0227
	[0.0302]	[0.0231]	[0.0212]	[0.0242]	[0.0371]	[0.0316]	[0.0092]	[0.0273]
Ν	1,221	2,372	2,314	2,371	1,121	1,121	1,121	1,121
Control Mean	0.8182	0.2679	9.2268	0.7421	0.6426	0.1892	0.0060	0.1622
Male								
(1) Average Treatment	-0.0139	0.0054	-0.0395	-0.0622***	-0.0225	0.0091	0.0014	0.0119
	[0.0303]	[0.0280]	[0.0265]	[0.0227]	[0.0278]	[0.0266]	[0.0094]	[0.0109]
(2) TTP Difference	0.0054	-0.0414	-0.0717**	-0.0530*	0.0074	-0.0062	-0.0040	0.0029
	[0.0339]	[0.0299]	[0.0300]	[0.0277]	[0.0368]	[0.0325]	[0.0125]	[0.0134]
Ν	1,205	$1,\!480$	1,419	$1,\!478$	1,119	1,119	1,119	1,119
Control Mean	0.7428	0.2845	9.5383	0.8301	0.7378	0.2190	0.0202	0.0231

Table 7: Medium term effects on other labor outcomes

	Participation in an organization=1	Participation in a political organization=1	Participation in a religious organization=1	Has children=1	Number of children (for children>0)	Pregnant at time of survey=1
(1) Average Treatment	$0.0277^{*}$	-0.0082	$0.0336^{**}$	0.0107	-0.0860**	
	[0.0153]	[0.0097]	[0.0145]	[0.0151]	[0.0399]	
(2) TTP Difference	-0.0177	0.0084	-0.0193	0.0241	0.0094	
	[0.0180]	[0.0109]	[0.0164]	[0.0163]	[0.0418]	
Ν	3,987	$3,\!849$	3,850	3,845	1,451	
Control Mean	0.3090	0.0855	0.1933	0.3736	1.4404	
By Sex						
Female						
(1) Average Treatment	0.0300	0.0040	0.0291	0.0317	-0.0779	0.0035
	[0.0199]	[0.0113]	[0.0191]	[0.0204]	[0.0478]	[0.0122]
(2) TTP Difference	-0.0045	-0.0107	-0.0174	0.0242	0.0128	-0.0264**
	[0.0230]	[0.0123]	[0.0218]	[0.0218]	[0.0490]	[0.0127]
Ν	2,448	2,371	2,371	2,369	1,169	2,335
Control Mean	0.2690	0.0602	0.2092	0.4907	1.4942	0.0627
Male						
(1) Average Treatment	0.0213	-0.0291	0.0359	-0.0172	-0.0686	
	[0.0265]	[0.0179]	[0.0232]	[0.0208]	[0.0788]	
(2) TTP Difference	-0.0484	0.0394**	-0.0265	0.0291	-0.0510	
	[0.0304]	[0.0196]	[0.0271]	[0.0247]	[0.0887]	
Ν	1,539	1,478	1,479	1,476	282	
Control Mean	0.3679	0.1231	0.1699	0.2000	1.2447	

Table 8: Medium term effects on participation and number of children

	Smokes regularly=1	Drinks alcohol=1	Tried drugs=1	Involved in traffic accident=1	Involved in fight in last year=1	Diagnosed with a sexually transmitted disease	Expectation of contracting AIDS	Expectation that friend/family member contracts AIDS
(1) Average Treatment	0.0071	-0.0122	0.0008	-0.0064	0.0010	-0.0016	0.0010	0.0327
	[0.0078]	[0.0177]	[0.0043]	[0.0077]	[0.0094]	[0.0044]	[0.0158]	[0.0294]
(2) TTP Difference	$0.0187^{**}$	0.0182	0.0037	-0.0065	-0.0094	0.0017	-0.0084	-0.0143
	[0.0089]	[0.0201]	[0.0045]	[0.0088]	[0.0108]	[0.0045]	[0.0164]	[0.0331]
N	3,838	$3,\!838$	$3,\!677$	$3,\!837$	$3,\!838$	$3,\!837$	$3,\!843$	$3,\!840$
Control Mean	0.0481	0.4768	0.0126	0.0515	0.0756	0.0146	1.1568	1.5948
By Sex								
Female								
(1) Average Treatment	-0.0013	-0.0111	-0.0032	0.0003	-0.0022	-0.0056	-0.0070	-0.0371
	[0.0077]	[0.0225]	[0.0036]	[0.0061]	[0.0114]	[0.0063]	[0.0214]	[0.0400]
(2) TTP Difference	$0.0158^{*}$	-0.0171	0.0023	-0.0015	-0.0123	0.0043	-0.0148	-0.0474
	[0.0084]	[0.0256]	[0.0033]	[0.0075]	[0.0129]	[0.0064]	[0.0215]	[0.0408]
N	2,363	2,363	2,319	2,362	2,363	2,363	2,368	2,367
Control Mean	0.0302	0.4129	0.0059	0.0201	0.0647	0.0201	1.1506	1.6279
Male								
(1) Average Treatment	0.0216	-0.0057	0.0098	-0.0114	0.0072	0.0055	0.0156	$0.1387^{***}$
	[0.0163]	[0.0299]	[0.0101]	[0.0173]	[0.0172]	[0.0051]	[0.0228]	[0.0443]
(2) TTP Difference	0.0293	0.0738**	0.0098	-0.0068	-0.0020	-0.0042	0.0020	-0.0222
	[0.0191]	[0.0332]	[0.0120]	[0.0196]	[0.0202]	[0.0071]	[0.0289]	[0.0611]
Ν	1,475	1,475	1,358	1,475	1,475	1,474	1,475	1,473
Control Mean	0.0746	0.5714	0.0234	0.0981	0.0917	0.0064	1.1660	1.5458

Table 9: Medium term effects on risk behaviors

	Self Esteem	Basic skills	Personal characteristics	Expected wealth position	Expectation of better neighborhood	Expectation of own business	Expectation of having desired job	Expectations of problems with family members
(1) Average Treatment	-0.0307	0.0698**	$0.0627^{*}$	$0.0576^{*}$	0.0312	0.0976**	$0.0576^{**}$	0.0730**
	[0.0366]	[0.0352]	[0.0368]	[0.0296]	[0.0346]	[0.0389]	[0.0293]	[0.0325]
(2) TTP Difference	0.0237	0.0173	0.0199	0.0558*	0.0285	0.0146	$0.0505^{*}$	-0.0126
	[0.0403]	[0.0405]	[0.0409]	[0.0305]	[0.0361]	[0.0442]	[0.0294]	[0.0375]
Ν	3,825	3,826	3,823	3,842	3,844	3,844	3,843	3,844
Control Mean	0.0144	-0.0519	-0.0434	3.9332	3.8449	3.6787	4.1191	1.6101
By Sex								
Female								
(1) Average Treatment	0.0011	0.0819*	0.0762	0.0470	0.0641	$0.0888^{*}$	$0.0776^{**}$	0.0387
	[0.0432]	[0.0468]	[0.0500]	[0.0387]	[0.0456]	[0.0515]	[0.0367]	[0.0439]
(2) TTP Difference	0.0818	0.0103	0.0356	$0.0916^{**}$	$0.0968^{**}$	0.0674	0.0464	-0.0788
	[0.0502]	[0.0508]	[0.0530]	[0.0398]	[0.0461]	[0.0579]	[0.0390]	[0.0490]
Ν	$2,\!357$	$2,\!358$	2,355	2,367	2,369	2,369	2,368	2,369
Control Mean	0.0268	-0.1236	-0.1161	3.9584	3.8235	3.6485	4.1076	1.6327
Male								
(1) Average Treatment	-0.0792	0.0571	0.0349	$0.0793^{*}$	-0.0164	0.0949	0.0351	0.1190**
	[0.0685]	[0.0529]	[0.0575]	[0.0478]	[0.0546]	[0.0605]	[0.0491]	[0.0492]
(2) TTP Difference	-0.0833	0.0162	-0.0099	0.0073	-0.0941	-0.1220*	0.0463	0.0410
	[0.0755]	[0.0690]	[0.0662]	[0.0533]	[0.0591]	[0.0692]	[0.0500]	[0.0605]
Ν	1,468	1,468	1,468	1,475	1,475	1,475	1,475	1,475
Control Mean	-0.0041	0.0549	0.0648	3.8957	3.8766	3.7234	4.1362	1.5766

Table 10: Medium term effects on expectations

### 6 Concluding remarks

This report presented the results of the impact evaluation of the 2008 and 2009 cohorts of the Dominican Republic's Ministry of Labor's "Programa Juventud y Empleo", a job training program for youth at risk. The main feature of these two cohorts of the program was the use of the impact evaluation to gauge the effect of different components of the program. This evaluation design relied on the implementation of two types of training: one included classroom-based vocational training and life-skills elements, while a second group was offered only the life-skills component (both types also included internships with private employers). The experimental impact evaluation relies on the random assignment of participants to a control group or to one of the two types of training. This allows us to establish the overall impact of the program (comparing those in the treatment and control groups), on the one hand, and the additional effect of the hard skills training module, on the other (comparing the outcomes from individuals in the two treatment groups). Another notable feature of the program and its evaluation is that we study impacts in the short term (from 12 to 18 months after the program) but also, exceptionally for Latin America and the Caribbean, also for the medium term (3.5-4 years after the program).

The results indicate sizable employment gains for women and virtually no employment effects for men in the short term, but these effects seem to dissipate in the longer run. In fact, male participants exhibit significantly lower levels of formal employment and higher levels of on the job search in the medium run. Female beneficiaries who work exhibit higher levels of job satisfaction in the short and in the medium run, and all beneficiaries have a lower propensity of looking for work in areas or occupations other than in the ones they were trained. Both male and female participants exhibit higher expectations about job and life prospects in the short and in the medium run, as well as better cognitive and interpersonal skills and more participation in organizations (especially religious organizations) in the medium run. Finally, we also find modest reductions in the number of children for those who already had children, and higher awareness of HIV-AIDS among men. Most of these effects can be attributed to the combination of the life skills module and the internship, which were common to the two versions of the program. The hard skills classroom training module induced few differential effects of the program, most notably in terms of the participants' lower willingness to search for work in areas other than the ones in which they specialized.

The results for the short term are similar to those for the evaluation of other training programs in the region over a similar time frame: the are some employment gains mainly concentrated in women, as well as a host of positive effects on measures of expectations and soft skills. Several experimental evaluations of training programs in the region find postive effects for women and nil effects for men (with the exception of Alzua et al., 2014), which contrats to the aggregate evidence from developing countries of no differential effects of active labor market policies on men versus women (Card et l., 2010). The evaluation design allows to add nuances to these fairly standard results. On the one hand, the short term effects on employment seem to dissipate over the longer run. This contrasts with the available evidence for developed countries, which typically finds positive medium-term impacts of training programs that often appear ineffective in the short term (Card et al., 2010). On the other hand, the evaluation design allows for a precise test of the added benefit of including classroom-based vocational training by private providers. Our experimental results indicate that this type of training does not add much in terms of employment or other outcomes: the medium and longer term impacts on employment, soft skills and expectations can be attributed to the life skills and the internship elements of the program. The evaluation design allows us to validate previous analysis for the region that suggested that technical training in the classroom does not generate positive impacts (González-Velosa et al., 2012).

These results allows us to draw some conclusions. The impact evaluation of training programs should explicitly attempt to follow beneficiaries over a broader horizon.<sup>20</sup> The program did not contemplate an employment services component after graduation, which suggests that more follow up of beneficiaries may be needed to maitain the employment gains in the short run. The contacts, social networks and general connections with the world of employment developed during the program may have been only transitory or too scarce to create a durable link to employment and training opportunities for the target population (youth at risk).

The evaluation design also allows us to establish that, at least in these PJyE editions, the classroombased vocational training was not effective, even when (as in the PJyE) it was discussed and developed jointly with private sector employers. This suggests that programs of this type might delegate the vocational training elements directly to employers. This conclusion from our findings is reinforced by the experience in developed countries, in which "on-the-job training has proven to be particularly effective in comparison to classroom training" (Brown and Koettl, 2012).<sup>21</sup> This is all the more important given the relative costs of the training modules: the life skills only course costed about one half to one third of the full vocational and life skills course (the 150 hours vocational training costed about \$6,000 pesos - \$160 USD - per student, while the 75hours life skills training costed about \$3,000 pesos - \$80 USD - per student). These figures do not take into account the negative locking-in effect from youngsters withdrawing form the the labor market to attend the training courses (González-Velosa et al., 2012), nor a certain lack of flexibility in accepting employment opportunities outside the area in which beneficiaries have been trained, which we found in this evaluation.

The program seems to have been more successful in raising expectations and basic skills rather

<sup>&</sup>lt;sup>20</sup>Card et al. (2010) conclude their meta review stating that "classroom and on-the-job training programmes are not particularly effective in the short run, but have more positive relative impacts after two years," and that "longer-term evaluations tend to be more favourable than short-term evaluations." More evidence is needed on the medium and long term effects of these programs in Latin America and the Caribbean and in the developing world in general.

 $<sup>^{21}</sup>$ Kluve (2010) presents further evidence in this regard. The combination of classroom with on-the-job training increases the probability of a positive impact of an active labor market program by 30 percent (compared to classroom training-only).

than on changing labor market outcomes in the longer run. The positive impact of the program on soft skills indicates that private sector training providers might be more effective in transmitting general cognitive skills and developing non-cognitive abilities than in fostering specific vocational competences. The internship component is more likely to develop the mix of soft and hard skills required for sustained employment. Indeed, experience in entry-level jobs allow participants to gain work readiness skills which are more associated to soft than to the hard/vocational components that can be aquired through classroom training with private providers. Moreover, the positive employment gains in the short term are compatible with a setting in which the effects on employment are due to the program's implicit labor intermediation (through the internship) rather than on the training component. Future research could concentrate on separating the implicit intermediation from the training components of program of this type. It is also important to establish why there is a pattern of differential impacts by gender in these programs in the region. A hypothesis is that soft skills might be more important in jobs selected by women (hair dressing, sales, tourism, etc). Moreover, future versions of the program could evaluate the alternatives for feasible and effective learning plans, tasks responsibilities involved in internships, and help understand which skills acquired in this phase might help sustain employability in the longer run., to correlate them with the in-classroom training.

### References

- Alzua, M. L., Cruces, G. and Lopez, C. (2014). "Youth training programs beyond employment. Experimental evidence from Argentina." Mimeo, CEDLAS-Universidad Nacional de La Plata, Argentina.
- [2] Angrist, J. and Pischke, J. (2008). Mostly Harmless Econometrics: An Empiricist's Companion. Princeton University Press, Princeton.
- [3] Attanasio, O., Kugler, A. and Meghir, C. (2011). Subsidizing Vocational Training for Disadvantaged Youth in Colombia: Evidence from a Randomized Trial. American Economic Journal: Applied Economics, vol. 3(3), pages 188-220.
- [4] Brown, A. J. G. and Koettl, J. (2012). "Active Labor Market Programs: Employment Gain or Fiscal Drain?," IZA Discussion Papers 6880, Institute for the Study of Labor (IZA).
- [5] Card, D., Ibarrarán, P., Regalia, F., Rosas-Shady, D. and Soares, Y. (2011). The Labor Market Impacts of Youth Training in the Dominican Republic: Evidence from a Randomized Evaluation. *Journal of Labor Economics*, vol. 3(2), pages 267-300.
- [6] Card, D., Kluve, J. and Weber, A. (2010). "Active Labor Market Policy Evaluations: A Meta-Analysis," *Economic Journal*, vol. 120(548), pages F452-F477, November.
- [7] Centro de Estudios Sociales y Demográficos & Macro International Inc. (2008). "Encuesta Demográfica y de Salud República Dominicana 2007". CESDEM, Santo Domingo, República Dominicana.
- [8] Duflo, E., Glennerster, R., and Kremer, M. (2008), Using Randomization in Development Economics Research: A Toolkit. Handbook of Development Economics, vol. 4.
- [9] González-Velosa, C., Ripani, L., and Rosas-Shady, D. (2012). How Can Job Opportunities for Young People in Latin America be Improved? Inter-American Development Bank: Labor Markets and Social Security Unit (SCL/LMK), Technical Notes No. IDB-TN-345.
- [10] Ibarrarán, P., Ripani, L., Taboada, B., Villa, J. and Garcia, B. (2012). Life Skills, Employability and Training for Disadvantaged Youth: Evidence from a Randomized Evaluation Design. IZA Discussion Papers 6617, Institute for the Study of Labor (IZA).

- [11] Inter-American Development Bank IDB (2006), "Informe de terminación de proyecto".
- [12] Kluve, J. (2010). "The Effectiveness of European Active Labor Market Programs," Labour Economics 17 (2010), 6, pp. 904–918.
- [13] Oficina Nacional de Estadísticas ONE (2011), "Maternidad adolescente en República Dominicana: un problema que desconcierta", Panorama Estadístico, Boletín Mensual de junio, Año 4, Nro. 40.
- [14] Vezza, E. (2014). "Policy Scan and Meta-Analysis: Youth and Employment Policies in Latin America". CEDLAS Working paper 156, Universidad Nacional de La Plata.

### A Causal Effect of Program Completion: Medium Term Local Average Treatment Effects

As discussed in Section 3, the previous results, based on the comparison between those who were offered the opportunity to participate in the program and those who were not offered this opportunity, represent intention to treat (ITT) effects. These results thus capture the causal effect of offering the program and not the impact of actually completing it. However, the simple comparison between those who completed the program with those who did not complete it would be marred by the same selection problems that justified the implementation of an experimental evaluation strategy based on random assignment of participants for the overall program.<sup>22</sup>

The evaluation strategy allows us to capture the impact of having completed the training phases of the program for a specific group, those who participated in the program because they were offered to, but would not have participated in the absence of an offer. These are called Local Average Treatment Effects (LATE) in the evaluation literature, and they can be obtained by complementing the results in the previous section with the program completion status of the individuals who were selected for the treatment.<sup>23</sup> The LATE estimates, in fact, can be thought of as the basic ITT estimates scaledup by the completion rates.<sup>24</sup> The LATE estimates are obtained by means of instrumental variable regressions, where the outcomes are the dependent variables, and where the program completion status is instrumented by the indicators of random assignment to the program (i.e., the first stage is a regression of program completion on the treatment group indicators).

The list of graduates was constructed using the PJyE and COS Information System, by finding those participants that completed both the coursework and the internship phases. Table A.1 presents the completion rates by treatment group, which can be interpreted as the first stage of the instrumental variable estimation. The overall completion rate (i.e., the rate of completion for those offered to participate in any of the versions of the program) was 61.22%, substantially higher for women (63.95%) than for men (65.91%). Surprisingly, the graduation rate was also substantially higher for the TTP+DCB version (which required substantially more hours) than for the DCB only version of the program - 66.6% versus 55.75%.

With a completion rate of about 60%, the LATE estimates can be expected to be about two thirds of the ITT effects. Table A.2 presents these LATE estimates for the medium term for a selection of

 $<sup>^{22}</sup>$ For example, if we assume that only the most "productive" or "employable" among those who were offered to participate in the program completed the course and the internship, a comparison of outcomes between those who completed all phases and those who did not would yield a difference that cannot be directly attributed to the effect of the program, since it might reflect the initial differences in productivity or employability.

 $<sup>^{23}</sup>$ In fact, the LATE estimates in this case are equal to the Average Treatment Effects on the Treated, since in the context of the PJyE we have one sided non compliance (i.e., some of those in the treatment group failed to take up the treatment, but none of those in the control group were allowed to participate in the program). See Angrist and Pischke (2008).

 $<sup>^{24}</sup>$ For example, if one supposed that completing the course raised, on average, an individual's salary by \$100, and only a half of the treatment group completed both the coursework and internship, the ITT effect estimate would be a \$50 raise, rather than the effect of the treatment, \$100.

No controls (completion rate	e)		
	Women	Men	Total
Either treatment group	$0.6395^{***}$	$0.5691^{***}$	0.6122***
TTP+DCB	$0.6790^{***}$	$0.6462^{***}$	$0.6660^{***}$
DCB only	$0.6004^{***}$	$0.4871^{***}$	$0.5575^{***}$
With baseline controls			
With baseline controls	Women	Men	Total
With baseline controls Either treatment group	Women 0.6416***	Men 0.5672***	Total 0.6098***

Table A.1: First stage of estimates for instrumental variables

Note: The results correspond to the regression coefficient for which completion is the explained variable and being selected as a beneficiary is the explanatory variable. In the regressions shown in the second panel the same additional controls are used as in the previous sections' analysis. \* p<0.1; \*\* p<0.05; \*\*\* p<0.01

the outcomes discussed in the previous section. Instead of instrumenting the plain completion status indicators, we use the same transformation as before to be able to recover the average effect of the program and any differential impact of the ITT component. The pattern of results is essentially the same as the one discussed in the previous section, although the LATE estimates are, as expected, substantially higher than the ITTs.

				Working and				Searching for	Participation	Expectation
	Working=1	Inactive=1	Unemployed=1	looking for	Formal=1	Desires to	Rejected a	work in a new	in an	of having
	fforming 1	inactive i	e nompioyed - i	another job $=1$	(working=1)	change job $=1$	job offer $=1$	area/sector=1	organization=1	desired job
(1) Average Treatment	0.0041	0.0047	-0.0067	0.0449	-0.0207	-0.0588*	0.0469*	-0.0881***	0.0465*	0.0899*
()	[0.0268]	[0.0232]	[0.0196]	[0.0316]	[0.0354]	[0.0309]	[0.0255]	[0.0247]	[0.0248]	[0.0471]
(2) TTP Difference	-0.0427	0.0087	0.0337	-0.0309	0.0296	0.0094	-0.0360	-0.0559**	-0.0381	0.0614
	[0.0293]	[0.0266]	[0.0220]	[0.0387]	[0.0404]	[0.0350]	[0.0289]	[0.0285]	[0.0296]	[0.0483]
Ν	3,951	3,948	3,948	2,425	2,425	2,426	3,852	3,849	3,987	3,843
Control Mean	0.6359	0.2242	0.1383	0.2648	0.3898	0.7796	0.2746	0.7776	0.3090	4.1191
By Sex										
Female										
(1) Average Treatment	-0.0030	0.0159	-0.0094	-0.0286	0.0542	-0.0791*	0.0692**	-0.0755**	0.0472	0.1179**
	[0.0377]	[0.0335]	[0.0260]	[0.0432]	[0.0429]	[0.0404]	[0.0307]	[0.0311]	[0.0306]	[0.0558]
(2) TTP Difference	-0.0329	-0.0105	0.0428	-0.0688	-0.0121	-0.0010	-0.0282	-0.0481	-0.0157	0.0494
	[0.0387]	[0.0363]	[0.0280]	[0.0506]	[0.0509]	[0.0445]	[0.0363]	[0.0373]	[0.0362]	[0.0611]
Ν	$2,\!442$	$2,\!439$	2,439	1,221	1,220	1,221	2,372	2,371	2,448	2,368
Control Mean	0.5214	0.3125	0.1639	0.3003	0.3113	0.8182	0.2679	0.7421	0.2690	4.1076
Male										
(1) Average Treatment	0.0205	-0.0150	-0.0054	0.1149**	-0.1110**	-0.0253	0.0141	-0.1034***	0.0425	0.0565
	[0.0366]	[0.0267]	[0.0289]	[0.0484]	[0.0547]	[0.0515]	[0.0478]	[0.0384]	[0.0450]	[0.0831]
(2) TTP Difference	-0.0431	0.0331	0.0100	0.0201	0.0830	0.0158	-0.0741	-0.0623	-0.0928*	0.0636
	[0.0440]	[0.0330]	[0.0368]	[0.0573]	[0.0623]	[0.0571]	[0.0520]	[0.0464]	[0.0530]	[0.0859]
Ν	1,509	1,509	1,509	1,204	1,205	1,205	$1,\!480$	1,478	1,539	1,475
Control Mean	0.8083	0.0917	0.1000	0.2310	0.4646	0.7428	0.2845	0.8301	0.3679	4.1362

Table A.2: Effect of course completion on outcomes of interest: Estimates by instrumental variables (LATE)

**B** Appendix: Heterogeneous Program Effects by Age and by Region

				Working and looking	Hours per week	Log of monthly	Satisfied
	Working=1	Inactive=1	Unemployed = 1	for another job $=1$	(working=1)	salary (working=1)	with job=1
(1) Average Treatment	0.0110	-0.0269**	0.0158	0.0191	0.4329	0.0145	0.0452**
	[0.0115]	[0.0115]	[0.0104]	[0.0172]	[0.6786]	[0.0261]	[0.0197]
(2) TTP Difference	-0.0235*	0.0094	0.0141	-0.0285	0.5550	0.0153	0.0108
	[0.0123]	[0.0126]	[0.0117]	[0.0184]	[0.7506]	[0.0275]	[0.0230]
Ν	12,576	12,574	12,574	3,877	3,918	3,687	3,878
Control Mean	0.3060	0.4262	0.2678	0.2532	42.3737	8.6280	0.5324
By Age							
Under 20 years old							
(1) Average Treatment	0.0192	-0.0276*	0.0083	0.0325	2.1212**	0.0257	0.0339
	[0.0158]	[0.0157]	[0.0146]	[0.0221]	[1.0024]	[0.0369]	[0.0292]
(2) TTP Difference	-0.0260	0.0154	0.0108	-0.0300	0.5578	0.0110	-0.0020
	[0.0169]	[0.0174]	[0.0158]	[0.0264]	[1.0643]	[0.0357]	[0.0319]
N	6,575	6,574	6,574	1,991	2,014	1,902	1,992
Control Mean	0.2918	0.4267	0.2815	0.2310	41.5628	8.5671	0.5581
More than 20 years old							
(1) Average Treatment	0.0037	-0.0269	0.0232	0.0059	-0.6080	-0.0046	$0.0824^{***}$
	[0.0169]	[0.0164]	[0.0149]	[0.0257]	[0.9706]	[0.0389]	[0.0289]
(2) TTP Difference	-0.0216	-0.0017	0.0233	-0.0218	0.3488	-0.0027	0.0175
	[0.0185]	[0.0188]	[0.0174]	[0.0285]	[1.1243]	[0.0443]	[0.0325]
N	6,001	6,000	6,000	1,886	1,904	1,785	1,886
Control Mean	0.3207	0.4258	0.2536	0.2739	43.1285	8.6846	0.5083
By Location							
Sto. Domingo							
(1) Average Treatment	0.0032	-0.0190	0.0158	0.0047	-0.8030	0.0771*	0.0192
	[0.0220]	[0.0231]	[0.0206]	[0.0366]	[1.1398]	[0.0439]	[0.0373]
(2) TTP Difference	-0.0247	0.0217	0.0028	-0.0785**	2.2123	0.0722	0.0511
	[0.0238]	[0.0220]	[0.0227]	[0.0362]	[1.5541]	[0.0561]	[0.0433]
Ν	3,562	3,561	3,561	1,085	1,115	1,046	1,085
Control Mean	0.3047	0.4236	0.2717	0.2610	42.0087	8.6642	0.5220
Rest							
(1) Average Treatment	0.0131	-0.0285**	0.0154	0.0272	0.8581	-0.0164	0.0576**
	[0.0135]	[0.0132]	[0.0120]	[0.0195]	[0.8369]	[0.0321]	[0.0233]
(2) TTP Difference	-0.0226	0.0055	0.0172	-0.0101	-0.0039	-0.0040	-0.0042
	[0.0144]	[0.0153]	[0.0136]	[0.0216]	[0.8606]	[0.0313]	[0.0271]
Ν	9,014	9,013	9,013	2,792	2,803	2,641	2,793
Control Mean	0.3065	0.4273	0.2662	0.2500	42.5247	8.6129	0.5366
By Round							
Round 1							
(1) Average Treatment	-0.0072	-0.0237	0.0309*	0.0084	-0.0951	-0.0445	0.0568*
	[0.0154]	[0.0173]	[0.0158]	[0.0311]	[1.2937]	[0.0484]	[0.0332]
(2) TTP Difference	-0.0285*	0.0273	0.0009	-0.0032	-0.6319	0.0042	-0.0003
	[0.0167]	[0.0188]	[0.0181]	[0.0367]	[1.3895]	[0.0565]	[0.0398]
N	4,116	4,115	4,115	1,055	1,088	994	1,056
Control Mean	0.2669	0.4543	0.2788	0.2597	41.3403	8.6025	0.5595
Round 2							
(1) Average Treatment	0.0108	-0.0440***	0.0332**	0.0084	1.0349	0.0213	0.0188
	[0.0162]	[0.0161]	[0.0150]	[0.0282]	[1.0743]	[0.0365]	[0.0304]
(2) TTP Difference	-0.0234	-0.0122	0.0357**	-0.0376	-0.3706	-0.0168	-0.0154
	[0.0173]	[0.0184]	[0.0173]	[0.0290]	[1.1082]	[0.0431]	[0.0330]
Ν	4,239	4,238	4,238	1,343	1,343	1,285	1,343
Control Mean	0.3136	0.4515	0.2350	0.2519	43.0149	8.6444	0.5235
Round 3			=				0.0200
(1) Average Treatment	0.0282*	-0.0122	-0.0160	0.0291	0.4225	0.0619	0.0610**
(-) orago iroatmont	[0.0158]	[0.0158]	[0.0150]	[0.0266]	[1.0623]	[0.0380]	[0.0304]
(2) TTP Difference	-0.0190	0.0137	0.0053	-0.0310	1.7453	0.0250	0.0288
(=) III Difference	[0.0176]	[0.0180]	[0.0184]	[0.0294]	[1.1535]	[0.0388]	[0.0349]
Ν	4,221	4,221	4,221	1,479	1,487	1,408	1,479
Control Mean	0.3367	0.3733	0.2900	0.2494	42.5770	8.6324	0.5196
Control Mican	0.0001	0.0100	0.2300	0.2434	42.0110	0.0024	0.0130

#### Table B.1: Short term effects by age and by region on basic employment outcomes

	Has children=1	Number of children (for children>0)	Smoked last week=1	Drank alcohol last week=1	Expectation of improving employment conditions=1	Expectation of improving life conditions=1	Pregnant at time of survey=
1) Average Treatment	-0.0090	-0.0724*	0.0038	0.0002	0.0288***	0.0199***	-0.0047
1) Average Treatment	[0.0075]	[0.0402]	[0.0024]	[0.0102]	[0.0057]	[0.0050]	[0.0068]
2) TTP Difference	-0.0047	-0.0419	0.0005	-0.0074	0.0008	-0.0023	0.0125*
2) I I F Difference			[0.0029]	[0.0107]	[0.0049]		[0.0070]
T	[0.0077]	[0.0459]				[0.0046]	
N	12,568	5,368	12,564	12,564	12,567	12,567	7,637
Control Mean	0.4426	1.7312	0.0096	0.2110	0.9263	0.9445	0.0716
By Age							
Under 20 years old		0.0010	0.0010#	0.0011	0.0000	0.010.1*	0.000×
1) Average Treatment	-0.0098	-0.0649	0.0049*	-0.0011	0.0230***	0.0124*	-0.0095
	[0.0105]	[0.0454]	[0.0026]	[0.0139]	[0.0084]	[0.0067]	[0.0098]
2) TTP Difference	0.0039	0.0229	0.0024	-0.0032	-0.0060	0.0008	0.0192**
	[0.0098]	[0.0477]	[0.0036]	[0.0150]	[0.0073]	[0.0065]	[0.0094]
Ň	6,571	1,707	6,567	6,567	6,570	6,570	3,740
Control Mean	0.2673	1.3225	0.0062	0.2131	0.9266	0.9476	0.0742
More than 20 years old							
1) Average Treatment	-0.0024	-0.0513	0.0025	-0.0037	0.0338***	0.0268***	0.0041
	[0.0113]	[0.0549]	[0.0041]	[0.0146]	[0.0082]	[0.0078]	[0.0094]
2) TTP Difference	-0.0170	-0.0739	-0.0028	-0.0083	0.0058	-0.0083	0.0042
,	[0.0114]	[0.0650]	[0.0046]	[0.0159]	[0.0077]	[0.0064]	[0.0107]
V	5,997	3,661	5,997	5,997	5,997	5,997	3,897
Control Mean	0.6232	1.9118	0.0132	0.2088	0.9260	0.9413	0.0691
By Location	0.0202	1.5110	0.0102	0.2000	0.0200	0.0410	0.0001
Sto. Domingo							
	0.0102	-0.1310*	0.0049	-0.0352*	0.0226**	0.0209***	0.0083
1) Average Treatment	0.0103						
	[0.0131]	[0.0690]	[0.0050]	[0.0201]	[0.0088]	[0.0079]	[0.0125]
2) TTP Difference	-0.0049	-0.0169	-0.0030	0.0208	0.0040	-0.0006	0.0011
	[0.0151]	[0.0738]	[0.0060]	[0.0208]	[0.0074]	[0.0058]	[0.0141]
N	3,557	1,407	3,557	3,557	3,557	3,557	2,152
Control Mean	0.4093	1.7336	0.0107	0.2404	0.9428	0.9589	0.0694
Rest							
1) Average Treatment	-0.0171*	-0.0548	0.0036	0.0140	0.0315***	$0.0196^{***}$	-0.0082
	[0.0091]	[0.0485]	[0.0027]	[0.0118]	[0.0071]	[0.0063]	[0.0083]
2) TTP Difference	-0.0044	-0.0515	0.0020	-0.0175	-0.0005	-0.0031	0.0152*
	[0.0089]	[0.0561]	[0.0032]	[0.0125]	[0.0063]	[0.0060]	[0.0081]
V	9,011	3,961	9,007	9,007	9,010	9,010	5,485
Control Mean	0.4563	1.7303	0.0092	0.1989	0.9195	0.9386	0.0725
By Round							
Round 1							
1) Average Treatment	-0.0065	-0.0326	0.0070	-0.0095	0.0378***	0.0219***	-0.0078
i, include incatinent	[0.0072]	[0.0455]	[0.0044]	[0.0146]	[0.0092]	[0.0081]	[0.0116]
2) TTP Difference	-0.0011	-0.1010*	0.0014	-0.0087	-0.0131	-0.0086	0.0039
2) III Difference	[0.0081]	[0.0518]	[0.0056]	[0.0157]	[0.0082]	[0.0071]	[0.0126]
N	4,112	1,635	4,110	4,110	4,111	4,111	2,502
N Control Mean	4,112 0.4130	1,635		4,110 0.2132	4,111 0.9173	4,111 0.9380	2,502 0.0697
	0.4130	1.0827	0.0151	0.2132	0.9173	0.9380	0.0097
Round 2	0.0005	0.05554	0.0000	0.0004	0.0050***	0.0100**	0.0011
1) Average Treatment	-0.0095	-0.0757*	0.0030	0.0004	0.0252***	0.0190**	0.0011
	[0.0092]	[0.0448]	[0.0027]	[0.0148]	[0.0086]	[0.0075]	[0.0122]
2) TTP Difference	-0.0123	-0.0181	0.0013	-0.0161	$0.0122^{*}$	0.0038	0.0280**
	[0.0093]	[0.0495]	[0.0032]	[0.0150]	[0.0072]	[0.0066]	[0.0129]
V	4,236	1,801	4,234	4,234	4,236	4,236	2,572
Control Mean	0.4406	1.7338	0.0069	0.2153	0.9298	0.9452	0.0760
Round 3							
1) Average Treatment	-0.0108	-0.1010**	0.0011	0.0089	0.0241***	0.0190***	-0.0081
,	[0.0107]	[0.0429]	[0.0030]	[0.0137]	[0.0080]	[0.0069]	[0.0109]
2) TTP Difference	0.0001	-0.0134	-0.0005	0.0018	0.0025	-0.0023	0.0042
-,	[0.0103]	[0.0499]	[0.0032]	[0.0151]	[0.0075]	[0.0065]	[0.0127]
				4,220	4,220	4,220	2,563
N	4,220	1,932	4,220				

#### Table B.2: Short term effects by age and by region on the number of children, risk behaviors and expectations

		_		Working and looking	Formal=1	Hours per week	Log of monthly
	Working=1	Inactive=1	Unemployed = 1	for another job $=1$	(working=1)	(working=1)	salary (working=1)
(1) Average Treatment	0.0013	0.0032	-0.0032	0.0266	-0.0118	-0.5996	-0.0049
(1) Hierage Heatmont	[0.0168]	[0.0145]	[0.0122]	[0.0197]	[0.0221]	[0.9652]	[0.0409]
(2) TTP Difference	-0.0262	0.0061	0.0202	-0.0135	0.0158	-0.3000	-0.0065
(=) 111 Dimercinee	[0.0184]	[0.0166]	[0.0136]	[0.0239]	[0.0251]	[1.0684]	[0.0479]
Ν	3,951	3,948	3,948	2,425	2,425	2,426	2,214
Control Mean	0.6359	0.2242	0.1383	0.2648	0.3898	40.8401	8.4834
By Age		-					
Under 20 years old							
(1) Average Treatment	0.0112	-0.0015	-0.0070	0.0229	-0.0061	-2.5290*	-0.1162**
(-)8	[0.0235]	[0.0204]	[0.0181]	[0.0287]	[0.0315]	[1.3270]	[0.0564]
(2) TTP Difference	0.0013	-0.0219	0.0208	0.0176	0.0111	-1.7732	0.0168
(=) = = = = ===========================	[0.0259]	[0.0239]	[0.0193]	[0.0338]	[0.0357]	[1.4991]	[0.0684]
Ν	2,087	2,084	2,084	1,250	1,251	1,251	1,145
Control Mean	0.6150	0.2279	0.1541	0.2747	0.4053	43.3680	8.5528
More than 20 years old							
(1) Average Treatment	-0.0017	-0.0024	0.0041	0.0204	-0.0178	1.5716	0.1006
	[0.0234]	[0.0209]	[0.0174]	[0.0288]	[0.0331]	[1.4418]	[0.0623]
(2) TTP Difference	-0.0637**	$0.0406^{*}$	0.0230	-0.0464	-0.0024	0.7128	-0.0439
	[0.0289]	[0.0241]	[0.0199]	[0.0354]	[0.0368]	[1.6724]	[0.0692]
Ν	1,864	1,864	1,864	1,175	1,174	1,175	1,069
Control Mean	0.6586	0.2201	0.1213	0.2547	0.3740	38.2710	8.4128
By Location							
Sto. Domingo							
(1) Average Treatment	0.0077	0.0015	-0.0054	0.0411	-0.0013	-2.7546	0.0385
	[0.0341]	[0.0274]	[0.0257]	[0.0403]	[0.0392]	[1.9139]	[0.0772]
(2) TTP Difference	-0.0256	0.0337	-0.0080	-0.0680	0.0252	0.3832	0.0058
	[0.0358]	[0.0302]	[0.0277]	[0.0504]	[0.0491]	[2.1011]	[0.0952]
Ν	1,088	1,086	1,086	692	692	692	632
Control Mean	0.6401	0.2047	0.1513	0.3081	0.3886	40.1896	8.5043
Rest							
(1) Average Treatment	-0.0025	0.0035	-0.0006	0.0246	-0.0139	0.2681	-0.0155
	[0.0193]	[0.0171]	[0.0140]	[0.0227]	[0.0267]	[1.1136]	[0.0490]
(2) TTP Difference	-0.0287	-0.0035	0.0322**	0.0101	0.0100	-0.6519	-0.0169
× /	[0.0214]	[0.0197]	[0.0157]	[0.0269]	[0.0294]	[1.2598]	[0.0562]
Ν	2,863	2,862	2,862	1,733	1,733	1,734	1,582
Control Mean	0.6343	0.2317	0.1333	0.2477	0.3902	41.0976	8.4751

Table B.3: Medium term effects by age and by region on basic labor outcomes

	Desires to change job=1	Rejected a job offer=1	Log of expected salary for next job	Searching for work in a new area/sector=1	Employee=1	Self-employed=1	Employer=1	Domestic servant=1
(1) Average Treatment	-0.0358*	0.0280*	0.0071	-0.0563***	-0.0213	0.0256	0.0037	-0.0080
(1) Inverage Treatment	[0.0191]	[0.0158]	[0.0164]	[0.0154]	[0.0215]	[0.0191]	[0.0059]	[0.0133]
(2) TTP Difference	-0.0017	-0.0162	-0.0072	-0.0470***	0.0028	0.0128	0.0015	-0.0172
	[0.0218]	[0.0176]	[0.0175]	[0.0176]	[0.0254]	[0.0221]	[0.0071]	[0.0148]
Ν	2,426	3,852	3,733	3,849	2,240	2,240	2,240	2,240
Control Mean	0.7796	0.2746	9.3505	0.7776	0.6912	0.2044	0.0132	0.0912
By Age		0.2.7.00	0.0000		0.000		0.0000	0.000
Under 20 years old								
(1) Average Treatment	-0.0017	0.0246	0.0178	-0.0418**	0.0030	0.0126	-0.0048	-0.0108
() 0	[0.0295]	[0.0233]	[0.0225]	[0.0201]	[0.0285]	[0.0241]	[0.0060]	[0.0174]
(2) TTP Difference	0.0318	-0.0327	-0.0262	-0.0247	-0.0337	0.0309	0.0018	0.0011
	[0.0318]	[0.0252]	[0.0236]	[0.0237]	[0.0336]	[0.0285]	[0.0057]	[0.0202]
Ν	1,251	2,029	1,962	2,029	1,162	1,162	1,162	1,162
Control Mean	0.7547	0.2841	9.3369	0.7833	0.7312	0.1792	0.0087	0.0809
More than 20 years old								
(1) Average Treatment	-0.0606**	0.0261	-0.0003	-0.0689***	-0.0356	0.0321	0.0156	-0.0121
	[0.0274]	[0.0237]	[0.0261]	[0.0227]	[0.0354]	[0.0307]	[0.0112]	[0.0201]
(2) TTP Difference	-0.0398	-0.0065	0.0123	-0.0639**	0.0271	0.0064	0.0047	$-0.0382^{*}$
	[0.0315]	[0.0260]	[0.0268]	[0.0278]	[0.0411]	[0.0356]	[0.0141]	[0.0228]
Ν	1,175	1,823	1,771	1,820	1,078	1,078	1,078	1,078
Control Mean	0.8049	0.2643	9.3652	0.7714	0.6497	0.2305	0.0180	0.1018
By Location								
Sto. Domingo								
(1) Average Treatment	-0.0560	$0.0915^{***}$	$0.0663^{*}$	-0.0732**	-0.0150	0.0150	0.0077	-0.0077
	[0.0345]	[0.0282]	[0.0345]	[0.0294]	[0.0410]	[0.0359]	[0.0112]	[0.0248]
(2) TTP Difference	0.0065	-0.0191	0.0226	-0.0588*	-0.0133	0.0159	0.0094	-0.0119
	[0.0427]	[0.0356]	[0.0355]	[0.0337]	[0.0476]	[0.0400]	[0.0145]	[0.0244]
N	692	1,064	1,056	1,063	630	630	630	630
Control Mean	0.7867	0.2713	9.3842	0.7957	0.6927	0.2031	0.0104	0.0938
Rest								
(1) Average Treatment	-0.0294	0.0032	-0.0175	-0.0480***	-0.0167	0.0235	0.0003	-0.0071
	[0.0232]	[0.0191]	[0.0183]	[0.0180]	[0.0260]	[0.0230]	[0.0068]	[0.0160]
(2) TTP Difference	-0.0005	-0.0174	-0.0228	-0.0450**	0.0075	0.0103	-0.0011	-0.0166
	[0.0253]	[0.0204]	[0.0203]	[0.0206]	[0.0301]	[0.0266]	[0.0083]	[0.0185]
Ν	1,734	2,788	2,677	2,786	$1,\!610$	$1,\!610$	$1,\!610$	$1,\!610$
Control Mean	0.7767	0.2759	9.3369	0.7705	0.6906	0.2049	0.0143	0.0902

#### Table B.4: Medium term effects by age and by region on other labor outcomes

	Participation in an organization=1	Participation in a political organization=1	Participation in a religious organization=1	Has children=1	Number of children (for children>0)	Pregnant at time of survey=
(1) Average Treatment	$0.0277^{*}$	-0.0082	0.0336**	0.0107	-0.0860**	0.0035
	[0.0153]	[0.0097]	[0.0145]	[0.0151]	[0.0399]	[0.0122]
(2) TTP Difference	-0.0177	0.0084	-0.0193	0.0241	0.0094	-0.0264**
	[0.0180]	[0.0109]	[0.0164]	[0.0163]	[0.0418]	[0.0127]
Ν	3,987	3,849	3,850	3,845	1,451	2,335
Control Mean	0.3090	0.0855	0.1933	0.3736	1.4404	0.0627
By Age						
Under 20 years old						
(1) Average Treatment	$0.0402^{*}$	-0.0028	$0.0536^{***}$	0.0196	-0.0024	-0.0109
	[0.0214]	[0.0114]	[0.0199]	[0.0202]	[0.0540]	[0.0193]
(2) TTP Difference	-0.0450*	0.0042	-0.0485**	0.0418*	$0.1756^{***}$	-0.0303
	[0.0251]	[0.0136]	[0.0234]	[0.0223]	[0.0558]	[0.0194]
N	2,106	2,029	2,029	2,027	523	1,156
Control Mean	0.2801	0.0640	0.1675	0.2418	1.2449	0.0811
More than 20 years old						
(1) Average Treatment	0.0136	-0.0113	0.0135	0.0128	-0.0812	0.0109
	[0.0236]	[0.0164]	[0.0224]	[0.0234]	[0.0569]	[0.0147]
(2) TTP Difference	0.0065	0.0092	0.0122	0.0075	-0.0623	-0.0345**
	[0.0278]	[0.0182]	[0.0260]	[0.0243]	[0.0618]	[0.0175]
N	1,881	1,820	1,821	1,818	928	1,179
Control Mean	0.3402	0.1089	0.2214	0.5170	1.5398	0.0453
By Location						
Sto. Domingo						
(1) Average Treatment	0.0371	0.0109	0.0292	-0.0213	-0.1692*	-0.0277
	[0.0290]	[0.0183]	[0.0290]	[0.0299]	[0.0881]	[0.0240]
(2) TTP Difference	-0.0522	0.0009	-0.0429	0.0251	0.0530	-0.0041
	[0.0331]	[0.0221]	[0.0327]	[0.0308]	[0.0788]	[0.0235]
N	1,093	1,064	1,064	1,062	389	638
Control Mean	0.3176	0.0732	0.2256	0.3994	1.4351	0.0754
Rest						
(1) Average Treatment	0.0250	-0.0150	$0.0354^{**}$	0.0235	-0.0615	0.0133
	[0.0181]	[0.0115]	[0.0168]	[0.0178]	[0.0447]	[0.0142]
(2) TTP Difference	-0.0062	0.0098	-0.0103	0.0254	0.0018	-0.0333**
	[0.0216]	[0.0125]	[0.0190]	[0.0193]	[0.0492]	[0.0152]
N	2,894	2,785	2,786	2,783	1,062	1,697
Control Mean	0.3056	0.0904	0.1807	0.3635	1.4426	0.0575

Table B.5: Medium term effects by age and by region on participation and number of children

	Smokes regularly=1	Drinks alcohol=1	Tried drugs=1	Involved in traffic accident=1	Involved in fight in last year=1	Diagnosed with a sexually transmitted disease	Expectation of contracting AIDS	Expectation that friend/family member contract AIDS
(1) Average Treatment	0.0071	-0.0122	0.0008	-0.0064	0.0010	-0.0016	0.0010	0.0327
	[0.0078]	[0.0177]	[0.0043]	[0.0077]	[0.0094]	[0.0044]	[0.0158]	[0.0294]
(2) TTP Difference	0.0187**	0.0182	0.0037	-0.0065	-0.0094	0.0017	-0.0084	-0.0143
	[0.0089]	[0.0201]	[0.0045]	[0.0088]	[0.0108]	[0.0045]	[0.0164]	[0.0331]
Ν	່ 3,838 <sup>′</sup>	່3,838່	3,677	3,837	<b>່</b> 3,838 ໌	່ 3,837 ໌	3,843	3,840
Control Mean	0.0481	0.4768	0.0126	0.0515	0.0756	0.0146	1.1568	1.5948
By Age								
Under 20 years old								
(1) Average Treatment	0.0021	-0.0206	-0.0023	-0.0130	0.0060	-0.0037	0.0199	0.0459
	[0.0103]	[0.0243]	[0.0048]	[0.0120]	[0.0134]	[0.0055]	[0.0203]	[0.0424]
(2) TTP Difference	0.0178*	0.0012	-0.0001	-0.0163	-0.0122	-0.0009	0.0203	0.0099
	[0.0108]	[0.0270]	[0.0040]	[0.0125]	[0.0152]	[0.0045]	[0.0234]	[0.0472]
Ν	2,023	2,023	1,918	2,022	2,023	2,022	2,027	2,024
Control Mean	0.0445	0.5008	0.0105	0.0659	0.0791	0.0115	1.1349	1.5881
More than 20 years old								
(1) Average Treatment	0.0152	-0.0051	0.0074	-0.0002	-0.0076	-0.0003	-0.0270	0.0162
	[0.0123]	[0.0273]	[0.0075]	[0.0102]	[0.0138]	[0.0069]	[0.0245]	[0.0459]
(2) TTP Difference	0.0200	0.0427	0.0059	0.0065	0.0001	0.0047	-0.0356	-0.0221
	[0.0145]	[0.0296]	[0.0087]	[0.0117]	[0.0145]	[0.0087]	[0.0251]	[0.0500]
Ν	1,815	1,815	1,759	1,815	1,815	1,815	1,816	1,816
Control Mean	0.0521	0.4506	0.0148	0.0359	0.0718	0.0180	1.1807	1.6022
By Location								
Sto. Domingo								
(1) Average Treatment	$0.0199^{*}$	0.0024	-0.0016	-0.0083	$0.0292^{*}$	-0.0206*	0.0250	0.0582
	[0.0112]	[0.0335]	[0.0056]	[0.0119]	[0.0157]	[0.0108]	[0.0262]	[0.0546]
(2) TTP Difference	0.0011	-0.0010	0.0016	-0.0140	-0.0434*	0.0002	-0.0307	-0.0376
	[0.0160]	[0.0351]	[0.0067]	[0.0157]	[0.0224]	[0.0092]	[0.0330]	[0.0628]
Ν	1,059	1,059	1,019	1,058	1,059	1,058	1,061	1,060
Control Mean	0.0245	0.4049	0.0064	0.0399	0.0521	0.0307	1.1037	1.5382
Rest								
(1) Average Treatment	0.0029	-0.0149	0.0020	-0.0059	-0.0086	0.0056	-0.0079	0.0256
	[0.0100]	[0.0212]	[0.0055]	[0.0096]	[0.0115]	[0.0044]	[0.0196]	[0.0350]
(2) TTP Difference	0.0241**	0.0274	0.0039	-0.0043	0.0022	0.0029	-0.0024	-0.0121
	[0.0107]	[0.0242]	[0.0058]	[0.0105]	[0.0122]	[0.0052]	[0.0189]	[0.0394]
N	2,779	2,779	2,658	2,779	2,779	2,779	2,782	2,780
Control Mean	0.0573	0.5048	0.0150	0.0561	0.0847	0.0084	1.1776	1.6169

Table B.6: Medium term effects by age and by region on risk behaviors

	Self Esteem	Basic skills	Personal characteristics	Expected wealth position	Expectation of better neighborhood	Expectation of own business	Expectation of having desired job	Expectation of problems with family members
(1) Average Treatment	-0.0307	$0.0698^{**}$	$0.0627^{*}$	$0.0576^{*}$	0.0312	$0.0976^{**}$	$0.0576^{**}$	0.0730**
	[0.0366]	[0.0352]	[0.0368]	[0.0296]	[0.0346]	[0.0389]	[0.0293]	[0.0325]
(2) TTP Difference	0.0237	0.0173	0.0199	$0.0558^{*}$	0.0285	0.0146	$0.0505^{*}$	-0.0126
	[0.0403]	[0.0405]	[0.0409]	[0.0305]	[0.0361]	[0.0442]	[0.0294]	[0.0375]
N	3,825	3,826	3,823	3,842	3,844	3,844	3,843	3,844
Control Mean	0.0144	-0.0519	-0.0434	3.9332	3.8449	3.6787	4.1191	1.6101
By Age								
Under 20 years old								
(1) Average Treatment	-0.0451	0.0432	0.0682	0.0353	0.0070	0.0759	0.0654	0.0389
	[0.0536]	[0.0517]	[0.0536]	[0.0390]	[0.0480]	[0.0545]	[0.0408]	[0.0448]
(2) TTP Difference	0.0400	0.0286	0.0448	0.0511	0.0016	-0.0430	0.0114	-0.0003
	[0.0586]	[0.0570]	[0.0558]	[0.0411]	[0.0467]	[0.0585]	[0.0397]	[0.0520]
N	2,018	2,019	2,016	2,026	2,027	2,027	2,027	2,027
Control Mean	0.0149	-0.0586	-0.0380	3.9803	3.8997	3.6447	4.1497	1.6711
More than 20 years old								
(1) Average Treatment	-0.0015	$0.1193^{**}$	0.0329	$0.0861^{*}$	0.0715	$0.1383^{**}$	0.0488	$0.1076^{**}$
	[0.0488]	[0.0512]	[0.0547]	[0.0456]	[0.0511]	[0.0559]	[0.0463]	[0.0444]
(2) TTP Difference	0.0236	0.0014	-0.0273	0.0584	0.0659	0.0759	$0.0920^{*}$	-0.0385
	[0.0604]	[0.0597]	[0.0600]	[0.0472]	[0.0531]	[0.0648]	[0.0493]	[0.0572]
N	1,807	1,807	1,807	1,816	1,817	1,817	1,816	1,817
Control Mean	0.0138	-0.0446	-0.0493	3.8819	3.7853	3.7156	4.0859	1.5438
By Location								
Sto. Domingo								
(1) Average Treatment	0.0086	0.0256	0.1002	$0.0974^{*}$	0.0859	0.0718	0.0768	$0.1167^{**}$
	[0.0730]	[0.0669]	[0.0643]	[0.0575]	[0.0657]	[0.0722]	[0.0547]	[0.0554]
(2) TTP Difference	-0.0445	-0.0387	-0.0365	0.0450	0.0163	-0.0823	0.0305	-0.1187
	[0.0781]	[0.0735]	[0.0777]	[0.0580]	[0.0603]	[0.0752]	[0.0571]	[0.0771]
Ν	1,054	1,054	1,054	1,061	1,061	1,061	1,061	1,061
Control Mean	0.0404	0.0591	0.0102	3.9238	3.8811	3.7287	4.1677	1.5640
Rest								
(1) Average Treatment	-0.0458	$0.0954^{**}$	0.0517	0.0425	0.0054	0.1018**	0.0515	0.0587
	[0.0426]	[0.0416]	[0.0451]	[0.0345]	[0.0408]	[0.0466]	[0.0350]	[0.0396]
(2) TTP Difference	0.0436	0.0387	0.0401	0.0567	0.0318	0.0494	0.0529	0.0209
	[0.0468]	[0.0485]	[0.0484]	[0.0359]	[0.0443]	[0.0533]	[0.0348]	[0.0426]
N	2,771	2,772	2,769	2,781	2,783	2,783	2,782	2,783
Control Mean	0.0042	-0.0953	-0.0644	3.9368	3.8308	3.6591	4.1001	1.6281

Table B.7: Med	1• / m /	. 1	1 1	
	1111m torm officer	s nv acc an	a ny rogion o	n ovnocrations
$\mathbf{T}$		s by age an	u by region o	II CAPCULLIOID

C Appendix: Short Term Effects by Round of the Telephone Survey

	World m - 1	Inactive=1	Un open losse d 1	Working and looking	Hours per week	Log of monthly	Satisfied
	Working=1	mactive=1	Unemployed=1	for another job $=1$	(working=1)	salary (working $=1$ )	with job=1
(1) Average Treatment	-0.0072	-0.0237	$0.0309^{*}$	0.0084	-0.0951	-0.0445	$0.0568^{*}$
	[0.0154]	[0.0173]	[0.0158]	[0.0311]	[1.2937]	[0.0484]	[0.0332]
(2) TTP Difference	$-0.0285^{*}$	0.0273	0.0009	-0.0032	-0.6319	0.0042	-0.0003
	[0.0167]	[0.0188]	[0.0181]	[0.0367]	[1.3895]	[0.0565]	[0.0398]
N	4,116	4,115	4,115	1,055	1,088	994	1,056
Control Mean	0.2669	0.4543	0.2788	0.2597	41.3403	8.6025	0.5595
By Sex							
Female							
(1) Average Treatment	-0.0010	-0.0209	0.0217	0.0043	1.7298	-0.0306	0.0607
	[0.0177]	[0.0239]	[0.0218]	[0.0555]	[2.1770]	[0.0842]	[0.0586]
(2) TTP Difference	-0.0116	0.0095	0.0018	-0.0121	-0.9450	0.0960	0.0010
	[0.0199]	[0.0247]	[0.0232]	[0.0598]	[2.1610]	[0.0923]	[0.0647]
N	2,509	2,508	2,508	448	468	425	448
Control Mean	0.1845	0.5348	0.2807	0.2391	40.0290	8.3857	0.5217
Male							
(1) Average Treatment	-0.0063	-0.0350	0.0413	0.0182	-0.6967	-0.1052	0.0511
	[0.0269]	[0.0255]	[0.0260]	[0.0449]	[1.8179]	[0.0689]	[0.0465]
(2) TTP Difference	-0.0564*	$0.0551^{*}$	0.0014	-0.0256	-1.4857	-0.0643	0.0018
	[0.0320]	[0.0319]	[0.0316]	[0.0539]	[2.0185]	[0.0811]	[0.0546]
N	1,607	1,607	1,607	607	620	569	608
Control Mean	0.3875	0.3366	0.2759	0.2741	42.2589	8.7536	0.5859

Table C.1: Short term effects on basic employment outcomes - telephone survey, first round

	Working=1	Inactive=1	Unemployed=1	Working and looking	Hours per week	Log of monthly	Satisfied
	working=1	Inactive=1	Unemployed=1	for another job $=1$	(working=1)	salary (working $=1$ )	with job=1
(1) Average Treatment	0.0108	-0.0440***	$0.0332^{**}$	0.0084	1.0349	0.0213	0.0188
	[0.0162]	[0.0161]	[0.0150]	[0.0282]	[1.0743]	[0.0365]	[0.0304]
(2) TTP Difference	-0.0234	-0.0122	0.0357**	-0.0376	-0.3706	-0.0168	-0.0154
	[0.0173]	[0.0184]	[0.0173]	[0.0290]	[1.1082]	[0.0431]	[0.0330]
N	4,239	4,238	4,238	1,343	1,343	1,285	1,343
Control Mean	0.3136	0.4515	0.2350	0.2519	43.0149	8.6444	0.5235
By Sex							
Female							
(1) Average Treatment	0.0214	-0.0595***	$0.0380^{*}$	-0.0195	1.1982	0.0391	0.0280
	[0.0192]	[0.0219]	[0.0198]	[0.0432]	[1.7410]	[0.0561]	[0.0502]
(2) TTP Difference	-0.0008	-0.0300	0.0309	0.0118	-2.1012	-0.0400	0.0354
	[0.0210]	[0.0246]	[0.0222]	[0.0448]	[1.8783]	[0.0661]	[0.0517]
N	2,576	2,575	2,575	580	584	562	580
Control Mean	0.2105	0.5608	0.2288	0.2313	40.4969	8.4602	0.5250
Male							
(1) Average Treatment	0.0009	-0.0211	0.0202	0.0448	0.6811	-0.0079	0.0035
	[0.0271]	[0.0245]	[0.0241]	[0.0421]	[1.4606]	[0.0478]	[0.0420]
(2) TTP Difference	-0.0635**	0.0102	0.0533*	-0.0719	1.0010	0.0104	-0.0404
	[0.0310]	[0.0288]	[0.0272]	[0.0452]	[1.6221]	[0.0621]	[0.0500]
N	1,663	1,663	1,663	763	759	723	763
Control Mean	0.4615	0.2946	0.2439	0.2653	44.6971	8.7675	0.5224

Table C.2: Short term effects on basic employment outcomes - telephone survey, second round

	Working=1	Inactive=1	Un anon large d 1	Working and looking	Hours per week	Log of monthly	Satisfied
	working=1	mactive=1	Unemployed=1	for another job $=1$	(working=1)	salary (working $=1$ )	with job=1
(1) Average Treatment	$0.0282^{*}$	-0.0122	-0.0160	0.0291	0.4225	0.0619	0.0610**
	[0.0158]	[0.0158]	[0.0150]	[0.0266]	[1.0623]	[0.0380]	[0.0304]
(2) TTP Difference	-0.0190	0.0137	0.0053	-0.0310	1.7453	0.0250	0.0288
	[0.0176]	[0.0180]	[0.0184]	[0.0294]	[1.1535]	[0.0388]	[0.0349]
N	4,221	4,221	4,221	1,479	1,487	1,408	1,479
Control Mean	0.3367	0.3733	0.2900	0.2494	42.5770	8.6324	0.5196
By Sex							
Female							
(1) Average Treatment	$0.0420^{**}$	-0.0138	-0.0283	-0.0287	-0.4051	0.0790	$0.0920^{*}$
	[0.0190]	[0.0219]	[0.0214]	[0.0437]	[1.6962]	[0.0687]	[0.0528]
(2) TTP Difference	0.0015	0.0163	-0.0178	-0.0010	-0.6811	-0.0092	0.0386
	[0.0212]	[0.0241]	[0.0234]	[0.0434]	[1.5988]	[0.0612]	[0.0514]
N	2,566	2,566	2,566	655	663	634	655
Control Mean	0.2302	0.4537	0.3161	0.2644	41.3864	8.4547	0.4598
Male							
(1) Average Treatment	0.0226	-0.0223	-0.0003	0.0485	1.9358	0.0436	0.0343
	[0.0292]	[0.0257]	[0.0244]	[0.0376]	[1.4723]	[0.0507]	[0.0398]
(2) TTP Difference	-0.0447	0.0013	0.0434	-0.0372	$3.6765^{**}$	0.0525	0.0274
	[0.0319]	[0.0272]	[0.0282]	[0.0430]	[1.7467]	[0.0515]	[0.0469]
N	1,655	1,655	1,655	824	824	774	824
Control Mean	0.4887	0.2585	0.2528	0.2394	43.3861	8.7580	0.5598

Table C.3: Short term effects on basic employment outcomes - telephone survey, third round

	Working=1	Inactive=1	Unemployed=1	Working and looking	Hours per week	Log of monthly	Satisfied
	-		1 0	for another job $=1$	(working=1)	salary (working=1)	with job=1
(1) Average Treatment	0.0110	-0.0269**	0.0158	0.0191	0.4329	0.0145	$0.0452^{**}$
	[0.0115]	[0.0115]	[0.0104]	[0.0172]	[0.6786]	[0.0261]	[0.0197]
(2) TTP Difference	-0.0235*	0.0094	0.0141	-0.0285	0.5550	0.0153	0.0108
	[0.0123]	[0.0126]	[0.0117]	[0.0184]	[0.7506]	[0.0275]	[0.0230]
Ν	12,576	12,574	12,574	3,877	3,918	$3,\!687$	3,878
Control Mean	0.3060	0.4262	0.2678	0.2532	42.3737	8.6280	0.5324
By Sex							
Female							
(1) Average Treatment	0.0213	-0.0319**	0.0106	-0.0013	0.6006	0.0312	0.0506
	[0.0137]	[0.0158]	[0.0144]	[0.0263]	[1.0888]	[0.0407]	[0.0311]
(2) TTP Difference	-0.0037	-0.0009	0.0046	0.0009	-0.8050	0.0080	0.0150
	[0.0151]	[0.0169]	[0.0151]	[0.0269]	[1.0794]	[0.0419]	[0.0343]
Ν	7,651	7,649	7,649	1,683	1,715	1,621	1,683
Control Mean	0.2085	0.5165	0.2750	0.2458	40.6905	8.4367	0.5000
Male							
(1) Average Treatment	0.0062	-0.0255	0.0193	0.0370	0.5205	-0.0218	0.0311
	[0.0196]	[0.0172]	[0.0163]	[0.0250]	[0.9190]	[0.0344]	[0.0262]
(2) TTP Difference	-0.0550**	0.0221	$0.0329^{*}$	-0.0467*	1.3802	0.0118	0.0011
	[0.0217]	[0.0201]	[0.0172]	[0.0268]	[1.0569]	[0.0382]	[0.0305]
Ν	4,925	4,925	4,925	2,194	2,203	2,066	2,195
Control Mean	0.4466	0.2961	0.2573	0.2582	43.5208	8.7600	0.5541

Table C.4: Short term effects on basic employment outcomes, telephone survey rounds 1-3 (pooled)

Note: Based on data from the PJyE short term evaluation telephone survey. Regressions include controls for baseline characteristics (sex, age, level of education, civil status, children, number of persons in household, prior experience, program cohort, province of residence and COS in which registered) and controls for each of the rounds of the telephone survey. Average Treatment refers to the difference in outcomes between the two treatment groups and the control group. TTP Difference refers to the difference in outcomes between the two treatment groups and the control group. TTP Difference refers to the difference in outcomes between the two treatment groups and the CDB ( $t_1$ ) and for DCB ( $t_2$ ), the variable for Average Treatment coefficient is  $t_1 + t_2$  and the variable for the TTP Difference is ( $t_1 - t_2$ )/2. Standard errors clustered by course. \* p<0.1; \*\* p<0.05; \*\*\* p<0.01

	Has children=1	Number of children (for children>0)	Smoked last week=1	Drank alcohol last week=1	Expectation of improving employment conditions=1	Expectation of improving life conditions=1	Pregnant at time of survey=3
(1) Average Treatment	-0.0065	-0.0326	0.0070	-0.0095	0.0378***	$0.0219^{***}$	
	[0.0072]	[0.0455]	[0.0044]	[0.0146]	[0.0092]	[0.0081]	
(2) TTP Difference	-0.0011	-0.1010*	0.0014	-0.0087	-0.0131	-0.0086	
	[0.0081]	[0.0518]	[0.0056]	[0.0157]	[0.0082]	[0.0071]	
N	4,112	1,635	4,110	4,110	4,111	4,111	
Control Mean	0.4130	1.6827	0.0151	0.2132	0.9173	0.9380	
By Sex							
Female							
(1) Average Treatment	-0.0139	-0.0341	0.0004	-0.0060	0.0561***	0.0100	-0.0078
	[0.0094]	[0.0507]	[0.0061]	[0.0166]	[0.0122]	[0.0096]	[0.0116]
(2) TTP Difference	0.0020	-0.0881	-0.0049	-0.0107	-0.0093	-0.0048	0.0039
	[0.0100]	[0.0579]	[0.0069]	[0.0179]	[0.0110]	[0.0098]	[0.0126]
Ν	2,506	1,386	2,504	2,504	2,506	2,506	2,502
Control Mean	0.5829	1.7339	0.0174	0.1676	0.9037	0.9492	0.0697
Male							
(1) Average Treatment	0.0064	0.0194	$0.0151^{**}$	-0.0141	0.0062	$0.0367^{**}$	
	[0.0124]	[0.1318]	[0.0070]	[0.0267]	[0.0147]	[0.0148]	
(2) TTP Difference	-0.0065	-0.3095**	0.0130	-0.0184	-0.0186	-0.0161	
	[0.0144]	[0.1406]	[0.0103]	[0.0300]	[0.0133]	[0.0118]	
N	1,606	249	1,606	1,606	1,605	1,605	
Control Mean	0.1644	1.4167	0.0117	0.2798	0.9373	0.9216	

Table C.5: Short term effects on the number of children, risk behaviors and expectations - telephone survey, first round

	Has children=1	Number of children (for children>0)	Smoked last week=1	Drank alcohol last week=1	Expectation of improving employment conditions=1	Expectation of improving life conditions=1	Pregnant at time of survey=1
(1) Average Treatment	-0.0095	-0.0757*	0.0030	0.0004	0.0252***	$0.0190^{**}$	
	[0.0092]	[0.0448]	[0.0027]	[0.0148]	[0.0086]	[0.0075]	
(2) TTP Difference	-0.0123	-0.0181	0.0013	-0.0161	$0.0122^{*}$	0.0038	
	[0.0093]	[0.0495]	[0.0032]	[0.0150]	[0.0072]	[0.0066]	
N	4,236	1,801	4,234	4,234	4,236	4,236	
Control Mean	0.4406	1.7338	0.0069	0.2153	0.9298	0.9452	
By Sex							
Female							
(1) Average Treatment	-0.0203*	-0.0815	0.0008	0.0011	0.0300***	0.0246**	0.0011
	[0.0117]	[0.0512]	[0.0031]	[0.0180]	[0.0113]	[0.0096]	[0.0122]
(2) TTP Difference	-0.0164	0.0015	0.0033	-0.0282	0.0127	0.0052	0.0280**
	[0.0114]	[0.0559]	[0.0032]	[0.0194]	[0.0092]	[0.0084]	[0.0129]
Ν	2,574	1,492	2,573	2,573	2,574	2,574	2,572
Control Mean	0.6139	1.8017	0.0039	0.1754	0.9280	0.9450	0.0760
Male							
(1) Average Treatment	0.0053	0.0246	0.0058	0.0030	0.0143	0.0126	
	[0.0154]	[0.1048]	[0.0052]	[0.0250]	[0.0139]	[0.0120]	
(2) TTP Difference	-0.0072	-0.1466	0.0016	-0.0096	0.0124	-0.0016	
	[0.0166]	[0.1086]	[0.0068]	[0.0274]	[0.0125]	[0.0119]	
N	1,662	309	1,661	1,661	1,662	1,662	
Control Mean	0.1917	1.4216	0.0113	0.2726	0.9323	0.9455	

Table C.6: Short term effects on the number of children, risk behaviors and expectations - telephone survey, second round

	Has children=1	Number of children (for children>0)	Smoked last week=1	Drank alcohol last week=1	Expectation of improving employment conditions=1	Expectation of improving life conditions=1	Pregnant at time of survey=
(1) Average Treatment	-0.0108	-0.1010**	0.0011	0.0089	0.0241***	0.0190***	
	[0.0107]	[0.0429]	[0.0030]	[0.0137]	[0.0080]	[0.0069]	
(2) TTP Difference	0.0001	-0.0134	-0.0005	0.0018	0.0025	-0.0023	
	[0.0103]	[0.0499]	[0.0032]	[0.0151]	[0.0075]	[0.0065]	
N	4,220	1,932	4,220	4,220	4,220	4,220	
Control Mean	0.4736	1.7701	0.0070	0.2045	0.9316	0.9502	
By Sex							
Female							
(1) Average Treatment	-0.0114	-0.0881*	-0.0014	0.0146	0.0332***	0.0324***	-0.0081
	[0.0139]	[0.0487]	[0.0033]	[0.0169]	[0.0108]	[0.0091]	[0.0109]
(2) TTP Difference	-0.0035	-0.0269	-0.0006	-0.0178	0.0024	-0.0041	0.0042
	[0.0132]	[0.0573]	[0.0034]	[0.0183]	[0.0098]	[0.0077]	[0.0127]
N	2,565	1,576	2,565	2,565	2,565	2,565	2,563
Control Mean	0.6415	1.8515	0.0053	0.1640	0.9272	0.9418	0.0689
Male							
(1) Average Treatment	-0.0127	-0.0500	0.0043	0.0123	0.0114	-0.0025	
	[0.0175]	[0.0828]	[0.0060]	[0.0237]	[0.0123]	[0.0111]	
(2) TTP Difference	0.0037	0.0138	0.0016	0.0380	-0.0006	-0.0050	
	[0.0188]	[0.1000]	[0.0061]	[0.0282]	[0.0135]	[0.0119]	
N	1,655	356	1,655	1,655	1,655	1,655	
Control Mean	0.2340	1.4516	0.0094	0.2623	0.9377	0.9623	

Table C.7: Short term effects on the number of children, risk behaviors and expectations - telephone survey, third round

	Has children=1	Number of children (for children>0)	Smoked last week=1	Drank alcohol last week=1	Expectation of improving employment conditions=1	Expectation of improving life conditions=1	Pregnant at time of survey=1
(1) Average Treatment	-0.0090	-0.0724*	0.0038	0.0002	0.0288***	0.0199***	
	[0.0075]	[0.0402]	[0.0024]	[0.0102]	[0.0057]	[0.0050]	
(2) TTP Difference	-0.0047	-0.0419	0.0005	-0.0074	0.0008	-0.0023	
	[0.0077]	[0.0459]	[0.0029]	[0.0107]	[0.0049]	[0.0046]	
N	12,568	5,368	12,564	12,564	12,567	12,567	
Control Mean	0.4426	1.7312	0.0096	0.2110	0.9263	0.9445	
By Sex							
Female							
(1) Average Treatment	-0.0155	-0.0682	-0.0000	0.0032	0.0394***	$0.0224^{***}$	-0.0047
	[0.0096]	[0.0458]	[0.0027]	[0.0121]	[0.0075]	[0.0062]	[0.0068]
(2) TTP Difference	-0.0063	-0.0378	-0.0008	-0.0187	0.0020	-0.0015	$0.0125^{*}$
	[0.0096]	[0.0521]	[0.0033]	[0.0129]	[0.0065]	[0.0057]	[0.0070]
N	7,645	4,454	7,642	7,642	7,645	7,645	7,637
Control Mean	0.6129	1.7978	0.0088	0.1690	0.9198	0.9453	0.0716
Male							
(1) Average Treatment	0.0000	-0.0215	$0.0087^{*}$	-0.0001	0.0110	$0.0156^{*}$	
	[0.0123]	[0.0778]	[0.0046]	[0.0175]	[0.0087]	[0.0083]	
(2) TTP Difference	-0.0035	-0.1028	0.0054	0.0041	-0.0025	-0.0074	
	[0.0134]	[0.0822]	[0.0054]	[0.0194]	[0.0081]	[0.0080]	
Ν	4,923	914	4,922	4,922	4,922	4,922	
Control Mean	0.1971	1.4323	0.0108	0.2715	0.9358	0.9434	

Table C.8: Short term effects on the number of children, risk behaviors and expectations, telephone survey rounds 1-3 (pooled)

Note: Based on data from the PJyE short term evaluation telephone survey. Regressions include controls for baseline characteristics (sex, age, level of education, civil status, children, number of persons in household, prior experience, program cohort, province of residence and COS in which registered) and controls for each of the rounds of the telephone survey. Average Treatment refers to the difference in outcomes between the two treatment groups and the control group. TTP Difference refers to the difference in outcomes between the two treatment groups and the control group. TTP Difference refers to the difference in outcomes between the two treatment groups and the control group. TTP+DCB ( $t_1$ ) and for DCB ( $t_2$ ), the variable for Average Treatment coefficient is  $t_1 + t_2$  and the variable for the TTP Difference is ( $t_1 - t_2$ )/2. Standard errors clustered by course. \* p<0.1; \*\* p<0.05; \*\*\* p<0.01

## D Appendix: Alternative Presentation of PJyE Effects by Type of Treatment Group

Complementing the analysis of the medium term effects of PJyE undertaken in Section 5, this appendix presents graphically the estimated coefficients in these tables, and adds the regression coefficients of an alternative model (in tables and in figures). In that model, each outcome variable is regressed on two binary variables and the same baseline controls included in the original Tables. One of those binary variables identifies the group of selected beneficiaries for TTP+DCB version of the program  $(t_1)$  and the other variable identifies the group of beneficiaries selected for the DCB only version  $(t_2)$ .

	Worlding 1	Inactive=1	Unamenlawad 1	Working and looking	Formal=1	Hours per week	Log of monthly
	Working=1	Inactive=1	Unemployed=1	for another job $=1$	(working=1)	(working=1)	salary (working=1)
(1) TTP+DCB	-0.0118	0.0062	0.0069	0.0199	-0.0039	-0.7496	-0.0081
	[0.0198]	[0.0169]	[0.0139]	[0.0230]	[0.0254]	[1.0975]	[0.0466]
(2) DCB only	0.0144	0.0002	-0.0133	0.0333	-0.0197	-0.4496	-0.0016
	[0.0185]	[0.0164]	[0.0141]	[0.0230]	[0.0254]	[1.1088]	[0.0481]
Ν	3,951	3,948	3,948	2,425	2,425	2,426	2,214
Control Mean	0.6359	0.2242	0.1383	0.2648	0.3898	40.8401	8.4834
By Sex							
Female							
(1) TTP+DCB	-0.0136	0.0076	0.0082	-0.0443	0.0341	-0.7529	0.0852
	[0.0288]	[0.0249]	[0.0198]	[0.0342]	[0.0346]	[1.6065]	[0.0754]
(2) DCB only	0.0081	0.0124	-0.0183	0.0032	0.0366	-0.8529	0.0117
	[0.0270]	[0.0251]	[0.0190]	[0.0341]	[0.0336]	[1.6471]	[0.0779]
Ν	2,442	2,439	2,439	1,221	1,220	1,221	1,084
Control Mean	0.5214	0.3125	0.1639	0.3003	0.3113	36.5565	8.2200
Male							
(1) TTP+DCB	-0.0009	0.0011	-0.0003	0.0815**	-0.0447	-0.3466	-0.0741
	[0.0250]	[0.0188]	[0.0192]	[0.0330]	[0.0365]	[1.5569]	[0.0608]
(2) DCB only	0.0213	-0.0160	-0.0053	0.0516	-0.0766**	0.1244	0.0177
	[0.0253]	[0.0182]	[0.0208]	[0.0332]	[0.0377]	[1.5323]	[0.0580]
Ν	1,509	1,509	1,509	1,204	1,205	1,205	1,130
Control Mean	0.8083	0.0917	0.1000	0.2310	0.4646	44.9213	8.7230

Table D.1: Medium term effects on basic labor outcomes (by treatment group)

			T C I	<u> </u>				
	Desires to	Rejected a job	Log of expected	Searching for work				Domestic
	change job=1	offer=1	salary for	in a new	Employee = 1	Self-employed= $1$	Employer=1	servant =
(.)			next job	area/sector=1				
(1) $TTP+DCB$	-0.0367*	0.0199	0.0035	-0.0798***	-0.0199	0.0321	0.0044	-0.0166
	[0.0221]	[0.0176]	[0.0186]	[0.0180]	[0.0252]	[0.0224]	[0.0066]	[0.0147]
(2) DCB only	-0.0349	0.0361*	0.0107	-0.0328*	-0.0227	0.0192	0.0029	0.0006
	[0.0219]	[0.0185]	[0.0184]	[0.0175]	[0.0247]	[0.0217]	[0.0071]	[0.0157]
Ν	2,426	3,852	3,733	3,849	2,240	2,240	2,240	2,240
Control Mean	0.7796	0.2746	9.3505	0.7776	0.6912	0.2044	0.0132	0.0912
By Sex								
Female								
(1) TTP+DCB	-0.0563*	$0.0393^{*}$	$0.0456^{*}$	-0.0704***	-0.0084	0.0376	0.0084	-0.0376
	[0.0321]	[0.0222]	[0.0237]	[0.0243]	[0.0384]	[0.0337]	[0.0089]	[0.0274]
(2) DCB only	-0.0478	0.0489**	0.0140	-0.0300	-0.0050	0.0162	0.0037	-0.0149
	[0.0309]	[0.0240]	[0.0232]	[0.0235]	[0.0380]	[0.0326]	[0.0085]	[0.0291]
Ν	1,221	2,372	2,314	2,371	1,121	1,121	1,121	1,121
Control Mean	0.8182	0.2679	9.2268	0.7421	0.6426	0.1892	0.0060	0.1622
Male								
(1) TTP+DCB	-0.0112	-0.0153	-0.0753**	-0.0887***	-0.0187	0.0060	-0.0006	0.0134
	[0.0345]	[0.0308]	[0.0316]	[0.0269]	[0.0343]	[0.0315]	[0.0108]	[0.0126]
(2) DCB only	-0.0166	0.0261	-0.0036	-0.0357	-0.0262	0.0122	0.0034	0.0105
., .	[0.0350]	[0.0327]	[0.0292]	[0.0262]	[0.0324]	[0.0308]	[0.0118]	[0.0130]
Ν	1,205	1,480	1,419	1,478	1,119	1,119	1,119	1,119
Control Mean	0.7428	0.2845	9.5383	0.8301	0.7378	0.2190	0.0202	0.0231

Table D.2: Medium term effects on other labor outcomes

	Participation in an organization=1	Participation in a political organization=1	Participation in a religious organization=1	Has children=1	Number of children (for children>0)	Pregnant at time of survey=1
(1) TTP+DCB	0.0188	-0.0040	0.0239	0.0227	-0.0813*	-0.0097
	[0.0171]	[0.0114]	[0.0159]	[0.0166]	[0.0438]	[0.0128]
(2) DCB only	$0.0366^{**}$	-0.0124	$0.0432^{**}$	-0.0014	-0.0907*	0.0167
	[0.0184]	[0.0109]	[0.0174]	[0.0177]	[0.0462]	[0.0147]
Ν	3,987	3,849	3,850	3,845	$1,\!451$	2,335
Control Mean	0.3090	0.0855	0.1933	0.3736	1.4404	0.0627
By Sex						
Female						
(1) TTP+DCB	0.0278	-0.0013	0.0204	$0.0438^{*}$	-0.0715	-0.0097
	[0.0219]	[0.0125]	[0.0208]	[0.0227]	[0.0532]	[0.0128]
(2) DCB only	0.0323	0.0094	0.0377	0.0196	-0.0843	0.0167
	[0.0241]	[0.0132]	[0.0233]	[0.0236]	[0.0542]	[0.0147]
Ν	2,448	2,371	2,371	2,369	1,169	2,335
Control Mean	0.2690	0.0602	0.2092	0.4907	1.4942	0.0627
Male						
(1) TTP+DCB	-0.0029	-0.0093	0.0226	-0.0026	-0.0941	-0.0097
	[0.0294]	[0.0220]	[0.0264]	[0.0228]	[0.0908]	[0.0128]
(2) DCB only	0.0455	-0.0488***	0.0491*	-0.0318	-0.0431	0.0167
	[0.0317]	[0.0186]	[0.0272]	[0.0256]	[0.0901]	[0.0147]
Ν	1,539	1,478	1,479	1,476	282	2,335
Control Mean	0.3679	0.1231	0.1699	0.2000	1.2447	0.0627

Table D.3: Medium term effects on participation and number of children (by treatment group)

	Smokes regularly=1	Drinks alcohol=1	Tried drugs=1	Involved in traffic accident=1	Involved in fight in last year=1	Diagnosed with a sexually transmitted disease	Expectation of contracting AIDS	Expectation that friend/family member contracts AIDS
(1) $TTP+DCB$	$0.0164^{*}$	-0.0031	0.0026	-0.0096	-0.0037	-0.0007	-0.0032	0.0256
	[0.0093]	[0.0205]	[0.0050]	[0.0088]	[0.0104]	[0.0049]	[0.0173]	[0.0338]
(2) DCB only	-0.0023	-0.0213	-0.0011	-0.0031	0.0057	-0.0024	0.0052	0.0399
	[0.0087]	[0.0202]	[0.0047]	[0.0089]	[0.0113]	[0.0049]	[0.0184]	[0.0337]
Ν	3,838	3,838	$3,\!677$	$3,\!837$	3,838	$3,\!837$	$3,\!843$	$3,\!840$
Control Mean	0.0481	0.4768	0.0126	0.0515	0.0756	0.0146	1.1568	1.5948
By Sex								
Female								
(1) $TTP+DCB$	0.0066	-0.0196	-0.0021	-0.0004	-0.0083	-0.0035	-0.0144	-0.0608
	[0.0093]	[0.0266]	[0.0039]	[0.0068]	[0.0127]	[0.0072]	[0.0230]	[0.0445]
(2) DCB only	-0.0092	-0.0025	-0.0044	0.0011	0.0040	-0.0078	0.0004	-0.0134
	[0.0082]	[0.0252]	[0.0040]	[0.0075]	[0.0135]	[0.0070]	[0.0249]	[0.0454]
Ν	2,363	2,363	2,319	2,362	2,363	2,363	2,368	2,367
Control Mean	0.0302	0.4129	0.0059	0.0201	0.0647	0.0201	1.1506	1.6279
Male								
(1) TTP+DCB	$0.0363^{*}$	0.0312	0.0147	-0.0148	0.0062	0.0034	0.0166	0.1276**
	[0.0189]	[0.0346]	[0.0117]	[0.0198]	[0.0191]	[0.0059]	[0.0270]	[0.0522]
(2) DCB only	0.0070	-0.0426	0.0049	-0.0080	0.0082	0.0077	0.0146	$0.1498^{***}$
	[0.0189]	[0.0338]	[0.0118]	[0.0199]	[0.0207]	[0.0066]	[0.0271]	[0.0553]
Ν	1,475	1,475	1,358	1,475	1,475	1,474	1,475	1,473
Control Mean	0.0746	0.5714	0.0234	0.0981	0.0917	0.0064	1.1660	1.5458

Table D.4: Medium term effects on risk behavior (by treatment group)

	Self Esteem	Basic skills	Personal characteristics	Expected wealth position	Expectation of better neighborhood	Expectation of own business	Expectation of having desired job	Expectations of problems with family members
(1) TTP+DCB	-0.0188	$0.0785^{*}$	0.0727*	$0.0855^{***}$	0.0455	0.1048**	0.0829***	$0.0667^{*}$
	[0.0415]	[0.0401]	[0.0409]	[0.0329]	[0.0381]	[0.0437]	[0.0318]	[0.0356]
(2) DCB only	-0.0426	0.0612	0.0527	0.0297	0.0169	0.0903**	0.0323	0.0793**
	[0.0420]	[0.0411]	[0.0433]	[0.0336]	[0.0398]	[0.0458]	[0.0337]	[0.0394]
Ν	3,825	3,826	3,823	$3,\!842$	3,844	$3,\!844$	$3,\!843$	$3,\!844$
Control Mean	0.0144	-0.0519	-0.0434	3.9332	3.8449	3.6787	4.1191	1.6101
By Sex								
Female								
(1) TTP+DCB	0.0420	0.0870	0.0940*	0.0928**	$0.1125^{**}$	$0.1225^{**}$	0.1008**	-0.0007
	[0.0499]	[0.0539]	[0.0541]	[0.0426]	[0.0495]	[0.0585]	[0.0400]	[0.0472]
(2) DCB only	-0.0398	0.0767	0.0584	0.0012	0.0157	0.0551	0.0545	0.0780
	[0.0500]	[0.0526]	[0.0589]	[0.0445]	[0.0527]	[0.0596]	[0.0431]	[0.0532]
Ν	2,357	2,358	2,355	2,367	2,369	2,369	2,368	2,369
Control Mean	0.0268	-0.1236	-0.1161	3.9584	3.8235	3.6485	4.1076	1.6327
Male								
(1) $TTP+DCB$	-0.1208	0.0652	0.0300	0.0830	-0.0635	0.0339	0.0583	0.1395**
	[0.0773]	[0.0615]	[0.0650]	[0.0548]	[0.0624]	[0.0688]	[0.0545]	[0.0599]
(2) DCB only	-0.0375	0.0490	0.0399	0.0756	0.0306	$0.1559^{**}$	0.0120	$0.0985^{*}$
	[0.0791]	[0.0647]	[0.0677]	[0.0547]	[0.0618]	[0.0705]	[0.0556]	[0.0554]
Ν	1,468	1,468	1,468	1,475	1,475	1,475	1,475	1,475
Control Mean	-0.0041	0.0549	0.0648	3.8957	3.8766	3.7234	4.1362	1.5766

Table D.5: Medium term effects on expectations (by treatment group)

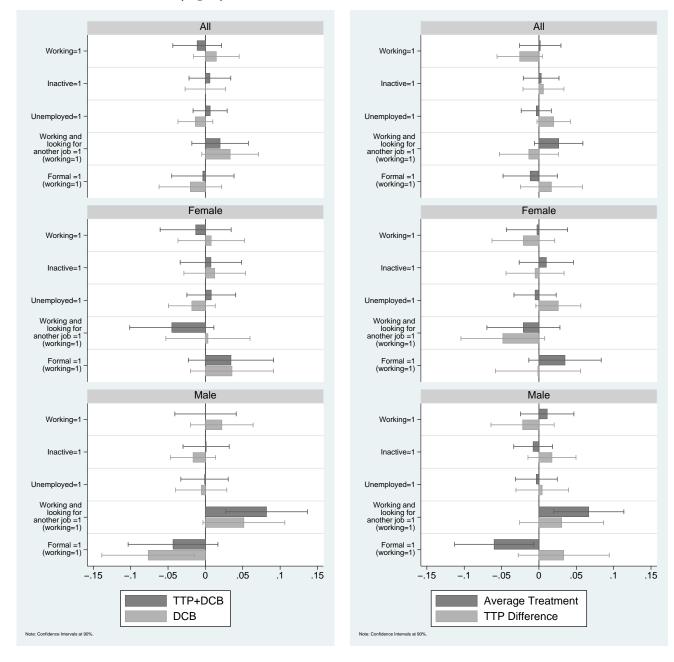


Figure D.1: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Labor market outcomes.

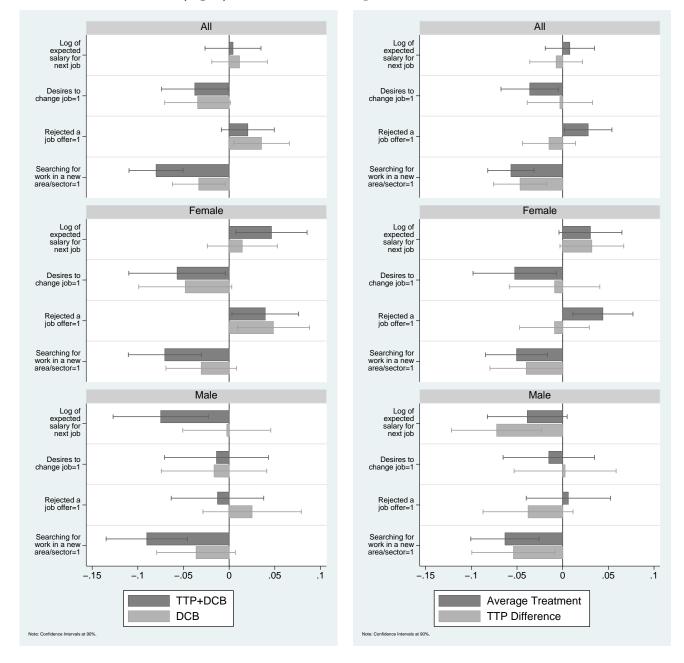


Figure D.2: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Labor market expectations.

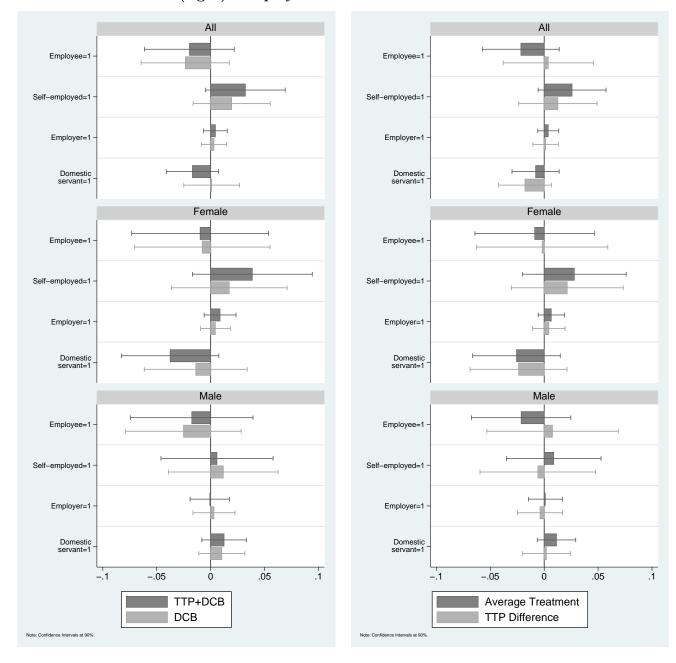
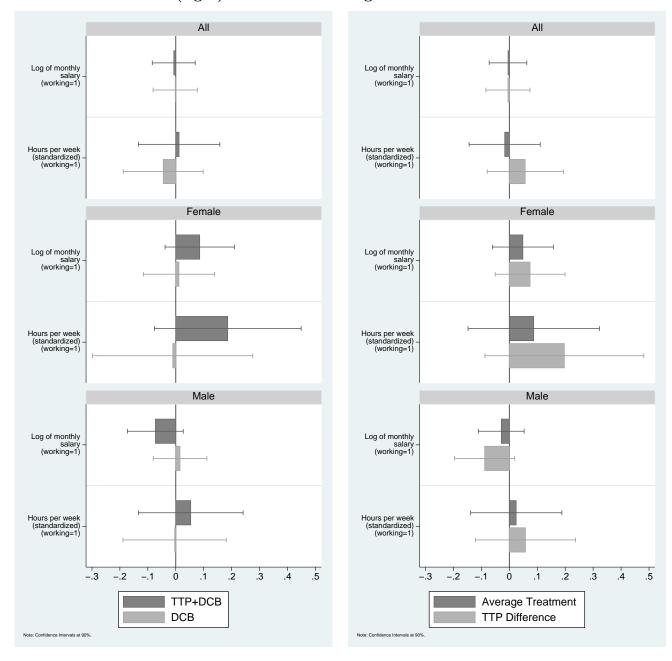
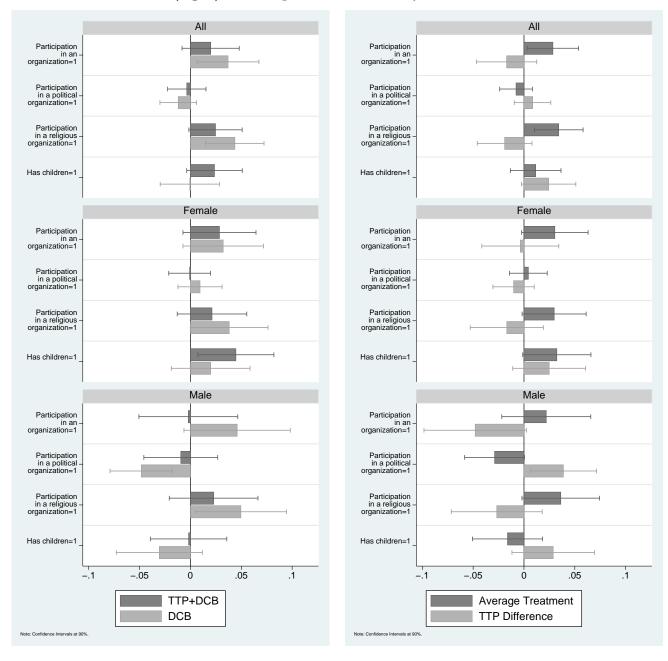


Figure D.3: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Employment status.



# Figure D.4: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Hours and earnings.



# Figure D.5: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Participation and fertility.

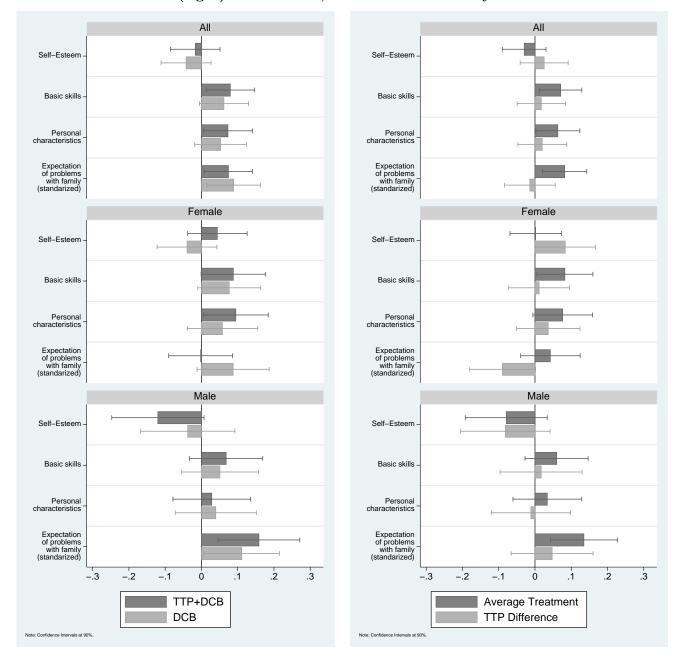


Figure D.6: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Self esteem, basic skills and family issues.

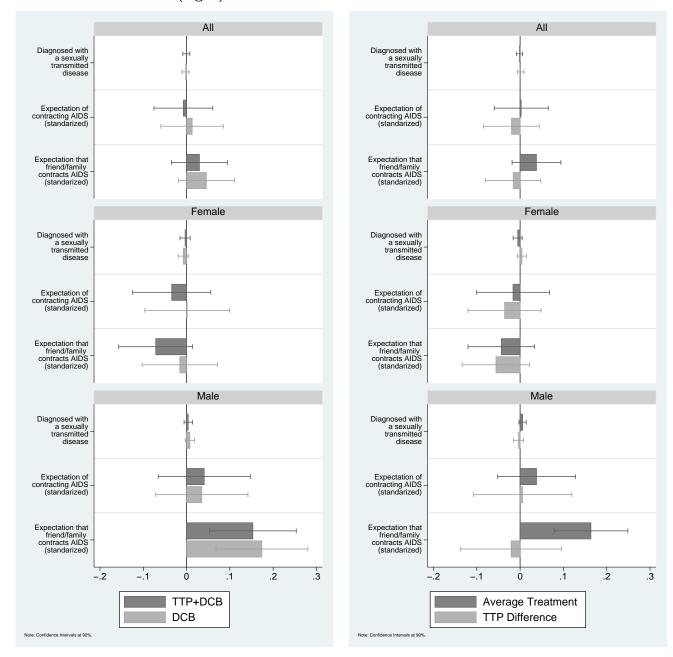
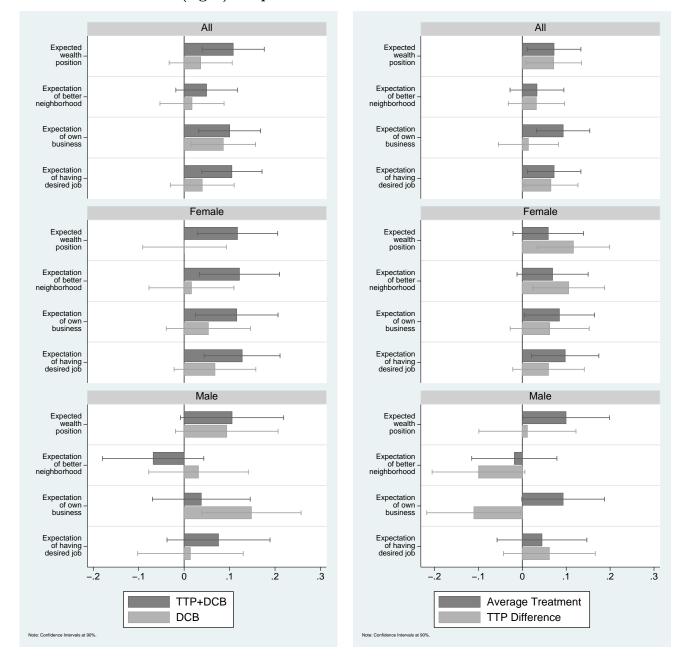


Figure D.7: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). STDs and AIDS awareness.



## Figure D.8: PJyE effects: TTP+DCB vs. DCB (left), Average effect of the program and TTP differential effect (right). Expectations.