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THE IMPACT OF TRAINING POLICIES IN ARGENTINA: AN EVALUATION OF PROYECTO JOVEN

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The Impact of Training Policies in Argentina: An Evaluation of Proyecto Joven

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This working paper is one of several background reports to OVE's Labour Training Thematic Evaluation carried out during the 2005-2006 Ex-Post Evaluation Cycle.

The team of this Thematic Study was comprised of Pablo Ibarraran, and coordinated by Inder J. Ruprah. The findings and interpretations of the authors do not necessarily represent the views of the Inter-American Development Bank and/or GRADE. The usual disclaimer applies. Correspondence to: Pablo Ibarraran, e-mail: pibarraran@iadb.org, Office of Evaluation and Oversight, Inter-American Development Bank, Stop B-750, 1300 New York Avenue, NW, Washington, D.C. 20577.

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ABSTRACT

This paper evaluates *Proyecto Joven*, a training program targeted to poor young individuals in Argentina. We used a non-experimental evaluation methodology to answer the following set of questions: (a) Did the program increase the probability of employment? (b) Did it increase the probability of a formal employment? (c) Did it increase the labor income of trainees?

The methodology we used is the matching estimators approach calculating first propensity scores for program participation and then the matching estimators to calculate the program impact. As it has been shown before, estimated impacts are not invariant to the specification of the chosen neighbor in the matching techniques.

The impact of the program is negligible in terms of employment and income, but not in terms of formality, which was an important achievement in the case of Argentina, since labor informality was increasing economy wide and more specifically for the group targeted by *Proyecto Joven*.

INTRODUCTION

Poor and uneducated young people represent one of the most vulnerable social groups in terms of employment possibilities. Latin America has invested a significant amount of resources in training programs aimed at increasing the probability of employment for such groups. In order to assess the effects of these training programs, lending institutions and government should maximize their effort to conduct serious impact evaluation in order to improve future programs.

A good evaluation must take into account both traditional program evaluation results together with an evaluation of the programs institutional aspects, which may also condition its success. Both aspects present several challenges. There is not a unique answer to which is the best technique to conduct program evaluations and most of the time, such evaluations are severely conditioned by the availability of the data and by the moment it is designed.

Institutional aspects may greatly vary from country to country and must also be taken into account at the moment of giving a general assessment about the impact of training programs.

This paper evaluates *Proyecto Joven*, a training program conducted by the Argentine government and co-financed by the IADB which took part between 1994 and 2001. We apply a non-experimental evaluation in order to answer the following questions: (a) did the program increase the probability of employment? (b) Did it increase the probability of formal employment? (c) Did it increase the labor income of trainees?.

We used the matching estimator approach given the data availability. First we estimated a model for program participation using propensity scores and then, conditional upon the estimated propensity scores, we used the matching estimators to calculate the impact of the program in the different variables of interest.

There were several databases available in order to conduct this evaluation, corresponding to different moments of *Proyecto Joven*.

This paper is organized as follows: section 2 presents a brief overview of Programa Joven, section 3 provides a description of the data utilized, section 4 presents the results of the program impact. Finally, section 5 concludes.

I. DESCRIPTION OF PROYECTO JOVEN

Proyecto Joven offered training to young people living in a poor household, above 16 years old, who have attained less than secondary education and who were either unemployed or out of the labor force. The program gave the trainees an average of 200 hours of training (in courses lasting from 14 to 20 weeks), plus transportation expenses, medical checkups, books, training material, clothes and finally, a subsidy for mothers with young children. The program consisted of two phases:

- Training phase: trainees received an average of 6 to 8 weeks of technical training on a specific occupation.
- Internship: 8 weeks of on-the-job training related to the activities trainees had learned during the technical phase.

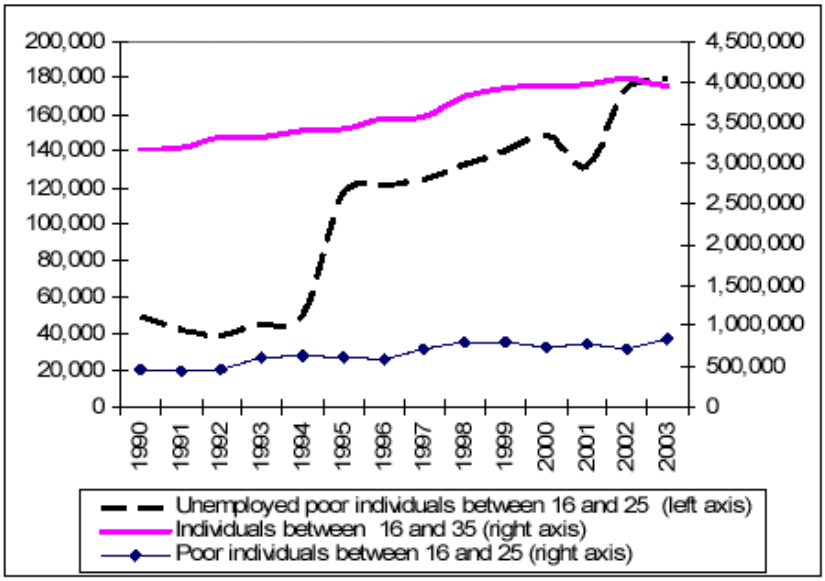
The institutions providing the training were called ICAPs (Instituciones de Capacitación) and were selected through an international bidding process. The ICAPs were themselves responsible for obtaining firms willing to accept interns from *Proyecto Joven*. The firm did not have to pay any stipend or wage to the trainees. In this sense, it was the first experience in Argentina of training for young people which was "demand driven".

Since its design, *Proyecto Joven* was based on a diagnosis which stated that there was an existing stock of young people in a vulnerable situation, and the way to assist them was by providing training at a semi-skilled level. However, macroeconomic conditions in Argentina worsened after 1995, and the number of poor young people with employment problems increased systematically, as it can be seen in Graph 1.

There we can observe that while the number of people between 16 and 35 and the number of poor people within the same age range showed a trend consistent with population growth, the number of poor unemployed of the same age increased continuously after 1995, as mentioned above. So, regardless of the original diagnosis about the number of potential beneficiaries, they continued to increase.

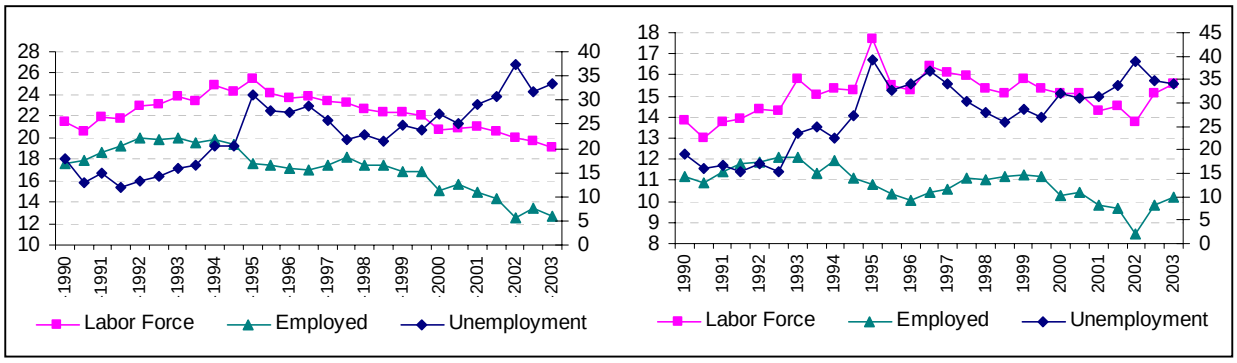
As far as unemployment is concerned, youth unemployment was a true problem and continued to increase during the period considered. This problem had structural reasons and *Proyecto Joven* was not designed to deal with them. However, there were other programs aiming at alleviating these structural problems. For example, the second part of the program, PAPEJ had scholarships to help retaining students at school.

Graph 1



Graph 2
Labor market for individuals between 16 and 25

Male **Female**



II. DATA DESCRIPTION

There are several databases available to conduct non-experimental evaluations and the ones we use in this work are those that allow us the greatest chance of comparability between the different periods while the program was administered. However, the results do not change when using other databases available.

A. Segundo and Tercer Llamado of the Training Program

There are two databases available to assess the impact of the second and third call (Segundo and Tercer llamado) of Programa Joven. Information for the first one was gathered by the Ministry of Labor eleven months after the courses had ended, while the other one took place 18 months afterwards (i.e: 29 months after finishing the courses). The first one has 3001 observations, of which 1512 are the beneficiaries (treatment) and 1489 belong to the control group. The second one has 2370 observations, with 1213 among its beneficiaries and 1157 in the control group. As far as the geographical span is concerned, information corresponds to 16 provinces and the city of Buenos Aires.

The treatment and the control group were built using probabilistic sampling of two sub-populations. The base of "acreditados", which corresponded to individuals who registered and qualified for obtaining the training, but did not take the class was used as control group. For the treatment group, individuals who at least completed the training phase were considered.[1]

B. Quinto Llamado of the Training Program

This database has 1670 observations for each the treatment and the control group. It was collected by the Ministry of Labor, using the same methodology than for the second and third call. It corresponds to the training which took place between March 1996 and December 1997.

There are two more databases available for conducting impact evaluation. One corresponds to the eight generation of courses and the other was conducted by IERAL, sampling all the individuals who participated in the program and appeared in the administrative database of the Ministry of Labor. Impact results using these two databases can be seen at the complete report written by IERAL

[1] Moura Castro (1997) points out the potential bias induced at taking people who decided voluntarily not to participate while eligible for building the control group. However, labor market conditions for both groups were similar before choosing whether to participate, as documented in (Devia, 2003; Moura Castro, 1997)

(2006). Here, we just present the results of the most comparable databases. However, results were similar regardless of the database used.

C. Descriptive Statistics

Descriptive statistics corresponding to our first database used (Segundo y Tercer llamado) can be observed in Table 1. Men comprise 57% of the sample, average age is 25 years. 71% of individuals are younger than average age. There is 10% of the sample older than 35 years.

As far as the educational level is concerned, half of participants had not finished high school, a fourth had only elementary education or less and the remaining fourth had finished high school.

40% of participants were employed when they started the courses, 42% were unemployed and 7% were out of the labor force.

Finally, in terms of geographical distribution, half of the participants were from Buenos Aires metropolitan region. The provinces of Mendoza, Santa Fé and Tucumán represented 14%, 16% and 8% of the total respectively. The remaining 12% was divided between the Southern, Northeast, Northwest and Litoral regions.

In the Table 2 we present the summary statistics corresponding to the Quinto llamado. In general, we observe similar values to those of the Segundo y Tercer llamado. 52% of the sample is male. The average age of participants is 25 years old, with 68% of the people with average age or younger. A 10% of the sample is older than 35. Only 30% of the sample had at most elementary education and 49% had unfinished high school.

The average household of the participants had 5.78 people. One in four participants was head of household and one in three had children under the age of 5. The database also has information about family income. The average monthly family income was 594 pesos, with almost 60% of the sample had income below the poverty line (120 monthly pesos per household member).

80% of the participants were unemployed at the moment of the accreditation, 13% were employed and the rest, inactive. However, as it is mentioned in Aedo and Núñez (2004), we could be in the presence of strategic behavior of the participants, since they might have had incentives not to reveal they were employed in order to be eligible for program participation.

Finally, participants in the survey were geographically distributed similar to that of the universe of participants, according to Aedo and Núñez (2004) and Devia (2003).

Table 1: Descriptive Statistics Segundo and Tercer Llamado

	Control		**Beneficiaries**	
Observations	**1489**		**1512**	
Variable	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
sexo (sex)	0.56	0.50	0.57	0.50
edad (age)	24.97	7.91	24.83	7.79
prinocom (incomplete primary)	0.03	0.18	0.03	0.18
pricom (complete primary)	0.21	0.41	0.21	0.41
senocom (incomplete high school)	0.49	0.50	0.52	0.50
secom (complete high school)	0.16	0.36	0.16	0.37
ternocom (incomplete tertiary)	0.21	0.40	0.20	0.40
tercom (complete tertiary)	0.00	0.06	0.00	0.06
jefe (head of household)	0.15	0.36	0.13	0.34
hijosme (young children)	0.23	0.42	0.23	0.42
ocupado (employed)	0.45	0.50	0.40	0.49
desocupa (unemployed)	0.37	0.48	0.43	0.50
inactivo (inactive)	0.08	0.27	0.07	0.25
gba (Buenos Aires)	0.50	0.50	0.51	0.50
sur (South)	0.04	0.19	0.04	0.19
nea (North East)	0.06	0.23	0.06	0.24
centro (Center)	0.00	0.00	0.00	0.00
litoral (Litoral)	0.00	0.00	0.00	0.04
cuyo (Cuyo)	0.00	0.00	0.00	0.00
noa (Northwest)	0.02	0.14	0.02	0.14
cordoba (Córdoba)	0.00	0.00	0.00	0.00
mendoza (Mendoza)	0.14	0.35	0.13	0.34
stafe (Santa Fé)	0.16	0.36	0.16	0.36
tucuman (Tucumán)	0.08	0.27	0.08	0.27

Source: IERAL, based on data from Segundo and Tercer Llamado

Table 2: Descriptive Statistics Quinto Llamado

	Control		Beneficiaries	
Observations	**1671**		**1670**	
Variable	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
sexo (sex)	0.52	0.50	0.51	0.50
edad (age)	25.28	7.82	24.67	7.68
prinocom (incomplete primary)	0.06	0.23	0.05	0.22
pricom (complete primary)	0.25	0.43	0.25	0.43
senocom (incomplete high school)	0.49	0.50	0.50	0.50
secom (complete high school)	0.14	0.34	0.13	0.34
ternocom (incomplete tertiary)	0.06	0.24	0.06	0.24
tercom (complete tertiary)	0.01	0.08	0.01	0.08
jefe (head of household)	0.24	0.43	0.25	0.43
hmenor (young children)	0.31	0.46	0.32	0.47
hogar (household members)	5.42	2.69	5.54	2.64
pobrelp (poverty)	0.56	0.50	0.56	0.50
ocupado (employed)	0.12	0.32	0.14	0.35
desoexp (unemployed)	0.68	0.47	0.64	0.48
desonexp (unemployed)	0.14	0.35	0.14	0.35
inactivo (inactive)	0.06	0.23	0.07	0.26
gba (Buenos Aires)	0.18	0.38	0.18	0.38
sur (South)	0.11	0.31	0.11	0.31
nea (Northeast)	0.12	0.33	0.12	0.33
centro (Center)	0.01	0.11	0.01	0.10
litoral (Litoral)	0.04	0.20	0.04	0.20
cuyo (Cuyo)	0.08	0.27	0.08	0.27
noa (Northwest)	0.09	0.29	0.09	0.29
cordoba (Córdoba)	0.09	0.29	0.09	0.29
mendoza (Mendoza)	0.10	0.29	0.10	0.30
stafe (Santa Fé)	0.09	0.29	0.09	0.29
tucuman (Tucumán)	0.09	0.29	0.09	0.29

Source: IERAL, based on data from Quinto Llamado

III. PROGRAM IMPACT ON EMPLOYMENT, FORMALITY AND INCOME

A. Methodology

The methodology[2] we used in order to assess the impact of *Proyecto Joven* is the one utilized by most program evaluations without experimental design. We conducted several estimations in order to check the robustness of our results. The ultimate objective of the program was to increase the participants probability of becoming employed, so we analyzed the impact on employment for different periods after the training and the internship period had finalized.

Given the relevance of informal labor in Argentina[3] we also measured the impact on the probability of finding a job in the formal sector. Finally, we measured the program impact on income.

1. Estimation of Program Participation (Propensity Scores)

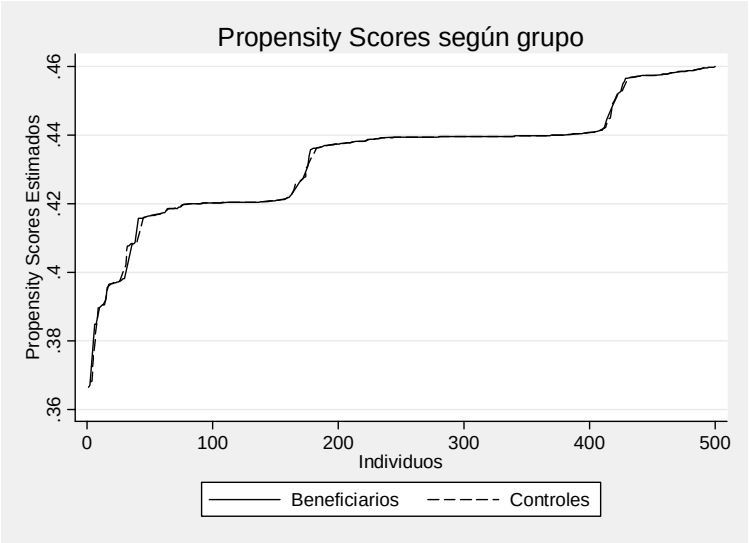
We estimated a logit model for obtaining the probability of program participation[4]. We used the following variables related to an individual's eligibility for program participation: labor market condition (employed, unemployed, out of the labor force), income (whenever available), age, sex, formal education, marital status and position in the household (head of household or not). Propensity scores estimations require scores to be similar for control and treatment groups, property that is satisfied in the databases used, as it can be observed in Graphs 3 and 4.

[2] In what follows, we present the results of the direct program impact. Given the magnitude of the program, we did not find any general equilibrium effects. For more information, check "Evaluación del Proyecto Joven", IERAL, May 2006.

[3] An informal worker is defined as one who does not contribute to the Social Security System. Under the period of analysis, the increase in informality rates was significant, and even higher for the target population of *Proyecto Joven.* Informal workers are paid lower wages, face higher rotation, etc.

[4] See the list of variables used in the appendix.

Graph 3: Common Support Property
Segundo and Segundo and Tercer Llamado
Complete Sample



Graph 4: Common Support Property
Quinto llamado
Complete Sample

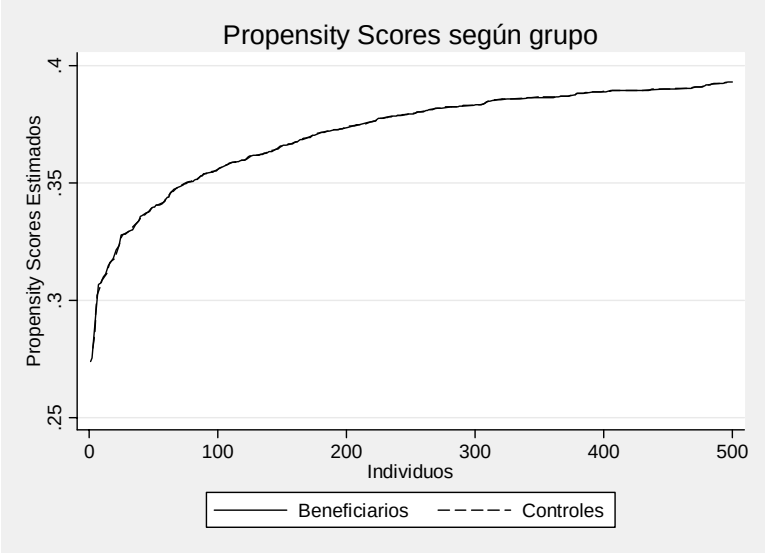


Table 3: Propensity scores: Segundo and tercer llamado

Jefe	-0.130
	(0.116)
prinocom	-0.047
	(0.215)
Pricom	-0.005
	(0.110)
senocom	0.080
	(0.090)
Edad	0.001
	(0.005)
enpareja	-0.097
	(0.091)
desocupa	0.244
	(0.075)**
Vaescu	-0.295
	(0.100)**
Constant	-0.041
	(0.157)
Observations	3001
Log Likelihood	-2068.187

*Standard errors in parentheses. *significant at 5%; ** significant at 1%.*
Source: IERAL on Segundo and tercer llamado databases.

Table 4: Propensity scores: Quinto Llamado

Pobrelp	0.042
	(0.072)
Desocupa	-0.254
	(0.105)*
Inactivo	0.009
	(0.170)
Jefe	0.109
	(0.086)
Prinocom	-0.143
	(0.173)
Pricom	-0.047
	(0.108)
SENACOM	-0.002
	(0.093)
Edad	-0.015
	(0.005)**
Empareja	0.043
	(0.078)
Vaescu	0.169
	(0.094)
Constant	-0.068
	(0.225)
Observations	3336
Log Likelihood	-2268.109

*Standard errors in parentheses. *significant at 5%; **significant at 1%.*
Source: IERAL on quinto llamado database.

B. Impact Estimates

The parameter being estimated is the impact of the program on its beneficiaries. In order to do so, we considered the following outcome variables: probability of employment and its quality (i.e. probability of formal employment) and income. For the first database used, variables were measured in two points in time: 11 and 29 months after finishing the program. For the other one, there was only one measure, 12 months after finishing the program.

We used a cross-sectional matching indicator, which compares the results of the outcome variables for controls and beneficiaries at some point in time after finishing the program. After calculating the propensity scores, individuals from the treatment and control group are matched in order to estimate the counterfactual value for each beneficiary in the sample. Such matching can be obtained through a different variety of alternative methods. As the result of the estimation is not invariant to the choice of the matching methodology, we

performed several estimations: nearest neighbor, kernel and stratified matching. Then we used bootstrap techniques to obtain the sample variance of the impact estimates.[5]

We present the results for the whole sample, males and females in each database and then the results of the pooled databases.

One important aspect to take into account before analyzing the results is the state of the economy at the time each phase of the program took place, due to the fact that the Argentine economy presented wide oscillations during this period. The Segundo and tercer llamado took place in 1994 and 1995, which corresponded to a period of economic expansion (1994) followed by a sharp contraction (1995) in the GDP with adverse effects on the labor marked fueled by the Tequila effect in Mexico. The Quinto llamado corresponds to beneficiaries who participated in the program between March 1996 and December 1997, which was a period of economic expansion. The effects of the program on employment are not statistically significant for most of the cases, except for women in the Quinto llamado, regardless of the matching method chosen.

In terms of quality of employment[6] we also obtained positive effects for women, but, in this case, for all the matching methods considered and for all the databases analyzed. In the case of the whole sample, some positive impact is obtained for the pooled sample.

Finally, the effect on income is also not statistically significant for the whole sample nor for males. In the case of the women, we found positive impact for the first measurement of the segundo and tercer llamado, where the positive impact on monthly income 11 months after the courses finished is of the order of 40-50 pesos (approximately one third of per capita income at the poverty line level).

[5] Given the way the samples were built, the population and sample probability of both beneficiaries and controls differ, so a logit process would yield inconsistent estimates. For the first database (Segundo y Tercer llamado) we do not know true population participation of beneficiaries and controls, so we used the log-odds ratio (Heckman and Todd (1998). For the Quinto llamado we have information about the beneficiaries and controls' participation in the population we corrected the propensity scores using the Manski and Lerman methodology.

[6] Our definition of a formal worker is the worker whose employer pays social security contributions. Informality became a severe problem in Argentina, starting in the mid nineties. This problem affected disproportionately young people, women and poorer individuals. So program impact on job quality are significant outcome variables in the evaluation of the program.

Estimation Average Treatment Effects on the treated: Impact Variable: Employment

Whole	Cross-Section Matching[1]		
	Nearest Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	-0.008 (0.019)	-0.012 (0.018)	-0.009 (0.017)
2°-3° llamados segunda medición	0.015 (0.022)	0.018 (0.019)	0.017 (0.020)
Quinto llamado	0.023 (0.016)	0.026 (0.017)	0.029 (0.017)
Pooled	0.011 (0.011)	0.013 (0.012)	0.013 (0.012)
Male	**Cross-Section Matching[1]**		
	Nearest Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	0.016 (0.025)	0.022 (0.024)	0.018 (0.024)
2°-3° llamados segunda medición	0.004 (0.028)	0.010 (0.026)	0.010 (0.025)
Quinto llamado	-0.013 (0.023)	-0.011 (0.023)	-0.015 (0.021)
Pooled	0.005 (0.015)	0.005 (0.013)	0.003 (0.015)
Female	**Cross-Section Matching[1]**		
	Nearest Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	-0.032 (0.032)	-0.041 (0.028)	-0.045 (0.029)
2°-3° llamados segunda medición	0.044 (0.036)	0.024 (0.033)	0.019 (0.032)
Quinto llamado	0.069 (0.026)**	0.068 (0.025)**	0.069 (0.025)**
Pooled	0.028 (0.015)	0.027 (0.017)	0.027 (0.021)

(1) Bootstrapped standard errors in parentheses
*significant at 5%; ** significant at 1%*

Estimation of Average Treatment Effects on the treated:
Impact Variable: Formal Employment

Whole	**Cross-Section Matching[(1)]**		
	Nearest Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	0.041 (0.023)	0.042 (0.022)	0.039 (0.025)
2°-3° llamados segunda medición	0.033 (0.030)	0.044 (0.026)	0.044 (0.023)
Quinto llamado	0.027 (0.013)*	0.022 (0.012)	0.021 (0.012)
Pooled	0.023 (0.009)**	0.024 (0.009)**	0.021 (0.009)*
Male	**Cross-Section Matching[(1)]**		
	Nearest Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	0.000 (0.033)	0.009 (0.031)	0.003 (0.026)
2°-3° llamados segunda medición	0.003 (0.036)	0.002 (0.031)	0.004 (0.030)
Quinto llamado	0.027 (0.021)	0.015 (0.019)	0.021 (0.021)
Pooled	0.015 (0.011)	0.010 (0.012)	0.012 (0.012)
Female	**Cross-Section Matching[(1)]**		
	Nearest Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	0.120 (0.043)**	0.113 (0.040)**	0.109 (0.037)**
2°-3° llamados segunda medición	0.127 (0.047)**	0.134 (0.039)**	0.135 (0.042)**
Quinto llamado	0.035 (0.015)*	0.034 (0.014)*	0.033 (0.014)*
Pooled	0.044 (0.012)**	0.047 (0.011)**	0.034 (0.011)**

(1) Bootstrapped standard errors in parentheses
*significant at 5%; ** significant at 1%*

Estimation Average Treatment Effects on the treated: Impact Variable: Monthly Income

Whole	Cross-Section Matching[1]		
	Nearerst Neighbor	Kernel	Stratified
2°-3° llamados primera medición	10.92 (10.35)	10.80 (10.51)	8.69 (9.63)
2°-3° llamados segunda medición	-0.62 (11.72)	5.27 (11.07)	4.21 (10.72)
Quinto llamado	4.64 (8.13)	1.49 (7.26)	3.24 (7.16)
Pooled	3.50 (5.74)	3.86 (5.12)	4.43 (6.57)
Male	**Cross-Section Matching[1]**		
	Nearerst Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	-3.31 (15.04)	-7.05 (13.18)	-9.05 (13.95)
2°-3° llamados segunda medición	8.15 (15.13)	6.25 (12.39)	6.30 (12.11)
Quinto llamado	3.39 (10.11)	2.40 (9.30)	4.36 (10.49)
Pooled	1.50 (6.34)	-0.17 (6.99)	-1.90 (8.07)
Female	**Cross-Section Matching[1]**		
	Nearerst Neighbor	**Kernel**	**Stratified**
2°-3° llamados primera medición	50.31 (15.37)**	44.44 (15.63)**	44.23 (15.00)**
2°-3° llamados segunda medición	-3.89 (18.22)	5.64 (16.05)	5.86 (16.36)
Quinto llamado	12.87 (11.40)	9.85 (9.47)	9.48 (12.21)
Pooled	14.52 (9.36)	17.02 (8.09)*	18.77 (9.26)*

(1) Bootstrapped standard errors in parentheses
*significant at 5%; ** significant at 1%*

C. Comparisons with existing evaluations

There were previous evaluations to *Proyecto Joven*. Aedo and Núñez (2004) found statistically significant program effects for some specific sub-groups of the sample: positive income effects for young male (under 20) and adult women (over 21) and increase in employment probabilities for women over 21.

Elías (2004) found positive effects on workers' wages, but only for salaried workers. When he considered the whole sample (salaried workers and self employed) the effects disappeared. IERAL results are compatible with those of A&N regarding employment.

Our main difference with previous results is that we looked at the quality of the jobs for beneficiaries, and this fact appears statistically significant. This is maybe one of the most important aspects of the program. It becomes specially relevant in the context of the Argentine labor market at the moment the program took place, when labor markets were becoming more and more segmented between formal and informal workers and informality was on the rise. For example, between 1996 and 1998 there was a net destruction of formal jobs, and on the same time, a net increase in the number of informal jobs.

IV. CONCLUSIONS

We conducted an impact evaluation of Programa Joven using cross sectional matching estimators with the data available collected during the course of the program. The design was not experimental, and so, control groups were obtained from people who enrolled in the program but did not participate. While this may cause biases in the estimation, we consider such biases are minimized due to the fact that pre-program individual characteristics were similar for both control and treatment groups. We estimated the probability of program participation by means of propensity scores and then we applied cross sectional matching estimators, using different methods to choose the neighbors.

In terms of the main objectives of the program, which was to increase the employability of poor and unemployed young people, with low human capital we can say that the effects were not statistically significant if we look at the probability of employment. In some cases, we have some positive impacts for women, but we do not know if this is the result of the program or if it can be attributed to the specific conditions in the labor markets for this subgroup. However, we found positive effects of program participation on the quality of employment, in a context of increasing labor informality in the country. Finally, the effect on income is not statistically significant.

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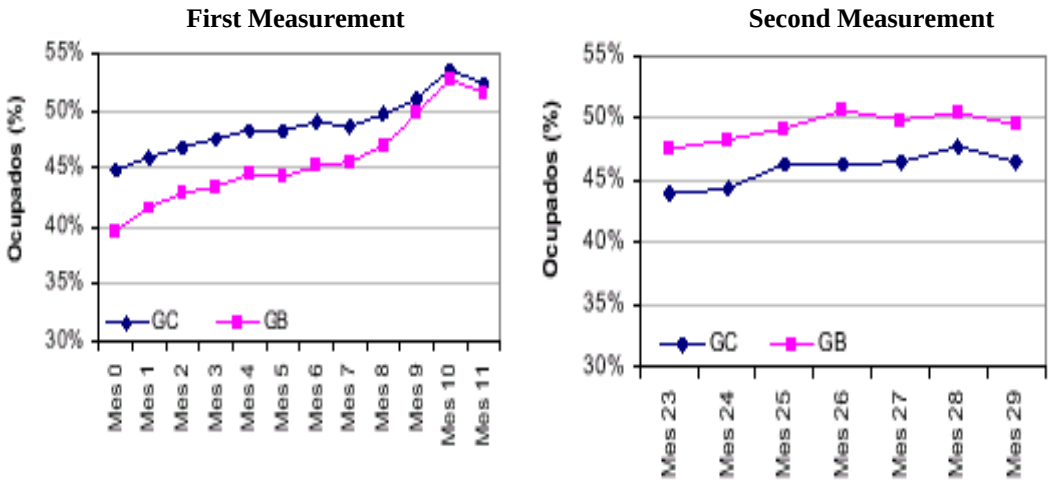
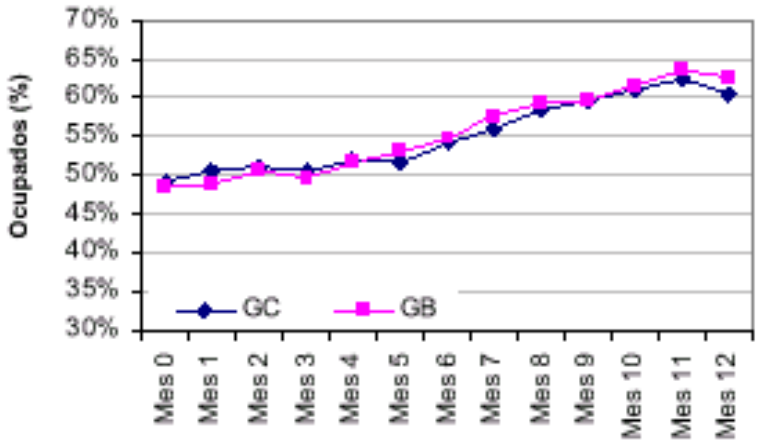
GRAPHS AND TABLES

Graph 5.1.a: Evolution of employment: Segundo and Tercer llamado, first and second measurement.

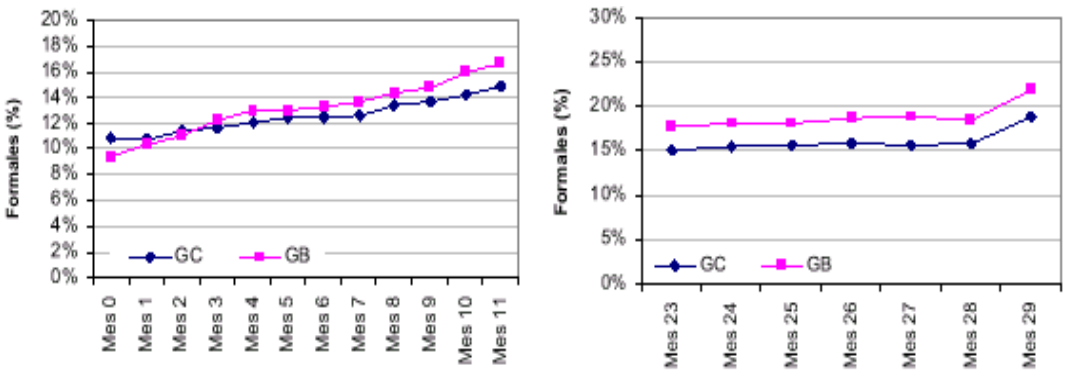


Graph 5.1.a: Evolution of employment: Quinto llamado.

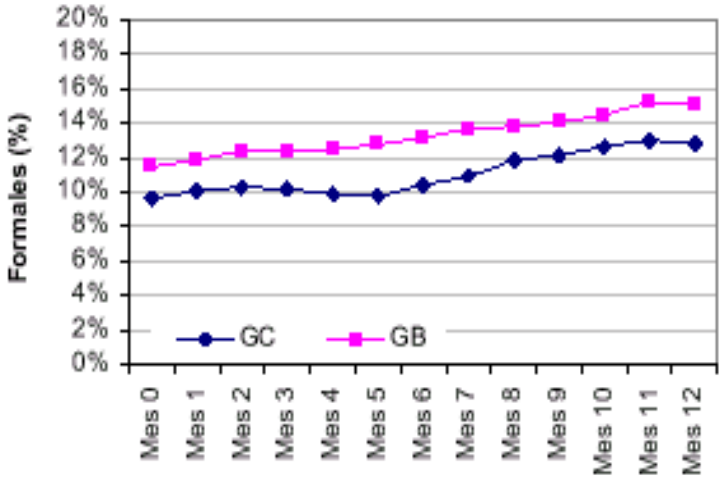


Graph 5.2.a: Evolution of formal employment. Segundo y Tercer llamados, first and second measurement.

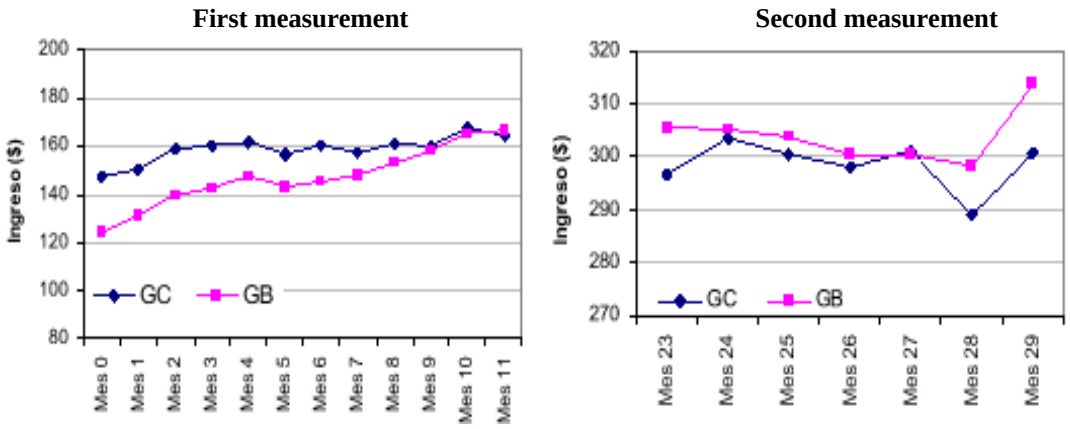
First measuremente **Second measurement**



Graph 5.2.b: Evolution of formal employment. Quinto llamado



Graph 5.3.a: Evolution of monthly income. Segundo y Tercer llamados, first and second measurement.



Graph 5.3.b: Evolution of monthly income. Quinto llamado.

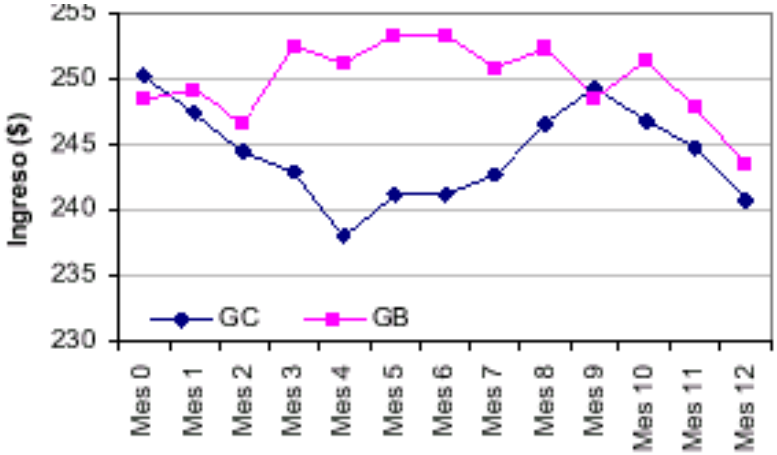


Table 5: Description of the variables utilized

Variable	Description
Edad	Age
Edad1	1=Age between 16 and 20
Edad2	1=Age between 21 and 25
Edad3	1=Age between 26 and 75
Estado	1=Beneficiares, 0=Control
Sexo	1=Male, 0=Female
Hijos	1=individual has kids
Hmenor	1=individual has kids under 5
Vaescu	1=individual goes to school
Jefe	1=Head of Household
Enpareja	1=Married
Edubaja	1=Incomplete high school or less
Prinocom	1=Incomplete Primary
Pricom	1=Complete Primary
Senocom	1=Incomplete high school
Secom	1=Complete high school
Desocupa	1=Unemployed
Ocupado	1=Employed
Desoexp	1=Unemployed with labor experience
Desonexp	1=Unemployed without labor experience
Inactivo	1=Inactive
Pobrelp	1=below poverty line mensuales

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