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Evidence from a Meta Analysis**

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ABSTRACT

Active Labour Market Programmes in Latin America and the Caribbean: Evidence from a Meta Analysis*

We present a systematic collection and assessment of impact evaluations of active labour market programmes (ALMP) in Latin America and the Caribbean (LAC). The paper delineates the strategy to compile a novel meta database and provides a narrative review of 51 studies. Based on these studies, the quantitative analysis extracts a sample of 296 impact estimates, and uses meta regression models to analyse systematic patterns in the data. In addition to analysing earnings and employment outcomes as in previous meta analyses, we also code and investigate measures of job quality, such as the effects on hours worked and formality. We find that ALMPs in LAC are particularly effective in increasing the probability of having a formal job, compared to other outcomes. Our results also show that training programmes are slightly more effective than other types of interventions. Moreover, when looking at the sample of training programmes alone, we observe that formal employment is also the outcome category that is most likely to be impacted positively by these programmes. In terms of targeting, we find that ALMPs in the region work better for women than for men, and for youth compared to prime-age workers. Finally, medium-run estimates are not more likely to be positive than short-run estimates, while programmes of short duration (4 months or less) are significantly less likely to produce positive effects compared to longer interventions.

JEL Classification: J08, J24, J46, O54

Keywords: active labour market program, Latin America and the Caribbean, employment, informality, impact evaluation, meta analysis

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1. Introduction

Since the beginning of the 2000s, countries in Latin America and the Caribbean (LAC) have experienced important labour market and social progress. Unemployment rates have declined in most of the countries in the region, while labour force participation rates have increased – especially for women. Moreover, poverty and inequality levels have decreased and the middle class has expanded considerably (ILO, 2016a). Public interventions have supported these achievements, notably by sustaining living standards and increasing social protection coverage. The region has been a policy laboratory in this respect, pioneering innovative interventions (such as conditional cash transfers, CCTs) that proved successful in improving the wellbeing of their beneficiaries.¹

Economic and employment progress, however, has recently come to a halt – with GDP growth decelerating and unemployment levels on the rise. This calls for a redefinition of policy strategies, which should be increasingly aimed at shifting economies towards more competitive specializations and higher productivity growth. In this respect, the role of active labour market policies (ALMPs) – i.e. training programmes, public works, employment subsidies, self-employment and micro-enterprise creation programmes, and labour market intermediation services² – has increased in the region over the past few decades, with public expenditure on these interventions rising in virtually all countries for which information is available, often outpacing other types of labour market spending (e.g. unemployment assistance).

A growing number of impact evaluations have been conducted in LAC in order to assess the effectiveness of ALMPs. Although the number of studies is not yet comparable to those carried out in other advanced regions (especially in Europe and North America), it clearly reveals the increasing policy and academic interest towards ALMPs in the region. However, no effort has yet been made to systematically review the conclusions of these impact evaluations as well as to understand the main drivers emerging from them. At the same time, results from existing meta analyses of ALMPs conducted in OECD countries cannot be easily generalised to the context of LAC (Martin and Grubb 2001, Kluve 2010), despite the fact that some of them include some studies from the region in large worldwide samples (Card et al. 2010 and 2017). This is due to both structural differences in the functioning of labour markets (e.g. high share of informal employment, prevalence of micro-enterprises) as well as differences in the nature and scope of the ALMPs implemented in the region (ILO, 2016a).

¹ For instance, Stampini and Tornarolli (2012) find that the poverty headcount index in the countries analysed would be on average 13 per cent higher, had CCTs not been implemented.

² See chapter 2 of ILO (2016a) for more information on the definition of these policies in the emerging and developing country context.

Closing this knowledge gap is now of the utmost importance, as the region is facing an economic contraction that risks to reverse the employment and social gains of the past decades. Indeed, avoiding that the current slowdown transforms into structural stagnation will require investing more effectively in policies that improve workers' employability – and acquiring the knowledge of what policies work best and under which specific circumstances. Therefore, as governments in the region struggle to find new and effective ways to tackle employment and social challenges, it is important to understand the role that ALMPs can play in this regard.

This paper contributes to closing this gap in the literature by systematically reviewing – both qualitatively and quantitatively – existing impact evaluations of ALMPs in LAC. In particular, the aim of this paper is to identify systematic patterns and commonalities arising from recent impact evaluations, to consolidate these existing findings to draw conclusions on what is known about the effectiveness of ALMPs in LAC (e.g. by type of intervention, target group, etc.) and to highlight shortfalls in those areas that need further research.

Given the nature and scope of ALMPs in LAC, the paper expands what has been researched already – i.e. compared to previous meta-analyses of ALMPs conducted in other regions – by looking at a broader set of outcomes of interest. In particular, the present analysis looks at the effects of ALMPs on both employment creation and a broad range of measures of work quality, including earnings, hours worked and the formal nature of the job. This more comprehensive view of the policy impacts resonates better with the characteristics of labour markets in the region, where traditional labour market indicators (e.g. unemployment) do not necessarily reflect the level of labour market distress (i.e. high share of working poverty and informality). Similarly, ALMPs in LAC have generally been assigned a broader range of objectives (including poverty reduction, community development and equity promotion) compared, for example, to OECD countries, where ALMPs have been mostly seen as tools to address inefficiencies in the labour markets (e.g. sub-optimal investment in training). Consequently, for this type of analysis to be relevant for LAC, it is important to analyse the effectiveness of ALMPs along this broader range of outcomes.

Our results show that formal employment is the outcome that is more likely to be positively affected by ALMPs in LAC, compared to the probability of finding a job, having higher earnings or working more hours. Training programmes are (slightly) more effective than other types of ALMPs, in particular relative to public works. In terms of targeting, we find that ALMPs in the region seem to work better for women than for men and also for youth compared to prime-age workers. Interestingly, medium-run estimates are not more likely to be positive than short-run estimates – suggesting that the benefit of participation does not increase with time. Additionally, programmes of short duration (4 months or less of participation) are significantly less likely to produce positive effects compared to longer interventions. No significant differences in the results appear when

comparing experimental with quasi-experimental studies. Overall, these results hold when we focus only on training programmes. In addition, newly added variables for this particular sample, suggest that, provided training programmes last for more than four months, interventions with more than one component are more likely to show positive effects. This is also the case for training programmes explicitly targeting the poor. The rest of the paper is organised as follows. Section 2 delineates how studies were identified and screened and presents findings on their distribution over time, across countries and by type of policy. The paper then takes a two-pronged approach to systematically review the existing evidence. The narrative literature review of Section 3 discusses the results of the impact evaluations of ALMPs against their theoretical expectations. Then, the meta analysis of Section 4 allows drawing more systematic conclusions. It places each study within a broader context, looks at the differential effect by target group (e.g. youth) and takes into account additional factors characterising both the impact evaluation (e.g. methodology) and the macroeconomic context of implementation (e.g. country). Finally, Section 5 concludes by bringing together the findings from the narrative literature and the meta analysis while drawing some policy conclusions that arise from this comparison.

2. An overview of impact evaluations on ALMPs in Latin America and the Caribbean

The set of impact evaluation studies reviewed in this paper is the result of a systematic sampling process, which included the following steps. First, an initial search of articles was undertaken using the following sources: (i) studies identified during the process of compiling the ILO Compendium of labour market policies,³ and preparing and presenting the research project “What works: Active labour market policies in Latin America and the Caribbean” (ILO, 2016a); (ii) evaluation studies undertaken by researchers in IZA’s programme evaluation and NBER’s labour studies networks (following Card et al. 2010 and 2017); (iii) papers referenced in literature reviews for LAC conducted by Ibararán and Rosas-Shady (2009), Sanz (2012) and Vezza (2014); (iv) study registers by international organisations on impact evaluations, such as IZA’s Repository of Impact Evaluation Published Studies (RIEPS) and the Inter-American Development Bank (IADB); and (v) articles citing the previous meta-analyses of Card et al. (2010) and Kluve (2010).⁴

Second, all studies originating from these sources were screened according to pre-specified inclusion criteria. Specifically, the studies selected were those that assessed the effects of particular programmes at the individual level in comparison to non-participation, and controlled for selection

³ <http://www.ilo.org/alm-americas>.

⁴ Our sample refers to studies published by December 2016. All studies published afterwards, as well as subsequent versions of the reviewed articles have not been included in this paper.

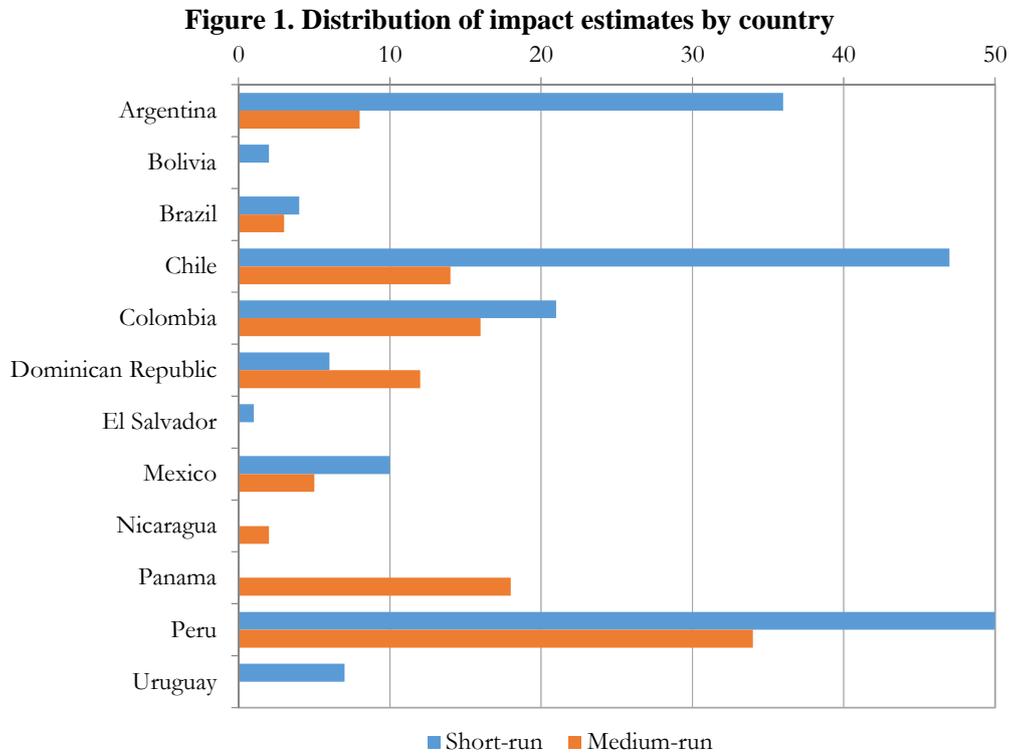
into treatment. In addition, only papers in English or Spanish were included. Subsequently, a number of articles were rejected as they did not meet methodological quality requirements (e.g. information on standard errors of treatment effect estimates was not provided).

As a result, the final sample consists of 51 impact evaluation studies, evaluating in total 53 programmes – as some studies analyse more than one programme and a few programmes are evaluated more than once. The final stacked version of the meta data used for the empirical analysis contains 296 impact estimates as we extracted multiple estimates from each impact evaluation if the study provided separate programme estimates by time horizon (short-run and medium-run), gender (male and female separately, vs. the pooled estimate if no gender stratification is made), and age group (youth – i.e. 25 years or younger – and older workers separately, vs. the pooled estimate). This procedure follows the approach chosen in Card et al. (2010, 2017). We substantially expand this approach by coding information on additional outcomes: besides employment and earnings, we also extract estimates for programme effects on hours worked and formal employment.

Impacts are considered short-term when measured within the first 12 months post-treatment, while medium-term impacts are those measured at least 12 months after treatment. In our sample, 184 and 112 of the estimates refer to short-term and medium-term impacts, respectively. Figure 1 presents the distribution of countries in the data, separately for the short- and medium-run estimates. The figure shows that the majority of estimates comes from evaluations of programmes in Peru (with 50 short-run and 34 medium-run estimates), mostly originating from several evaluations of the *Projooven* programme. In line with the respective size of the country in the region, Argentina, Chile and Colombia are also represented in the data with a relatively large number of estimates. This is not the case, however, for Brazil and Mexico, both of which enter with a rather small number of programme evaluation estimates.

Coverage of studies in Caribbean countries is somewhat scarce, with the exception of the Dominican Republic, which has several impact estimates, all originating from different evaluations of the *Juventud y Empleo* programme. The programme stands out because of the experimental design used for assessing impacts of several cohorts of training participants. All of the countries mentioned so far contribute with both short- and medium-run estimates of programme impacts. The remaining countries in the data that contribute with short-run estimates are Bolivia, El Salvador, and Uruguay; while Nicaragua and Panama contribute with medium-run estimates exclusively (i.e. in the latter case 18 observations come from the *Procajoven* evaluation). Interestingly, although Peru has almost twice as many impact estimates as Argentina, both countries have the same number of programmes evaluated in the sample (10 programmes each).

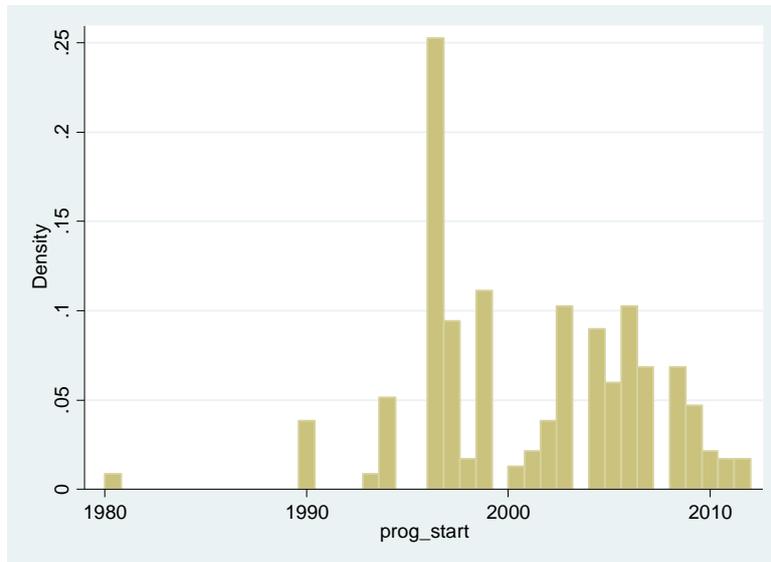
The same occurs with Chile, which has 8 programmes evaluated in the sample accounting for 61 impact estimates – i.e. 40 per cent more than Argentina.



Note: N=296 impact estimates, 184 in the short-run and 112 in the medium-run.

In terms of the distribution of starting years of programme evaluations, the number of impact estimates peaked in the mid-1990s – as can be observed in Figure 2. This reflects a large number of impact evaluations of the original *Jóvenes* programmes, a prototypical model of intervention aimed at improving youth employability and implemented across LAC countries throughout the 1990s. Since then, the number of estimates has remained rather constant and at a reasonably high level, although no increase in evaluation efforts can be deduced from this figure. The small number of estimates from 2011 onwards is largely a reflection of the fact that programmes are relatively recent, so any evaluations would be ongoing.

Figure 2. Distribution of impact estimates by starting year of the programme evaluation



Note: N=296 impact estimates.

Table 1 presents summary statistics for the meta sample of impact estimates. The first panel looks at the programme intake group and shows that about 88 per cent of estimates correspond to beneficiaries who enter the programmes as disadvantaged or vulnerable workers, while only about 12 per cent of beneficiaries access the programmes as registered unemployment insurance recipients. Disadvantaged individuals are typically defined – by programme eligibility rules or the evaluators – using some measure of low income (e.g. individuals from lower percentiles of the household income distribution, or explicitly from relative or absolute poverty) and/or low skills (most often defined as having no secondary schooling degree). Individuals without a job, or working informally may also be defined as disadvantaged.

Table 1. Meta data sample: summary statistics

	No. of estimates	Per cent
Programme intake group		
Registered UI	36	12.2
Disadvantaged	260	87.8
Type of programme		
Training	225	76.0
Labour market intermediation services	26	8.8
Private sector incentives*	29	9.8
Public works	16	5.4
Programme duration		
Unknown or mixed	52	17.6
4 months or less	75	25.3
5-9 months	169	57.1
Over 9 months	0	0.0
Sex of programme group**		
Pooled	74	25.0
Male	109	36.8
Female	113	38.2
Age of programme group**		
Pooled	98	33.1
Youths	182	61.5
Older workers	16	5.4

Notes: *Private-sector incentives include employment subsidies and self-employment and micro-enterprise creation programmes. **Programme group refers to the empirical population for which an impact estimate is available. Therefore, it does not necessarily reflect the target group of the programme evaluated.

In terms of the coverage of impact estimates by type of ALMPs, the second panel in Table 1 shows in fact little variation. More than 75 per cent of impact estimates included in the analysis correspond to skills training programmes, and only relatively few impact estimates have been produced for the other three categories – labour market intermediation services, private sector incentives (i.e. employment subsidies and self-employment and micro-enterprise creation programmes) and public works.⁵ This is not surprising since training programmes are the most popular intervention in the LAC countries analysed, but it is still disproportionate in relation to other regions (e.g. training programmes account for 49 per cent of the worldwide metadata in the Card et al. 2017) and to the number of policies actually implemented in the region.⁶ However, there is a degree of heterogeneity

⁵ Policies that include several types of ALMPs were categorized according to their main category following the official description of the intervention.

⁶ According to ILO (2016a), 44 per cent of the total of ALMPs implemented in the countries covered by the ILO Compendium of labour market policies are either training policies or policies that have a training component.

in the distribution of interventions evaluated across countries in the region. While studies in South American and Caribbean countries have focused on the evaluation of training programmes, Central American countries have been more oriented towards self-employment and micro-enterprise creation programmes (Appendix 1).

At the same time, the third panel shows that the duration of these programmes is relatively short, with 25 per cent of impact estimates falling into the category of short duration (4 months or less) and 57 per cent in the category of medium duration (5 to 9 months). None of the reviewed impact evaluations analyses a programme that was implemented for more than 9 months, possibly reflecting the fact that in LAC very few ALMPs with a longer duration have been implemented (to put this figures in perspective, in the worldwide metadata the share of estimates from longer-duration programmes is 15 per cent – Card et al., 2017). At the same time, 18 per cent of the LAC impact estimates included in the analysis gives no clear indication of the length of the programme analysed.

The composition of beneficiaries by sex and age is depicted in panels four and five of Table 1. Estimates for women and men appear to be equally represented, as about 37 per cent of the available impact estimates are for male participants separately and about 38 per cent for their female counterparts. The remaining 25 per cent of impact estimates correspond to pooled gender impacts. In terms of the distribution of programme estimates by age group, more than 60 per cent of impact estimates are for the group of workers aged 25 or younger, about 5 per cent are specifically for workers older than 25, and about 33 per cent correspond to pooled age group estimates.

Looking at the dependent variable (Table 2, panel 1), about 37 per cent of the estimates analyse the impact on the earnings of participants, while about 30 per cent consider as outcome the probability of employment. Moreover, one fifth of the estimates provides information on the probability of participants of finding formal employment, and 13 per cent investigate impacts on hours worked. Retrieving the estimates relative to the two latter outcome variables is, as mentioned above, one of the novelties of our analysis with respect to existing meta analyses. The dependent variables “hazard off register” and “unemployment” are only represented in the data with very few cases and are thus not considered separately in the empirical analysis.

It is important to note that there is some heterogeneity in the measurement of the outcome variables by the different studies, particularly with regards to formal employment. Studies can be divided into those that use contributions to social protection schemes to define the formality of jobs (45 per cent), those that use having a written contract (22 per cent), those more strict where individuals have to fulfil both of these requirements to be employed formally (22 per cent), and those that use

either of the two definitions depending on data availability for the particular group (11 per cent). Although there is consensus in the literature that these two factors are indicators of better working conditions (Attanasio et al., 2011; Galdo and Chong, 2012), the particular implications of each measure can vary: while social protection coverage is associated with individuals working in registered firms that contribute to their health insurance and/or retirement fund pension, a written contract may not necessarily imply this.

Table 2. LAC meta data: dependent variables and evaluation methods used

	No. of estimates	Per cent
Dependent variable		
Hazard off register	2	0.7
Unemployment	1	0.3
Employment	89	30.1
Earnings	108	36.5
Formal employment	59	19.9
Hours worked	37	12.5
Main methodology		
Cross sectional	71	24.0
Duration with comparison group	2	0.7
Experimental	49	16.6
Longitudinal with comparison group	174	58.8
Covariate adjustment method		
Regression	119	40.2
Matching	177	59.8

Notes: Due to the fact that the dependent variables “hazard off register” and “unemployment” have very few observations, they are not considered separately in the empirical analysis.

Finally, regarding the methodological approach used in the studies included in the meta sample, as shown in panel 2 of Table 2, around 17 per cent of estimates originate from experimental designs, while the majority of estimates (around 59 per cent) are based on quasi-experimental designs using a comparison group with longitudinal data. The remaining 25 per cent of estimates is based on cross-sectional approaches, and there are virtually no estimates arising from studies that use duration models for the ALMPs evaluated in the region. Both regression (40 per cent) and matching methods (60 per cent) are used to adjust for covariate imbalance between treatment and control groups (Table 2, panel 3). Interestingly, there appears to be a growing trend in the use of experimental methods in the region since the mid-2000s, and particularly recently: five of the nine studies from 2010 onwards use randomized designs. However, it is worth noting that estimated impacts derived from randomized controlled trials do not differ widely from quasi-experimental studies in terms of statistical significance in the overall sample (see also Card et al. 2010, 2017).

Moreover, impact estimates do not show any particular trend over time and, therefore, technical developments in evaluation methods do not seem to have any specific effect on the sign or statistical significance of programme impacts (Figure 3).

Figure 3. Mapping of studies by year of evaluation, significance, and method



* Jimenez and Kugler (1986, 1987) evaluate the effects of the job training component of Colombia's Servicio Nacional de Aprendizaje (SENA) in 1981.

Notes: Dates reported correspond to the year in which the programme evaluation started. Orange labels correspond to studies using regression-based methods; blue to quasi-experimental methods (RDD, DID and PSM, mainly) and grey to experimental designs (randomized control trials).

Effects are categorized as positive if the programme has a statistically significant positive impact on all outcome variables; positive/not significant if the impact is positive and statistically significant on at least one but not all outcome variables; not significant if the programme does not show any statistically significant impact on outcome variables; and negative if the programme has a statistically significant negative impact on outcome variables.

3. The effectiveness of ALMPs in LAC

This section attempts to identify patterns, commonalities and trends in the 51 impact evaluations considered in this paper. The review focuses on four main variables of ALMP effectiveness; namely the impact on beneficiaries in terms of (i) employment, regardless of whether this is paid,

formal or otherwise; (ii) earnings, either regular wages or net income; (iii) hours worked; and (iv) formal employment. Each of these variables is disaggregated, when possible, by sex and age group (youth and adult). In terms of structure, this section examines the literature according to the type of ALMP; specifically, training programmes, public works, employment subsidies, self-employment and micro-enterprise creation programmes and labour market services and Public Employment Services (PES).

3.1 Training programmes

Training programmes can be considered the most popular ALMP in LAC offered to improve employability to unemployed people and vulnerable groups. For this reason, it is not surprising that training constitutes the programme type that has been most frequently evaluated in the region. Although the main objective of training programmes is to upgrade the skills of targeted groups, they usually have at their disposal a panoply of tools to reach this goal, ranging from classroom and/or on-the-job training to competency training. Importantly, according to the available impact studies, most of the literature on the effectiveness of training programmes stresses the positive role of vocational training and other skills development measures in fostering more successful labour market trajectories (Table 3).

The majority of the studies record significantly positive impacts of training programmes on increasing the probabilities of participants to be in employment, as well as on raising their earnings. Likewise, although a relatively fewer number of studies have examined the effect on formality, the vast majority of the available literature finds that training programmes contribute to raising the odds of having a formal job. A particularly interesting example in this regard is the evaluation of *Juventud y Empleo* in the Dominican Republic, which showed persistent long-term effects on formal employment, although not on overall employment (Ibarrarán et al., 2015).

In contrast, empirical evidence on the impact of training programmes on hours worked is somewhat mixed. Indeed, only the programmes *Programa de Formación en Oficios para Jóvenes de Escasos Recursos* in Chile (Centro de Microdatos, 2006), *Seguro de Capacitación y Empleo* in Argentina (López Mourello and Escudero, 2017), *ProJoven* in Peru (Ñopo et al., 2007) and *PROBECAT* in Mexico (Revenga et al., 1994) were found to have a universally positive effect on the number of hours worked. The remaining studies either do not find any effect – for example, the programme *PROIMUJER* in Uruguay (Alesina et al., 2005) – or the positive impact is confined solely to women – such as in the case of *Jóvenes in Acción* in Colombia (Attanasio et al., 2011). Elsewhere, other benefits associated with training programmes were identified, such as enhanced access to credit and improvements in non-cognitive skills, as in the case of *Entra 21* in Argentina (Alzúa et al.,

2013) and *Galpão* in Brazil (Calero et al., 2014), respectively – irrespective of whether these positive impacts actually improved labour market outcomes.

Interestingly, this positive impact of the training programmes implemented in LAC is notably different from the evidence for OECD countries, where training programmes are often only modestly effective (Heckman et al., 1999; Betcherman et al. 2004). One of the reasons that might explain this divergence is that training programmes in LAC countries are generally accompanied by other labour market interventions (i.e. as part of a broader activation strategy), sometimes even by some form of income support (ILO, 2016a). A good example of this comprehensive type of training programme is the *Seguro de Capacitación y Empleo* in Argentina (López Mourelo and Escudero, 2017).

In spite of the general positive effects that result from training programmes, the impact evaluations reviewed also suggest that labour market outcomes are strongly influenced by the target population and the design of the programme.

Table 3. Findings on the impact of training programmes by study, outcome variable and target group

Study	Employment				Earnings				Hours worked				Formal employment				Notes and other estimates
	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	
Aedo and Núñez (2004)		+	ns	ns		+	ns	ns /+									Results on earnings are statistically significant only for young males and adult females. Treatment group: individuals aged 16 to 35. Youth refers to people under 21.
Aedo and Pizarro (2004)	+	+	ns	+	+	+	+	+					+	+	ns	+	Treatment group: individuals aged 16 to 24 in theory; while in practice individuals above 24 also participated. Youth refers to people under 21.
Alesina et al. (2005)		+				ns				ns				ns			Treatment group: women.
Alzuá and Brassiolo (2006)	ns	ns	ns		ns	+	ns						+	+	ns		Treatment group: youth aged 16 to 35. The estimates reported refer to the short-term effects.
Alzuá et al. (2013)					+								+	ns	+	+	Treatment group: individuals aged 18 to 30. Youth refers to people under 25.
Attanasio et al. (2011)		+	ns			+	ns		+	ns			+	+			Negative effect on job retention. Treatment group: youth aged 18 to 25.
Attanasio et al. (2015b)					+	+	ns						+	+	ns		Results correspond to long-term effects. Treatment group: individuals aged 18 to 25.
Calderón-Madrid (2006)		+	ns														Positive effects on job retention.
Calero et al. (2014)	+				+				ns				ns				Positive effects appear after five months. Treatment group: individuals aged under 29.
Card et al. (2011)	ns	ns	ns	ns	+	ns	ns	ns	ns				+				Treatment group: individuals aged 17 to 29. Youth refers to people aged 17 to 21.
Castillo et al. (2014)													+	+	+		Treatment group: individuals aged 18 or over.
Centro de Microdatos (2006)	+				+				+				+				Positive effects on job tenure, social protection coverage and other job-quality measures. Treatment group: youth aged 20 to 30.
Centro de Microdatos (2008)		ns	+			+	+			ns	+			+	+		Estimates reported refer to short-term effects. Medium term effects are not significant. Treatment group: mainly youth aged 20 to 30 (but also youth aged 16-20 with children and people aged 30 or more with secondary education incomplete).

Table 3 (contd.)

Study	Employment				Earnings				Hours worked				Formal employment				Notes and other estimates
	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	
Chong and Galdo (2006)					+	+	ns										Larger effects on earnings in the medium term than in the short term. Male participants show positive effects in the short term and non-significant effects in the medium term. Higher treatment effects for female than male participants. Treatment group: youth aged 16 to 25.
Corseuil et al. (2012)	+				+								ns				Treatment group: youth aged 17.
Delajara et al. (2006)	+	+	+	+	+	+	ns	+									Larger effects on employment and earnings for women with higher education.
Díaz and Jaramillo (2006)	ns	+	ns	+	+	+	+	+	+	ns	ns	ns	+	+	+	+	Women and youth aged 16 to 20 benefit more from the programme. Medium-term effects for hours worked are positive for women. Treatment group: youth aged 16 to 24. Youth refers to people under 21.
Galdo and Chong (2012)	ns	+	ns		+	+	+						+	+	+		Larger effects on earnings and formality for participants of high-quality training schemes. Positive effects on earnings and formal employment for men are significant only 1 year after the programme while other positive effects are significant 1 and 2 years after the programme. Treatment group: youth aged 16 to 25.
Ibarrarán and Rosas-Shady (2006)	ns	+	ns	ns	ns	+	ns	ns	+	+	ns	+					The programme has two modalities: the insertion modality (training) and the transition modality (job-search assistance). The reported results refer to the overall programme effects. Treatment group: individuals aged 18 to 33. Youth refers to people under 25.
Ibarrarán et al. (2014)	ns	ns	ns		+	+	ns						ns	ns	+		Impact on earnings is found only in the formal sector. Treatment group: youth aged 16 to 29.
Ibarrarán et al. (2015)	ns	ns	ns	ns	ns	+/ns	ns	ns					+	ns	+	ns	Results correspond to long-term estimates. Treatment group: individuals aged 16 to 29. Youth refers to people under 22.
Jimenez and Kugler (1986)					+												Larger effects on earnings are found for long training courses.

Table 3 (contd.)

Study	Employment				Earnings				Hours worked				Formal employment				Notes and other estimates
	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	
Jimenez and Kugler (1987)								ns									Non-significant effects of short training courses on earnings but positive effects on overall courses. Treatment group: men.
Kaplan et al. (2015)	-	+			-	+											Positive effects on overall job retention. The estimates are also relatively more positive for women than men.
López-Mourelo and Escudero (2017)	ns	ns		ns	+	+		+	ns	ns		+	+	-		+	
Medina and Núñez (2005)						ns	ns	ns									
Naranjo Silva (2002)	+				+								+				
Ñopo et al. (2007)	+	+	-		+	+	+		+	+	+						Larger effects on employment and earnings for women. Effects reported correspond to impacts after 18 months of participating. Short-term effects on employment are non-significant for both men and women. Treatment group: youth aged 16 to 25.
Revenga et al. (1994)		+	+			ns	+			+	+					+	Larger effects on earnings for the more highly educated. Employment effects are significant for men 3 and 6 months after the programme; for women without previous work experience 3 months after the programme; and for women with previous work experience 3, 6 and 12 months after the programme. All other medium-term effects are non-significant.
Rosas-Shady (2006)	ns	+	ns	ns	+	+	+	+	+	ns	ns	ns	+	+	+	+	Larger effects on formal employment and earnings for women. The estimates reported refer to the short-term effects of the programme. Treatment group: youth aged 16 to 24. Youth refers to people under 21.
Santa María et al. (2009)	+	+	+		+	+	ns						ns	ns	ns		Larger effects on employment and earnings for women. Treatment group: youth aged 16 to 29.
Statcom (2006)	+	+	+		+	+	+						ns	-	+		Positive effects on overall job retention. Treatment group: youth aged 16 to 21.

Notes: The estimated effects are classified as: positive and statistically significant (+), negative and statistically significant (-) and not statistically significant (ns). Specific target populations are defined in the notes column. All estimates correspond to short-term effects, unless otherwise specified.

For instance, one of the most interesting findings is that training programmes that specifically target youth are more likely to have positive impacts, i.e. the clear majority of studies on youth training programmes find a positive impact on labour market performance of participants. Only the evaluation of the programme *PROCAJOVEN* in Panama (Ibarrarán and Rosas-Shady, 2006) documented negligible effects. This persistent positive finding differs notably from the empirical evidence for OECD countries, which concludes that youths represent a target group that is particularly difficult to assist effectively (Betcherman et al., 2004; Kluge, 2016).

Two main hypotheses may explain this interesting finding. First, there may be differences in human capital between youth programme participants in the two regions. On average, young people in OECD countries have fairly high levels of skills and education and the youths targeted by training programmes in these countries often constitute a comparatively disadvantaged group that is hard to assist and employ. In LAC countries instead, where the skills intensity of the labour demand is lower, training interventions may target a more heterogeneous group, which has, on average, a higher potential to succeed in the labour market. Second, certain specific characteristics of youth training programmes in LAC (e.g. the so-called *Jóvenes* programme model) may be contributing to their effectiveness. Among them, the offer of a comprehensive training that includes several components (e.g. basic skills, soft skills and labour market intermediation), and combines classroom based training with a subsequent job-experience phase, might be playing a prominent role (Puerto, 2007).⁷

In addition, the impact of training programmes appears overall higher among women than men. While some studies find that the impact on earnings and/or employment is significant only for women (Aedo and Núñez, 2004; Attanasio et al., 2011), others find a positive impact for both groups, but longer lasting for women (Delajara et al., 2006). Interestingly, impact evaluations of Peru's *ProJoven* programme suggest that this intervention helped to provide avenues by which women could be drawn into male-dominated industries, and thus reduced occupational segregation (Ñopo et al., 2007).

Regarding the design of the programme as a driver of effectiveness, the chances of success appear to be enhanced when an on-the-job training component is included (as it is in the case of apprenticeships and internships). Some examples of this trend are *ProJoven* in Peru (Ñopo et al., 2007) and the *Opción Joven* and *Pro-Joven* programmes in Uruguay (Naranjo Silva, 2002). In addition, programmes undertaken in collaboration with private institutions, as well as training schemes where providers are selected through a bidding process, are found to have a greater impact on employability than those that do not include these elements (Medina and Núñez, 2005; Chong and Galdo, 2006). One explanation for this could be that communication and social dialogue with the private sector allows training providers to improve the

⁷ Our meta-regression model for the training sub-sample estimates whether in fact these training design features drive the effectiveness of these programmes (see Section 4.3).

relevance and quality of the training offered and, therefore, to develop workers' skills to match the requirements of employers.

3.2 Public works

Public works programmes have become one of the most widely used ALMP during economic crises in LAC countries. A distinctive feature of these programmes relates to their multiple objectives. In emerging and developing countries, these interventions do not only aim at creating jobs but also at achieving local development through the provision of infrastructure and services for the community, and poverty reduction by offering temporary employment to vulnerable families. This is the reason why much of the empirical evidence on the impact of public works programmes has focused on their role as an anti-poverty strategy and, in consequence, very little is known about the employment outcomes of these programmes after participation (Table 4).

According to the reviewed studies, public works provide effective income support, which reinforces the “pro-poor” nature of this type of programmes. In particular, the programmes *Trabajar* (Jalan and Ravallion, 2003) and *Plan Jefes* (Ronconi et al., 2006), implemented during different economic crises in Argentina, as well as the Peruvian programme *Construyendo Perú* (Macroconsult S.A., 2012) have been successful in their anti-poverty objective during participation without generating deadweight losses. This success may be partly attributable to the fact that workfare participants were already receiving relatively low wages – below the wage offered by the public works programme – which itself was in most of the cases below the reservation wage for the non-poor population (Jalan and Ravallion, 2003).

However, findings are not that positive with respect to the impact of public work programmes on the labour market trajectories of participants. For instance, the evaluation of the programme *Construyendo Perú* concludes that this intervention helped raising employment and reducing inactivity for particular groups of beneficiaries, yet at a cost of locking participants in lower quality jobs (Escudero, 2016). Likewise, the evaluation of the programme *PLANE* implemented in Bolivia shows that, within the context of high labour market rigidity in which the programme took place, there was no impact on the probability of employment post-intervention – but still a positive impact in terms of consumption smoothing (Hernani-Limarino et al., 2011).

All studies reveal that public works programmes benefit different groups to varying degrees. While female participants in the Colombian *Empleo en Acción* were found to exhibit the greatest earning gains (Attanasio et al., 2015a), younger beneficiaries of the programme *Trabajar* showed a higher positive impact (Jalan and Ravallion, 2003). This may be due to the fact that younger workers have lower reservation wages and wage expectations than their older counterparts, and thus were more likely to experience improvements from the public works programme.

3.3 Employment subsidies

Employment and wage subsidies take several forms, including payment of a proportion of the worker's salary – such as the Argentinean *Proempleo* programme (Galasso et al., 2004) – or offering reductions in social security contributions over a specified period of time – as in the case of *Programa de Bonificación a la Contratación de Mano de Obra* in Chile (Fundación AGRO UC, 2009). In LAC countries, subsidies usually target vulnerable groups, such as beneficiaries of CCTs and young people.

Most of the studies on employment and wage subsidies covered in this review report a positive impact on the employability of participants – as in the case of the programmes *REPRO* in Argentina (Castillo et al., 2012) and *Subsidio al Empleo Joven* in Chile (Centro de Microdatos, 2012), with the latter also documenting positive impacts on formal employment. Interestingly, the impact evaluation of the Argentinean programme *Proempleo* reports positive employment effects for all groups of participants, but men (Galasso et al., 2004). Only the impact evaluation of *Programa de Bonificación a la Contratación de Mano de Obra* in Chile finds an overall negligible employment impact, including on formal employment (Fundación AGRO UC, 2009). In addition, results are less optimistic with respect to the impact of employment subsidies on wages. The two studies that have analysed this issue do not find any statistically significant impact of employment subsidies on earnings (Fundación AGRO UC, 2009; Galasso et al., 2004). Despite the general positive effect associated with employment subsidies in LAC, it is important to bear in mind that the studies included in this review do not explore the deadweight and substitution costs usually associated with this type of intervention.

Table 4. Findings on the impact of other ALMPs by study, outcome variable and target group

Study	Employment				Earnings				Hours worked				Formal employment				Notes and other estimates
	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	Overall	Women	Men	Youth	
Public works																	
Escudero (2016)	ns	+	ns		ns	ns	Ns		+	ns	ns		-	ns	ns		
Hernani-Limarino et al. (2011)	-				-												
Jalan and Ravallion (2003)					+	+		+								Estimated effects only during participation.	
Macroconsult S.A. (2012)					+	+	-									Estimated effects only during participation.	
Ronconi et al. (2006)	ns				ns	+	+						ns			Positive effects on earnings for women and men found only during participation.	
Attanasio et al. (2015)					ns				ns							Effects are measured 4-13 months after the end of the project. When effects are measured during participation, the results are positive and statistically significant.	
Employment subsidies																	
Castillo et al. (2012)	+															Effects are estimated at the firm level.	
Centro de Microdatos (2012)	+	+	+										+	+	+	Treatment group: youths aged 18 to 25.	
Fundación AGRO UC (2009)	ns			ns	ns			ns					ns		ns	Youth refers to people under 25. Results on youth correspond to the component "Joven Chile Solidario"	
Galasso et al. (2004)	+	+	ns	+	ns	ns	ns	ns								Employment refers to wage employment. Youth refers to people under 31.	
Self-employment and micro-enterprise creation																	
Almeida and Galasso (2010)					ns	ns		ns	+							Results on employment refer to the probability of having a job outside the programme. Youth refers to people under 30.	
Klinger and Schündeln (2011)	+	+	+													Employment refers to opening a business.	
Macours et al. (2013)	+				+											Results correspond to the training component of the programme. Results for earnings refer to non-agriculture wage income in the private sector.	
Steiner et al. (2010)	+				+				ns							Treatment group: youths aged 16 to 25.	
Valdivia (2011)					ns											Results refer to improvements in business sales and profits. Treatment group: women with family business.	
Labour market services and the PESs																	
Acero et al. (2009)	+				ns				ns							No significant effects on job retention. Treatment group: youth aged 18 to 29.	
Dammert et al. (2015)	+	+	+		ns											Treatment group: new registered users to employment system.	
Chacaltana and Sulmont (2003)	+				+											Positive effects on job retention. Treatment group: youth aged 16 to 25.	
Pignatti (2016)					-	-	ns						+	+	+		

Notes: The estimated effects are classified as: positive and statistically significant (+), negative and statistically significant (-) and not statistically significant (ns). Specific target populations are defined in the notes column. All estimates correspond to short-term effects, unless otherwise specified.

3.4 Self-employment and micro-enterprise creation

Self-employment and entrepreneurship programmes refer to all initiatives aimed to support the start-up and development of independent work activities or micro-enterprises. Usually, self-employment and micro-enterprise creation programmes include technical services, such as counselling, training and assistance with business planning, in addition to the financial support. This trend is observed among the five programme evaluations included in this review, as all of them incorporated a training element (Table 4). For instance, *Jóvenes Rurales Emprendedores*, implemented in Colombia to promote independent work among poor young people in rural areas of the country, includes training courses oriented towards different economic sectors (e.g. agriculture, manufacturing, tourism), whose content and structure is agreed in consultation with the private sector and after taking local labour market needs and recent trends into consideration (Steiner et al., 2010).

All the studies reviewed that have evaluated the employment impacts of self-employment and micro-enterprise creation programmes find positive effects. By contrast, findings are mixed with respect to raising earnings or profits. For example, while *TechnoServe* in Central America (Klinger and Schündeln, 2011), *Atención a Crisis* in Nicaragua (Macours et al., 2013) and *Jóvenes Rurales Emprendedores* in Colombia (Steiner et al., 2010) were successful in helping beneficiaries to start a business or become self-employed, only the two latter programmes showed positive effects on earnings. Likewise, the overall earnings impact was negligible in the business training programme for female micro-entrepreneurs implemented in Peru (Valdivia, 2011) and in the case of the Argentinian programme *Microemprendimientos Productivos* (Almeida and Galasso, 2010), although the impact of the latter programme was higher for the better educated participants.

The empirical evidence reviewed in this paper suggests that programmes which combine technical assistance with financial support increase the likelihood of starting a business, thus supporting the hypothesis that capital constraints are a major impediment to would-be entrepreneurs in these countries. Accordingly, seed capital and business grants seemed to have been able to facilitate those with “entrepreneurial” ambitions and, for those who were already moving towards self-employment, helped to overcome the major obstacle of the initial sunk costs.

Despite the positive effects of self-employment and micro-enterprise creation programmes on labour market outcomes, some debate exists concerning the role of these initiatives as a local development strategy. Some studies stressed the pro-poor nature of this type of programmes when targeting rural communities. For instance, in Nicaragua, the programme *Atención a Crisis* led to increased participation in non-agricultural self-employment and higher income from related activities, which therefore contributed to the structural development of some rural areas (Macours et al., 2013). However, given the strong correlation between self-employment and informality and the fact that many micro-enterprises

and small firms operate in the informal sector with low levels of productivity, programmes promoting independent work could be considered to generate incentives to engage in informal employment (OAS/ECLAC/ILO, 2010).

3.5 Labour market services and the PES

Labour market services are activities designed to increase the efficiency of the searching process and the quality of the resulting job matches, through components such as counselling, mentoring, monitoring and assistance in the development of a job career plan. The PES (or Public Employment Service) is the government institution that – when present in a country – provides as part of its responsibilities these employment services (ILO, 2016a). There is a shortage of impact evaluation studies on the role of labour market services and PES in LAC, which may reflect the limited use of the programmes compared with other ALMPs in the region. Evaluations of the *ProEmpleo* programme in Peru (Chacaltana and Sulmont, 2003) and *Programa Jóvenes al Bicentenario* in Chile (Acero et al., 2009) find that the effects were positive for employment, with the former also reporting positive impacts on earnings. More specifically, employment impacts of *ProEmpleo* were found to be both significant and lasting, with the effects after six months persisting for 12–18 months. The impact on earnings was positive for those who had worked previously – an increase in hourly wages of around 7 to 10 per cent following the programme compared with their wages before participating (Chacaltana and Sulmont, 2003). Meanwhile, *Programa Jóvenes al Bicentenario* in Chile presented more modest impacts, but did improve the employability of participants (Acero et al., 2009).

Finally, the lack of impact evaluations on PES and labour market services suggests that more research is needed to estimate the effectiveness of these programmes in a context of high informality and where hiring usually takes place through informal means. Moreover, the relatively weaker capacity of labour market and social institutions to implement programmes in many LAC countries might also have an effect on the efficacy of job-search assistance programmes in these countries. Nevertheless, a new impact evaluation of the Colombian PES (*Agencia Pública de Empleo*, APE) aims to fill in this void (Pignatti, 2016). This study finds that finding employment through APE increases the probability of being in a formal job (compared with similar individuals who found their job through other channels). The analysis also reveals that while finding a job through APE has a significant and positive effect on the wages of low-skilled participants, the impact on wages of high-skilled individuals, as well as the overall effect, is negative.

Within the context of this narrative literature review of the existing impact evaluations of ALMPs in LAC, it is important to bear in mind some limitations of traditional literature reviews. More specifically, all the individual evaluation results described in this section are subject to factors beyond the control of the programme evaluation (e.g. macroeconomic conditions), which can skew both results and interpretation. Additionally, a narrative literature review does not necessarily reveal the aspects that drive

programme effectiveness across countries and types of interventions and is also possibly subject to the reviewer’s bias. These issues are partly addressed in Section 4. Indeed, the meta analysis allows for a decomposition and synthesis of the 51 impact evaluations reviewed in this section, taking into account the macroeconomic context of respective interventions. Moreover, this meta analysis allows general conclusions to be drawn regarding what works in the region, and under which circumstances.

4. A new meta-analysis sample of ALMP evaluations for LAC

4.1. Meta-analytical model

As discussed above, our sampling approach builds on and extends the worldwide ALMP meta analyses approach, in particular that of Card et al. 2010 and 2017. In line with this, we implement empirically the corresponding conceptual approach, following Card et al. (2017).

Consider an ALMP evaluation in LAC that models an outcome y observed for members of both a participant group and a comparison group. Let b represent the estimated impact of the programme on the outcomes of the participants from a given evaluation design, and let β represent the probability limit of b (i.e., the estimate that would be obtained if the sample size for the evaluation were infinite). Under standard conditions the estimate b will be approximately normally distributed with mean β and some level of precision P that depends on both the sample size for the evaluation and the design features of the study. This leads to:

$$b = \beta + P^{-1/2} z , \tag{1}$$

where z is a realization from a distribution that will be close to $N(0,1)$ if the sample size is large enough. The term $P^{-1/2}z$ has the interpretation of the realized sampling error that is incorporated in b . In the next step, assume that the limiting programme effect associated with a given study (β) can be decomposed as:

$$\beta = X\alpha + \varepsilon , \tag{2}$$

where α is a vector of coefficients and X captures the observed sources of heterogeneity in β , arising for example from differences in the type of programme, characteristics of programme participants or contextual factors. The term ε represents fundamental heterogeneity in the limiting programme effect arising from the particular way a programme was implemented, specific features of the programme or its participants, or the nature of the labour market environment. Equations (1) and (2) lead to a model for the observed programme estimates of the form:

$$b = X\alpha + u , \tag{3}$$

where the error $u = \varepsilon + P^{-1/2}z$ includes both the sampling error in the estimate b and the unobserved determinants of the limiting programme effect for a given study.

Card et al. (2017) propose the use of simple regression models based on equation (3) to analyse the programme effects on the relevant outcomes available in the metasample. The interpretation of these models is that they provide descriptive summaries of the variation in average programme effects due to differences in the observed characteristics of a given programme and participant group, and contextual factors. Recognizing the structure of the error component in (3), Card et al. (2017) prefer the OLS estimation, which weights each estimated programme effect equally, rather than the precision-weighted estimation, which would be efficient under the assumption that $\varepsilon=0$. As they point out, in contrast to “classical” meta-analysis settings where each estimate is based on a clinical trial of the same drug, the variation in ε appears to be particularly large for ALMPs, reflecting the wide range of factors that can potentially influence a programme to be more or less successful.

Following this methodological approach, and extracting for each estimate information related to whether it was “statistically significant negative”, “statistically significant positive”, or “not statistically significant from zero”, we would intend to estimate an (unweighted) ordered probit (OP) model for this 3-way classification of programme effects. Note that the t-statistic associated with the estimated impact b is the ratio of the estimate to the square root of its estimated sampling variance (which is the inverse of its estimated precision). Using equation (3), this leads to (Card et al. 2017):

$$\begin{aligned} t &= P^{1/2} b \\ &= P^{1/2} X\alpha + z + P^{1/2} \varepsilon \end{aligned}$$

If the precision P of the estimated programme effects is constant across studies and there are no unobserved determinants of the limiting programme effect (i.e., $\varepsilon=0$), the t-statistic will be normally distributed with mean $X\alpha'$ where $\alpha' = P^{1/2} \alpha$. That is, the coefficients from an OP model for whether the t statistic is less than -2, between -2 and 2, or greater than 2 (i.e., the sign and significance of the estimated programme effects) will be strictly proportional to the coefficients obtained from a regression model of the corresponding estimated size programme effects.

In our sample for LAC, as is the case for the worldwide sample, the estimated precision of the programme estimates varies widely across studies, and the impacts display unobserved heterogeneity. Unfortunately, the necessary information required to code effect sizes (in particular, the mean outcome and the standard deviation) is often not reported in the studies included in our sample. However, using those observations in their sample for which both an effect size and a sign/significance classification are available, Card et al. (2017) show that the estimated coefficients from effect size models based on equation (3) and models for sign/significance are very nearly proportional. They interpret this as an indication that the same

observable factors that tend to raise the estimated programme effects also tend to lead to more positive t statistics. This pattern suggests that the sampling error component of the programme estimates is small relative to the variation due to observed and unobserved heterogeneity, so the t-statistic varies across studies in proportion to the relative magnitude of the estimated programme effect.

Looking at Table 5, which depicts an overview of the statistical significance of impact estimates, it can be noted that only a very small number of estimates are significantly negative. For this reason, the meta regressions implemented subsequently (see below) combine the “significantly negative” and “insignificant” categories into a non-positive category, and use linear probability models with an indicator “positive significant yes/no (1/0)” as dependent variable. Card et al. (2010) test ALMP meta-regression models based on the trinomial outcome vs. a “vote-counting” approach distinguishing binomially between “statistically significant positive” and “not statistically significant positive” and find that the qualitative results are the same. We are therefore confident that using discrete outcomes correctly describes the relevant patterns in our data.

Table 5. Summary of estimated impacts

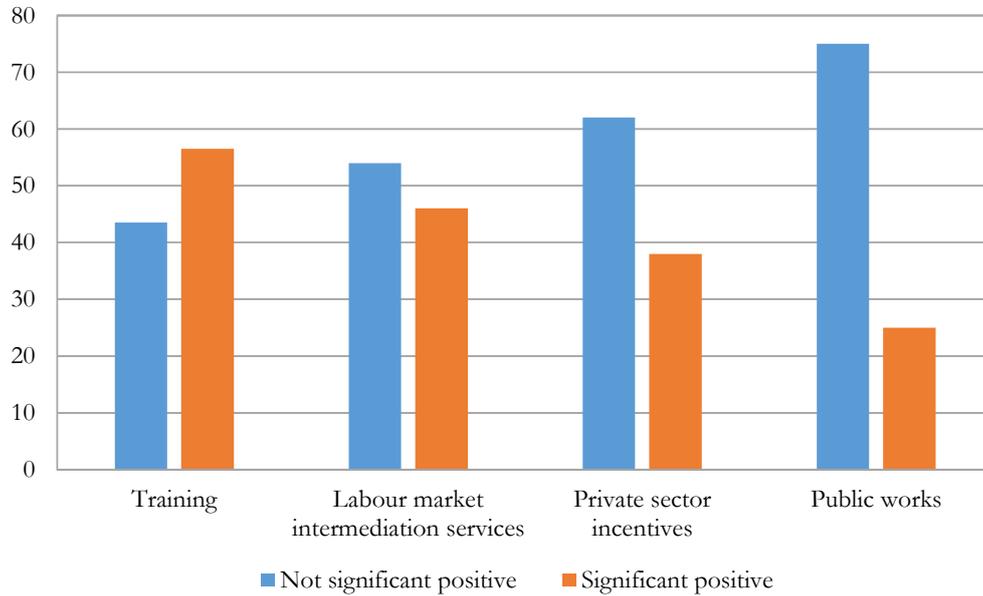
	Significant negative	Insignificant	Significant positive
Short-term (N=184)	7 3.8%	78 42.4%	99 53.8%
Medium-term (N=112)	1 0.9%	56 50%	55 49.1%

4.2. Empirical results for the full sample

Figure 4 shows the distribution of impact estimates by statistical significance. More specifically, Panels A and B of this figure provide some descriptive evidence of the way in which this “raw success probability” correlates with programme type and evaluation outcome, respectively. The resulting patterns are illustrative: Panel A indicates that skills training is the only programme type for which the raw probability of showing a significant positive impact is larger than the probability of a non-positive impact (henceforth we refer to significance in statistical terms); and Panel B shows that formal employment is the outcome for which the probability of a significant positive impact is twice as large as the probability of a non-positive impact. At the same time, for both earnings and employment the two probabilities are equated, while for hours worked the share of significant positive impacts is smaller than the non-positive ones.

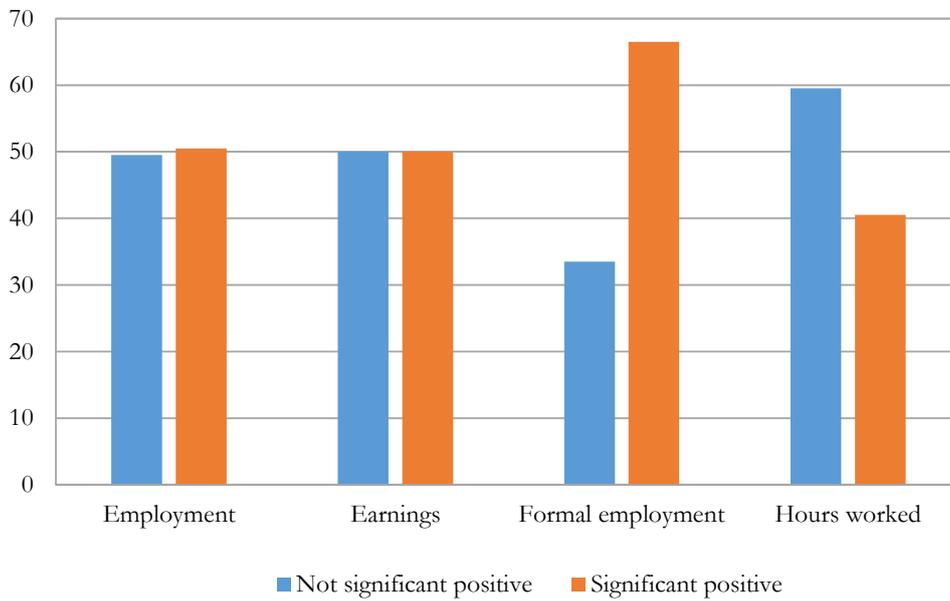
Figure 4. Distribution of impact estimates by statistical significance

Panel A. Probability of significant positive and non-positive impacts by programme type



Note: Number of observations for the four programme types are 225, 26, 25, 19.

Panel B. Probability of significant positive and non-positive impacts by outcome category



Note: Number of observations for the four outcome categories are 89, 108, 59, 37.

Returning to Table 5, the descriptive statistics do not suggest that medium-run estimates are more likely to be positive in LAC than the short-run estimates. Instead, the fraction of significantly positive estimates is almost 5 percentage points smaller in the medium run (49 per cent) than in the short run (54 per cent). This result differs substantially from meta analyses using OECD samples, which find that the share of

medium-run estimates with a positive impact is considerable higher than among short-run estimates (Card et al., 2017).

This differential finding is striking, especially against the fact that most programmes in our sample are training programmes, and that the pattern identified in Card et al. (2017) shows indeed that are especially the human capital inducing programmes those that show increasingly positive impacts in the long run. This result may point to the fact that the human capital investments implied in the LAC training programmes are too small (recall the relatively short durations of the programmes) to yield large long-term employment or earnings gains. Whereas counterexamples exist (e.g. Ibararán et al. (2015) who find some slowly increasing and sustained impacts in a long-term study for the Dominican Republic), it is noteworthy that the traditionally overall positive assessment of the *Jóvenes* programmes has been largely based on their short-term impacts; which may in fact provide only a partial view.

Table 6 contains empirical results from meta-analytical regressions. The regressions correlate the measure of programme effectiveness (binary indicator for positive sign and significance) with a set of explanatory variables using a linear probability model. Standard errors are clustered at the level of the programme evaluation study. The first column of Table 6 reports a basic specification with covariates for programme type and time horizon; the second column introduces outcome categories; the third column reports also key target group characteristics; the fourth column includes evaluation design features and programme details; the fifth column adds country effects; and, finally, the sixth column introduces controls for contextual factors, namely the average GDP growth rate during the period in which the programme evaluated was implemented.⁸ The set of explanatory variables is explained above in the section on sample summary statistics.

The results from the meta regressions indicate that training programmes in LAC are – slightly – more successful than all other programme types (panel i), in particular relative to public works programmes (the base category) (i.e. the coefficient on training is positive throughout, and significant in specifications (1) and (2)). In addition, this panel shows that – quite different from the results for ALMP worldwide found by Card et al. (2017) – impact estimates do not become more positive over time. Specifically, the coefficient on the medium-run estimates is very small in size with a large standard error in all specifications. Notwithstanding the generally positive result that training is more effective than other programmes, the latter finding may be a cause for concern in the design of these training programmes, as the human capital component contained may not be substantial enough to bring about significant and sustained impacts.

⁸ In additional specifications (available upon request) we included other characteristics of the studies (e.g. sample size) and contextual factors (e.g. public spending on education) – the estimation results do not change substantively the sign and significance of coefficients, and the additional covariates are not statistically significant.

The second panel introducing outcome categories (ii) shows that the descriptive results discussed above also hold in the multivariate analysis. Formal employment appears to be the outcome that is significantly more likely to be affected in a positive way by ALMPs in LAC, relative to other employment outcomes, earnings, and hours worked. Importantly, this result holds when controlling for contextual economic factors. This is an important result for a region with a large and growing share of informal employment (46.8 per cent in 2015 – ILO, 2016a and 2016b).

In terms of the target group (panel iii), we find indications for differential effects by gender and age group. First, female programme participants are more likely to benefit from ALMPs than males: the coefficients are consistently positive and significant for females. This is in line with a pattern observed worldwide in the most recent data (Card et al. 2017). Second, youths seem to benefit significantly more from programme participation, relative to older workers; although this result does not hold when country effects and contextual factors are included in the specification.

Looking at programme details (panel iv), interventions with a short duration are significantly less likely to produce positive impact estimates. Whereas this finding has to be interpreted against the caveat that the base category is not well-reported in the primary studies (missing/unknown duration), it does point to the tentative interpretation that some minimum investment needs to be made by programmes in order to be effective, and that very short programmes (of less than four months) may not be sufficiently effective. Panel iv also indicates that the findings from experimental studies do not differ from the findings from quasi-experimental studies; this result echoes the same finding worldwide in Card et al. (2017).

Finally, economic and country contextual factors have a highly significant impact on the effectiveness of ALMPs in LAC (panel v and vi). More specifically, programmes are more likely to present positive impacts during economic booms, as the annual GDP growth rate shows a significantly positive correlation with programme effectiveness. This suggests that these types of interventions can be particularly effective if they help individuals integrating into an already expanding labour market – especially if they are characterised by a limited investment compared to ALMPs in OECD countries.

Table 6. Linear probability models for positive sign/significance of estimated programme impacts: full sample

	(1)	(2)	(3)	(4)	(5)	(6)
(i) Programme type and time horizon (base: public works, short-run)						
Training programme	0.355* (0.136)	0.336* (0.139)	0.235 (0.138)	0.068 (0.116)	0.103 (0.138)	0.200 (0.127)
Labour market intermediation services	0.244 (0.156)	0.243 (0.158)	0.197 (0.152)	-0.033 (0.139)	0.004 (0.193)	0.080 (0.162)
Private sector incentives	0.149 (0.223)	0.114 (0.225)	0.018 (0.206)	-0.137 (0.165)	-0.075 (0.193)	0.039 (0.163)
Effect estimated in the medium-run	-0.094 (0.064)	-0.093 (0.061)	-0.111 (0.064)	-0.047 (0.063)	-0.044 (0.053)	-0.060 (0.051)
(ii) Outcome category (base: hours worked, hazard off register, unemployment)						
Earnings		0.097 (0.115)	0.117 (0.120)	0.104 (0.127)	0.132 (0.125)	0.125 (0.122)
Formal employment		0.256* (0.119)	0.266* (0.125)	0.247 (0.131)	0.272* (0.128)	0.254* (0.127)
Employment		0.101 (0.112)	0.12 (0.115)	0.114 (0.116)	0.118 (0.114)	0.115 (0.111)
(iii) Target group (base: males, older workers, registered UI)						
Females			0.211** (0.078)	0.201* (0.078)	0.194* (0.080)	0.197* (0.079)
Pooled gender			0.123 (0.120)	0.076 (0.108)	0.057 (0.114)	0.072 (0.103)
Pooled age			0.148 (0.101)	0.167 (0.128)	0.115 (0.129)	0.141 (0.118)
Youths			0.319*** (0.084)	0.282** (0.103)	0.214 (0.152)	0.223 (0.157)
Disadvantaged			-0.01 (0.154)	-0.005 (0.150)	-0.035 (0.122)	0.037 (0.117)
(iv) Evaluation design and programme details (base: non-experimental, regression, unknown duration)						
Experimental design				-0.113 (0.094)	0.025 (0.130)	0.043 (0.120)
Covariate adjustment: matching				0.005 (0.100)	0.012 (0.098)	0.023 (0.094)
Programme with short duration (4 months or shorter)				-0.328* (0.123)	-0.343** (0.127)	-0.433*** (0.117)
Programme with medium duration (4-9 months)				-0.188 (0.110)	-0.176 (0.103)	-0.275* (0.105)
(v) Contextual factors						
GDP growth						0.048*** (0.011)
Country effects	no	no	no	no	yes	yes
Constant	0.25 (0.127)	0.15 (0.151)	-0.114 (0.228)	0.275 (0.271)	0.475 (0.340)	0.225 (0.308)
N	296	296	296	296	296	296

Notes: Standard errors (in parentheses) clustered at the study level. Stars: * if $p < 0.05$, ** if $p < 0.01$, *** if $p < 0.001$.

4.3. Empirical results for the training sample

Given that the largest part of our sample (225 of the 296 programme estimates) is categorized as the evaluation of a training programme, in a subsequent step we investigate whether any additional and more detailed conclusions can be drawn regarding training programmes in particular. To that end, we focus on the training sample and augment the data by training-specific features coded from the primary studies. This includes binary indicators for the number of training components, i.e. each indicating whether the specific programme contained: i) one training component; ii) two components; or (iii) three or more components (based on whether programmes comprise: classroom training, on-the-job training or internship, a job-insertion or life-skills component, and entrepreneurship training, as explained below). Clearly, more detailed aspects would have been of interest as well, in particular the planned and actual durations of training (overall and by component). Although this would have potentially allowed an even more precise analysis of training design features, unfortunately, too little information on these aspects is provided in the primary studies. However, other two indicators that intend to capture dimensions of the target group could be coded, allowing to investigate further the relatively large group of “disadvantaged” individuals served by programmes in LAC. One indicator looks specifically at whether training programmes explicitly target the poor population, and the other specifies whether the programme targets youths up to 24 years of age, i.e. the younger age bracket among young adults (as programmes typically admit youths up to 30 years of age).⁹

Looking at some summary statistics of these additional indicators, almost all training programmes comprise a classroom training component (93 per cent, or 209 of the 225 estimates). The share of on-the-job-training is also high, with 83 per cent of the estimates (187 of the 225 overall). At the same time, only 20 per cent (46 of the 225 estimates) contain a life skills or job-insertion component, and a mere 27 estimates (i.e. 12 per cent) cover entrepreneurship training. The number of components of training programmes (one, two or three) is based on this pattern. We observe that 21 per cent of programmes (47 estimates) have one component only, 50 per cent of programmes have two components (112 estimates), and 29 per cent have three or more components (66 estimates). Regarding the additional target population indicators, more than two thirds of training programmes (165 estimates) are explicitly pro-poor, and 59 per cent (133 estimates) target the bottom bracket of the youth population up to 24 years of age.

Table 7 reports the estimation results for a series of specifications for the training subsample, including the above specified indicators. First, in line with results from the full sample (Table 6) training programmes with short duration (4 months or less) display significantly less positive outcomes (panel i). Secondly, the results do not show an increasing pattern in terms of significance by number of programme components. Relative to one-component programmes, there is no indication that two- or three-component

⁹ This two additional covariates refer to the target group of the programme evaluated and, therefore, should not be confused with the empirical population for which an impact estimate is available (reported as “Disadvantaged” and “Youths”, respectively, in Table 7).

programmes are significantly more likely to show positive labour market impacts – if anything, programmes with more than one component tend to fare worse than single-component training interventions. This is perhaps somewhat unexpected, in light of overall ALMP results indicating that “comprehensive” programmes appear to work better. This result could be explained by the fact that given a certain programme duration, programmes with more than one component may not be allocating enough time to each component, which, in turn, could be limiting their impact. In order to shed light on this issue, an interaction term was included in our model for those programmes that combine medium duration with more than one component. The estimated coefficient of this interaction term is positive for all specifications (although only statistically significant at 10 per cent level), suggesting that interventions with more than one component are more likely to show positive effects when they are active for more than 4 months. Together, the latter findings suggest that not only the number of training components, but also the length of the programme are key design factors in devising a “comprehensive” programme. Whereas the results for this sample clearly point into this direction, the caveats of the analysis have to be recalled regarding the coding of the training components as frequently studies do not report programme duration, and both measures only partially capture the “intensity” of the programme (as would be given e.g. by hours per day).

Besides this particular pattern by number of components and programme duration, several of the additional results that can be taken from Table 7 are similar to patterns found for the larger sample. First, there is no indication that training impacts increase from the short-run to the medium-run (panel i). This finding is in stark contrast to the evidence worldwide, which shows a pronounced pattern – in particular for human capital programmes – of increasing impacts with time after the programme (Card et al., 2017).

Second, again formal employment is the outcome category that is most likely to be impacted positively by training programmes (panel ii). Moreover, as in the case of the full sample, this result holds when we control for country effects and economic contextual factors. Third, across specifications treatment effect estimates for female participants are significantly more likely to be positive than for males; this is also the case for young participants in general (panel iii). However, while the result for female participants remains once we introduce country effects and control for the annual GDP growth, the positive estimated coefficient for youth decreases and becomes non statistically significant. In addition, the newly added variable capturing whether a programme is targeting only the bottom bracket of the youth age range up to 24 years of age, does not seem to be determinant of programme’s effectiveness. By contrast, programmes explicitly targeting people in poor households are more likely to have a positive impact, a result that remains consistent across the different specifications. Fourth, other research-design factors included (panel iv), such as experimental vs. non-experimental evaluation and covariate adjustment method, do not seem to play a significant role in determining programme success. Finally, in line with what we obtained for the full sample, annual GDP growth rate is also positively correlated with training programmes’ effectiveness.

Table 7. Linear probability models for positive sign / significance of estimated programme impacts: training subsample

	(1)	(2)	(3)	(4)	(5)	(6)
(i) Programme design characteristics and time horizon (base: missing/unknown duration, one component, , short-run)						
Short duration (4 months or shorter)	-0.424** (0.122)	-0.397** (0.123)	-0.099 (0.144)	-0.051 (0.148)	-0.096 (0.167)	-0.053 (0.139)
Medium duration (5 to 9 months)	-0.385 (0.289)	-0.414 (0.291)	-0.406 (0.301)	-0.305 (0.320)	-0.096 (0.265)	0.199 (0.225)
Two training components	-0.167 (0.133)	-0.146 (0.137)	-0.555* (0.231)	-0.565* (0.224)	-0.340 (0.224)	-0.044 (0.208)
Three training components	-0.197 (0.141)	-0.198 (0.145)	-0.397* (0.188)	-0.387* (0.184)	-0.292 (0.178)	-0.168 (0.184)
Interaction more than one component and medium duration	0.266 (0.295)	0.285 (0.298)	0.353 (0.312)	0.267 (0.316)	0.060 (0.269)	-0.124 (0.246)
Effect estimated in the medium-run	-0.003 (0.052)	-0.017 (0.053)	-0.016 (0.050)	0.031 (0.052)	0.016 (0.056)	0.016 (0.057)
(ii) Outcome category (base: hours worked, hazard off register, unemployment)						
Earnings		0.144 (0.143)	0.163 (0.151)	0.174 (0.153)	0.242 (0.144)	0.248 (0.142)
Formal employment		0.270 (0.154)	0.292 (0.157)	0.307 (0.157)	0.365* (0.149)	0.342* (0.151)
Employment		0.052 (0.135)	0.059 (0.138)	0.062 (0.137)	0.097 (0.132)	0.087 (0.132)
(iii) Target group (base: males, older workers, registered UI, not explicitly targeting the poor, not targeting individuals younger than 24 years)						
Females			0.202* (0.087)	0.204* (0.088)	0.201* (0.089)	0.200* (0.089)
Pooled gender			0.243 (0.144)	0.275 (0.139)	0.209 (0.145)	0.426** (0.125)
Pooled age			0.234 (0.197)	0.238 (0.214)	0.132 (0.213)	0.269 (0.189)
Youths			0.350* (0.163)	0.360* (0.171)	0.213 (0.245)	0.175 (0.248)
Disadvantaged			-0.064 (0.273)	-0.113 (0.262)	-0.244 (0.168)	-0.256* (0.113)
Programme explicitly targeting the poor			0.266* (0.118)	0.365** (0.119)	0.401** (0.134)	0.325* (0.156)
Programme targeting youths up to 24 years of age			0.244 (0.127)	0.299* (0.125)	0.250 (0.108)	0.146 (0.094)
(iv) Evaluation design and programme details (base: non-experimental, regression)						
Experimental design				-0.220* (0.099)	-0.139 (0.155)	-0.296 (0.151)
Covariate adjustment: matching				-0.022 (0.111)	-0.028 (0.083)	0.008 (0.071)
(v) Contextual factors						
GDP growth						0.072*** (0.016)
Country effects	no	no	no	no	yes	yes
Constant	0.885*** (0.121)	0.760*** (0.181)	0.162 (0.326)	0.154 (0.368)	0.568 (0.388)	0.127 (0.312)
N	225	225	225	225	225	225

Notes: Notes: Standard errors (in parentheses) clustered at the study level. Stars: * if p<0.05, ** if p<0.01, *** if p<0.001.

5. Conclusion

This paper has identified the main findings arising from a narrative review and a meta analysis carried out on a sample of 296 treatment effect estimates from 51 impact evaluation studies of ALMPs in LAC. This sample was compiled following an exhaustive screening of existing studies and finalized after applying a systematic selection procedure to control for quality and scope of the impact evaluations. Some qualitative and quantitative conclusions can be drawn from the study. In terms of the qualitative aspects, most studies analyse programmes in Peru and Argentina, which together account for almost 38 per cent of the sample; meanwhile 60 per cent of the studies analyse training programmes. Interestingly, the number of impact evaluations of ALMPs has considerably increased over time – especially at the beginning of the 2000s – which might be the result of an increased policy interest towards this type of labour market intervention in the region. Finally, the great majority of the studies (75 per cent of them) use quasi-experimental methods (often controlling for both observable and unobservable characteristics based on panel data). However, there has been an increase in the number of experimental studies in recent years.

We then use the systematically collected studies to extract information on estimates of programme effectiveness and a broad set of study and programme characteristics, in order to conduct a meta analysis. The novelty of our contribution is twofold: first, our analysis is the first comprehensive meta-analysis (i.e. including the different groups targeted and all types of ALMPs) carried out on the effectiveness of ALMPs in LAC; second, compared to previous meta-analyses of ALMPs conducted in other regions, our paper expands the number of outcomes of interest analysed, looking at the effects of ALMPs on both employment creation and a broad range of measures of work quality; including earnings, hours worked and the formal nature of the job.

The results reveal several interesting insights on the effectiveness of ALMPs in LAC – and their difference compared to other regions. First, formal employment is the outcome category that is most likely to be positively affected by ALMPs in the region, relative to other employment outcomes, earnings, and hours worked. A second important quantitative pattern we find is that training programmes are (slightly) more effective than other types of active interventions in raising participants' employment prospects – especially when compared to public works schemes. Third, and differently from results of previous studies conducted in OECD countries, the meta-analysis finds that medium-run impacts are not statistically significant from short-run impacts in LAC. Additionally, programmes of short duration (four months or less) are significantly less likely to show positive treatment effects. Finally and in terms of target groups, ALMPs are statistically more effective for women than men and for youths than prime-age workers.

These results point to a number of policy conclusions, some of which challenge existing policy approaches adopted in LAC with regards to ALMPs. First, given the high incidence of informal

employment in the region, our results in terms of the effectiveness of ALMPs in fostering formal employment suggest that these policies should be further leveraged. ALMPs could in fact be regarded in LAC as a primary policy tool to address labour market distortions, rather than a simple complement to existing interventions – as is currently the case in many countries. This is all the more important since interventions risk losing effectiveness if not adequately financed, and despite recent increases, spending in ALMPs in the region remains below the levels registered in OECD countries.

Secondly, the results of our analysis support existing findings regarding the importance of the design, targeting and implementation of ALMPs for ensuring their success. For instance, evidence from the meta analysis has revealed that ALMPs in LAC are effective for young people, thus justifying the youth focus of this type of interventions in the region. However, at the same time ALMPs in LAC are often (either directly or indirectly) targeted at men – while the meta analysis has shown that these interventions are more effective for women. Ensuring a more even and fair access to ALMPs could therefore improve the overall effectiveness of these policies in the region. Finally, the meta analysis suggests that programme duration is a key element of programme effectiveness – while the number of components does not directly matter, in the case of training. This implies that the intensity and quality of the services provided (e.g. amount of investment in human capital) should be prioritised with respect to the “packaging” of these interventions.

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Appendixes

Appendix 1. Number of studies by country and type of programme

	Training	Public works	Employment subsidies	Self-employment and entrepreneurship	Labour market services	%
Argentina	5	2	2	1		18.9
Bolivia		1				1.9
Brazil	2					3.8
Chile	5		2		1	15.1
Colombia	6	1		1	1	17.0
Dominican Rep.	3					5.7
El Salvador				1		1.9
Guatemala				1		1.9
Mexico	3					5.7
Nicaragua				2		3.8
Panama	1					1.9
Peru	5	2		1	2	18.9
Uruguay	2					3.8
%	60.4	11.3	7.5	13.2	7.5	100

Note: The 51 studies selected evaluate a total of 53 programmes as some studies analyse more than one programme and a few programmes are evaluated more than once. It is noteworthy that Klinger and Schündeln (2011) analyse the effectiveness of the programme “Business Plan Competitions” implemented by the NGO TechnoServe in El Salvador, Guatemala and Nicaragua.