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Global Inventory of Interventions to Support Young Workers
Synthesis Report

Gordon Betcherman, Martin Godfrey, Susana Puerto, Friederike Rother, and Antoneta Stavreska

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Executive Summary

The Youth Employment Inventory has been compiled to improve the evidence base for making decisions about how to address the problem of youth employment. As policy-makers consider measures to help young people make the transition into the labor market and obtain decent work, they are hampered by a lack of information on what their options are, what works in different situations, and what has been tried and failed. To respond to this situation, the World Bank has compiled a world-wide inventory of the interventions that are designed to integrate young people into the labor market. This Youth Employment Inventory (YEI) is based on available documentation of current and past programs and includes evidence from 289 studies of interventions from 84 countries in all regions of the world. The interventions included in the YEI have been analyzed in order to (i) document the types of programs that have been implemented to support young workers to find work; and (ii) identify what appears to work in terms of improving employment outcomes for youth. This synthesis report pulls together the information from this inventory and a set of background reports to document the global experience with youth employment programs.

The YEI includes programs designed to facilitate the transition of young people into the labor market, with a focus on disadvantaged young people. The inventory is meant to be as exhaustive as possible and is not confined to success stories, on the principle that there is a great deal to be learned from mistakes and failures. The YEI does not include new project information but, rather, is based exclusively on existing documentation gathered from a wide range of published and electronic sources. For practical reasons, the inventory is largely limited to post-formal schooling interventions. It covers ongoing and completed interventions specifically targeted at young people or that had young people as primary participants.

The most common type of intervention for youth is skills training. This category accounts for 39 per cent of all interventions and is significant in all regions, but is especially popular in Latin America and the Caribbean where it represents 56 per cent of the programs included in the inventory. Comprehensive multiple-service interventions -- for instance, combining vocational and on-the-job training with wage subsidies and public works, or classroom and on-the-job training with paid work experience and job search assistance – account for 32 per cent of the total. One-half of these multiple-service programs are in OECD countries. Making the labor market work better for young people (especially through wage subsidies), and improving chances for young entrepreneurs each account for 12 per cent of the total.

The largest number of interventions is in the OECD area but Latin America and the Caribbean also has good coverage. The methodology for assembling the inventory emphasized the search for programs in developing countries. However, 42 per cent of the interventions in the inventory are from OECD countries; this reflects both the level of activity as well as the availability of documentation in industrialized countries. Among developing regions, youth programs have been most widely implemented in Latin America, which accounts for 24 per cent of the interventions included in the inventory. The shares in the other regions are 14 per cent in Eastern Europe and Central Asia, 10 per cent in Sub-Saharan Africa, 7 per cent in South and East Asia and the Pacific, and 3 per cent in the Middle East and North Africa.

To the extent that programs are targeted, they most frequently target young people with low income and/or education. Just over half (51 per cent) of all programs in the inventory are oriented towards young people with low incomes, or in low-income families. The incidence of gender targeting is relatively low, with only 16 per cent of all programs oriented towards young women and 2 per cent towards young men. The inventory includes 32 programs (11 per cent) targeted at disabled young people, while only a small number of interventions (20 in total) are targeted at particular ethnic groups. The analysis of the patterns of program success concludes that interventions oriented towards disadvantaged youth are as good, if not better, than programs with no particular orientation.

One of the major observations from the research is that the level of program evaluation has been weak, especially in developing countries. A strong conclusion is the need for major improvements in the quality of evidence available for youth employment interventions. For almost 40 per cent of programs included in the inventory, no evaluation information at all on outcomes or impact could be found. An additional 35 per cent have studies which cover only gross outcomes, and do not use a methodology (e.g., based on a control group) to estimate net impact. In other words, only about one-quarter of all programs included have some evidence on the net impact. And, of the programs that meet this evaluation standard, most (45 of 73) do not include any cost-benefit analysis. Overall, only one in 10 programs included in the inventory has an evaluation which measures both net impact and cost. Moreover, these figures likely overestimate the true of incidence of scientific evaluations of youth programs since interventions with extensive analysis and documentation were more likely to be captured for the inventory. The current reality is that, outside the OECD area (especially the Anglo-Saxon countries) and other than studies sponsored by international organizations, rigorous evaluations are quite rare.

The absence of rigorous evaluations almost certainly leads to an overestimation of program impacts by policy-makers. Properly evaluated programs are less likely to lead to positive assessments of impact and effectiveness than judgments based on "non-scientific" methodologies. In the absence of such evaluations, then, policy-makers are likely to overestimate the benefit of their interventions and, as a result, allocate resources inefficiently. This is a particular concern in developing countries where resources are scarce and evaluations are uncommon.

The majority of interventions included in the inventory appear to have positive labor market impacts for participants. Two specific performance indicators – post-program employment and earnings – are considered in assessing program "impact". An assessment of impact could be made for 172 interventions where either gross outcomes or net impacts were available. Of these 172 programs, 132 (78 per cent) were rated as having had a positive impact in terms of the employment and/or earnings of participants. When only programs with net impact evaluations were considered, the share with demonstrably positive labor market impacts for participants was 60 per cent.

But once cost-effectiveness is taken into account along with labor market impacts, less than half of the programs in the inventory could be judged as successful. Although a full picture of the overall success of youth programs should also consider the cost dimension, it is not possible to determine cost-effectiveness in the vast majority of cases. Of the 134 programs assessed to have positive employment impact, only 25 have a cost-benefit analysis. Of these, 14 were cost-effective (56 per cent) while 11 (44 per cent) were not. Assuming that this observed ratio of cost-effectiveness applies to programs without cost information, we can estimate the overall *success* rate of interventions, where "success" is defined as having a positive labor market

impact and cost-effectiveness. Our estimate, using all programs with outcome indicators, is that about 44 per cent of interventions are successful according to this definition. When we restrict our calculations to programs with net impact evaluations, the estimated success rate is 33 per cent.

The factors associated with program impact were examined through both descriptive analysis and a more rigorous meta analysis. The statistical analysis of program outcomes looked at the role of various factors specific to the intervention and to the context in which it was implemented. To identify the determinants of positive program impacts systematically, a meta-analysis of the interventions in the inventory was carried out, using econometric methods to combine and synthesize results from the individual studies to get an overall picture.

The results suggest that there are no major differences across categories of interventions in terms of impact or cost-effectiveness. Three categories of interventions – making the labor market work better for young people (primarily wage subsidies, public works, and job search assistance), skills training, and comprehensive programs – each had similar percentages of programs with positive impacts. Although entrepreneurship programs had the highest positive impact rating, the number of these interventions in the inventory is too small to draw firm conclusions. The meta analysis found no statistically significant differences in the impact of the different program types. The policy implication of this finding is that particular types of programs should not be favored but, rather, that interventions should be chosen based on the specific obstacles to employment that need to be overcome.

The employment impact of youth interventions tends to be more favorable in developing and transition countries than in industrialized countries. The probability that programs will help young people in the labor market is greater in developing and transition countries than in industrialized ones. This is not due to the more rigorous evaluations in developed countries. The meta-analysis confirmed that the difference in program impact by level of development remained even after the quality of the evaluation evidence was taken into account. The study could not adequately explain this result, but it would be interesting to test two hypotheses. First, are disadvantaged youth so "disadvantaged" in developed countries that employment interventions are simply not enough to compensate? Second, are there institutions and policies that systematically differ by level of development that might explain the variation in program outcomes?

Youth programs have a lower likelihood of having a positive impact in countries where labor markets are not flexible although the magnitude of the effect is not large. Research has shown that protective employment rules create barriers for new entrants and our results suggest that employment programs do not significantly overcome these barriers. The meta-analysis finds that the rigidity of employment protection rules is associated with a lower probability of positive employment benefits to participants, although the magnitude of the effect is very small. In any event, policy-makers need to take a comprehensive approach to improving youth employment, implementing well-designed interventions and also, ensuring that labor market policies and institutions do not block access for young people.

Global Inventory of Interventions to Support Young Workers: Synthesis Report[1]

A. Introduction: the objective of the inventory and of the report

Youth employment has become a major concern in many countries around the world. As policy-makers consider measures to help young people make the transition into the labor market and obtain decent work, they are hampered by a lack of information on what their options are, what works in different situations, and what has been tried and failed. To respond to this situation, the World Bank has compiled a world-wide inventory of interventions that are designed to integrate young people into the labor market. This Youth Employment Inventory (YEI) is based on available documentation of current and past programs and includes evidence from 289 interventions from 84 countries in all regions of the world. The interventions included in the YEI have been analyzed in order to (i) document the types of programs that have been implemented to support young workers to find work; and (ii) identify what appears to work in terms of improving employment outcomes for youth. The inventory of programs itself is available as an on-line database.[2]

This report synthesizes the information from this inventory and a set of background reports to document the global experience with youth employment programs.[3] As background, Section B provides a brief summary of the situation of young people in labor markets world-wide, and also reviews the existing literature on policies to address youth employment problems. Following this, we turn to the underlying framework and methodology used to assemble the youth employment inventory in Section C. In Section D, we consider the coverage of the YEI, which represents the sample of youth programs identified in our global search of the available documentation. In effect, this sample provides a description of what types of programs have been implemented to support young workers. In addressing the question of "what works", it is critical to pay close attention to the quality of the evaluation evidence. This is discussed in Section E. We then turn to the analysis of the effectiveness of the interventions included in the inventory. The descriptive evidence is presented in Section F. In addition, we have undertaken an econometric meta-analysis to more systematically identify the determinants of program success and the results of this analysis are presented in Section G. Finally, conclusions and implications are drawn in Section H.

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[1] The project was conducted under the auspices of the Youth Employment Network (YEN), a partnership between the UN, ILO, and World Bank to explore ways to meet the challenges of youth unemployment. Financial support was provided by German Federal Ministry for Economic Cooperation and Development (BMZ). YEN and the German Technical Cooperation (GTZ) assisted in the collection of program information used for the inventory. The final version of this synthesis report has benefited from comments by Wendy Cunningham, Linda McGinnis, Jean Fares, and Sudharshan Canagarajah as well as comments received during review meetings involving the World Bank, YEN, and ILO staff, and at seminars in the Europe and Central Asia and Latin America and Caribbean regions of the World Bank.

[2] The database can be accessed at http://go.worldbank.org/48Z06GMD70

[3] The background reports include regional reports for the OECD (Rother and Puerto, 2007), Eastern Europe and Central Asia (Stavreska, 2006), Latin America and the Caribbean (Puerto, 2006), Sub-Saharan Africa (Rother, 2006), and Asia (Stavreska, 2006). The Asia report includes both East and South Asia because of small samples in these two regions. No report has been prepared for the Middle East and North Africa because of an insufficient number of programs. In addition to these regional reports, two analytical background reports have been prepared – one covers lessons learned from the impact evaluations and the other presents the results of a meta-analysis of the evaluations (Puerto 2007a,b).

B. Background: the nature of youth employment problems and policies to address them

At the outset, it should be recognized that many young people make the transition into employment successfully, without requiring any special assistance. However, many others experience difficulty, either taking a very long time to gain a foothold or finding themselves outside the labor market completely. Certain groups have particular problems, especially those with poor education and without basic skills. Young women in many countries, youth with disabilities, those affected by HIV/ AIDS, ethnic minorities, demobilized soldiers, and migrants are often at a special disadvantage.

1. Youth employment issues

Youth employment problems have various dimensions and can be manifested in different ways.[4] The most familiar is unemployment; in fact, the unemployment rate of 15-24 year-olds is one of only two employment indicators in the Millennium Development Goals. Although this age group represents only 25 per cent of the world's working age population, it accounts for almost one-half of global unemployment (World Bank 2006). As Table 1 shows, youth unemployment rates have generally been increasing over the past decade, as has the ratio between the youth and adult unemployment rate. The extent of the youth unemployment problem does vary by region; however, it is a serious concern everywhere. Except in the developed economies, the Central and Eastern European and Commonwealth of Independent States (CEE/CIS) countries, and East Asia, unemployment rates are higher for young women than for young men – particularly in Latin America and the Caribbean and the Middle East and North Africa (ILO 2006). In South Asia, Latin America, OECD, and CEE/CIS countries, youth unemployment rates tend to be highest among the less educated. However, in several developing countries including those in the Middle East and North Africa and in Africa, the highest youth unemployment rates have been observed among the more educated (ILO 2006). Where this is the case, it is often due to high reservation wages and/or selectivity in job search (e.g., queuing for public sector jobs), supported by relatively prosperous families.

However, unemployment is not the only indicator of youth labor market difficulties. In fact, it often understates the magnitude of the problem for two reasons: first, many jobless young people who would like to work are "discouraged" and are not counted as unemployed since they are not actively searching for work, and second, many have little choice but to work even in very bad jobs. So other categories of young people – inactive "discouraged workers", unpaid family workers, self-employed earning very little income, badly-paid wage earners, etc. – are also at a disadvantage in the labor market. The ILO (2006) estimates the number of "young working poor" (earning less than $1 a day) in the world in 2005 at around 125 million, 23 per cent of the total workforce in this age group. The rate is particularly high in South Asia and Sub-Saharan Africa.

[4] The age range of 15-24 is generally used to define youth in this report.

Table 1: Youth unemployment rate, ratio of youth to adult unemployment rate, youth labor force participation rate, and youth employment-to-population ratio, by region, 1995 and 2005[1]

	Youth unemployment rate (per cent)		Ratio of youth to adult unemployment rate		Youth labor force participation rate (per cent)		Youth employment-to population ratio	
	1995	**2005**	**1995**	**2005**	**1995**	**2005**	**1995**	**2005**
World	12.3	13.5	2.8	3.0	58.9	54.7	51.6	47.3
Developed economies & other EU	15.2	13.1	2.3	2.3	53.6	51.8	45.4	45.0
CEE (non-EU)/ CIS	19.6	19.9	2.6	2.6	47.2	41.8	38.0	33.5
East Asia	7.5	7.8	2.9	2.8	75.2	67.3	69.5	62.1
South-east Asia & Pacific	9.2	15.8	4.7	5.1	58.1	56.5	52.8	47.5
South Asia	9.9	10.0	3.6	2.8	50.6	47.2	45.6	42.5
Latin America & Caribbean	14.4	16.6	2.7	2.8	56.4	54.2	48.3	45.2
Middle East & North Africa	28.7	25.7	3.0	3.1	40.0	40.0	28.5	29.7
Sub-Saharan Africa	17.5	18.1	3.3	3.0	68.2	65.5	56.2	53.7

1. "Youth" defined as 15-24 year olds.
Source: ILO (2006: Figures 2.3 and 2.4; Tables 2.3, 2.4 and 2.6).

Table 1 also shows that both the youth labor force participation rate and the employment-to-population ratio have fallen over the past decade, both globally and in all regions except the Middle East and North Africa. Rates are particularly low in that region and in the transition economies. Declining participation and employment rates are partly due to an increase in educational enrollment – between 1990 and 2000 the number of students in the world's secondary schools increased by 15 per cent and in higher education institutions by 8 per cent (ILO 2005). However, these figures also reflect withdrawal from or failure to enter the labor force by an increasing proportion of school leavers. Indeed, cross-country household data assembled for the recent *World Development Report* show that many young people are neither studying nor are in the labor market (World Bank 2006).[5]

Many young people unable to find formal wage employment end up in the informal economy. The incidence of unpaid work is also high. In economies where informality is widespread (in itself often a symptom of policy failure), informal and unpaid work can be a stepping stone to better jobs in the future, but for many young people this is not the case (World Bank 2006). While informal employment is less prevalent in high-income countries, young workers disproportionately hold precarious jobs, such as temporary employment. In Latin America, the recent increase in temporary contracts has particularly affected young people, especially those from the poorest households (ILO 2004). Another indicator of difficulties youth experience in the labor market is the estimated 59 million 15-18 year olds worldwide who are in hazardous forms of work (ILO 2005). Many also earn extremely little, but unfortunately reliable earnings data are not widespread.

[5] The major reason among young men is discouragement about finding work while young women are more often engaged in "non-market" activities (e.g., household responsibilities, raising children, etc.).

2. Policies to address youth employment issues

This brief review illustrates the difficulties many young people face in the labor market, including the special challenges confronting certain categories of youth. Longer-term analysis in some countries has shown that part of the issue is a "transition" problem, with young people needing time to accumulate the experience and skills required to find good jobs. However, this is certainly not the case for all youth and, in any case, waiting out the transition period is not an option for policy-makers or for young people themselves. Moreover, the social and economic hardship young workers experience because of employment problems is intensified when longer-term "scarring" also occurs. Accordingly, there is great interest in how interventions can smooth the transition of young people – especially vulnerable youth -- into the labor market, helping them to find their first jobs, to become economically self-sufficient, and to lay the groundwork for productive careers.

The 2007 *World Development Report* reviews the key policy areas for broadening employment opportunities for young people. In fact, some of the most important policies lie outside the labor market. Since young people suffer disproportionately from weak labor demand, the overall health of the economy is critical. This underscores the importance of sound macroeconomic conditions and a positive investment climate. Without these preconditions, young people will have scarce employment opportunities. Of course, investment in human capital through formal education is essential for taking advantage of these opportunities. Finally, and closer to the concerns of this report, labor market policies, institutions, and programs can make a significant difference in terms of creating opportunities for young people, enhancing their capabilities to take advantage of these opportunities, as well as offering second chances to those who need them.[6]

Policy-makers have taken a range of measures to reform labor markets that are intended to improve employment opportunities for youth and others. For example, in 1990, Colombia substantially reduced the cost of dismissing workers, which increased turnover for formal-sector workers but also reduced the length of unemployment spells, particularly for young and more educated workers (World Bank 2006). Setting wages for apprentices below the minimum level, thus subsidizing on-the-job training has significantly increased the job opportunities for young workers in Chile. In middle-income European countries, youth-specific wage subsidies, if well targeted and of limited duration, have been found to have a large beneficial effect on employment (World Bank 2006).

Reform of training systems can also be important. In industrialized countries, formal apprenticeship schemes, combined to a varying extent with part-time schooling, have had a positive impact on employment for young men and on earnings for young women. However, questions have been raised about how replicable these successes can be in developing countries where the formal wage sector is small and institutions are weak. Moreover, traditional apprenticeship systems are now running into trouble adjusting to the demands of a rapidly changing global economy, even in countries with a long tradition of dual education (Quintini and Martin 2006). The role of employers as a provider of skills for young people is limited. Surveys in many countries have shown that larger enterprises and those that export and use new technologies are likely to provide training; however, the bulk of enterprises do not invest in their young workers through formal training. Efforts are being made in many countries to reform rigid, low-quality training programs, disconnected from labor markets, by changing the role of

[6] These elements of opportunity, capability, and second chance form the basis of the conceptual framework used in the World Development Report. See World Bank (2006) for more details on this framework.

government from that of provider to manager and policy developer, with more competition between public and private providers, and by moving away from a narrow focus on inputs to a focus on outcomes.

Active labor market programs (ALMPs) have been widely used to enhance labor supply, stimulate labor demand, and improve the functioning of the labor market. These programs are often targeted at specific groups, including young people. The existing knowledge on what works in the area of ALMPs is hampered by the lack of solid information and evaluation evidence, especially on programs outside the OECD area (Betcherman, Olivas, and Dar 2004).[7]

Over the past decade, there have been various cross-country reviews of evaluations of ALMPs, including those targeted at young people. For example, Heckman *et al*. (1999) observed the impact of job training, job search assistance, and wage subsidies on employability, finding only very moderate and rather disappointing outcomes, especially for youth. Based on a sample of evaluation studies of ALMPs implemented in Europe and the U.S., Kluve and Schmidt (2002) found mixed program effects across different types of interventions and target populations: while training and job search assistance were effective in improving participants' labor market prospects, direct job creation programs in the public sector led to negative outcomes. Young workers were the most difficult group to assist among the unemployed.

Reviews of the evaluation evidence by the World Bank and the OECD have come to similar conclusions (e.g., Betcherman, Olivas, and Dar 2004; Dar and Tzannatos 1999; Martin and Grubb 2001). On balance, these programs have not been a panacea for unemployment but when they are carefully designed, targeted, and implemented, they can improve the employment prospects for some workers. In their review, Betcherman, Olivas, and Dar (2004) looked at the evidence on training for young people (usually targeted at those with low levels of education) and concluded that the impact of these programs had not been very favorable. Their results supported other studies (e.g., Godfrey 2003) indicating that it was difficult to reverse education failures through training. According to impact evaluations, the relatively few examples of positive outcomes appear to be limited to comprehensive programs that integrated training with other services such as remedial education, job search assistance, and social services.

A background paper for the 2006 OECD *Employment Outlook* includes a useful summary of what features of ALMPs appear to work for youth in member countries (Quintini and Martin 2006: 28).

- Programs should come into play early – after a period of unemployment of at most six months (as in Australia, Belgium, Denmark, New Zealand, Norway, and the UK). Sweden activates such programs after 90 days, Finland immediately for those without a vocational qualification.
- Job-search assistance programs are found to be the most cost-effective for youth, with wage and employment subsidy programs having a positive short-term impact but a less positive net impact on the longer-term employment prospects of participants.
- In order to connect training programs to local or national labor market needs, the private sector and local communities need to be mobilized and involved in project design.
- Targeting of programs is crucial, distinguishing between teenagers (who should be helped to remain in school and acquire qualifications) and young adults (who need help in acquiring work experience), and focusing on school drop-outs.

[7] In OECD countries, especially Anglo-Saxon ones, there is a tradition of impact evaluations. In some countries, such as the U.S., the availability of public funds relies greatly on evaluation outcomes.

- Programs should insist on tight work-search requirements, in the interests of an early exit from unemployment.
- Integration of services into a combined, comprehensive package seems to be more successful than separate provision.
- Effectiveness of programs is increased by greater involvement of social partners and of public authorities at all levels.

Quintini and Martin (2006) emphasize two weaknesses of active labor market programs for youth in OECD countries. They can be rather expensive and it is extremely difficult to tackle the problem of very disadvantaged youth. The high cost of programs, they suggest, makes it important to ensure that the exit from unemployment is into real jobs rather than into excessively lengthy education and training or expensive job-creation schemes. And evaluation of several programs points to the need to identify the most vulnerable young people as early as possible during their transition and to provide them with specific assistance. Systematic information on these issues is very limited in the context of developing and transition countries.

C. The methodology for designing and compiling the inventory

The youth employment inventory (YEI) includes programs designed to facilitate the transition of young people into the labor market. In particular, the focus is on disadvantaged young people. The inventory is meant to be as exhaustive as possible and is not confined to success stories, on the principle that there is a great deal to be learned from mistakes and failures.

The YEI itself does not include new project information but, rather, is based exclusively on existing documentation. This information has been gathered from databases, research papers, publications and web-sites of international organizations (the World Bank, the United Nations and its regional commissions, the International Labor Office, the Asian Development Bank, the African Development Bank, the Inter-American Development Bank, the Organization for Economic Cooperation and Development, the European Union and its institutions, other regional organizations, etc.), bilateral donor agencies, non-government organizations, national labor market programs, national research institutions, as well as academic publications, both books and journals, and conference reports.

This section presents the methodology implemented to compile the inventory. It includes a description of the framework used to categorize interventions, and then summarizes the data-collection effort, focusing on the key methodological questions that define the scope and content of the inventory.

1. Framework for classifying interventions

A basic issue to be resolved was setting the boundaries on what to include in the inventory. Most important was how far back into the education system the inventory should cover. Analytical considerations alone would suggest that it should go back a long way. Many studies have concluded that the impact of interventions on future employment outcomes of disadvantaged young people diminish with age – in other words, addressing potential problems early has a greater return than when young people have left formal education. For example, in reviewing the evidence, the OECD (2002) has concluded that “the biggest pay-off for

disadvantaged youths comes from *early* and *sustained* interventions."[8] In other words, any policy advice on addressing youth employment problems should emphasize that prevention is more effective than curing.

However, while there is no denying the strength of this analytical point, there are practical grounds for limiting the inventory to *post-formal-schooling interventions*.[9] One was the need to set boundaries to limit the inventory to a feasible size. The second was to give it a clear identity that differentiates the study from the enormous body of literature on formal education. By limiting the scope in this way, we do not intend to detract from the importance of formal schooling and early interventions in improving subsequent labor market outcomes.

The template used to categorize programs in the inventory builds on an earlier framework developed by Godfrey (2003). That framework embodied a two-fold approach to policy to address the employment problems of disadvantaged youth: (1) increasing the demand for labor in general in relation to supply, and (2) increasing the 'integrability' of the disadvantaged young, so that they can take advantage of opportunities that arise when the demand for labor increases. Integrability can be increased by (a) remedying or counteracting market failure (e.g., in the labor market, credit market, or training market), (b) improving labor market regulations, and (c) improving the skills of disadvantaged youth.

Based on these two premises, the inventory classifies youth employment interventions into 9 categories, displayed in Table 2. These groupings are largely self-explanatory but a few comments may be useful. Category 1, "making the labor market work better for young people", includes interventions that improve information (counseling, job search skills), increase labor demand for youth (wage subsidies and public works), and remove discrimination. Category 2, "improving chances for young entrepreneurs", covers interventions that provide assistance (financial, technical, and training) to youth who are starting their own business. Categories 3 and 4 both deal with training: the former includes the full range of post-formal schooling training programs while the latter includes interventions intended to address training market failures by providing information, credit, and other financial incentives. Location can also be a barrier for young people if where they reside isolates them from learning or employment opportunities, or even a secure living environment. Category 5 is meant to include interventions (e.g., transportation services or residential mobility) that can help young people overcome this form of barrier. Category 6 covers regulatory reforms (e.g., changes in labor law, minimum wage, etc.) that are designed to enhance employment opportunities for young people. Category 7 includes programs to provide job opportunities outside the country. Interventions that provide multiple types of services, and thus cannot be included in one of the other groups, are included in Category 8. Finally, Category 9 is a residual grouping. Examples of programs under each main category are included throughout this paper.

[8] The OECD review goes on to note that "…[S]uch interventions should begin even before children enter the compulsory schooling system, and they should be followed by intensive efforts to boost their performance in primary and secondary schooling and reduce drop-out rates." Pre-school and school programs that attempt to improve the relative access and learning outcomes of children from disadvantaged backgrounds (variously defined) are particularly interesting.

[9] There were five cases of programs (all in OECD countries) included in the inventory where participants could either be unemployed youth who participated as a "second chance program" or young graduates who continued in a vocational training program as part of formal schooling.

Table 2: Categories used to classify programs in the YEI

1. Making the labor market work better for young people
1a. counseling, job search skills
1b. wage subsidies
1c. public works programs
1d. anti-discrimination legislation
1e. other
2. Improving chances for young entrepreneurs
3. Skills training for young people
3a. vocational training including apprenticeship systems
3b. literacy & numeracy – young adult literacy programs
3c. 2nd chance & equivalency programs
3d. other
4. Making training systems work better for young people
4a. information
4b. credit (to individuals or enterprises)
4c. financial incentives (subsidies, vouchers)
4d. other
5. Programs to counteract residential segregation of disadvantaged young people
5a. transportation
5b. others
6. Improving labor market regulations to the benefit of young people
7. Programs for overseas employment of young people
8. Comprehensive approach
9. Other (e.g. voluntary national service programs)

2. The inventory – how it was compiled

The inventory provides a wealth of information on each intervention and, as noted above, eligible interventions were not confined to success stories. The research team identified programs and gathered documentation from the range of sources described at the beginning of this section. With a view to maximizing synergies with other related initiatives, the compilation of the inventory was carried out in cooperation with other activities of the Youth Employment Network as well as youth employment initiatives at the World Bank.

The screening and documentation process was based on a standardized screening and data-collection methodology developed by the research team. Since different researchers were undertaking the primary research, which included determining program eligibility, reviewing documentation, entering information into the inventory database, and assessing the quality of the intervention, it was essential that a standardized methodology was followed.

Criteria for inclusion. A major methodological issue concerned the determination of what kinds of interventions would be included in the YEI. The question of how far back into the education system the inventory should go has already been discussed. Two other considerations relevant to defining scope were (i) whether the inventory should be restricted to programmatic interventions or also include policies like labor market regulations and minimum wages that affect labor market outcomes for young people; and (ii) whether it should include interventions that, while not targeted at youth specifically, could have a big impact on young people. With respect to policy, the determination was to base eligibility on the stated purpose and to include only those policy interventions that specifically targeted young people (e.g., a special youth

minimum wage or contracting rules that only applied to young people). As we will see in the next section, though, there were very few policies included in the inventory; almost all interventions covered are programs. As for programs, they were eligible for inclusion even if they did not explicitly target youth if the documentation indicated that young people were the primary participants. As we will see in the next section, about 20 per cent of the programs included in the inventory did not have age restrictions. Also, both completed and ongoing interventions were eligible for inclusion.

Further restrictions were imposed based on the quality of the information. Ideally, given the inventory's objective of providing information on what works, sound impact evaluations should have been a condition of inclusion. However, most interventions simply do not meet this condition, especially in developing economies, so imposing this restriction would have excluded the majority of the interventions identified. This would have severely limited the project's value in documenting what has been tried to support young workers, which was one of the objectives of the study. Nonetheless, a minimum amount of information was required for inclusion -- sound information on the intervention's objectives, implementation design, and targeting criteria. Also, the data collection placed priority on including evaluated interventions – i.e., those with net impact evaluations and cost-benefit analysis. To some extent, then, interventions with evaluations are overrepresented in the inventory.

Template. A questionnaire template was designed to ensure consistency and uniformity in the collection and recording of information for the inventory. The template and the coding system used are shown in Annex A. Information collected on each program includes intervention category (as described in Table 2), country, time period in which it was implemented, current status, the specific labor market problems it sought to address, main objectives, a detailed description of the program (scale, financing, etc.), as well as several performance indicators to understand the program's impact, summary measures on the quality of the evaluation evidence and the quality of the intervention (described below), and sources for further information on the intervention. To allow for quantitative analysis of the data, variables included in the template were coded on the basis of multiple choice measures wherever feasible. The template and coding system are shown in Annex A.

Inventory database. In the project design stage, a decision was made to use an electronic format for the database in order to facilitate search capabilities, updating, and quantitative analysis.[10] The template was built into an Excel worksheet and an independent machine-readable file was created for each intervention included in the inventory. After the data-collection phase ended, an Excel macro was designed on Microsoft Visual Basic to read every file and construct a searchable database where the number of observations (rows) matched the number of interventions (files or worksheets). Data collected in the questionnaire – both plain text and codes -- are displayed in the columns, creating a database of program-specific information (Database 1), which includes, for each intervention, all the information shown in the template and coding system (summarized in the previous paragraph and shown in detail in Annex A).

Simultaneously, a database of country-specific information (Database 2) was created to contextualize the economic conditions of the country. This information includes level of development, level of income, and a characterization of the labor market regulatory/institutional situation. Sources of information for the country database are the World Development Indicators and the Doing Business Database (2006). The Excel macro links databases 1 and 2 through a

[10] In fact, the inventory was conceived as a "live database" that could be regularly updated. This was another reason for investing in the creation of an electronic format.

common key-variable, namely country name, creating a comprehensive database for the analysis of the inventory.. For details on how to create databases and informative tables from the inventory, see Annex B.

Quality of intervention and quality of evaluation variables. Two critical variables in the inventory database are the "quality of intervention" (QOI) and "quality of evaluation" (QOE) (template, sections I and J, respectively). These figure prominently in the analysis of what we have learned from the inventory in terms of what works for supporting young workers. Both QOI and QOE values for each intervention have been determined by the research team according to standardized criteria described below.

The "quality of intervention" is the measure of program effectiveness. The possible values for QOI are described in Table 3. The primary performance indicators that are considered in establishing a QOI rating are the effects of the program on the employment and earnings of participants. At one level, the QOI value can be used to identify *impact* – i.e., to distinguish those programs that actually help participants in the labor market (QOI=1,2, or 3) from those that appear to have no effect, or even a negative effect (QOI=0). A rating of 1 or 2 means that a program is judged to have had a positive impact, but this does not necessarily mean that it was successful. To be specific, interventions can have a positive employment impact but not be cost-effective (i.e., QOI=1).[11] These programs cannot be considered successful.

Table 3: Measuring the Quality of Intervention (QOI)

QOI value	Description
0	Program had negative or zero impact on labor market outcomes.
1	Program had positive impact on labor market outcomes but is not cost-effective.
2	Program had positive impact on labor market outcomes and there is no evidence on costs.
3	Program had positive impact on labor market outcomes and is cost-effective.
99	Missing value. Not enough evidence to make an assessment.

Determining a value for the quality of the intervention is complicated by the fact that the evidence on which to base the assessment varies widely. In some cases, solid evaluation results are available while in others, only basic descriptive information exists. The "quality of evaluation" variable is important for identifying the evaluative basis for assessing program quality. The QOE measure is described in Table 4. With this variable, then, assessments of the effectiveness of interventions can be judged with knowledge of the quality of the underlying evidence. For example, one could consider only those programs that meet the most exacting burden of proof (i.e., QOE=3), with the tradeoff that sample size will be vastly reduced. On the other hand, accepting a less demanding basis of evidence will increase the pool of programs under consideration, but at the expense of rigor.

[11] A program is considered cost-effective if the evaluation results indicate that the benefits (e.g., reduced use of social assistance, increased tax gains through participants who found a job, increased earnings, etc.) exceed program costs (income support, training material, cost of training, etc.). Since we are relying on available project documentation, specific methodologies used for the cost-benefit analysis can vary.

Table 4: Measuring the Quality of Evaluation (QOE)

QOE value	Description
0	Program has no evaluation information available on outcomes or impact.
1	Evaluation includes basic information on the gross outcomes of the intervention (e.g. number of participants/ young people who found a job after the intervention, improvement in earnings of participants) without considering net effects (i.e., there is no control group).
2	Evaluation includes estimate of net impact on, e.g., employment and earnings in the labor market (using control groups to measure impact) but no cost-benefit analysis.
3	Evaluation includes net impact plus cost-benefit analysis

Table 5 identifies the possible choices for QOI, given QOE. Where cells are empty, the QOI-QOE combination is possible. However, there are three types of cases (identified by letters A,B, and C) where a particular QOI value cannot be assigned based on the available evaluation evidence: (A) Where there is no evaluation information whatsoever (QOE=0), impact must be unknown (QOI=99). (B) Where a net impact evaluation exists (QOE=2 or 3), the impact cannot be assessed as unknown (QOE cannot equal 99). (C) Where there is a net impact evaluation but no evidence on costs (QOE=1 or 2), the impact rating cannot indicate whether program is cost-effective or not (QOI cannot equal 1 or 3).

Table 5: Possible choices for Quality of Intervention Given Quality of Evaluation

Quality of Evaluation		**Quality of Intervention**				
		0	**1**	**2**	**3**	**99**
		Negative or zero impact	Positive impact but cost-ineffective	Positive impact but unknown cost-effectiveness	Positive impact and cost-effective	Unknown impact
0	No evaluation information	**A**				
1	Basic information without net effects		**C**		**C**	
2	Net impact evaluation					**B**
3	Net impact and cost-benefit analyses					

Areas marking out impossible combinations:
A – No evaluation information; therefore no assessment of QOI;
B – Net impact evaluation; therefore some assessment can be made of impact
C – Information on outcomes or impacts but no cost information; therefore, assessment can be made of impact but cost-effectiveness must be considered unknown.

The most difficult situation to address in assigning a value for the quality of intervention arises where QOE=1. Where no evidence exists, we have already noted that the QOI score is 99 (unknown impact), by default. And where there is a net impact evaluation (QOE=2 or 3), it is generally possible to assess impact, although not always with cost-effectiveness. However, when QOE=1, there is some performance information on the program, but only in terms of gross outcomes. With no rigorous assessment of net impacts, one option would have been to assign all of these programs with a missing QOI value. However, 35 per cent of the cases in the inventory

have only gross outcomes and this strategy would have seriously diminished the sample for addressing the question of what works. So, in order to capture information on effectiveness for programs where QOE=1, the research team used the following indicators, where available:

- Before and after measures of employment variables;
- Post-program comparisons of labor market outcomes for participants relative to others in the same sector;
- How well the program met explicit goals and targets in terms of job placement, activity rates, earnings, or enrollment rates in secondary school/college after the program;
- Whether program reached the objective population; and
- Qualitative results from interviews to participants and employers.

In the absence of cost-benefit analysis, interventions with QOE=1 generally are assessed a QOI rating of 0, 2 or 99. Thus, a standardized methodology was followed to address the question of how to evaluate the quality of an intervention with only limited evidence on performance, and taking into account the tendency towards bias in self-reporting.[12] However, some readers may still question the QOI ratings for programs without net impact evaluations and, as a result, when the evidence on the quality of interventions is presented, the quality of the underlying evaluation evidence can be taken into account.

D. Coverage of the inventory – what interventions have been implemented?

Table 6 shows the coverage of the inventory in terms of the number of interventions in each category, by region. In addition to describing the sample for the subsequent analysis of the inventory, Table 6 can also be seen as a portrayal of the types of interventions that have been implemented globally and by region to support the entry of young people into the labor market. While programs can have more than one purpose and offer more than one type of service, we have tried wherever possible to identify the *primary* nature of the intervention and classify it accordingly (template, section A). Where this has really not been possible, the program has been grouped under Category 8. The regions included in Table 6 conform to the standard World Bank categories, plus the industrialized-country members of the OECD.[13]

Table 6 includes all categories of interventions included in the classification system. However, no programs were found under the headings 1d (anti-discrimination legislation), 3b (young adult literacy programs), 5 (counteracting the isolation of young people), and 7 (programs to promote overseas employment of young people). These headings are excluded from the remaining tables in this paper, but should be retained in the framework for what is intended to be a regularly updated inventory.

Of all the interventions included in the YEI, 38 per cent are known to have been completed, 42 per cent are ongoing (of which more than half are judged to be self-sustainable) and the status of 20 per cent is unknown.

[12] Moreover, to assure that the researchers applied uniform standards to assigning QOI and QOE values in this situation (as well as in general), the team discussed cases where ratings were not obvious and a sub-sample of programs were rated independently by all researchers.

[13] Where OECD member countries are also in World Bank regions, they are classified here according to the World Bank grouping.

Table 6: Coverage of inventory by category of intervention and region

Category of intervention	Europe & Central Asia	Latin America & Caribbean	Middle East & North Africa	OECD	South & East Asia & Pacific	Sub-Saharan Africa	Total
1. Making the labor market work better for young people							
1a. counseling, job search skills	2	1		3		1	6
1b. wage subsidies	8			9			17
1c. public works programs	3		1	3		1	8
1d. anti-discrimination legislation							0
1e. other		2		2			4
Sub-total	**13**	**3**	**1**	**17**	**0**	**2**	**35**
2. Improving chances for young entrepreneurs	**3**	**5**	**1**	**11**	**6**	**7**	**33**
3. Skills training for young people							
3a. vocational training including apprenticeship systems	13	36	2	33	8	6	98
3b. literacy & numeracy – young adult literacy programs							0
3c. 2nd chance & equivalency programs	3	1		3	1		8
3d. other	2	1		2			5
Sub-total	**18**	**38**	**2**	**38**	**9**	**6**	**111**
4. Making training systems work better for young people							
4a. information				1		2	3
4b. credit (to individuals or enterprises)				1			1
4c. financial incentives (subsidies, vouchers)				2	1	1	4
4d. other				2		1	3
Sub-total	**0**	**0**	**0**	**6**	**1**	**4**	**11**
5. Programs to counteract isolation of disadvantaged young people							
5a. transportation							0
5b. others							0
Sub-total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6. Improving labor market regulations to the benefit of young people				**1**	**1**		**2**
7. Programs to promote overseas employment of young people							**0**
8. Comprehensive, multiple-service approach	**6**	**22**	**4**	**47**	**4**	**9**	**94**
9. Other (e.g. voluntary national service programs)	**1**			**2**		**1**	**3**
Unclassified							**0**
Total	**41**	**68**	**8**	**122**	**21**	**29**	**289**

Types of interventions. Overall, 289 interventions are included in the inventory.[14] By main category, the most popular intervention is skills training for young people. This category accounts for 39 per cent of all interventions and is significant in all regions, but is especially popular in LAC where it represents 56 per cent of the programs included. Comprehensive multiple-service interventions -- for instance, combining vocational and on-the-job training with wage subsidies and public works, or classroom and on-the-job training with paid work experience and job search assistance – account for 32 per cent of the total. One-half of these multiple-service programs are in OECD countries. Making the labor market work better for young people (especially through wage subsidies), and improving chances for young entrepreneurs each accounts for 12 per cent of the total. All of the other intervention categories are very small in number.

Interventions by region. The OECD area and LAC account for the largest shares of interventions included in the inventory. Of the 289 interventions, 122, or 42 per cent, are in OECD countries while 68 (24 per cent) are in LAC. The shares in the other regions are 14 per cent in ECA, 10 per cent in Sub-Saharan Africa, 7 per cent in South and East Asia and the Pacific (SEAP), and 3 per cent in the Middle East and North Africa (MENA). Closer analysis reveals interesting patterns of programming within the OECD and LAC regions, the two major contributing regions to the inventory. While these patterns are summarized here, more detail is available in the regional reports.

Within the OECD group, a distinction can be made between Anglo-Saxon countries and the rest of the OECD, primarily countries in Continental Europe. In general, Anglo-Saxon economies are less interventionist in the labor market and use social policy, including active labor market programs, in a less activist way than the group of continental European countries.[15] Although continental Europe in fact comprises several social systems (the Nordics, Mediterranean, and continental Europe itself, as described in Boeri (2002)), generally there is a strong reliance on social insurance instruments (pensions, health and unemployment insurance), unions are relatively involved in the labor market, and there is a significant investment in active labor market programs to support unemployed or otherwise vulnerable workers.

Not surprisingly, given these institutional differences, these two groups of OECD countries use different types of interventions to support young workers. With a large sample of programs in the region to draw on (79 interventions in the Anglo-Saxon countries and 43 in the continental European and other countries), it is possible to identify these differences.[16] These are summarized in Figure 1. In the Anglo-Saxon countries, there is a heavy reliance on comprehensive approaches, with this category accounting for 44 per cent of the total. While these types of programs are used in continental Europe, they are less important, at least quantitatively (28 per cent). The other major difference involves the group of interventions to counteract labor

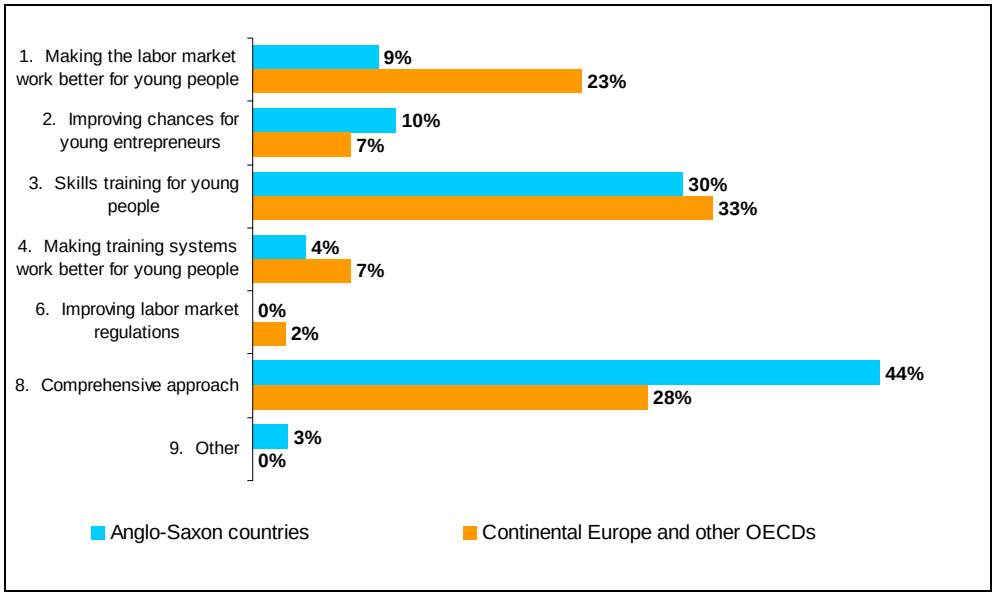
[14] The actual number of programs included in the inventory is slightly less because some programs have been evaluated more than once.

[15] The average (non-weighted) ALMP spending in Anglo-Saxon economies in 2004 was 0.41 per cent of GDP, compared to 0.86 per cent in continental European economies and others (Japan and Korea).

[16] The Anglo-Saxon countries with interventions included in the inventory are Canada, the United States, Ireland, the United Kingdom, Australia, and New Zealand. The group of continental Europe and other countries consists of Austria, Belgium, Denmark, France, Germany, Italy, the Netherlands, Norway, Portugal, Finland, Spain, Sweden, and Japan. Since the single non-continental European country, Japan, has only four interventions, we can basically refer to this group as continental European.

market failure, through counseling, job search assistance, temporary employment subsidies, and public works. In continental Europe, this group of ALMPs accounts for 23 per cent of all interventions, but just 9 per cent in the Anglo-Saxon countries. In both sub-regions, skills training programs account for roughly one-third of all interventions.

Figure 1: Categories of interventions by OECD country sub-groups



What is interesting about the LAC region is how the approaches to supporting young workers have changed over time. Three dominant models have been used in the region in the past few decades. First, a state-managed training model prevailed during the 1970s. This traditional supply-driven model offered specialized training and retraining to workers through centralized public providers. These training institutions tended to be financed by payroll taxes. The emphasis on this model was reduced in the 1980s as part of a broader realignment of economic policy toward market-driven principles (de Moura Castro *et al.*, 1998). Nonetheless, some public institutions have survived and continue to provide vocational training services.[17]

The second dominant LAC model emerged in the early 1990s with the *Jóvenes* Programs (see Box 6 for details). This is a demand-driven model that targets economically disadvantaged youth, fosters private-sector participation, and promotes competition among training providers. The model was first applied in Chile and soon after replicated in Argentina, Uruguay, Paraguay, Peru, Colombia, Dominican Republic, and Venezuela. The programs are financed and coordinated by the government. Training has a comprehensive scope – from technical to life skills and from lectures to internships – accompanied by sound support services and financial incentives. The *Jóvenes* model has been successful in improving job placement and earnings, but became particularly expensive for some countries where it has been replaced by smaller and more focused interventions.

The third and most recent model inherits the demand-driven orientation of the *Jóvenes*. It is a vocational training approach with on-the-job training and placement services. The *Entra 21*

[17] This inventory includes an impact evaluation for SENA (*Servicio Nacional de Aprendizaje*), the largest public-training institution in Colombia.

Program (see Box 3 for details) is the most characteristic example of this model. This program started in 2002, and aims to provide business with skilled information-and-communication-technology workers while improving the employability of disadvantaged youths (age 16-29).

Box 1: ECA wage subsidies for young people – An example of programs designed to make the labor market work better for young people (Category 1)

Programs designed to make the labor market work better for young people are relatively important in ECA. Several countries in the region have operated wage subsidy programs targeted at young people. In **Poland,** the Intervention Works Program was initiated in 1995 for people up to the age of 30. The program is estimated to have increased reemployment by 15.6 per cent in non-subsidized jobs, and by 13.1 per cent in any kind of job (including subsidized) but with lower monthly earnings. Based on a scientific evaluation with cost analysis (QOE=3), this program was assessed to generate positive employment impacts in a cost-effective manner (QOI=3). In the **Czech Republic,** a wage subsidy program has been in operation since 1996, for the benefit of young people. It achieved a statistically significant increase in employment of 12 per cent for participants (QOI=2; QOE=3). Women and less-educated participants (a considerable proportion of all participants) gained most from the program. Again, however, monthly earnings were lower than pre-program levels.

In **Bulgaria,** a program for subsidized Employment in Public Administration of Young School Leavers has been in place since 2002. At the end of July 2004, 909 people were employed through the program, out of 1,090 young people so far included in the program. Monitoring and assessment of the program's implementation are carried out on a regular basis. This provides the possibility of correcting the scope and mechanisms of the program and adapting it to suit the conditions and needs of the labor market (QOE = 1, QOI = 99). In **Slovakia**, employers can receive a monthly contribution from government to cover the costs of employing unemployed school leavers (who also receive a grant to cover personal expenses) in a 'graduate practice' scheme. In 2004, 14,462 job seekers participated in the scheme, of whom 68 per cent were women and 83 per cent were from disadvantaged groups. No analysis of the net impact of the intervention is available (QOE = 1, QOI = 2). In **Latvia,** a pilot project of subsidized work experience during the summer holidays for students from secondary and secondary vocational schools and vocational training students was organized in 2004. The pilot project can be evaluated as successful, but there is also room for organizational improvements, with better targeting – for instance to students from large families. Contracts were signed with 448 employers (enterprises and organizations) nationwide and 3,191 subsidized jobs were offered. The employers who offered the majority of the jobs were retailers, food factories and farm enterprises, while some positions were also offered by a children's hospital. Some employers were highly satisfied with the employed students and asked them to continue the cooperation after the pilot project was finished (QOE = 1, QOI = 2). In **Kyrgyzstan** a Youth Job Vouchers scheme has operated since 1996. A survey found both employers and young people to be highly satisfied with the scheme, although employers claim that it would be possible to create even more jobs if they only had to commit themselves to the young people for one year. Vouchers opened the door to a career start for 180 young women and 80 young men; 75 per cent of the jobs were assessed to be genuine new jobs (QOE = 1, QOI = 2).

Sources: O'Leary (1998), Fretwell *et al.* (1999), EU (2005 and 2006) and BMZ (2006).

Program targeting. As described in the methodology section, interventions were included in the inventory if they targeted youth or if young people were the principal beneficiaries. Table 7 shows that most of the interventions are aimed exclusively at young people, but 59 of the 289 total (20 per cent) were open to people of all ages. Over 80 per cent of programs included in the entrepreneurship, training, and multiple-service categories were youth-only interventions.

Table 7: Coverage of inventory by category of intervention, location, and age group served

Category of intervention	Urban		Rural		Both		Unknown		Total		
	Only young people	All ages	Only young people	All ages	Only young people	All ages	Only young people	All ages	Only young people	All ages	Total
1. Making the labor market work better for young people											
1a. counseling, job search skills		2			3	1			3	3	6
1b. wage subsidies	1				11	5			12	5	17
1c. public works programs			1		2	5			3	5	8
1e. other	1				2	1			3	1	4
Sub-total	**2**	**2**	**1**	**0**	**18**	**12**	**0**	**0**	**21**	**14**	**35**
2. Improving chances for young entrepreneurs	**5**		**7**	**1**	**16**	**4**			**28**	**5**	**33**
3. Skills training for young people											
3a. vocational training including apprenticeship systems	38	2	7	1	36	14	1		81	17	98
3c. 2nd chance & equivalency programs	5				2		1		8	0	8
3d. other	1	1			3				4	1	5
Sub-total	**44**	**3**	**7**	**1**	**41**	**14**	**2**	**0**	**93**	**18**	**111**
4. Making training systems work better for young people											
4a. information					2	1			2	1	3
4b. credit (to individuals or enterprises)		1							0	1	1
4c. financial incentives (subsidies, vouchers)		1		1	2				2	2	4
4d. other	1				2				3	0	3
Sub-total	**1**	**2**	**0**	**1**	**6**	**1**	**0**	**0**	**7**	**4**	**11**
6. Improving labor market regulations to the benefit of young people					**1**	**1**			**1**	**1**	**2**
8. Comprehensive, multiple-service approach	**17**	**3**	**8**	**3**	**53**	**10**	**2**	**1**	**78**	**16**	**94**
9. Other (e.g. voluntary national service programs)	**1**				**1**	**1**			**2**	**1**	**3**
Total	**70**	**10**	**23**	**6**	**136**	**43**	**4**	**1**	**230**	**59**	**289**

The inventory also distinguishes between programs by their location (Table 7). Few interventions (only 10 per cent of the total) are confined to rural areas. Somewhat more are targeted at urban areas (28 per cent). However, the majority (62 per cent) operate in both urban and rural areas.

How far are interventions oriented towards *disadvantaged* young people? In order to answer this question, the inventory collected data on whether the program was oriented to a particular gender, to the disabled, to specific ethnic groups, and to certain income and education

levels. The results are presented in Table 8. The only characteristics that actually are frequently targeted are income and education. Just over half (51 per cent) of all programs in the inventory are oriented towards young people with low incomes, or in low-income families; when we exclude programs where information on income targeting was not included in the documentation, this figure rises to 62 per cent. Training programs (category 3) and multi-service programs (category 8) are especially likely to be targeted at people with low incomes. Regarding education, 49 per cent of all programs were targeted at youth with low educational attainment (53 per cent if we exclude programs where we do not have the information). Here, also, multi-service programs are most likely to have education-related targeting. It is notable that 9 programs we have identified are aimed at the better-educated. A number of these are in OECD countries (i.e., Australia, Canada, Germany and Japan).

Table 8: Orientation towards disadvantaged groups by broad category of intervention

	Intervention category							
Gender	**1**	**2**	**3**	**4**	**6**	**8**	**9**	**Total**
Women	7	6	17	6		9	0	**45**
Neutral	25	26	91	4	2	79	3	**230**
Men	3		2					**5**
Not known		1	1	1		6		**9**
Total	**35**	**33**	**111**	**11**	**2**	**94**	**3**	**289**
Disability								
	1	**2**	**3**	**4**	**6**	**8**	**9**	**Total**
Disabled	5	3	4	1		18	1	**32**
Neutral	21	18	82	8	1	57	2	**189**
Non-disabled	1		1			1		**3**
Not known	8	12	24	2	1	18		**65**
Total	**35**	**33**	**111**	**11**	**2**	**94**	**3**	**289**
Ethnicity								
	1	**2**	**3**	**4**	**6**	**8**	**9**	**Total**
Particular group(s)	3	2	9			5	1	**20**
Neutral	22	21	79	8	1	72	2	**205**
Negative	1							**1**
Not known	9	10	23	3	1	17		**63**
Total	**35**	**33**	**111**	**11**	**2**	**94**	**3**	**289**
Income								
	1	**2**	**3**	**4**	**6**	**8**	**9**	**Total**
Low-income	12	14	64	3		51	3	**147**
Neutral	12	14	28	6	1	29		**90**
Non-poor								**0**
Not known	11	5	19	2	1	14		**52**
Total	**35**	**33**	**111**	**11**	**2**	**94**	**3**	**289**
Education								
	1	**2**	**3**	**4**	**6**	**8**	**9**	**Total**
Low-education	18	10	50	4	1	56	3	**142**
Neutral	11	17	50	4		25		**107**
Non-low-education	1	1	4	1		2		**9**
Not known	5	5	7	2	1	11		**31**
Total	**35**	**33**	**111**	**11**	**2**	**94**	**3**	**289**

The incidence of gender targeting is relatively low. Only 16 per cent of all programs are oriented towards young women; 2 per cent are targeted explicitly at young men. The inventory includes 32 programs targeted at disabled young people, which represents 11 per cent of the total. The majority of these (18 programs) provide multiple services. Finally, we have found only a small number of interventions (20 in total, with 9 of these providing training) targeted at particular ethnic groups.

Box 2: The Commonwealth Youth Credit Initiative -- An example of programs designed to improve chances for young entrepreneurs (Category 2)

The Commonwealth Youth Credit Initiative (CYCI) in India is a small enterprise scheme for unemployed young people involving "micro-credit" (small-scale lending), training, and enterprise development. The scheme aims to create employment opportunities by providing low-cost, easily accessible credit to establish successful businesses and training in financial and enterprise management. The program also increases the knowledge of young people and youth-related organizations in the operation and management of credit programs.

Services for youth are provided through low interest rates, low training costs, partnership with NGOs, and ongoing training and monitoring of enterprises. The focus is on developing capacity for enterprise management, a pre-requisite for the self-employed. The program has three stages:

- Stage I: Pre Credit (community outreach support system and identification and selection of youth).
- Stage II: Training for Capacity Building (capacity building, group formation, basic credit management, and entrepreneurship training).
- Stage III: Credit Delivery & Support (credit dispersion, credit management system, post-training support for growth and expansion, and re-lending).

The CYCI was designed by the Commonwealth Secretariat, an intergovernmental agency of the British Commonwealth. CYCI completed a three-year pilot cycle at Ahmedabad, Gujarat, India in 1999, which was conducted in collaboration with the International Centre for Entrepreneurship and Career Development (ICECD). It became self-sustaining after three years, with operational self-sufficiency of 98 per cent. After the three–year pilot program, 82 per cent of participants were successfully operating micro-enterprises on a self-sustainable basis. Female participation reached over 75 per cent of the assisted population. Over 2,500 young people in India were trained and provided with small loans. Similar schemes have been transferred to other Commonwealth member states in Africa, South Asia, and the Caribbean.

This intervention was rated as QOI=2, based on QOE=1.

Sources: www.thecommonwealth.org and www.icecd.org

Financing. The interventions included in the inventory were financed from a variety of sources, including government (different levels), beneficiaries, employers, non-governmental organizations, and "other sources". This latter category includes two sub-categories: international organizations and other donor agencies or combinations of different types of funding sources, where a primary funder is not evident (e.g., donor agencies and government; government and employers; donor agencies and NGOs, etc.). The classification of the intervention categories by funding source is summarized in Table 9.

The majority of interventions (56 per cent) were solely government-funded. Another third were classified under the "other" category. All of the other financing sources were infrequently

cited. Somewhat different funding arrangements seem to characterize different types of programs. The ALMP interventions that are categorized under category 1 (making labor markets work better for youth) are typically funded by government (27 of 33 in the inventory). This is also the case for interventions to make skills training work better for young people and for multi-service interventions, where 8 of the 11 programs and 66 of 94 programs, respectively, are government-financed. On the other hand, self-employment assistance and skills training programs are much more often funded in ways other than straight government financing.

Table 9: Coverage of inventory by category of intervention and source of finance

Category of intervention	Source of finance						
	Government	**Beneficiaries**	**Employers**	**NGOs**	**Other**	**NA**	**Total**
1. Making the labor market work better for young people							
1a. counseling, job search skills	4				2		6
1b. wage subsidies	14		1		2		17
1c. public works programs	7				1		8
1e. other	2			1	1		4
Sub-total	**27**	**0**	**1**	**1**	**6**	**0**	**35**
2. Improving chances for young entrepreneurs	**15**	**1**		**5**	**7**	**5**	**33**
3. Skills training for young people							
3a. vocational training including apprenticeship systems	40		5	1	48	4	98
3c. 2nd chance & equivalency programs	4				4		8
3d. other	2				3		5
Sub-total	**46**	**0**	**5**	**1**	**55**	**4**	**111**
4. Making training systems work better for young people							
4a. information	2				1		3
4b. credit (to individuals or enterprises)	1						1
4c. financial incentives (subsidies, vouchers)	3		1				4
4d. other	2				1		3
Sub-total	**8**	**0**	**1**	**0**	**2**	**0**	**11**
6. Improving labor market regulations to the benefit of young people			**1**			**1**	**2**
7. Programs to promote overseas employment of young people							**0**
8. Comprehensive, multiple-service approach	**66**		**4**	**1**	**21**	**2**	**94**
9. Other (e.g. voluntary national service programs)					**3**		**3**
Total	**162**	**1**	**12**	**8**	**94**	**12**	**289**

Box 3: Entra 21 – An example of programs designed to provide skills training for young people (Category 3)

Entra 21 is an initiative developed by the International Youth Foundation to prepare LAC youth, 16 to 29 years of age, for today's information-based economy. It has been widely implemented by local and central governments, NGOs, and local businesses to improve the employability of disadvantaged youths. The program started in 2002 with the goal of providing skills training in information and communication technology to 12,000 young workers in a 3-year period and to place at least 40 per cent of them in employment.

Entra 21 programs are co-financed by the Multilateral Investment Fund of the Inter-American Development Bank. Other important partners are Microsoft Corporation, Lucent Technologies Foundation, Merrill Lynch, and USAID. Grants have been awarded in 18 countries, namely Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

Entra 21 programs support youth through well-designed and coordinated lectures and internships. They offer life-skills training and continuous tutoring; these are central features of the intervention and key determinants of its success. There is also a financial scheme to provide an incentive for youth to register in the program. Programs last two years on average, and target mainly unemployed and underemployed disadvantaged young people who have completed high school (or are in the process of doing so). Gender is equally represented, as well as some minority groups (indigenous youths are particularly targeted by Entra 21 programs in Guatemala and Bolivia).

There have been no net impact evaluations of Entra 21 programs but studies in El Salvador, Dominican Republic, Peru, Panama, Colombia, Paraguay, Bolivia, and Brazil have shown positive "gross" impact on employability of participants. Estimated job placement rates have ranged from 68 per cent in Peru to 41 per cent in Paraguay, with high satisfaction levels of employers and beneficiaries. Placement rates have been lower for women, especially in Panama, where 34 per cent of female participants got a job, compared to 64 per cent of male participants. On the other hand, in Sao Paulo, Brazil, both genders obtained the same placement rate. Regarding earnings effects, evaluations found that average monthly wages were at least as high as the minimum wage in Peru, Bolivia, Dominican Republic, Panama, Paraguay and Brazil. Most youth attained a job in the formal sector with at least one or more benefit, such as paid vacations, one month bonus and health insurance.

Entra 21 programs are all given a rating of 2 for QOI based on QOE=1.

Source: Pezzullo (2005)

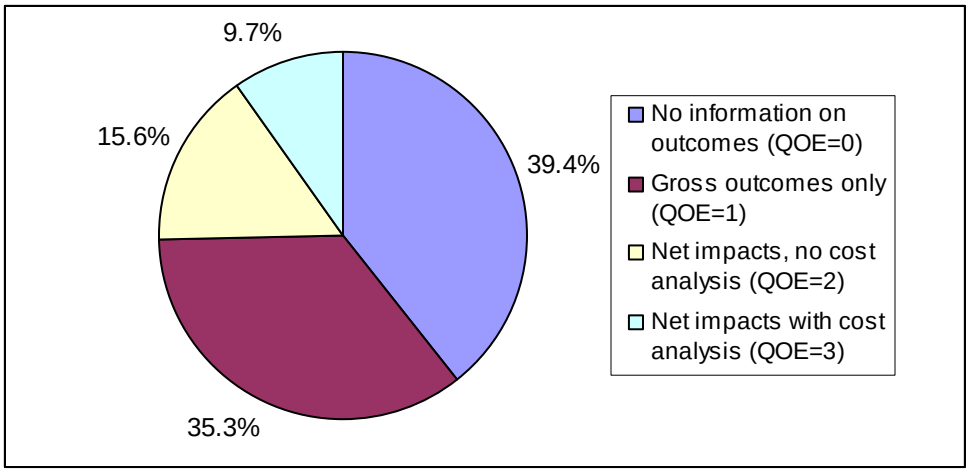
E. Quality of evaluations of programs in the inventory

Since an assessment of "what works" is one of the core objectives of the overall project, an important dimension of the inventory concerns the quality of the evidence that is available on the impact and cost-effectiveness of the interventions. In Section C, we introduced the "quality of evaluation" (QOE) variable that measures this for a given program. The classification defining this variable ranges from no information on outcomes or impact to estimates of net impact with cost-benefit analysis (recall Table 4).

The quality of the evaluation evidence for the interventions included in the inventory is summarized in Figure 2. The general picture is that the level of program evaluation has been weak. Certainly, one strong conclusion drawn from our research is the need for major improvements in the quality of evidence available for youth employment interventions. In 39 per

cent of all programs, there is no evaluation information at all on outcomes or impact. An additional 35 per cent have evaluations which cover only gross outcomes, and do not use a methodology (e.g., based on a control group) to estimate net impact. In other words, only about one-quarter of all programs included have some evidence on the net impact. And, of the programs that meet this evaluation standard, most (45 of 73) do not include any cost-benefit analysis. As Figure 2 indicates, then, **only one in 10 programs have evaluations which measure both net impact and cost**. Moreover, given the nature of the data collection process followed to compile the inventory, it is likely that Figure 2 overstates the actual quality of evaluations for youth programs.[18]

Figure 2: Summary of Quality of Evaluations (QOE)



The overall picture on the quality of evaluation evidence varies by type of program. Figure 3 shows the percentage of interventions by major category that have net impact evaluations (QOE=2 or 3) and have these evaluations with an analysis of costs (QOE=3). We have only included the four largest categories because the others have too few cases to draw valid conclusions. The incidence of net impact evaluations varies from 36 per cent for multiple-service programs down to only 9 per cent for entrepreneurship programs. These results are not surprising. The comprehensive programs tend to be large, highly visible interventions where resources available and interest in measuring results is likely to be high. On the other hand, entrepreneurship programs are often smaller and are not as easily evaluated as some of the other interventions included in the inventory. The relatively low incidence of net impact evaluations for skills training (20 per cent) is disappointing, especially given the prevalence of these programs. Finally, net impact evaluations with cost analysis are infrequent for all categories, especially entrepreneurship (only one of 33 programs) and skills training (8 of 111 programs). The complete distribution of the quality of evaluations by type of intervention is presented in Table 10

[18] The reason for this is two-fold. First, it seems probable that programs with documentation (found on the internet or through other sources) and, thus, eligible for inclusion in the inventory would be more likely to have impact evaluations than "unobserved" programs (i.e., without any documentation on the internet or through other sources). Second, the data collection exercise did place some priority on including programs with solid evaluation evidence; for example, where researchers knew that an evaluation existed, they were more likely to search intensively for the documentation required to have the program included than where they knew or suspected no impact evaluation had been undertaken.

Figure 3: Percentage of programs with net impact evaluations by category of intervention

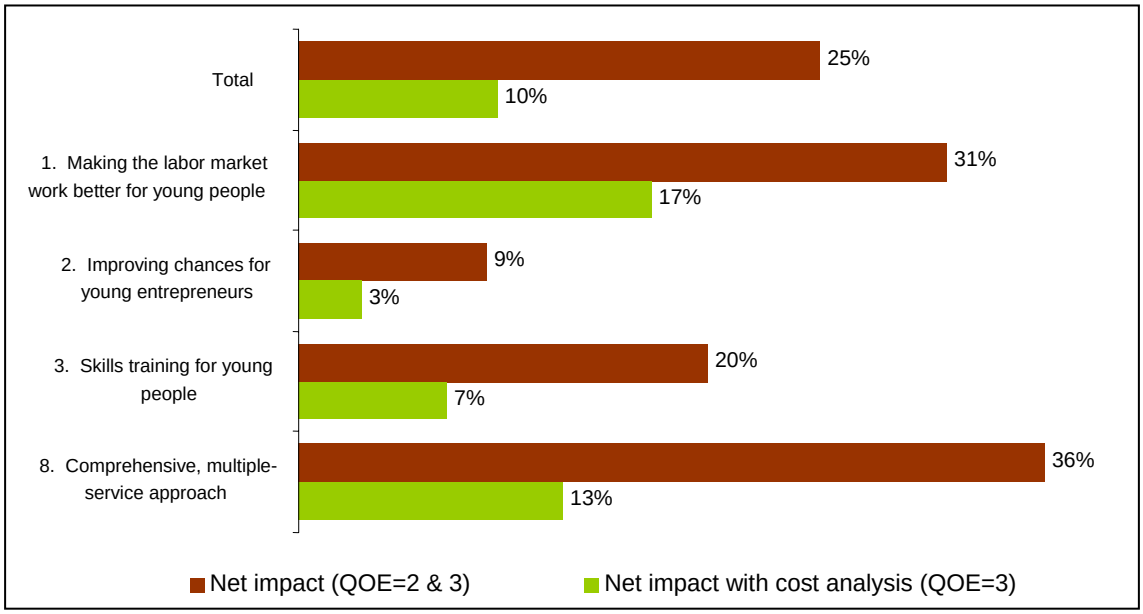


Table 10: Quality of evaluation (QOE)[1] evidence by category of intervention

Category of intervention	Quality of Evaluation (QOE)				
	0	**1**	**2**	**3**	**Total**
1. Making the labor market work better for young people					
1a. counseling, job search skills	1	4	1		**6**
1b. wage subsidies	3	9	3	2	**17**
1c. public works programs	1	3	1	3	**8**
1e. other	2	1		1	**4**
Sub-total	**7**	**17**	**5**	**6**	**35**
2. Improving chances for young entrepreneurs	**18**	**12**	**2**	**1**	**33**
3. Skills training for young people					
3a. vocational training including apprenticeship systems	46	34	11	7	**98**
3c. 2nd chance & equivalency programs	3	2	2	1	**8**
3d. other	3	1	1		**5**
Sub-total	**52**	**37**	**14**	**8**	**111**
4. Making training systems work better for young people					
4a. information	3				**3**
4b. credit (to individuals or enterprises)		1			**1**
4c. financial incentives (subsidies, vouchers)	2		1	1	**4**
4d. other	2		1		**3**
Sub-total	**7**	**1**	**2**	**1**	**11**
6. Improving labor market regulations to the benefit of young people	**1**	**1**			**2**
8. Comprehensive, multiple-service approach	**29**	**31**	**22**	**12**	**94**
9. Other (e.g. voluntary national service programs)		**3**			**3**
Total	**114**	**102**	**45**	**28**	**289**

Notes: 1. for QOE specification, see Table 4.

Box 4: Kenya's Jua Kali voucher program – An example of programs designed to make training systems work better for young people (Category 4)

One of the best known programs under this heading is Kenya's Jua Kali voucher program, established in 1997 as a pilot program, under the auspices of the Micro and Small Enterprise Training and Technology Project. Under this type of program, vouchers are issued to unemployed youth, who can personally select a training provider based on their needs and objectives, rather than having them chosen by a bureaucratic institution. Vouchers for training have been used for some time in the UK and more recently in Germany as well as other countries. The voucher program intends to empower recipients with the capacity to buy training on the open market and thereby promote competition between private and public suppliers. The approach should improve the quality of training and bring down the costs, while at the same time ensuring a better match between the participant and the training course.

Under the Jua Kali pilot program, anyone eligible for training is given a voucher which can be cashed in at the chosen training provider. Participants pay only 10 per cent of the cost of the voucher with the government subsidizing the remaining 90 per cent. Master craftsmen were the major providers of training, responding to demand from clients. Although the Jua Kali voucher scheme did not focus entirely on youth, the majority of those trained were young and disadvantaged. Under this program, 37,606 vouchers were issued to entrepreneurs and employees in enterprises with fifty workers or less over the 1997-2001 period. There is evidence that the scheme has had a positive impact on those who were trained and that it has boosted employment, assets, and business for enterprises which participated (in comparison with a control group). These findings relate to a small population served by the pilot program; there is no evidence of outcomes/impact in a large (national) sample. The scheme was complex and costly to establish, and it has proven to be difficult to phase out the subsidization of the vouchers. Lessons learned from the experience include the following: such schemes should be administered through the private sector rather than (as in Kenya) through a government ministry; the scheme should include provision for upgrading of training providers, especially those from small enterprises; and it should promote the willingness of clients to pay for training. An exit strategy is needed unless subsidies are to last forever. But, overall, the Jua Kali experience suggests that there is scope for the use of vouchers in a system more precisely targeted at the most vulnerable.

This program was given a rating of QOI=2 based on a QOE=3.

Source: Johnson and Adams (2004)

Table 11 shows the distribution of evaluation quality by region. The highest incidence of impact evaluations is in the OECD, where 34.4 per cent had a QOE rating of 2 or 3. ECA (29.3 per cent) and LAC (25.0 per cent) were next, with programs in MENA, Asia, and SSA never or only very rarely being evaluated. When we consider only net impact evaluations with cost analysis (QOE=3), ECA surprisingly has the highest incidence. This largely reflects a major evaluation effort by the World Bank on a set of programs that accounts for a significant share of the relatively small ECA sample.

Table 11: Percentage distribution of Quality of Evaluation (QOE)[1] by region

Region	Quality of Evaluation % distribution				Total number
	0	**1**	**2**	**3**	
Europe & Central Asia	26.8	43.9	4.9	24.4	41
Latin America & Caribbean	42.6	32.4	16.2	8.8	68
Middle East & North Africa	62.5	37.5	0.0	0.0	8
OECD	39.3	26.2	25.4	9.0	122
South and East Asia & Pacific	23.8	76.2	0.0	0.0	21
Sub-Saharan Africa	55.2	37.9	3.4	3.4	29
World-wide	**39.4**	**35.3**	**15.6**	**9.7**	**289**

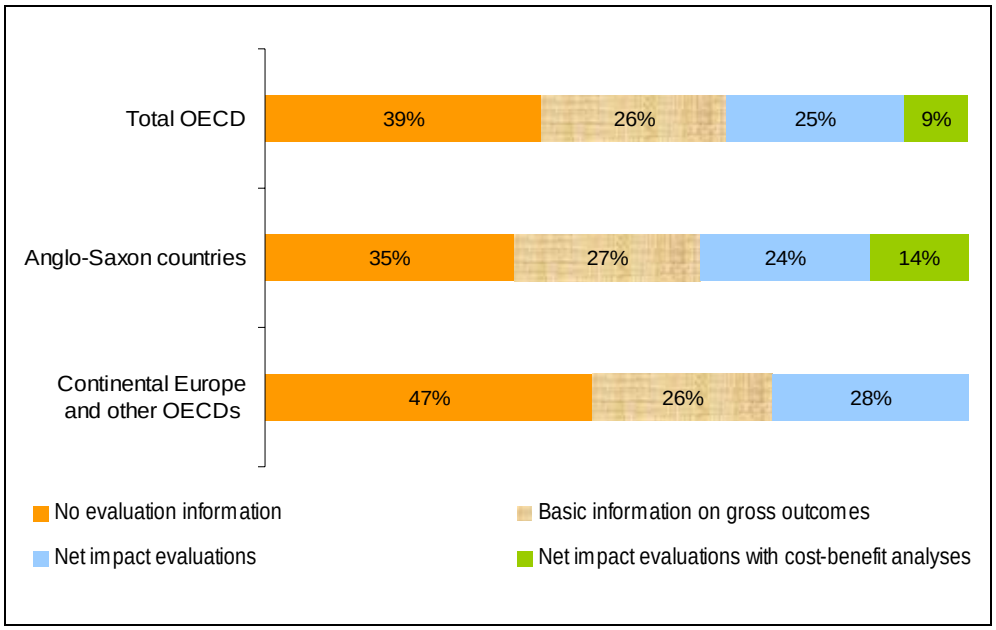
Notes: 1. See Table 4 for explanation of QOE specification.

Within the OECD group, the Anglo-Saxon countries have had the stronger record regarding program evaluation. Figure 4, which breaks the OECD into the two country groupings used earlier, shows that there is substantially more information available on employment programs for youth in Anglo-Saxon countries than in other OECD countries (essentially continental Europe, with a few examples from Japan). In the former group of countries, 38 per cent of the programs we found had an impact evaluation (QOE= 2 or 3) and 14 per cent included a cost-benefit analysis (QOE=3). On the other hand, for programs in continental Europe, 47 per cent have no evaluation information available on outcomes or impact (QOE=0) and another 26 per cent measure only gross impact (QOE=1). We found no evaluations in this sub-region with cost-benefit analysis. In fact, the only evaluations in the OECD with cost-benefit analyses were in Canada, the U.K., and the U.S. The evaluation record is strongest for multiple-service programs; 48 per cent (20 out of 42) of all net impact evaluations carried out in the OECD region were in this category. These mixtures of classroom training, on-the-job training, counseling and subsidized employment, mostly financed by the governments, have been repeatedly evaluated in the Anglo-Saxon countries, mainly in the U.S., and less often in Australia, Canada, and the U.K.

F. Quality of interventions in the inventory: Descriptive analysis

Where possible, the interventions included in the inventory have been assessed in terms of their impact as well their cost-effectiveness. “Impact” is defined here as the effect of the programs on the future employment prospects of participants, as measured by post-program employment and/or earnings. On the basis of these indicators, programs are classified according to the “quality of intervention” (QOI) variable that was introduced in Section C (recall Table 3). This variable distinguishes between interventions with positive and those with negative or zero impact. The group of programs with a positive impact is then further divided into three sub-groups – those that are cost-effective, those that are not cost-effective, and those for which no cost evidence is available.

Figure 4: Percentage distribution of programs by Quality of Evaluation (QOE) for OECD country sub-groups



The assessment of the quality of an intervention is based on program documentation of these performance indicators and costs. The poor quality of the evaluation evidence, discussed in the previous section, must be kept in mind in interpreting these results. For almost 40 per cent of the programs in the YEI, no information on employment outcomes is available (i.e. QOE=0). In these cases, it was impossible to make any informed judgment on the quality of the intervention and the QOI variable was assigned a missing value. Another 35 per cent had information on gross outcomes, but not net effects (QOE=1). Of course, this level of evidence falls short of what is really required to assess a program's impact – i.e., a methodology that can isolate *net* impact by comparing the observed outcomes with what would have happened to the participants in the absence of the intervention (see Box 5). Nonetheless, in most of these cases where there is information only on gross outcomes, a "non-scientific" assessment of the labor market impact of the intervention was attempted (see section C above). Some readers may want to focus only on program assessments that are based on net impact studies (i.e., QOE=2 or 3). For this reason, the data on the quality of interventions are disaggregated by the quality of the underlying evaluation evidence. Also, the analysis of the effectiveness of programs puts more emphasis on results based on net impact evaluations.[19] However, given that so many programs in the inventory do not have scientific evaluations, the judgment was made that too much information would have been lost had they been excluded altogether.

[19] Here we draw significantly from a background paper on lessons learned from the impact evaluations. See Puerto (2007a).

Box 5: Evaluation within a cost/ outcome framework – a mini-manual

Ideally, programs should be evaluated within a *cost/ outcome* framework – involving, as its name suggests, a comparison of the cost of a course of action with its outcome.

Cost can be defined from various points of view. In the case, for instance, of an evaluation of a skills training course, which has not involved any capital expenditure, the cost to the *individual* of taking the course is the fee (if any) that has to be paid plus the value of whatever the individual has had to give up in order to participate in the training (principally, his/her after-tax earnings, which would be zero in the case of the unemployed). From the *government* point of view, the cost of the course is measured by its net implications for government expenditure. However, the relevant cost concept for social cost/outcome analysis is cost from the point of view of society as a whole, or *social opportunity cost*. This is defined as what society has to give up in order that the training should take place. In this case, cost will include not only actual expenditure on staff of all kinds, power, telephones, repair, maintenance, training materials, etc., but also the cost of resources for which no payment is involved, such as the time of volunteer teachers, trainees etc. if that time has an alternative productive use. It will also include the cost of indirect as well as direct inputs, such as the provision of special transport for participants. Inputs will be valued initially at market prices, then adjusted for inflation and for any differences between market prices and social opportunity cost (for instance, taxes should strictly be deducted from prices of inputs, and subsidies added to them).

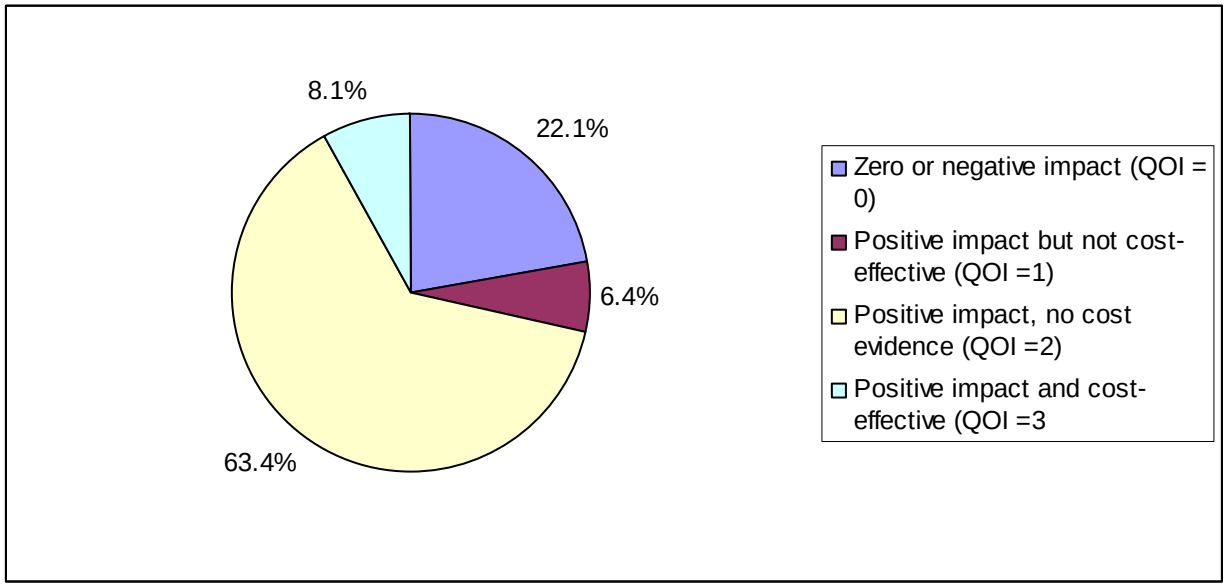
On the ***outcome*** side, again taking the example of a skills training program, the main interest is in what happens in the labor market to those who have received the training. Thus the *impact* of the course either on earnings or on employment has to be measured. This is commonly misunderstood. The impact of such a program on employment, for instance, should be measured not by the proportion of trainees who get jobs (the gross outcome) but by the *difference* the program makes to that proportion (the net impact). Thus, a comparison has to be made with a control group -- i.e., a group of people with all the same characteristics as the trainees (age, sex, education, social class, etc.) save that they did not participate in the program. The effectiveness of a training course should be measured by deducting the success rate of the control group (e.g., in obtaining jobs) from that of the trainees, to show what difference the training made. For example, a multi-service youth employment program in the Dominican Republic, offering training and private sector internships to disadvantaged young people, achieved a 57 per cent employment rate for participants – which looks good until it is revealed that the employment rate for the control group was 56 per cent (Card *et al*. 2006). Similarly, the benefit of a course, measured by impact on earnings, should be calculated by deducting the earnings of trainees over a defined period from those of a control group.

Comparison of cost and outcome can take several forms. A relatively simple measure would be in terms of ***cost-effectiveness***. For instance, in the case of training courses which are aimed at improving the chances of unemployed people of finding jobs, a relevant cost-effectiveness measure would be extent of *improvement in employability per unit of spending.* More ambitious would be some kind of ***cost/benefit*** calculation. Broadly speaking, this consists of comparing the stream of costs attributable to the training with the stream of benefits resulting from it. This comparison can take the form of a ***benefit/cost ratio***, a ***net present value*** calculation, or an ***internal rate of return***. The benefit/cost ratio is the discounted present value of the stream of benefits from the training (measured by its impact on the before-tax earnings of a trainee) divided by the discounted present value of the stream of costs (direct and indirect) attributable to the training. The net present value is the discounted present value of the stream of benefits minus the discounted present value of the stream of costs. The internal rate of return is the discount rate at which the present value of the stream of benefits is exactly equal to the present value of the stream of costs.

Social cost/benefit analysis must always be supplemented by private cost/benefit analysis, which looks at costs and outcomes from the point of view of the individuals who participate in a program rather than from the point of view of government or society. Private pay-off can be measured in various ways. The simplest would be in terms of ***private cost-effectiveness***. As before, the cost-effectiveness measure would be the extent of improvement in success rate in the job market per unit of cost, but this time with cost defined as private cost (see above). A ***private cost/benefit*** rather than a cost-effectiveness approach can also be tried, using the same three measures -- *benefit/cost ratio, net present value* or *internal rate of return* -- but seen from the *private* point of view.

Figure 5 shows the overall distribution of the QOI variable for the programs in the inventory. It is based on 172 interventions where an assessment could be made regarding employment and/or earnings outcomes; these include both programs where only gross outcomes are available (QOE=1) and those where impact evaluations have been carried out (QOE = 2 or 3). The figure excludes those 117 interventions where an assessment of impact could not be made, either because no information was available on outcomes or impact (QOE = 0, 114 programs) or because a conclusion could not be drawn based on the documentation that was available (QOI=99, 3 programs). Of these 172 programs, 132 (78 per cent) were rated as having had a positive impact on the employment and/or earnings of participants. Again, it cannot be overemphasized that, in the case of many of these programs, the assessment has been made on the basis of gross-outcome data alone. The percentage of programs with a positive impact, on this basis, is higher than might have been expected but, as will emerge in the following paragraphs, a more complete assessment of the interventions leads to an estimated success rate that is considerably lower.

Figure 5: Summary of Quality of Interventions (QOI) for all programs with evaluation evidence of any kind[1]



Notes: 1. Includes programs with data on gross and net outcomes (i.e., QOE=1,2, or 3)

The weakness of the evaluation evidence underlying Figure 5 is given added importance by the finding that **the assessed impact of an intervention is affected by the quality of the underlying evaluation evidence**. This is shown in Table 12 which cross-tabulates QOI by QOE. When information on gross outcomes only is available (QOE=1), 90 of the 99 programs where a QOI assessment was made were judged to be positive. However, when a net impact evaluation has been carried out (QOE=2 or 3), the probability of finding a positive employment impact decreases significantly, to 60 per cent (44 of 73 programs).

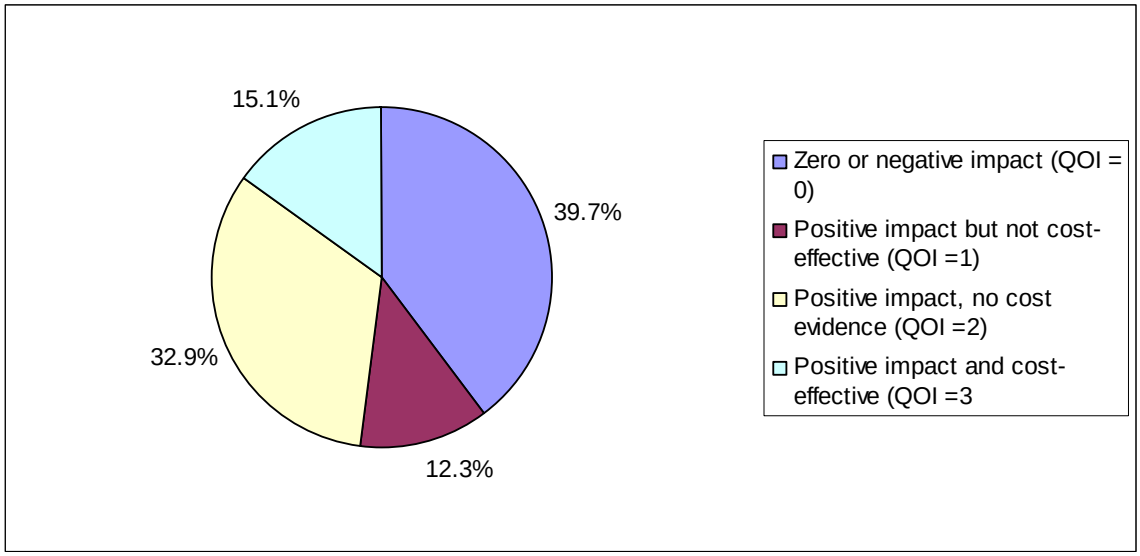
Table 12: Quality of intervention (QOI) disaggregated by Quality of evaluation (QOE)[1]

Quality of Evaluation	Quality of Intervention					
	0	**1**	**2**	**3**	**99**	**Total**
0					114	**114**
1	9	2	85	3	3	**102**
2	22	1	21	1		**45**
3	7	8	3	10		**28**
Total	**38**	**11**	**109**	**14**	**117**	**289**

Notes: 1. QOI and QOE values as described in Tables 3 and 4.

Figure 6 summarizes the pattern of quality of interventions if confined to those where net impact evidence is available (i.e., QOE=2 or 3). Comparing this figure with the larger sample in Figure 5 above which also includes programs with only gross impact information underlines the point that the better the evaluation, the higher the likelihood of that the assessment will be unfavorable.

Figure 6: Summary of Quality of Interventions (QOI) for programs with evidence on net impact[1]



Notes: 1. Includes programs with QOE=2 or 3.

We can only speculate on the reasons for this finding but a likely possibility is that, even when serious and cautious attempts are made to estimate the impact of interventions on the basis of gross-outcome data alone, the real net impact will tend to be overestimated. This has two important implications. First, within the context of this study, an **overall assessment of what interventions can do for the employment and earnings of young workers is much more favorable when the standard of acceptable evidence is relatively light than when a higher standard is set** (i.e., net impact evaluation). Second, because of the lack of serious evaluations especially in developing countries, **policy-makers – who tend to focus on gross outcome measures – are generally overestimating how useful their interventions are in helping young people find employment or increasing their earnings**.

Moreover, a complete estimate of the overall success of youth programs should consider the cost dimension, as well as their labor market impact. Unfortunately, in the vast majority of cases, it is not possible to determine whether interventions that have achieved positive impact did so cost-effectively. Of the 134 programs assessed to have positive employment impact, only 25 have a cost-benefit analysis. Of these, 14 were cost-effective (56 per cent) while 11 (44 per cent) were not.

Using this information, we can simulate the overall *success rate* of interventions, where "success" is defined as a positive labor market impact and cost-effectiveness. To do this, we assume that the programs without cost information have the same probability of being cost effective as programs with cost information (56 per cent, as in the above paragraph). With this assumption, then we can estimate an overall success rate. Table 13 shows the result of this simulation for the 172 programs with evaluation evidence of any kind (QOE = 1, 2, or 3). Of these programs, we have already noted that 134 were assessed to have a positive employment impact. This is calculated as the sum of the three positive impact QOI ratings in the column of Table 13 labeled "Number of programs". We then apportion the 109 programs that had positive employment impacts but no cost information into "not cost effective" and "cost effective" using the assumption of a cost-effective rate of 56 per cent discussed above. This leads to the numbers in the "Adjusted number" and "Failures" and "Successes" columns. As the table shows, this methodology yields an estimate of 75 "successful" (positive labor market impacts and cost-effective) programs, which represents 43.6 per cent of the total of 172 programs.

Table 13: Simulation of overall program success rate (positive impact, cost effective) for all programs with evaluation evidence of any kind

QOI rating	Number of programs	Adjusted Number[1]	Failures[2]	Successes[3]
Negative or no impact (0)	38	38	38+59=97	
Positive impact, not cost effective (1)	11	11+*48*=59	**(56.4%)**	
Positive impact, no cost data (2)	109			
Positive impact, cost effective (3)	14	14+*61*=75		75 **(43.6%)**

Notes: 1. Programs with positive impact but no cost information are allocated to positive impact, not cost effective or to positive impact, cost effective, based on cost-effectiveness distribution of programs with cost information. 56% are allocated to cost effective and 44% to cost ineffective. The numbers derived on this basis are in italics in the table.
2. Failures defined as either negative/no impact or positive impact but not cost effective.
3. Successes defined as positive impact with cost effectiveness.

The same simulation of success rates can be made for the smaller group of interventions where net impact evaluations have been carried out. Of the 73 programs that meet this condition, 20 have information on costs and, of these, 11 (or 55 per cent) are cost-effective while 9 (45 per cent) are not. Note that these proportions are almost the same as those for the 172-program sample. As before, applying these proportions to programs with net impact evaluations but no evidence on costs, we estimate the proportion of interventions that are successful, both in having positive employment impact and being cost effective. As Table 14 shows, this results in a success rate of 33.2 per cent. The fact that the success rate is lower when we only consider programs with net impact evaluations reflects the less favorable assessments of impact when proper evaluations have been carried out.

Table 14: Simulation of overall program success rate (positive impact, cost effective) for programs with evidence on net impact[1]

QOI rating	Number of programs	Adjusted Number	Failures	Successes
Negative or no impact (0)	29	29	29+20=49 **(66.8%)**	
Positive impact, not cost effective (1)	9	9+*11*=20		
Positive impact, no cost data (2)	24			
Positive impact, cost effective (3)	11	11+*13*=24		24 **(33.2%)**

Notes: 1. As for Table 13. In this case, 55% are allocated to cost effective and 45% to cost ineffective.

Category of intervention. Table 15 presents the QOI ratings data by category of intervention. Although seven of the nine types of interventions in our framework are represented in the inventory, three of them – making training systems work better for young people; improving labor market regulations to the benefit of young people; and the residual (other) category -- do not have enough cases to allow any conclusions to be drawn about how well they generally work. As a result, our observations in this section are largely confined to the four most common types of interventions: making the labor market work better for young people; improving chances for young entrepreneurs; skills training for young people; and comprehensive multi-service programs. The relative lack of evaluation evidence is an especially limiting factor once we look at the inventory disaggregated in different ways. This is a particular problem for the entrepreneurship category where an assessment of the quality of the intervention could not be made in 55 per cent of the 33 cases in the inventory. But it is also serious for skills training, where 47 per cent of 111 programs could not be assessed, and comprehensive programs (31 per cent of 94).

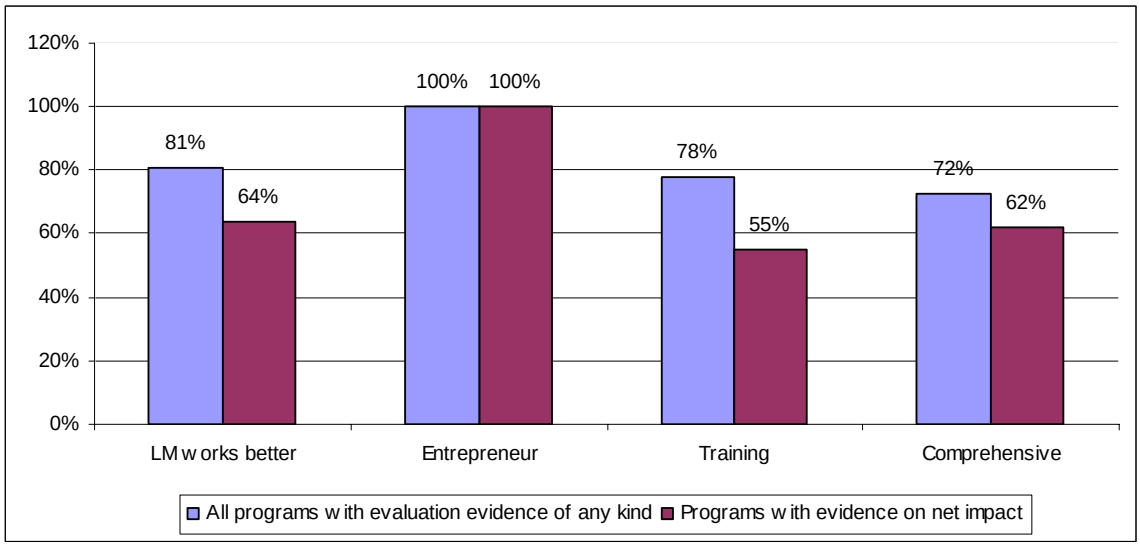
Table 15: Summary rating of quality of intervention[1] by category of intervention

Category of intervention	Quality of Intervention					
	0	**1**	**2**	**3**	**99**	**Total**
1. Making the labor market work better for young people						
1a. counseling, job search skills	1		2		3	**6**
1b. wage subsidies	2		11	1	3	**17**
1c. public works programs	2	2	2	1	1	**8**
1e. other			1	1	2	**4**
Sub-total	**5**	**2**	**16**	**3**	**9**	**35**
2. Improving chances for young entrepreneurs		**1**	**14**		**18**	**33**
3. Skills training for young people						
3a. vocational training including apprenticeship systems	11	2	35	3	47	**98**
3c. 2nd chance & equivalency programs	1		4		3	**8**
3d. other	1		1		3	**5**
Sub-total	**13**	**2**	**40**	**3**	**53**	**111**
4. Making training systems work better for young people						
4a. information					3	**3**
4b. credit (to individuals or enterprises)			1			**1**
4c. financial incentives (subsidies, vouchers)	1		1		2	**4**
4d. other	1				2	**3**
Sub-total	**2**		**2**		**7**	**11**
6. Improving labor market regulations to the benefit of young people			**1**		**1**	**2**
8. Comprehensive, multiple-service approach	**18**	**6**	**34**	**7**	**29**	**94**
9. Other (e.g. voluntary national service programs)			**2**	**1**		**3**
Total	**38**	**11**	**109**	**14**	**117**	**289**

Notes: 1. QOI values as specified in Table 3.

The QOI ratings data in Table 15 are summarized in Figure 7 which shows the percentage of programs with positive employment impact (regardless of cost) in each of these four intervention categories. As before, these results are shown both for all programs with evaluation evidence of any kind and just for those programs with net impact evaluations. Sample sizes in these categories become a consideration especially when we impose the restriction that programs need to have a net impact evaluation.[20] The highest impact ratings are for entrepreneurship programs, although these are based on a small number of cases – all 15 with any outcome information were assessed as having a positive impact, only 3 of which had net impact evaluations. However, none of the entrepreneurship programs are shown to be cost-effective. There is not a great difference in the impact results for the other three intervention categories included in the figure. The clear majority of programs in each group were judged to have positive employment effects, although this proportion does decrease by 10-20 percentage points when we look only at programs with net impact evaluations. Note that the results for the skills training and comprehensive categories are based on reasonably large samples (total of 58 and 65 interventions, respectively; 22 and 34 with impact evaluations).

Figure 7: Percentage of programs with positive labor market impact, regardless of cost, by category of intervention[1]



Notes: 1. Positive labor market impact when QOI = 1, 2, or 3. "All evaluated programs" includes 172 programs where QOE = 1, 2, or 3. "Programs with evidence on net impacts" includes 73 programs where QOE=2 or 3.

Which categories are most "successful", once costs are taken into account? The methodology used to simulate success rates for all programs in Tables 13 and 14 can also be used to answer this question. However, much depends on the assumptions that are made. If, for instance, it is assumed that the positive-impact projects for which no cost data are available in a given category were cost-effective to the same proportion as those for which cost data are available in the same category, the ranking of our four main categories would be as follows: (1) making the labor market work better for young people (48 per cent "successful"); (2) skills training (46 per cent); (3) comprehensive multiple-service approaches (39 per cent); (4) entrepreneurship (0 per cent). The problem with this assumption arises from the very small

[20] The number of interventions with impact evaluations ranges from 34 for comprehensive programs to just 3 for entrepreneurship. See Table 10.

number of evaluations that included cost-effectiveness in each category. The likelihood of error in this estimator is too high. For example, there is only one cost-benefit analysis of an entrepreneurship program, which finds that the program is not cost-effective, but this is hardly a basis for assuming that all the others for which no cost information is available are cost-ineffective.

The alternative is to apply the overall cost-effectiveness ratio to each category of intervention rather than to calculate a specific coefficient for each category. The results of this approach are shown in Table 16. The success rate is highest for entrepreneurship programs, at 52 per cent: however, as already emphasized, this estimate is based on 15 programs only. For the other three categories, where we do have more cases, between 40 and 46 per cent of programs are assessed as having both positive effects in the labor market and being cost-effective. Interestingly, whether the quality of interventions is judged by a simple impact rate or by a success rate that incorporates costs, the results, on these assumptions, show relatively little variation across programs.

Table 16: Simulation of program success rate (positive impact, cost effective), by category of intervention[1]

Category of intervention	Number of programs with evaluation evidence of any kind	Estimated percentage with positive impact and cost-effective
Making labor market work better for young people	26	46.0
Improving chances for young entrepreneurs	15	52.3
Skills training for young people	58	43.8
Comprehensive, multi-service approach	65	40.1
All programs[2]	172	43.6

Notes: 1. Calculation of success rate follows methodology used in Tables 13 and 14 and discussed in text.
2. Includes programs in all intervention categories, including ones not reported in table.

The inventory has accumulated a great deal of information on the specific programs included in the various intervention categories. This can be useful for policy-makers and others to "unpack" the statistical findings in this report and identify concrete factors associated with what works to support young workers. Given the scope of this synthesis paper, we can only briefly summarize below the key findings for the individual types of interventions. Only the four intervention categories with reasonable coverage are included and for these, we rely on the results of the available net impact evaluations.[21] Readers are encouraged to consult the regional reports and a background paper on lessons from the inventory (Puerto 2007a) in order to get more complete and detailed information.[22] Specific information on unit costs for a selection of the programs with cost information is shown in Annex C.

Category 1: Making the labor market work better for young people. Relatively few interventions have been evaluated under this category -- 11 out of 35 programs included in the inventory. All evaluated programs are either from the OECD countries or ECA, so very little can

[21] Of the categories not included, the only one with more than a few interventions is category 4, making training programs work better for young people (information, funding, etc.). The only intervention in this category from a developing or transition economy is Kenya's *Jua Kali* voucher system, which has already been described in Box 4. The only other programs with impact evaluations in category 4 are two U.S. compulsory schemes to keep teenage parents on welfare out of unemployment.

[22] Original sources of the evaluation evidence for specific programs are not included in this synthesis but are available in the background paper on lessons learned.

be said about how well these interventions work in developing countries. Across sub-categories, wage subsidies are the most evaluated (5 out of 17 programs), then public works (4 out of 8 programs), followed by counseling and job search skills (1 out of 6), and "other" programs (a job placement program with sanctions is the only program evaluated among 4 in the sub-category).

- **Wage subsidies** have generally had significant positive effects on improving employment outcomes for youth in transition and developed countries. The impact of this intervention in developing countries largely remains to be tested. Wage subsidies have been particularly successful in improving employment rates for youth, especially young women and the poorly-educated, in transition economies (i.e., Czech Republic and Poland), albeit with two caveats. The positive employment benefits did not extend to earnings, and cost-benefit analysis has not been carried out. In industrialized economies, programs in Belgium and the U.S. had statistically significant positive effects on employment and earnings, although a program in Sweden found negative short-term and insignificant long-term effects on these outcomes. Often, wage subsidies have been targeted at certain categories of young workers (e.g., disadvantaged young blacks in the U.S., women in transition countries). Evidence from OECD countries stresses the benefits of directing subsidies to firms that also offer job training to subsidized workers.

- **Public works** has a mixed record in terms of employment impact for the 4 programs in the inventory that compare outcomes for participants with a control group. Two studies indicate positive impact on future employment probability, ranging from 6 to 26 per cent in Bulgaria *(Temporary Employment Program)* and the U.S. *(American Conservation and Youth Service Corps)* respectively; however, programs in France *(Contrat d'Emploi Solidarity)* and Poland *(Public Service Employment)* show no effects at best, and even some negative impact on employment probability and wages. The U.S. program had a positive cost-benefit ratio but the Bulgarian one did not. In analyzing the total effects of public works programs, positive net benefits to society as a whole can sometimes be found if the value of the public goods and services produced by the program is included. Most public works programs do not target young people in particular and the cases in the inventory tend to be included because of high youth participation.

- **Counseling and job-search training** are interventions that provide job search assistance (JSA). International studies have found that these relatively inexpensive services tend to be among the most successful of all active labor market programs, especially when costs are taken into account (OECD 2006; Betcherman, Olivas, and Dar 2004). However, there is very little evidence on the effectiveness of JSA programs in terms of helping young people. In fact, the inventory has only one intervention in this category with an impact evaluation, Portugal's *Programa Inserção para a Juventude* (*InserJovem*). However, a second program, the U.K.'s *Restart* – although classified in the "other" sub-category – also offers job search assistance and has been scientifically evaluated. *InserJovem*, which targets long-term unemployed youth, offers job-search assistance and short basic skills courses. The impact evaluation found a statistically (and economically) insignificant reduction in the average unemployment duration for participants, with no gains in wages. The *Restart* program evaluation found positive impact for male participants with unemployment rates 6 points lower than for those in the control group, although no long-term effects were observed for women. A major part of the *Restart* program includes sanctions (i.e., potential denial of welfare benefits for non-compliance with program rules), which may at least partly explain the evaluation results. While this combination of JSA services with such sanctions is now very prevalent in OECD countries, the relevance of this approach in developing countries is limited by the fact that most do not offer unemployment benefits. The contradictory findings

of the *InserJovem* and *Restart* evaluations reinforce the point that the success of any intervention depends largely on how it is designed and implemented, as well as on the context in which it operates.

Category 2: Improving chances for young entrepreneurs. The overall finding on these self-employment assistance programs, from a wide range of countries, is that they lead to positive outcomes. However, only three interventions in this category had a net impact evaluation: Bulgaria's *Self-employment Program* and two in Peru -- *Formación Empresarial de la Juventud* and *Calificación de Jóvenes Creadores de Microempresas*. In all cases, the evaluations found positive program effects, although their cost-effectiveness and long-term effects are in doubt. The Bulgaria program reported significant gains in employment for participants, with relatively greater effects on female young participants. However, costs per placement exceed those of training and subsidized employment programs. The programs in Peru aimed to increase earnings of participants through the creation of profitable small businesses and the development of trade skills. The evaluations found a positive impact on having a business (including formalization), on hiring employees, and significantly reduced unemployment and inactivity rates, while significantly increasing earnings. Key determinants of success were access to credit and a high frequency of counseling visits. Programs vary in terms of targeting. For example, in ECA, they have generally targeted unemployed people regardless of socio-demographic profile, while programs in LAC have often specifically targeted disadvantaged youth, with entrepreneurial skills or owning a small and/or informal business. One issue with entrepreneurship programs is an overall deficit of program performance indicators which is part of the reason for the lack of rigorous evaluation evidence. This lack of indicators also probably leads to higher business failure rates.[23]

Category 3: Skills training. Training is the most popular intervention for young people. However, these programs have not been well evaluated. Out of 111 included in the inventory, only 22 have been rigorously evaluated: 7 in ECA, 2 in LAC, and 13 in the OECD area. The category itself covers vocational training programs, including apprenticeships; second chance and equivalency programs; and a residual sub-category. The vocational training category is by far the major one and includes 18 of the 22 evaluated programs. There are 3 evaluations of second chance programs and one evaluation under the residual sub-category, featuring outcomes from a national training institution in LAC.[24] Finally, it is useful to distinguish between programs that offer training only and other multiple service programs that include training as one of a number of interventions, which will be discussed separately.

[23] A successful example of information systems for entrepreneurship schemes was developed in Colombia in the late 1990s. The *Sistema de Evaluación de Impacto de los Programas de Apoyo a la Microempresa* (Impact evaluation system of microentrepreneurship programs) was jointly sponsored by public and private institutions and was implemented in five cities across the country. It provided periodic and standardized information on programs outputs. Preliminary analyses show a reduction in the mortality rate of businesses after the introduction of the information system.

[24] SENA is the biggest training provider in Colombia. It functions as a public university as well as a public training institute. Training activities comprise: (i) professional training courses for job seekers (long courses), and (ii) skill upgrading for workers (short courses). Additional resources are devoted to the development of entrepreneurship schemes and innovative business ventures. A recent impact evaluation compared labor market outcomes between SENA trainees and a control group drawn from a 1997 LSMS (i.e., Encuesta Nacional de Calidad de Vida). Net impact estimates suggest a negative effect on earnings and a negligible positive effect on employment. In particular, average wages of beneficiaries are 10 per cent lower than the comparison group, while participating in SENA's courses only increases the employment probability by one-fifth of a percentage point (Gaviria and Nuñez 2003).

As Figure 7 (above) shows, when consideration is restricted to interventions with net impact evaluations, training programs have a somewhat lower incidence of positive employment impact than the three other categories with significant coverage in the inventory. This finding is consistent with other review studies, primarily in the OECD area, that have also found mixed results for youth training (e.g., Kluve 2006; Greenberg *et al*. 2003). A review by the Inter-American Development Bank of their own youth training programs found slightly more positive results (Ibarraran and Rosas 2006).

- **Vocational training, including apprenticeship systems.** It should be noted that this category is not meant to include formal vocational *education*, but is intended to cover training and apprenticeship programs for young people who have dropped out or completed formal schooling. Some programs in the inventory were designed to develop basic job readiness only, while others offer a comprehensive array of services that includes vocational classroom and on-the-job training. In many cases, governments are the direct providers of training, while others are open to the private sector, thus fostering competition among training institutions. The assessment of vocational training shows mixed results across regions, gender, and age. However, the evidence collected by the inventory does indicate better effects from training in transitional and developing countries than in advanced economies. Moreover, programs in the first two groups of countries tend to be less expensive, which enhances their relative performance even more.

  In the OECD area, 5 out of 8 training programs reported negative or zero impact on employment and earnings, and a sixth had positive impact but was shown to be cost-ineffective. It is important to understand that many of the youth training programs in OECD countries are for seriously disadvantaged young people (e.g., U.S. *Supported Work Program*), with major obstacles to overcome. Evidence on less developed economies, particularly in ECA and LAC, suggests a better record – 6 out of 8 evaluated programs reported positive labor market impact for participants, with some examples of cost-effectiveness (Table 17). Among programs with positive employment impact, the magnitude of the effect on likelihood of employment ranged from a minimum of 6 per cent in Hungary and a maximum of 57 per cent in Bosnia and Herzegovina. This wide range is mostly determined by gender and level of education: female participants and the low-educated tend to obtain higher gains from the programs than male participants and those with university degrees, respectively. In some cases, though not all, programs also had a positive effect on earnings. Cost-benefit analyses undertaken in Brazil, Bulgaria, and Poland concluded that programs were cost-effective in the first two, but not in Poland.

- **Second-chance and equivalency programs**. These interventions are intended to bring school drop-outs up to an academic level equivalent to what they have lost by not completing their school programs. Of the 8 second-chance interventions in the inventory, only 3 have impact evaluations, all in the OECD area. The Danish *Youth Unemployment Program* aims to strengthen the employment possibilities for unemployed, low-educated youth and to provide motivation for them to return to education. Evaluation evidence indicates small but positive short-run effects on employment; however, this is largely due to an increase in the transition rate from unemployment to schooling rather than to employment. There is no data on cost-effectiveness. Two evaluations concern the U.S. *JOBSTART Demonstration* implemented in the mid-to-late 1980s which targeted school dropouts with poor reading skills. A nation-wide evaluation showed relatively disappointing results: employment rates among participants were not consistently above rates for the control group and earnings effects were either insignificant or negative. Any net gains to participants were outweighed by program costs.

However, a specific evaluation of JOBSTART in San Jose concluded that the program resulted in substantial earnings gains for participants.

Table 17: Assessment of labor market impact of selected training programs in Transition and Developing countries

Country	Program	Negative or zero impact	Positive Impact on earnings and/or employment		
			but cost-ineffective	unknown cost-efficiency	and cost-effective
Brazil	PLANFOR - National Plan of Professional Education				☑
Bulgaria	Government Re-training Program: Guaranteed & Non-guaranteed Jobs				☑
Bosnia and Herzegovina	Emergency Demobilization and Reintegration Project (EDRP)			☑	
Hungary	Government Re-training Program			☑	
Romania	Government (Public Employment Offices) Re-training Program			☑	
Poland	Government Re-training Program		☑		
Czech Rep.	Government Re-training Program	☑			
Turkey	Government Re-training Program	☑			

Source: Puerto (2007a)

Category 8: Comprehensive-multi-service approaches. These programs involve some combination of training (i.e., job and/or life-skills training), job search assistance, entrepreneurial services, and a range of other social and employment-related support services. Comprehensive interventions are the most examined of all interventions. The inventory has documented 34 net impact evaluations, 14 in developing countries and 20 in industrialized economies. A number of comprehensive programs contain more than one entry in the inventory, reflecting the characteristics and results in different periods of time and using different analytical tools (Table 18).

OECD countries have a long history of comprehensive programs, dating back to the 1960s. These types of interventions were introduced in developing countries in the early 1990s, with the *Jóvenes* programs, implemented first in Chile. Government-funded and training-oriented, Chile *Jóven* was quickly replicated in Argentina, Uruguay, Paraguay, Peru, Colombia, Dominican Republic and Venezuela (See Box 6). As Table 18 shows, the *Jóvenes* programs have been evaluated several times. In Sub-Saharan Africa, Uganda's *Program for the Promotion of Children and Youth* has been partially evaluated.

Of the 34 net impact evaluations of comprehensive programs, 21 (62 per cent) reported positive net impact. The evaluations of the *Jóvenes* programs conclude that they have been largely, though not always, successful in improving job placement and earnings. In addition, the programs appear to have been relatively cost-effective. Even so, they are expensive and in some countries, the approach has been replaced by smaller, more focused, and less expensive interventions.

On the other hand, the evaluation results for comprehensive programs in OECD countries have been less positive. A recent meta-analysis of eight U.S. programs found very moderate and

often negative impact on the labor market. One comprehensive intervention, the *Job Corps*, has survived the scrutiny of evaluators. Two major evaluations of this program have been undertaken and the conclusion now is that *Job Corps* has positive impact for participants but is not cost effective. There have been some success stories outside the U.S. In Canada, the *Employability Improvement Program* had a significant impact on annual earnings due to an increase in weeks worked. In the U.K., young unemployed men are about 20 per cent more likely to gain jobs as a result of the *New Deal for Young People* program. Unfortunately, not much can be said about the impact and effectiveness of comprehensive programs in continental Europe. Only 3 programs in continental Europe have had net impact evaluations and none of them reported evidence of positive impact on the labor market prospects of young workers.

Table 18: Comprehensive programs with net impact evaluations

Country	Program	Evaluation year
Industrialized countries		
Australia	Closing the IT-Divide-Infochange and the Green PC, Victoria AU	2002
Canada	Cooperative Education Option	1998
	Employability Improvement Program (EIP)	1995
	Youth Service Canada (YSC)	1999
France	French Youth Employment Programs (1980's-1990's)	2002
Norway	Active Labor Market Programs for Youth in Norway	2005
Sweden	Labor Market Training Program in Sweden	2004
United Kingdom	New Deal for the Young Unemployed	1999 – 2003
United States	Comprehensive Employment and Training Act (CETA)	1984, 1986 and 1987
	Job Corps	1982 and 2003
	Job Training Partnership Act - Title II-A (JTPA)	1997
	New Chance Demonstration	1997
	New Hope Project	2003
	National Evaluation of Welfare-to-Work Strategies (NEWWS)	2003
	Youth Fair Chance	1996 and 1998
	Meta-Analysis (sample of government-sponsored programs operated between 1962 and 1972)	1980
	Meta-Analysis (sample of government-sponsored programs operated between 1962 and 1998)	2003
Developing countries		
Argentina	Proyecto Jóven	2001, 2004
Brazil	Programa Primeiro Emprego - Rio Grande do Sul	2004
Chile	Chile Jóven	1997, 1999 and 2004
Colombia	Proyecto de Servicios Integrados para Jóvenes	2002 and 2003
Dominican Rep.	Programa Juventud y Empleo	2006
Peru	PROJoven	1999, 2002 and 2003
Uruguay	Opcion Jóven	2002
Uganda	Promotion of Children and Youth in Uganda (PCY)	2003 and 2004

Source: Puerto (2007a)

As a general rule, comprehensive programs implemented in industrialized countries have been relatively expensive. The U.K. *New Deal* stands as the least costly intervention among OECD programs with cost information available. Costs per participant in 2005 $US are around $1,000. On the other hand, many North American comprehensive programs have unit costs in the

neighborhood of $10,000 with the U.S. Job Corps at around $17,000. Estimates for the *Jóvenes* programs range from the about $700 to about $2,000 per participant served. Costs for government can be kept down when firms cover the costs of on-the-job training and when service providers are selected through competitive cost bidding.

Box 6: LAC's Jovenes programs – An example of comprehensive multiple-service approaches (Category 8)

The *Jóvenes* programs have represented a prototypical model of a multi-service intervention to improve youth employability and human capital in Latin America and the Caribbean since 1991. With the emphasis on demand, the model targets disadvantaged young workers, ages 16-29, with vocational training and numerous support services. The model was replicated in several countries across the region – first Chile and subsequently Venezuela, Argentina, Paraguay, Peru, Colombia, Panama, and the Dominican Republic. Few programs are currently operating; most have been adopted by national public training institutions or substituted by smaller interventions that have inherited several features from this model.

Jóvenes' multi-service approach integrates classroom training and work experience in basic and specific trades, as well as life skills, job search assistance, counseling, and information. Both employers and beneficiaries receive financial incentives such as wage subsidies and daily stipends, respectively, to guarantee their participation. Training is offered through a competitive market where a public bidding system ensures quality and fosters private sector participation. Training institutions coordinate courses and internships, balancing the needs of the productive sector with the skills taught in the program. The main criteria in targeting are income levels, education, gender, and regional coverage (within countries). Participants are poor youth with low levels of education – high school at most, unemployed, or underemployed. Gender composition is also well balanced.

Estimates of unit cost for the *Jóvenes* programs range from the high US$700s to about US$2,000 per participant served. Across programs, there is evidence of increased employment probability and earnings of participants upon graduation, compared to their control group. In Argentina, for instance, there is a 10 per cent increase in the employment probability of adult women, while in Chile the program increased the probability 21 percentage points, with significant results for youth 21 and younger, and women. Similarly, earnings increased about 10 percentage points in Argentina and Dominican Republic, with particularly favorable outcomes for young males and adult females; and about 26 per cent in Chile, with best results for the youngest.

There have been varying estimates of costs relative to benefits. Early evidence from Peru indicates that the positive earnings effects need to last at least 7 years for *PROJoven* to yield a positive net gain. A recent longitudinal version of propensity score matching of *PROJoven* showed a positive internal rate of return, consistently above 4 per cent. In Dominican Republic, the investment on training is recuperated after 2 years.

The *Jóvenes* programs have been assessed with a QOI=2, based on ratings of 1 or 2 for QOE.

Sources: Aedo and Nunez (2001); Aedo and Pizarro (2004); Elias *et al*. (2004); Card *et al.* (2006); Nopo *et al.* (2002); and Diaz and Jaramillo (2006).

Region and level of development. Table 19 presents the inventory data on QOI by region and Figure 8 summarizes the ratings in terms of program impact and cost-effectiveness. Overall, the QOI ratings indicate that the employment impact tends to be more favorable in developing and transition countries than in industrialized countries. While only 60 per cent of programs in the OECD region had a positive impact, the corresponding rates in Europe and Central Asia and

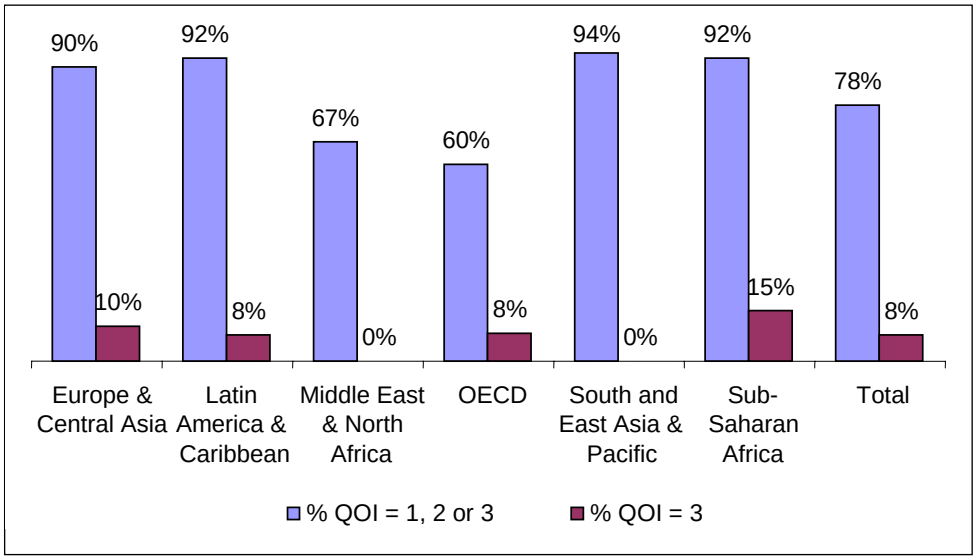
Latin America and the Caribbean – the two other regions with significant samples – were 90 per cent and 92 per cent, respectively. Although the sample sizes are too small in South and East Asia and the Pacific and Sub-Saharan Africa to draw firm conclusions, the limited evidence in these regions offers additional support for the conclusion that youth programs have been more successful in developing countries. While regional differences in the incidence of programs with positive employment impact are evident, there is little variation in terms of cost-effectiveness. Much more detail on the interventions in the different regions is available in the regional reports.

Table 19: Summary rating of Quality of Intervention by region[1]

Region	Quality of Intervention					Total
	0	1	2	3	99	
Europe & Central Asia	3	3	20	3	12	**41**
Latin America & Caribbean	3	3	30	3	29	**68**
Middle East & North Africa	1	1	1		5	**8**
OECD	29	4	33	6	50	**122**
South and East Asia & Pacific	1		15		5	**21**
Sub-Saharan Africa	1		10	2	16	**29**
Total	**38**	**11**	**109**	**14**	**117**	**289**

Notes: 1. QOI ratings as described in Table 3.

Figure 8: Percentage of interventions with positive labor market impact and with cost-effectiveness, by region[1]

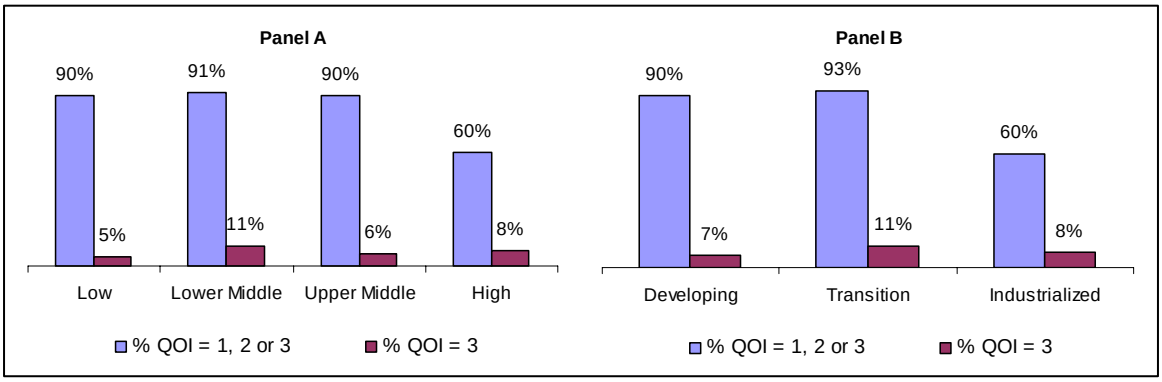


Notes: 1. Missing values (QOI=99) are excluded the calculations.

These differences in performance are also evident when we break the data down by level of income and by developing, transition, and industrialized status (Figure 9, Panels A and B). Whatever disaggregation is used, the results suggest that interventions are more likely to improve the employment and/or earnings of young people in non-industrialized countries than in industrialized ones. There are reasons to find this result surprising. Given their more extensive experience with employment programs, greater capacity and resources, more available

information and analysis, and generally better functioning labor markets, industrialized countries might have been expected to have more effective interventions.

Figure 9: Percentage of interventions with positive labor market impact and with cost-effectiveness, by income level (Panel A) and country type (Panel B)[1]



Notes: 1. Missing values (QOI=99) are excluded in the calculations.

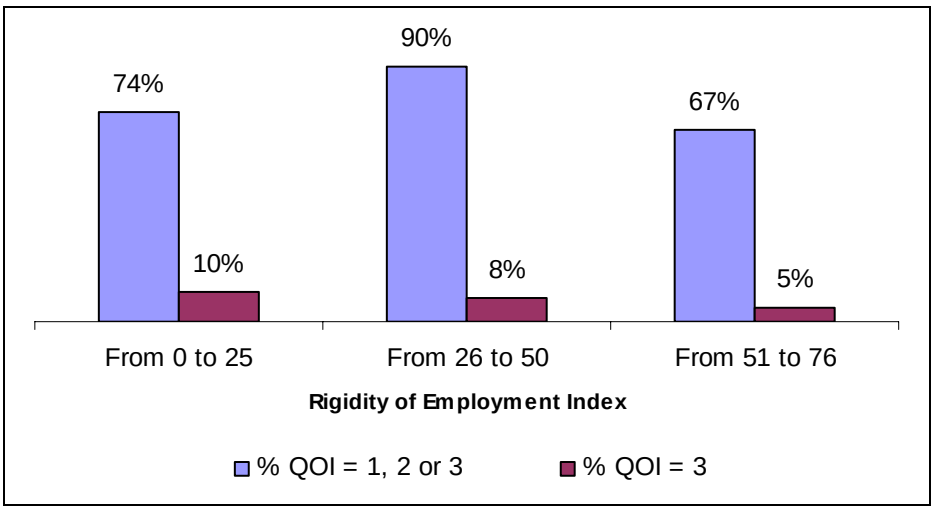
So why do the inventory results suggest the opposite? First, it may be that this finding is due to measurement problems stemming from the fact that programs in industrialized countries tend to be more rigorously evaluated. We have seen that when programs are scientifically evaluated with a net impact methodology, they are less often found to have positive employment effects than when an assessment is based only on gross outcome results. So it may be that the differences evident in Figures 8 and 9 are due to the fact that the positive impact of interventions in non-industrialized countries is overstated and that, if they were evaluated as rigorously as OECD programs, these differences would disappear. However, the meta-analysis presented in the next section argues against this hypothesis. In this analysis, which includes only programs with net impact evaluations, the probability that a program has a positive impact declines as the country's income level rises.

The observed differences, then, seem to reflect real differences in what youth programs can do in less developed compared to developed countries. For example, disadvantaged young people -- the dominant clientele of youth programs everywhere – may be at such a disadvantage in OECD countries, given the high average levels of human capital and the skill-intensity of labor demand, that employment interventions are simply not enough to compensate. In developing countries, on the other hand, where the proportion of young people forced to drop out before completing secondary school is much higher, these programs may give many of them a boost to realize their hidden potential. Unfortunately, we are not able to test this hypothesis in this study.

Institutions or policies, such as employment protection laws (EPL), might also matter in explaining why certain groups of countries seem to have more successful programs than others. Employment protection rules, which affect hiring, contracting, and dismissal could limit the effectiveness of youth programs since it is well documented that, where such rules are strict, young people are likely to experience difficulty in entering the labor market (e.g., OECD 2004). Within the OECD region, the evidence is at least consistent with this hypothesis: youth programs have a higher positive impact rate in Anglo-Saxon countries (74 per cent) where EPL is more flexible than in the rest of the OECD, i.e., largely continental Europe (38 per cent) where rules

are more protective.[25] Using the World Bank's *Doing Business* "employment rigidity index" (2006) as a measure of the flexibility of EPL for individual countries, we looked at whether there was a link between this variable and the results of youth programs included in the inventory. As Figure 10 shows, the relationship with program impact is non-linear. The lowest rate of successful programs was in countries with rigid employment rules, but countries in the middle category had a higher proportion of programs with positive impact than countries with the most flexible rules. The incidence of cost-effective programs does decline with EPL rigidity. As we will see in the next sub-section, the meta-analysis does find that the probability of a program having positive impact does decrease as a country's employment protection rules become stronger.

Figure 10: Percentage of interventions with positive employment impact and with cost-effectiveness, by country's rigidity of employment[1]



Notes: 1. Countries rated according to the Doing Business 2006 "rigidity of employment" index. Higher values indicate more rigidity.
Missing values (QOI=99) are excluded from the calculations.

Program targeting. In general, when interventions are oriented towards disadvantaged groups of young people, the results seem to be as good, if not better, than when there is no particular orientation. Programs classified as being oriented to one or more of these groups either had specific eligibility rules or had a high proportion of participants from a designated group. Table 20 summarizes the evidence on interventions oriented towards women, the disabled, particular ethnic groups, low-income youth, and the poorly educated. The first three are relatively rare but about one-half of all programs in the inventory are oriented to low-income and/or low-education youth. Compared to their share of the overall sample of interventions, programs oriented to women and the disabled are overrepresented in terms of cost-effective programs. Programs oriented to low-income youth are somewhat more likely than programs without any income orientation to have positive labor market impact although not when cost-effectiveness is taken into account. The most significant results from Table 19 relate to programs oriented to poorly-educated young people. While these programs account for 49 per cent of the total inventory, they represent 60 per cent of programs with positive impact on employment and 71 per cent of programs that are cost-effective.

[25] The differences between the Anglo-Saxon and continental Europe (and other) countries in the OECD are discussed in some detail in the OECD regional paper.

Table 20: Relative impact and cost-effectiveness of interventions oriented towards the disadvantaged

Orientation	Share of all interventions	Share of positive-impact interventions (QOI=1,2, or 3)	Share of cost-effective interventions (QOI=3)
Women	16%	18%	29%
Disabled	11%	10%	29%
Specific ethnicity	7%	7%	7%
Low Income	52%	58%	50%
Low Education	49%	60%	71%

G. Quality of interventions in the inventory: Meta analysis[26]

To identify the determinants of program outcomes more systematically, we have carried out a meta analysis based on the interventions collected by the inventory. A meta analysis uses econometric methods to quantitatively combine and synthesize results from individual studies in a common field in order to get an overall picture. We have chosen this approach in order to analyze what types of youth interventions work best and what are the key features in implementation design and targeting that explain variations in employment and earnings outcomes under different economic and institutional conditions.

Meta analyses have been most widely used in fields such as education, medicine, and psychology and have only recently been applied to the study of labor market programs. One example is a recent study by Kluve (2006), who uses this approach to estimate the probability of success of a sample of 95 ALMPs in Europe, with special attention drawn to programs implemented since the late 1990s. About 25 per cent of these programs were youth-oriented. The probability of success (i.e., positive employment impact) was modeled by (i) the category of intervention, (ii) the study design, (iii) the institutional labor market context, and (iv) the prevailing country context. His results indicate that category of intervention is the only clear determinant of success of active labor market measures in Europe, and there is little if any evidence that study design or country-context factors explain the programs' effectiveness.

Kluve (2006) defines the set of categories or program types as follows: labor market training, private-sector incentive programs (e.g., wage subsidies), direct employment programs in the public sector (e.g., public works programs), and services and sanctions (e.g., job search assistance and compulsory programs to maintain unemployment benefits). Programs were further disaggregated by target group, including youth. The findings suggest rather modest positive impact from training programs on employability. The model indicates significantly higher returns from private-sector incentive programs and services and sanctions programs; they increase the likelihood of positive labor market impact by 40 to 50 percentage points more than training programs do. On the other hand, relative to training programs, public sector employment programs are 30 to 40 per cent less likely to yield positive impact. On specific target groups, the model indicated that young people are the hardest to assist; when they are targeted, the probability of positive employment impact is reduced by 40 to 60 percentage points.

[26] This section is based on Puerto (2007b).

Greenberg *et al*. (2003) used a meta analysis to synthesize findings from 15 publicly-funded training programs in the U.S. to measure the programs' effects on participants' earnings. Their model regresses the reported earning effects against (i) type of training, (ii) demographic characteristics of the target population, (iii) economic conditions of the area where the program was implemented, (iv) evaluation method, (v) number of years since training was received, and (vi) year in which the program was implemented. Of a total of 315 observations on earnings outcomes, 31 per cent were related to training programs for disadvantaged youth. Results suggest highly heterogeneous earning effects among assisted groups, i.e., men, women, and young people. The overall training effect on youth was negligible, but some control variables showed small positive effects: (i) across program components, classroom training yielded consistently better effects than on-the-job training, while (ii) gender and race controls suggested lower effectiveness of training for whites and female beneficiaries than for all other participants.[27]

1. Methodology

The meta analysis is applied to two sub-samples of interventions in the inventory – (i) the set of programs with evidence on outcomes (i.e., QOE=1, 2, or 3); and (ii) only those programs with net impact evaluations (i.e., QOE=2 or 3). The former has the advantage of a larger number of interventions (n=172), while the latter, though smaller (n=73), includes a more reliable measure of program impact. The sample of interventions used in the meta analysis is summarized in Annex D, Table D.1.

Based on the measures of intervention quality (or QOI, described in detail in Section C), a binomial variable has been constructed to identify the occurrence of positive labor market impact. This is the dependent variable of the model, which will measure the probability of program success. For the larger sample, this variable takes a value of 1 in 78 per cent of the cases – i.e., where the assessment is that effects on employability and/or earnings of beneficiaries was positive (i.e., QOI = 1, 2, or 3), and value 0 in the remaining 22 per cent of observations where negative or zero outcomes were reported (QOI=0). For the smaller sample including only programs with net impact evaluations, this variable has a value of 1 in 60 per cent of cases and 0 in 40 per cent. Ideally, we would have liked to test a model specification where the dependent variable incorporated cost-effectiveness; however, because of the lack of cost-benefit analyses, this specification could not be estimated.

Explanatory variables can be organized into four groups: (i) category of intervention, (ii) evaluation quality, (iii) economic and institutional country context, and (iv) specific characteristics of the program.

Category of Intervention. Given the evaluation evidence available in the set of 172 programs, our categories of intervention have been clustered into five types (see Annex D, Table D.2): Type 1 comprises interventions to make the labor market work better. Type 2 includes all entrepreneurship schemes. Training-related interventions (i.e. categories 3 and 4) are clustered under program type 3. Comprehensive programs are classified under program type 4. The last type clusters the remaining categories (categories 6 and 9) with fairly low evidence on outcomes. Program types are introduced in the model as five independent dummy variables, where training-related programs represent the omitted category.

[27] These findings are consistent with an early paper by Gay and Borus (1980). Their study identified net positive impact on earnings of out-of-school and black Neighborhood Youth Corps (NYC) beneficiaries; while there appeared to be significant negative effects for non-black NYC participants and all Job Corps beneficiaries.

Evaluation Quality. Within the sample of interventions with evaluation evidence, a further distinction has been drawn between evaluations with only gross outcomes (i.e. QOE=1) and those with net impact evaluations (i.e. QOE= 2 or 3). This classification seeks to test whether the type of evaluation affects the reported labor market outcomes. It has been noted in the previous section that more rigorous evaluation designs tend to yield less positive results.

Economic and institutional country context. The characteristics of the country have been considered in other analyses (e.g. Kluve 2006 and Greenberg *et al.* 2003) to capture the effect of the macroeconomic conditions and labor market regulations on labor market outcomes. We distinguish between developed and non-developed economies, in order to test whether the impact of youth employment programs is affected by the country's income level. About 58 per cent of evaluated interventions took place in non-developed countries (Annex D, Table D.3). In addition, we use the rigidity of employment index (as reported by the *Doing Business,* 2006) to measure the effect of employment regulations on program impact.

Specific characteristics of the program refer mainly to the features of the target population, in particular whether there is a particular focus on women, the disabled, specific ethnic groups, and youth from low income families or with low levels of education. Dummy variables were created for each of these target groups to test whether targeting affects outcomes (Annex D, Table D.4). Whether programs were specifically targeted at youth or were open to workers of all ages is also included in the model specifications. Additional program characteristics included in the model are the decade when the intervention was first implemented and the current status of the program. Most interventions, nearly 72 per cent, have been implemented during the 1990s and 2000s, and over 60 per cent are already completed. The location of the program in rural and urban areas has also been considered in the model. The last variable considered is the program's primary source of financing, which takes value 1 for government-sponsored interventions (two-thirds of observations) and 0 for others.

The analysis uses a probit model to estimate the effect of these explanatory variables on the probability that a youth employment program yields positive impact in the labor market for its participants. Probit is a binary choice model that estimates the probability of an event as a function of a set of attributes, assuming a normal distribution in the data. A formal definition of the model is presented in Box D.1, Annex D.

2. Results

Table 21 reports the results for the two samples described above. The explanatory variables are the same, with the exception of the quality of evaluation variable which is not needed in the second specification. Marginal effects are displayed for each variable. These marginal effects report the change in the probability of a positive program impact for an infinitesimal change in each independent continuous variable or for a discrete change in the case of dummy variables. The models' estimated coefficients on which the marginal effects are based are presented in Annex D, Table D.5.[28]

[28] A logit model was also estimated to test whether a logistic distribution better fitted the data than a normal distribution. The logit regression reported very similar estimates than the probit.

Table 21: Probit model reporting marginal effects of youth employment programs

	Specification 1 QOE=1, 2, 3			Specification 2 QOE = 2, 3		
	Marginal effect	**z-stat**		**Marginal effect**	**z-stat**	
Category of intervention[1]						
Labor market work better	-0.032	-0.19		0.011	0.04	
Comprehensive	-0.124	-1		-0.312	-1.41	
Quality of the evaluation[2]						
Net impact evaluation	-0.347	-2.53	*			
Economic and institutional country context[3]						
Non-developed countries	0.527	2.77	**	0.791	2.61	**
Rigidity of employment index	-0.013	-2.88	**	-0.021	-2.48	*
Specific characteristics of the program						
Time period and status[4]						
Program implemented before the nineties	-0.422	-2.36	*	-0.539	-1.7	
Completed programs	-0.348	-3.02	**	-0.683	-2.82	**
Targeting[5]						
Programs target only youths	-0.121	-1.11		-0.204	-0.92	
Programs located in specific areas	-0.328	-1.87		-0.549	-1.84	
Programs focus on women	-0.125	-0.75		-0.172	-0.71	
Programs focus on specific ethnic groups	0.152	0.77		0.312	0.7	
Programs focus on poor youth	0.47	2.33	*	0.753	2.21	*
Programs focus on low-educated youth	-0.232	-1.41		-0.539	-1.56	
Financing						
Government-sponsored	-0.107	-0.55		0.597	1.48	
	Observations = 95 Pseudo R2 = 0.46			Observations =59 Pseudo R2 = 0.42		

Notes:
1. Training-related programs (including skills training and programs to make the training systems work better) are the omitted category. 2. Programs with evaluations reporting only gross outcomes are the omitted category. 3. Developed countries are the omitted category. The rigidity of employment index is a continuous variable. 4. On decade of implementation, programs implemented during the nineties and 2000s are the omitted category. On current status of the interventions, ongoing programs are the omitted category. 5. Omitted categories on targeting reflect none specific orientation toward disadvantage people within those groups.
The values of the z-statistics are reported in the third column: * significant at 5%; ** significant at 1%.

On the first set of variables regarding category of intervention, the estimates suggest **there are no statistically significant differences among program types in terms of the likelihood that they deliver positive impact on the labor market**. This result holds for both specifications. This indeterminate pattern of performance across categories of intervention was also reported by Heckman *et al.* (1999) for a sample of OECD programs. In the estimation process, two categories (entrepreneurship and others) were dropped due to collinearity effects of their small sample size on the predicted variable.

The analysis confirms that **evaluation quality matters**. This is shown in Specification 1, where the statistically significant negative coefficient for quality of evaluation variable indicates that assessments of program impact are more likely to be negative when net impact studies have been carried out. Having a net impact evaluation reduces the likelihood of success by 35 percentage points. This reflects an over optimistic reading of results from evaluations with gross outcomes, and emphasizes the importance of conducting rigorous evaluations to capture the real effects of programs.

Economic and institutional country context variables have highly significant effects on program impact. The regressions show that **youth employment programs are more effective in developing countries and transition countries than in developed economies**. The likelihood of success is between 53-79 percentage points (depending on specification) higher when the program is implemented in a developing or transitional setting. Given that the quality of evaluation is controlled for, this result cannot be explained by the fact that impact evidence is more rigorous in developed countries. As discussed above, another possible explanation, which cannot be tested with our models, is that the skills disadvantage of participants in developed countries may often be too much to overcome through employment programs, while in developing countries where skills are scarcer, programs may provide enough of a boost to make a measurable difference.

A third hypothesis relates to institutional and policy-related factors, including, for example, the effect of employment protection laws on the effectiveness of the programs. In this regard, the significant negative coefficient for the employment rigidity index does suggest that economies with more flexible labor market regulations do get better outcomes from youth employment programs. However, note that the size of the coefficient in both specifications is very small – i.e., while the effect may be statistically significant, the importance seems minor. In any event, labor market flexibility cannot explain the difference in the performance of youth programs between developed and non-developed economies, since OECD countries report some of the lowest indices of rigidity around the world.

Among program characteristics, the **period of implementation and the current status of the program have significant effects on the probability of success**. First, although statistical significance is borderline, the models suggest a learning process, where programs developed during the 1990s and after tend to yield better outcomes than older programs. This is the case in Latin America where there has been a move towards demand-oriented programs that match the needs of the productive sector, as well as open participation of the private sector and other agents in the provision and financing of programs. Second, both specifications indicate that ongoing programs perform better than completed programs.

In terms of beneficiary orientation, **programs targeting economically disadvantaged youth perform significantly better than programs without this orientation**. This suggests that interventions do have promise for improving the labor market situation of low-income young people. Other considerations toward a particular gender, the disabled, specific ethnic groups, and youth with low education levels do not affect the outcomes. Similarly, the model tested whether publicly-funded programs perform better than otherwise, but the marginal effect of source of financing lacked statistical significance.

To summarize, the meta analysis results indicate that program success is not determined by the type of intervention. This is contrary to what Kluve (2006) found for ALMPs in Europe, but is consistent with the OECD-wide results obtained by Heckman *et al.* (1999). On the other hand, country context seems to matter. An employment program implemented in a developing or

transitional country has at least a 50 per cent higher probability of yielding positive impact for youth than a developed-country program. The analysis proved this is not a measurement problem, since the estimates hold even when the sample is constrained to studies with net impact evaluation. Other explanations may come into play, such as the human capital gap between these two groups of countries.

Labor market institutions appear to have small but significant effects on program impact. The model shows that less flexible employment protection rules slightly lower the probability of obtaining positive outcomes from youth employment programs. Finally, certain characteristics of the programs show interesting effects. Ongoing programs and those carried out since the 1990s have significantly better performance than earlier interventions. Targeting interventions on economically disadvantaged youth appears to have substantial positive impact on participants' labor market prospects. Sensitivity tests show these results are stable under different specifications, particularly when the sample size is constrained to studies with net impact evaluations. [29]

H. Conclusions

The Youth Employment Inventory has assembled information on a large number of programs implemented around the world to support young people in their early years in the labor market. Although the largest concentration of interventions included in the YEI are from OECD countries, there are also substantial numbers of programs introduced in the largely middle-income countries of Eastern Europe and Central Asia and Latin America and the Caribbean.

In addition to assembling the inventory, which we hope can be regularly updated, this project has carried out analytical work to answer two questions: First, what sorts of interventions have been introduced in order to support youth in the labor market? Secondly, what appears to work, in terms of improving employment outcomes in a cost-effective manner? The evidence from the inventory on these questions is summarized in Table 22.

While the "macro" statistical analysis presented in this report offers new insights, it should be recognized that this is only part of the total information base that policy-makers need to make solid decisions on interventions to help youth. This report is not intended to provide the more "micro" program and contextual detail on specific programs that is also important.[30]

The major conclusions from our analysis are the following:

1. ***Training is the dominant form of intervention used to help young people improve their employment situation***. Of the 289 cases included in the inventory, 38 per cent are training programs. Moreover, the second-largest category, comprehensive interventions (33 per cent),

[29] Results for the model's Specification 1 were tested to ensure the best fit of the model and to rule out the possibility of outliers. The first test checked the stability of the explanatory power in a smaller sample. After splitting the sample randomly in two, the R-squared increases slightly form .46 to .51, suggesting a steady fit in the model. Marginal effects of this model are reported in Table D.6, Annex D. An additional test was performed to ensure the stability of the explanatory power by ruling out the possibility of outliers. Specification 1 is run iteratively by sequentially and randomly dropping one observation with replacement. Ninety-five models resulted from this exercise, and the R-squared reported ranged from .45 to .51 (Figure D.1., Annex D) verifying the stability of the specification's best fit, and eliminating the possibility of outliers.

[30] More of this type of information is available in the regional and background analytical reports.

typically includes training as an important, if not the most important, component. Training interventions almost always involve the direct provision of courses. Interventions to improve the functioning of training "markets" through better information and financial instruments are relatively infrequently used.

2. ***Programs are often targeted at low-income or poorly-educated young people. The results of interventions oriented towards disadvantaged youth are as good, if not better, than programs with no particular orientation.*** The majority of programs are oriented to low-income and/or low-education young people, either through explicit *ex ante* targeting or *ex post* participant composition. Few programs are oriented to other forms of potential disadvantage (e.g., gender, disability, ethnicity) in the labor market. Both the descriptive and the meta-analysis find that the impact of programs oriented to disadvantaged categories of young people tends to be more positive than youth programs as a whole.

3. ***The overall evaluation evidence on youth employment programs is weak.*** One of the strongest conclusions of this report is the poor situation with regard to evaluation. For 40 per cent of the interventions included in the inventory, we could find no documentation of any sort regarding outcomes. Of the 60 per cent with such documentation, the majority have data on gross outcomes but nothing on net impact. Only one-quarter of the interventions in the inventory have had evaluations which use a control-group methodology to allow for the estimation of net impact. Less than 10 per cent have evaluations which measure both net impact and cost, which are required to assess cost-effectiveness. Moreover, our data collection methodology almost certainly has resulted in a bias towards the inclusion of well-evaluated programs in the inventory. Outside the OECD area (especially the Anglo-Saxon countries) and other than studies sponsored by international organizations, rigorous evaluations are rare.

4. ***Properly evaluated programs are less likely to lead to positive assessments of impact and effectiveness than judgments based on "non-scientific" methodologies. So where there is not a proper evaluation, program benefits are likely to be overestimated.*** Where possible, interventions included in the inventory were assessed according to their impact on the employment and earnings of participants. Even when only gross outcome data were available, we tried to judge impact as carefully as possible, according to a standardized methodology. However, despite these efforts, programs without net impact evaluations were 50 per cent more likely to be assessed (based on available information) as having a positive impact than programs with proper net impact evaluations. This suggests that, in the absence of such evaluations, policy-makers are likely to overestimate the benefit of their interventions and, as a result, allocate resources inefficiently. This is a particular concern in developing countries where resources are scarce and evaluations are uncommon.

5. ***Among programs with net impact evaluations, about 60 per cent were found to have positive effects on the employment and/or earnings of participants. However, when cost-effectiveness enters into the calculations, our estimation is that only about one-third of all programs are "successful"***. Our assessment of the impact of programs focuses on two indicators – post-program employment and earnings. Where these indicators for participants are compared with comparable measures for a control group of non-participants, about 60 per cent of programs demonstrated positive effects. But a complete judgment of the overall success of a program should incorporate not only results in the labor market, but also whether positive impacts were achieved in a cost-effective manner – i.e., where benefits were estimated as greater than program costs. Because of the scarcity of evaluations with cost-benefit analysis, we could only approximate the incidence of "successful" programs. Based

on certain assumptions, the study concludes that about one-third of programs in the inventory realized positive labor market impact for participants while also being cost-effective.

6. ***There are no major differences across categories of interventions in terms of impact or cost-effectiveness. This suggests that no particular types of programs are inherently more successful than others, but that policy-makers should consider which type of intervention best addresses the problem of concern.*** The inventory collected information on a significant number of interventions in four categories: making the labor market work better for young people (job search assistance, subsidies, public works); support to entrepreneurs; skills training; and comprehensive, multi-service interventions. Evidence from evaluations suggests that between 55 per cent and 65 per cent of programs in each of these categories have positive net employment impact. The exception is support for entrepreneurs where all evaluated programs had positive results, but there were not enough scientific evaluations (i.e., with control groups) to have confidence in this result. When costs were taken into account, again there were not major differences across categories. The meta-analysis confirmed that there were no statistically significant relationships between type of intervention and probability of program success. The policy implication of this finding is that, since different categories of interventions address different issues, particular types of programs should not be favored but, rather, that interventions should be chosen based on the specific obstacles to employment that need to be overcome. Table 23 identifies the types of interventions that are appropriate for the most common problems relating to youth experiences in the labor market.

7. ***Interventions tend to be more successful in developing and transition countries than in advanced economies***. The probability that programs will help young people in the labor market is greater in developing and transition countries than in industrialized ones. This is not due to the more rigorous evaluations in developed countries. The meta-analysis confirmed that the difference in program impact by level of development remained even after the quality of the evaluation evidence was taken into account. The study could not adequately explain this result, but it would be interesting to test two hypotheses. First, are disadvantaged youth so "disadvantaged" in developed countries that employment interventions are simply not enough to compensate? Second, are there institutions and policies that systematically differ by level of development that might explain the variation in program outcomes?

8. ***Youth programs have a lower likelihood of having positive impact in countries where labor markets are not flexible although the magnitude of the effect is small***. In the OECD, for example, youth programs were almost twice as likely to have positive impact in Anglo-Saxon countries where labor markets are flexible as in continental Europe, where they are more rigid. Research has shown that protective employment rules create barriers for new entrants and our results suggest that employment programs do not significantly overcome these barriers. The meta-analysis finds that the rigidity of employment protection rules is associated with a lower probability of positive employment benefits to participants, although the magnitude of the effect is very small. In any event, policy-makers need to take a comprehensive approach to improving youth employment, implementing well-designed interventions and also, ensuring that labor market policies and institutions do not block access for young people.

Table 22: Summary of program targets, design and risks, and impacts, Youth Employment Inventory

Target	Design and Risks	Impacts and Outcomes	
		Developed countries	Non-developed countries
Making the labor market work better for young people			
▪ Youth 14 to 30 years of age. ▪ Also open to workers of all ages (i.e. public works programs). ▪ Unemployed workers in advanced and transition countries; and poor youth in developing countries. ▪ Low levels of education are common among beneficiaries. ▪ Rural and urban focus. ▪ Some orientation towards women in developing and transition economies.	▪ Wage subsidies are provided upon hiring an entitled unemployed worker during a specified period of time. ▪ Public works programs offer temporary employment, mainly in the public sector. They are not youth-specific in general, but can be designed to pay particular attention to young people. ▪ It is key to target firms and sectors with potential to create human capital accumulation among the young. ▪ There is a risk of increasing welfare dependency among beneficiaries.	▪ Wage subsidies have positive outcomes for youth, increasing employment rates, duration and earnings. *Successful examples: U.S. YIEPP and the Belgian Employment Plan*. ▪ Public works present mixed results. Positive outcomes indicate greater employment probability of about 26% with respect to the control group. *Successful examples: American Conservation and Youth Service Corps*.	▪ Wage subsidies have improved employment outcomes with net employment effects from 12 to 15.6 %. Young women and low educated participants tend to benefit the most. The impact on monthly earnings is slightly negative. *Successful examples: Czech Republic's Wage Subsidy Program and Poland's Intervention Works Program*. ▪ Public works present mixed results. Positive outcomes indicate greater employment probability of about 6% with respect to the control group. Cost-effectiveness remains to be tested. *Successful examples: Bulgaria's Temporary Employment Program*.
Improving chances for young entrepreneurs			
▪ Youth 14 to 35 years of age. ▪ Unemployed workers in advanced and transition countries; and poor youth in developing countries. ▪ Low levels of education are characteristic in developing countries. ▪ Rural and urban focus. ▪ Some orientation towards women in developing economies.	▪ Entrepreneurship schemes go from basic training on managerial skills and the creation of business plans, to more comprehensive programs including further training in accounting, taxes, sales, internships in local businesses and start-up loans. ▪ Credit market failure limits entrepreneurial possibilities among the young due to lack of credit history, collateral, etc. ▪ There is great and increasing participation of NGOs in design and implementation. ▪ The lack of success/failure indicators (i.e. information systems and long-term evaluation evidence) may lead to budget cuts, hindering programs sustainability.	There is no evaluation evidence in OECD countries.	▪ Evidence from countries in transition shows positive effects on employment and cost-effectiveness. *Successful examples: Bulgaria's Self-employment Programme*. ▪ Evidence from developing countries show an increase of 7.8 percentage points in the probability of having a business operating, and an 8%-increase in the beneficiaries' average income. *Successful examples: Peru's Formación Empresarial de la Juventud and Calificación de Jóvenes Creadores de Microempresas*.

Skills training for young people			
▪ Youth 14 to 30 years of age. ▪ Unemployed and disadvantaged youth with low levels of education (i.e. school dropouts). ▪ There is a distinct urban focus in developing countries. ▪ Some orientation towards women in transition economies.	▪ Comprises non-formal vocational skills training, second chance programs and apprenticeship systems. ▪ Training systems include public-private alliances in the design and provision of services, creating cost-sharing structures and allowing consistency between courses and skills demanded by the market. ▪ Sanction schemes have been designed to reduce the probability of dropping out.	Cross-country evaluations in OECD countries suggest non-significant labor market impacts. There are some positive effects for adult women and educated men, but in general negligible and negative effects for youth. *Successful examples: Finland's Active labor market policy and the U.S. Summer Youth Employment and Training Program.*	There are positive impacts from training with relatively proven cost-effectiveness. The programs increased the likelihood of employment among the young between 6 and 57%. This wide range of effects on employment is mostly determined by gender and level of education: female participants and the low-educated tend to obtain higher gains than the rest. *Successful examples: Brazil's PLANFOR and Bulgaria's Re-training Program (Guaranteed & Non-guaranteed Jobs).*
Making training systems work better for young people			
▪ Disadvantaged and unemployed youth with low levels of education. ▪ Rural and urban focus. ▪ There is a wide orientation towards women, particularly teenage mothers in developed countries.	▪ These programs offer information networks, vouchers and subsidies to allow young people to acquire training. ▪ The lack of evaluation evidence in developing countries may lead to budget cuts, hindering programs sustainability. ▪ There is a risk of increased welfare dependency.	Programs report positive but no lasting impacts on the labor market.	There is no solid evaluation evidence in developing countries. *Kenya's Jua Kali Pilot Voucher Program* reported net improvements in terms of job creation, productivity and business profits, but its overall effectiveness remains to be tested.
Programs with comprehensive interventions			
▪ Youth 14 to 30 years of age. ▪ Un/underemployed youth, with low income and education level. ▪ Rural and urban areas are equally served with some focus in the main cities in developing countries. ▪ Some orientation towards women in developing economies.	▪ Encompasses job and life skills training (in classroom and/or on-the-job), apprenticeship and entrepreneurship schemes, information, counseling/placement, financial incentives (to employers and beneficiaries) and other services. ▪ Most programs are publicly-sponsored. ▪ Quality and relevance of training is key to ensure success and sustainability. ▪ Very large scale programs may have coordination problems between local and central agencies. ▪ Excessive costs may defer the returns of positive net gains and hinder sustainability.	Evidence from OECD countries suggests mixed effects from comprehensive programs. A cross-program study in the U.S. found very moderate and often negative impacts on the labor market. When impacts were positive they were surpassed by program costs. In other countries (Canada and the U.K.) programs increased annual earnings and the likelihood of getting a job after graduation. *Successful examples: Canada's Employability Improvement Program, U.K. New Deal for Young People and the U.S. Job Corps.*	Comprehensive programs reported positive outcomes on employment and earnings. Evidence from LAC shows 10 to 21% increase in the employment probabilities, and about 10 to 26% net increase in earnings. The most benefited are young youths and women. Programs are also cost-effective. *Successful examples: Jóvenes Programs*.

Table 23: What program for which problem?

Program categories: Nature of problem:	Making the labor market work better for young people	Improving chances for young entrepreneurs	Skills training for young people	Making training systems work better for young people	Improving labor market regulations to the benefit of young people	Comprehensive programs	Other programs
High unemployment rates among less-educated youth, & large numbers of out-of-school youth outside the labor force	- Counseling, based on accurate labor market information - Wage subsidies - Public works programs	- Micro-finance programs	- Literacy & 2nd chance programs		- Reform of employment protection regulations	- Training, job search assistance, support services etc.	
High unemployment rates among more-educated youth	- Counseling, based on accurate labor market information			- Information about high-return training opportunities			- Voluntary national service programs
Over-representation of young people in low-paid & unpaid family work	- Wage subsidies	- Micro-finance programs	- Literacy & 2nd chance programs		- Reform of employment protection regulations		
Apparent skills mismatch			- High-return vocational training programs	- Information about high-return training opportunities			
Low take-up of training				- Credit, subsidies, vouchers for training			
Severe disadvantage for some categories of young people	- Anti-discrimination legislation	- Targeted micro-finance programs	- Literacy & 2nd chance programs - Targeted high-return vocational training programs	- Training system with pro-disadvantaged bias		- Targeted training, job search assistance, support services etc.	- 'Social business' programs targeted at dis-advantaged

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Annex A: Inventory template and coding system

YOUTH EMPLOYMENT INVENTORY

Worksheet for Assembling Inventory

PROGRAM NAME:

A. Intervention category

1 Primary Category CODE

Comments:

2 Secondary Category CODE

Comments:

3 Tertiary Category and others CODE

Comments:

B. Country

C. Time period of the intervention

D. Status of the Project

(Completed or Ongoing) CODE

Comments:

E. Problem addressed

F. Nature of the Program/Policy and/or Stated objective

G. Program content details

1 Description

2 Target beneficiaries

3 Age group (Only young people or all ages but mainly young people) CODE

Comments:

4 Location (Urban, rural or both) CODE

Comments:

5 Access for disadvantaged

a. Gender (Positive, Neutral, Negative, Not known) CODE

Comments:

b. Disability (Positive, Neutral, Negative, Not known) CODE

Comments:

c. Ethnicity (Positive, Neutral, Negative, Not known) CODE

Comments:

d. Income group (Positive, Neutral, Negative, Not known) CODE

Comments:

e. Education (Positive, Neutral, Negative, Not known) CODE

Comments:

f. Financing. (Government, Beneficiaries, Employers, NGO or Other) CODE

Comments:

H. Impact and performance indicators

1 Outcome (number who got jobs, the number who got waged jobs, their average earnings etc.)

2 Impact (measured by e.g. the number who got jobs, the number who got waged jobs, their average earnings, compared with a control group who were not affected by this intervention).

3 Cost

Comments:

to Society:

to Government:

to Individual Participants:

4 Impact in relation to Cost

(benefit/cost ratio, net present value, internal rate of return, cost-effectiveness)

Comments:

to Society:

to Government:

to Individual Participants:

I. Summary rating of quality of evaluation

Comments: CODE

J. Summary rating of quality of intervention

Comments: CODE

K. Sources of further information

Annex B: Template Reader Manual

This Annex contains detailed instructions to guide the creation of electronic databases for the inventory as well as standardized informative tables for analysis. Microsoft Excel serves as software platform for this process. The automatic compilation of files and tables are done through Visual Basic macros.

Key files

The Template_Reader.zip contains the following three files:

1. MACROS.xls
2. Countrydata_Inventory.xls
3. Codebook.xls

MACROS.xls contains the Visual Basic code that will allow you to create a database from a collection of formatted templates.

Countrydata_Inventory.xls contains some macroeconomic information that will be added to the database you create in order to organize the information in tables.

Codebook.xls contains the variable definitions of the generated database. It also contains the location of each variable in the formatted templates, as well as the Visual Basic code needed to update the macros in case the template format is updated or variables are added.

How to use the Template Reader Macro:

1) Create a folder called TEMPLATES anywhere in your hard drive.

2) Inside TEMPLATES create two folders with the following names:
    a. FilledTemplates: this folder will contain all the templates that you want in your database.
    b. Country_Data: this folder will contain the file countrydata_Inventory.xls which is used to add macro statistics and region codes to the database.

3) Place all templates in the folder FilledTemplates and place countrydata_Inventory.xls in the Country_Data folder.

4) Place the MACROS.xls file in the TEMPLATES folder and open it by double clicking on its icon. Excel will not display the contents of this file. If you want to access it, click on the Visual Basic Editor button in Excel (or click on *Tools* menu, *Macro*, and *Visual Basic Editor*)

5) Create an empty excel spreadsheet and save it in the TEMPLATES folder with the name OUTPUT. In OUTPUT.xls create an empty worksheet and name it DATA. Save OUTPUT.xls.

6) Place the cursor in any cell within worksheet DATA, in OUTPUT.xls. In Excel go to *Tools* menu, select *Macro* and then *Macros* (or press Alt+F8). Choose the CREATE_DATABASE macro and click in *Run* it. This will take a few minutes while the macro reads each file and builds the database.

7) Once the database has been created you can proceed to create the tables. For this, simply go to the *Tools* menu, select *Macro* and then *Macros* (or press Alt+F8). Choose the TABLES macro and run it.

Annex C: Unit costs of a sample of Youth Employment Programs[31]

Table C.1. Unit costs of Wage Subsidies Programs

Country	Program	Unit Cost	Units	2005 USD
Czech Republic	Government ALMP: Wage Subsidy	$ 885	1996 USD	$ 1,438
Poland [a]	Government ALMP: Intervention Works Program	$ 1,782	1996 LCU	$ 891
United States	Youth Incentive Entitlement Pilot Projects (YIEPP)	$ 1,472	1981 USD	$ 1,475

a: Includes the direct cost of operating the program per participant and the administrative cost of program per participant

Table C.2. Unit costs of Public Works Programs

Country	Program	Unit Cost	Units	2005 USD
Bulgaria	Government's Temporary Employment Program	$ 322	2000 LCU	$ 252
Poland [a]	Public Service Employment	$ 2,436	1996 LCU	$ 1,218

a: Includes the direct cost of operating the program per participant and the administrative cost of program per participant

Table C.3. Unit costs of Entrepreneurship Schemes

Country	Program	Unit Cost	Units	2005 USD
Bulgaria	Government's Self- Employment Program	$ 594	2000 LCU	$ 465
Peru	Calificación de Jóvenes creadores de microempresas	$ 536	2005 USD	$ 536

Table C.4. Unit costs of Training Programs

Country	Program	Unit Cost	Units	2005 USD
U.S.	National Supported Work Demonstration	$ 6,800 - $ 9,100 [a]	1982 USD	$ 12,132 - $ 16,235 [a]
	Summer Youth Employment and Training Program (SYETP)	$ 1,362	1993 USD	$ 2,337
Brazil	PLANFOR - National Plan of Professional Education	$ 170	2000 LCU	$ 110
Bulgaria	Government Re-training Program: Guaranteed & Non-guaranteed Jobs	$ 50	2000 LCU	$ 39
Czech Rep.	Government Re-training Program	$ 265	1996 USD	$ 431
Hungary	Government Re-training Program	$ 500	1996 USD	$ 818
Poland	Government Re-training Program	$ 997	1996 LCU	$ 498
Turkey	Government Re-training Program	$ 200	1996 USD	$ 286

a: The upper bound is the program cost per AFDC (Aid to Families with Dependent Children) participant and the lower bound is the cost for other target groups.

[31] This Annex is based on the review and calculations in Puerto (2007a, forthcoming).

Table C.5. Unit costs of Second-chance Programs in the U.S.

Country	Program	Unit Cost	Units	2005 USD
U.S.	Jobstart Demonstration	$ 4,548	1986 USD	$ 7,140
	Jobstart Demonstration - CET Project in San Jose	$ 2,034	1986 USD	$ 3,193

Table C.6. Unit cost estimates across Teenage Parent Demonstration Programs in the U.S.

	Camden	Newark	Chicago
1989 current prices			
Average cost per person-month of AFDC receipt	$344	$292	$206
Average annual cost per person	$3,130	$2,657	$1,730
2005 USD			
Average cost per person-month of AFDC receipt	$490	$416	$293
Average annual cost per person	$4,454	$3,781	$2,462

Table C.7. Unit cost estimates for Jóvenes Programs

Country	Program	Unit cost	Units	2005 USD
Argentina	Proyecto Jóven	$ 2,000	1998 USD	$ 1,159
Chile	Chile Jóven	$ 730 - $ 930	1998 USD	$ 825 - $ 1.051
Peru	PROJoven	$ 691	2005 USD	$ 691

Table C.8. Unit cost estimates for Comprehensive Programs in the OECD area

Country	Program	Unit cost	Units	2005 USD
Canada	Youth Service Canada (YSC)	$ 8,277	1996 LCU	$ 8,169
U.K.	New Deal for the Young Unemployed [a]	$ 454 - $790	1999 LCU	$ 950 - $1.653
U.S.	Sample of government-sponsored programs [b]	$ 8,782	1999 USD	$10,032
	Job Corps	$ 14,128	1995 USD	$17,151
	Job Training Partnership Act - Title II-A (JTPA) [c]	$ 2,377	1988 USD	$ 3,511
	New Chance Demonstration	$ 9,000	1992 USD	$11,645
	New Hope Project [d]	$ 5,300	1996 USD	$ 6,314

a: estimates based on a total cost estimate of 68.1 million, and a number of participants ranging between 86,200 and 150,000.

b: estimated for a meta-analysis of 8 comprehensive training programs, based on individual program evaluations (Greenberg et al., 2003).

c: proxy estimate using the data for JTPA adult trainees.

d: unit cost per family. The average family consisted of one adult and two or three children

Annex D: Further results from the Meta-analysis

Table D.1.: Sample of interventions for the meta-analysis

Quality of Evaluation	Quality of Intervention				
	0	**1**	**2**	**3**	**Total**
1	9	2	85	3	**99**
2	22	1	21	1	**45**
3	7	8	3	10	**28**
Total	**38**	**11**	**109**	**14**	**172**

Note: QOI and QOE values as described in Tables 3 and 4 in the Synthesis Report.

Table D.2: Classification of categories of intervention by labor market impact (for a sample of programs with QOE=1, 2, 3)

Type	Category of intervention	Negative or Zero impact	Positive impact	Total
1	1. Making the labor market work better for young people	5	21	26
2	2. Improving chances for young entrepreneurs	0	15	15
3	3. Skills training for young people	13	45	58
	4. Making training systems work better for young people	2	2	4
4	8. Comprehensive approach	18	47	65
5	6. Improving labor market regulations	0	1	1
	9. Other	0	3	3
	Total	**38**	**134**	**172**

Table D.3: Classification of countries' level of development by labor market impact (for a sample of programs with QOE=1, 2, 3)

	Negative or Zero impact	Positive impact	Total
Developing and Transition Countries	9	91	100
OECD Countries	29	43	72
Total	**38**	**134**	**172**

Table D.4: Number of interventions targeting disadvantaged youths by labor market impact (for a sample of programs with QOE=1, 2, 3)

	Negative or Zero impact	Positive impact	Total	%
Women	6	24	30	17%
Disabled	1	13	14	8%
Ethnicity	1	9	10	6%
Income	18	78	96	56%
Education	23	81	104	60%

Box D.1.
The probit model

Following Hayashi (2000), in the probit model, a scalar dependent variable y_t is a binary variable, $y_t \in \{0,1\}$. In our case $y_t = 1$ indicates that a certain program reported positive labor market impact on youth, while $y_t = 0$ indicates negative or zero impact. This event is determined by a vector of regressors $\mathbf{x}_t$, namely category of intervention, evaluation quality, country characteristics and program characteristics. As a result, the conditional probability of y_t given $\mathbf{x}_t$ is given by

$$\begin{cases} f(y_t = 1 \mid \mathbf{x}_t; \boldsymbol{\beta}_0) = \Phi(\mathbf{x}_t' \boldsymbol{\beta}_0), \\ f(y_t = 0 \mid \mathbf{x}_t; \boldsymbol{\beta}_0) = 1 - \Phi(\mathbf{x}_t' \boldsymbol{\beta}_0), \end{cases}$$

where $\Phi(.)$ is the cumulative density function of the standard normal distribution. Given the binary features of y_t, this can be written compactly as

$$f(y_t \mid \mathbf{x}_t; \boldsymbol{\beta}_0) = \Phi(\mathbf{x}_t' \boldsymbol{\beta}_0)^{y_t} \left[1 - \Phi(\mathbf{x}_t' \boldsymbol{\beta}_0)\right]^{1-y_t}$$

The maximum-likelihood estimator of β_0 for the specification above is given by the function $m(\mathbf{w}_t; \boldsymbol{\beta}) = \log f(y_t \mid \mathbf{x}_t; \boldsymbol{\beta}) = y_t \log \Phi(\mathbf{x}_t' \boldsymbol{\beta}) + (1 - y_t) \log\left[1 - \Phi(\mathbf{x}_t' \boldsymbol{\beta})\right]$, where $\mathbf{w}_t$ is the t-th observation in the dataset.

Source: Hayashi 2000.

Table D.5: Probit model: simple coefficients (Table 19, synthesis report)

	Specification 1 QOE=1, 2, 3			Specification 2 QOE = 2, 3		
	Marginal effect	**z-stat**		**Marginal effect**	**z-stat**	
Category of intervention[1]						
Labor market work better	-0.118	-0.19		0.029	0.04	
Comprehensive	-0.464	-1		-0.811	-1.41	
Quality of the evaluation[2]						
Net impact evaluation	-1.586	-2.53	*			
Economic and institutional country context[3]						
Non-developed countries	2.149	2.77	**	2.808	2.61	**
Rigidity of employment index	-0.051	-2.88	**	-0.053	-2.48	*
Specific characteristics of the program						
Time period and status[4]						
Program implemented before the nineties	-1.438	-2.36	*	-1.484	-1.7	
Completed programs	-1.848	-3.02	**	-2.441	-2.82	**
Targeting[5]						
Programs target only youths	-0.500	-1.11		-0.528	-0.92	
Programs located in specific areas	-1.129	-1.87		-1.538	-1.84	
Programs focus on women	-0.426	-0.75		-0.435	-0.71	
Programs focus on specific ethnic groups	0.896	0.77		0.983	0.7	
Programs focus on poor youth	1.583	2.33	*	2.359	2.21	*
Programs focus on low-educated youth	-0.982	-1.41		-1.769	-1.56	
Financing						
Government-sponsored	-0.459	-0.55		2.184	1.48	
Constant	5.120	3.15	**	1.609	0.83	
	Observations = 95 Pseudo R2 = 0.46			Observations =59 Pseudo R2 = 0.42		

Notes:

1. Training-related programs (including skills training and programs to make the training systems work better) are the omitted category. 2. Programs with evaluations reporting only gross outcomes are the omitted category. 3. Developed countries are the omitted category. The rigidity of employment index is a continuous variable. 4. On decade of implementation, programs implemented during the nineties and 2000s are the omitted category. On current status of the interventions, ongoing programs are the omitted category. 5. Omitted categories on targeting reflect none specific orientation toward disadvantage people within those groups.

The values of the z-statistics are reported in the third column: * significant at 5%; ** significant at 1%.

Table D.6: Probit model: Specification 1 dropping randomly 50 per cent of the sample

	Marginal effect	z-stat	
Category of intervention[1]			
Labor market work better	-0.017	-0.79	
Comprehensive	-0.005	-1.28	
Quality of the evaluation[2]			
Net impact evaluation	-0.010	-1.62	
Economic and institutional country context[3]			
Non-developed countries	0.594	1.46	
Rigidity of employment index	0.000	-1.53	
Specific characteristics of the program			
Time period and status[4]			
Program implemented before the nineties	-0.004	-0.69	
Completed programs	-0.001	-0.38	
Targeting[5]			
Programs target only youths	0.004	0.93	
Programs located in specific areas	0.001	0.47	
Programs focus on women	-0.164	-1.99	*
Programs focus on poor youth	0.019	0.84	
Programs focus on low-educated youth	-0.274	-1.1	
Financing			
Government-sponsored	0.000	0.05	
Observations = 47 ; Pseudo R^2 = 0.5112			

Notes:

1. Training-related programs (including skills training and programs to make the training systems work better) are the omitted category. 2. Programs with evaluations reporting only gross outcomes are the omitted category. 3. Developed countries are the omitted category. The rigidity of employment index is a continuous variable. 4. On decade of implementation, programs implemented during the nineties and 2000s are the omitted category. On current status of the interventions, ongoing programs are the omitted category. 5. Omitted categories on targeting reflect none specific orientation toward disadvantage people within those groups. The values of the z-statistics are reported in the third column: * significant at 5%; ** significant at 1%.

Figure D.1: R-squares of 95 models featuring Specification 1
(Repeatedly dropping observations with replacement)