

Final report

Effectiveness of youth employment programs

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Executive Summary

Against the background of large numbers of (disadvantaged) youths worldwide that have difficulties in finding and maintaining formal and gainful employment, this project has focused on analyzing the effectiveness of youth employment interventions that aim to assist this target group. The project has been a collaborative effort involving a network of relevant partners adequate to address this question: specifically, the project lead RWI has collaborated with a team of researchers, and also practitioners, from the World Bank, the Inter-American Development Bank IDB, the International Labour Office ILO, and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), all of which are involved in designing, implementing, and evaluating youth employment interventions in many countries.

The two main methodological components of the project were (i) meta-analyses, i.e. the statistical analyses of newly generated – within the project – data sets comprising impact evaluations of youth employment interventions worldwide, and (ii) particular impact evaluations of singular youth interventions – sometimes pilot programs – implemented jointly with the project partners. Several of the latter evaluations were conducted using Randomized Controlled Trials (RCTs) to assess program effectiveness.

The empirical results of the project indicate several important patterns. First, interventions focusing on human capital accumulation – such as skills training – are an effective tool to improve labor market outcomes for disadvantaged youths. While these programs often have relatively small short-term effects, these tend to increase over time and imply large long-term returns to the skills investment. Second, as this pattern is particularly true for training programs, it is also true for other program types: longer-term impacts tend to be larger than short-term impacts. As evaluation studies often estimate short-term effects only, one methodological implication is thus to expand the observation horizon of empirical evaluations. Third, several of the particular approaches tested empirically within this project have shown very promising results: for instance, one RCT implemented in Rio de Janeiro shows that arts-based soft skills training can be an effective tool for favela youths; moreover, combining classroom training with internships in dedicated firms yields positive and sustained long-term returns (RCT in the Dominican Republic); and also a low-level job search skills training can help shape job search attitudes and move jobseekers closer to the labor market (RCT in Turkey).

Context and background

A substantial share of young women and young men worldwide face difficulties in making a satisfactory labor market transition. The typical pattern observed both in developed countries and the developing world is that unemployment rates for youth (most commonly defined as 15 to 24 years of age) are more than twice as high as unemployment rates for adults (e.g. ILO 2012). This pattern has been exacerbated since the global financial crisis in 2008, as youth were disproportionately affected by adverse shocks to the labor market. At the outset of the research project, an estimated 75 million youths are unemployed around the world, an increase of more than 4 million since 2007 (ibid.). Moreover, in particular in developing countries disadvantaged youth are more strongly affected by unemployment and by finding work only in the informal sector.

Several policy solutions have been suggested to address these challenges. Structural reforms and advancements in the educational systems and in labor market regulations likely play a key role. These reforms, however, often take time or are difficult to put into practice for political reasons or due to budgetary constraints. As a more immediate policy response to tackle structural unemployment and to increase individual workers' labor market prospects, active labor market programs (ALMP) have been brought forward. Active labor market policies comprise four types of programs (Martin and Grubb 2001, Kluve 2010): (1) skills training, i.e. human capital formation; (2) private sector incentive schemes, i.e. wage subsidies to employers or business start-up grants to unemployed workers; (3) direct employment in the public sector; and (4) job search assistance, often combined with sanction elements if job search requirements are not complied with (OECD 2007).

A relatively large and growing literature has focused on analyzing whether ALMPs actually attain their objective of increasing participants' employment probability or earnings capacity. This literature is reviewed in several overview studies (e.g. Heckman, LaLonde, Smith 1999; Martin and Grubb 2001) and quantitative meta analyses (Greenberg, Michalopolous, Robins 2003; Card, Kluve, Weber 2010, Kluve 2010) with a general focus on OECD countries. Evidence for developing countries is provided in Betcherman et al. (2004) and for Latin America in particular in Ibararán and Rosas (2011). Some key findings of this literature worldwide point to the following pattern by program type: (1) Training programs tend to have positive impacts, but often only in the medium- to long run; (2) Wage subsidies have positive short-term impacts, but little is known about general equilibrium effects of these programs; (3) public sector employment often has negative effects on participants' employment chances; (4) job search assistance is an effective short-term tool to bring jobseekers (back) into employment.

Research questions and objectives of the project

Despite these findings on general patterns of ALMP effectiveness, and despite an increasing number of studies evaluating singular programs, relatively little is known about many important details of program effectiveness. **First**, most studies focus on adult participants, such that specific evaluations of youth training programs remain the exception. **Second**, the knowledge that does exist on ALMP for youth is contradictory across regions: While evaluations of youth training in development countries typically show positive treatment effects, analyses for youth programs in OECD countries almost always show zero or even negative treatment effects. The explanation to this conundrum likely lies in different types of labor markets across regions (e.g. a two-tier labor market in some OECD countries) and different types of targeted youths, among other possible explanations. These, however, are still open to further investigation.

A **third** key issue about which little is known regards the design of youth training, which is the most commonly implemented type of ALMP for youth. Training comprises one or more of the following components: (i) Basic training (like math or language); (ii) Technical or vocational training in the classroom; (iii) Work practice in a firm; (iv) Job insertion; (v) Life skills. Very little is known about the relative effectiveness of these components, and the most effective way to

combine them. In particular, identifying the role of life skills training (also referred to as socio-affective skills, non-cognitive skills) has taken center stage in current research, and several studies by the World Bank, the IDB and our network are currently underway (see also below). The importance of the topic for labor economics was first pointed out in Heckman, Stixrud and Urzúa (2006). A related issue facing the design of training programs regards the optimal length of training. The existing – limited – evidence points to increasing returns to training for durations of up to six months, but no further positive effects for longer programs (Flores et al. 2012, Kluge et al. 2012).

The **fourth** issue open to further research concerns the short- and long-term effects of programs. While there is evidence that active labor market programs – and training programs in particular – tend to be more effective in the long run (>2 years after the end of the program) than in the short run (Card et al. 2010, Lechner et al. 2011), this issue has not been fully settled; especially not for youth programs, and especially not in low- and middle-income countries, since most studies focus on short-term effects only.

Finally, a **fifth** topic on which more research is needed concerns methodological aspects of measuring program impacts. This has two dimensions. One dimension is the impact that training has on non-cognitive skills at the individual level: How can these be measured quantitatively? Several psychometric scales exist, but their applicability in the labor market context needs to be tested further. The other dimension regards program impacts at more aggregate levels, i.e. not only at the micro = participant level. How effective are programs when they are scaled-up and how can this be assessed? What are appropriate methods to assess impacts of ALMP at the regional or country level?

It has been the objective of this research project to contribute empirical knowledge to addressing the five topics delineated above. To this end, the project has comprised three work packages. The first work package contains meta-analyses of youth interventions and ALMPs, to address questions two (effectiveness by region), three (program components), and four (short- and long-run effects). The second work package comprises a set of particular program evaluations, and thereby addresses questions one (effectiveness of particular youth programs), three, and four. The third work package specifically concerns methodological questions to address question five, and is evidently interconnected with work packages one and two.

The project has brought together a unique network of international partners to conduct this research: The World Bank, the Inter-American Development Bank IDB, the International Labour Office ILO and the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) are all key stakeholders in identifying successful interventions to assist disadvantaged youth across the world, thus providing an excellent opportunity to advance our knowledge in this important field of labor market policy and economic policy in general.

Project results by work packages

Work package 1: Meta-analyses of youth interventions

This work package has been implemented to a very comprehensive extent and eventually resulted in three meta-analytical research papers, all published in peer-reviewed journals.

First, the work package generated a database of all available evaluations of youth employment programs worldwide. The generating of the data followed procedures laid out in the 'systematic review' literature (e.g. Higgins and Green 2011, and a symposium in the *Journal of Development Effectiveness* 2012). That is, a search protocol specifies stringent criteria for ways to conduct the search and which academic studies are in-scope. Following the procedure and criteria of the protocol, relevant studies are identified. In the next step, information from the studies on estimated effect sizes, program characteristics, target group characteristics, contextual factors, methodological approach are coded into the database. In the final step, the

database serves as the basis for a statistical meta-analysis, i.e. a statistical analysis of the programs' effect sizes – the coefficient of the estimated treatment effect divided by its standard error – in relation to the set of explanatory factors outlined above. This analysis also includes descriptive analyses of the meta data and relevant methodological issues (such as publication bias, etc.).

This work package was conducted jointly with project partners from the ILO and the World Bank.

The empirical results suggest several key findings:

- i. Youth employment interventions can be an effective tool for disadvantaged young people, but there is important heterogeneity by program type: skills training programs, for instance, often have relatively small effects, but are significant for participants. Entrepreneurship programs appear to have relatively large effects, but the amount of evidence available remains limited. Subsidizing employment also appears promising – even though programs need to be very well designed to solve the relevant market failure and avoid substitution or displacement effects.
- ii. Long-run effects are larger in magnitude and more likely to be statistically significant positive than short-run effects. This is an important pattern arising from the statistical meta analysis. The pattern is particularly pronounced for skills training measures, emphasizing the importance to focus policy efforts on human capital accumulation of the target group.
- iii. The one exception are job search assistance or job matching programs: these interventions are typically more effective in the short-term. Importantly, they can be successful in placing disadvantaged youths even in the low labor demand contexts often prevalent in low- and middle income countries.
- iv. There is little indication that programs may be differentially effective for male or female participants, though some studies find larger effects for females.
- v. Interventions appear to be more effective during recessions.

Publications resulting from work package 1

- a. Kluge, J., S. Puerto, D. Robalino, J.M. Romero, F. Rother, J. Stöterau, F. Weidenkaff, and M. Witte (2019), Do youth employment programs improve labor market outcomes? A quantitative review, *World Development* 114, 237-253.
- b. Card, D., J. Kluge and A. Weber (2017), What works? A meta-analysis of recent active labor market program evaluations, *Journal of the European Economic Association* 16, 894-931.
- c. Escudero, V., Kluge, J., López Moureló, E., & Pignatti, C. (2018). Active labour market programmes in Latin America and the Caribbean: Evidence from a meta-analysis, *The Journal of Development Studies*, 1-18.

Work package 2: Particular evaluations of youth interventions

The second work package of the research project has comprised a set of specific program evaluations in particular countries. As these evaluations were characterized at the outset of the project by different stages of implementation, eventually it turned out that some of the originally planned impact evaluations could not be realized – e.g. in the initial project proposal it had been planned to evaluate the Public Employment Services in Colombia (with the IDB), an entrepreneurship training in Egypt (with the World Bank), and a reform of the Technical and Vocational Education system in Vietnam (with GIZ). The reasons for this were that in the Colombian case due to a re-organization of the Public Employment Services the relevant local

partner was no longer in place, in the Egyptian case eventually the intervention was not put into practice, and in Vietnam – despite several sustained efforts – it was not possible to continue the data collection collaboration.

These developments within the project were (over-) compensated by new projects that materialized within the network collaboration: first, the meta-analyses were conducted in a much more comprehensive way than initially planned (see section above), and, second, additional singular impact evaluations of youth programs were identified – two in collaboration with GIZ (one in Kenya, one in Serbia), one an ongoing project with the World Bank in Turkey, and finally a novel data collection on rural youth in northern South Africa – that replaced those that could not be realized as planned.

a. Life skills and vocational training for disadvantaged youth in Rio de Janeiro

This evaluation implements a Randomized Controlled Trial (RCT) of a vocational and life skills training program in Rio de Janeiro. The program “Galpao Aplauso” is funded by the Multilateral Investment Fund (MIF) at the IDB and targets disadvantaged youth from Rio’s favelas. The program is innovative in combining vocational training with a comprehensive component for non-cognitive skills using arts- and theater-based pedagogic tools, hence the evaluation results are of particular interest. The evidence generated in the study shows that youth benefit in the medium-term from economically large employment and earnings impacts. The analysis finds no systematic evidence of broad impacts on socio-emotional skills, although the program appears to develop some skills related to self-control. The results also suggest that youth who have higher initial socio-emotional skills may benefit more from the program. One reason is that the estimated labor market impacts are due to a combination of both skills formation and signaling of higher quality workers to employers.

b. Long-run effects of youth training in the Dominican Republic

This sub-project built on previous research by project partners at the IDB and their collaborators and – in combination with work package 1 – has aimed to deepen our understanding of long-term impacts of human capital accumulation, in this case measured years after program participation. In fact, the study conducts one of the first large-scale randomized controlled trial of a youth training program outside the US, estimating effects six years after random assignment from a representative sample of more than 3,200 youths. The intervention is prototypical of training programs worldwide and is implemented at scale in the Dominican Republic. The empirical findings indicate, on the one hand, significant effects on formal employment, particularly for men, and on earnings for both men and women in Santo Domingo. On the other hand, no significant effects on overall average employment are evident.

c. Rural entrepreneurship program in Kenya

This particular evaluation is based on a collaboration with GIZ. The study provides evidence on a key factor of market-based approaches to disseminate socially desirable products in developing countries: the employment and income perspectives of young entrepreneurs in the related value chains. The analysis uses a staggered-implementation evaluation design to assess the impact of a large-scale intervention in Kenya that supports individuals in starting a business with improved cookstoves or small solar products. The results demonstrate how trained entrepreneurs intensify and diversify their income-generating activities, often by shifting away from subsistence farming as a main source of income. This goes along with sizeable improvements in individual and household incomes as well as perceived economic well-being in one of the two lines of business, cookstoves. Impacts not only differ between the two technologies but also across subgroups including gender, age, education, and baseline occupation. The findings substantiate that market-based interventions can foster modern-energy access in rural areas by supporting the establishment of local businesses, which, however, need not always increase income.

d. Youth Employment Promotion in Serbia

This evaluation project also materialized in collaboration with GIZ. Specifically, the study assesses the impact of a (supply-side) intervention that provides in-demand certifiable skills via simulated workplace trainings, e.g. fake warehouses, to disadvantaged youths in Serbia. The analysis compares this innovative approach to a (demand-side) intervention that incentivizes firms to take disadvantaged youth for short-term skill trainings. The empirical strategy is based on novel data from the Serbian public employment service that is matched with employer-employee data to measure formal labor market outcomes. The data are used to construct a comparison group based on a dynamic selection-on-observables identification strategy. In addition, this is combined with a detailed follow-up survey to assess informal labor market outcomes. The results indicate that both delivery mechanisms improve formal labor market outcomes in the short- to medium-term. While benefits of simulated workplace training take time to materialize, in contrast to firm-based trainings the treatment effect estimates are increasing over time. In addition, the survey data suggest that the effectiveness of (less formal) institute-based trainings may be comparatively underestimated given the higher prevalence of informal employment. Overall, the results suggest that providing disadvantaged youth a signal about in-demand skills could be more beneficial in the longer-term than matching them to firm-based trainings. This is important in the light of existing market failures (signaling vs. screening) and the role of transferable vs. firm-specific skills.

e. Job search skills and attitudes in Turkey

This sub-project has developed over several years jointly with the World Bank. A key part of this process was to develop a tailor-made intervention affecting job search information and job search attitudes of newly registered (young) unemployed in Turkey, and test this intervention comprehensively using an RCT. Specifically, the intervention took place in all of Turkey in the context of the existing employment support services of the Turkish employment agency (İŞKUR) with a focus on young job seekers (about 60% of current job seekers in the country) and women. In particular, job seekers are provided with information to influence their employment expectations as well as evidence-based tools to inform and set job search goals and with practical strategies to persevere and sustain the motivation to overcome obstacles and setbacks. The results show that exposure to this intervention results in positive and significant treatment effects on job search behavior and especially on take-up of İŞKUR ALMP services.

f. South African youth and the labor market

This study investigates youth labor market performance in Northern South Africa using data from the Livelihoods, Religion and Youth Survey specifically collected for the project. In addition to standard explanatories of labor market outcomes, it analyses whether the 'soft' factors social capital and religion contribute to youth's labor market success. Religious social capital substantially increases labor market success, while there is no indication that social capital or religiosity are conducive to labor market performance among youth. Moreover, the results substantiate the findings of the literature on skills mismatches and spatial mismatches. Tertiary education qualifications are not found to be correlated with better labor market outcomes, while urban residence is a strong predictor of working in either the formal or informal sector. The receipt of old age grants in the household goes along with a lower probability of youths' engagement in formal and informal labor market activity.

Publications resulting from work package 2

- a. Calero, C., C. Corseuil, V. Gonzalez Diez, J. Kluge, and Y. Soares (2017), Can arts-based interventions enhance labor market outcomes among youth? Evidence from a randomized trial in Rio de Janeiro, *Labour Economics* 45, 131-142.
- b. Ibarrarán, P., J. Kluge, L. Ripani, and D. Rosas Shady (2018), Experimental evidence on the long-term effects of a youth training program, *Industrial and Labor Relations Review* 72, 185-222.

- c. Bensch, G., J. Kluge, and J. Stöterau (2018), The market-based dissemination of modern-energy technologies as a business model for rural entrepreneurs: Evidence from Kenya, currently revise and resubmit at “Energy Economics”
- d. Kluge, J., L. Lebedinski, and J. Stöterau (2019), Simulating the workplace: A (better) alternative to improve labor market outcomes of disadvantaged youths?, mimeo.
- e. Levin, V., A.M. Munoz Boudet, E. Kubilay, J. Kluge, G. Akkaya Selvi, Z. Cemalcilar, M. Kezer, and O. Arias (2019), Yes you can: Socio-emotional skills for higher employability in Turkey, mimeo.
- f. Öhlmann, P. (2019), South African youth and the labor market, mimeo.

Work package 3: Measuring employment impacts

This work package has contributed methodological work to the assessment of employment impacts of youth training programs, along two dimensions. The first dimension concerns the measurement of non-cognitive skills. Whereas this was initially (in the project proposal) seen as a stand-alone topic, it has been integrated in practice into the experimental studies in Rio de Janeiro (see work package 2, study (a)) and in Turkey (see work package 2, study (e)), both of which focus on these skills and address innovative interventions shaping them.

The second dimension concerns the practical definition of employment in the development practice, and a stringent definition of what concerns direct and indirect employment effects of activities in different sectors. This has been a theme of relevance for donors such as the World Bank and, in particular, for GIZ. From the collaboration with the latter thus resulted a policy paper that gives guidance on these issues.

Publication resulting from work package 3

Kluge, J. and J. Stöterau (2014), A systematic framework for measuring employment impacts of development cooperation interventions, GIZ: Bonn / Eschborn.

Additional outcomes of the project

- Jonathan Stöterau was involved in the project as a researcher and part of the project output will contribute to his PhD thesis, to be finalized by 2019.
- Philipp Öhlmann was involved in the project as a researcher and part of the project output will contribute to his PhD thesis, to be finalized by 2019.
- In 2017 the project organized a conference in which the network partners presented the results of the project and discussed them with researchers and practitioners. More information can be found at <http://www.rwi-essen.de/youth-employment-conference/>
- The results of the project are not economically usable, but provide an enormously valuable input to all organizations involved in designing and running youth employment programs, in particular those institutions directly involved here.
- Concerning the data that were collected as part of this project, these are made available in the following way for each of the publications in the work packages, respectively:
 - 1a) Data available from the authors upon request.*¹
 - 1b) Data available from the authors upon request.*
 - 1c) Data available from the authors upon request.
 - 2a) Data available from the authors upon request.*
 - 2b) Data available upon request – data stored at IDB who financed the survey data collection, data transfer at their discretion.
 - 2c) Data available upon request, conditional on final publication of the study and at GIZ discretion who financed the survey data collection.
 - 2d) Data available upon request, conditional on final publication of the study and at GIZ discretion who financed the survey data collection.
 - 2e) Data available upon request, conditional on final publication of the study and at World Bank discretion who financed the survey data collection.
 - 2f) Data available upon request, conditional on final publication of the study.
 - 3a) No data collected for this study.

¹ An asterisk * indicates that such requests were already received in the specific case and data were correspondingly made available to other researchers.

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