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Evaluating an Innovative Program for  
Disadvantaged Youths**

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## **ABSTRACT**

### **Temporary Work as an Active Labor Market Policy: Evaluating an Innovative Program for Disadvantaged Youths\***

While high rates of youth unemployment are a severe problem in most European countries, the program evaluation literature shows that disadvantaged youths constitute a group that is particularly difficult to assist effectively. As innovative measures are thus needed, we evaluate a German pilot program that targets low-skilled young unemployed and combines three components: a) individual coaching, b) classroom training and c) temporary work. Using an ex-post quasi-randomization approach, our analysis shows that the program has a positive impact on the post-program employment probability of participants.

JEL Classification: J08, J68

Keywords: program evaluation, disadvantaged youths, temporary work, ALMP

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## **1. Introduction**

In most European countries youth unemployment rates are (much) higher than those of other age groups (ILO 2008). In Germany, too, youth unemployment has been a severe problem for the last two decades. During 2009, for instance, on average 377,000 young people (15 to 25 years) were without jobs (Bundesagentur für Arbeit 2010). The policy challenge is sizeable: Due to their young age, the young unemployed have only little labor market experience. Low skill levels and the lack of basic working knowledge typically imply few working opportunities. It is thus an explicit objective of German active labor market policy (ALMP) to increase the employment performance of disadvantaged youths, preventing long-term receipt of welfare benefits.

All countries implementing ALMPs usually have policies targeted specifically at youths (Betcherman et al. 2007). The recent evaluation literature, however, has been rather pessimistic on youth programs, showing that these programs are very rarely effective (see the meta-analyses in Card et al. 2010, and Kluve 2010). While particular examples of successful programs exist – e.g. a vocational training program for unemployed and low educated youths in Denmark (Jensen et al. 2003) – the majority of analyses point to zero or even negative treatment effects (e.g. Centeno et al. (2009) for a job search assistance program in Portugal, Larsson (2003) for a subsidized work program in Sweden).

The one youth program that has been interpreted as a success is the UK's New Deal for the young unemployed (e.g. Dorsett 2006). The evidence points to the importance of two factors. First, to appropriately combine several components, such as job search assistance in a first stage with training, wage subsidies or public works in a second stage. Second, to tailor all components to individual client needs following in-depth profiling.

Parallel to the persistence of youth unemployment, temporary work in Germany has become increasingly important over the last decade. The number of people employed in temporary work agencies has increased from 134,400 (all ages) in 1994 to 760,600 people in 2008 (Bundesagentur für Arbeit 2009), mainly due to a deregulation of the sector in 2004. While some policy makers are concerned about this development, fearing for decreasing wages and

substitution effects, proponents claim that temporary work has a stepping-stone function bringing temporary agency workers into regular employment. Empirical evidence on this issue has remained scarce across countries, however. While Göbel and Verhofstadt (2008) find increased transition rates to permanent employment for unemployed school leavers employed in temporary work agencies in Belgium, Kvasnicka (2009) does not observe such a stepping-stone effect of temporary work in Germany. He does find, however, positive effects of temporary agency work on the probability of being continuously employed in the temporary work sector.

In this paper, we analyze an innovative youth program in Germany that combines i) temporary work with the two other core components ii) individual-specific support and iii) skills training. In section 2 we describe the pilot project, the methodological approach and the data. Section 3 presents empirical results and section 4 concludes.

## **2. The program, identification and data**

The youth program evaluated in this paper constitutes a public-private-partnership between the Federal Employment Agency and a private temporary work agency. It was implemented at three pilot sites from 2007 until 2009. Each pilot site is a medium-sized city (population 250,000 to 600,000) characterized by high unemployment rates (annual average around 14 per cent in 2007). The program is targeted at disadvantaged youths without lower secondary school degree, without vocational training degree and/or without labor market experience.

The objective of the program is to help unemployed youths find permanent jobs by combining a) individual coaching, b) classroom training, and c) work experience via temporary agency work in three steps. First, the local employment agency selects participants from the predefined target group. Second, individual profiling and skills assessment takes place at the temporary work agency, followed by classroom training. The content of the training is allowed to differ between individuals and pilot locations, depending on each participant's skills and local labor market needs. In the third step, participants are contracted by the temporary work agency and placed in hiring firms to receive work experience. In the hiring firms, personnel managers and co-workers

do not know that youths are participants in an ALMP. The full program was designed to last 12 months.

To estimate the impact of the program on participant's post-treatment employment probability, a comparison group is necessary that appropriately measures the counterfactual "What would have happened to program participants had they not participated?" Since the program is a pilot implemented in a small number of cities with a limited number of participants, we adopted an ex post quasi-experimental approach. Specifically, we went to each case manager involved in implementing the program, and asked them to identify a second group of youths who were equally eligible to participate, yet were denied access because of program group size restrictions. We thus construct a quasi-randomized out comparison group using the inside information case managers have – on both observable and unobservable characteristics of program participants.

Once treatment and comparison groups were designed following this procedure, we collected corresponding administrative data from the Federal Employment Agency for both groups. The data are comprehensive and cover individual information (on a daily basis, where applicable) about the entire employment and unemployment history, earnings, occupation, some firm information, educational attainment, active labor market program participation and socio-demographics.

Table 1 presents summary statistics. It shows that not all observable characteristics could be balanced following our procedure of identifying a quasi-randomized out comparison group. In particular, comparison group members are more likely to have no schooling degree or no vocational degree, and they have had longer unemployment spells in the past. To control for remaining differences, we regression-adjust our impact estimates. At the same time, we are confident that unobserved differences matter little, given the inside information of case managers used to select the comparison group.

The table also shows that the program worked well in terms of targeting, as around 70 per cent of participants have a lower secondary schooling degree or less, and more than half have no vocational degree. The average age of 23 years also reflects targeting criteria. Moreover,

participants are clearly disadvantaged in terms of labor market prospects, since despite their young age an average employment experience of less than a year (292 days) stands against a sizeable experience with unemployment, at an average of two years (714 days). Male youths form the majority of participants. More than 40 per cent of participants stay in the program for 3 months or less and likely did not run through all program components. Almost all participants with long durations (one third of total) stayed in the program for 12 months.

### **3. Empirical results**

Program success is measured using a binary employment indicator. To capture both the short and medium run, we estimate effects at six and at eighteen months after the end of the program, respectively. Comparison group members are traced starting with the date of assignment to the comparison group. That is, we begin measuring outcomes for comparison observations at the point in time when corresponding treatment observations entered the program and comparison units began doing what participants would have done if they had not been assigned to the treatment.<sup>1</sup>

Table 2 presents treatment effect estimates in two specifications. Specification 1 considers a treatment indicator 0/1. The coefficient indicates a positive and statistically significant effect of participation on the employment probability after six months. At 18 months the coefficient is insignificant. Specification 2 considers three binary variables indicating whether participants stayed in the program for short, medium, or long duration. The results show that the overall positive impact estimate of Specification 1 is driven by the subgroup of participants who stayed in the program for 6 to 12 months. While both short and medium durations have no significant effect on participants' employment probabilities, the chance of being employed is 40 (26) percentage points higher at 6 (18) months for participants with long duration than it would have

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<sup>1</sup> Clearly, this is one possible procedure in light of the fact that "treatment start" and "treatment stop" are not defined for the comparison population. We also implement alternative specifications, such as adding the average treatment duration to the date of comparison group assignment and then start measuring outcomes. Our empirical results are robust to different assumptions on the timing of measuring comparison outcomes.

been without the program. The two point estimates are statistically significant. It is worth noting that in both specifications 1 and 2 there are almost no significant correlations between the employment outcome and covariates.

Figure 1 investigates the treatment effect estimate over time. Panels A and B show that for the short and medium program durations the treatment effect is basically not significantly different from zero at any time 1 to 18 months post-treatment. Panel C, however, indicates a persistently positive effect for participants with long durations. The coefficient is large (50 percentage points) during the first 4 months, then decreases, but remains significantly larger than zero throughout.

Although we have evidence that there seems to be some positive selection into long duration by education, this does not belittle the strong results: The program clearly and sustainably achieves the aim of increasing the employability of those participants that run through all of its components. The employment they find comprises three types: First, one third of the 97 participants with a job after the end of the program work outside the temporary sector. These are the workers experiencing a full stepping-stone effect. Second, 20 per cent switch to another temporary work agency. This is some sort of a stepping-stone, since they move on to new employment. Third, 46 per cent stay with the temporary work agency for which they worked during the work experience stage of the program. While no stepping-stone effect, this is still a success, since they continue in employment without the subsidies of the program.

#### **4. Conclusion**

In this study we investigate a pilot ALMP for young and disadvantaged (long term unemployed) youths implemented in three German cities. The program is innovative in that it combines the elements i) coaching, ii) training, and iii) temporary work. We estimate treatment effects using an ex-post quasi-randomization approach.

Our results suggest that there are positive employment effects of the program. Against the background of largely ineffective youth training programs in OECD countries, this is certainly a



success. Whereas the estimated effect sizes become smaller over time, they remain significantly positive for those participants who stayed on during the complete program. Part of this positive impact is due to the fact that some participants stay at the same temporary work agency. But since this continuation is largely non-subsidized, it also constitutes a successful outcome for the participants. Moreover, more than half of the participants that find employment experience a stepping-stone effect by moving either into regular employment or on to another temporary work agency. Finally, since staff managers in the hiring firms do not know that youths are participating in an ALMP, this is a "pure" effect not influenced by any preconception regarding the youths' productivity.

Hence, on balance our results indicate that a youth active labor market program combining the three components individual coaching, skills training, and work experience is a promising way to integrate disadvantaged youths back into the labor market.

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**Table 1. Summary statistics**

		Treatment group n=211	Comparison group n=103	
		Fraction	Fraction	t-value
Schooling	No degree	0.23	0.46	3.97
	Lower secondary (Hauptschule)	0.51	0.31	-3.07
	Secondary (Realschule)	0.20	0.21	0.00
	Upper secondary (Gymnasium)	0.05	0.02	-1.37
Training	No vocational degree	0.55	0.70	2.57
	In firm vocational degree	0.29	0.14	-2.74
	External vocational degree	0.14	0.12	-0.42
	Technical school	0.01	0.03	0.95
	Professional school	0.00	0.00	-0.69
Program duration	Short (up to three months)	0.46		
	Medium (three to six months)	0.19		
	Long (six to twelve months)	0.35		
		Mean	Mean	
Gender	Fraction female	0.16	0.27	2.33
Age		23.14	22.92	-0.97
Employment	Duration of last employment	292	260	-0.63
	Total unemployment duration	714	873	2.88
	Total program participation	193	223	1.19

*Note: t-test on differences-in-means.*

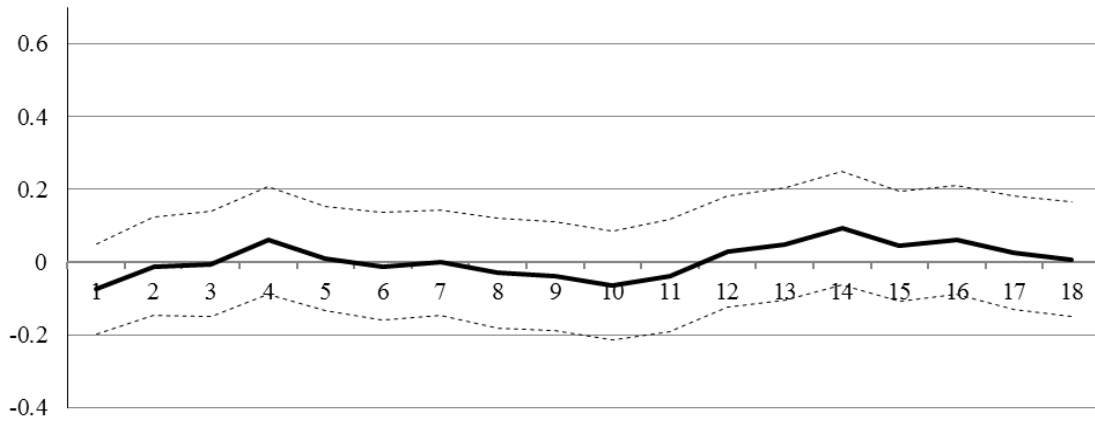
**Table 2. Treatment effect estimates**

	Specification 1				Specification 2			
	6 months		18 months		6 months		18 months	
	coeff.	t-value	coeff.	t-value	coeff.	t-value	coeff.	t-value
Program participation 0/1	0.1532	2.33	0.0912	1.36				
Program participation (Base: no participation)								
Short duration					-0.0110	-0.15	0.0076	0.09
Medium duration					0.0219	0.25	0.0168	0.18
Long duration					0.4034	5.38	0.2592	3.02
Age	0.2045	0.83	0.2511	1.00	0.1373	0.59	0.2059	0.83
Age <sup>2</sup>	-0.0037	-0.70	-0.0051	-0.95	-0.0022	-0.45	-0.0041	-0.77
Female	-0.0215	-0.28	0.0660	0.84	-0.0417	-0.59	0.0520	0.67
City 1	0.0084	0.11	-0.0136	-0.16	-0.0579	-0.75	-0.0731	-0.85
City 3	0.0648	0.83	-0.0820	-0.99	0.0668	0.91	-0.0791	-0.96
Schooling ( <i>Base: No schooling degree</i> )								
Lower secondary	-0.0228	-0.32	-0.0138	-0.19	-0.0158	-0.24	-0.0080	-0.11
Secondary	0.0669	0.77	-0.0138	-0.15	0.0742	0.91	-0.0091	-0.10
Upper secondary	-0.3735	-0.84	-0.3722	-0.84	-0.2623	-0.62	-0.3291	-0.75
Training ( <i>Base: No voc. degree</i> )								
In-firm voc. Degree	0.0210	0.28	0.0925	1.17	-0.0144	-0.20	0.0699	0.89
External voc. Degree	0.0091	0.10	-0.1247	-1.30	-0.0469	-0.55	-0.1489	-1.57
Technical school	0.4289	2.05	0.0240	0.10	0.4247	2.16	0.0219	0.10
Professional school	0.2149	1.26	0.3102	1.64	0.1305	0.81	0.2711	1.44
Unemploym. Duration	-0.0002	-1.86	-0.0002	-1.69	-0.0002	-1.37	-0.0002	-1.20
Work experience (0/1)	0.0221	0.29	0.1556	1.92	0.0585	0.81	0.1841	2.29
Constant	-2.5363	-0.88	-2.9652	-1.02	-1.7746	-0.66	-2.4693	-0.86
R <sup>2</sup>	0.0980		0.0946		0.2137		0.1332	
N	251		227		251		227	

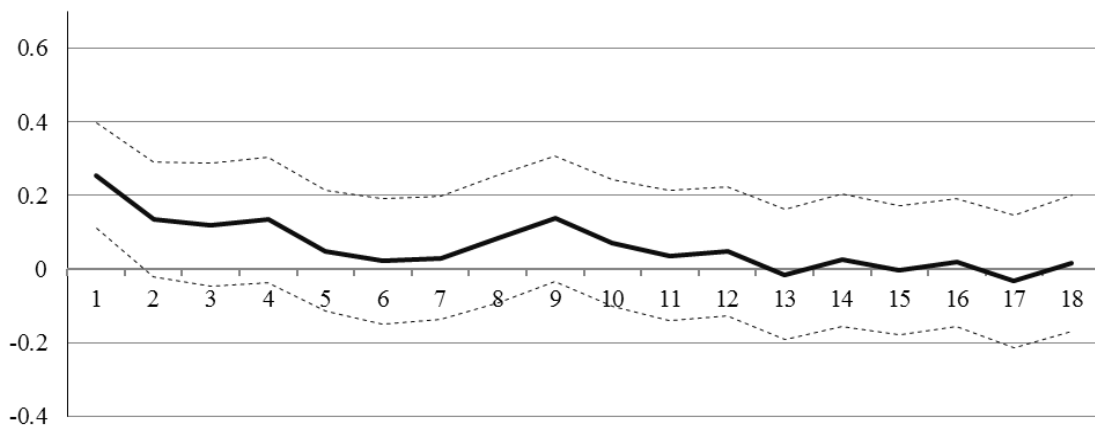
*Note: Estimates from a linear probability model with dependent variable "employment 0/1".*

**Figure 1. Program impact over time – by treatment duration**

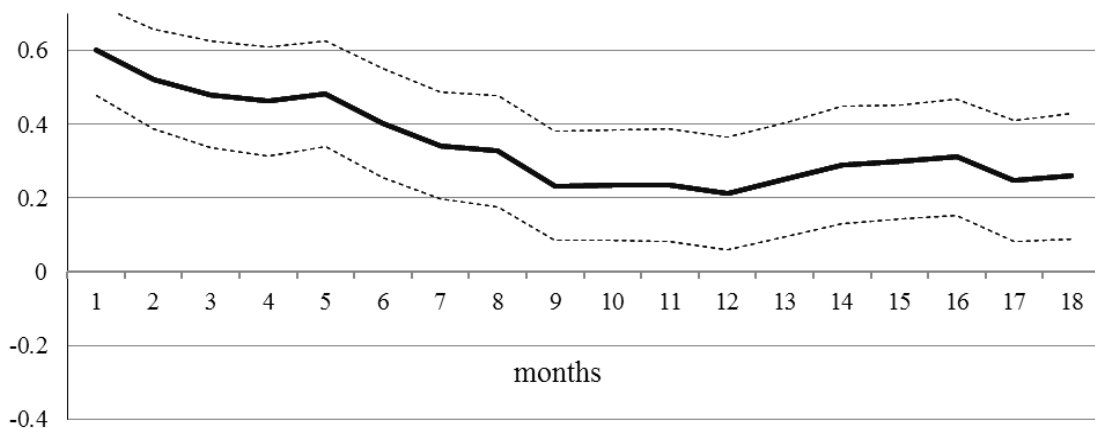
A) Short duration



B) Medium duration



C) Long duration



*Note: Dashed lines are 95% confidence intervals.*