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More caseworkers shorten unemployment durations and save costs

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More caseworkers shorten unemployment durations and save costs

Results from a field experiment in an Austrian Public Employment Office[1]

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Abstract

In a randomized controlled trial in Austria, lower caseloads in public employment offices led to more meetings of the unemployed with their caseworkers, more job offers, more program assignments, and more sanctions for noncompliance with job search requirements. More intensive counseling led to shorter unemployment episodes due to faster job entry, but also to more exits from the labor force in the two years following treatment. We find effects for different subgroups of unemployed. We find no effects on wages. A cost-benefit analysis suggests that lower caseloads not only shorten the duration of unemployment but are also cost-effective.

Keywords: Active labor market policy; Public Employment Services; caseworkers; counseling; job placement; field experiment

JEL classification: J64, J68

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1. Introduction

In OECD countries, active labor market policies are important in combating unemployment. While there is detailed evidence on the effectiveness of specific active labor market policies such as training or subsidized employment (Card et al., 2010), there is little evidence on the effect of caseworkers in public employment services (PES), who are responsible for counseling and the placement of the unemployed. Caseworkers provide information on vacancies, training opportunities, and available benefits. Caseworkers may influence the effectiveness of employment services, but their effectiveness is likely determined by the number of cases they handle. A greater caseload could limit the time and effort they spend on an unemployed person, which could lead to longer unemployment durations or poorer placement. Rosholm (2014) argues that more intensive counseling could be a cost-effective tool to improve the reintegration of the unemployed into the labor market.

We provide new evidence on the effects of more caseworkers for the unemployed, based on a field experiment of the Austrian Public Employment Service (PES). In the randomized controlled trial (RCT), the caseload of caseworkers was reduced for a randomly selected group of unemployed, while it remained unchanged for a control group. We analyze this experiment to study the effect of lowering caseloads on the exits from unemployment. We examine the effects on post-unemployment job quality as measured by initial wages. We also consider the effects of the lower caseload on the counseling process by examining changes in the frequency of meetings, job offers, program participations, and benefit sanctions for failure to meet job search requirements. A comparison with unemployed job seekers from other PES offices allows us to control for potential spill-over effects in the office where the RCT was conducted. The results from our main analysis are robust to this extension.

From a theoretical perspective, there are several reasons why more intensive counseling could improve the efficiency of employment agencies (Maibom et al., 2017). For the majority of persons, unemployment is a rare event, and counseling can help with search strategies and update information on the labor market. Counseling can also help the unemployed to focus on their job search by providing information on support options, such as childcare or financial assistance. Caseworkers can identify skills that are lacking and offer skills training programs tailored to the job seeker's needs. Regular meetings can provide additional motivation and prevent withdrawal from the labor market (discouraged worker effect) (Maibom et al., 2017). There is limited empirical evidence on the effect of caseloads or the intensity of counseling on unemployment outcomes, although caseloads vary widely across European PES (Eppel et al., 2012).

Hainmueller et al. (2016) show that a smaller caseload in Germany led to a shorter duration of unemployment and higher re-employment. Similar results were also found by Schiel et al. (2008), Hofmann et al. (2010) or Fertig (2014). Crépon et al. (2013) find that unemployed youth who were randomly assigned to job placement assistance were significantly more likely to find a stable job than those who were not. Maibom et al. (2017) examine the effects of biweekly individual meetings, weekly group meetings with one or two caseworkers, and an "activation wall" with a randomized design in Denmark. They find that frequent one-on-one meetings between newly unemployed workers and their caseworkers substantially increase employment rates. For group meetings or the "activation wall", they observe positive but insignificant effects. Koning (2009) examines the caseworker-to-clients ratio for Dutch unemployed workers. He finds

that additional PES staff significantly increase exit rates for the short-term unemployed, while finding no effect on exit rates for the long-term unemployed. Despite the limited effectiveness of PES staff, he concludes that changes in the number of PES caseworkers per client are cost-effective. Overall, the available evidence suggests that lower caseloads and more frequent meetings have positive effects on job search success.

We find that lowering the caseloads of PES caseworkers results in more meetings between the unemployed and their caseworkers, more job offers, more program assignments, and more sanctions. These result in shorter unemployment durations, both through faster job take-ups and more exits from the labor market. On average, the treated clients are significantly less unemployed over a two-year period and spend more time in employment or outside the labor market than the control observations. These results hold for various subgroups of the unemployed, but with quite substantial differences in detail. Wages after unemployment are not affected. Controlling for potential spill-overs at the treated site confirms these results. A cost-benefit analysis suggests that lowering caseloads is not only effective in shortening unemployment, but also cost-effective.

2. Institutional background

2.1 PES structure

The Austrian PES ("Arbeitsmarktservice", AMS) is a one-stop shop for the unemployed. It administers unemployment benefits and (means-tested) unemployment assistance. It also provides counseling and placement services. In addition, it is responsible for implementing training programs and other active labor market policies.

The PES is divided into a federal head office, nine provincial offices – one for each of the nine Austrian provinces – and 101 regional branches, 12 of which are located in Vienna. The federal office is responsible for management, controlling, evaluation, analysis, and strategic planning. The provincial offices coordinate the regional offices where the unemployed meet their caseworkers. The unemployed are assigned to the regional office on the zip code of their place of residence, which is usually the nearest office.

Each of the 101 regional offices offers services for the unemployed in three "zones": an information zone, a service zone, and a counseling zone, illustrated in Table 1. The *information zone* provides general and anonymous labor market information to the public, including numerous self-service options. The *service zone* is for newly registered unemployed and those who need little assistance. Here, claims for unemployment benefits are processed, and the unemployed receive counseling and job offers. The *counseling zone* is for the unemployed who have been unemployed for at least six months or are considered difficult to place for other reasons. Here they receive more intensive guidance and assistance than in the service zone. The average caseload of a caseworker in the counseling zone was about 250 unemployed persons per caseworker, compared to 1:100 in the service zone before the pilot project started.

Table 1: Structure of an Austrian regional unemployment office

	Info zone	Service zone	Counseling zone
Target group	public	new entrants	6 months
	anonymous	"job-ready"	"hard-to-place"
Main services	information	claims & benefits	intensive guidance
	self-service	Placement	& assistance
Mean caseload		1:100	1:250

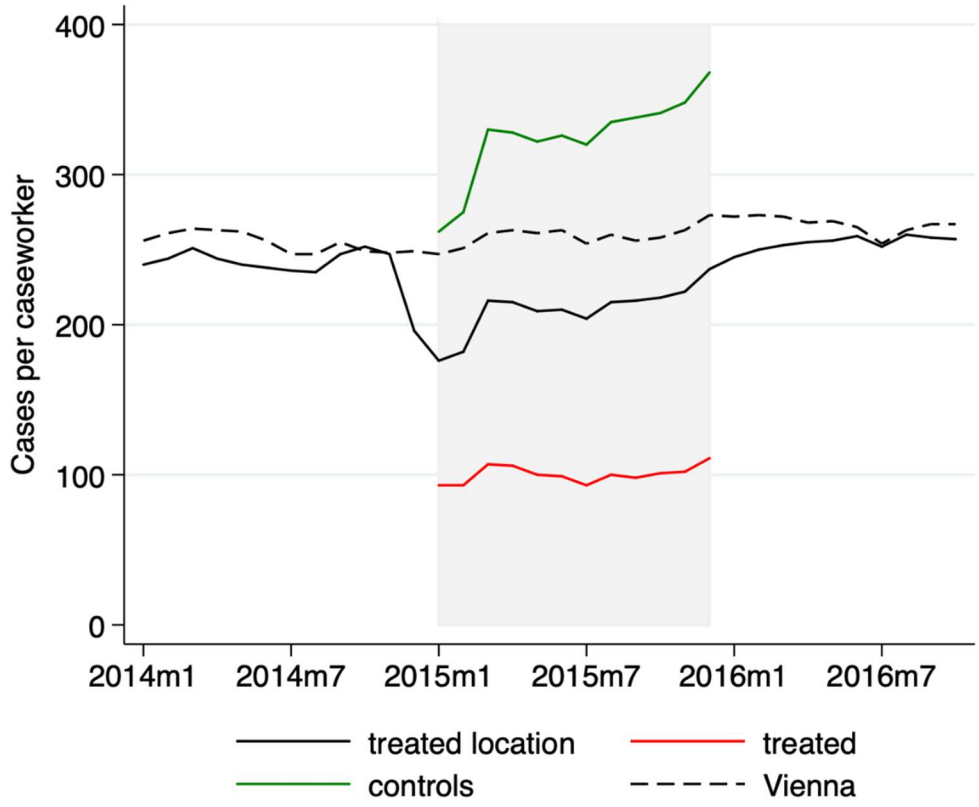
2.2 The randomized controlled trial

The randomized controlled trial (RCT) was conducted in one of the twelve regional employment offices in Vienna. In this office, there are two departments in the counseling zone with identical tasks. In the RCT, the caseloads of caseworkers in one department of the counseling zone was changed by an administrative reorganization. Before the year 2015, one department was responsible for unemployed job seekers born between January and June, while the other department was responsible for unemployed persons born between July and December. Each department had an average of about 22 full-time equivalent caseworkers. The average caseload, or the caseworker-to-client ratio, was about 1:250.

The RCT was implemented in 2015 and consisted of the following two changes. First, each department received four additional caseworkers. These were experienced caseworkers from other Viennese PES-branches. At the same time, the responsibility of department 1 (treatment group) was limited to all unemployed born in January, February or March. Department 2 (control group) was responsible for all other unemployed persons in the counseling zone (i.e., those born in April through December).

These changes lowered the caseload to a ratio of 1:100 for department 1. It increased somewhat during 2015. In department 2, the caseload remained basically unchanged. At the beginning of the year, the ratio was about 1:260. Later in the year, the ratio worsened due to an increase in unemployment. (See Figure 1.) Other things remained unchanged, for example, there was no change in contacts with employers.

Figure 1: Unemployed per caseworker, 2014–16



Source: Austrian PES. Treated: department 1 of the regional PES-office. Controls: department 2 of the regional PES-office. Average cases per caseworker in the counseling zone of the regional PES-office and average over counseling zones in all PES-offices in Vienna.

3. Empirical research design

3.1 Administrative data

We use two sources of administrative data, the Austrian unemployment register (AUR) and Austrian social security records (ASSD). From the AUR, we obtain detailed information of all unemployed individuals, such as age, gender, formal education, health restrictions or care responsibilities which may affect individual labor supply. We use information on unemployment episodes, benefit receipt, on caseworkers' interventions such as meetings, placement offers or benefit sanctions which are imposed in the case of non-compliance with job search requirements. We also use information on participation in active measures such as training or various types of subsidized employment. From the ASSD, we obtain detailed information on employment histories, including information on wages.

3.2 Sample

Our sample comprises 12,424 unemployment episodes from 11,646 unemployed persons who registered with the counseling zone during 2015.[5] Each person can be observed until January 31, 2018. Of these, 3,397 (27.3%) are treated and 9,027 are control observations. A comparison of the groups shows that randomization based on month of birth was successful.[6] As can be seen from the selected variables in Table 2 and the full summary statistics in Table 8 in the Appendix, the two groups differed in only a few observable characteristics. (All characteristics were measured at the time of entry into the RCT.) Among the treated, the proportion with at most compulsory education was slightly higher, and they had been unemployed for a slightly shorter period of time than the control group by the time the RCT started.

The sample consists of persons who already received counseling from the departments before the RCT started ("existing clients") and of new entrants during the period ("new entrants"). As shown in Table 2, 50.8% are existing clients and 49.2% new entrants.

[5] We observe 10,892 persons with a single unemployment spell (2,891 are treated and 8,001 are controls) and 754 with more than one unemployment spell (248 treated and 506 controls).

[6] The time of entry into the RCT is the time when an unemployed person first appeared in the counseling zone in 2015.

Table 2: Selected summary statistics by treatment status

	Controls	Treated	Difference
New entrant	0.492	0.497	-0.004
Existing client	0.508	0.503	0.004
Women	0.422	0.420	0.001
Age (years)	38.560	38.890	-0.330
Disabled	0.017	0.014	0.003
Health problems	0.121	0.130	-0.008
Formal education			
Compulsory	0.460	0.477	-0.017*
Apprenticeship	0.196	0.192	0.004
Vocational school	0.042	0.039	0.003
High school	0.159	0.160	-0.001
College or university	0.143	0.132	0.010
Austrian	0.649	0.645	0.004
Elapsed unemployment duration (days)	361.300	339.400	21.856*
Unemployment last 5 years (days)	953.400	938.900	14.450
Observations	9,027	3,397	

Note: The unit of observation is an unemployment spell. * p<0.1; ** p< 0.05, testing against the null of no statistical difference. All variables measured at entry into the RCT.

3.3 Empirical strategy

Because of the random design of the RCT, we can directly compare the outcomes of the two departments. However, given that we observe small differences in characteristics between the treated group and the control group, we control for any remaining observable differences using an OLS regression. We estimate the average treatment effect of lower caseloads for unemployment episode i by comparing the outcomes between treated and controls:

$$y_i = \alpha_0 + \alpha_1 Treatment_i + X_i^{'}\beta + \delta_t + \varepsilon_i, \qquad (1)$$

where y_i is an outcome indicator, e.g., the unemployment duration after entering the RCT, for unemployment episode i. The indicator "Treatment" indicates whether an unemployed person was treated or not. The vector X contains observable characteristics measured at entry into the RCT. As controls, we use

gender, age, age squared, indicators for marital status, number of children, age of the youngest child, whether the person was legally disabled or not, whether there were other health problems or not, indicators for formal education, and an indicator for the person's nationality. These personal characteristics are possibly correlated with the chances of finding a job.

Additional control variables describe the person's labor market situation. We use the unemployment duration at the time of entry into the RCT and whether the unemployed had already an employer's promise to be hired at a later date or not.[7] We use indicators for the type and level of past unemployment benefits, including the receipt of a needs-based minimum income ("*Bedarfsorientierte Mindestsicherung*"), whether the previous employment spell ended more than one year before entry into the experiment, wages in the last job, the number of days unemployed during the last two years/detailed employment histories (including sickness benefit), and indicators for the sector of the person's last job. We control for the past contacts between the person and the caseworker, the number of earlier placement proposals, and the participation in active measures before the entry into the RCT. δ_t are monthly indicators which control for the entry month into the experiment.

3.4 Outcome Indicators

We compare transitions from unemployment to different exit destinations between the treated and control observations. If the treated unemployed leave unemployment faster than the controls, this could be due to more job take-ups, but also to more people leaving the labor force, for example, in response to increased pressure from the caseworkers to take up employment. For this reason, we distinguish between exits into employment and exits into economic inactivity. We define an exit to employment when we observe a person becoming employed within two weeks after leaving the unemployment register, where we distinguish between subsidized and unsubsidized dependent employment as well as self-employment. If an unemployed person left the unemployment register but did not take up employment within two weeks, we define the exit as a withdrawal from the labor market (OLF).

In addition to exits from the initial spell of unemployment, we also analyze the employment status two years after the start of the RCT and the cumulative number of days spent in various employment statuses over a two-year follow-up period. Other indicators of labor market success include the duration of unemployment, the duration and total amount of unemployment benefit and unemployment assistance received, and the gross monthly wage in the next job.[8]

In order to describe the effect of the treatment on the placement process, we compare the frequency of meetings with caseworkers, the number of job offers, the number of benefit sanctions (unemployment

[7] Individuals with a hiring promise search less intensively for a job and are not included in the job placement process for a period of time. This is typically relevant for persons in seasonal sectors who are often temporarily laid off (Böheim, 2006). See also Nekoei and Weber (2020).

[8] We measure the effect on the monthly entry wage of transitions from unemployment to (subsidized or unsubsidized) dependent employment. As an indicator for the monthly wage, we use the contribution base for social insurance (excluding extra payments). Note that the contribution base is top-coded at the maximum contribution base. For reasons of data availability, we can only examine employment in 2015 and 2016.

benefit suspension due to non-compliance with job search requirements), and participation in various active labor market policy measures during the RCT.[9]

4. Main results

4.1 Labor market effects

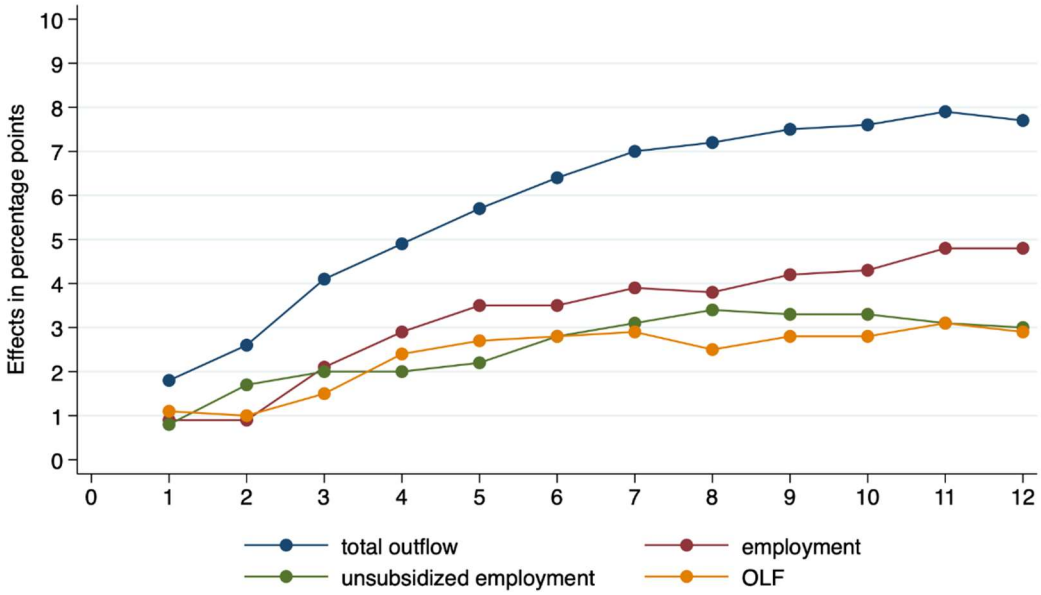
We estimate that the lower caseload – through more intensive counseling – had a significant positive effect on exits from unemployment and consequently shortened the duration of unemployment. The shorter unemployment duration is the result of faster and more frequent exits to employment and of more withdrawals from the labor market. Figure 2 plots the estimated effects of treatment on exits from unemployment for all destinations. This shows that exit rates are significantly higher for the treated persons than for the control group throughout the observation period. The more intensive counseling already had an effect in the first month: The share of persons who left unemployment within one month was 1.8 percentage points higher for the treated than for the controls. This effect increases with the length of the observation period. It is likely that a part of the effect materializes only after some time as more intensive counseling leads to more training. More training may reduce exits from unemployment in short-term due to a lock-in but might increase exit rates later. The proportion of persons who left unemployment within one year was 7.7 pp greater for the treated than for the controls, corresponding to a 15% greater exit rate.

Distinguishing between destinations of exits from unemployment, we see that the treatment increased both the exit rate into jobs and the exit rate from the labor market. The share of persons leaving unemployment for any job within one year increased by 4.8 pp (about 15%), and the exit rate for leaving the labor market increased by 3.0 pp (about 14%). The majority of the jobs accepted by the treated unemployed were unsubsidized jobs. The share of treated persons who started an unsubsidized job within one year of entering the RCT was about 2.9 pp higher than for the controls.[10]

[9] Each estimated effect is obtained from a separate estimation of equation (1) where the dependent variables are either binary indicators (such as exit rates, employment status on cut-off dates) or continuous variables (durations, days in different employment statuses, benefits, and starting wage).

[10] To a lesser extent, the probability of moving from unemployment to subsidized employment also increased. The share of treated who started a subsidized job (mainly integration subsidies) within a year was 0.5 pp greater than for the controls. The share that took up subsidized employment in the "second labor market" (direct job creation in the public or non-profit sector) was 1.3 pp greater for the treated than for the controls.

Figure 2: Effects of treatment on unemployment exits



Source: AUR, ASSD. Note: Unemployment spells by both existing and new clients. Each dot is an estimated difference between treated and control observations. Each estimated effect is obtained from a separate estimation of equation (1) where the dependent variable is a binary indicator of leaving unemployment (all exits, all exits to employment, all exits to unsubsidized employment, and exits to OLF) within t months after entering the RCT. All effects are significant at a level of 10%, almost all at a level of 1%.

The higher exit rate shortened the duration of unemployment. On average, the treated left unemployment about 62 days earlier (14%) than the controls (the estimated coefficients are tabulated in Table 3). During the period from the start of the RCT until January 31, 2018, our censoring date, they accumulated on average 35 fewer days of benefit receipt (8%). On average, each treated person received about 755 Euro (7%) less in unemployment benefits than a member of the control group.

In the two years following the start of the RCT, treated persons spent on average 16 more days (9%) in employment (13 more days in unsubsidized employment), 36 fewer days in unemployment (9%), and 20 more days (15%) out of the labor force than the controls. Thus, the effect of more intensive counseling on time spent out of the labor force is even more pronounced than the effect on cumulative employment.

The median duration in treatment was 365 days, and the mean was 276 days. With the end of the RCT after 12 months, the difference in exit rates remains stable. However, even two years after entry, the treated are significantly less often unemployed (-3.7 pp) and more frequently employed (+1.7 pp; unsubsidized employment +2.2 pp) than the controls. However, they are also more often out of the labor force (+2.0 pp).

Table 3: Effects of treatment on labor market outcomes

	Treated	Controls	Mean difference	(SE)	OLS estimates	(SE)
All exits within 1 year[a)]	60.5	53.0	7.5***	(1.0)	7.7***	(0.9)
Employment within 1 year	34.7	31.1	3.7***	(1.0)	4.8***	(0.9)
Unsubsidized employment within 1 year	25.8	23.9	1.8**	(0.9)	2.9***	(0.8)
Subs. empl. 1st labor market within 1 year	2.7	2.1	0.6*	(0.3)	0.5*	(0.3)
Subs. empl. 2nd labor market within 1 year	3.4	2.1	1.3***	(0.3)	1.3***	(0.3)
OLF within 1 year	25.8	22.0	3.8***	(0.9)	3.0***	(0.8)
Unemployment duration[b)]	394	453	-60***	(8)	-62***	(7)
Days employment over 2 years	194	184	10**	(5)	16***	(4)
Days unsubs. empl. over 2 years	155	148	7	(5)	13***	(4)
Days unemployment over 2 years	386	420	-34***	(5)	-36***	(4)
Days OLF over 2 years	162	137	24***	(4)	20***	(4)
Employment after 2 years[a)]	34.4	33.7	0.7	(1.0)	1.7**	(0.9)
Unsubdisized employment after 2 years	27.8	26.8	1.0	(0.9)	2.0**	(0.8)
Unemployment after 2 years	41.9	45.3	-3.4***	(1.0)	-3.7***	(0.9)
OLF after 2 years	23.7	20.9	2.7***	(0.8)	2.0**	(0.8)
Benefit days[b)]	406	453	-46***	(7)	-35***	(5)
Total benefits[c)]	10,362	11,390	-1,028***	(205)	-755***	(152)
Starting wage[c)]	1,694	1,691	3	(27)	16	(21)

Notes: Effects for both existing and new clients. Data are from AUR, ASSD. Note: a) %-points; b) days; c) Euros; starting wage w/o extra payments (excluding marginal jobs). Censoring date: 31.1.2018. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

The effect of more intensive counseling on post-unemployment job match quality is not clear from a theoretical perspective. More intensive counseling could merely improve the job finding rate and have no additional effect on the match quality as measured by e.g., wages or post-unemployment tenure. However, it is possible that counseling might result in better matches, if caseworkers are better informed about labor demand than the unemployed job seekers. In contrast, more intensive counseling might induce job seekers to accept a worse match, either because of increased pressure or in order to avoid meeting with the caseworker. We find no statistically significant effect of more intensive counseling on the starting wages of post-unemployment jobs. The estimated difference in starting wages is about €16, at an average of about €1,694 per month, and statistically insignificant.

4.2 Effects on the job placement process

In a next step, we examine the effects of more caseworkers on the job placement process to see which aspects of counseling changed as a result of the lower caseload. Table 4 tabulates the estimated effects of treatment on job placement activities. The share of the unemployed who had a meeting with their

caseworker was significantly greater among the treated than among the controls in each of the twelve months of the RCT. From an unemployed person's entry into the RCT until the end of 2015, the treated had on average 2.4 more contacts than the controls, an increase by two-thirds, despite their shorter average duration of unemployment. Accordingly, they had 0.3 more contacts per month during the unemployment spell.

More frequent meetings with their caseworkers resulted in significantly more job offers. On average, the treated received 2.6 more proposals during the RCT, an 122% increase, than the controls. On average, the treated received 0.3 proposals more per month of treatment than the controls. Moreover, the treated were significantly more frequently assigned to and participated more frequently in active labor market programs, such as vocational orientation, qualification programs, direct job creation, and external counseling, than the controls.

More intensive counseling also resulted in more sanctions for non-compliance with job search requirements. The treated were 3.7 pp more likely to have their unemployment benefits suspended than the controls.[11]

We therefore conclude that the lower caseload intensified counseling, monitoring, and job placement activities, and reduced unemployment through this transmission channel.

[11] This effect is evident for both missing a meeting (2.6 pp), and for refusal to accept a reasonable job offer or training (1.3 pp).

Table 4: Effects of treatment on the frequency of meetings with caseworkers, job proposals, sanctions, and

	Treated	Controls	Mean Difference (SE)		OLS estimates (SE)	
Share with meeting (%)	93.5	91.7	1.8***	(0.5)	1.7***	(0.5)
Meetings	5.9	3.5	2.3***	(0.1)	2.4***	(0.1)
Meetings per month of treatment	0.6	0.4	0.3***	(0.0)	0.3***	(0.0)
Share with job offer (%)	59.1	49.8	9.3***	(1.0)	10.5***	(0.9)
Job offers	4.7	2.1	2.5***	(0.1)	2.6***	(0.1)
Job offers per month of treatment	0.5	0.2	0.3***	(0.0)	0.3***	(0.0)
Share with benefit sanction (%)	11.9	8.3	3.5***	(0.6)	3.7***	(0.6)
Report failure	9.7	7.2	2.5***	(0.6)	2.6***	(0.6)
Job or training refusal	2.4	1.1	1.2***	(0.3)	1.3***	(0.3)
Share with program start (%)	47.3	38.5	8.8***	(1.0)	9.1***	(0.9)
Job search program	5.9	5.5	0.4	(0.5)	0.7	(0.5)
Vocational orientation	4.2	3.2	1.0**	(0.4)	1.0***	(0.4)
Qualification measure	19.5	17.3	2.2***	(0.8)	2.1***	(0.7)
Course subsidies	5.4	3.3	2.1***	(0.4)	2.3***	(0.4)
Integration subsidy	0.3	0.4	0.0	(0.1)	0.0	(0.1)
Direct job creation	2.0	1.0	1.0***	(0.3)	1.0***	(0.3)
Non-profit temp agency	0.4	0.3	0.1	(0.1)	0.1	(0.1)
External counseling	27.2	19.7	7.4***	(0.9)	7.1***	(0.8)

Note: Effects for both existing and new clients. Interventions during unemployment spell, in period from RCT entry until the end of 2015 (only during RCT duration). Share with meeting (%): Share with at least one meeting in the period from entry into the RCT until the end of 2015. Qualification measures are courses in institutions commissioned by the PES. Course subsidies are subsidies for participation in courses of private sector education providers. Integration subsidy refers to subsidized private sector employment. Direct job-creation is temporary subsidized employment in public- or nonprofit-sector firms in combination with skills training and socio-pedagogical support. Source: AUR, ASSD. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

4.3 Differences between groups

We find a considerable heterogeneity of the treatment effect for different groups of unemployed persons. 5 tabulates the estimated effects of treatment on unemployment duration and benefit receipt and Table 6 for effects on days spent in employment, unemployment, and OLF over 2 years.

The treatment changed exit rates from unemployment to a similar extent for men and women. For men, however, exits to employment increased more than into economic inactivity. Women, in contrast, were more likely to withdraw from the labor force than to enter employment. At the same time, the number of days in employment, measured over a two-year period, did not change significantly for women. Accordingly, more intensive counseling for women led primarily to a shift from unemployment to economic inactivity.

The absolute effect on unemployment increases with age: from -33 days (15-24 years) to -55 days (25-49 years) to -84 days (50-64 years). In the case of the younger age group, the effect of lower caseloads and thus

more intensive counseling on exits from unemployment spell is statistically insignificant. However, when young people left unemployment, they entered employment. For them, reduced unemployment fully translates into more employment, and the effect on the number of days employed over the two-year period is largest.

Persons at all education levels benefited from the improved caseworker-to-clients ratio, but with differences in detail. The effect on unemployment was smallest for college graduates, while at the same time unsubsidized employment increased the most. People with disabilities benefited similarly to people without disabilities. However, subsidized employment accounts for a larger share of the increase in employment among the latter group. Persons with Austrian citizenship benefited to a greater extent from the lower caseloads than non-Austrians, but exits from unemployment, both into employment and out of the labor force, also increased for foreign citizens.

The long-term unemployed (who have been unemployed for more than a year, apart from brief interruptions of a maximum of 62 days) experienced the sharpest absolute decline in unemployment. However, this was due to a much greater extent to exits from the labor force than to better integration into unsubsidized employment. The reduction in unemployment was weaker for the short-term unemployed, but their exits to employment also increased significantly.

Distinguishing between persons who were already in the counseling zone before the RCT ("existing clients") and new clients during the RCT shows a reduction of unemployment for both groups. For the new clients, however, the reduction is much more due to exits to employment than to exits from the labor force. On average, new entrants exited significantly more than existing clients in the two years after entry, and existing clients were more likely to leave the labor market than to enter employment.

Table 5: Effects of treatment on unemployment duration and benefit receipt by population group

	(1)		(2)		(3)	
	Unempl. duration[a]		Benefit days[a]		Total benefits[b]	
Full sample	-62***	(7)	-35***	(5)	-755***	(152)
Existing clients	-67***	(11)	-37***	(8)	-771***	(235)
New entrants	-54***	(8)	-32***	(7)	-689***	(189)
Men	-63***	(9)	-35***	(7)	-721***	(206)
Women	-60***	(10)	-31***	(8)	-736***	(226)
Age 15-24	-33**	(16)	-16	(12)	-238	(276)
Age 25-49	-55***	(9)	-29***	(7)	-622***	(188)
Age 50-64	-84***	(16)	-58***	(12)	-1,302***	(367)
At most compulsory school	-57***	(10)	-36***	(8)	-845***	(196)
Apprenticeship	-91***	(16)	-51***	(13)	-1,057***	(378)
Intermediate voc. School	-33	(43)	-24	(37)	-617	(1,106)
Higher academic or voc. school	-68***	(16)	-31**	(14)	-562	(408)
Academic education	-19	(16)	-9	(14)	33	(486)
Disability	-81***	(21)	-61***	(16)	-1,287***	(416)
No disability	-59***	(7)	-30***	(6)	-662***	(164)
Austrian nationality	-71***	(9)	-39***	(7)	-794***	(204)
Other nationality	-43***	(11)	-25***	(8)	-618***	(215)
Long-term jobless	-88***	(16)	-53***	(12)	-1,179***	(343)
Short-term jobless	-52***	(7)	-29***	(6)	-628***	(166)

Source: AUR, ASSD. Note: a days; b Euros. Effects for both existing and new clients. Statutory disability status or other health-related placement obstacle according to the PES caseworker. Robust standard errors in parentheses. Long-term jobless: apart from shorter interruptions (maximum 62 days) already more than 365 days unemployed. *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Effects of treatment on days spent in employment, unemployment, and OLF over 2 years by population group

	(1)		(2)		(3)		(4)	
	Employment		Unsubsidized employment		Unemployment		OLF	
Full sample	16***	(4)	13***	(4)	-36***	(4)	20***	(4)
Existing clients	9	(5)	6	(5)	-35***	(6)	27***	(5)
New entrants	24***	(6)	21***	(6)	-35***	(6)	11**	(5)
Men	22***	(5)	21***	(5)	-35***	(5)	12***	(4)
Women	6	(7)	1	(6)	-37***	(6)	32***	(6)
Age 15-24	32***	(12)	21*	(12)	-26**	(11)	-5	(10)
Age 25-49	12**	(5)	14***	(5)	-31***	(5)	19***	(4)
Age 50-64	17**	(7)	7	(6)	-46***	(9)	30***	(8)
At most compulsory school	12**	(5)	5	(5)	-33***	(6)	22***	(5)
Apprenticeship	22**	(9)	16*	(9)	-45***	(9)	23***	(8)
Intermediate voc. School	42	(28)	35	(28)	-48*	(27)	7	(22)
Higher acad. or voc. school	15	(12)	16	(12)	-42***	(11)	27***	(10)
Academic education	13	(14)	26*	(14)	-18	(12)	5	(11)
Disability	24***	(9)	14*	(8)	-47***	(11)	23**	(10)
No disability	16***	(5)	14***	(4)	-34***	(4)	18***	(4)
Austrian nationality	21***	(5)	16***	(5)	-40***	(5)	20***	(4)
Foreign nationality	9	(7)	9	(7)	-27***	(7)	18***	(6)
Long-term jobless	14*	(7)	5	(6)	-52***	(8)	38***	(6)
Short-term jobless	18***	(5)	17***	(5)	-30***	(5)	13***	(4)

Note: Effects for both existing and new clients. Statutory disability status or other health-related placement obstacle according to the AMS caseworker. Robust standard errors in parentheses. Long-term jobless: apart from shorter interruptions (maximum 62 days) already more than 365 days unemployed. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Source: AUR, ASSD.

4.4 Cost-benefit analysis

To assess the cost-benefit relation of the treatment, we compare the costs and returns of the intervention per treated unemployed person from a fiscal perspective. We consider effects over the period from the start of RCT entry to Jan. 31, 2018, our data censoring date.

We find that the gains, i.e., fewer unemployment benefits (UB) and unemployment assistance (UA), as well as income tax and social security contributions, exceed the additional costs of treatment. The cost of the additional caseworkers, including overhead, was €613,120 or, alternatively, about €163 per treated person. Additional participation in programs resulted in additional expenditures averaging €227 per person. In sum, the additional costs amounted to €390 per treated person.

These additional expenses were offset by savings on UB and UA benefits amounting to an average of €755 per treated person. Due to more exits to jobs and a shorter unemployment duration, the treated paid on average €159 more in income tax and €551 more in social security contributions than persons in the control group. Overall, the public sector received €1,075 per treated person.

Hence, the comparison of direct costs and benefits suggests that the treatment was not only successful in reducing unemployment durations, but that it was also cost-effective. This cost-benefit analysis assumes that there are no spillover effects, i.e., that the additional employment and subsequent tax and social security payments do not come at the expense of other unemployed persons who would otherwise have found employment.

5. Potential spillover-effects

Spillover effects from the treated on the untreated unemployed cannot be ruled out a priori. For example, caseworkers whose workload were not reduced may have reduced their efforts when they observed that the other caseworkers had more time to counsel their clients. If such spill-overs are present, the estimated effect from equation (1) will be overstated.

To address this concern, we estimate a difference-in-differences specification (DD) using observations from the eleven other Viennese offices of the PES. This approach relies on the argument that observations from the other regional offices provide a valid counterfactual for observations in the treated office.

We estimate the following specification:

$$Y_{it} = \beta_0 + \beta_1 Treatment_i + \beta_2 Period_t + \rho_2 (Treatment_i \times Period_t) + X_i^{'}\beta + \delta_t + \varepsilon_i, \qquad (2)$$

and we focus on an inflow sample of new entrants (6,034 observations). Both existing clients and new clients are relevant for the effects of the RCT. Over time, however, the client pool will consist entirely of new entrants as unemployed persons will either find jobs or exit the unemployment register for other reasons. We select all persons who were born in January, February or March and compare the outcomes of those who were assigned to the regional employment office where the experiment took place (*Treatment*=1) with those who were counseled in a different office (*Treatment*=0).

We restrict the sample to observations from 2014 (*Period*=0) and 2015 (*Period*=1). To avoid that persons who became unemployed in 2014 "mature" into the experiment, we restrict the sample to shorter unemployment durations. For example, when we estimate the probability of leaving unemployment within one (three) month(s), we drop persons who entered in December 2014 (October, November, and December 2014) from the sample. The vector X contains personal characteristics and δ_t is a set of indicators measured at the time of inflow into the sample. Standard errors are obtained by wild bootstrap, which is especially useful when there are few clusters or few treated clusters (Roodman, Nielsen, MacKinnon, and Webb, 2019).

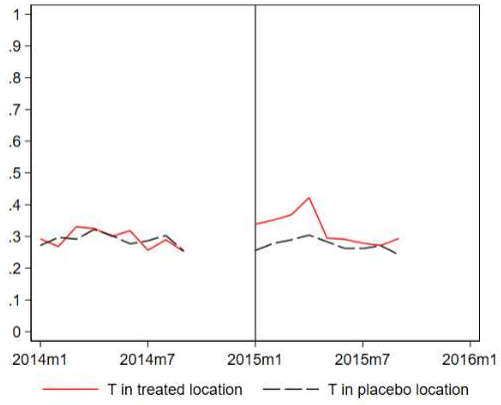
In order to provide a first assessment of the validity of such an DD-approach, we plot the average probability of exiting unemployment (to any exit destination) within 3 months for four different groups over 2014 and 2015 in Figure 3a: We consider the unemployed in the regional office where the RCT was conducted and

those in the other offices, whether they were born in January, February or in the other months.[12] Treated (T) are all persons who were born in January to March, persons born in the other months are in the control group (C). The treated location is the PES office where the RCT was conducted, the untreated locations are all other PES branches in Vienna.

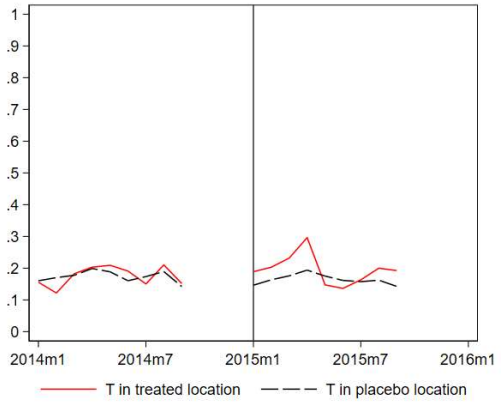
Figure 3a suggests that there were no differences in outcomes during 2014. In addition, during 2015, we see almost no difference between the untreated in the treated location and the unemployed in the untreated locations. This suggests that any changes in the exit probability that the RCT might have had on the control observations can be controlled for by resorting to these additional observations. Figure 3b provides the same descriptive evidence for exits to employment. The pattern suggests that exits to employment increased for the treated group and that the outcomes for the other groups did not change.

Figure 3: Mean exit probability within 3 months, by location.

(a) All exits



(b) Exits to employment

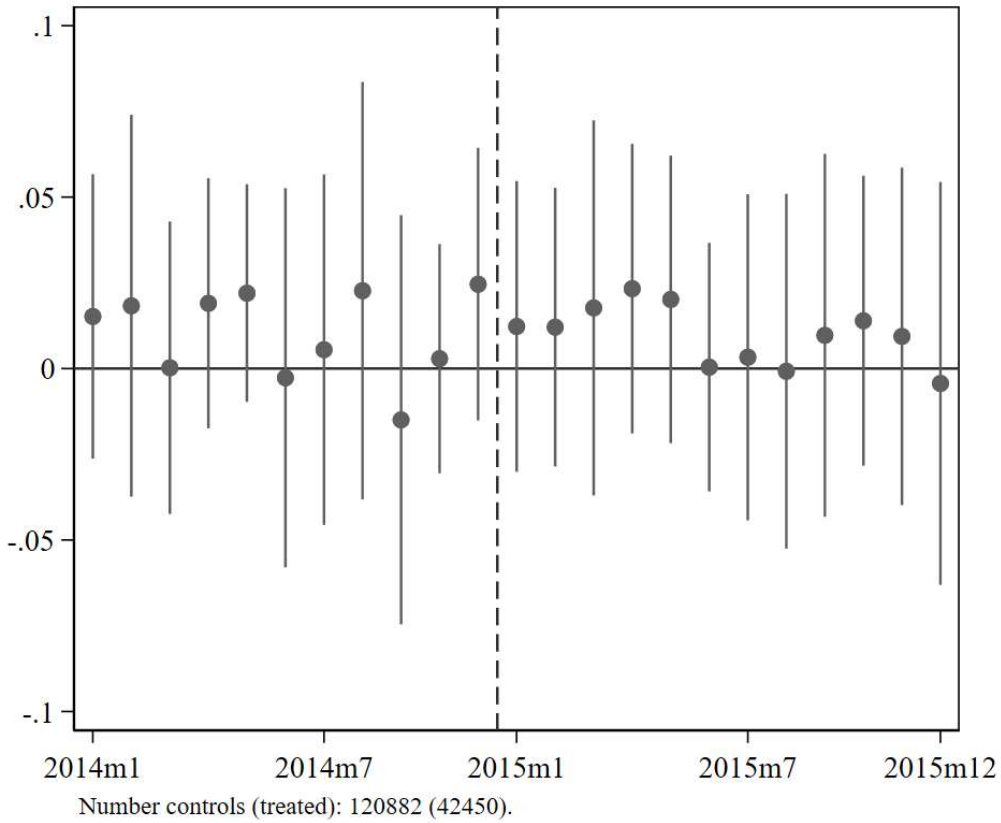


Source: AUR, ASSD. *Notes*: The diagram presents the probability of leaving unemployment within 3 months for four groups. Panel (a) considers all exits from unemployment, Panel (b) focuses on exits to employment. Treated (T) are all persons who were born in Jan–March in the treated location; persons who were born in Jan-March in untreated PES branches in Vienna are control observations. Note that for this diagram no observations from October, November, and December are used as persons who entered in these months during 2014 were subject to the experiment when their unemployment durations exceeded 3 months.

Next, we provide formal evidence for the use of the observations from the untreated offices as counterfactual observations by estimating a difference-in-difference for a placebo treatment. The placebo treatment considers those born in January, February or March in untreated locations as treated and compares their outcomes to those born in the other month in the untreated locations. Since no actual experiment took place, we do not expect to estimate a significant treatment effect. The estimated coefficients for the interaction of monthly indicators with the (placebo) treatment indicator, and their 95% confidence intervals, are plotted in Figure 4. We do not estimate any statistically significant treatment effect.

[12] A plot that compares the outcomes for exits within 1 month is in the Appendix, Figure A.1.

Figure 4: Estimated treatment effects in locations without treatment



Source: AUR, ASSD. *Note*: The diagram presents estimates of the probability of leaving unemployment within 3 months for a placebo scenario. The scenario considers all persons in Viennese PES offices where no RCT took place; persons who were born in January to March are considered as treated and persons born in the other months as untreated.

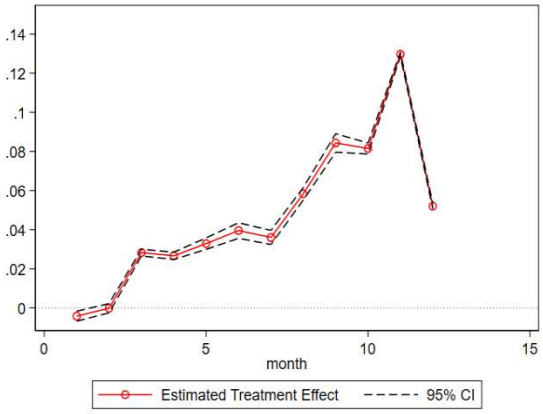
We plot the estimated effects of treatment on any exits from unemployment in Figure 5, panel a, and on exits to employment in Figure 5, panel b. The estimated coefficients are tabulated in the Appendix, Table A.2. The estimation of the treatment effect using the observations from the other regional PES offices supports the interpretation of no spillovers between treated and untreated observations in the treated regional branch. In addition, the use of additional observations from the untreated PES offices results in narrower confidence bands around the estimated treatment effects. This allows even more confidence in the positive assessment of the RCT.

The results show that, on average, the treatment led to more exits from unemployment, and that the effects were positive over the first months after entry into the RCT. Figure 5, panel b, shows that the effects on leaving for employment were on average also positive throughout 12 months after entry. However, we estimate that there was a small negative effect on leaving for employment at the three months mark, which

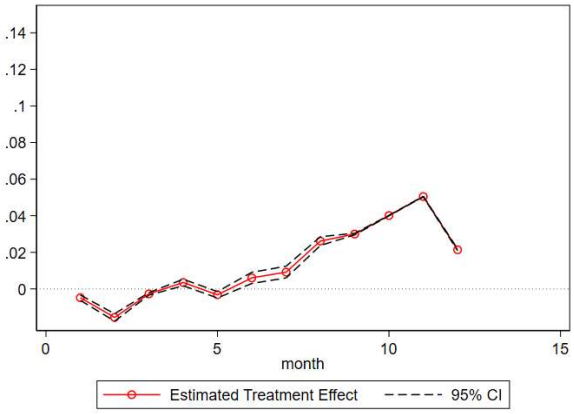
is probably due to a lock-in effect from the treated receiving more training than the untreated unemployed.[13]

Figure 5: Estimated treatment effect on exits from unemployment (difference-in-differences).

(a) All exits



(b) Exits to employment



Source: AUR, ASSD. *Notes*: The diagram presents the estimated treatment effects, and their 95% CI, on leaving unemployment. Panel (a) considers all exits from unemployment, Panel (b) focuses on exits to employment. Treated (T) are all persons who were born in Jan–March in the treated location, persons born in Jan-March in untreated Viennese PES branches are the control group (C). Note that the estimations do not use observations from s month before the start of the RCT to avoid maturing into treatment within t month if exits between month t and t+s are analyzed. Robust standard errors clustered on treatment status of the PES branch.

6. Conclusions

We analyze a field experiment in which the caseworker-to-client ratio was improved for randomly selected unemployed persons in an Austrian public employment office. The results clearly show that the number of caseworkers for the unemployed is an important parameter of labor market policy. We find that more intensive counseling has a significant positive effect on exits from unemployment. More caseworkers resulted in more meetings between the unemployed and their caseworkers, more job offers, more program assignments, and moderately more sanctions. Through this transmission channel, unemployment was shortened by both faster job take-ups and more withdrawals from the labor market. The unemployed are significantly less often unemployed, and more often employed and out of the labor force in the two years after entering the RCT.

This result is evident for a variety of subgroups of the unemployed, although the individual effects vary. It suggests that unemployed persons can be helped back into employment more quickly or more often with more counseling. In addition, the results suggest that some of those affected, possibly those with lower labor market attachment, respond to stricter monitoring of job search behavior and, hence, more pressure to take up a job or participate in active measures by leaving the labor force.

[13] Table A.2 provides the estimated treatment effects used for Figure 5.

Distinguishing between existing clients and new clients entering during the RCT shows a reduction in unemployment for both groups. However, employment transitions increased much more for the new clients. This group is particularly relevant in terms of labor market policy, since it is primarily the new entrants who would benefit from a long-term increase in PES staff.

We find no evidence for an effect on post-unemployment job quality as measured by initial wages. A simple comparison between direct costs and returns of more counseling staff suggests that the experiment was not only successful in reducing unemployment, but that it was also cost-effective from a fiscal perspective, even in the short-term.

We conclude with some comments on the interpretation and classification of the results. Our analyses are limited to a two-year post-treatment period. While some of the results, particularly the increase in labor market exits, could be a one-time effect, more intensive counseling could lead to benefits that are realized after this period. In this case, the estimated effects are a lower bound of the overall effect. In addition, we have no access to other outcomes which might be influenced by shorter unemployment durations, such as health status or criminal behavior. Other aspects which could be influenced are, for example, medium-term effects of training on the skill mix or changes in motivation and effort.

The experiment might have resulted in displacement effects and job-seekers who found a job earlier as a result of more intensive counseling could have crowded out other job-seekers. While we find no spillover effects from the treated unemployed on the control observations, we cannot rule out that other job seekers, e.g., unemployed who did not register with the PES, were negatively affected by the more intensive job counseling provided to the treated unemployed. Moreover, the effects result from an RCT in one of around 100 regional employment offices. It is not certain that an effect of the same order of magnitude would be achieved if more caseworkers were hired in all offices.

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Appendix

Table A.1: Summary statistics

	Controls	Treated	Difference
New entrant	0.492	0.497	-0.004
Existing client	0.508	0.503	0.004
RCT entry month			
January	0.554	0.557	-0.004
February	0.045	0.038	0.007*
March	0.044	0.039	0.005
April	0.043	0.044	-0.002
May	0.035	0.035	0.000
June	0.042	0.043	0.000
July	0.040	0.039	0.001
August	0.036	0.031	0.004
September	0.047	0.046	0.001
October	0.043	0.040	0.003
November	0.039	0.047	-0.008**
December	0.033	0.042	-0.009**
Female	0.422	0.420	0.001
Age	38.560	38.890	-0.330
Marital status			
Single	0.457	0.453	0.004
married/registered partnership	0.266	0.276	-0.010
cohabiting union	0.067	0.066	0.001
Divorced	0.165	0.159	0.006
married/living apart	0.036	0.037	-0.001
Widowed	0.008	0.009	-0.001
Female, family-related returner to the workforce	0.087	0.094	-0.008
Health restriction			
legal disability status	0.017	0.014	0.003
other health-related employment limitation	0.121	0.130	-0.008
Education			
at most compulsory school	0.460	0.477	-0.017*

Apprenticeship	0.196	0.192	0.004
intermediate vocational school	0.042	0.039	0.003
higher academic or vocational school	0.159	0.160	-0.001
academic education	0.143	0.132	0.010
Economic sector			
agriculture, mining	0.003	0.003	0.000
Manufacturing	0.039	0.033	0.006*
energy and water supply	0.002	0.001	0.001
Construction	0.061	0.068	-0.007
Trade	0.133	0.127	0.006
transport and logistics	0.040	0.043	-0.003
accommodation and gastronomy	0.121	0.120	0.001
information and communication, financial and insurance service provider, real estate and housing	0.061	0.062	-0.001
freelance, academic, technological services	0.060	0.060	0.000
other economical service	0.216	0.209	0.007
public service	0.127	0.116	0.011*
other services	0.047	0.052	-0.005
other/unknown	0.090	0.107	-0.017***
Last occupation			
simple/basic services	0.111	0.115	-0.005
hospitality sector occupations	0.134	0.131	0.003
health, teaching, cultural occupations	0.098	0.097	0.001
mandataries, legal, administrative- and office occupations	0.176	0.160	0.015**
agriculture and forestry occupations	0.008	0.009	0.000
manufacturing occupations	0.237	0.248	-0.011
technical occupations	0.060	0.056	0.004
transport occupations	0.044	0.048	-0.005
trade and sales professions	0.127	0.131	-0.004
Unknown	0.006	0.004	0.002
number of children (only women)			
no child	0.862	0.857	0.005
one child	0.076	0.083	-0.007
two children	0.042	0.043	-0.002
at least three children	0.021	0.017	0.004

Age of the youngest child			
up to 2 years	0.015	0.010	0.005**
between 2 and 7 years	0.041	0.041	0.000
between 7 and 10 years	0.015	0.016	-0.001
between 10 and 15 years	0.020	0.023	-0.004
over 15 years	0.048	0.054	-0.006
Nationality			
Austria	0.649	0.645	0.004
Germany	0.021	0.019	0.003
EU15 (without Austria, Germany)	0.019	0.022	-0.003
Turkey	0.034	0.035	-0.001
former Yugoslavia (without Slovenia, Croatia)	0.077	0.075	0.002
EU2004-member state	0.057	0.055	0.003
EU2007/2013-member state	0.033	0.029	0.004
other country	0.109	0.121	-0.011*
Nationalized	0.160	0.161	-0.001
Job promise	0.020	0.010	0.010***
Unemployment insurance benefit receipt			
unemployment benefit	0.363	0.355	0.008
unemployment assistance	0.426	0.406	0.020**
None	0.212	0.239	-0.028***
Unemployment insurance benefit level (per day in €)			
up to 20	0.192	0.188	0.004
20-25	0.140	0.127	0.013*
26-30	0.239	0.226	0.013
over 30	0.216	0.219	-0.003
no benefit	0.212	0.239	-0.028***
Needs-based minimum benefit (BMS) – full receipt	0.016	0.012	0.005*
Needs-based minimum benefit (BMS) – partial receipt	0.025	0.016	0.009***
Previous duration in consultation zone (days)	272.800	263.300	9.503
Zone before RCT entry			
only counseling zone	0.160	0.183	-0.023***
counseling zone and other	0.357	0.326	0.031***
only other	0.346	0.335	0.011

None	0.137	0.155	-0.018**
Zone at unemployment entry			
service zone	0.681	0.646	0.035***
counseling zone	0.287	0.328	-0.041***
Other	0.032	0.026	0.005
Previous unemployment duration (days)	361.300	339.400	21.856*
Long-term jobless	0.265	0.246	0.019**
Employment statuses during unemployment episode (days)			
registered unemployment	263.000	243.200	19.802**
PES training	65.110	61.730	3.382
apprenticeship search	0.450	0.569	-0.119
health check	4.019	3.850	0.169
skilled worker scholarship	0.136	0.460	-0.324**
other unemployment status	20.940	21.510	-0.572
dependent employed	2.722	2.896	-0.174
dependent employed (first labor market)	0.336	0.307	0.029
dependent employed (second labor market)	1.711	1.566	0.146
self-employed	0.273	0.454	-0.181**
Retired	0.020	0.019	0.001
out of labor force	0.031	0.001	0.030
marginally employed	0.117	0.141	-0.024
other labor market status	2.366	2.676	-0.310
Time since last employment (days)			
up to 90	0.548	0.520	0.028***
between 90 and 180	0.027	0.030	-0.003
between 180 and 366	0.045	0.049	-0.004
more than 366	0.231	0.241	-0.010
no previous employment	0.149	0.159	-0.010
Income (assessment basis without special payment) in last dependent employment (in €)			
up to 1,000	0.213	0.213	0.000
between 1,000 and 1,500	0.235	0.243	-0.008
between 1,500 and 2,000	0.165	0.156	0.008
between 2,000 and 2,500	0.094	0.086	0.008

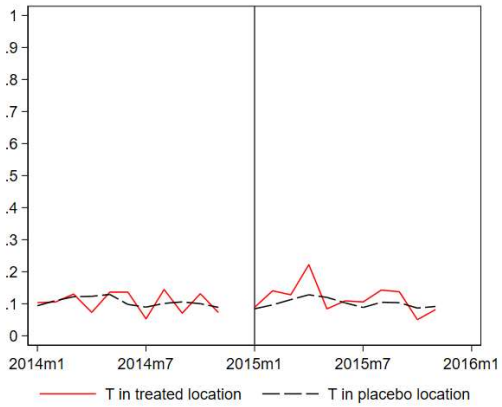
more than 2,500	0.115	0.116	-0.001
Past labor market statuses (days)			
registered unemployment in past 2 years	268.000	261.500	6.549*
registered unemployment in past 5 years	507.900	493.700	14.190*
registered unemployment in past 15 years	953.400	938.900	14.450
PES training in past 2 years	64.130	62.410	1.715
PES training in past 5 years	126.400	119.900	6.450*
PES training in past 15 years	228.100	215.100	12.986**
other unemployment status in past 2 years	41.800	45.820	-4.019**
other unemployment status in past 5 years	99.330	106.000	-6.696*
other unemployment status in past 15 years	181.400	188.100	-6.743
subsidized dependent employment in 1st labor market in past 2 years	4.925	4.737	0.187
subsidized dependent employment in 1st labor market in past 5 years	13.160	12.740	0.414
subsidized dependent employment in 1st labor market in past 15 years	32.530	28.990	3.540
subsidized dependent employment in 2nd labor market in past 2 years	9.386	8.743	0.643
subsidized dependent employment in 2nd labor market in past 5 years	17.670	16.630	1.047
subsidized dependent employment in 2nd labor market in past 15 years	27.060	24.970	2.090
unsubsidized dependent employment in past 2 years	186.900	181.300	5.616
unsubsidized dependent employment in past 5 years	547.800	531.200	16.620
unsubsidized dependent employment in past 15 years	1,564.000	1,541.000	22.540
self-employment in past 2 years	11.850	13.020	-1.168
self-employment in past 5 years	38.710	40.050	-1.339
self-employment in past 15 years	122.200	134.900	-12.720
secured OLF-status in past 2 years	16.960	15.260	1.695
secured OLF-status in past 5 years	54.440	54.700	-0.264
secured OLF-status in past 15 years	155.200	158.600	-3.468
marginal employment in past 2 years	11.620	11.570	0.053
marginal employment in past 5 years	37.380	36.390	0.985
marginal employment in past 15 years	102.100	101.500	0.638
sick pay during unemployment in past 2 years	21.520	23.100	-1.581
sick pay during unemployment in past 5 years	40.050	43.000	-2.946
sick pay during unemployment in past 15 years	66.880	72.710	-5.826*
sick pay during employment in past 2 years	0.038	0.020	0.018
sick pay during employment in past 5 years	0.084	0.063	0.021
sick pay during employment in past 15 years	0.260	0.325	-0.065

Employed on the reference date			
2 weeks before RCT entry	0.483	0.455	0.028***
3 months before RCT entry	0.504	0.474	0.030***
6 months before RCT entry	0.464	0.440	0.024**
1 year before RCT entry	0.434	0.405	0.029***
2 years before RCT entry	0.408	0.394	0.015
Active labor market policy participation in past 6 months (days)			
active job search	1.304	1.206	0.098
vocational orientation	0.924	0.663	0.261*
training and further education	11.960	12.130	-0.169
course cost subsidies	1.926	1.404	0.522**
external counseling	16.240	19.550	-3.307***
private-sector wage subsidies	0.537	0.660	-0.123
Active labor market policy participation in past 2 years (days)			
active job search	4.694	4.218	0.477*
vocational orientation	3.686	3.185	0.501*
training and further education	42.430	43.380	-0.947
course cost subsidies	9.765	8.584	1.182*
external counseling	51.210	60.090	-8.879***
private-sector wage subsidies	4.398	4.321	0.076
Active labor market policy participation in past 5 years (days)			
active job search	11.780	12.020	-0.244
vocational orientation	6.689	5.616	1.074**
training and further education	82.060	81.070	0.987
course cost subsidies	20.820	17.980	2.839***
external counseling	88.130	103.300	-15.154***
private-sector wage subsidies	10.620	9.418	1.205
At least one PES meeting during unemployment episode	0.849	0.822	0.027***
Number of PES meetings during unemployment episode	7.794	7.581	0.214
At least one PES job offer during unemployment episode	0.594	0.556	0.038***
Number of PES job offers during unemployment episode	4.880	4.756	0.124
Observations	9,027	3,397	

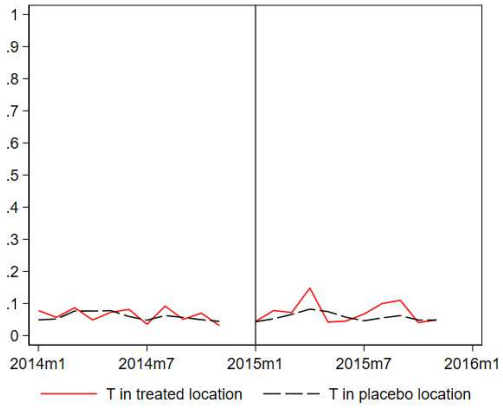
Source: AUR, ASSD. *** p<0.01, ** p<0.05, * p<0.1.

Figure A 1: Exits to any destination and exits to employment, within 1 month.

(a) All exits



(b) Exits to employment



Source: AUR, ASSD. *Notes*: The diagram presents the probability of leaving unemployment within 1 month. Panel (a) considers all exits from unemployment, Panel (b) focuses on exits to employment. Treated (T) are all persons who were born in Jan–March of the PES office where the experiment was conducted. Persons born in Jan-March of the untreated PES branches in Vienna are the controls. Note that for these diagrams, no observations from December are used as persons who entered in December 2014 were subject to the experiment when their unemployment durations exceeded 1 month.

Table A.2: Estimated Treatment effects.

Month	All exits	Employment	OLF
	ATE (SE)	ATE (SE)	ATE (SE)
1	2.5 (0.1)	1.8 (0.1)	0.7 (0.0)
2	3.3 (0.1)	1.2 (0.1)	2.0 (0.0)
3	5.1 (0.0)	2.4 (0.1)	2.6 (0.1)
4	5.8 (0.2)	3.9 (0.1)	1.9 (0.1)
5	7.4 (0.4)	4.9 (0.2)	2.4 (0.3)
6	7.1 (0.4)	4.6 (0.1)	2.5 (0.2)
7	8.6 (0.2)	5.1 (0.1)	3.5 (0.2)
8	8.4 (0.4)	5.3 (0.2)	3.1 (0.2)
9	8.9 (0.3)	6.3 (0.1)	2.7 (0.3)
10	8.4 (0.3)	5.9 (0.0)	2.4 (0.3)
11	8.2 (0.3)	6.5 (0.0)	1.8 (0.3)

Notes: Estimated treatment effects of leaving unemployment within t months after entry in percentage points. All estimates are from separate regressions. Robust standard errors clustered on treatment status of PES branch. All regressions include covariates. N treated (N controls) 1,363 (3,737).