

UNEMPLOYED AND THEIR CASEWORKERS – SHOULD THEY BE FRIENDS OR FOES?

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Abstract

Usually caseworkers have the dual role of counselling and monitoring unemployed persons, which often conflict with each other. Therefore, some caseworkers consider providing services to their clients and satisfying their demands as their primary task. Other caseworkers, have a less cooperative attitude and pursue their strategies also against the will of the unemployed person: They may assign job referrals and less attractive labour market programmes without prior consent of the unemployed person. Using unusually informative administrative data of caseworkers and unemployed that are linked with a detailed survey of caseworkers, we investigate the effects of caseworkers cooperation attitude on the employment probabilities of their clients, using econometric matching methods. We find that caseworkers who place less emphasis on a cooperative and harmonic relationship with their clients increase employment in the short and medium term.

Keywords: Public employment services, unemployment.

JEL classification: J68

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1 Introduction*

In most countries, caseworkers are assigned the dual role of *counselling* and *monitoring* of unemployed persons. These two roles often conflict with each other: On the one hand, caseworkers need to establish a trustful and empathetic relationship with their clients for providing effective counselling. On the other hand, they have to police job search behaviour and initiate and enforce sanctions if it falls short of the requirements mandated by unemployment insurance law. Since the legal rules typically leave some leeway to the caseworker on how to weight these two potentially conflicting roles, it is not surprising that individual caseworkers weight them differently. Some caseworkers pursue a more dominating and demanding stance vis-à-vis the unemployed, while others aim at a more cooperative relationship devoid of conflicts. Caseworkers perform this dual task by setting certain rules and initiating certain actions for their clients and thereby influence their behaviour. In addition to explicit rules and incentives,¹ this may often also work through more personal channels such as personal relationships, empathy or sympathy. These personal or behavioural factors had received less attention in the economics literature until recently.

This paper examines the impact of caseworkers' *willingness to cooperate* with the unemployed on the employment chances of their clients. The key information on this issue is taken from a caseworker survey. Using the survey questions, we define a caseworker as being *cooperative* towards his clients if he explicitly states that he should satisfy the unemployed's preferences. We consider a caseworker as being *less cooperative* if he claims that cooperation is less important and that he should assign placements and active labour market programmes independent of the unemployed person's wishes. Supposing that all caseworkers aim for

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¹ See Fredriksson and Holmlund (2003) for a survey of the literature setting rules and incentives characterising an 'optimal' unemployment insurance (UI) systems. In particular, they examine three different means of improving the efficiency of UI: the duration of benefit payments, monitoring in conjunction with sanctions, and workfare. They find that a system with monitoring and sanctions restores search incentives.

(rapid) reintegration of their clients, they may have different models of their clients' reactions in mind. On the one hand, unemployed persons may naturally tend to reduce or delay job search efforts or in particular keep reasonable job offers on hold while waiting for better job offers, as long as unemployment assistance is paid. On the other hand, unemployed persons may need or benefit from assistance and skills training regarding the labour market, applications procedures and the like.

Principal-agent theory suggests that caseworkers could increase the unemployed's job finding and job taking rates through a less cooperative behaviour: Unemployed persons have an incentive to avoid costly job search or to wait for better job offers, and caseworkers are required to set appropriate incentives through compensation and supervisory schemes.² Thus, they should assign placements and labour market programmes independent of the unemployed' wishes. Confirming this line of argument, several studies found that monitoring and imposing sanctions when search effort is not sufficient increases employment chances.³ On the other hand, effective counselling by the caseworker may require a trustful atmosphere. An unemployed person who expects a stiff caseworker will obviously provide distorted information about his preferences, needs, skills, aspirations, job search efforts and the like. In such an atmosphere, counselling by caseworkers may be useless as well as any labour market programmes that were intended as skills training. In addition, recent experimental evidence indicates that a fraction of individuals may have reciprocal preferences.⁴ When being treated nicely by the caseworker, they may be more willing to behave nicely. Hence, caseworkers might achieve higher placement rates by cooperating with their clients instead of potentially punishing them or by

² Shavell and Weiss (1979) argue that unemployment insurance lengthen unemployment duration, because of its effect on job search effort and the reservation wage. However, if caseworkers could monitor job search behaviour, no such problem would exist: unemployment insurance benefits could be withheld if effort or the reservation wage was unsatisfactory.

³ Based on social experiments Meyer (1995), Gorter and Kalb (1996), and Dolton and O'Neill (1996) found significant positive effects of monitoring in the US, Netherlands, and the UK, respectively. However, Ashenfelter, Ashmore and Deschenes (2000) found no significant effects of increased monitoring in the US. Lalive, van Ours and Zweimüller (2005) found significant positive effects of sanctions for Swiss unemployment recipients. Van den Berg, van den Klauww and van Ours (2004) found positive effects of sanctions for Dutch welfare recipients and Abbring, van den Berg and van Ours (2005) found positive effects of sanctions on Dutch unemployment benefit recipients.

⁴ See Fehr and Schmidt (2001) for a review of empirical evidence and theoretical developments.

ignoring their requests. Every case worker is well aware of these trade-offs, but may be weighting the importance of these models differently.

This paper also helps to understand the determinants of exiting unemployment. One part of the literature has estimated the relationship between the unemployed person's characteristics (age, gender, education etc.) and the hazard rate for leaving unemployment.⁵ Another part of the literature has evaluated how certain labour market programmes, monitoring or sanctions affect employability.⁶ However, caseworker characteristics have received less attention in the economics literature as detailed *linked unemployed-caseworker data* is very rare. Focusing on the caseworker-client relationship enriches the traditional evaluation literature since assignment of labour market programmes or the imposition of sanctions could be considered already as an outcome of caseworker's behaviour.

Our **preliminary** empirical findings based on matching methods suggest throughout that pursuing a more demanding stance vis-à-vis unemployed persons increases employment chances in the short and in the medium term (up to 3 years after the beginning of unemployment). Negative average employment effects of more cooperative caseworkers behaviour are found for the population of newly registered unemployed persons in 2003. With respect to possible differential effects for different types of unemployed persons, we find that less qualified unemployed persons and qualified unemployed classified as having bad job prospects are in particular harmed by more cooperative attitudes of their caseworkers.

This analysis is made possible by a unique dataset, which links detailed individual level data on unemployed with information about their caseworkers and their employment office, obtained from a detailed questionnaire on aims, attitudes, and behaviour of *all* caseworkers and employment office managers in Switzerland. This data collection effort thus allows us to analyse directly the relationship between an unemployed person and his or her caseworker. The data is informative in many dimensions so that we can control for key charac-

⁵ See Machin and Manning (1999) for a survey on the causes of longterm unemployment in Europe.

⁶ See Heckman, Lalonde, and Smith (1999) for a survey of empirical findings of programme effects in the US and Europe, or Martin and Grubb (2001) for a survey of OECD experiences, or Wunsch (2005) for a survey of programme effects in Germany. See footnote 3 for the literature on sanctions and monitoring.

teristics of caseworkers and unemployed that might be potentially jointly related to the 'attitude' of the caseworkers and the subsequent employment outcomes of their clients.

The structure of the paper is as follows: The following section discusses active labour market policy in Switzerland and the dual task of counselling and monitoring that caseworkers are required to perform. Section 3 describes the applied methodology and identification strategy. Section 4 as well as Appendix A describe the data, the selection of the sample and present some descriptive statistics. Section 5 gives the estimation results. Section 6 concludes. Appendix C provides further evidence that support our basic findings as well as some sensitivity analysis.

2 The Swiss labour market and the role of caseworkers

2.1 *Active labour market policy in Switzerland*

Until the recession of the early 1990s, unemployment was extremely low in Switzerland, a small country with 26 different administrative regions, called *cantons*. With the recession, the unemployment rate rose rapidly to 5% (see figure below) and triggered a comprehensive revision of the federal unemployment insurance act in 1996/1997. The about 3000 municipal unemployment offices were consolidated to a smaller number of regional employment offices (REO). Compared to the previous municipal offices, which were largely concerned with administering unemployment benefits, these regional offices, of which there were about one hundred operating in 2003, aimed at providing professional services with respect to counselling, placement, activation and training. A large number of caseworkers were hired and further trained for these purposes.

Figure 1: Unemployment rate in Switzerland



Note: Monthly unemployment rate, January 1990 – January 2007, Source: Swiss National Bank Monatshefte

2.2 Caseworkers' autonomy

Whereas the federal State Secretariat for Economic Affairs (seco) has a clear vision about the aims that the employment offices and caseworkers should pursue, with a strong focus on rapid re-employment, the caseworkers generally enjoy substantial freedom in how they attempt to achieve these goals and how they treat their clients. This freedom and heterogeneity arises from two factors. First, the 26 cantons in Switzerland generally enjoy a large autonomy in their implementation of the UI law. Although none of them would violate clear legal provisions, such as imposing stronger benefit sanctions than legally permitted, they have substantial leeway in many other margins. Since the operational costs of the REO and their staff as well as the costs of labour market programmes and benefits payments are fully financed by the federal unemployment insurance funds,⁷ they may to some extent pursue their own goals and philosophies, perhaps also to avoid large numbers of people on social security benefits, which are financed by the cantons (and their municipali-

⁷ According to the directives and provisions of the federal unemployment insurance act. This includes the costs of maintaining and operating the REO as well as active labour market programmes. The cantons bear the costs of the REO and active labour market measures in the first place, but are then fully refunded by the federal unemployment insurance funds up to a certain fixed ceiling depending on the number of unemployed.

ties).⁸ A demanding stance vis-à-vis the unemployed may quickly reduce the number of registered unemployed, but it may also lead to poor job matches, instable jobs and repeated unemployment, which could eventually lead to more social security dependants as they are no longer entitled to unemployment benefits.⁹ Being more lenient and trying to satisfy the unemployed person's preferences may on the other hand lead to better job matches and more sustained employment and thus less job separation and less turnover in the medium term, or at least reduce the number of persons in need of social welfare.¹⁰

The second source of caseworkers' autonomy arises within the cantons and particularly within the REO. Many of the employment office managers consider it important to grant substantial autonomy to caseworkers such that they can develop their own personal counselling style and react to the needs of their clients without being bound by many bureaucratic rules. This is also confirmed by the caseworkers, who consider this freedom to be a very important aspect for their job satisfaction.¹¹

2.3 *The relationship between caseworker and unemployed persons*

The relationship between the caseworker and their clients is characterized by the two duties of the caseworker: to help the unemployed person in searching and finding an appropriate employment and to monitor whether the unemployed person searches thoroughly enough and is indeed willing to take any job offer with acceptable pay and within acceptable commuting distance. Some caseworkers put more emphasis on their

⁸ Rules for social assistance are set at the cantonal level. They vary widely with regard to cost distribution between cantons and municipalities, form and level of benefits and organisation.

⁹ The cantons may therefore attempt to avoid unemployed drifting towards social or psychological deterioration as they might end up being in need of social assistance. They might thus rather pursue a strategy of sustainable re-integration or attempting to stabilize the unemployed persons, instead of merely considering rapid placement.

¹⁰ There is anecdotal evidence that the cantons pursue different aims. The State Secretariat for Economic Affairs evaluates the effectiveness of the REO each year by four target indicators, which, however, have only reputational but no financial consequences (and had only small financial consequences during the years 2001 to 2002). Certain cantons publicly argue that these federal aims are not the most appropriate and that they emphasize sustainable re-employment more.

¹¹ See e.g. the interview protocols in the appendix to Frölich, Lechner, Behncke, Hammer, Schmidt, Menegale, Lehmann, Iten (2007).

role as a counsellor and aim for a trustful relationship, whereas other caseworkers may see their policing role to be more important and may be more dominating and demanding vis-à-vis the unemployed person.

To analyse the effects of the caseworker-client relationship on subsequent employment a written questionnaire was administered to all caseworkers and office managers in Switzerland about their aims, attitudes, behaviour etc.¹² A key question asked the caseworker *how important he/she considered the cooperation with the unemployed person regarding placements and assignment of labour market programmes*, leaving three answering options:

- ₁ Cooperation is very important; the preferences of the unemployed should be satisfied.
- ₂ Cooperation is important, but placements and ALMP should sometimes be assigned or declined in spite of unemployed person's preferences.
- ₃ Cooperation is less important; I should assign placements and ALMP independent of the wishes of the unemployed person

52% of the caseworkers chose option 1, 39% caseworkers chose option 2 and 9% caseworkers chose option 3. 1% of the 1417 caseworkers did not respond to this question.

This variation in behaviour across caseworkers will be exploited to examine the impact of caseworker behaviour on employment prospects. In particular, we will estimate how the employment probabilities of a unemployed vary with caseworker's willingness to cooperate. For this purpose we compare unemployed persons whose caseworkers claimed to cooperate with similar unemployed persons whose caseworkers considered cooperation as less important. We also take into account that caseworker's cooperation behaviour is likely to depend on unemployed person's characteristics and characteristics of the local labour market, i.e. we control for selection. The econometric methodology is presented in more detail in the next section.

¹² This data was collected as part of a large evaluation project for the Swiss State Secretariat for Economic Affairs and is described in more detail later. See also Frölich, Lechner, Behncke, Hammer, Schmidt, Menegale, Lehmann, Iten (2007). Qualitative face-to-face interviews with the management and caseworker were conducted beforehand in 12 REO. Subsequently, all managers and caseworker were surveyed with an extensive written questionnaire.

3 Methodology

3.1 Conditional independence assumption as identification strategy

Consider an individual i who registers as unemployed at time t_0 at the nearest regional employment office. This person is then assigned to a caseworker of that office. The caseworker is of a particular type with respect to his willingness to cooperate with his client. Let D_i denote the attitude of this caseworker towards the unemployed. In most of the analyses, D_i will be binary, e.g. $D_i = 1$ may represent a more cooperative caseworker whereas $D_i = 0$ represents a more demanding caseworker.

We are interested in the impact of a cooperative caseworker on the subsequent employment prospects of this unemployed person, which we measure by the employment status $Y_{i,t_0+\tau}$ in the month τ after registration. In particular, we would like to compare the employment status with the potential employment status if the same unemployed person was counselled by a caseworker with a different attitude. We base our analysis on the prototypical model of the microeconomic evaluation literature with binary treatment (see Rubin, 1974). Let $\{Y^0, Y^1\}$ denote the potential employment outcomes for a particular unemployed person. Y^1 would be the employment status if this unemployed person was counselled by a cooperative caseworker, whereas Y^0 would be the employment status if counselled by a non-cooperative caseworker. Only one of these two outcomes can be observed since each unemployed person is counselled either by a cooperative ($D_i=1$) or non-cooperative ($D_i=0$) caseworker. With this notation, we can define average treatment effects for the treated (ATET) and the non-treated (ATEN) as

$$E[Y^1 - Y^0 \mid D = 1] \quad (\text{ATET})$$

$$E[Y^1 - Y^0 \mid D = 0] \quad (\text{ATEN}).$$

The ATET is the treatment effect for an individual randomly drawn from the population of unemployed who were counselled by a cooperative caseworker. The ATEN is defined analogously for the population of unemployed persons who were counselled by a non-cooperative caseworker. For identification of these treatment effects, further assumptions are required. If we were able to observe all confounding factors X , i.e.

all variables that jointly determine outcomes and the status of the caseworker D , both ATET and ATEN are identified. This property, known as the conditional independence assumption (CIA), is exploited in the following. Let

$$Y_{i,t_0+\tau}^d \tag{1}$$

be the potential outcome at some time τ after unemployment registration at time t_0 , if the caseworker was of type d . For being able to estimate the expected potential outcomes for different values of d , we need to observe variation in D_i that is exogenous. The observed type of the caseworker D_i might be related to many factors that also have an impact on employment chances, such that

$$E[Y_{t+\tau}^d] \neq E[Y_{t+\tau} | D = d]. \tag{2}$$

However if we were to condition on all variables X that determined the type of the caseworker and the potential employment chances of the unemployed person, conditional on X the potential outcomes would be identified:

$$E[Y_{t+\tau}^d | X] = E[Y_{t+\tau} | X, D = d]. \tag{3}$$

The identification strategy thus relies on being able to observe all these confounding variables X . For being able to do so the extremely detailed linked caseworker-client dataset, described in more detail in the next section, is crucial.

3.2 Is the conditional independence assumption plausible with our data?

Plausibility of CIA requires that all relevant factors that jointly determine outcomes and treatment are observed in the data. This requires an understanding how the treatment is determined.

The observed attitude and behaviour D_i of the caseworker depends on three processes: First, which type of caseworkers are hired, how caseworkers are allocated to the unemployed, and third how their attitude develops after having been trained and gaining experience on the job. Since attitudes of caseworkers could be related to their general skills of finding work for their clients, we include caseworker characteristics such as

their age, gender, education, work experience, and experience of own unemployment as covariates. We are also able to control for the allocation process of unemployed to caseworkers since we know from the questionnaire according to which criteria (occupation, alphabet, age, employability and the like) allocation takes place. On the one hand, caseworkers differ in their personalities, but they also react to the types of unemployed and the labour market environment. If vacancies are scarce and rapid re-employment difficult, caseworkers may be less demanding than in a more favourable environment. Similarly, a caseworker who counsels mainly individuals with a low employability rating may react differently than a caseworker responsible, e.g., mainly for youth. Therefore we will include in the analysis a larger number of covariates on the unemployed person's employment history, the local labour market etc., as is discussed in more detail in Section 4. As will become more clear in Section 4, the available information is much richer than usually available in studies that rely on the conditional independence assumption (e.g. Heckman and Smith, 1999; Brodaty, Crépon and Fougère, 2001; Larsson, 2003; Dorsett, 2005).

3.3 Nonparametric matching estimation

The estimator used is a matching estimator as implemented in Lechner, Miquel and Wunsch (2007). The advantage of matching estimator is that they are essentially nonparametric and that they allow for arbitrary individual effect heterogeneity.¹³ It is an extension of a first-nearest neighbour propensity score matching estimator in two directions: First, matching does not only proceed with respect to propensity score but also incorporates additionally some other covariates. Second, instead of using first-nearest neighbour matching, all neighbours within a pre-specified radius are used.¹⁴ Furthermore, they increase the matching quality by exploiting the fact that appropriate weighted regressions that use the sampling weights from matching have the so-called double robustness property. This property implies that the estimator remains consistent if the matching step is based on a correctly specified selection model *or* the regression model is correctly specified (e.g. Rubin, 1979; Joffe, Ten Have, Feldman and Kimmel, 2004). Moreover, this procedure should increase

¹³ See Heckman, LaLonde and Smith (1999), for matching with a binary treatment, and Imbens (2000) and Lechner (2001) for multiple treatments. Imbens (2004) provides an excellent survey of the recent advances in this field.

¹⁴ This is thus similar to a kernel estimator with a uniform kernel function.

precision and may reduce small sample as well as asymptotic bias of matching estimators, see Abadie and Imbens (2006)¹⁵ and thus increase robustness of the estimator in this dimension as well. The actual matching protocol is presented in detail in Appendix B.

4 Data

4.1 Data and sample selection

The population for the microeconomic analysis are all individuals who registered as unemployed anytime during the year 2003 and their outcomes will be followed up until the end of 2006. For these individuals very detailed individual information from the databases of the unemployment insurance system (AVAM/ASAL) and the social security records (AHV). These data sources contain socio-economic characteristics including nationality and type of work permit, qualification, education, language skills (mother tongue, proficiency of foreign languages), experience, profession, position and industry of last job, occupation and industry of desired job and an employability rating by the caseworker. The data also contains detailed information on registration and de-registration of unemployment, benefit payments and sanctions, participation in ALMP, and the employment histories from January 1990 with monthly information on earnings and employment status (employed, unemployed, non-employed, self-employed).

In total 239004 persons registered as new unemployed during the year 2003. Notice that we consider only the first registration in 2003 for each person and subsume any further registrations within the outcome variables, i.e. the analysis is person and not spell based. For 215251 persons the first case worker was well defined, whereas for the other 4289 no case worker in charge could be defined. We select only individuals who were registered in REO that were comparable to other REO in 2003.¹⁶ Finally, we exclude foreigners without

¹⁵ The results of Abadie and Imbens (2006) do not apply directly to propensity score matching, but since we also match on additional variables there are some similarities with the estimators they consider.

¹⁶We do not include the canton Geneva in our study since in this canton the employment offices are functionally specialized according to professions and employability of the unemployed, which is in striking contrast to all other cantons which largely follow a geographic structuring. We further exclude four REO from the analysis, three of them as they

permanent or yearly work permit from the analysis. See Appendix A on further details. Our selected sample consists of 213810 unemployed persons.

4.2 Definition of outcomes, treatment and conditioning variables

We consider an individual as employed in month t if she has deregistered at the REO because of having found an occupation and has not reregistered yet. Thus, we solely rely on information from the REO database (AVAM) to determine the employment situation. The employment status is measured with error since a deregistered individual could have left the active labour force or could have found an occupation after deregistering without claiming one. However, we compared our so defined outcome variable with information from the pension funds. We found that we measure the employment situation with a relative high reliability (see Frölich et al 2007 for further information).

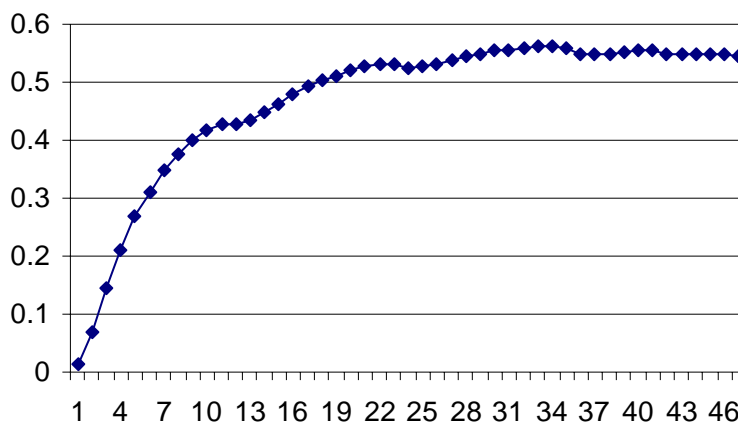
To analyse the dynamic impacts of the caseworker's attitude on the employment probabilities, the employment status $Y_{i,t_0+\tau}$ is measured, relative to the time of first registration t_0 until the end of 2005. Hence, for individuals who registered in January 2003, their employment situation is followed up for the subsequent 47 months, whereas only 36 months are observed for those registering in December 2003. Observing the employment state for two up to three years allows to estimate the effects of cooperation not only in the short term, but also in the medium term.

The figure below shows the employment situation as measured by our outcome variable. It presents the degree of employment in month t after registering at the REO for the population who registered as new unemployed in 2003. Circa 2% of the population deregisters one month after registering because of having found an occupation. About 10% have found a new job after two months and 45% have found an employment one year after becoming unemployed.

were founded only in early 2003 such that there was no well defined stock of unemployed in the beginning of 2003 and one REO, which specialized on the difficult cases in Solothurn.

We link each newly registered unemployed person in 2003 to his first caseworker by exploiting the information from user data bank of the REO.¹⁷ Then we measure the cooperation behaviour of each caseworker. Measurement is made possible by a written questionnaire that was sent to all caseworkers and REO managers who worked in a REO between 2001 and 2003 and were still active in December 2004, i.e. at the time the questionnaire was sent. The questionnaire contained questions about aims, strategies, processes and organisation in the REO. 1560 caseworkers and REO managers returned the questionnaire which is equivalent to a rate of return of 84%.¹⁸ We define the caseworker's attitude to be *cooperative* if he has answered in the questionnaire that "*cooperation is very important; the preferences of the unemployed should be satisfied*". About half of the caseworkers chose this option when asked how important they considered cooperation with unemployed persons regarding placement and assignment of labour market programmes.

Figure 2: Average employment rate in month t after registering as unemployed



We also control for a large number of individuals characteristics X_i , as shown in the following table. Information on the covariates arise from several data sources. The first data source is the information system for placement and labour market statistics (AVAM) and the unemployment offices payment systems (ASAL). We have data from January 1998 to December 2003 for everybody registered as unemployed during the year 2003. These data provide detailed information about the employment history, ALMP participation and per-

¹⁷ However, for 950 unemployed it is not possible to identify their caseworker.

¹⁸ Note that the questionnaire could not be conducted anonymously since we needed to link the answers of each caseworker with their clients. However, caseworkers were guaranteed the confidentiality of their answers.

sonal characteristics. The second data source are social security records (AHV) for the period 1990-2002. It provides information on the individual labour market histories and earnings on a monthly basis for 10 years prior to the current employment spell.

Table 1 Descriptive statistics of selected characteristics (153370 individuals, inflows Jan-Oct 2003)

Control variables X	Means or shares in %
Data source: AVAM	
Age in years	35.1
Female	45.5
Swiss	65.9
Foreigner with permanent permit	24.0
Foreigner with yearly permit	10.1
Female and Swiss	31.1
Female and permanent permit	9.8
Female and yearly permit	4.6
Male and Swiss	34.9
Male and permanent permit	14.2
Male and yearly permit	5.5
Civil status single	48.7
married	40.1
divorced	9.3
widowed	0.8
Mother tongue German	46.8
French	14.6
Italian	8.3
not German/French/Italian	29.2
Mother tongue equals cantonal language	63.1
Foreign language: Other Swiss language	57.8
English, Spanish, Portuguese	22.9
Education less than eight years	3.1
8-11 years	22.0
Secondary vocational track	37.0
Secondary academic track	2.2
Tertiary vocational track	5.3
Tertiary academic track	4.0
Qualification level: skilled	56.9
semiskilled	18.9
unskilled	23.1
Chances to find a job very easy:	1.4
easy	9.9
medium	73.9
difficult	13.8
special case	1.0
Monthly earnings in last job	3620 CHF
Monthly earnings missing	6.4
Data Source: ASAL (only if monthly earnings in last job is not missing)	
Number of dependent person	1.8 persons
Months of contribution to unemployment insurance (0 to 24 months Stddev 8.1)	16.5 months
No contribution	6.5
Positive contribution duration	87.1
Number of months in interim jobs during the last two years	0.735 months
Number of registrations during the last two years	0.3920
Duration of spells during the last two years	57.66 days
Number of employment programmes during the last two years	0.0175
Duration of employment programmes during the last two years	1.8 days
Number of courses (>= 14 days) during the last two years	0.0536
Number of courses (>=5 days and <14 days) during the last two years	0.0150
Number of sanction days during the last two years	1.373
Pension system data since 1990 (AHV)	
Pension system data available	96.19

First month with pension system information (January 1990 = month 1)	45.03
Number of AHV numbers since 1990 (e.g. due to changed name)	1.1177
Number of months being employed during the last 10 years	74.14
Number of months being employed during the last 5 years	42.77
Number of months being unemployed during the last 10 years	0.0667
Number of months being unemployed during the last 5 years	0.0343
Number of months being self-employed during the last 10 years	0.1849
Number of months being self-employed during the last 5 years	0.0807
AHV information with gaps since first entry after 1993	53.4
AHV information without gaps since first entry after 1993	62.0
Number of employment spells since 1993	1.943
Number of employment spells since 1998	1.098
Average duration of employment spells since 1993	18.40
Average duration of employment spells since 1998	10.16
Average salary since 1993	30030 CHF
Average salary since 1998	34940 CHF
Number of unemployment spells since 1993	1.191
Number of unemployment spells since 1998	0.678
Average duration of unemployment spells since 1993	2.671
Average duration of unemployment spells since 1998	1.842

Note: 1 Swiss Franc (CHF) \approx 2/3 Euro. For non-binary variables the means are given. For binary variables (=dummies) the means multiplied by 100 are given.

In addition to this individual information, we also controlled for a number of regional characteristics and of the REO. Cantonal characteristics are the cantonal unemployment rate in December 2002, the population of the canton, the cantonal GDP per capita. These cantonal variables stem from the Swiss department for statistics. Characteristics of the REO span the number of registered unemployed in January 2003, the staff capacity in December 2002, the language region, and municipality size. We also control for caseworker characteristics such as their gender, age, education, work experience and experience of own unemployment.

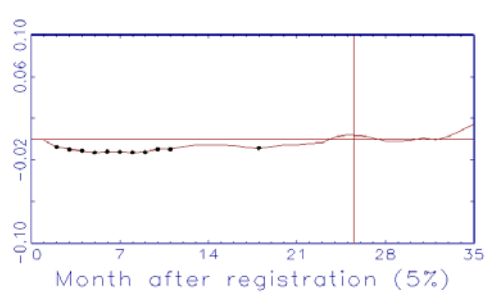
5 Empirical results

5.1 Main results

The estimated effects of a cooperative caseworker on consequent employment chances are presented in Figure 3 below. It shows the average treatment effects on the treated (ATET) for the subsequent 35 months after registration. Black dots indicate that the estimated effects are significantly different from zero at the 5% significance level. The vertical line at month 24 indicates that sample size decreases after two years because we observe the employment state for some individuals only for the first two years. The negative effects mean that unemployed who were counselled by cooperative caseworkers had on average worse employment

chances due to the cooperative attitude of their caseworkers. In other words, their reintegration chances would have been higher if their caseworker had expelled a more demanding attitude towards them. Their reintegration chances were slowed down by 1% each month during the first year of job seeking.

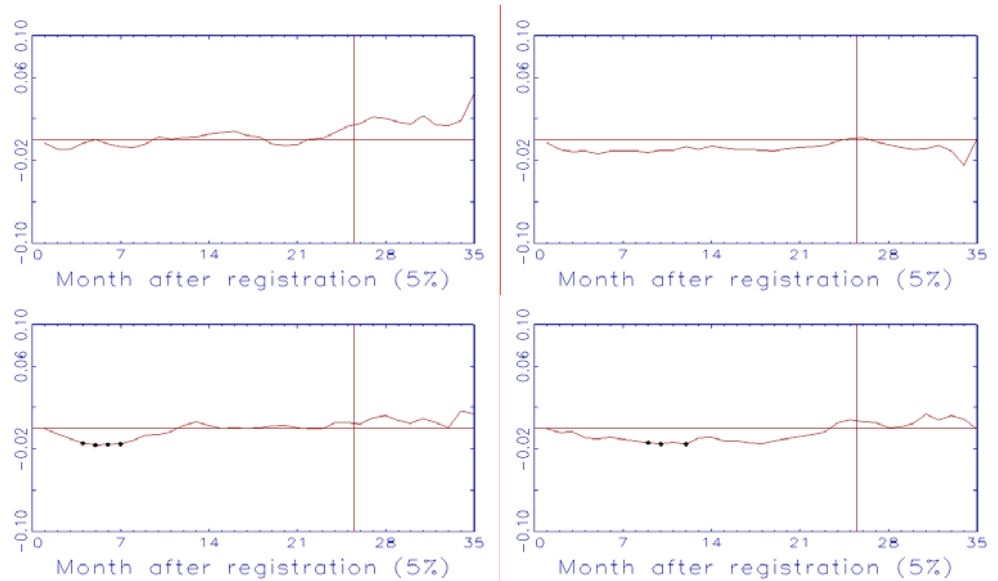
Figure 3: Effect of a cooperative caseworker on employment



Note: Abscissa: months after registration of unemployment. Ordinate: Treatment effect on employment chances in percentage points. Dots indicate significance at 5% level.

Whereas the estimates above apply to the whole population counselled by cooperative caseworkers, in Figure 4 we also investigate whether a cooperative attitude has different effects for different types of unemployed. We define four types of unemployed. First unemployed persons who are younger than 24 years. Unemployed persons who are between 24 and 55 years old are distinguished by their qualification and their job prospects (measured by industry growth). Qualified unemployed with good prospects belong to second types of unemployed, while those with bad prospects belong to the third type. Unqualified unemployed persons are the fourth type of unemployed. 42762 unemployed belong to the first, 40624 to the second, 51314 to the third and 57729 to the fourth group. ATET estimates for these subgroups of unemployed persons are shown in the figures below. These estimates suggest that the employment chances for the subgroups of young and qualified unemployed with good job prospects are not significantly affected by their caseworker's attitude. However, the employment chances of qualified unemployed with bad job prospects and of unqualified unemployed could be increased on average if their caseworkers had a less pronounced willingness to satisfy their preferences.

Figure 4: Effect of a cooperative caseworker on employment, for different groups of unemployed persons



Note: Top left: Young unemployed persons, top right: qualified with good job prospects, bottom left: qualified with poor job prospects, bottom right: unqualified persons.

5.2 Robustness analysis and supporting evidence

These results so far indicate that a less cooperative attitude of caseworkers could have increased their client's employment chances. Below, we investigate the robustness of this result by applying several sensitivity checks. First, we examine the employment Effect of a *non-cooperative* caseworker. This is not simply the inverse of being a cooperative caseworker, since there were 3 answering options in the questionnaire: cooperative, non-cooperative and a category in-between. We defined caseworkers to be non-cooperative, or more precisely "*less-cooperative*" when they answered that "*cooperation is less important; I should assign placements and ALMP independent of the wishes of the unemployed*", which was chosen by 122 caseworkers. The following Figure 7 shows that non-cooperative caseworkers increased employment chances by up to 5 percentage points. This is also confirmed in Figure 8 for almost all of the four subgroups of unemployed.

Figure 5: Effect of a non-cooperative caseworker on employment

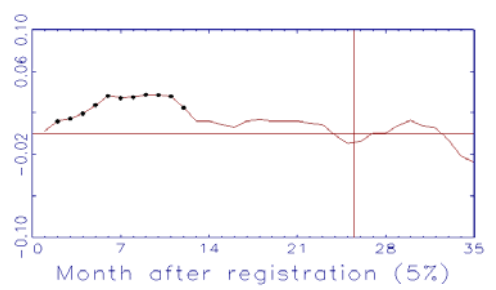
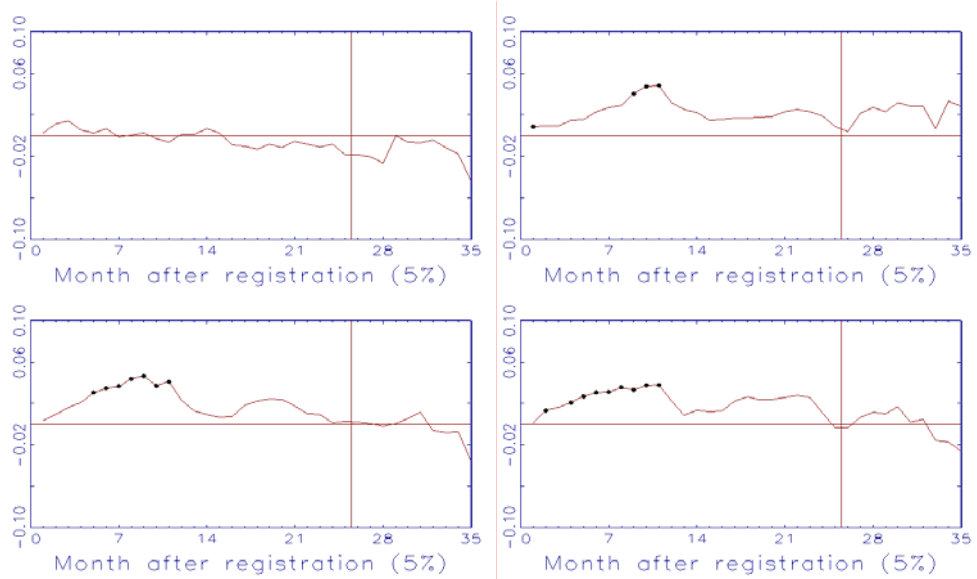


Figure 6: Effect of a non-cooperative caseworker on employment, for different groups of unemployed



Note: Top left: Young unemployed persons, top right: qualified with good job prospects, bottom left: qualified with poor job prospects, bottom right: unqualified persons.

As a further layer of analysis, we examine the cooperation attitude at the *REO level*, instead of the caseworker level as so far. A, say, positive impact of a non-cooperative caseworker on employment chances may also be the result of a general inclination of the entire employment office and its leadership towards a more proactive modus operandi. In order to assess the impact of a more cooperative REO we aggregate caseworkers answers by weighting them with the number of newly registered clients they were counselling in 2003. The results given in Appendix C shows that a REO which considers cooperation with clients to be very important reduces their employment chances. If the REO considers cooperation less important, on the other hand, employment chances are increased. The effects are less pronounced if considered at the REO level compared to the caseworker level, though.

The results presented so far have been obtained by non-parametric matching methods. Appendix C also shows estimates based on Maximum Likelihood logistic regression, which confirm our basic findings.

6 Conclusions

Swiss caseworkers (as caseworkers in most countries) have some flexibility in choosing to which extent they cooperate with their clients. Using large and informative administrative data on unemployed persons merged with data on caseworkers and the employment offices, obtained from a detailed questionnaire, we investigate which attitude towards unemployed is most successful for reintegration of their unemployed persons. This data allows us to control for potential selection bias by nonparametric matching estimators and to account for treatment effect heterogeneity. Estimates are obtained up to the first three years after unemployment registration.

More than half of the caseworkers responded that they considered cooperation with unemployed as very important and that preferences of the unemployed are of key importance for their decisions. However, empirical estimates suggest that the employment chances of those unemployed persons counselled by them were decreased by their cooperative attitude. Such unemployed persons had about 1 percentage point worse reintegration probabilities during the first year after registration than similar unemployed persons who were counselled by (somewhat) more demanding caseworkers. While the estimated effects are significant but small, one should keep in mind that a change in the attitude of caseworkers could be achieved at very low costs. Moreover, considerably less cooperative caseworkers increased their clients' reintegration chances up to 5% by their more demanding attitude. The positive impact of a less cooperative attitude was found for the whole population of newly registered unemployed in 2003. The subgroups of unqualified unemployed persons and qualified unemployed with bad employment prospects appeared to profit most from less cooperative caseworkers.

The most plausible explanation for our finding is that caseworkers indeed influence their clients' behaviour to search for jobs and accept job offers.

A Data Appendix

Table 2: Sample selection criteria for empirical analysis

		Number of individuals
Population: individuals newly registering during the year 2003		239'004
Individuals registered at REO not comparable to other REO (without Geneva, without newly founded REO and Solothurn)	-19464	219'540
Caseworker well defined	-4289	215'251
Foreigners without permanent work permit	- 1441	213'810

B Further details on the estimator

Table B.1: A matching protocol for the estimation of ATET

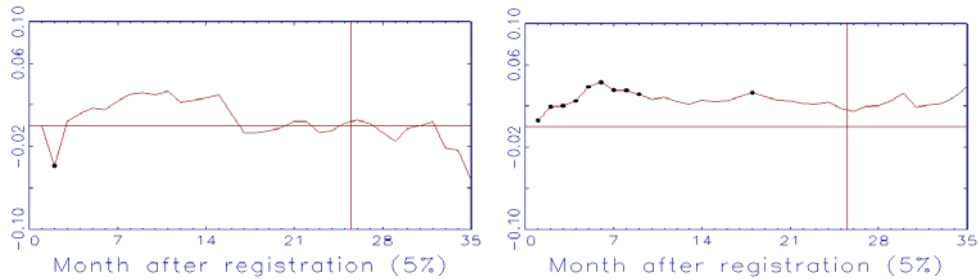
Step 1	Estimate a probit model to obtain the choice probabilities: $\hat{P}(X_i)$
Step 2	Restrict sample to common support: Delete all observations with probabilities larger than the smallest maximum and smaller than the largest minimum of all subsamples defined by S .
Step 3	<p><i>Estimate the respective (counterfactual) expectations of the outcome variables.</i></p> <p>For a given value of m and l the following steps are performed:</p> <p>Standard propensity score matching step (binary treatments)</p> <p>a-1) Choose one observation in the subsample defined by participation in m and delete it from that pool.</p> <p>b-1) Find an observation in the subsample of participants in l that is as close as possible to the one chosen in step a-1) in terms of $[\hat{P}(x), \tilde{x}]$. 'Closeness' is based on the Mahalanobis distance. Do not remove that observation, so that it can be used again.</p> <p>c-1) Repeat a-1) and b-1) until no participant in m is left.</p> <p>Exploit thick support of X to increase efficiency (radius matching step)</p> <p>d-1) Compute the maximum distance (d) obtained for any comparison between treated and matched comparison observations.</p> <p>a-2) Repeat a-1).</p> <p>b-2) Repeat b-1). If possible, find other observations in the subsample of participants in l that are at least as close as $R \cdot d$ to the one chosen in step a-2) (to gain efficiency); R is fixed to 90% in this application but different values are checked in the sensitivity analysis). Do not remove these observations, so that they can be used again. Compute weights for all chosen comparisons observations that are proportional to their distance (calculated in b-1). Normalise the weights such that they add to one.</p> <p>c-2) Repeat a-2) and b-2) until no participant in m is left.</p> <p>d-2) For any potential comparison observation, add the weights obtained in a-2) and b-2).</p> <p>Exploit double robustness properties to adjust small mismatches by regression</p> <p>e) Using the weights $w(x_i)$ obtained in d-2), run a weighted linear regression of the outcome variable on the variables used to define the distance (and an intercept).</p> <p>f-1) Predict the potential outcome $y^l(x_i)$ of every observation in l and m using the coefficients of this regres-</p>

<p>sion: $\hat{y}^l(x_i)$.</p> <p>f-2) Estimate the bias of the matching estimator for $E(Y^l S = m)$ as: $\sum_{i=1}^N \frac{\mathbb{1}(S = m) \hat{y}^l(x_i)}{N^m} - \frac{\mathbb{1}(S = l) w_i \hat{y}^l(x_i)}{N^m}$.</p> <p>g) Using the weights obtained by weighted matching in d-2), compute a weighted mean of the outcome variables in l. Subtract the bias from this estimate.</p> <p>Final estimate</p> <p>h) Compute the treatment effect by subtracting the weighted mean of the outcomes in the comparison group (l) from the weighted mean in the treatment group (m).</p>

Note: Lechner (2001) suggests an estimator of the asymptotic standard errors for $\hat{\theta}_N^{m,l}$ conditional on the weights that we use here. \tilde{x} includes gender and in one specification the 103 different REOS. \tilde{x} is included to ensure a high match quality with respect to these critical variables. Note that once we estimate all $E(Y^l | S = m)$ for all m , they can be directly used to obtain $E(Y^l)$.

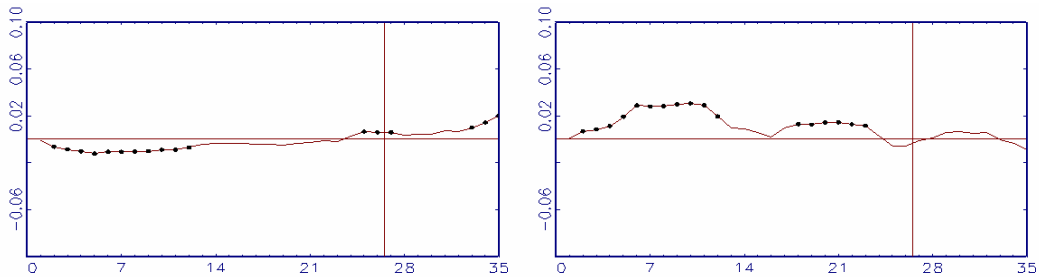
C Further estimation results

Figure 7: Effect of a cooperation strategy defined at the REO level



Note: On the left: results for a more cooperative REO. On the right: results for a less cooperative REO.

Figure 8: Effect of cooperation of caseworker, estimated by logit regression



Note: On the left: results for a more cooperative caseworker. On the right: results for a non-cooperative caseworker.

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