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Cecilie D. Weatherall
Kristoffer S. Markwardt

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CASEWORKER BEHAVIOR AND CLIENTS' EMPLOYABILITY

RESEARCH DEPARTMENT OF SOCIAL POLICY AND WELFARE SERVICES

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by

Cecilie D. Weatherall[2] & Kristoffer S. Markwardt[3]

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Abstract

How do unemployed people become employed? This is a key question that researchers have tried to answer for years. Studies show that the transition from being unemployed to become employed depends on factors such as the unemployed individuals' personal background characteristics, previous work experience, economic environment, and rules and restrictions with respect to active labor market policies. A few studies show that organizational structures and managerial organization within the unemployment offices also influence the employability of unemployed clients. But until now, no studies have empirically looked at the link between caseworker behavior and clients' employability. A very rich survey dataset on caseworker behavior combined with informative panel data on the caseworker's client—the unemployed—makes it possible to study the link between caseworker behavior and clients' job possibilities. Results show that there is a relationship between caseworker behavior and employment among the unemployed. Especially the employability among the insured unemployed is related to the concepts of coping, and professional distance.

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[2] Researcher at SFI-The Danish National Centre for Social Research ced@sfi.dk
[3] Research Assistant at SFI-The Danish National Centre for Social Research ksm@sfi.dk

1. Introduction

The recent economic crisis has increased European politicians' interest in ways that can help unemployed workers back to work. While most studies focus on individual characteristics or active labor market programs, this study examines how individual characteristics and caseworker behavior influence the likelihood for the unemployed of becoming employed.

Previous studies have shown that there are differences in employment rates among the unemployed even when we take clients' background, former workplace characteristics, economic situation, local market structure, active labor market policy, and unobserved individual characteristics into account (ref. Weatherall, 2008; Geerdsen, 2006; Graversen, 2008). Even though the empirical literature finds differences in employment rates among the unemployed—controlling for a number of characteristics—hardly any empirical study has examined the importance of the system that supplies and controls the financial support to the unemployed. The people who maintain the system are the caseworkers at the unemployment offices and in the municipalities. This paper studies the relationship between the caseworkers' actions and the employment chance of the unemployed.

To study the relationship between caseworker behavior and employability of unemployed people this study uses an extraordinarily rich survey dataset on caseworker practice combined with Danish individual register-based panel data from 2002 to 2006. Therefore, it is possible to look at the correlation between observed caseworker practice in the municipalities or at the unemployment offices and the probability of becoming employed. The data are unique because they make it possible to look at the influence of caseworker practice on the majority of the unemployed which has not yet been done.

The analysis is restricted to unemployed workers in 2005 and their employability in 2006 avoiding the effect of the exceptional economic crisis in 2008 and the big Danish Structural Reform in 2007. We use a multinomial logistic model to show that caseworker behavior influences employability among unemployed workers.

The paper is structured in the following way: Section 2 explains in detail why caseworker practice might affect the employability of the unemployed. Section 3 describes the rich survey and register data and provides some descriptive results. Section 4 illustrates the multinomial logistic model of four different exit states after

unemployment. Section 5 shows the results regarding the influence of caseworker behavior on the unemployed people's employability, and the results are further discussed in section 6. In section 7, conclusions are drawn.

2. Caseworker Behavior and Clients' Employability

This chapter describes the conceptual framework that forms the basis of the empirical study of how caseworker behavior influences employability among the unemployed. Overall, we define caseworker behavior along two dimensions. The first dimension measures the extent to which caseworkers "take shortcuts" to be able to manage their daily workload – this is called coping. The second dimension expresses the way caseworkers act towards their clients – this is called caseworker style. We deal with these dimensions in turn (sections 2.1 and 2.2).

Since the framework is not theoretically founded, we form our expectations about the effects of caseworker behavior solely from the results of previous studies (e.g. Bloom et al., 2003). However, research on these effects in a social policy setting is limited, especially when it comes to the issue of employment. Our expectations should, therefore, merely be thought of as guidelines, as the effect of caseworker behavior might differ substantially for various policies and contexts.

Although our objective is to study the relationship between caseworker behavior and employability of the unemployed, research has shown that it is necessary to account for a variety of other individual characteristics, too. Section 2.3 addresses this issue.

2.1. Caseworkers' Use of Coping Strategies

Caseworkers deal with a chronic lack of resources in meeting extensive demands from legislators, managers, and clients. Therefore, they might resort to a number of different strategies to cope with the daily workload.

The concept of coping is based on Michael Lipsky's (1980) theory on *street-level bureaucracy*. The political system is here turned upside down in contrast to the principal democratic idea that politicians make decisions and bureaucrats implement them. Hence, the behavior of caseworkers might bias the policy implementation compared to the legislation. In the presentation of his theory, Lipsky (1980) does not directly study the consequences of coping for the social outcomes. Instead, he studies whether the treatment of the clients corresponds to the demands in the legislation. The only studies that address the effects of coping on achieving main policy objectives are

studies about implementation of integration policy towards refugees and immigrants in Denmark (Winter, 2005; Heinesen et al., 2004). First, the studies show that these people become employed faster if they live in a municipality with caseworkers that extensively apply coping strategies. Second, the studies find a substantial variation in the use of coping strategies.

In this paper—as in Winter (2005)—coping strategies include introduction of routines and modification of the perception of clients, which can be manifested in the use of a few broad standard classifications of the clients with accompanying "rules of thumb" for handling each type, rather than making an individual consideration in each case. In addition, the caseworker might try to dominate the discussion with the client and thereby processing the case more easily. Eventually, the caseworker may develop a more cynical perception of clients and modify the objective of the legislation to more easily attainable objectives. Caseworkers' use of coping strategies implies that they take shortcuts in managing their workday in order to make demands meet resources. The efficient management and the results with regard to immigrants and refugees suggest that the application of coping leads to positive employment outcomes – at least in the short run.

Cream Skimming

One particular type of coping is called cream skimming. If a caseworker is cream skimming it means that he spends more time on the clients that are most likely to succeed compared to the more difficult cases. He might do so to boost his performance rates and thereby become successful in his job. However, this is achieved at the expense of more complicated clients who have difficulties in managing on their own.

It is common in the literature to include cream skimming as part of the coping strategies, which makes it difficult to disentangle the effects of coping and creaming. Although cream skimming is characterized as a coping strategy, the two concepts are substantially different. Cream skimming is perceived as being something negative as it favors the strong clients while sacrificing the weak ones; all in the name of personal achievement of the individual caseworker. This stands in contrast to coping strategies in general, which are more or less the caseworker's way of dealing with an intense work load. Therefore, we wish to evaluate the effects separately.

Due to the lack of research on cream skimming as an isolated concept, it is difficult to state expectations about its effect on the employment outcome of the unemployed. However, since cream skimming implies dealing with the easier tasks first, we believe it has a positive effect on the employability of clients overall especially in the short run. As mentioned, this positive effect is achieved at the expense of the clients that are worst off.

2.2. Caseworker Styles

The issues of coping strategies are very important factors in the description and evaluation of caseworker behavior, but they are not sufficient. The appearance of the caseworkers—the way they act towards their clients—is another important aspect. Winter and May have developed a set of concepts that focus on caseworker style as a principal component of caseworker behavior (May and Winter, 1999, 2000; Winter and May, 2001; Winter, 2003). These styles should be regarded as a supplement to the concept of coping in the description of caseworker behavior.

Formalism

Caseworkers can be more or less formal. Formal caseworkers stick to the rules; they are very consistent in their application of rules and they attach great importance to procedural correctness, e.g. to appointments being kept. Informal caseworkers are more flexible.

According to Winter and May's analysis (2001, see also May and Winter, 1999) of effects of municipal caseworker behavior in environmental inspection of agriculture, formal caseworker style increases farmers' compliance with the legislation. According to the authors' interpretation, formalism gives members of the target group more certainty of what is to be expected from them, and this makes them more inclined to comply with the rules. Formalism does not necessarily have the same effect within employment policy as within environmental policy. However, like several other social policies, employment policy includes certain regulatory elements in addition to income support and service elements. Clients are required to keep appointments with the caseworker, look for jobs and participate in required activation. If they fail to comply, they are sanctioned by decreased or terminated benefits.

Several studies have shown that the application of a more formal style has a positive impact on the outcome in a social policy setting, e.g. a study on the implementation of integration policy in Sweden and Israel (Schierenbeck, 2003), and also a Danish study on labor market integration of young immigrants in the municipality of Copenhagen (Geerdsen et al., 2003). On the other hand, an integration study by Winter (2005 – see also Heinesen et al., 2004) finds that a more formal style does not contribute positively to the labor market integration and employment of refugees and immigrants.[4]

Since most studies report positive effects of formalism we expect that the application of a more formal caseworker style towards clients—as opposed to a more flexible one—improves the clients' employability because the unemployed individuals more or less do as they are told with respect to job application or course work etc. and that helps them find a job.

Coercion

Caseworkers can be more or less coercive. More coercive caseworkers take a more skeptical approach to the clients' motivation and good intensions, and they often threaten to sanction. This stands in contrast to the less coercive caseworkers, who never or rarely use threats.

It is difficult to state expectations about the effects of coercion as the results of previous studies are ambiguous. Winter and May (2001) find that a more coercive caseworker style has a negative effect on compliance, when the target group is not aware of the rules. Geerdsen et al. (2003) find that coercion in conjunction with formalism—forming a consequence-oriented approach—is effective in the interaction with young ethnic-minority welfare clients. Hence, it is difficult to predict the effects of a coercive caseworker style.

In economic literature, threat effects have been shown to significantly influence measures to combat unemployment (Geerdsen, 2006; Svarer, 2010). The economic threat effect is not directly related to caseworkers' use of a coercive style but to the deterrence effect of an increased likelihood of being forced to accept an unwanted

[4] In fact, formalism appeared to have negative effects on integration in local settings with a relatively easy integration task. These localities were characterized by relatively few refugees and many immigrants that were reunified with their families. However, few tools were available for public authorities for the latter group. Accordingly, formalism may backfire when few relevant policy tools are available.

activation offer when mandatory activation is getting close. Although the economic threats are not directly linked to the behavior of the caseworker, they are still somewhat comparable, as clients need to respond to these threats, whether they are posed by a caseworker or given by a known set of rules. This is true as long as the clients find the threats posed by the caseworker credible. In light of the findings within the economic literature, we expect caseworkers' use of coercion to affect the employability of their clients positively. This is of course assuming there is a job market where the unemployed can find a job.

Professional Distance

Some caseworkers get personally involved with their clients to a considerable extent by forming a personal relationship to them and by keeping up with them even after they leave the public system. Other caseworkers get less involved; instead, they maintain a certain professional distance to their clients.

A few studies have examined the effect of how caseworkers strike a balance between keeping a certain professional distance to their clients and getting personally involved in a client's case. Winter (2005 – see also Heinesen et al., 2004) finds that unemployed refugees and immigrants enter employment faster if they live in a municipality that is dominated by caseworkers who keep a professional distance. Similarly, Schierenbeck (2003) claims that the integration of immigrant women into the labor market in Sweden is restrained by the fact that caseworkers tend to establish a more "female friendly" relationship with these women. They focus the conversation on their clients' role in the home as mothers rather than keeping focus on the labor market integration as prescribed by legislation. Finally, in a study on implementation of policy towards vulnerable children and youth Baviskar and Winter (2009) find that professional distance improves the situation of the child.

In line with the previous findings in other areas of social policies, we expect that caseworkers who keep a professional distance are more likely to help their clients into employment than caseworkers who get more involved and form a personal relationship with them. The reason is that these caseworkers have more focus on the overall goal—client finding a job—and therefore, the client has a better chance of finding a job.

2.3. Socioeconomic Factors

Although the relationship between caseworker behavior and employability has not yet been studied, the economic literature is rich on analyses of the relationship between unemployment and business cycles and a variety of individual and work place characteristics. Numerous individual characteristics have been shown to affect a person's employment status and it is, therefore, necessary to control for these characteristics in order to obtain the best possible estimate of the relationship between caseworker behavior and employability. Some of the key characteristics we need to account for are formal education, age, family background, gender, ethnicity, and unemployment history.[5]

Explanations for unemployment are also found on the demand side of the labor market (Weatherall, 2008). The intuition is that workplace experience influences workers' future job opportunities. In the human capital framework, a worker who gains skills or prestige at a workplace increases his or her human capital and the arrival rate of job offers. The workplace experience—skills and prestige—is assumed to be different from skills obtained through the formal educational system.

Even though the demand side characteristics have been proved important (i.e. Weatherall, 2008), they do not seem to explain a large proportion of the employment variation when individual characteristics have been accounted for; and therefore, we only include work experience (also because we do not have proper former work place data at hand).

A majority of studies on unemployment also control for business cycles. Business cycles that reduce the demand for goods also reduce the demand for labor. Long depression periods combined with structural changes can therefore cause people who would otherwise be short-term unemployed to become unemployed in the long run. A high regional unemployment rate is a good indicator of bad conditions on the local labor market resulting in reduced job possibilities (see Portugal and Addison, 2000).

In order to separate the effect of caseworker behavior on unemployment from a number of other effects, we control for all the above mentioned variables in our regressions – i.e. individual characteristics, workplace experience, and regional unemployment rate.

[5] See for example Mincer, 1991; Weatherall, 2008; Addison and Portugal, 1987; Portugal and Addison, 2000; Obben et al., 2002; Nickell, 1979 or Smith, 1998.

3. The Danish System

In Denmark, people who lose their wage income have a high level of security. The Danish system distinguishes between the insured unemployed and the uninsured unemployed. The system results in two types of unemployment benefits: unemployment insurance benefit (UI) and unemployment assistance (UA). The UI is a voluntary scheme administered by the Unemployment Insurance Funds (UIF). The UIFs are private associations of employees or self-employed individuals organized for the sole purpose of ensuring economic support in the event of unemployment. However, the UI is largely financed by the State. The insured people get unemployment insurance (UI) regardless of their spouses' income. Eligibility criteria for receiving the UI (i.e. being insured) when one becomes unemployed are to have been a member of an UIF for a minimum of 1 year, to be registered as unemployed at the Public Employment Service Office on the first day of unemployment, to contact the UIF, and to have been working 52 weeks during the last 3 years. However, special rules apply to students who have just completed their studies, the part-time insured, the self-employed, and people outside the age group of 25 to 50 years.

If an individual becomes unemployed without being insured, he or she may be entitled to receive the UA financed by the State and administered by the municipalities. Eligibility criteria for receiving the UA is given by not being entitled to any other support and suffer from a social event, e.g. divorce, loss of provider/breadwinner, long time sickness or unemployment. To receive the UA, the individual has to contact the local municipality office, as the UA is administered by the municipalities. The UA is also available at the UI exhaustion for individuals complying with UA eligibility criteria.

The UA is means-tested, whereas the level of the UI is related to previous earnings with an upper cap. The replacement rate in the UI system is 90 percent but with a very low cap. This low cap means that the majority of unemployed people have a lower replacement rate than 90 percent. The UA corresponds to 80 percent of the UI. Reduced UI can be the result of employment on the side, refusal of job offers, cheating, lock-out, etc.[6]

[6] It is possible to go on vacation when unemployed. The average holiday period in Denmark is from 5 to 6 weeks.

In addition to the already mentioned restrictions, there is a complicated system of active labor market policy (the ALMP) that the unemployed has to comply with in order to receive either the UI or the UA. The ALMP is a labor market scheme that offers guidance and provides information about job openings or education possibilities to the unemployed.

It is the caseworkers at the UI offices (for the insured) and the caseworkers in the municipalities (for the uninsured) that implement the ALMP. The municipalities both implement the ALPM and administer the UA for the uninsured, but the uninsured that are "ready for work" are also connected to the UI-system. However, the UIF administers the UI for the insured, but it is mostly the UI offices that implement the ALMP. Recently we have also seen that both municipalities and UI offices have given other contractors the assignment of getting the clients back to work.

Even though the State is in charge of the financial support and rules with respect to unemployment it is the caseworkers at the UI offices and in the municipalities that implement and enforce the actions. Thus, it is in the meeting between the caseworker and the unemployed client that decisions involving the unemployed are taken. Therefore, the interaction between the caseworker and the client may influence immensely on the actions taken towards the unemployed. We will study this interaction between caseworker and clients by looking at caseworker behavior.

When choosing the design for the analysis and which data material to apply, it is important to take law changes regarding employment policy into consideration. An important reform, the Structural Reform (Strukturreformen), was implemented in 2007. The Structural Reform merged 272 municipalities into 98 municipalities. Furthermore, the reform merged the employment services for uninsured unemployed, which were formerly under the municipalities, with the employment services for insured unemployed, which were formerly under the UI offices (50 offices), into 91 new job centers. The reform was implemented as of January 2007. In most job centers, the schemes for the insured and the uninsured unemployed kept their separate management with reporting to the Ministry of Employment for the insured and to the municipalities—the Ministry of Interior and Social Affairs—for the uninsured. . Furthermore, the role of the UIFs changed as of January 2007 as they took over some guidance of the unemployed with regard to curricula vitae and job-seeking from the job

centers. The Structural Reform might have a big influence on the behavior of the caseworkers, and it is, therefore, favorable to do the empirical analysis in a time period that is not affected by the reform.

4. Data and Method for Analyzing Caseworker Behavior

An empirical analysis of the relationship between caseworker style and the unemployed people's employability demands a lot of the data. The data for this analysis derive from two different sources: 1) an extensive survey on caseworker practice, and 2) administrative data from Statistics Denmark (DST). The first source provides very detailed information on working procedures and attitudes in the UI and municipality offices whereas the second source provides panel data on employment outcomes and background characteristics. The combination of these sources is unique and enables us to use a multinomial logit model to study the relationship between caseworker style and employability among the unemployed.

4.1. Data Sources

The caseworker survey is a cross section collected among all the UI and municipality offices in Denmark between May 2006 and December 2006. The response rates among the 220 UI caseworkers and 442 municipality caseworkers were 93 percent and 88 percent, respectively. Thus, the sample of 203 UI caseworkers and 389 caseworkers is representative of caseworkers all over Denmark. However, not all caseworkers in a given office were interviewed; and therefore, we assume that the interviewed caseworkers are representative of the office where they work. This is a necessary assumption since we analyze caseworker style at the office level. We find the assumption reasonable as caseworkers at a given UI or municipality office work under the same management, which affects them in a similar way.

The survey contains information on many aspects of the caseworkers' subjective perception of their own working life. They are asked about different things such as the structuring of tasks, their behavior towards clients, and their views on the management.[7] The detail level is high which makes the data very rich. In section 4.2 we explain how

[7] The survey is far more comprehensive than what is represented here. It includes questions to case-workers as well as managers and the questions relate to other subjects as well. However, in this paper we only present the part that is interesting in relation to our analysis.

we use these data to quantify caseworker behavior according to the conceptual framework explained in section 2.

The caseworker survey is linked to administrative data from DST. This enables us to include a wide variety of background characteristics as well as information on employment status of each individual in the analysis. The advantage of administrative data is that they are very reliable and very consistent over time, which increases the quality of the results. It is the combination of the richness of the survey data and the panel structure of the administrative data that makes our analysis possible.

4.2. Variable Creation

We wish to evaluate the potential relationship between caseworker style and the unemployed people's likelihood of becoming employed. Therefore, the variables of main interest are caseworker styles and the employment status, which we will deal with in the following. We will not go into a discussion about background variables such as individual characteristics and other socioeconomic factors. These variables are basic controls in most employment analyses.

Caseworker Behavior

In the survey, caseworkers report their attitudes and actions towards clients by answering a number of specific and detailed questions. The questions are not randomly chosen but are instead designed to express the conceptual framework in the best possible way. Thus, different groups of questions relate to the different concepts, i.e. the use of coping strategies, cream skimming, formalism, coercion, and professional distance.

Each group of questions is subject to a principal component analysis. The purpose of this analysis is to create an index for each of the five groups consisting of the variables with the strongest correlation. The outcome of the principal component analysis is that the indices for caseworker style, i.e. formalism, coercion, and professional distance, express the variation in two or three variables related to each particular concept.

To be more specific, the **formalism index**[8] that indicates to what extent the caseworker 'complies with the rules' or is willing to be flexible to meet the clients' wishes or needs is constructed from the following statements of the caseworkers:

- "Enforce using the formal rules" in contrast to "Enforce by influencing attitudes or through negotiation"
- "Consistent towards whether the unemployed keep appointments" in contrast to "Flexible towards whether the unemployed keep appointments"
- "Follow rules by the letter" or "Focus on achieving results"

The **coercion index**[9] indicates to what extent the caseworker uses coercion in his/her work. A highly coercive caseworker style implies taking decision without involving the client, using threat of sanctions and having a general skeptical approach to the client as indicated by the following statements:

- "Determinative" or "co-decision with the unemployed"
- "Uses threat of sanctions" or "Avoids use of threat of sanctions"
- "Skeptical" or "Trustful"

Professional distance[10] is measured by two questions describing if the caseworker keeps a professional distance towards the clients:

- "Avoid close personal relationships with the unemployed" or "Seek to gain the confidence of the unemployed by talking about his or her personal and family affairs"
- "Keep a professional distance towards the unemployed" or "obliging and sympathetic approach to the unemployed"

Caseworkers will use coping strategies when confronted with demands that they cannot meet within the limits of their work. As explained earlier, we distinguish between cream skimming strategies and other coping strategies. The index for cream skimming derives from four questions whereas the index for other coping strategies consists of nine

[8] The alpha value of the formalism index is 0.49.
[9] The coercion index has a alpha value of 0.50.
[10] The alpha value of this index is 0.57.

individual questions and is called the **restcoping index**[11]**.** The index value will be high if the caseworkers strongly agree with the following statements:

- It happens that I do not inform my clients of their rights/options because I know that they will have difficulties in coping with choices between alternatives.
- I spend more time on cases where the unemployed is younger than on cases with middle-aged and older unemployed people.
- I spend more time on cases where the unemployed has a higher education than on cases where the unemployed has little or no education.
- I usually divide my clients into a few major categories and use rules of thumb with respect to measures for each group.
- It is almost impossible to find jobs for most of the uninsured unemployed who are attached to this office.
- Experience from casework with uninsured unemployed people makes you more cynical towards the unemployed.
- It happens that I bend the rules if the rules are more harmful than beneficiary to the unemployed.
- It happens that I bend the rules if it is too time consuming to comply with the rules, and I spend more time on cases that are most interesting from a professional point of view.

The final **creaming index**[12] describes whether the caseworkers exert cream-skimming behavior, where they focus on clients who more easily are able to become employed, and the index consists of the following statements:

- Cases seem to prioritize themselves, so that easy cases have priority to complicated cases, which are then to be postponed.
- There are so many new cases to deal with that time to follow up and revise 'jobplans' is hard to find.
- I spend more time on cases with the greatest prospects of getting the unemployed into employment than I spend on burdensome cases.
- Cases where the unemployed contacts me and press for answers will dominate cases where the unemployed is more reluctant.

[11] The index including these nine questions has an alpha-value of 0.80, and this value cannot be increased by removing any of the variables from the index.
[12] The alpha value of the creaming index is 0.75, which is not quite as high as that of the coping index, but still a satisfactory match.

Transition States

We study how the future employment status of the clients—the unemployed individuals—is correlated with the style and behavior of the caseworkers at the UI or municipality office. Thus, the outcome variable in our analysis is the transition state following an unemployment spell. The transition states are constructed from the registers in the following way: an individual is unemployed if he or she receives a subsidy due to unemployment, participates in active labor market programs or is on educational leave for any given period in 2005. We define a person to be unemployed, employed, out of the labor force, a student or receiving other benefits if the person's major occupation in the 2006 register is given that status.

With respect to unemployment, participation in active labor market programs, educational leave and receiving other benefits, the status is defined by information on subsidized periods. Furthermore, if the individual by the end of the year is registered as being out of labor force or as a student, this individual receives that transition state for the whole year. Individuals who are on leave from employment are regarded as employed.

It is a big advantage that the transition states of the unemployed rely on register information. Instead of using subjective survey measures of occupational status, this paper uses an objective measure of the outcome variable. In contrast to previous results, the results in this paper will be more reliable because of the objectivity of the transition state.

4.3. Sample Selection

In January 2007, the Danish legislators implemented a large structural reform as previously described in section 3. Among many other things, the reform changed the whole structure of the unemployment effort; the UI and municipality offices merged, some caseworkers were laid off while others were reallocated, etc. This means that many of the unemployed individuals were transferred to a new caseworker or even a totally different office. Therefore, we ensure consistency in the data if we use the observed outcome of individuals by the end of 2006.

We avoid conflict with the implementation of the Structural Reform by analyzing the employment outcome at the end of 2006. Hence, our sample of interest consists of all individuals who were unemployed in 2005, and we assume that the distribution of

caseworker behavior at each UI or municipality office did not change from 2005 to 2006 when the survey was conducted. We find this assumption reasonable, since work habits and behavior towards other people are basic individual characteristics that do not change significantly within a year. A potential problem might arise, though, if the composition of staff members changed from 2005 to 2006. However, this is not the case as only 4 percent of the workers at the municipality offices and only 13 percent of the workers at the UI offices report that they have had the job for less than a year. In addition, we apply caseworker behavior at the aggregate (i.e. office) level, which should eliminate any potentially notable change caused by these short-term employments.

The primary sample, therefore, consists of individuals who were unemployed some time during 2005, which amounts to 543,059 individuals. We include only people between the age of 18 and 59 since a large fraction of the Danish population aged 60 or above are eligible for an early retirement scheme. From this group of unemployed people we exclude those who did not have an observable transition state in 2006.

Furthermore, caseworkers were not interviewed at all UI or municipality offices. Of the 488,548 unemployed individuals between 18 and 59 years of age with an observed transition state in 2006, 78,599 were affiliated with a UI or municipality office that was not evaluated; and these individuals are thus excluded from the analysis. This could potentially cause a selection bias if the excluded individuals on average differ from the included individuals. We compare the two groups and verify that they do not differ with respect to the included controls. Out of the 543,059 individuals affected by unemployment in 2005, we end up with 409,949 and they comprise our final sample.

4.4. Descriptive Statistics of the Unemployed Individuals in 2005

Table 4.1 reports some descriptive statistics on the 409,949 individuals in our sample. We present the data conditional on the transition state by the end of 2006, i.e. on observed outcome.

The table shows that 77.3 percent of the unemployed individuals in 2005 have returned to employment by the end of 2006, 9.4 percent have transferred to other benefits, and 3.6 percent have left the labor force; leaving 9.7 percent in unemployment. Thus, more than 90 percent of those affected by unemployment during 2005 find

themselves in a different occupational state by the end of 2006 – most of them become employed.

Table 4.1: Descriptive statistics.

	Unemployed		Employed			Receiving other benefits			Out of labor force & student		
	Mean	std.dev.	Mean	Std.dev.		Mean	std.dev.		Mean	std.dev.	
Creamingindex	2,598	(0,584)	2,505	(0,495)	***	2,677	(0,623)	***	2,746	(0,657)	***
Restcopingindex	1,203	(0,242)	1,166	(0,215)	***	1,222	(0,252)	***	1,239	(0,263)	***
Distanceindex	3,121	(0,457)	3,154	(0,432)	***	3,081	(0,499)	***	3,066	(0,489)	***
Formalismindex	3,217	(0,323)	3,218	(0,316)		3,240	(0,343)	***	3,239	(0,340)	***
Coercionindex	2,201	(0,386)	2,158	(0,337)	***	2,245	(0,420)	***	2,290	(0,427)	***
Gender	1,556	(0,497)	1,554	(0,497)		1,623	(0,485)	***	1,527	(0,499)	***
Age	40,895	(11,748)	36,640	(10,176)	***	39,867	(12,331)	***	33,116	(11,535)	***
Age squ.	1.810,401	(959,235)	1.446,042	(787,697)	***	1.741,404	(1.010,161)	***	1.229,713	(852,322)	***
Expierence	8.510,137	(7.200,740)	9.991,892	(6.976,359)	***	7.441,453	(7.172,880)	***	5.137,359	(6.078,847)	***
Family	2,112	(1,193)	2,228	(1,286)	***	2,158	(1,186)	***	1,838	(1,164)	***
Ethnicity	1,388	(0,783)	1,198	(0,588)	***	1,448	(0,826)	***	1,381	(0,773)	
Schooling	1,938	(1,189)	2,180	(1,226)	***	1,734	(1,038)	***	1,746	(1,104)	***
Individual ui% 0405	858,437	(526,938)	455,479	(413,812)	***	782,620	(540,894)	***	626,426	(494,443)	***
Municipality ui%	6,268	(1,570)	5,991	(1,482)	***	6,142	(1,439)	***	6,146	(1,435)	***
Region	8,369	(5,052)	8,715	(4,746)	***	8,432	(4,690)		8,241	(4,868)	***
Insurance status	1,789	(0,408)	1,930	(0,255)	***	1,667	(0,471)	***	1,580	(0,494)	***
No. Obs.	39,789		316,966			38,564			14,630		
Percent of sample	9.7		77.3			9.4			3.6		

The table also shows significant differences in background variables between the groups. Each of the three alternative outcome states is tested by a simple t-test for equal means against the base state, which is unemployment. For individual characteristics, such as age, work experience, family status and schooling, the tests show that differences exist between unemployment and each of the three alternative outcome states. This indicates that it is important to include these as controls in the regressions. We also see that regional business cycles might play a role for the employability of the unemployed. The average regional unemployment rate among the employed is 0.27 percentage points lower than among the unemployed – and the difference is highly significant.

In addition, the groups are statistically different with respect to insurance status. A larger fraction of the unemployed individuals are not insured compared to the group of employed individuals. This is not surprising. Normally, we think of the uninsured as being more likely to have other problems besides being unemployed (see Bach, 2007), i.e. they have a harder time finding a new job. Hence, the two groups might not be

directly comparable, which is further motivated by the fact that the two systems—the UI and municipality offices—are quite different, cf. section 3. In the results section we, therefore, present separate analyses conditional on insurance status in addition to the overall results.

Finally, the different caseworker styles—except for formalism—are unevenly distributed among unemployment and each of the three other outcome states. This is a preliminary indication that they might be correlated with the employability of the unemployed.

4.5. Method

This analysis models how caseworker style correlates with the clients' transition into employment as an outcome of a probability model with four possible states. The four states are: staying unemployed, employed, receiving other benefits, and out of labor force or student. Since individual characteristics are measured annually, except for the unemployment spell, a multinomial logit model is the best choice. The model's outcome probabilities are defined as follows:

$$(1)\quad P(Y = j \mid X) = \frac{\exp(X\beta_j)}{1 + \sum_{h=1}^{J} \exp(X\beta_j)} \quad j = 1,...,J$$

Where Y is the outcome variable that can be equal to J different outcome states and X consists of a set of observable covariates (e.g. caseworker indices from the UI or municipality office, age, formal education, family background, individual unemployment history, work experience, and region). The unknown parameter vector is β. Although the assumption about the independence of irrelevant alternatives (IIA) is a constraint, section 5.3 shows that this constraint is not a big problem for this study. Thus, the risk of becoming employed is estimated with respect to observables. Even though employment is the desired outcome, we use the term "risk"—which is common for this type of models—to ensure consistency, as not all outcome states are preferred to unemployment.

The multinomial logit model including caseworker indices, individual characteristics, and local business cycles is called the "extended model". However, for comparative

reasons, a multinomial logit model including only individual characteristics and local business cycles is also estimated. The latter is named the "basic model".

We analyze a large scale panel dataset that can have cross-sectional and temporal dependencies, which can lead to biased statistical inference. We control for possible dependencies in the error term by calculating robust standard errors and thereby enable unbiased statistical inference. It follows that the standard errors are heteroscedastic and autocorrelated consistent and the statistical interpretation is significant.

5. Employability Results and Caseworker Behavior

The main objective of this paper is to study the relationship between caseworker behavior and the employability of the unemployed – these are the results we will present first. This is done in section 5.1. Much research has been done regarding the effects of socioeconomic factors on employment outcomes; and despite different definitions of employment status, different data sources, and differences in time periods of study, there is to a great extent consensus among researchers on these effects. Thus, we will briefly show that our findings on socioeconomic effects are in line with the existing literature; this is done in section 5.2. Section 5.3 reports various tests of the multinomial logit model that we use and discusses how much caseworker style adds to the basic model.

5.1. Caseworker Behavior and Employability

The correlations between caseworker style and employability of the unemployed are shown in Table 5.1. In addition to reporting the overall results for all unemployed individuals, the table also reports results obtained from a split-sample analysis with the split done by insurance status – the UI versus the UA. In section 4.4 the descriptive statistics showed significant differences with respect to insurance status. The "insured" category includes individuals who are members of a UIF, pays a monthly fee to the fund and is automatically attached to the UI office when becoming unemployed. The "not insured" are those attached to a municipality office, either because they are not a member of a UIF or because they have other problems than being unemployed, e.g. being sick. First, we evaluate the overall results then we split on insurance status.

Cream Skimming

The results in Table 5.1 show that caseworkers' cream-skimming behavior increases the employability of the unemployed. As mentioned in section 2.2, this is expected since dealing with the easy cases first boosts caseworkers' performance as they help the "strong" unemployed individuals finding a job. The problem arises if this happens at the expense of the unemployed individuals who are less able to manage on their own.

Table 5.1: Results for indices.

		All		Insured		Not insured	
Creaming	Employment	0,039	*	0,072	***	0,045	
		(0,016)		(0,020)		(0,030)	
	Other benefits	0,082	***	0,073	**	0,027	
		(0,019)		(0,027)		(0,032)	
	Out of labor force	0,064	**	0,045		0,075	*
		(0,025)		(0,038)		(0,037)	
Other coping	Employment	-0,049		-0,107	*	0,014	
		(0,038)		(0,049)		(0,077)	
	Other benefits	-0,071		-0,155	*	-0,016	
		(0,046)		(0,065)		(0,081)	
	Out of labor force	-0,037		-0,053		0,044	
		(0,060)		(0,098)		(0,095)	
Prof. Distance	Employment	-0,08	***	-0,044	*	-0,073	*
		(0,016)		(0,020)		(0,031)	
	Other benefits	-0,019		-0,001		0,024	
		(0,020)		(0,027)		(0,032)	
	Out of labor force	-0,057	*	-0,051		-0,073	
		(0,026)		(0,040)		(0,038)	
Formalism	Employment	-0,001		0,008		0,033	
		(0,023)		(0,031)		(0,042)	
	Other benefits	0,069	*	0,11	**	0,086	
		(0,027)		(0,041)		(0,044)	
	Out of labor force	0,067		0,021		0,139	***
		(0,036)		(0,060)		(0,053)	
Coercion	Employment	0,056	**	0,059		-0,049	
		(0,022)		(0,031)		(0,036)	
	Other benefits	-0,162	***	-0,155	***	-0,17	***
		(0,025)		(0,042)		(0,037)	
	Out of labor force	0,016		0,129	*	-0,083	
		(0,032)		(0,060)		(0,045)	

*p<0,05;**p<0,01;***p<0,001; Robust standard errors in brackets.

The results regarding the other potential outcomes indicate that there might be more to it. Table 5.1 shows that the application of cream skimming has a positive effect on the transition into receiving other benefits and leaving the labor force. This could be an indication that cream skimming is not only related to clients who are easily re-employed but to all clients who are easily processed. Being swiftly reallocated could be very positive also for vulnerable clients as it might save them from some of the psychological pressure caused by the uncertainty about their future financial situation.

On the other hand, though, the results potentially tell another story. The results could stem from regular displacement of unemployed individuals. A cream-skimming caseworker might be eager to close his or her cases and thereby ensure reallocation of a client to an alternative outcome state, even though the unemployed individual could have been re-employed with a little more effort.

On the basis of this analysis we cannot determine the dynamics behind the correlation between cream skimming and the alternative outcome states. However, the important thing to note is that the application of cream skimming significantly influences the situation for the unemployed regarding all the measured outcomes; and more importantly, it increases employability.

Coercion

Another factor that is positively correlated with employability among the unemployed is coercion. The results indicate that the unemployed stand a better chance of re-employment if the caseworkers at the UI or municipality office are, on average, more skeptical towards the unemployed and often threaten to sanction. Additionally, coercion negatively affects the risk of transition to other benefits. Thus, coercion is desired in the process of helping clients to become re-employed; and at the same time it keeps more people out of other benefits.

We did not have strong a priori expectations about the coercive caseworker style since previous studies reach ambiguous conclusions. Therefore, the expectations relied mostly on analyses of threat effects found with respect to Active Labor Market Programs (ALMP) within the economic literature. These studies agree on the positive effect from threats, and this is in line with our findings.

Professional Distance

A third kind of caseworker behavior—professional distance—has a significant influence on the employability of the clients. If caseworkers at a UI or municipality office on average keep a professional distance to their clients, as opposed to getting personally involved, then the risk of employment decreases. Hence, keeping a professional distance is hurtful to the process of getting clients back into employment.

This result stands in contrast to our a priori expectations based on previous research. Several studies have been made on the effects of professional distance on achieved outcome in different social policy settings. The findings from these studies suggest that keeping a certain professional distance to clients should have a positive effect on the outcome, cf. section 2.2.

At the same time when caseworkers keep a professional distance less unemployed individuals leave the labor force. This result is positive if these individuals to a higher extent find a job or part-time job instead of leaving the labor force.

Caseworker Styles with No Relationship to Transition States

The relationships between caseworker behavior and occupational status mentioned in the previous section are the only significant ones. This means that the use of coping strategies—other than cream skimming—has no significant effect on the overall employability of clients in Denmark. Coping strategies, apart from cream skimming, relate to the way caseworkers deal with their extensive workload. Such a way of structuring the workload might affect caseworkers' efficiency, but it has no impact on performance in terms of increased employability of their clients. Also, the application of a more formal caseworker style has no effect on the transition into employment. The formal style is, however, significantly correlated with the transition into receiving other benefits, which means that a very consistent application of rules and focus on procedural correctness can influence the clients' situation.

Insured vs. Not Insured

Several factors motivate the split between clients receiving the UI and clients receiving the UA. First, the two groups of individuals differ significantly with respect to observed as well as unobserved characteristics (e.g. Bach, 2007). For example, there are two

groups of individuals among the unemployed at the municipality office, one group that is not insured because they have other problems than being unemployed and another group who used to be at the UI office, but were unable to find a job within the time limit and therefore transferred to the municipality system. One might expect that these individuals are more difficult to re-employ relative to the average unemployed. The group of unemployed individuals at the UI offices only includes people who are jobseekers and have no other major problems.

Second, the organization and management of caseworkers at the UI offices and municipality offices are very different. The results in Table 5.1 show a significant difference in re-employment between insured and non-insured unemployed individuals.

Overall, we see that insured clients' transition probabilities are more related to caseworker behavior than their non-insured counterparts, regarding both the employment outcome and the alternative outcomes. We see that cream skimming only affects the employability of the insured clients, i.e. those connected to a UI office. In addition, the use of cream skimming tends to reallocate insured clients to other benefits, whereas it tends to increase the risk of leaving the labor force for the non-insured. Since cream skimming is about dealing with the easy cases first, this result is in line with our assumption that the non-insured unemployed individuals constitute a group of workers with a weaker attachment to the labor market – they are more difficult to re-employ and they have a higher risk of leaving the labor force.

The result related to coping is another interesting aspect. More use of coping strategies seems to decrease the employability of insured clients. Different reasons may be behind this result. One interpretation is that the group of clients at the UI offices is a much diversified group compared to the unemployed at the municipality offices, as the latter includes a larger proportion of individuals who are very far from the labor market. Coping strategies include the application of rules of thumb regarding clients, which reduces the group to a few archetypes. This might be more harmful than helpful in the effort to ensure re-employment for the more diversified group of unemployed as their individual characteristics are not used in the best possible way.

Finally, the split-sample analysis shows that the overall effect of coercion on employability is not present in neither of the two groups after the split. The estimated effects are of opposite sign, yet none of them are now significant. This indicates that the

significance of the overall effect of coercion is vulnerable to small data changes, and we should be careful in the interpretation of results regarding coercion.

Overall caseworker behavior seems to correlate to a higher extent with transitions among the insured unemployed than transitions among the non-insured. The reason for the weak relationship between caseworker behavior and UA recipients' transition rates could be explained by the fact that the UA recipients often have other problems than unemployment and, therefore, caseworkers' behavior can not help them getting a job.

5.2. Socioeconomic Factors

This paper focuses primarily on one of the potential outcome states, namely employment. Therefore, we choose to evaluate the effects of background variables only on the employment outcome; the results are shown in Table 5.2. We focus on the model including caseworker behavior (the extended model) given in column 4, 6 and 8 in table 5.2. However, we also include the basic model—without caseworker variables—to show that the results obtained from the two models do not differ substantially in any way. Thus, the inclusion of caseworker variables does not alter the conclusions regarding fundamental socioeconomic effects that are well documented in the existing literature.

According to the empirical findings, years of schooling increase the unemployed individuals' risk of becoming employed. In addition, gender and ethnicity affect the employability significantly. Being a woman or an immigrant decreases the likelihood of re-employment. These results correspond to the results in Weatherall (2008), Addison and Portugal (1987), Portugal and Addison (2000), Obben et al. (2002).

The low employability among unemployed seniors is in line with findings by Nickell (1979), Portugal and Addison (2000) and Weatherall (2008). They find that productivity or preferences for work decrease with age and thereby reduce the likelihood of starting new employment. The fact that seniors are less likely to become re-employed is possibly the reason why the effect of work experience is quite modest. A priori, we would expect work experience to be strongly correlated with the risk of employment, but the obvious correlation of this variable with age reduces the effect.

The results also show a significant correlation between family status and employability. Being a parent affects the risk of re-employment, but the effect is different for single parents and parents living together in the same household. Relative

to singles with no children, single parents have a lower risk of becoming employed following unemployment, whereas parents living together in the same household have a higher risk of re-employment. To some extent, these results confirm the findings by Addison and Portugal (1987) and Weatherall (2008), indicating that economic incentives and family status influence job decisions.

Table 5.2: Results for socioeconomic variables.

		Employed		Other benefit		Out of labor force student	
		basic	extended	basic	extended	basic	extended
Gender	Male	ref.	ref.	ref.	ref.	ref.	ref.
	Female	-0.158***	-0.160***	0.240***	0.240***	0.108***	-0.108***
		(0.013)	(0.013)	(0.016)	(0.016)	(0.022)	(0.022)
Age	Age	0.056***	0.056***	-0.061***	-0.061***	-0.087***	-0.087***
		(0.004)	(0.004)	(0.005)	(0.005)	(0.007)	(0.007)
	Age square	-0.001***	-0.001***	0.001***	0.001***	0.001***	0.001***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Work experience		0.00005***	0.00005***	-0.0001***	-0.0001***	-0.0003***	-0.0003***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Family status	Single	ref.	ref.	ref.	ref.	ref.	ref.
	Single parent	-0.140***	-0.141***	0.211***	0.210***	-0.156***	-0.157***
		(0.019)	(0.019)	(0.024)	(0.024)	(0.033)	(0.033)
	Couple	0,015	0,015	0.051*	0.050*	-0,030	-0,030
		(0.018)	(0.018)	(0.023)	(0.023)	(0.038)	(0.038)
	Couple parent	0.096***	0.096***	0.196***	0.196***	0,008	0,008
		(0.017)	(0.017)	(0.022)	(0.022)	(0.031)	(0.031)
Ethnicity	Danish	ref.	ref.	ref.	ref.	ref.	ref.
	2. gen immigrant	-0.269***	-0.271***	0,013	0,018	-0,052	-0,054
		(0.053)	(0.053)	(0.067)	(0.067)	(0.077)	(0.077)
	1. gen immigrant	-0.334***	-0.330***	0.054**	0.055**	-0.238***	-0.236***
		(0.017)	(0.017)	(0.021)	(0.021)	(0.030)	(0.030)
Schooling	Basic	ref.	ref.	ref.	ref.	ref.	ref.
	Vocational	0.196***	0.196***	0,019	0,019	0.061*	0.059*
		(0.013)	(0.013)	(0.017)	(0.017)	(0.024)	(0.024)
	Short further	0.244***	0.243***	-0.203***	-0.202***	0.112*	0.113*
		(0.028)	(0.028)	(0.038)	(0.038)	(0.050)	(0.050)
	Medium further	0.368***	0.365***	-0.234***	-0.228***	0,049	0,048
		(0.020)	(0.020)	(0.027)	(0.027)	(0.038)	(0.038)
	Long further	0.530***	0.521***	-0.503***	-0.493***	-0.205***	-0.210***
		(0.026)	(0.027)	(0.039)	(0.040)	(0.053)	(0.053)
Personal UI history	personal	-0.001***	-0.001***	-0.000***	-0.000***	-0.001***	-0.001***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Insurance	Not insured	ref.	ref.	ref.	ref.	ref.	ref.
	Insured	1.179***	1.236***	-0.541***	-0.555***	-0.427***	-0.370***
		(0.018)	(0.021)	(0.020)	(0.025)	(0.026)	(0.032)
Municipality UI%	municipality	-0.050***	-0.050***	0,009	0,007	-0.031**	-0.032**
		(0.006)	(0.006)	(0.007)	(0.007)	(0.010)	(0.010)
Indices*			yes		yes		yes
Region		yes	yes	yes	yes	yes	yes
Constant		1.602***	1.639***	1.190***	1.278***	2.316***	2.075***

	(0.084)	(0.121)	(0.104)	(0.148)	(0.133)	(0.195)
Pseudo R2	0.147	0.148	0.147	0.148	0.147	0.148
No.obs	40949	40949	40949	40949	40949	40949
Log likelihood	-267906	-267826	-267906	-267826	-267906	-267826

***** Results for the indices were given in table 5.1.

The common idea that people who have stayed for a relatively long period of time in the unemployment system or any other benefit system are "locked in" and thus have difficulties in re-entering employment is confirmed by our results. The lock-in effect could emerge from active labor market activities, but it might also be the case that individuals who have been unemployed for a longer period of time are disadvantaged in terms of unobserved characteristics. This might also be the reason why UA recipients, i.e. non-insured individuals, are less likely to get re-employed because, on average, they stay unemployed for a longer period of time due to other problems than unemployment.

Besides the good correspondence between existing literature and our results on individual characteristics, table 5.2 shows that the local unemployment rate has the expected counter-cyclical effect on employment; i.e., a high local unemployment rate reduces the risk of becoming employed. Furthermore, we see that regional differences play a significant role for the employability of the unemployed.

Despite differences among studies regarding the definition of unemployment, the available data sources and the research periods, the sign and significance of the individual characteristics, and the regional business cycles remain similar to previous findings in Denmark and other countries.

5.3. Tests of the Extended Model Including Caseworker Behavior

The findings in the previous section rely on two assumptions. The first assumption is the independence of irrelevant alternatives (IIA). Suppose for instance that one of the transition states is removed from the model. The relative likelihood between becoming employed and receiving other benefits after an unemployment spell should not change if the IIA is fulfilled. The second assumption is that the extended model—including individual characteristics, work experience, local business cycles, and caseworker indices—describes the transition into employment better than the basic model (not including caseworker indices). Fortunately, the following tests and predictions show that assuming IIA and the superiority of the extended model is reasonable.

Under the IIA assumption, no systematic change in the coefficient is expected if one of the transition states, e.g. "out of the labor force", is excluded from the model. The extended model is, therefore, re-estimated excluding that state and afterwards a Hausman-Mcfadden test against the full extended model is performed. The test statistics under the alternative hypothesis of IIA violation is a test of systematic differences in the coefficients for all transition states except out of the labor force.[13] The test results in Table 5.3 show that we can not reject the IIA assumption.

Table 5.3: Test of the IIA and combining categories.

Test of IIA		**H0: The difference in coefficient are not systematic (extended model><basic model)**	
		Values of $\chi 2$ with 33df	**Prob>$\chi 2$**
Employment		322.79	0
Other benefit		271.95	0
Test of combining categories		**H0: All coefficient except intercepts associated with given pair of outcomes are 0**	
		Values of $\chi 2$ with 33df	**Prob>$\chi 2$**
Employed	- Other benefit	45554.479	0
	- student or out of the labor force	19605.475	0
	- unemployed	39757.127	0
Other benefit	- student or out of the labor force	4670.967	0
	- unemployed	3672.106	0
Student or out of the labor force	- unemployed	6085.960	0

Even though the extended model seems to fulfill the IIA assumption, it might be the case that some outcome categories should be combined (e.g. other benefit and out of the labor force). Therefore, we test if any of the outcome categories can be combined by the Wald statistic.[14] This test is performed for all outcome categories in pairs and the test results clearly show that the outcome categories should not be collapsed, cf. Table 5.3.

[13] The test is distributed $\chi 2$ and computed as: $H=(\beta_{no\_out\ of\ laborf} - \beta_{full\_model})'(V_{no\_\ out\ of\ laborf} - V_{full\_model})^{-1}(\beta_{no\_\ out\ of\ laborf} - \beta_{full\_model})$.

[14] The test is $\chi 2$ distributed and computed as: $W= (\beta_{otherbenefit} - \beta_{out\ of\ lf})^2/var(\beta_{otherbenefits} - \beta_{\ out\ of\ lf})$.

There are several reasons why the extended model is good at modeling unemployed individuals' risk of becoming employed. First, the estimation results in table 5.2 show that the multinomial logit model has no problems finding structure and that most of the coefficients are significantly different from the base category (i.e. unemployment). Second, the Hausman-McFadden test of the IIA shows that the assumption of the IIA is accepted, which also supports the structure of the extended model. Third, the Wald tests—that none of the outcome categories should be collapsed—supports the structure of the extended model.

The likelihood ratio test is weakly in favor of the extended model versus the basic model. By looking at the average prediction in a sample—goodness of fit—it is possible to see if the estimated model can distinguish between different exit states after unemployment. The goodness of fit for the extended model as well as the basic model is where we look at the average predicted exit risk with respect to the actual exit state – see Table 5.4. Not surprisingly, the average predicted values correspond to a certain extent to the sample distribution of different outcomes, regardless of which model's results we study. Note that the diagonal consists of the highest average predicted values, which indicate that the model is able to separate between the different outcomes. However, the goodness of fit is no guidance for choosing between the extended model and the basic model because no clear model differences occur.

Table 5.4: Goodness of fit.

Extended model

	Unemployed	Employed	Other benefit	Out of the labor force & student
Pred. unemployment	0,1695157	0,0779581	0,1659717	0,132163
Pred. employment	0,6212155	0,8216168	0,5840333	0,6357616
Pred. other benefit	0,1603646	0,0711192	0,1912229	0,1549259
Pred. out of the labor force & student	0,0489042	0,0293059	0,0587721	0,0771495

Basic model

	unemployed	employed	other benefit	out of the labor force & student
Pred. unemployment	0,1693728	0,0779603	0,1660836	0,1322082
Pred. employment	0,6212566	0,8215698	0,5843874	0,635736
Pred. other benefit	0,1604618	0,0711652	0,1907443	0,1549264
Pred. out of the labor force & student	0,0489088	0,0293047	0,0587847	0,0771295

Another way to compare the extended model with the basic model is to show the predictive power of the two models. A model predicts well if it has few type I and type II errors. A type I error is when the model fails to predict an unemployed individual to

be employed if he or she is employed. A type II error is when the model predicts an unemployed individual to be employed although he or she is not. For simplicity and interpretational comfort, the predictions in this paper concerns employment compared to the rest of the exit states. Consequently, this study assumes a cut off point that matches the distribution of employed individuals in the sample.

The predictions are shown in Table 5.5. Even though it is clear that both models suffer from type I and type II errors, the results show that the extended model and the basic model are predicting unemployed individuals to become employed individuals in nearly the exact same way.

Table 5.5: Predicting employment.

Extended model		
	Not employed	Employed
Pred. not employed	52,67	13,89
Pred. employed	47,33	86,11
	100	100
Basic model		
	Not employed	Employed
Pred. not employed	52,64	13,89
Pred. employed	47,36	86,11
	100	100

All tests on the extended model versus the basic model are in favor of the extended model but it is not by much. Thus, caseworker behavior can be important to account for when evaluating the relationship between caseworkers' behavior and employability of the unemployed.

6. Discussion

There is consensus within the literature that some of the variation in the outcome variable (i.e. the employment outcome) may be attributed to unobserved factors. Some of this unobserved heterogeneity is due to person specific qualities of the unemployed individual, such as ability, and some of it is attributed to things unrelated to the unemployed, such as the interaction with authorities. Our results show that caseworker behavior is significantly correlated with the risk of employment, which implies that we are able to explicitly account for some of this unobserved heterogeneity in previous studies. It would be interesting to extend the analysis and include a statistical modeling

of the unobserved heterogeneity that still exists. This is left for future work due to limitation in our data at hand.

Our analysis of the relationship between different types of caseworker behavior and the likelihood of re-employment is based on the caseworkers' subjective perception of their own behavior. However, there might be a discrepancy between this subjective perception and the way their behavior is perceived by the clients, i.e. the unemployed individuals. It would be very interesting—and highly relevant—to perform the same analysis on data obtained from a survey collected among the clients; and thereby test the robustness of the results against this potential discrepancy. This is also left for future work.

We have shown that the interaction between caseworkers and their clients—as perceived by the caseworker—is significantly associated with the employment outcome in the short run. However, the tests of the extended model (including behavior indices) against the basic model (without the indices) show that the model is not improved notably by the inclusion of the indices. Thus, although it is important to account for caseworker behavior, as it is significantly correlated with the outcome, the prediction regarding the employment status of the unemployed individual is not affected much. From a political point of view this is an interesting result. It indicates that investments aimed at optimizing the relationship between caseworker and client might not be very fruitful compared to investments in socioeconomic variables such as education, regional development, etc. However, the latter might also be more costly. Thus, it is important to make a more detailed cost-benefit analysis before policy conclusions can be drawn.

7. Conclusion

The aim of this paper was to study the relationship between the caseworkers' behavior and the employability of their clients, taking many of the well documented socioeconomic factors into account. This analysis was enabled by a unique dataset consisting of a survey with rich data on caseworker behavior combined with a panel of socioeconomic variables. To our knowledge anything similar has not yet been done.

The results show that there is a significant relationship between the employability of an unemployed individual and the behavior of the caseworker. Particularly, employability among insured unemployed correlates with caseworker behavior, such as coping and professional distance. These results add to the existing literature and help

explain some of the unobserved heterogeneity related to organizational structures and managerial organization within the unemployment offices.

We account for many socioeconomic factors, such as the unemployed individuals' personal background characteristics, their previous work experience, and economic environment. The estimated correlations between these background variables and the unemployed individuals' employment rates are in line with the existing literature, which adds to the validity of our main results.

It is important to notice that compared to caseworker behavior the socioeconomic factors explain far more of the variation in clients' employability. Hence, one should be cautious about stating policy implications regarding caseworker behavior based on these results alone.

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