

The Impacts of Labor Market Policies on Job Search Behavior and Post-Unemployment Job Quality

Simen Gaure, Knut Røed and Lars Westlie

List of all the variables used in the analysis

The table below presents all the variables used in the statistical model with a short description. A more thorough explanation and motivation of the most important variables are presented in the paper; section 3.1.

Variable	Description	Used in transition
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Unemp_dur (1-80)	Unemployment duration is included as a set of 80 dummies capturing the ongoing unemployment duration in addition to previous unemployment history in the three years prior to spell start. We construct 16 different intervals of ongoing unemployment duration in addition to 5 groups of previous unemployment history (in the previous three years). The ongoing unemployment duration intervals are constructed as follows.	1 to 4
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Description of the ongoing unemployment duration intervals

Ongoing duration (months)	Description	Group number
≤ 3	One group for each month	1 – 3
[4, 39]	One group for each third month	4 – 15
≥ 40	One group for duration above 40 months	16

The impacts of being in these 16 duration intervals are then allowed to differ according to 5 combinations of previous unemployment experience defined by the number of months with unemployment experience in the last three years (prior to the start of the current spell) and number of months since the last unemployment spell was completed. All in all we then have $16 \cdot 5 = 80$ dummies which are illustrated in the table below.

An overview of the 80 unemployment duration dummies

		Months spent in unemployment in the three years prior to the current spell		
		0	1-12	13-34
Time since last unemployment spell (months)	0	1-16	-	-
	3-12	-	17-32	33-48
	13-36	-	49-64	65-80

Here dummy number 1 represents the first month of unemployment in the ongoing spell with no previous unemployment experience. Number 17 represent the first month in a spell with 1-12 month of previous unemployment experience, completed less than 12 month ago. Number 52 is having 4-6 month of ongoing unemployment experience in combination with 1-12 month of previous unemployment experience and so on. The reference is number one.

Bc	Business cycle conditions. Here we use a business cycle indicator estimated in Gaure and Røed (2007).	5-6
Bc_duration	$= (bc - \overline{bc}) \cdot \min(\text{within spell duration}, 24)$	1-4, 6
Bc_first	The business cycle condition in the first month of unemployment experience (i.e. constant over repeated spells for each individual).	All
Prev_outcome	Previous outcome. These dummies are only included for unemployed with previous unemployment experience in the three years prior to the current spell. These four dummies indicates which outcome the prior unemployment spell ended in. 1=employment, 2=education, 3=other benefits, 4=censored.	1-4
Compl_emp	Completed employment duration in months. This variable is only included for those unemployed who have previous unemployment experience and where the last unemployment spell ended in employment (i.e. prev_outcome =1).	1-4
Compl_unemp (1-10)	Completed unemployment duration. A set of 10 dummies capturing the effect of completed unemployment duration in the employment termination equation (4) and earnings equation (5). The 10 completed unemployment duration intervals are: 1, 2, 3, 4 – 6, 7 – 9, 10 – 12, 13 – 15, 16 – 18, 19 – 24 and >24.	5-6
Past_unemp (0-3)	Past unemployment. Four dummies indicating number of month of unemployment experience prior to the ongoing or last completed spell within a three years period. The intervals are no unemployment (0), 1 – 6 (1), 7 – 12 (2) and > 12 (3) months of unemployment.	5-6
Emp_dur (2-24)	Employment duration is included as a set of 23 dummies capturing the ongoing unemployment duration. Since employment is defined as having at least two consecutive working months, no-one is at risk of losing the job the first month. Employment duration is modeled as flexible as possible, i.e. on dummy for each month in employment. Note that all employment spells are censored 24 months after employment. The reference is the first month with a risk of employment termination (2).	5
Log_earnings	The natural logarithm of the monthly earnings in the new job for those who make a transition into employment.	5
Remaining_ui (7 – 0)	A set of eight dummies, indicating number of months left until the end of the UI-period. The reference value (7) indicates at least seven months of remaining UI months, while 6 to 1 represents the monthly countdown. The last interval (0) indicates that the person no longer receives ordinary UI benefits. Note that an end of a UI period is not necessarily resulting in loss of benefits. Some unemployed are entitled to a new period or waiting benefits. Se Røed and Westlie (2007) for a detailed explanation.	All
UI-system (1-4)	Four dummies indicating different unemployment insurance (UI) regimes (and also different entitlements). The four different regimes are 1: Pre-1997, 2*80 weeks of UI-entitlements 2: After-1997, 156 weeks of UI-entitlements 3: After-1997, 78 weeks of UI-entitlements (unemployed with previous low earnings) 4: No entitlements The reference group is regime 1 (pre-1997).	All
At_cw	At case-worker. This dummy equals one in during UI application periods. (see footnote 4, section 4.2)	1-4, 6
Entitled_18m	A dummy for persons in regime I, indicating that they would belong to regime V if the unemployment spell had started after the 97 reform.	All

On_ALMP	A dummy variable, indicating current participation in ALMP. This dummy captures the on-program effect for a reference person (i.e. a woman, being in the fourth month of the program, having previously completed high school education and the current business cycle conditions is at average level).	1-3
On_ALMP_time	Interaction between on_ALMP and program duration $on_ALMP * (\log(program_duration) - \log(4))$	1-3
On_ALMP_male	Interaction between on_ALMP and male.	1-3
On_ALMP_edu	Interaction between on_ALMP and the years of education of the participant (evaluated at completed high school, 12 years).	1-3
On_ALMP_bc	Interaction between on_ALMP and the current business cycle condition (deviation from the mean)	1-3
After_ALMP	A dummy variable, indicating that the person has completed ALMP within the current unemployment spell. This dummy captures the after-program effect for a reference person (i.e. a woman, completed a program with four month duration, having previously completed high school education and the current business cycle conditions is at average level).	All
After_ALMP_time	Interaction between after_ALMP and program duration $after_ALMP * (\log(program_duration) - \log(4))$	All
After_ALMP_male	Interaction between after_ALMP and male.	All
After_ALMP_edu	Interaction between after_ALMP and the years of education of the participant (evaluated at completed high school, 12 years).	All
After_ALMP_bc	Interaction between after_ALMP and the current business cycle condition (deviation from the mean)	All
Immigrant (1-5)	1: Non immigrant 2: Male immigrant, non-OECD 3: Male immigrant, OECD 4: Female immigrant, non-OECD 5: Female immigrant, OECD Non immigrant is the reference.	All
Work experience (1-39)	A set of 39 dummies, describing previous work experience conditioned on age at spell start. The interval of working years in each cell is based on the 25 th , 50 th and 75 th percentiles. In addition each age group has a separate effect for non-working years and one year only. The table below reports all 39 groups.	All

Age	The interval of working years in each group/cell						Dummy number
<20	0	>0					1-2
20-24	0	1	>1				3-5
25-29	0	1	2	3-5	>5		6-10
30-34	0	1	2-5	6-9	>9		11-15
35-39	0	1	2	3-8	9-14	>14	16-21
40-44	0	1	2-3	4-11	12-18	>18	22-27
45-49	0	1	2-7	8-14	15-23	>23	28-33
50 +	0	1	2-11	12-18	19-26	>26	34-39

The reference is dummy number 9 (25-29 years and 3-5 years of work-experience)

Children (1-20)	A set of 20 dummies describing the composition of children in the family. These children dummies are only constructed for women. The children are divided into four different groups depending on age; 0-3, 4-6, 7-12, 13-16. Then we construct 20 dummies depending of number of children in each group. All the combinations are illustrated in the table below. Number 1 is having zero kids. Number 2-5 is only one child. Number 6-9 is at least two children, all in the same age-group. From 10 to 20 we have at least two children in different age-groups.	All																																																																																																																								
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Education (1-17)	A set of 17 dummies indicating highest previous level of completed education. The reference is number 5. The table below gives a complete description of the different education levels.	All																																																																																																																								
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Single	This dummy equals one if the person is not married/ cohabiting. Cohabiting couples need common children in order to be registered.	All																																																																																																																								
Month (59-154)	96 dummy variables, one for each calendar month. 59 being November 1993 and 154 being October 2001. The reference month is number 80 (august 1996).	1-4																																																																																																																								

County (1-20)	20 dummies indicating which county in Norway the person is living in. The 20 th dummy is for those with unregistered county. Number 3 (Oslo) is the reference.	All																																												
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Sdev	the standard deviation of the normally distributed error term in the earnings equation	6																																												
Mu (1-27)	The 27 mass points in the heterogeneity distribution (ν)	All																																												
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