

Online Appendix for the Paper:

**When the Going Gets Tough... Financial Incentives, Duration of
Unemployment and Job-Match Quality**

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Table A.1 Results from the duration model for the Unemployment : Unemployment exit probability to Employment

With Unobserved Heterogeneity		
	Coef	Se
Reform (D^T* D^{post})	0.349	0.089
D ^T	-0.103	0.091
D ^{post}	-0.242	0.081
h₀(j)		
λ ₂ (Week5-8)	1.107	0.082
λ ₃ (Week9-12)	1.081	0.090
λ ₄ (Week13-16)	1.119	0.093
λ ₅ (Week17-20)	1.068	0.098
λ ₆ (Week21-24)	0.998	0.102
λ ₇ (Week25-28)	1.110	0.110
λ ₈ (Week29-32)	1.025	0.116
λ ₉ (Week33-36)	1.094	0.123
λ ₁₀ (Week37-40)	1.018	0.131
λ ₁₁ (Week41-44)	1.019	0.136
λ ₁₂ (Week45-48)	0.901	0.141
λ ₁₃ (Week49-52)	0.807	0.152
λ ₁₄ (Week53-56)	0.794	0.158
λ ₁₅ (Week57-60)	0.638	0.168
λ ₁₆ (Week61-64)	0.626	0.175
Individual Characteristics		
Females	0.123	0.045
Experience (in logs)	0.713	0.054
Age (in logs, time varying)	-1.835	0.154
University	0.114	0.044
Children	0.073	0.026
Immigrant	-0.026	0.074
UI covariates		
UI Entitlement Length (in logs)	-0.312	0.069
Receive UB (time-varying)	-1.062	0.076
Receive UA (time varying)	-2.938	0.190
Previous Job Characteristics		
Permanent Contract	-0.132	0.041
Industry	-0.136	0.051
Construction	-0.171	0.048
Commerce and Hotels	-0.025	0.043
High Skill	0.103	0.098
Medium Skills	0.033	0.032
Public Firm	-0.099	0.052
Tenure (in logs)	-0.140	0.034
GDP growth rate (Quarterly)	0.439	0.129
Constant	1.290	0.471
Gamma Var	0.651	0.120

Note: PGM hazard model with gamma frailty. LR test for Gamma=0 (14.45).¹

Dummy variables for regions and months are used in the estimation but omitted from the Table.

The constant term contains native, low educated male workers, without children, hired with temporary contracts in the service sector with low skills at the first month of unemployment. High skills: Engineering, Judge and so on. Technical engineers, experts and qualified assistants and Administrative and Workshop Managers. Medium Skills: non-qualified assistants, Administrative Officers; Junior staff; Administrative Assistants; Low Skills: First and second class officials and Third order officials.

Table A.2: Sensitivity Analysis: Unobserved Heterogeneity

	(1)	(2)	(3)
	DiD	DiD	DiD
Reform	0.349***	0.324***	0.262***
	[0.09]	[0.08]	[0.06]
D _i ^T , D _i ^{post_july}	X	X	X

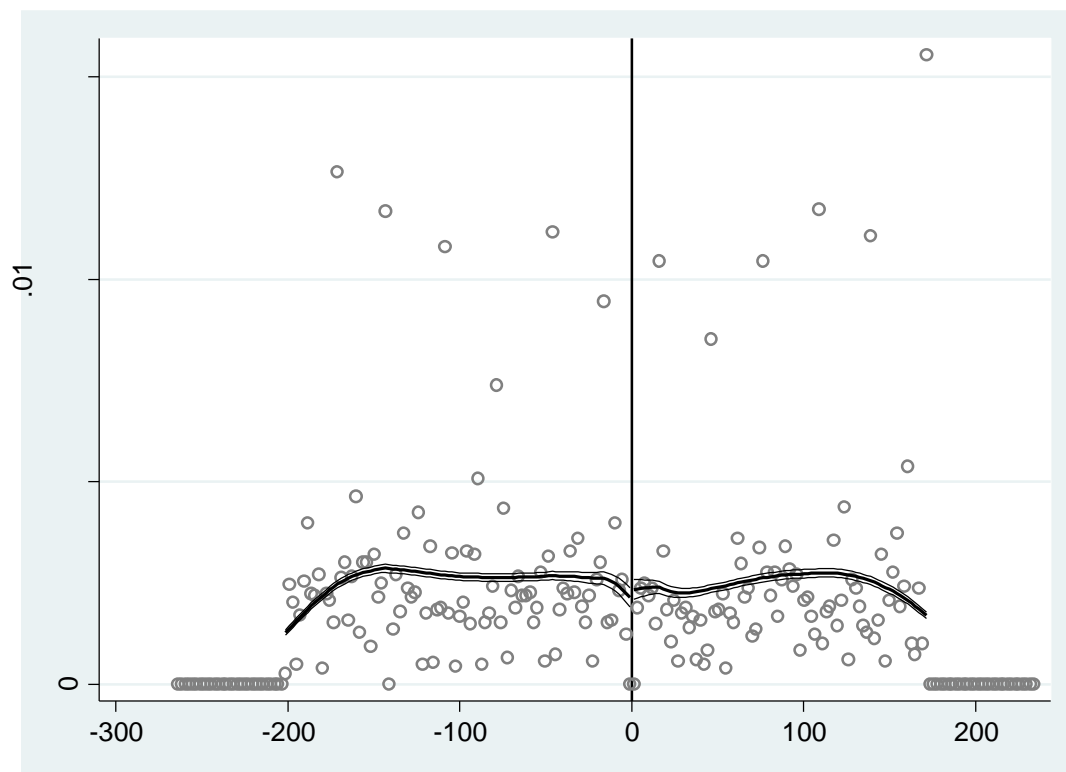
ho(j) (4-week dummies)	X	X	X
Regional, seasonal and macro controls	X	X	X
Individual, job and UI covariates	X	X	X
Log Likelihood	-23000.505	-23005.505	-23029.665
Unobserved Heterogeneity	Gamma	Heckman Singer	None

Notes: Standard errors in brackets.

Model 2: Heckman-Singer with two mass points. Prob. Type 1=0.23, Prob. Type 2=0.76

*** 1% statistical significance level.

Appendix Figure A.1 Density Test of Manipulation in the Running Variable



Note: Density test of manipulation in the running variable. The density test is based on McCrary (2008) and is implemented using the DCDensity.ado routine in Stata. Discontinuity estimate (standard error in parentheses): 0.106 (0.08)

Table A.3: Regression Discontinuity Design Validity Tests for Main Covariates

	Female	Immigrant	Age	Universit	Children
$D_i^{\text{post_july}}$	0.008 [0.01]	-0.004 [0.01]	-0.001 [0.01]	-0.011 [0.02]	-0.028 [0.03]
	UI entitlement	Industry	Construction	Services	Labor Market Experience
$D_i^{\text{post_july}}$	-0.035 [0.15]	-0.061*** [0.03]	0.034** [0.02]	0.028 [0.02]	-0.023 [0.02]
	Public Sector	Permanent Contract	Previous Tenure	High Skill	Med-Skill
$D_i^{\text{post_july}}$	0.001 [0.02]	-0.012 [0.02]	-0.059** [0.03]	-0.013 [0.02]	-0.008 [0.02]

Note: We test whether there is any discontinuity in observable characteristics around the threshold. Separated treatment and control trends are included in the model. Robust standard errors clustered at the individual level in brackets. Sample sizes are the same as those presented in Table 5.

Table A.4: Effects of Reducing the RR on the job Finding Probability: Placebo Tests (coefficient estimates, RD Approach)

	(1) Placebo 1 (2011)	(2) Placebo 2 (RR)	(3) Placebo 3 (Entitlements<26)
$D_i^{\text{post_july}}$	0.051 [0.23]	0.022 [0.07]	-0.195 [0.13]
Job finding rate	5% [0.24]	2% [0.07]	-17% [0.13]
ho(j) (4-week dummies)	X	X	X
Regional, Seasonal and macro controls	X	X	X
Individual, job and UI covariates	X	X	X
N (Individuals)	4,163	2,264	771
N (observations)	319,397	165,756	34,742

Notes: Standard errors in brackets. Placebo 1 in Column (1) presents the RD estimate using data from 2011; Placebo 2 in Column (2) presents the RD estimate using *only* workers who entered unemployment between January and June 2012 (before the reform under analysis took place) and applying the fictitious policy-change date of April 1, 2012. Column (3) presents the RD estimate using workers displaced in 2012 with entitlements shorter than six months, and hence not eligible. All models are estimated using linear trend term specific to control and treated groups.

* 10% statistical significance level; ** 5% statistical significance level; *** 1% statistical significance level.

Table A.5: Results from the duration model for the Unemployment: Heterogeneous results by unemployment duration

With Unobserved Heterogeneity		
<u>h₀(j)*DiD parameters</u>	Coef	Se
λ_1 : 1-12 weeks		
Reform* λ_1	0.358	0.121
$D^{T*} \lambda_1$	-0.021	0.131
$D^{post*} \lambda_1$	-0.268	0.142
λ_1	-0.474	0.177
λ_1 : 13-26 weeks		
Reform* λ_1	0.415	0.131
$D^{T*} \lambda_1$	-0.230	0.142
$D^{post*} \lambda_1$	-0.289	0.139
λ_1 :	-0.409	0.212
λ_1 : 27-40 weeks		
Reform* λ_1	0.176	0.150
$D^{T*} \lambda_1$	0.137	0.151
$D^{post*} \lambda_1$	-0.098	0.176
λ_1 :	-0.693	0.242
λ_1 >40 weeks		
Reform* λ_1	0.281	0.183
$D^{T*} \lambda_1$	0.087	0.121
$D^{post*} \lambda_1$	-0.426	0.201
<u>h₀(j)* (weeks)</u>		
λ_2 (Week5-8)	1.116	0.098
λ_3 (Week9-12)	1.064	0.092
λ_4 (Week13-16)	1.150	0.137
λ_5 (Week17-20)	1.142	0.157
λ_6 (Week21-24)	1.080	0.161
λ_7 (Week25-28)	1.156	0.173
λ_8 (Week29-32)	1.063	0.202
λ_9 (Week33-36)	1.093	0.209
λ_{10} (Week37-40)	0.938	0.215
λ_{11} (Week41-44)	0.484	0.140
λ_{12} (Week45-48)	0.397	0.136
λ_{13} (Week49-52)	0.291	0.131
λ_{14} (Week53-56)	0.210	0.132
λ_{15} (Week57-60)	0.062	0.142
<u>Individual Characteristics</u>		
Females	0.127	0.042
Experience (in logs)	0.673	0.040
Age (in logs)	-1.912	0.094
University	0.123	0.048
Children	0.087	0.031
Immigrant	-0.027	0.087
<u>UI covariates</u>		
UI Entitlement Length (in logs)	-3.166	0.088
Receive UI (time varying)	-1.081	0.112
Receive UA (time varying)	-2.851	0.220
<u>Previous Job Characteristics</u>		
Permanent Contract	-0.087	0.039
Industry	-0.100	0.061
Construction	-0.141	0.068
Commerce and Hotels	-0.005	0.053
High Skill	0.011	0.088
Medium Skills	0.046	0.042
Public Firm	-0.102	0.059
Tenure (in logs)	-1.166	0.323
GDP growth rate (quarterly)	0.611	0.180
Constant	2.108	0.596
Gamma var	0.717	0.135

Note: Dummy variables for regions and quarters are used in the estimation but omitted from the table.

Table A.6: Sensitivity Analysis: Unobserved Heterogeneity (DiD)

	(1)	(2)	(3)
	Gamma	Heckman Singer	Without
Reform*1-12 weeks	0.358*** [0.12]	0.351*** [0.1]	0.338*** [0.12]
Reform*13-26 weeks	0.415*** [0.13]	0.368*** [0.12]	0.337*** [0.12]
Reform*27-40 weeks	0.176 [0.15]	0.121 [0.15]	0.095 [0.14]
Reform*>40 weeks	0.281 [0.18]	0.203 [0.18]	0.163 [0.16]
$D_i^{treated}, D_i^{post_july}$	X	X	X
Regional, Seasonal and macro controls	X	X	X
Individual, Job and UI Characteristics	X	X	X
Log Likelihood	-22992.175	-22997.505	-23105.39719

Notes: Standard errors in brackets. Model 2: Heckman-Singer with two mass points. Prob. Type 1=0.23, Prob. Type 2=0.76

Appendix Table A.7. Effects of the Reform on Post-Displacement Job Characteristics:

Exit to :	Temporary Contract	Permanent Contract	Part-time Contract	Full-time Contract	Worse job (occupation)	Same/Higher Job (occupation)
Panel A						
Reform	0.328*** [0.10]	0.573** [0.21]	0.372 [0.14]	0.370** [0.10]	0.272 [0.18]	0.316** [0.14]
$D_i^{ent6m}, D_i^{post_july}$	X	X	X	X	X	X
$h_0(j)$ (4-week dummies)	X	X	X	X	X	X
Individual, Job and UI covariates	X	X	X	X	X	X
Regional, Macro and Seasonal Controls	X	X	X	X	X	X
Unobserved Heterogeneity	X	X	X	X	X	X
Panel B: Model allowing for heterogeneous effects along the non-employment spell						
Reform (1-12 weeks)	0.325*** [0.15]	0.540** [0.30]	0.203 [0.28]	0.392** [0.14]	0.478 [0.13]	0.413** [0.15]
Reform (13-26 weeks)	0.411*** [0.15]	0.625** [0.32]	0.266 [0.26]	0.442** [0.15]	0.608 [0.13]	0.253** [0.18]
Reform (27-40 weeks)	0.176 [0.18]	0.398 [0.42]	0.107 [0.26]	0.182 [0.18]	0.038 [0.13]	0.263** [0.08]
Reform (> 40 weeks)	0.317 [0.20]	0.661 [0.53]	0.411 [0.31]	0.232 [0.21]	0.148 [0.36]	0.353** [0.21]
$D_i^{ent6m}, D_i^{post_july}$	X	X	X	X	X	X
$h_0(j)$ (4-week dummies)	X	X	X	X	X	X
Individual, Job and UI covariates	X	X	X	X	X	X
Regional, Macro and Seasonal Controls	X	X	X	X	X	X
Unobserved Heterogeneity	X	X	X	X	X	X

Notes: Standard errors in brackets. Sample size might vary because missing information on new job characteristic.
10% statistical significance level; ** 5% statistical significance level; *** 1% statistical significance level.

ⁱ The size of the variance of the gamma mixture distribution relative to its standard error suggests, however, that unobserved heterogeneity is significant in this data set. The likelihood ratio test of the model with versus the model without unobserved heterogeneity, also suggests the same conclusion.