Online Appendix

Disincentive Effects of Unemployment Benefits and the Role of Caseworkers

Johannes F Schmieder[§]
Boston University,
NBER, IZA, CESIfo

Simon Trenkle[†]
Institute for Employment
Research (IAB)

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1 Sorting of Teams

We examine the extent to which individuals are sorted into teams based on observed characteristics using three distinct measures. A dissimilarity index on the team level, an Intra Class Correlation coefficient (ICC) and a F-test for whether a model with team fixed effects is significantly different from a model with agency fixed effect only. Since we are interested in

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whether selection into teams is non-random within local UI agencies and not in whether there are differences in the pool of unemployed between UI agencies, we calculate all measures for team level selection relative to the selection on the local agency level. Table 2 brings these measures to the data.

Dissimilarity Index. The Dissimilarity Index compares for binary variables, how unevenly they are distributed between different categories or – transferred to our setting – teams. The dissimilarity index for a binary variable on the team level is defined as follows:

$$Dissim = \frac{1}{2} \sum_{t=1}^{N_{Teams}} |\frac{X_t^1}{X_{total}^1} - \frac{X_t^0}{X_{total}^0}| \tag{1}$$

Teams are indexed with t and N_{Teams} is the number of teams. Moreover, X_t^0 (X_t^1) refer to the numbers of individuals in team t for which the binary variable is 0 (1) and X_{total}^0 (X_{total}^1) is the number of individuals over all teams for which the binary variably equals 0 (1). This index is invariant to the share of individuals in one group (i.e. to the overall mean of the binary variable) and is bounded between 0 and 1 where 0 denotes a completely even distribution and 1 that individuals are completely clustered within teams. The index can be interpreted as the share of one group of individuals that would need to be relocated to different teams to achieve full equality.

To exclude any sorting that happens already on the agency level a we calculate this dissimilarity index on the agency level and calculate an average of those agency-level indices weighted with the agency size N_a (measured as number of quarterly inflows into UI at the respective agency) and N number of individuals in total:

$$\bar{Dissim} = \frac{1}{N} \sum (Dissim_a \cdot N_a) \tag{2}$$

Table 2 Column (1) shows this Dissimilarity Index for a number of individual characteristics. Of course even if the assignment into teams were perfectly random, teams would not all look identical within UI agencies due to small sample bias. As a benchmark we therefore

provide a simple simulation in the bottom panel where we created a random dummy variable, which takes a value of 1 with drawing probability p, that is given in the table, and calculate the Dissimilarity Index for this variable given the team distribution. For smaller drawing probabilities, teams tend to be less similar simply by chance. For example with a drawing probability of $p = 0.1$ the dissimilarity index would take on a value of around 0.22 simply by chance. This value decreases with p until they reach about 0.06 for $p = 0.5$. The empirical outcomes we look at in the Table all have means in the ballpark of 0.5 while the calculated Dissimilarity Index are well above the simulated 0.06 value. Non-random assignment appears particularly severe for Age, Education and the prior wage.

Intra Class Correlation Coefficient (ICC): The ICC measures the share of the overall variance of one variable, that can be attributed to variation between teams. The measure can be calculated for binary as well as continuous variables. We calculate the ICC separately for the team-level t and the agency-level a by running the following random effects model on the individual level:

$$y_i = \alpha + \gamma_{t/a} + \epsilon_{it} \tag{3}$$

Where y_i is an outcome variable on the individual level, $\gamma_{t/a}$ an error term on the team-level and ϵ_{it} an individual-level error term. Under the assumption that $E[\epsilon_{it}|\gamma_{t/a}] = 0$, the intra class correlation coefficient is given as:

$$\rho = \frac{\sqrt{Var(\gamma_{t/a})}}{\sqrt{Var(\gamma_{t/a})} + \sqrt{Var(\epsilon)}} \tag{4}$$

ρ is again bounded between 0 and 1 where 0 refers to the situation where the measure is evenly distributed between teams and thus $Var(\gamma_{t/a}) = 0$. On the other extreme, where the value is 0, variation happens only between teams and is completely clustered on that level and thus $Var(\epsilon) = 0$.

Table 2 shows the ICC for a variety of outcomes calculated on the team level (column 2) and for comparison on the agency level (column 3). The fact that the team-level ICC are much

higher than the agency level ICC again suggests significant non-random team assignments within the local UI agencies.

F-Test: To obtain a statistical test for whether the clustering on the team level is significantly different from that on the agency level, we first run the following equation on the team and agency level separately via fixed effects:

$$y_i = \alpha + \gamma_{t/a} + \epsilon_{it} \tag{5}$$

We want to test, whether team effects yield significantly additional information on top of agency fixed effects only. As teams are nested within agencies, this boils down to the following null hypothesis:

$$H_0: \ \gamma_t = \gamma_a \ \forall t \in a, \forall a \tag{6}$$

We can use an F-statistic of the following form to test whether team effects yield significantly additional information on top of agency fixed effects only:

$$\frac{(SSR_{agency} - SSR_{team})/r}{SSR_{agency}/df_{teams}} \sim F(r, df_{teams}) \tag{7}$$

Here, SSR_{agency} refers to the sum of squared residuals from the agency fixed-effect regression (the restricted model), SSR_{team} refers to the sum of squared residuals form the team fixed-effect regression (the unrestricted model), df_{team} refers to the degrees of freedom in the team-level regression and r refers to the number of restrictions, which is on our case the number of teams less the number of agencies.

Given the large number of agencies and teams the critical values for this F-test is very close to 1 (given in the footnotes in the Table) for the conventional significance levels, while for all outcomes we find empirical F-statistics of at least 1.6 and higher. Thus we can clearly reject random assignments for any of the outcomes on the 1% (and much less) level. Furthermore we again see that non-random assignment is the most significant for age, occupation and prior

earnings.

2 Appendix Tables and Figures

Table 1: Summary on Team x Quarter Level -Weighted with Team Size

	(1) excl. missing teams (baseline)	(2) excl. highly impupted teams	(3) exc. small and large teams
Agency Size			
Mean N per Team	342.0	360.3	362.8
	[251.9]	[257.6]	[226.1]
Mean N between age 45 and 55 per Team	66.3	70.9	70.5
	[49.6]	[51.0]	[45.0]
Mean N, final res per Team	47.3	50.8	50.3
	[36.4]	[37.6]	[33.0]
above 50 (dummy)	0.44	0.44	0.44
	[0.12]	[0.12]	[0.092]
>= 1 pers. below and above 50	0.91	0.91	0.96
	[0.29]	[0.28]	[0.19]
>= 1 pers. below and above 50, final res	0.98	0.98	0.99
	[0.14]	[0.14]	[0.072]
Individual Characteristics			
Non-German	0.11	0.11	0.10
	[0.10]	[0.100]	[0.083]
Female	0.42	0.41	0.42
	[0.10]	[0.10]	[0.077]
Years of Education	10.9	10.9	11.0
	[1.28]	[1.28]	[1.23]
Daily Pre-unemployment Wage	54.3	55.0	55.4
	[13.2]	[13.2]	[11.6]
Months ins Nonemp. (cap at 36)	17.5	17.4	17.2
	[3.52]	[3.46]	[2.63]
Months on UI	6.37	6.30	6.34
	[1.37]	[1.27]	[1.08]
Age in Years	36.8	36.9	37.0
	[4.67]	[4.61]	[3.90]
Team-Related Characteristics			
Missing Team (at spell-start)	0.061	0.020	0.059
	[0.11]	[0.016]	[0.093]
Number of Team X Quarters	72338	55899	15075
Number of Teams	20388	17682	2594
Number of Individuals	2837128	2342675	2565505

This table summarizes team-levels characteristics on the team x quarter level between 04/2008 and 06/2010.

Table 2: Measures for Team-Selection

	Dissimilarity-Index (1) Team-Level Within-Agency	Intra-Class-Coefficient (2) Team Level	(3) Agency Level	F-Statistic (4) Team vs. Agency Level
Individual Characteristics				
Female	.087	.035	.010	1.685
Non-German	.163	178	044	1.997
Age (in years)	-	.183	.026	5.741
Dummy: Above median Age	.137	-	-	-
Education (in years)	-	.293	.020	10.906
Dummy: High Education	.210	-	-	-
Last Wage prior to UE	-	.143	.048	4.490
Dummy: Above Median Earnings	.133	-	-	-
Occupation (blossfeld 4)	.060	.081	002	2.138
Unemployment and UI Duration				
Nonemp. duration (18 month cap)	-	.045	012	2.006
Dummy: Above-Median Nonemp.	.101	-	-	-
UI Duration	-	0	.014	1.909
Dummy: Above-Median UI	.096	-	-	-
Simulated I.I.D. Draws				
Drawing probability: .01	.224	.023	0	1.006
Drawing probability: .1	.094	0	0	1.004
Drawing probability: .5	.060	0	0	0.997

Notes: This table provides different measures on the selection into team x quarters for different observed characteristics. These measures are describen in more detail in appendix 1. Column one provides mean values for the agency-size weighted dissimilarity index, where for each agency-quarter the dissimilarity index is calculated as: $Dissim = \frac{1}{2} \sum_{i=1}^{N} |\frac{X_i^1}{X_{total}^1} - \frac{X_i^0}{X_{total}^0}|$. Column 2 provides Intra-Class Coefficients ρ, column 3 shows the same coefficient calculated on the agency-level. Column 4 provides F-Statistics testing for the significance of team fixed (unrestricted model) compared to a version with using agency-fixed effects only (restricted model). Corresponding critical values are 1.0068, 1.0088 and 1.0125 for the 10%, 5% and 1% significance value respectively.

Table 3: The Effect of Potential UI Durations on Number of UI Entries per Age-Day

	(1) Linear Age Control	(2) Quadratic Age Control	(3) Cubic Age Control	(4) Age^4	(5) Age^5
Increase in Potential UI Dur. from 12 to 15 Months					
D(Age above Cutoff)	2.49	3.78	3.25	4.47	2.13
	[0.77]**	[1.31]**	[2.10]	[3.27]	[4.87]
$\frac{dy}{dP}$	0.83	1.26	1.08	1.49	0.71
	[0.26]**	[0.44]**	[0.70]	[1.09]	[1.62]
Effect relative to mean	0.035	0.053	0.045	0.063	0.030
Observations	98405	98405	98405	98405	98405
Mean of Dep. Var.	71.4	71.4	71.4	71.4	71.4

Notes: This table reports estimates of the effect of potential UI duration on the number of UI entries per age-day between 04/2008-06/2010. Coefficients from RD regressions. Local linear regressions (different slopes) on each side of cutoff. Bandwidth are 2 years on each side of the cutoff where 1 month on each side of cutoff is excluded. Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).

Table 4: Validity Test of the Regression Discontinuity Design: Smoothness of Predetermined Characteristics (with team x quarter fixed effects)

	(1) Years of Education	(2) Female	(3) Foreign Citizen	(4) Tenure Last Job	(5) Exp. Last Job	(6) Pre Wage
D(Age above Cutoff)	-0.027	-0.0029	-0.0026	0.032	0.17	1.15
	[0.036]	[0.0075]	[0.0039]	[0.11]	[0.13]	[0.58]*
Effect relative to mean	-0.0024	-0.0061	-0.034	0.0051	0.0098	0.018
Observations	98405	98405	98405	98405	98405	98405
Mean of Dep. Var.	11.2	0.47	0.076	6.29	16.8	63.1

	(7) Time till Claim	(8) Occ Ten. Last Job	(9) Ind Ten. Last Job	(10) West Germany	(11) Children (Dummy)	(12) Married (Dummy)
D(Age above Cutoff)	-0.0058	0.11	0.13	0.0043	-0.0044	-0.0032
	[0.0056]	[0.13]	[0.11]	[0.0028]	[0.0075]	[0.0071]
Effect relative to mean	-0.043	0.0084	0.0098	0.0053	-0.011	-0.0049
Observations	98405	98405	98405	98405	98405	98405
Mean of Dep. Var.	0.13	12.6	13.3	0.82	0.38	0.64

Notes: This table reports estimates of the effect of potential UI duration on several predetermined characteristics. Coefficients from RD regressions. Each coefficient is estimated in a separate regression discontinuity model that controls linearly for age with different slopes and bandwidth of two age years on each side of cutoff. UI entries between 04/2008-06/2010, one month at each side of the cutoff is excluded. Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).

Table 5: The Effect of Potential UI Durations on UI and Nonemployment Duration – Different Controls

	(1) Unemp Ins. Benefit Duration	(2) Duration Nonemp to emp	(3) Non-Emp Duration 15 Months	(4) Non-Emp Duration 18 Months	(5) Ever emp. again	(6) Exit Prob 15 Mon	(7) Exit Prob 18 Mon	(8) Log Post Wage	(9) Log Wage Difference
Panel A: No Controls									
D(Age above Cutoff)	0.95	0.23	0.12	0.17	-0.0070	-0.027	-0.013	0.013	0.0092
	[0.072]**	[0.11]*	[0.073]	[0.089]†	[0.0064]	[0.0065]**	[0.0065]*	[0.011]	[0.0096]
Effect relative to mean	0.13	0.033	0.012	0.015	-0.011	-0.050	-0.023	0.0034	-0.046
Panel B: Controls									
D(Age above Cutoff)	0.96	0.29	0.12	0.17	-0.0050	-0.026	-0.012	0.0078	0.0098
	[0.071]**	[0.11]**	[0.072]†	[0.088]†	[0.0062]	[0.0063]**	[0.0063]†	[0.0085]	[0.0090]
Effect relative to mean	0.14	0.040	0.012	0.015	-0.0083	-0.049	-0.021	0.0020	-0.048
Panel C: Team Fixed Effects									
D(Age above Cutoff)	1.00	0.42	0.16	0.22	-0.0046	-0.031	-0.014	0.0099	0.0038
	[0.080]**	[0.12]**	[0.084]†	[0.10]*	[0.0072]	[0.0073]**	[0.0073]†	[0.012]	[0.011]
Effect relative to mean	0.14	0.058	0.017	0.020	-0.0075	-0.058	-0.025	0.0026	-0.019
Panel D: Team Fixed Effects + Controls									
D(Age above Cutoff)	1.00	0.40	0.16	0.22	-0.0051	-0.032	-0.014	0.0043	0.0065
	[0.079]**	[0.12]**	[0.083]*	[0.10]*	[0.0071]	[0.0072]**	[0.0072]*	[0.0093]	[0.0099]
Effect relative to mean	0.14	0.057	0.017	0.020	-0.0084	-0.059	-0.025	0.0011	-0.032
Observations	98405	59965	98405	98405	98405	98405	98405	59592	57134

Notes: This table reports effects of potential UI duration on different measures for time out of work using different combinations of controls and team fixed effects. Coefficients from RD regressions. Local linear regressions (different slopes) on each side of cutoff. Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).

Table 6: Potential UI Duration on Assistance in Job-Search – Different Controls

	(1) Number of Invitations	(2) Number of Signed Contracts	(3) Number of Job Referrals	(4) Looking for Part and Fulltime Jobs	(5) Labor Market Profile Index	(6) Fraction of Sanctions at UI entry	(7) Days in Placement Services	(8) Days in Training Programs
Panel A: No Controls								
D(Age above Cutoff)	0.029	0.024	-0.021	0.0016	0.100	-0.0032	0.063	-0.0051
	[0.019]	[0.014]†	[0.029]	[0.0031]	[0.017]**	[0.0055]	[0.12]	[0.23]
Effect relative to mean	0.016	0.018	-0.017	0.024	0.045	-0.015	0.052	-0.0010
Panel B: Controls								
D(Age above Cutoff)	0.022	0.017	-0.043	0.0021	0.11	-0.0040	0.10	0.0044
	[0.018]	[0.013]	[0.029]	[0.0030]	[0.017]**	[0.0055]	[0.12]	[0.23]
Effect relative to mean	0.012	0.012	-0.034	0.032	0.048	-0.019	0.086	0.00087
Panel C: Team Fixed Effects								
D(Age above Cutoff)	0.0062	0.014	-0.018	-0.0014	0.11	-0.0037	0.0013	0.077
	[0.018]	[0.014]	[0.033]	[0.0033]	[0.020]**	[0.0062]	[0.13]	[0.26]
Effect relative to mean	0.0034	0.011	-0.014	-0.021	0.050	-0.018	0.0011	0.015
Panel D: Team Fixed Effects + Controls								
D(Age above Cutoff)	0.0062	0.011	-0.026	-0.00088	0.11	-0.0046	-0.0025	0.031
	[0.018]	[0.013]	[0.033]	[0.0032]	[0.019]**	[0.0061]	[0.13]	[0.26]
Effect relative to mean	0.0034	0.0078	-0.020	-0.013	0.051	-0.022	-0.0021	0.0061
Observations	98405	98405	98405	98405	52098	98405	98405	98405

Notes: This table reports effects for different measures of caseworker responses using different combinations of controls and team fixed effects. Coefficients from RD regressions. Local linear regressions (different slopes) on each side of cutoff. Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).

Table 7: Heterogeneity Table with team x quarter fixed effects

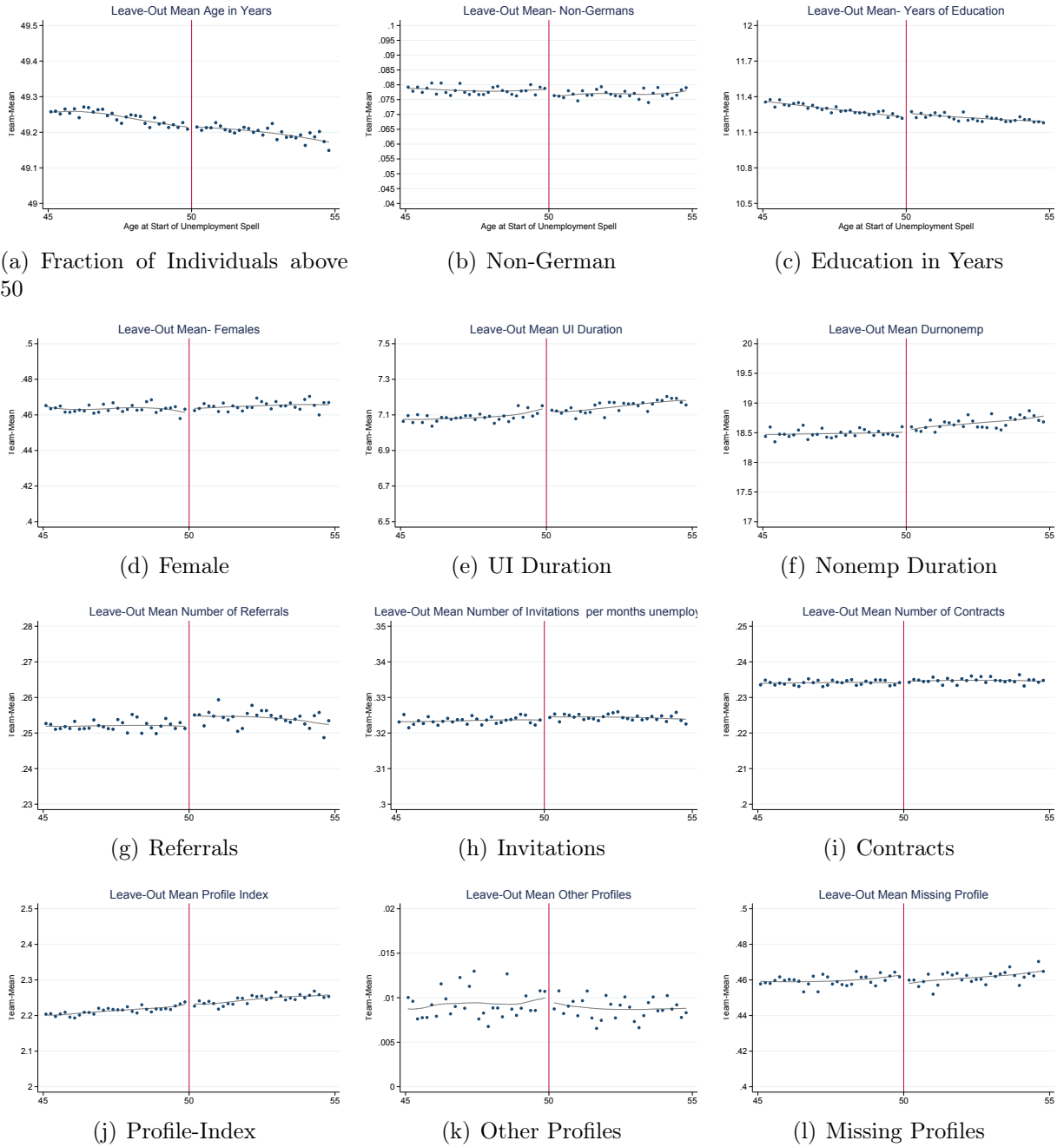|	(1) UI Benefit Duration	(2) Nonemp Duration 18 Months	(3) Caseworker Invitations	(4) Caseworker Vacancy Referrals	(5) Sanctions at UI Entry	(6) Labor Market Profile Index
Female	1.08	0.17	-0.019	-0.035	-0.015	0.081
	[0.13]**	[0.17]	[0.030]	[0.049]	[0.010]	[0.032]*
Observations	45967	45967	45967	45967	45967	24851
Male	0.94	0.25	0.040	0.013	-0.0026	0.12
	[0.11]**	[0.15]	[0.025]	[0.051]	[0.0089]	[0.030]**
Observations	52438	52438	52438	52438	52438	27247
≤ median pre-wage	0.93	0.12	-0.031	-0.060	-0.0094	0.080
	[0.13]**	[0.16]	[0.028]	[0.041]	[0.0095]	[0.034]*
Observations	49190	49190	49190	49190	49190	22186
> median pre-wage	1.04	0.21	0.049	0.014	0.00048	0.14
	[0.11]**	[0.15]	[0.026]†	[0.055]	[0.0092]	[0.029]**
Observations	49215	49215	49215	49215	49215	29914
Small Teams	1.06	0.18	0.017	-0.0091	0.0024	0.13
	[0.12]**	[0.16]	[0.027]	[0.049]	[0.0092]	[0.031]**
Observations	52206	52206	52206	52206	52206	27079
Large Teams	0.95	0.26	-0.0035	-0.025	-0.0092	0.093
	[0.11]**	[0.14]†	[0.024]	[0.044]	[0.0087]	[0.026]**
Observations	46199	46199	46199	46199	46199	25019
> 66 ind. on both sides	0.93	0.27	0.0015	-0.034	-0.00020	0.075
	[0.11]**	[0.14]†	[0.023]	[0.043]	[0.0084]	[0.025]**
Observations	46629	46629	46629	46629	46629	25412
≤ 66 ind. on one side	1.09	0.17	0.012	0.00043	-0.0075	0.15
	[0.12]**	[0.16]	[0.027]	[0.051]	[0.0094]	[0.031]**
Observations	51776	51776	51776	51776	51776	26686
Balanced on both sides	1.11	0.31	0.0010	0.022	0.0068	0.098
	[0.11]**	[0.14]*	[0.025]	[0.043]	[0.0086]	[0.027]**
Observations	48542	48542	48542	48542	48542	26267
Un-Balanced	0.89	0.13	0.012	-0.061	-0.015	0.13
	[0.12]**	[0.16]	[0.027]	[0.049]	[0.0089]†	[0.028]**
Observations	49863	49863	49863	49863	49863	25831
High Share Above 50	0.96	0.063	-0.014	0.0098	0.0072	0.087
	[0.11]**	[0.14]	[0.023]	[0.044]	[0.0077]	[0.027]**
Observations	54450	54450	54450	54450	54450	29273
Low Share Above 50	1.07	0.43	0.032	-0.053	-0.018	0.14
	[0.12]**	[0.15]**	[0.027]	[0.050]	[0.010]†	[0.030]**
Observations	43955	43955	43955	43955	43955	22825

Notes: This table shows heterogeneity results for the main variables of interest. Heterogeneity results are obtained by splitting the baseline into two categories (using different splits based on different variables) and regressing the variable of interest for each of these group separately. Coefficients from RD regressions with a bandwidth of 2 years but excluding observations within 1 month on each side. Local linear regressions with different slopes on each side of cutoff. Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).

Table 8: Sensitivity Analysis

	Bandwidth: 1 Year	Bandwidth: 0.5 Years	Quadratic Age Control	Bias Correction and robust SE (Calonico et al)*	Controlling for observable characteristics	Including close values	Placebo Test 2006/2007
UI Benefit Duration							
D(Age above Cutoff)	1.00	0.87	0.95	0.98	1.00	1.04	-0.021
	[0.14]**	[0.26]**	[0.13]**	[0.082]**	[0.079]**	[0.079]**	[0.070]
Observations	47397	21522	98405	98405	98405	102796	143746
Nonemployment Duration							
D(Age above Cutoff)	0.44	-0.016	0.28	0.22	0.22	0.30	-0.0087
	[0.18]*	[0.36]	[0.18]	[0.10]*	[0.10]*	[0.095]**	[0.080]
Observations	47397	21522	98405	98405	98405	102796	143746
Caseworker Invitations							
D(Age above Cutoff)	-0.0069	-0.0048	-0.0051	0.018	0.0062	0.0099	—
	[0.031]	[0.066]	[0.031]	[0.019]	[0.018]	[0.016]	—
Observations	47397	21522	98405	98405	98405	102796	—
Caseworker Vacancy Referrals							
D(Age above Cutoff)	-0.012	0.079	0.023	-0.014	-0.026	-0.013	—
	[0.058]	[0.13]	[0.058]	[0.033]	[0.033]	[0.030]	—
Observations	47397	21522	98405	98405	98405	102796	—
Education Programs							
D(Age above Cutoff)	0.38	1.39	0.30	0.047	0.031	0.011	—
	[0.43]	[0.17]	[0.083]	[0.26]	[0.26]	[0.24]	—
Observations	47397	21522	98405	98405	98405	102796	—
Sanctions							
D(Age above Cutoff)	-0.0013	0.0025	-0.0026	-0.0014	-0.0046	-0.0040	-0.0023
	[0.010]	[0.020]	[0.0098]	[0.0061]	[0.0061]	[0.0056]	[0.0046]
Observations	47397	21522	98405	98405	98405	102796	143746
Labor Market Profile Index							
D(Age above Cutoff)	0.043	0.015	0.040	0.076	0.11	0.10	—
	[0.034]	[0.073]	[0.035]	[0.019]**	[0.019]**	[0.018]**	—
Observations	25124	11321	52098	52098	52098	54449	—

Notes: Table shows effects of several robustness checks of UI extension on the main outcomes. All tables (except for placebo estimates) include team x quarter fixed effects. Standard-errors (clustered on the day level) are in brackets († P<.1, * P<.05, ** P<.01)). The placebo test is based on UI claimants around age 50 in 2006 and 2007, when there was no UI eligibility discontinuity at age 50 and maximum potential benefit durations were 12 months above and below the age 50 threshold. Dashes indicate that we do not have the relevant variables for the particular time period to estimate the specification.

Figure 1: Spillover: Leave-Out Mean Team-Level Detailed

(a) Fraction of Individuals above 50

(b) Non-German

(c) Education in Years

(d) Female

(e) UI Duration

(f) Nonemp Duration

(g) Referrals

(h) Invitations

(i) Contracts

(j) Profile-Index

(k) Other Profiles

(l) Missing Profiles

Notes: This figure shows leave-out means of different variables by age on the team-quarter level by age-bins. Binsize is 60 days.
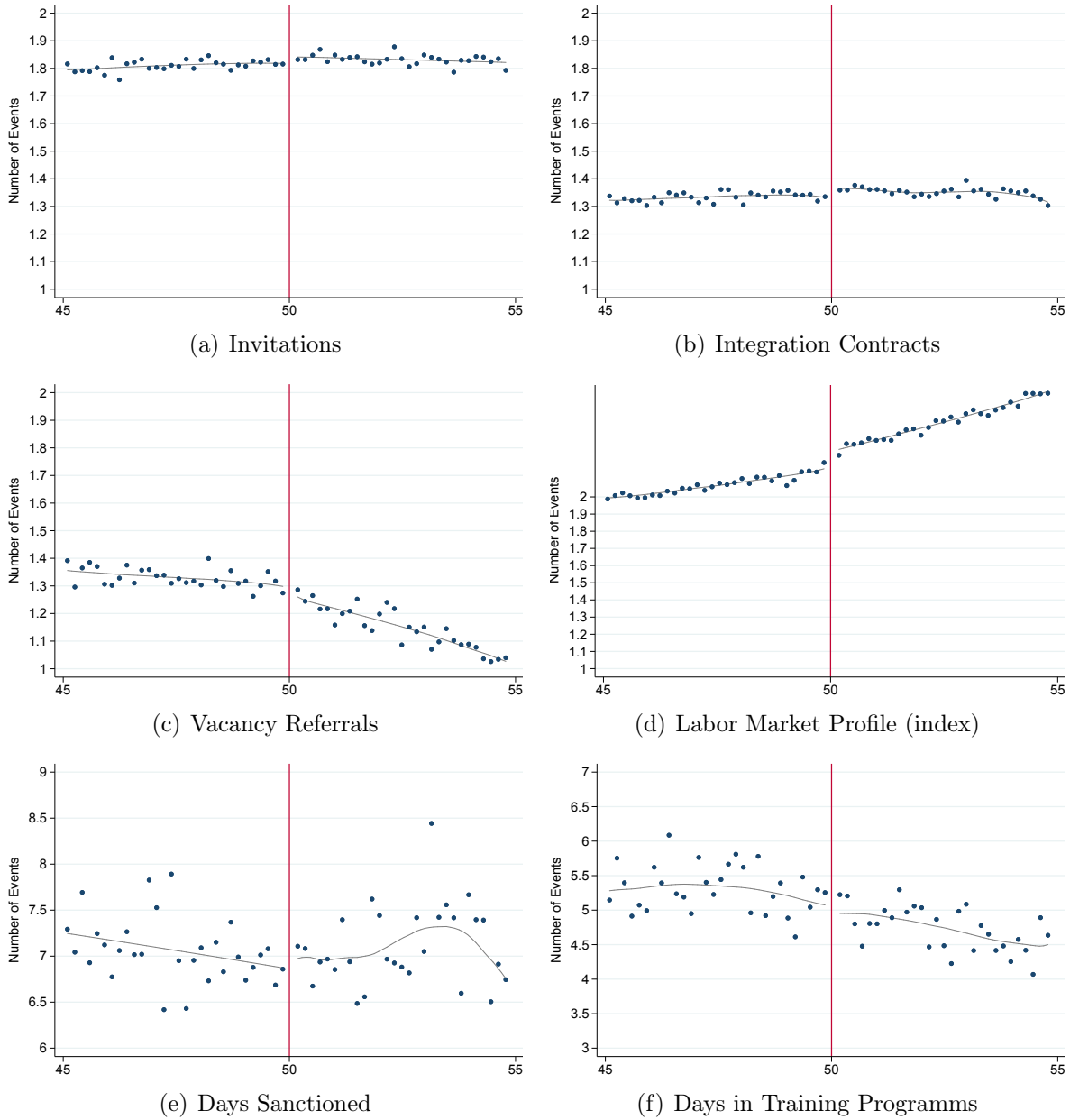
Figure 2: Density of UI Spells around Age Cutoff for Potential UI Duration

(a) Density

(b) Predicted Log Wage

Notes: This figure shows the smoothness of new UI benefit entries and predicted log wage around the age cutoff 50. Figure a) plots the frequency of new UI benefit. Figure b) plots the predicted daily log wage of the last employment spell from an OLS regression on predetermined covariates within a binize of two weeks. Explanatory variables are dummies for nationality, gender, children, marital status, East Germany and six educational groups, the duration till take-up, actual experience, occupational-, industry- and establishment tenure as well as seasonal (monthly) controls.

Figure 3: Caseworkers Resources / Actions around UI Cutoff -without FE
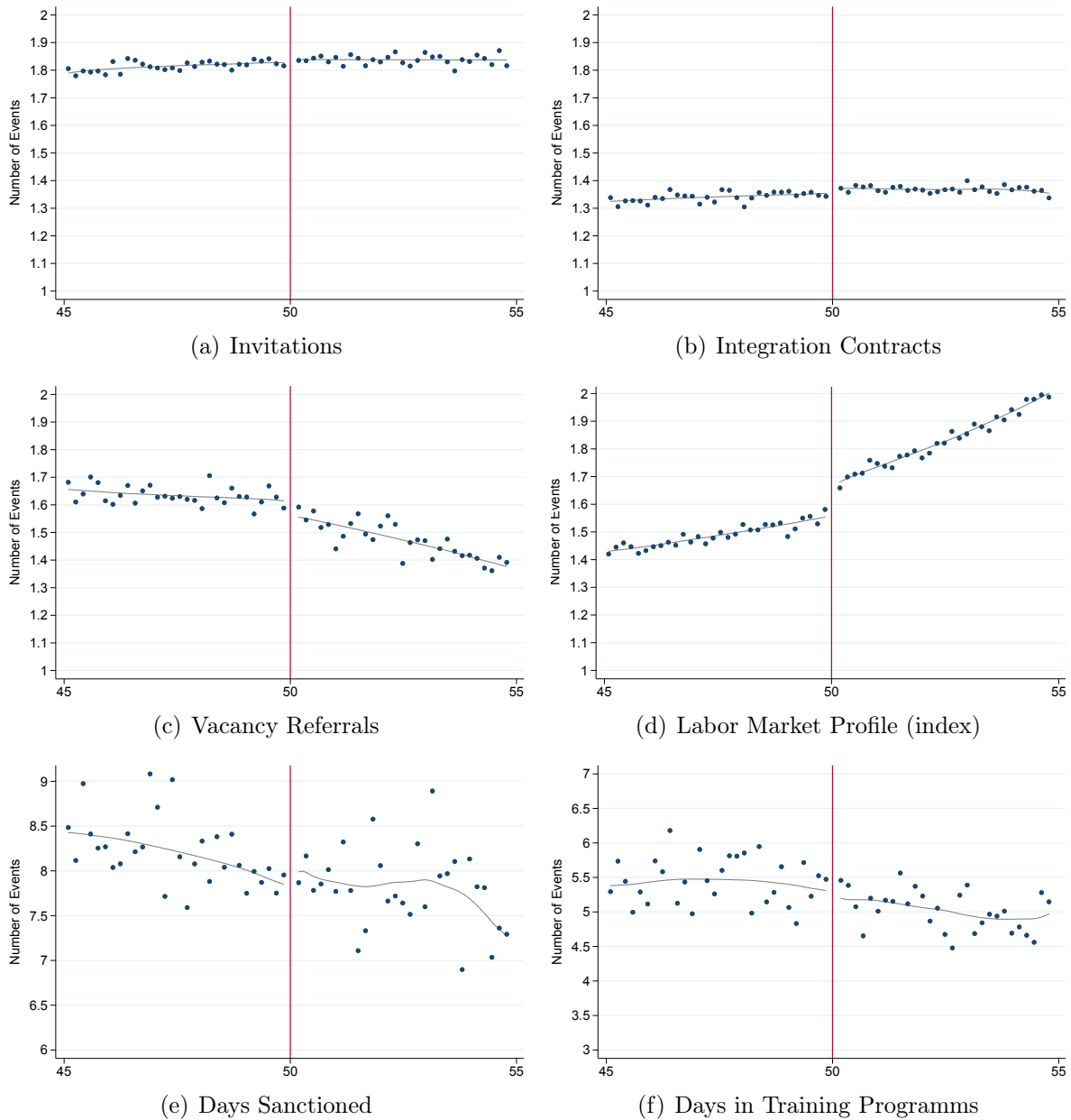
(a) Invitations

(b) Integration Contracts

(c) Vacancy Referrals

(d) Labor Market Profile (index)

(e) Days Sanctioned

(f) Days in Training Programms

Notes: This figure shows cross-sectional RD plots for caseworker contacts around the age cutoff 50. The outcome variables are measured as number of contacts per month from 3 months prior to UI entry up to four months after UI entry for Figure a) - c). and the assigned index value of the four relevant labor market profiles (where one means good prospects and four bad prospects) at the beginning UI entry for figure d). The binsize is set to 60 days.

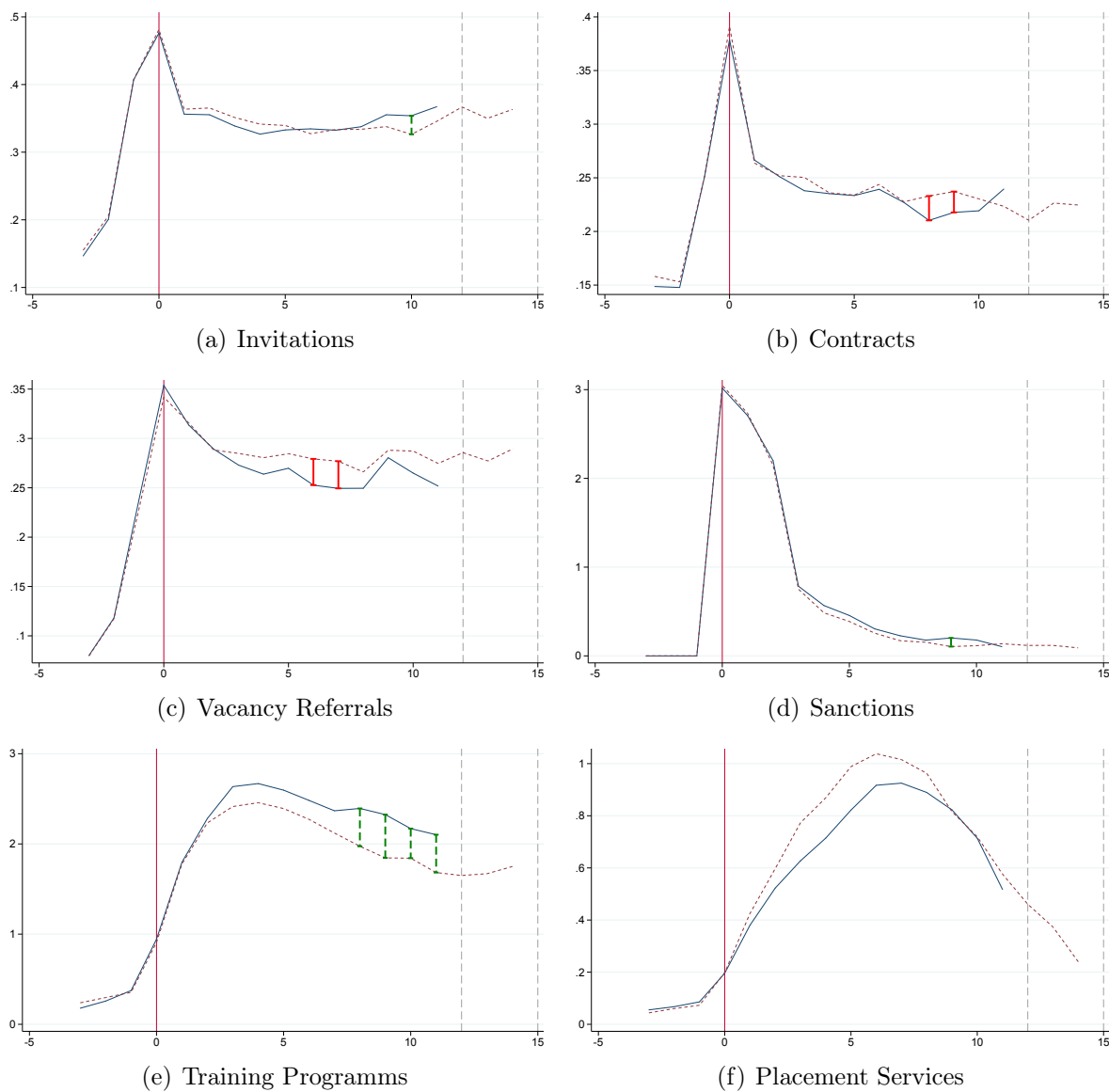Figure 4: Caseworkers Resources / Actions around UI Cutoff - with Controls
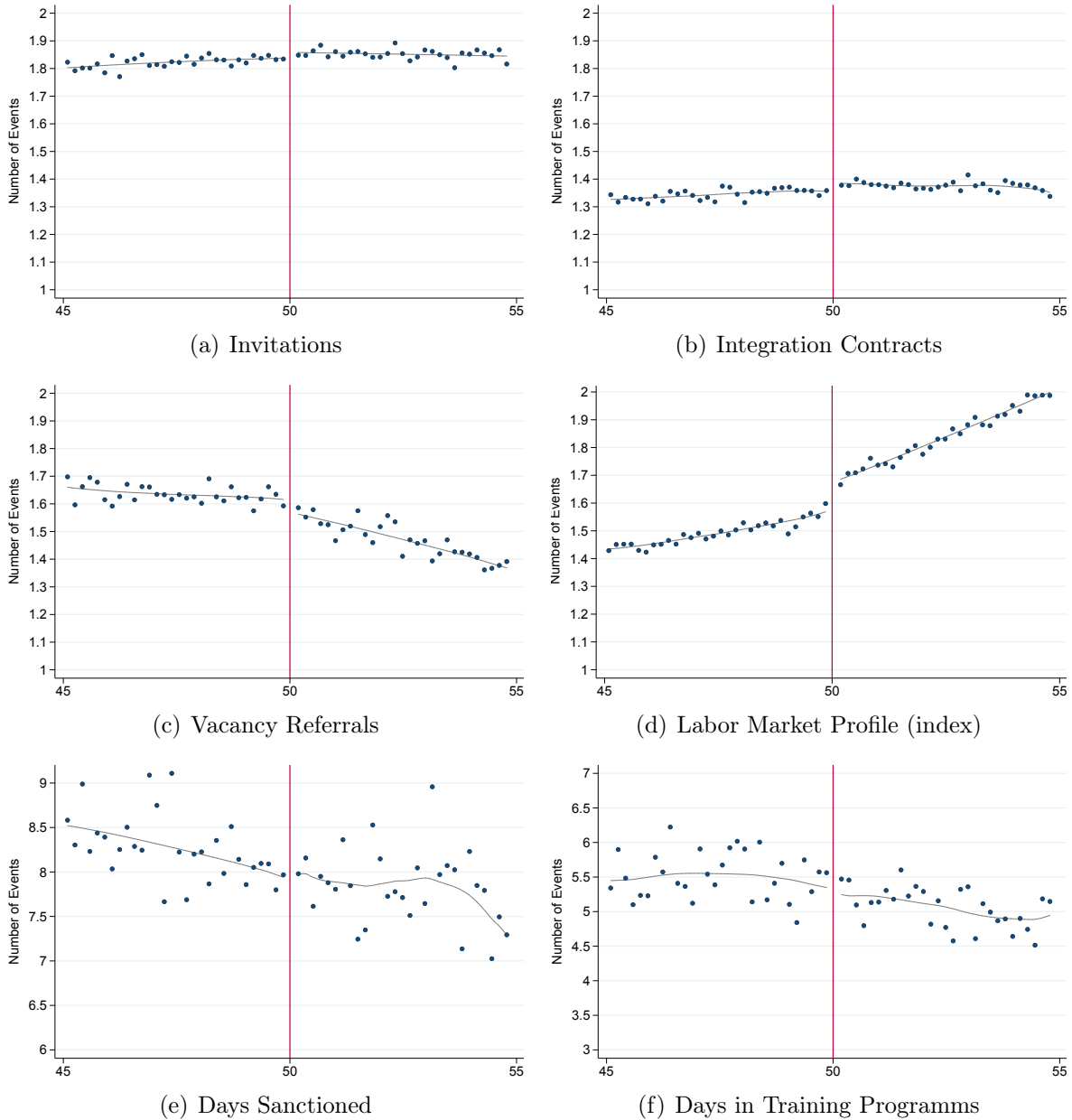
(a) Invitations

(b) Integration Contracts

(c) Vacancy Referrals

(d) Labor Market Profile (index)

(e) Days Sanctioned

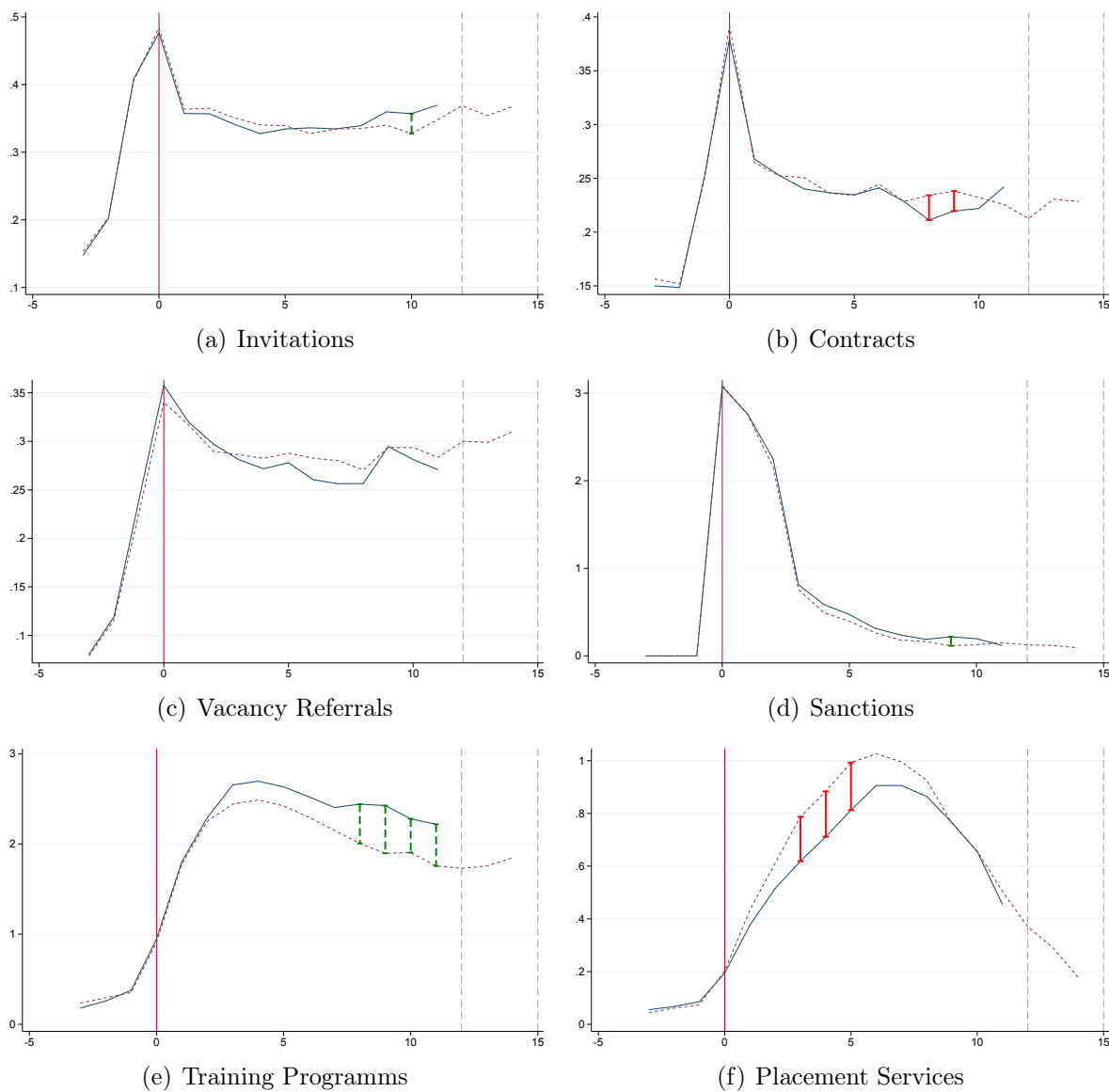(f) Days in Training Programms

Notes: This figure shows cross-sectional RD plots for caseworker contacts around the age cutoff 50. The outcome variables are measured as number of contacts per month from 3 months prior to UI entry up to four months after UI entry for Figure a) - c). and the assigned index value of the four relevant labor market profiles (where one means good prospects and four bad prospects) at the beginning UI entry for figure d). The binsize is set to 60 days.

Figure 5: Caseworkers Resources / Actions around UI Cutoff - with FE & Controls

(a) Invitations

(b) Integration Contracts

(c) Vacancy Referrals

(d) Labor Market Profile (index)

(e) Days Sanctioned

(f) Days in Training Programms

Notes: This figure shows cross-sectional RD plots for caseworker contacts around the age cutoff 50. The outcome variables are measured as number of contacts per month from 3 months prior to UI entry up to four months after UI entry for Figure a) - c). and the assigned index value of the four relevant labor market profiles (where one means good prospects and four bad prospects) at the beginning UI entry for figure d). The binsize is set to 60 days.

Figure 6: The Effect of Potential UI Durations on Caseworker Interactions Throughout the Unemployment Spell -Raw
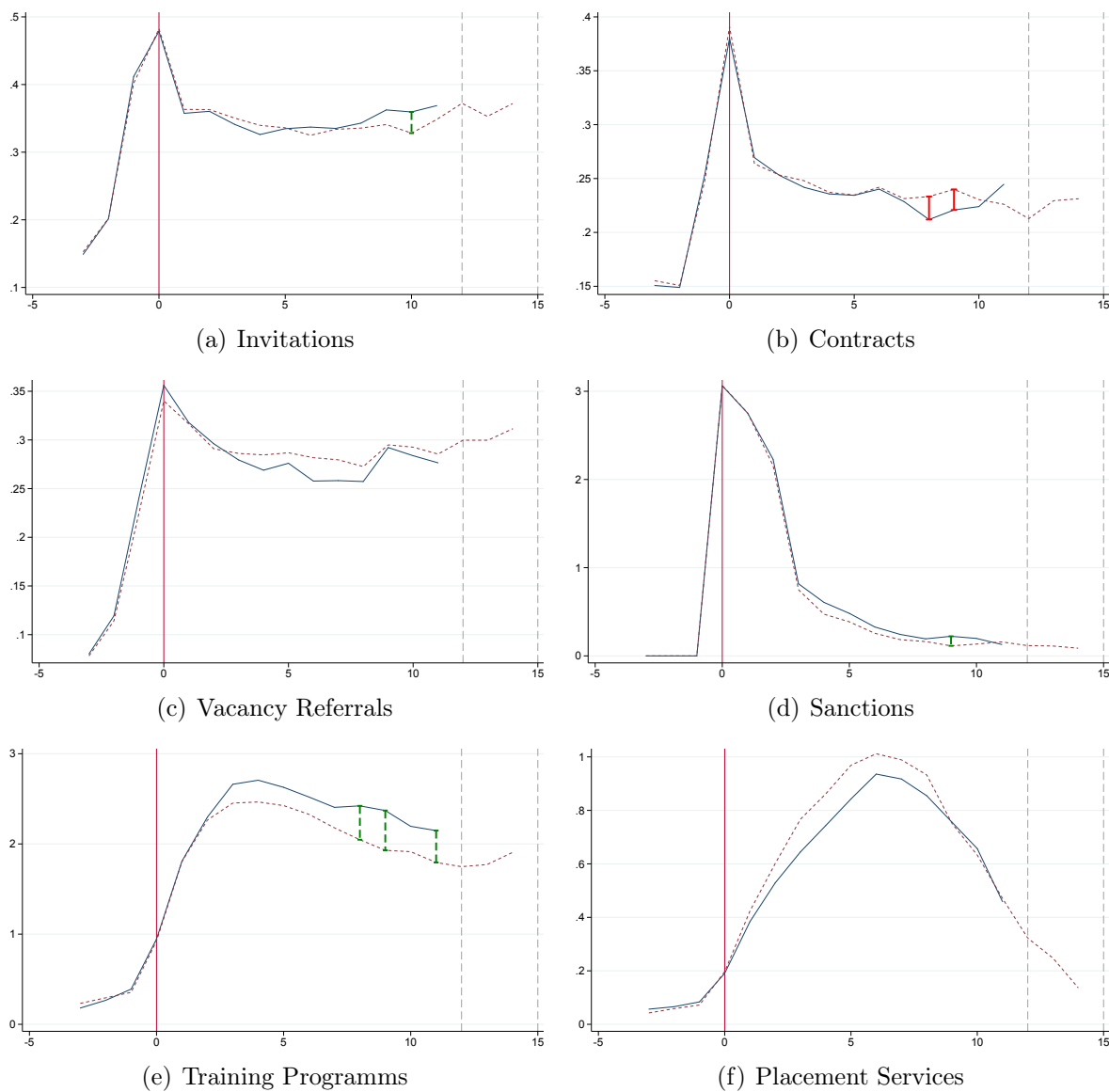

(a) Invitations

(b) Contracts

(c) Vacancy Referrals

(d) Sanctions

(e) Training Programms

(f) Placement Services

Notes: This figure shows cross-sectional RD plots for caseworker contacts around the age cutoff 50. The outcome variables are measured as number of contacts per month from 3 months prior to UI entry up to four months after UI entry for Figure a) - c). and the assigned index value of the four relevant labor market profiles (where one means good prospects and four bad prospects) at the beginning UI entry for figure d). The binsize is set to 60 days.

Figure 7: The Effect of Potential UI Durations on Caseworker Interactions Throughout the Unemployment Spell -Controls Only


(a) Invitations

(b) Contracts

(c) Vacancy Referrals

(d) Sanctions

(e) Training Programms

(f) Placement Services

Notes: This figure shows cross-sectional RD plots for caseworker contacts around the age cutoff 50. The outcome variables are measured as number of contacts per month from 3 months prior to UI entry up to four months after UI entry for Figure a) - c). and the assigned index value of the four relevant labor market profiles (where one means good prospects and four bad prospects) at the beginning UI entry for figure d). The binsize is set to 60 days.

Figure 8: The Effect of Potential UI Durations on Caseworker Interactions Throughout the Unemployment Spell - Team FE & Controls


(a) Invitations

(b) Contracts

(c) Vacancy Referrals

(d) Sanctions

(e) Training Programms

(f) Placement Services

Notes: This figure shows cross-sectional RD plots for caseworker contacts around the age cutoff 50. The outcome variables are measured as number of contacts per month from 3 months prior to UI entry up to four months after UI entry for Figure a) - c). and the assigned index value of the four relevant labor market profiles (where one means good prospects and four bad prospects) at the beginning UI entry for figure d). The binsize is set to 60 days.

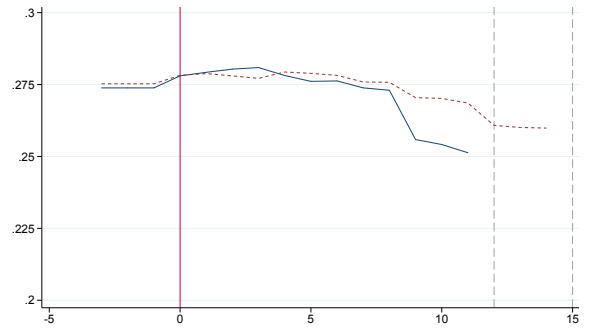Figure 9: Distribution of Caseworker-Figures

(a) Female

(b) Non-German

(c) High Education

(d) Occupation (Blossfeld 4)
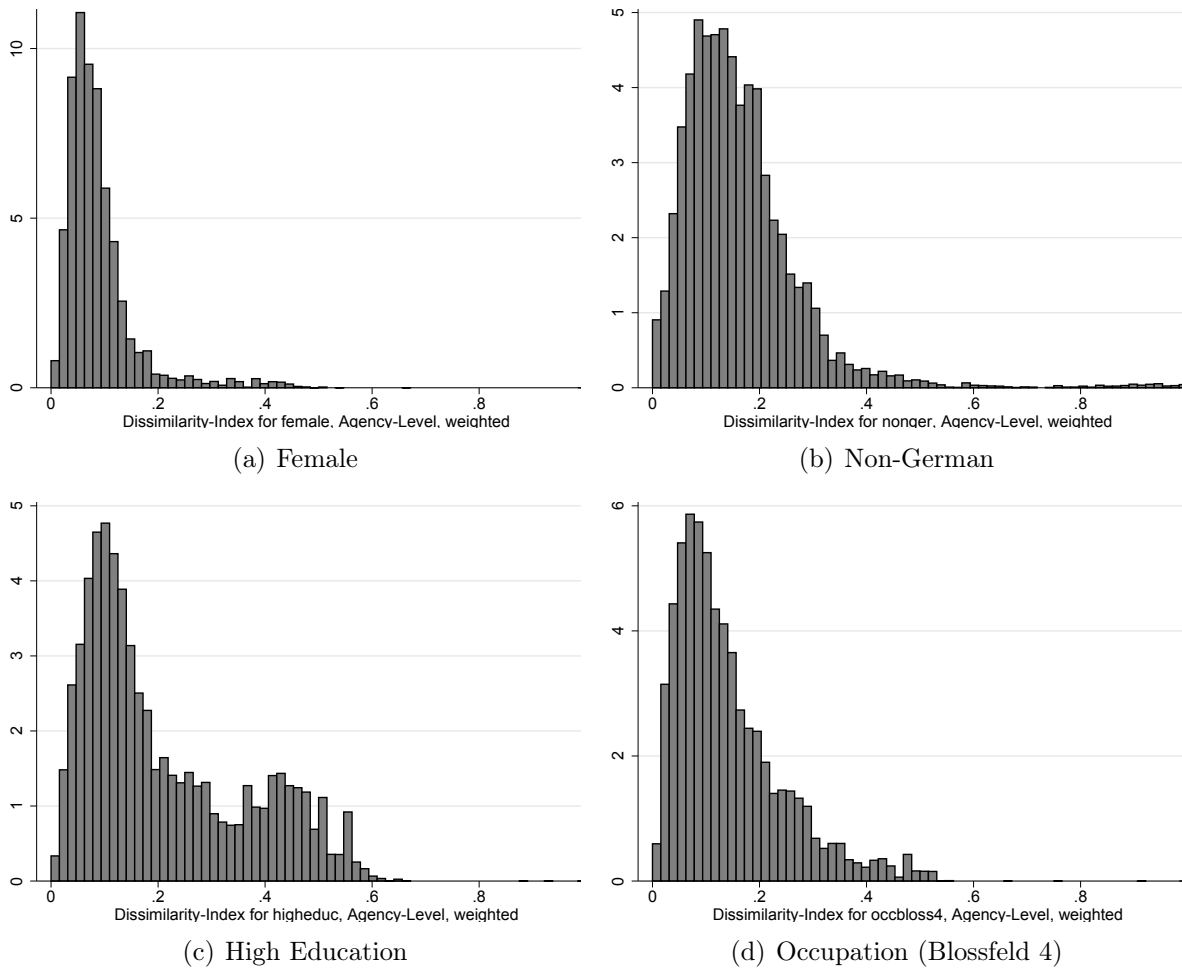
Notes: This figure shows the distribution of Dissimilarity-Indizes on the agency-level weighted by number of individuals at the agency-level for selected Variables.
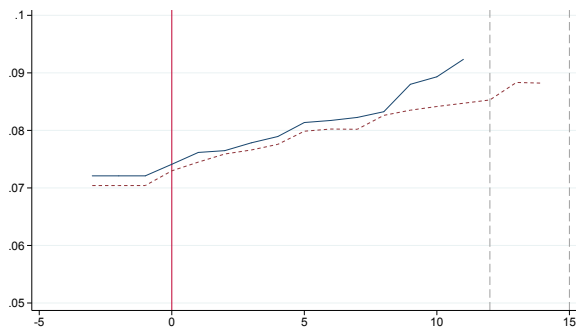
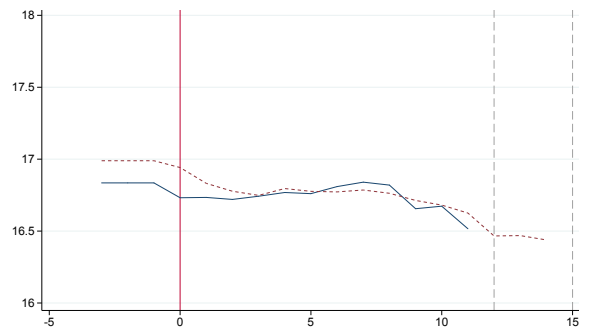Figure 10: Dynamic Selection Based on Pre-Determined Unemployment Variables
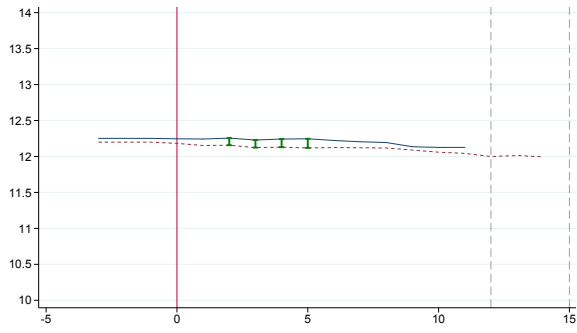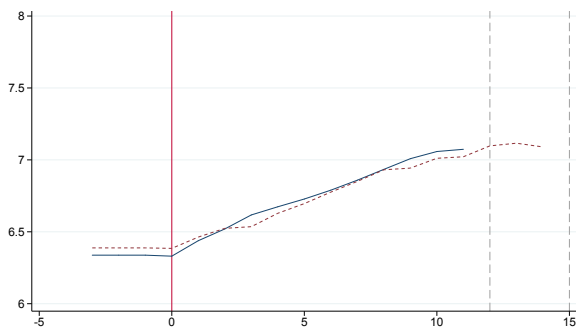

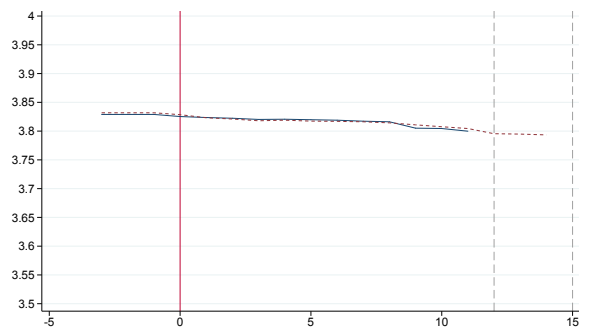(a) Education

(b) Dependent Children

(c) Non German Nationality

(d) Pre- Unemployment Experience

(e) Pre-Unemployment Tenure

(f) Predicted Log-Post-Unemployment Wage

Notes: This figure shows how different pre-determined variables evolve over the spell of unemployment conditioning on still receiving UI for both eligibility durations. The blue solid line indicate estimates for 12-, the red dashed line estimates for the 15 months eligibility duration. Vertical bars indicate significant differences on the 5% significance level for the respective months.

3 Excluding Industries with Non-Smooth Densities

One concern in the paper is the small spike in the density right at the age threshold (in a 2 week window) and the slight shift in the density (about 1%) even when excluding the spike. In the main text we show that the results are very robust to excluding the spike and when controlling for observable characteristics of the workers.

As a further check, we investigated whether specific industries are responsible for the spike and the density shift at the age threshold. Germany is known for collective labor agreements that offer severance payment for workers above certain age thresholds to essentially buy them out of their job. These age threshold are typically for older workers closer to retirement (55 or 58 are very common age thresholds) but it is possible that these also occur occasionally at younger thresholds.

For this reason we inspected the age density figures of UI entrants from the 345 largest 5 digit industries. This appendix section replicates the main findings of the paper when excluding industries that exhibit a clear upward shift or spike in the density distribution.

3.1 Selection Algorithm

We select the 345 largest industries based on the 5-digit industry classification of 2008 which represent about 85% of observations in our baseline sample. For each of those industries we examine visually the smoothness of the density around the age cutoff. We classify for each industry whether they fall into one of the following groups: (1) a clearly visible upward shift in density or (2) a spike but no shift in the density around the cutoff. 20 industries fall into category (1) and 33 industries fall into category (2). We create a sample that exclude all 53 industries falling into one of these groups, representing about 17% of the observations in our baseline sample. Table 9 lists the largest industries of the two categories. The remainder of this section replicates the main findings for this sample.

3.2 Summary of Results based on the Restricted Sample

The restricted sample exhibits a very smooth density figure and a very smooth distribution (see Figure 11a and Table 10). Furthermore the pre-unemployment wage and other pre-determined characteristics are very smooth around the age cutoff (Figure 11b and Table 11), while the estimated effect of the increase in PBD at the age cutoff remains very strong and significant (Table 13). There is also very little dynamic selection in this sample as shown in Figure 12. The main results on the allocation of caseworker resources above and below the age threshold remain essentially unchanged from the main paper (Figure 14 and 15 as well as Table 14). Overall our interpretation from this is that the small amount of potential selection around the threshold caused by some density shifts / spikes in a few industries (possibly due do collective labor agreements) does not drive the main result of no effect of potential UI duration on caseworker resource allocations.

3.3   Tables for Restricted Sample

Table 9: List of Largest Industries in Excluded Categories

	clear shift in density (category 1)		spike but no shift (category 2)	
	(1) 5-digit code	(2) industry name	(3) 5-digit code	(4) industry name
1	86101	Hospitals	70220	Management consultancy activities
2	85592	Vocational training (adults)	47710	Clothes shops
3	43220	Plumbing	10710	Manufacture of bread
4	22290	Manufacturing of plastic	25110	Manufacture of metal structures
5	62020	Computer consultancy	47730	Dispensing chemist (specialized stores)
6	71122	Engineering in specific fields	47240	Bakeries
7	10131	Production of meat	66220	Insurance
8	96021	Hairdressing	47750	Drugstores
9	43320	Joinery installation	53100	Post Sector
10	46141	Agents for machinery sale	47191	Retail sale in non-specialised stores

This table displays in decreasing order the 10 largest 5-digit industries for each of the two excluded groups seperately. Industry size is measured by the number of individuals that are attached to it in the baseline sample. The 5-digit code refer to the 5-digit industry code that is attached to these industries based on the industry classification of 2008, whereas the industry name uses an abbreviation of the full industry name.

Table 10: The Effect of Potential UI Durations on Number of UI Entries per Age-Day

	(1) Linear Age Control	(2) Quadratic Age Control	(3) Cubic Age Control	(4) Age^4	(5) Age^5
Increase in Potential UI Dur. from 12 to 15 Months					
D(Age above Cutoff)	-0.13	0.44	-0.38	2.27	-1.28
	[0.69]	[1.18]	[1.92]	[2.98]	[4.51]
$\frac{dy}{dP}$	-0.042	0.15	-0.13	0.76	-0.43
	[0.23]	[0.39]	[0.64]	[0.99]	[1.50]
Effect relative to mean	-0.0021	0.0072	-0.0063	0.038	-0.021
Observations	82731	82731	82731	82731	82731
Mean of Dep. Var.	60.2	60.2	60.2	60.2	60.2

Notes: This table reports estimates of the effect of potential UI duration on the number of UI entries per age-day between 04/2008-06/2010. Coefficients from RD regressions. Local linear regressions (different slopes) on each side of cutoff. Bandwidth are 2 years on each side of the cutoff where 1 month on each side of cutoff is excluded. Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).

Table 11: Validity Test of the Regression Discontinuity Design: Smoothness of Pre-determined Characteristics (with team x quarter fixed effects)

	(1) Years of Education	(2) Female	(3) Foreign Citizen	(4) Tenure Last Job	(5) Exp. Last Job	(6) Pre Wage
D(Age above Cutoff)	-0.023	0.0010	-0.00092	-0.0032	0.043	0.86
	[0.039]	[0.0083]	[0.0044]	[0.12]	[0.14]	[0.64]
Effect relative to mean	-0.0021	0.0023	-0.012	-0.00051	0.0026	0.014
Observations	82731	82731	82731	82731	82731	82731
Mean of Dep. Var.	11.2	0.45	0.079	6.38	16.8	63.4
	(1) Time till Claim	(2) Occ Ten. Last Job	(3) Ind Ten. Last Job	(4) West Germany	(5) Children (Dummy)	(6) Married (Dummy)
D(Age above Cutoff)	-0.0097	-0.075	0.041	0.0032	-0.0076	-0.0049
	[0.0064]	[0.15]	[0.12]	[0.0032]	[0.0083]	[0.0079]
Effect relative to mean	-0.071	-0.0060	0.0031	0.0039	-0.020	-0.0076
Observations	82731	82731	82731	82731	82731	82731
Mean of Dep. Var.	0.14	12.6	13.3	0.82	0.38	0.64

Notes: This table reports estimates of the effect of potential UI duration on several predetermined characteristics. Coefficients from RD regressions. Each coefficient is estimated in a separate regression discontinuity model that controls linearly for age with different slopes and bandwidth of two age years on each side of cutoff. UI entries between 04/2008-06/2010, one month at each side of the cutoff is excluded. Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).

Table 12: Summary Statistics for UI Spells Age 48 to 52

	(1) All Spells	(2) Eligible for max PBD	(3) Age 48/49 and max PBD	(4) Age 50/51 and max PBD
Individual Characteristics				
Female	0.47	0.45	0.45	0.46
Non-German	0.095	0.079	0.081	0.078
Age in Years	49.9	49.9	49.0	51.0
Education in Years	11.1	11.2	11.2	11.2
Unemployment and UI Duration				
Nonemployment Duration in Months (cap 36 Months)	19.2	18.3	17.5	19.1
	[15.1]	[14.9]	[14.8]	[15.0]
Nonemployment duration capped at 18 months	11.5	11.1	10.8	11.5
	[6.95]	[6.96]	[6.96]	[6.95]
Duration of UI Receipt (net)	6.99	7.08	6.45	7.76
	[5.35]	[5.46]	[4.95]	[5.88]
Pre- and Post UI Characteristics				
Next Daily Earnings after Unemployment	52.3	54.6	54.8	54.3
	[30.9]	[31.7]	[31.9]	[31.4]
Last Daily Earnings prior to Unemployment	57.0	63.4	63.8	62.9
	[41.9]	[41.6]	[41.4]	[41.7]
Maximum UI Duration (imputed)	12.5	13.4	12	15
	[3.04]	[1.50]	[0]	[0]
Probability of Leaving Unemp. within first 18 Months	0.54	0.57	0.60	0.55
	[0.50]	[0.49]	[0.49]	[0.50]
Invitations amd Referrals				
Number of Invitations during UI Receipt	3.18	3.24	3.18	3.32
Number of Contracts during UI Receipt	2.19	2.32	2.26	2.39
Number of Referrals during UI Receipt	2.16	2.41	2.44	2.38
Profile Assignment				
Market Profile at Beginning of UI Spell	0.14	0.16	0.18	0.14
Activation Profile at Beginning of UI Spell	0.094	0.11	0.12	0.095
Support Profile at Beginning of UI Spell	0.21	0.23	0.21	0.26
Development Profile at Beginning of UI Spell	0.027	0.023	0.019	0.027
Active Labor Market Programs				
Number of Days in Training Programms when on UI	13.6	15.1	15.6	14.5
Number of Days in Placement Services when on UI	4.59	4.76	4.01	5.57
Team-Related Characteristics				
Mean N per Team	347.2	359.0	361.6	356.1
Mean N between age 45 and 55 per Team	70.2	72.6	73.0	72.2
At least one worker on both sides of cutoff	0.96	0.97	0.97	0.98
Number of observations	116904	82731	42991	39740

Notes: This Table summarizes the data for all UI entries from April 2008 to June 2010 where the worker age at the time of claiming UI was $>= 48$ and < 52 years. Column (1) shows all individuals with age between 48 and 52. Column (2) restricts this to workers who have worked at least 3 years during the last 5 years and took up UI benefits within 3 months after job loss, which assures that they are eligible to the maximum potential benefit duration (PBD) on each side of the cutoff. Standard deviations for selected variables are shown in brackets.

Table 13: The Effect of Potential UI Durations on UI and Nonemployment Duration

	(1) Unemp Ins. Benefit Duration	(2) Duration Nonemp to emp	(3) Non-Emp Duration topcoded at 18 Months	(4) Exit Prob 15 Mon	(5) Exit Prob 18 Mon
Increase in Potential UI Dur. from 12 to 15 Months					
D(Age above Cutoff)	1.04	0.49	0.26	-0.031	-0.013
	[0.088]**	[0.14]**	[0.11]*	[0.0081]**	[0.0081]
$\frac{dy}{dP}$	0.35	0.16	0.088	-0.010	-0.0043
	[0.029]**	[0.047]**	[0.038]*	[0.0027]**	[0.0027]
Effect relative to mean	0.15	0.068	0.024	-0.058	-0.023
R^2	.2229	.3053	.2050	.2088	.2128
Adjusted R^2	.0569	.1026	.0351	.0397	.0446
Observations	82731	50815	82731	82731	82731
Mean of Dep. Var.	7.08	7.12	11.1	0.54	0.57

Notes: Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)).Coefficients from RD regressions with a bandwidth of 2 years but excluding observations within 1 month on each side. Local linear regressions with different slopes on each side of cutoff controlling for caseworker-team by quarter fixed effects.

Table 14: Potential UI Duration on Assistance in Job-Search

Caseworker Assistance and Search Selectivity

	(1) Number of Invitations	(2) Number of Signed Contracts	(3) Number of Job Referrals	(4) Looking for Part and Fulltime Jobs
D(Age above Cutoff)	0.0046	0.014	-0.033	-0.0024
	[0.020]	[0.016]	[0.036]	[0.0036]
Effect relative to mean	0.0025	0.010	-0.026	-0.041
Observations	82731	82731	82731	82731
Mean of Dep. Var.	1.83	1.35	1.27	0.058

Profile Assignments, Sanctions, and Active Labor Market Programs

	(1) Labor Market Profile Index	(2) Fraction of Sanctions at UI entry	(3) Days in Placement Services	(4) Days in Training Programs
D(Age above Cutoff)	0.11	-0.0051	-0.067	-0.010
	[0.022]**	[0.0070]	[0.15]	[0.29]
Effect relative to mean	0.050	-0.024	-0.056	-0.0021
Observations	43445	82731	82731	82731
Mean of Dep. Var.	2.22	0.21	1.20	5.06

Notes: Standard errors clustered on day level († P<.1, * P<.05, ** P<.01)). Local linear regressions with different slopes on each side of cutoff controlling for caseworker-team by quarter fixed effects.

3.4 Figures for Restricted Sample

Figure 11: Density of UI Spells around Age Cutoff for Potential UI Duration


(a) Density

(b) Predicted Log Wage

Notes: This figure shows the smoothness of new UI benefit entries and predicted log wage around the age cutoff 50. Figure a) plots the frequency of new UI benefit. Figure b) plots the predicted daily log wage of the last employment spell from an OLS regression on predetermined covariates within a binize of two weeks. Explanatory variables are dummies for nationality, gender, children, marital status, East Germany and six educational groups, the duration till take-up, actual experience, occupational-, industry- and establishment tenure as well as seasonal (monthly) controls.

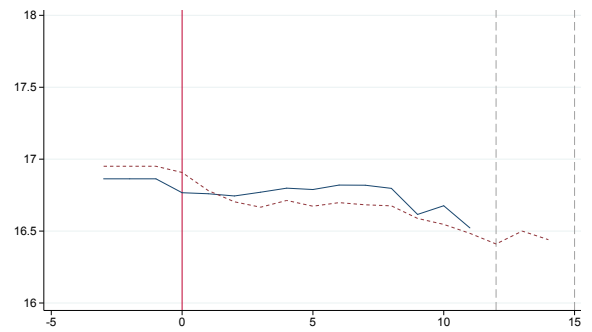Figure 12: Dynamic Selection Based on Pre-Determined Unemployment Variables
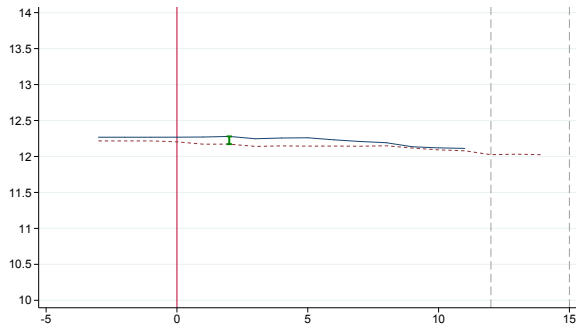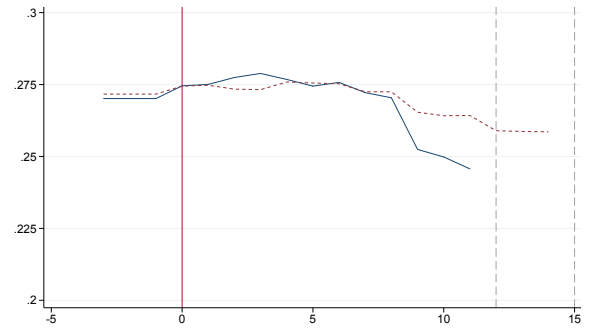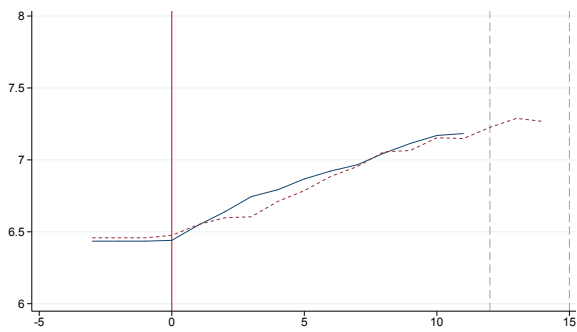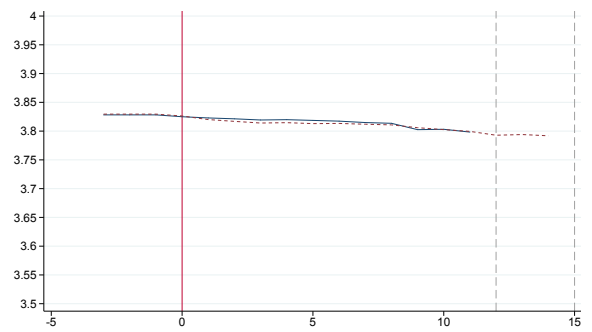

(a) Education

(b) Dependent Children

(c) Non German Nationality

(d) Pre- Unemployment Experience

(e) Pre-Unemployment Tenure
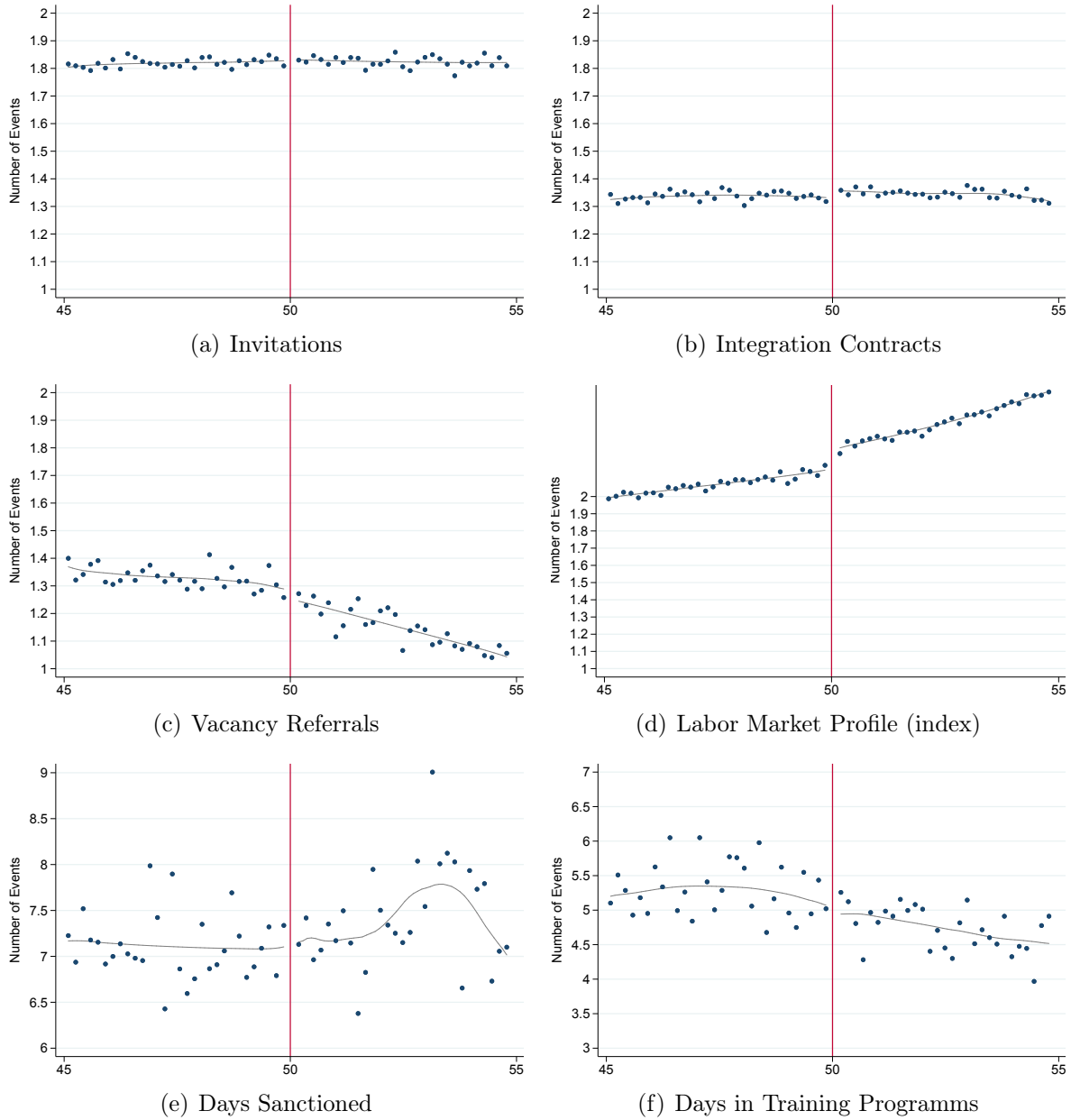
(f) Predicted Log-Post-Unemployment Wage

Notes: This figure shows how different pre-determined variables evolve over the spell of unemployment conditioning on still receiving UI for both eligibility durations. The blue solid line indicate estimates for 12-, the red dashed line estimates for the 15 months eligibility duration. Vertical bars indicate significant differences on the 5% significance level for the respective months.

Figure 13: The Effect of Potential Benefit Durations on Job Finding

(a) UI Benefit Duration

(b) Nonemployment Duration

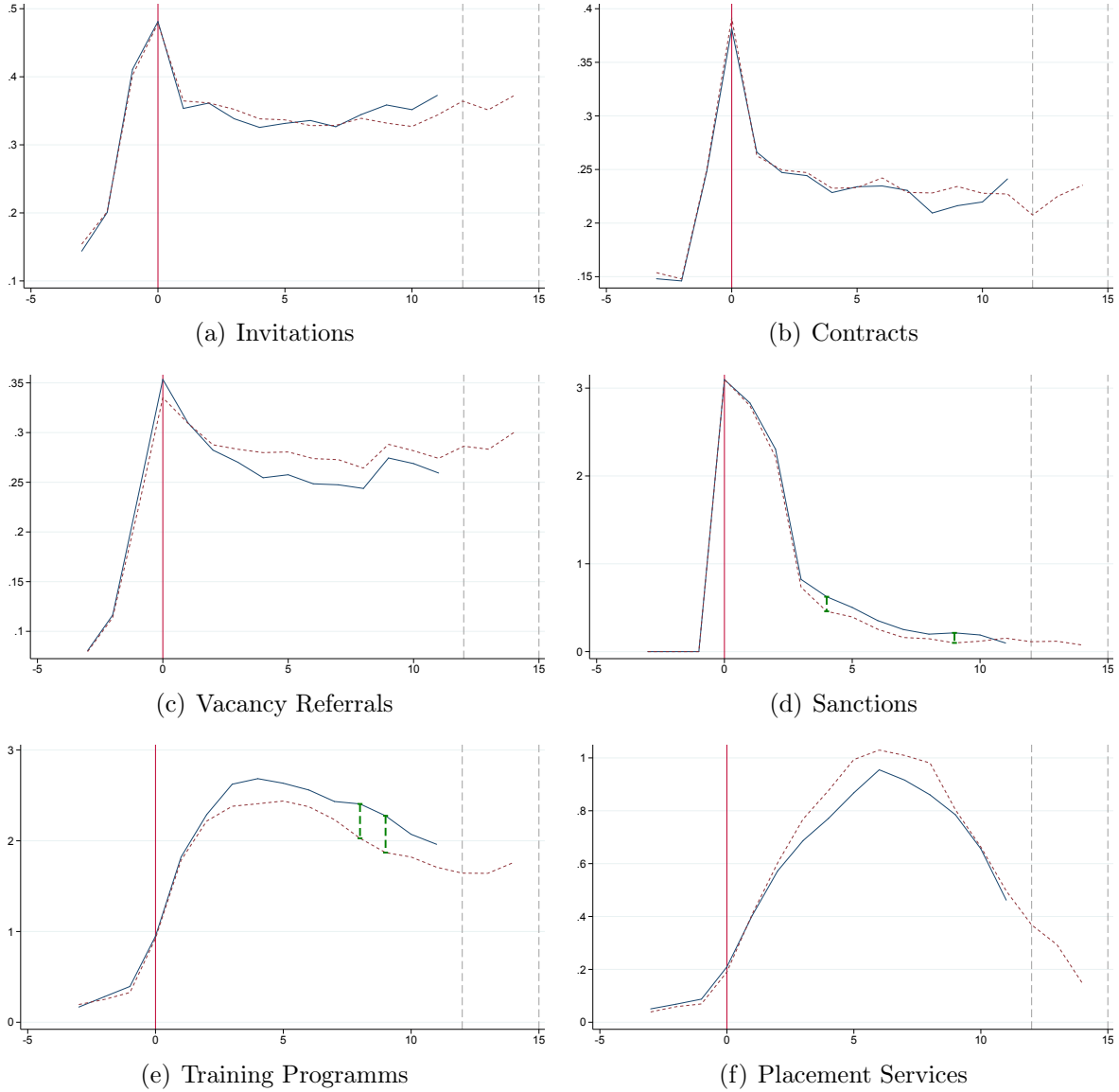(c) Exit Hazard from Unemployment

(d) Survivor Function
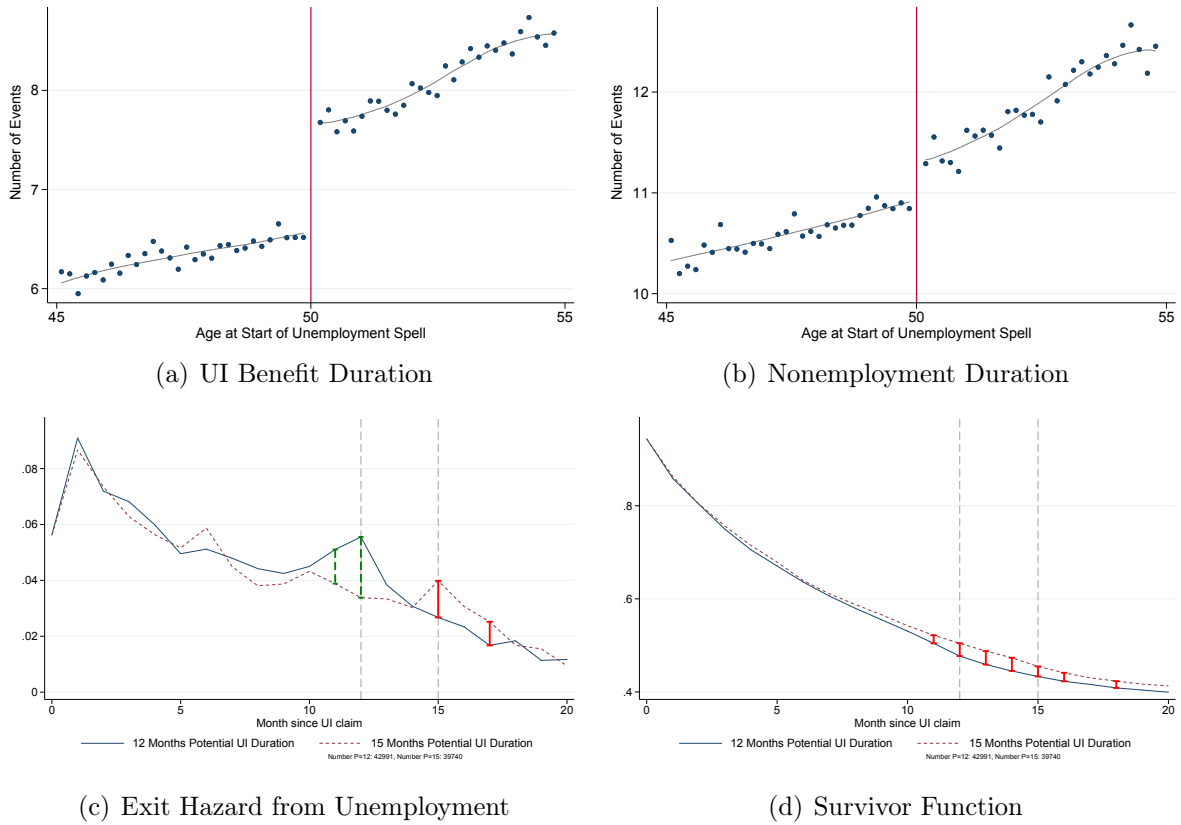
Notes: Panels (a) and (b) show cross-sectional RD plots for the number of days in UI benefit receipt (a) and the number of days in nonemployment capped at 18 months (b) controlling for team x quarter fixed effects. The binsize is set to 60 days. Panel (c) shows the monthly hazard function for for the two eligibility durations estimated at the cutoff (via pointwise RD regressions). Panel (d) shows the corresponding survival functions. Where the hazard and survival function are statistically significantly different from each other the figures shows vertical bars between the two lines.

Figure 14: Caseworkers Resources / Actions around UI Cutoff

(a) Invitations

(b) Integration Contracts

(c) Vacancy Referrals

(d) Labor Market Profile (index)

(e) Days Sanctioned

(f) Days in Training Programms

Notes: This figure shows cross-sectional RD plots for caseworker contacts around the age cutoff 50. The outcome variables are measured as number of contacts per month from 3 months prior to UI entry up to four months after UI entry for Figure a) - c). and the assigned index value of the four relevant labor market profiles (where one means good prospects and four bad prospects) at the beginning UI entry for figure d). The binsize is set to 60 days.

Figure 15: The Effect of Potential UI Durations on Caseworker Interactions Throughout the Unemployment Spell

(a) Invitations

(b) Contracts

(c) Vacancy Referrals

(d) Sanctions

(e) Training Programms

(f) Placement Services

Notes: This figure shows estimated counseling/monitoring intensities over the spell of UI benefit receipt (conditioned on receiving still UI benefits) for both eligibility durations. The blue solid line indicate estimates for 12-, the red dashed line estimates for the 15 months eligibility duration. Vertical bars indicate significant differences on the 5% significance level for the respective months. Figure a) - c) shows the number of interactions per months on UI, figure d) - f) number of days in the respective month. The regressions control for ixed effects on the team x quarter-level.