
Reducing Mandatory Job Applications in Unemployment Insurance

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Most Unemployment Insurance (UI) systems make job search mandatory

- Motivated by concerns about under-provision of search effort under UI
 - Disincentive effects of UI benefits e.g., Chetty, 2006; Schmieder & von Wachter, 2016
 - Behavioral biases (e.g., over-optimistic beliefs) e.g., Spinnewijn & Mueller, 2024

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 - Behavioral biases (e.g., over-optimistic beliefs) e.g., Spinnewijn & Mueller, 2024
- In practice: mandatory search effort $\approx$ mandatory job applications
 - Minimum application requirements $\rightarrow$ application **quantity**
 - Vacancy referrals $\rightarrow$ application **selectivity**
- Large cross-country variation in level of mandatory applications (OECD, 2022)

► OECD Index

How do policy-induced job applications affect labor market outcomes?

- Unemployment duration potentially affected through:
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 - adjustments in market tightness (“market externality”) (e.g., Landais et al., 2018)

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 - adjustments in market tightness (“market externality”) (e.g., Landais et al., 2018)
- Re-employment earnings potentially affected through:
 - individual application selectivity
 - change in composition of vacancies
 - ...

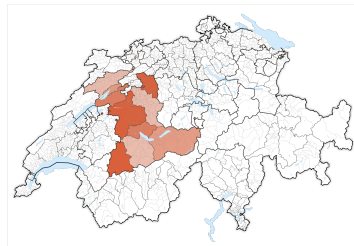
This Paper: Policy Experiment

Policy Reform: *BernTop!* (2012)

Main motivation: Increase autonomy in job search

→ Market-level reduction in mandatory applications:

- Application requirement ↓ by $\approx 25\%$
- Vacancy referrals ↓ by $\approx 80\%$



Identification of policy effects on workers' reemployment outcomes and firms' vacancy posting:

- Avg. reform effect: Diff-in-Diff comparing labor markets in Bern to rest of CH
- Quantity vs. selectivity margin: caseworker variation in pre-reform referral behavior

Research Questions

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2. How does vacancy posting respond to changes in applications (*work in progress*)?
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 - Reform increased avg. re-employment earnings by about 2%
 - Trade-off between short- and medium-run income, driven by referrals (selectivity margin)

(1) Elasticity of job finding to search effort

- Key parameter in job search models, but scarce empirical evidence (Le Barbanchon et al., 2024)
- Exceptions rely on within-market identification (e.g., Arni & Schiprowski, 2019; Field et al., 2025)

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(2) Vacancy response to policy-induced changes in job search

- Search & matching models: “it depends” (e.g., Pissarides, 2000; Michaillat, 2012; Landais et al., 2018)
- Mixed evidence, usually inferred from spillover effects (e.g., Crépon et al., 2013; Cohen & Ganong, 2025)
- Increased vacancy posting after market-level UI cut (Karahana et al., 2025)

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- Increased vacancy posting after market-level UI cut (Karahan et al., 2025)

(3) Re-employment earnings effects of unemployment policies

- Evidence focused on effects of UI benefits (Le Barbanchon et al., 2024)
- Duration dependence vs. selectivity of search (Nekoei & Weber, 2017)

Outline

- ➊ Introduction
- ➋ Institutional Background & Data
- ➌ Policy Variation in Mandatory Applications
- ➍ Analysis of Labor Market Outcomes
- ➎ Conclusion

Swiss Unemployment Insurance (UI) System

- Potential benefit duration: 18 months; Replacement rate 70-80%
- Claiming UI requires registration at Public Employment Service (PES)
 - Caseworker meeting every 1-2 months
 - Monthly submission of application diary in line with requirement
 - Sporadic vacancy referrals (obligation to apply)

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Policy Change *BernTop!*

- Changed guidelines for caseworkers in canton Bern in 2012:
 - Reduced application requirements
 - Limited use of vacancy referrals
 - Cultural shift towards treating job seekers as clients

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A remettre à l'ORP
au plus tard le 5 du mois suivant

Date de réception / du timbre postal

Assurance-chômage

Preuves des recherches personnelles effectuées en vue de trouver un emploi

Nom et prénoms		No AVS						Mois et année				
Date de l'offre de services	Entreprise, adresse Personne contactée, numéro de tél.	Description du poste	Attribution ORP	Activité		Offre de services		Résultat de l'offre de service				
Jour mois			à plein temps	à temps partiel (%)	partiel (h)	à domicile	à domicile	en suspen	entretien	engagement	refusé	Motif



Avg. callback probability per application: 4% (Lalive et al., 2025)

Workers' job search behavior and employment outcomes

- Linked unemployment insurance - social security records (inflow population from 2009-2015)
- Key features:
 - Detailed information on job search process, in particular:
 - required & reported applications, vacancy referrals
 - assigned caseworker
 - Employment earnings pre & post unemployment

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Firms' vacancy posting and hiring difficulties

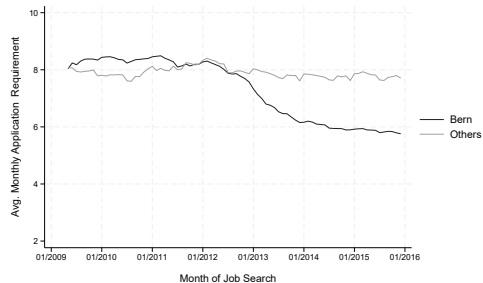
- Vacancies posted at the PES (labor market $\times$ month level)
- Representative quarterly firm survey (N=65 000): measurement of hiring difficulties

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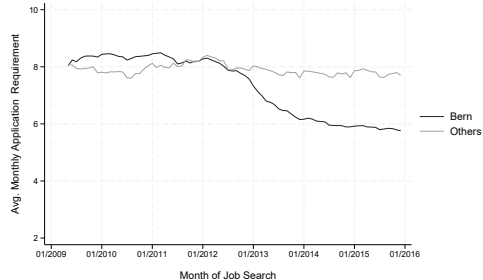
Required Job Applications (per Month)

(a) Average

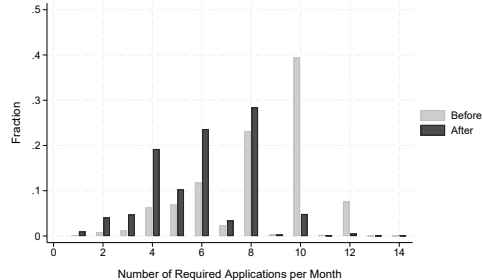


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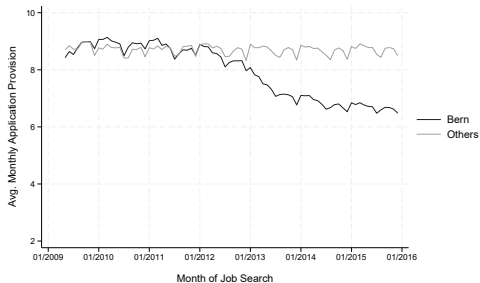


(b) Distribution (Bern)

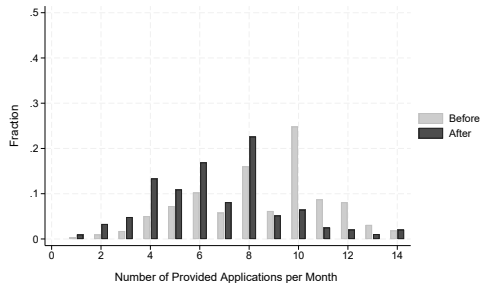


Provided Job Applications (per Month)

(a) Average



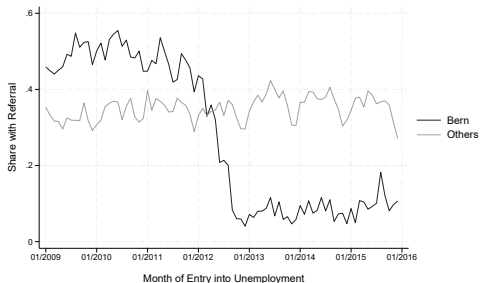
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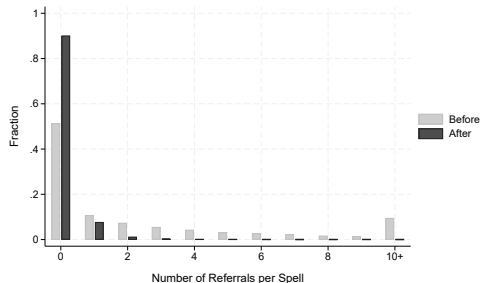
25% drop in avg. number of required and provided applications.

Vacancy Referrals

(a) Share with Referral



(b) Distribution of Numbers (Bern)



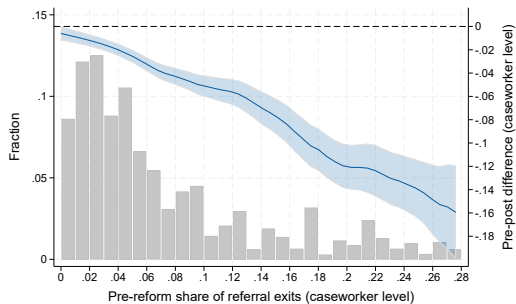
80% drop in the share of job seekers with vacancy referrals.

► No change in number of caseworker meetings

► No change in benefit sanctions

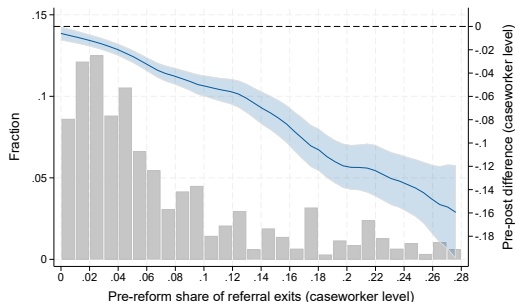
Caseworker Variation in Pre-Reform Referral Usage

(a) Correlation with Pre-Post Diff, Referrals

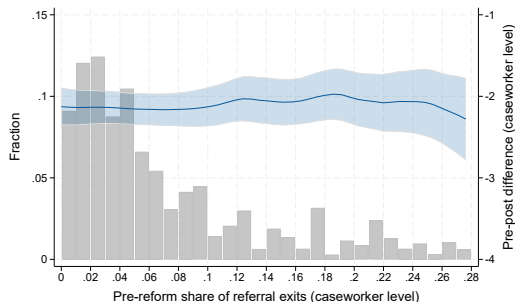


Caseworker Variation in Pre-Reform Referral Usage

(a) Correlation with Pre-Post Diff, Referrals



(b) Correlation with Pre-Post Diff, Required Applications



► Caseworker variation unrelated to job seeker characteristics

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1. Diff-in-Diff (job seekers in Bern vs. rest of CH)

Key assumptions:

- No (compositional) change in unemployment inflows
- Common trends

► Stable inflow trends

► No evidence of compositional changes

► Relaxing the common trends assumption

2. Diff-in-Diff × caseworker variation in “bite” of referral policy change

- Variation in caseworkers' pre-reform referral intensity ($\overline{Ref}_{j(i)}^{pre}$) as 3rd dimension of difference
- Idea: reduction in referrals does not bite for caseworkers with $\overline{Ref}_{j(i)}^{pre} \approx 0$
- Assumption: quasi-random assignment of caseworkers within offices

► Check

Diff-in-Diff Specification (Pooled)

$$Y_i = \delta_1 (Post_{t(i)} \times T_i) + \tau_1 Post_{t(i)} + \omega_{j(i)} + X_i' \beta + \epsilon_i$$

- Y_i : Re-employment outcome of job seeker i
- $Post_{t(i)}$: Indicator for post-reform entry into unemployment
- T_i : Treatment group indicator (=1 if job seeker i is registered in Bern)
- X_i : Individual-level covariates (socio-demographics, employment history)

Diff-in-Diff Specification (Pooled)

$$Y_i = \delta_1 (Post_{t(i)} \times T_i) + \delta_2 (Post_{t(i)} \times T_i \times \overline{Ref}_{j(i)}^{pre}) + \tau_1 Post_{t(i)} + \tau_2 (Post_{t(i)} \times \overline{Ref}_{j(i)}^{pre}) + \omega_{j(i)} + X_i' \beta + \epsilon_i$$

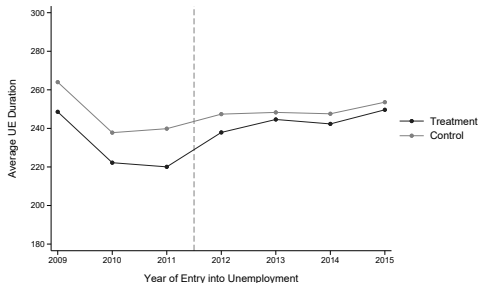
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δ_1 : Avg. reform effect for $\overline{Ref}_{j(i)}^{pre} = 0$ (quantity margin)

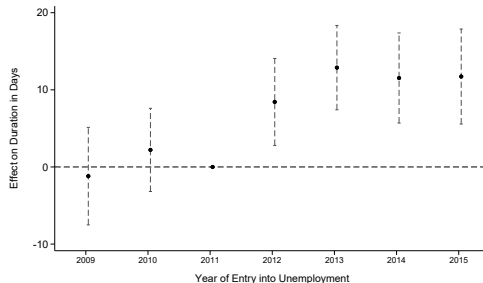
δ_2 : Additional effect of 0-1 change in referral exposure (selectivity margin)

Duration of Unemployment

(a) Levels (Raw data)



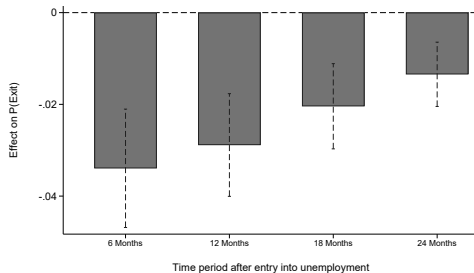
(b) DiD Coefficients



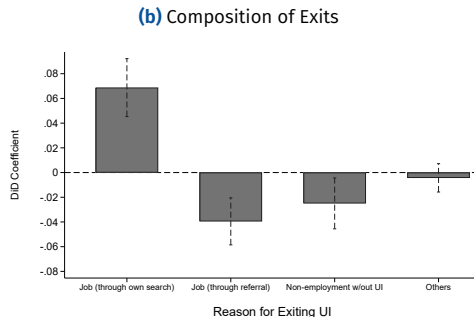
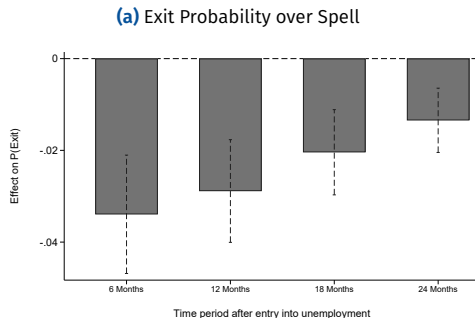
Average unemployment duration increases by $\approx 6\%$ relative to pre-reform mean.

Exit Probability over Spell & Composition of Exits (Pooled DiD)

(a) Exit Probability over Spell



Exit Probability over Spell & Composition of Exits (Pooled DiD)



Duration effect concentrated in first year of unemployment

Increase in own job finding $\leftrightarrow$ Decrease in job finding via referral & exit to unsubsidized search

Role of Quantity vs. Selectivity Margin

	Unemployment Duration in Days		
	(1)	(2)	(3)
DiD	11.999*** (2.980)	6.753* (4.021)	
DiD × Referral Exposure (Share)		66.854** (31.957)	
Referral Exposure < Median			8.925* (4.653)
Referral Exposure ≥ Median			16.921*** (3.687)
Outcome Mean	242.50	242.50	242.50
N	181229	181229	181229

Half of duration effect explained by quantity (selectivity) margin.

→ Marginal return to monthly application $\approx$ 3 days shorter UE (implied elasticity $\approx$ - 0.13)

→ Referral-induced app. $\approx$ 4 × more effective than average app.

Role of Individual Application Behavior vs. Market Tightness

Job-finding hazard: $\lambda_{it} = e_{it}f(\theta_t)$ with $f'(\theta_t) > 0$, $\theta_t = \frac{V_t}{E_t}$

Stylized decomposition of reform effect on job finding:

$$\lambda_{it}^{post} - \lambda_{it}^{pre} = \underbrace{[e_{it}^{post} - e_{it}^{pre}]f(\theta_t^{pre})}_{\text{"Micro effect" } (<0)} + \underbrace{e_{it}^{post} [f(\theta_t^{post}) - f(\theta_t^{pre})]}_{\text{"Market externality" } (\leq 0)}$$

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Market externality: Change in job finding due to adjustments in tightness (Landaïs, Michaillat, Saez, 2018)

Sign depends on response of vacancy posting to applications

2 examples:

- Under diminishing returns to labor and rigid wages (job-rationing/rat race effects): $\theta \uparrow$
- Under $\approx$ linear technology & positive wage effects: $\theta \downarrow$

How did the policy change affect vacancy posting (on the PES market)?

Firms' Reported Hiring Difficulties

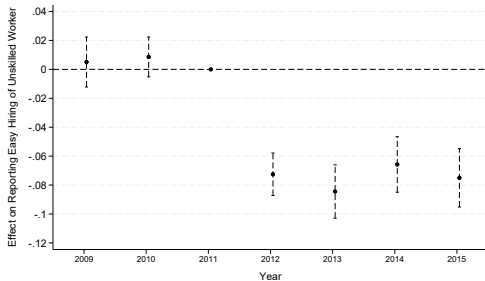
Data source: representative quarterly firm survey by Statistics Switzerland

Firms' Reported Hiring Difficulties

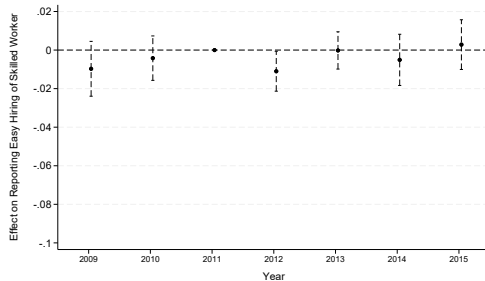
Results from DiD specification with firm fixed effects

► Equation

(a) Unskilled Workers



(b) Skilled Workers

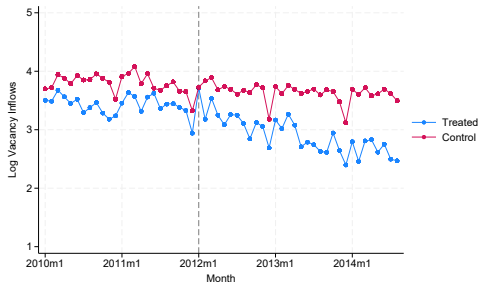


Share of firms with hiring difficulties for low-skilled workers increases from ≈ 0.3 to ≈ 0.38 .

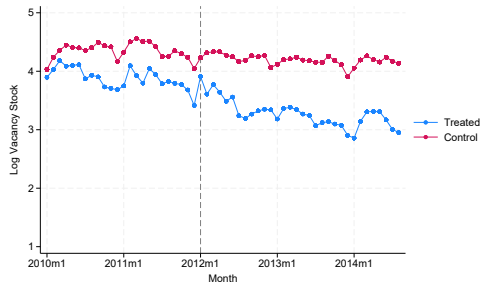
Data source: representative quarterly firm survey by Statistics Switzerland

Vacancy Posting at the Public Employment Service (PES)

(a) Monthly Inflows (Logs)



(b) Monthly Stocks (Logs)



≈ 40% reduction in monthly vacancy inflows & stocks at the PES

Effects on Re-Employment Earnings

Taking stock

- Policy-induced job applications affect the speed of labor market matching
- Less and more selective job applications → longer unemployment spells

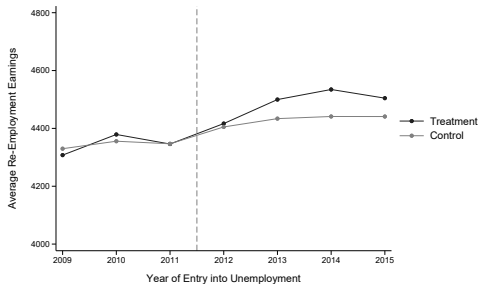
How do reemployment earnings respond?

Potential mechanisms causing earnings effects:

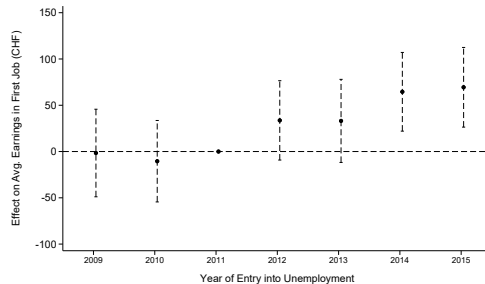
- Duration dependence in wage offers (-)
- Increased selectivity in (directed) job search (+)
- Equilibrium adjustments (e.g., change in vacancy composition, bargaining power, ...)

Re-Employment Earnings

(a) Levels



(b) DiD Coefficients

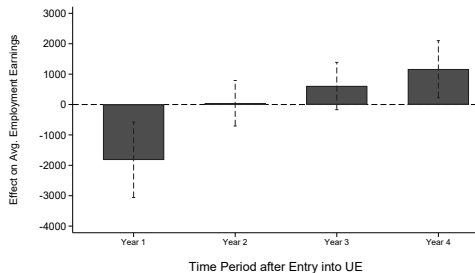


Approx. 2% increase in avg. re-employment earnings

Medium-Run Effects 1-4 Years Post Unemployment Entry

Reform Effects on Employment Earnings in Year t after UE Entry (incl. 0)

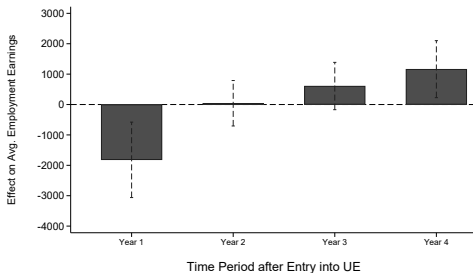
(a) Average



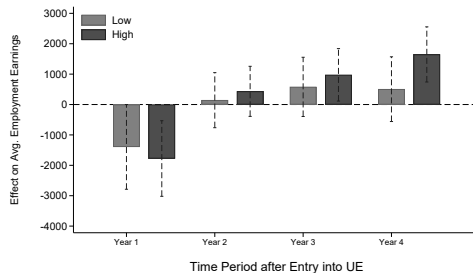
Medium-Run Effects 1-4 Years Post Unemployment Entry

Reform Effects on Employment Earnings in Year t after UE Entry (incl. 0)

(a) Average



(b) By referral exposure (median split)



Medium-run earnings gains driven by caseworkers reducing referrals

► Medium-run effects on employment & UI receipt

► Reduced exit to temp agency employment

Conclusion

Mandatory applications influence the matching of unemployed workers to jobs

- Estimated elasticity of avg. duration to applications ≈ -0.13 (3 days per additional monthly app.)
- Referral about $4 \times$ more likely to translate into job than regular application
- Context: low unemployment, high labor demand

Trade-off between duration and quality of reemployment (driven by referral policy)

- Avg. worker better off after increased autonomy
- Partial equ. calculation of fiscal trade-offs (Δ in tax & transfers):
Reform revenue neutral if earning effects persist ≈ 6 years post re-employment

Thank you.

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- 2nd largest canton (population $\approx$ 1 Mio.)
- 10 local labor markets, 335 municipalities
- $\approx$ 85% German speaking
- UE rate slightly below Swiss average ($\approx$ 3%)

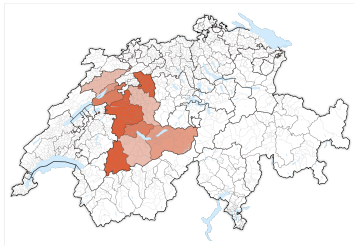
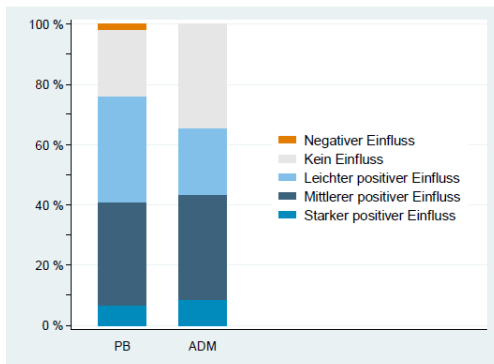


Abbildung 27: Welche Auswirkung hat Bern^{Top!} auf die Wiedereingliederungschancen?

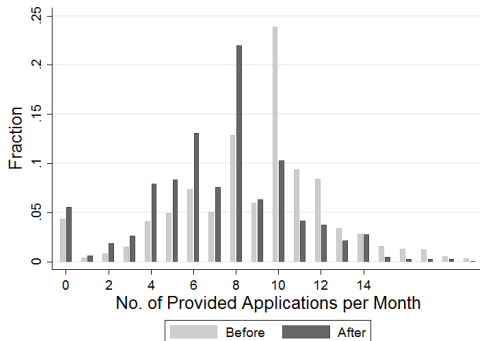


Hinweis: Antworten von 105 PB und 23 ADM

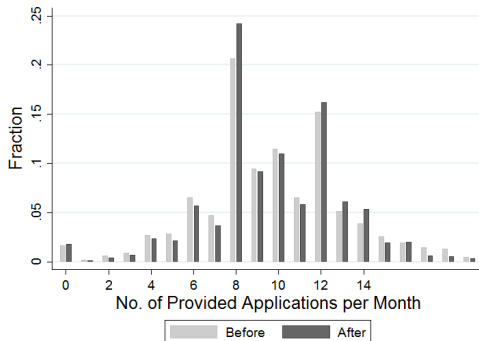
Source: Morlok et al. (2015): Evaluation BernTop! – Schlussbericht.

Changes in Distribution of Provided Search

(a) Bern



(b) Other Cantons



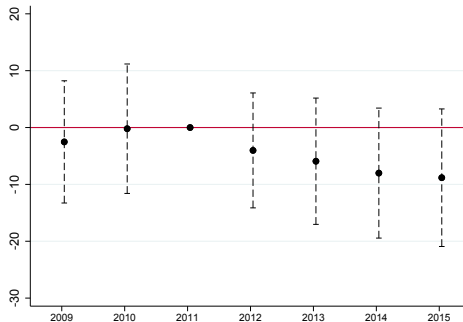
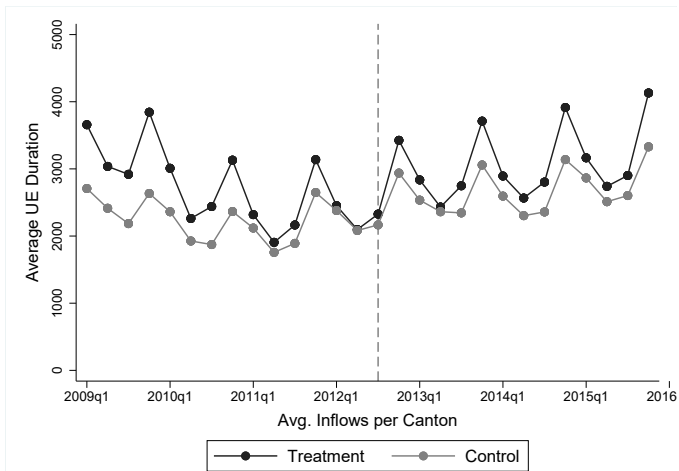


Figure 1. Effect on UE Duration of Job Seekers in Adjacent Municipalities (≤ 30 minutes travel time to Bern)



	Age	Married	Non-Swiss	Unskilled	High-Skilled	Log Prev. Earnings
	(1)	(2)	(3)	(4)	(5)	(6)
DiD	-0.054 (0.060)	-0.002 (0.005)	-0.002 (0.006)	0.009 (0.007)	-0.009 (0.006)	0.006 (0.007)
Outcome Mean	39.85	0.48	0.45	0.27	0.32	8.03
N	744962	744962	744962	744962	744962	744962

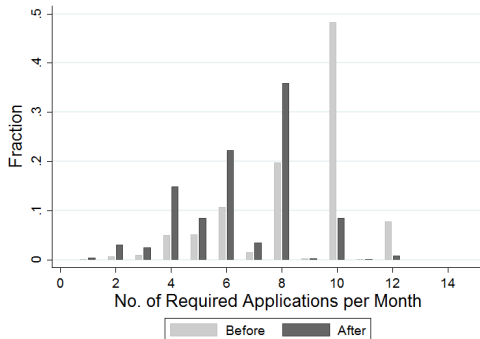
Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Caseworker referral share and job seeker characteristics

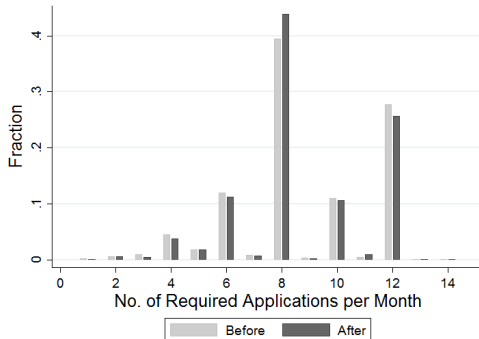
[▶ Back](#)

	Pre-reform Share		1(Above-Median Share)	
	(1)	(2)	(3)	(4)
Age	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.001)	0.000 (0.000)
Married	0.006* (0.003)	0.001 (0.001)	0.034** (0.014)	0.009 (0.005)
Non-Swiss	-0.001 (0.004)	0.001 (0.002)	-0.013 (0.035)	0.007 (0.016)
Higher education	-0.009 (0.008)	-0.002 (0.003)	-0.029 (0.049)	0.003 (0.025)
Emp share t-1	0.025 (0.024)	-0.001 (0.011)	0.118 (0.214)	-0.050 (0.063)
Log prev earnings	0.008** (0.003)	0.003 (0.002)	0.064** (0.024)	0.030 (0.022)
PES office FE	No	Yes	No	Yes
p-value (joint sign.)	0.04	0.61	0.04	0.45
R-Squared	0.01	0.35	0.01	0.26
Outcome Mean	0.08	0.08	0.51	0.51
N	30886	30886	30886	30886

(a) Bern

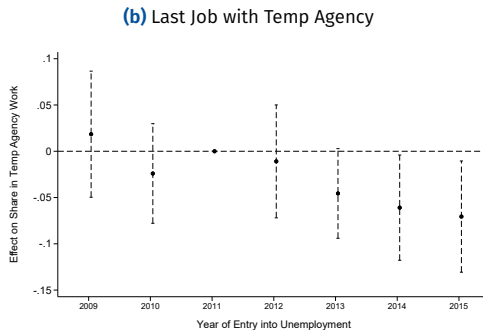
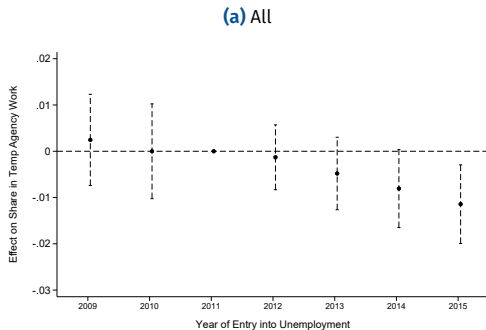


(b) Other Cantons



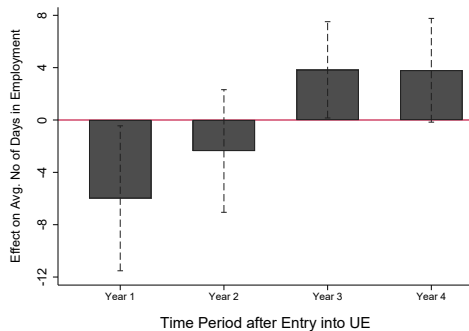
- Standard errors clustered at the caseworker or local labor market level
- Follows “model-based perspective” on inference (de Chaisemartin & D’Haultfoeuille, 2025)
 - treatment assignment is non-stochastic (unlike in design-based approach); potential outcomes are affected by stochastic shocks
- Robustness: inference with a single treated cluster (Hagemann, 2025)

- Diff-in-Diff + industry $\times$ year effects
- Contingent border design
- Diff-in-Diff using a matched control group
- Triple Differences, with predicted treatment exposure as a third dimension

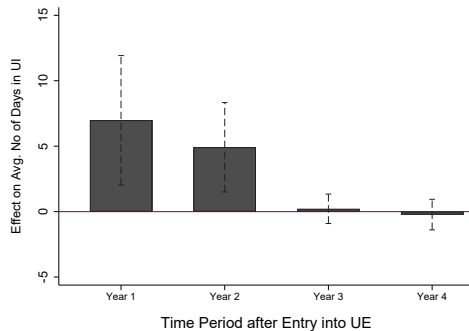


Policy change reduces transition to temporary employment

(a) Days in Employment

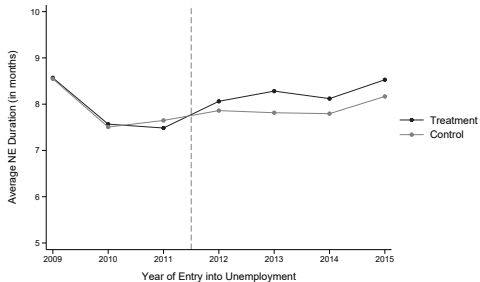


(b) Days in UI

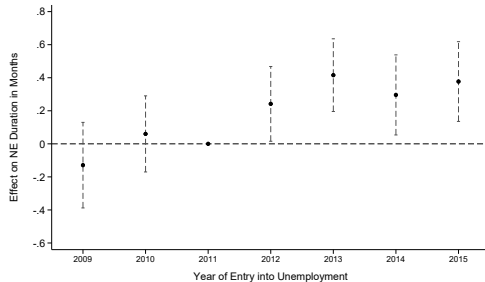


Effect on Duration of Nonemployment

(a) Levels

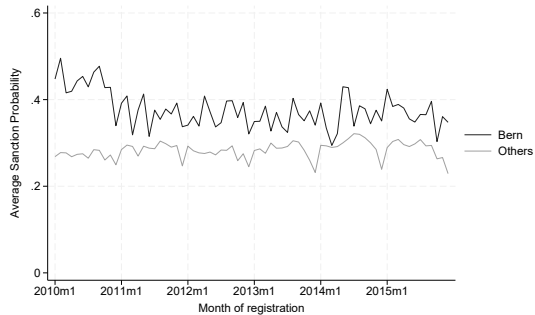


(b) DiD Coefficients

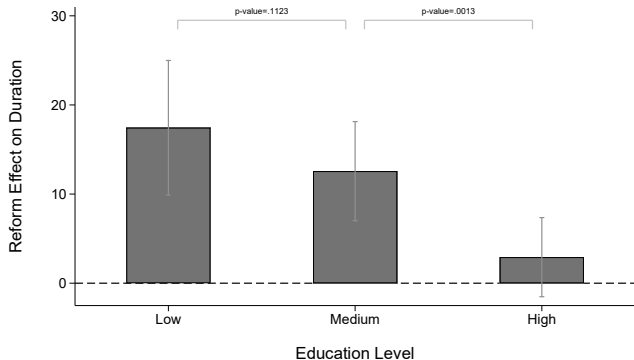




No change in the number of caseworker meetings.



No change in the probability to receive a benefit sanction.



Strong education gradient in the duration effect

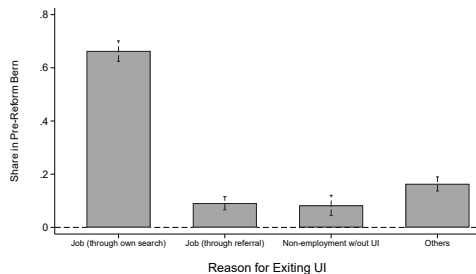
Diff-in-Diff Framework

$$Y_{jt} = \sum_{s=2009}^{2018} \gamma_s^{Bern} \mathbf{1}_{(y=s \text{ \& } k=Bern)} + \tau_t + \omega_j + \varepsilon_{jt}$$

- Y_{jt} : Response by firm j in year t
- $\mathbf{1}$: Indicators for year & canton of Bern
- τ_t : Year fixed effects
- ω_j : Firm fixed effects

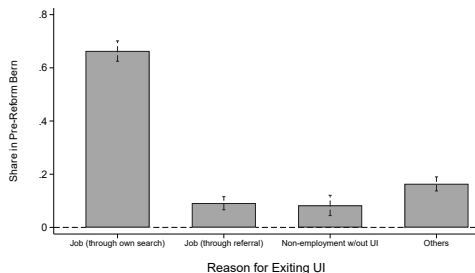
Change in the Composition of Unemployment Exits

(a) Pre-Reform Shares

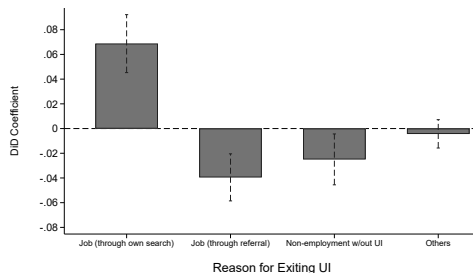


Change in the Composition of Unemployment Exits

(a) Pre-Reform Shares

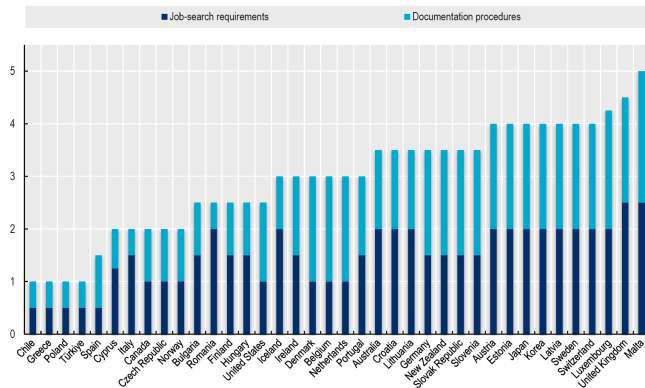


(b) Reform Effects (Pooled DiD)



Increase in own job finding $\leftrightarrow$ Decrease in job finding via referral & exit to unsubsidized search

Variation in Mandatory Search Strictness across the OECD



$$Y_i = \sum_{s=2009, s \neq 2011}^{2015} \gamma_s (\mathbf{I}_{[t(i)=s]} \times T_i) + \sum_{s=2009, s \neq 2011}^{2015} \tau_s \mathbf{I}_{[t(i)=s]} + \delta T_i + X_i' \beta + \epsilon_i$$

- Y_i : Re-employment outcome of job seeker i (main: un-/non-employment duration; re-employment earnings)
- $\mathbf{I}_{[t(i)=s]}$: Indicators for year of entry into unemployment
- T_i : Treatment group indicator (=1 if job seeker i is registered in Bern)
- X_i : Individual-level covariates (socio-demographics, employment history)

Duration of Unemployment: Synthetic Control

