

Job Search and the Threat of Unemployment Benefit Sanctions

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UI sanctions in theory...

- punishment: reduction in UI for low search effort
- pro: consumption smoothing with less moral hazard / more UI for total same expenditure
- con: jobseekers create worse matches ("market insurance")

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Policymakers tend to "toughen up" the UI regime after recessions (GFC, Covid)

- cited motives: "back to work" political rhetoric, budget / austerity / spending reductions
- examine UK reform in 2012 (*conditions also tightened again in 2022*)
- other examples: France, Germany 2022

Research Questions:

- Does sanction threat change search behaviour?
 - search effort
 - exit rate
- To what extent does sanction threat create worse matches?
 - reemployment earnings
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Empirical strategy uses UK Sanction Policy Reform in 2012

- exploit differential responses across districts in sanctioning intensity
- lends itself to Difference-in-Differences design

1. Empirics:

- **New “stylised fact”**: early-spell sanction experience correlates with medium-run income losses
 - **Causal estimates** of impact of sanction threat on
 - exit rate,
 - exit to employment/inactivity/retirement
 - future unemployment risk (number of cumulative spells)
 - re-employment duration
-

2. Structural model (under construction)

- partial eqm. random search model.
 - jobs vary in pay **and stability**
 - endogeneous offer-arrival and offer-acceptance
- sanctions detect low search imperfectly
- do sanctions generate mismatch via direct liquidity effect or indirect threat effect?

- ❶ **Stylised Fact:** sanction threat correlates with earnings losses in the medium-to-long term
- ❷ **Sanction threat increases exit speed**
 - reform increases hazard rate ~ 20 percent (100 percent direct effect estimate)
 - a 1ppt increase in sanction threat raises exit hazard by 0.5 ppts (baseline: 4.5)
- ❸ **treated districts experience more spells of unemployment**
 - ~ 10 percent increase in cumulative spells
- ❹ **treated districts have worse reemployment durations**
 - 5-10 percent less likely to reach 12/24/36 months continuously employed

Policy:

- Unemployment benefits administered by around 800 Job Centres
- Caseworker meeting every two weeks
- Sanction decision made by third party after referral

Data

- UK Longitudinal Household Survey (UKLHS, "Understanding Society")
- monthly working life histories states: {employed, self-emp., unemployed, ...etc}
- keep track of individuals transitions across states
- 2009-2015
- 10k unemployment spells
- median duration: 9 months, mean: 12 months, 68% < 12 months

Households matched by district-month with average sanction-per-claimant rates

Correlations:
Displacement Earnings Losses and Sanction Threat

Displacement event study regression:

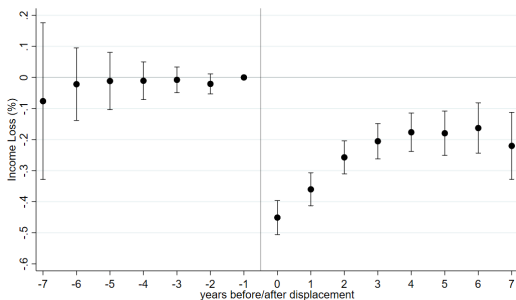
- makes valid comparisons of displaced vs not-yet-displaced / *i.e. is stagger-robust*
- stacking estimator of Cengiz et al (QJE,2019), stacks many 2×2 diff-in-diffs

Estimating equation:

$$y_{ict} = \alpha_{ic} + \lambda_t + \underbrace{\sum_{r=-7}^7 \gamma_r T_r}_{\text{controls}} + \underbrace{\sum_{r=-7}^7 \beta_r (T_r \cdot \text{displaced in year } c_{ic})}_{\text{displaced}} + \varepsilon_{it} \quad (1)$$

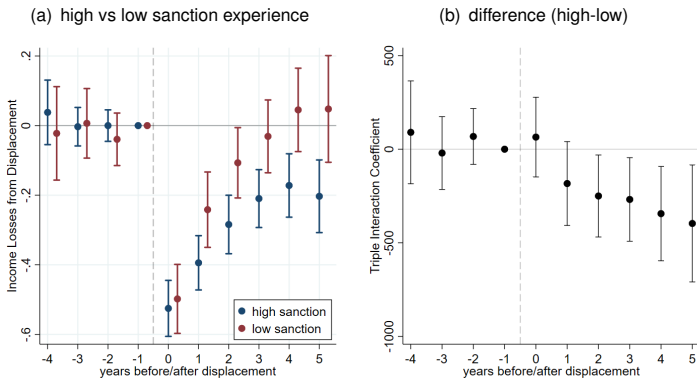
- year and person-cohort fixed effects
- T_r relative-time fixed effects
- outcome normalised to $r = -1$ in relative event time

Figure 1: Earnings Losses from Job Displacement



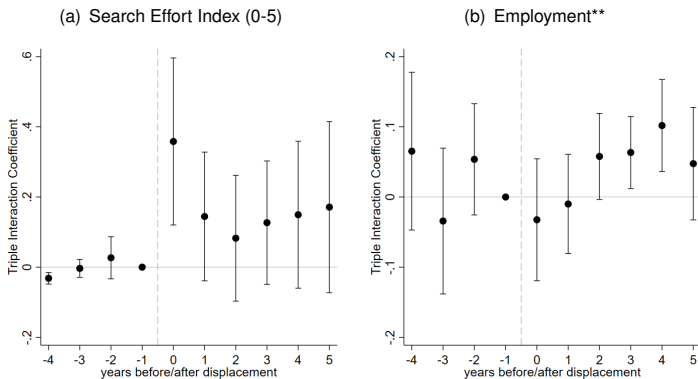
Sample: Ever-displaced only. Treated: lose job in year t , control: not-yet-treated by t .
Excludes zero earnings. Including zeroes leads to approx -40pct

Figure 2: Earnings Losses by high/low sanction regimes in early unemployment



High sanction: average sanction rate in first 3 months of spell above/below average

Figure 3: Triple-Differences Estimates comparing displacements with high vs low sanctioning



less conservative sample restriction: employed in $r = -1$ only. **Employed at time of survey**

Causal Estimates

2012 Policy Reform:

- Increased [minimum sanction duration](#) and [tighter monitoring](#) of search activity
- large increase in post-reform [heterogeneity across districts](#) in sanctions-per-claimant (second, third moments)
- focus on extensive margin only

► [Table: Reasons for Sanction](#)

Sources of Cross-sectional Variation:

- degree of job centre discretion/autonomy
- use of sanction/exit targets
- partisan pressure from politicians

National Audit Office: “The NAO concludes it is likely that [management focus and local work coach discretion](#) have had a [substantial influence on whether or not people are sanctioned](#) (...) heterogeneity [in sanction rates across areas] not fully explained by jobseeker characteristics”

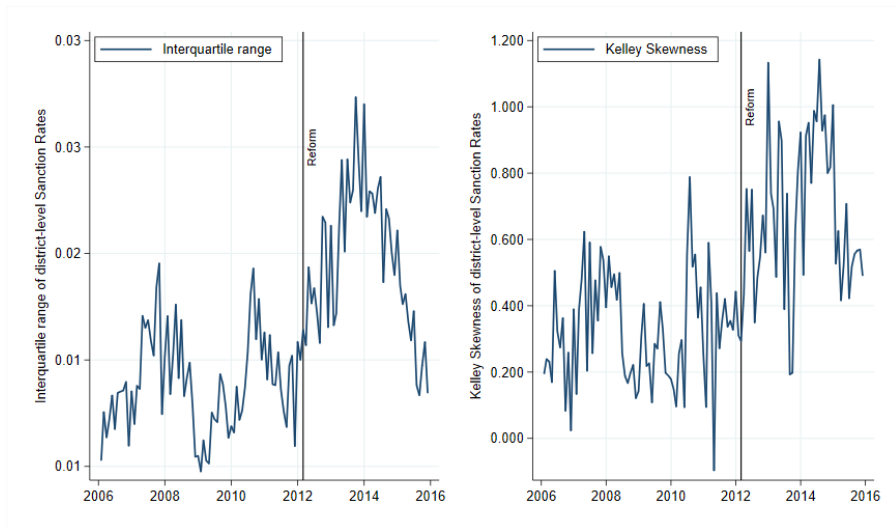
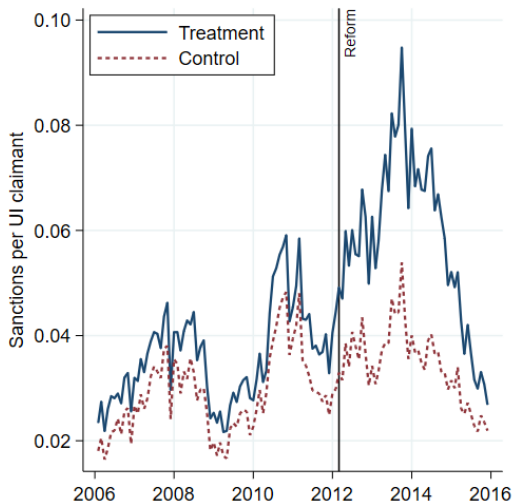


Figure 4: 2nd and 3rd Moments of Sanctioning Rate distribution

Figure 5: sanction intensity: $S_{gt} = \text{sanctions issued}_{gt} / \text{UI claimants}_{gt}$



Canonical 2x2 simultaneous reform Difference-in-differences:

$$y_{igt} = \underbrace{\lambda_t + \gamma_g}_{\text{common trends}} + \theta_{T(i,t)} + \underbrace{\sum_{\ell=-4}^4 \beta_{\ell} \cdot \mathbb{1}\{t = \ell\} \cdot D_g}_{\text{ATTs}} + u_{igt} \quad (2)$$

- $\theta_{T(i,t)}$ non-parametric duration dependence
- Two-stage estimation: estimate $(\lambda, \gamma, \theta)$ using untreated obs. Treatment will affect covars in post period.

Treated based on the change in average sanctioning rate around reform:

$$D_g = \begin{cases} 1 & g \in \text{top quartile of } \Delta \bar{S} \\ 0 & g \in \text{bottom quartile, } \Delta \bar{S} \approx 0 \end{cases} \quad (3)$$

Parallel Trends Assumption: no signs of divergence local labour markets

- eqm labour market outcomes: wages, employment
- output: gva, gva pc, gva growth
- industrial structure: local industry gva shares

Figure 6: Sanction Rates by District

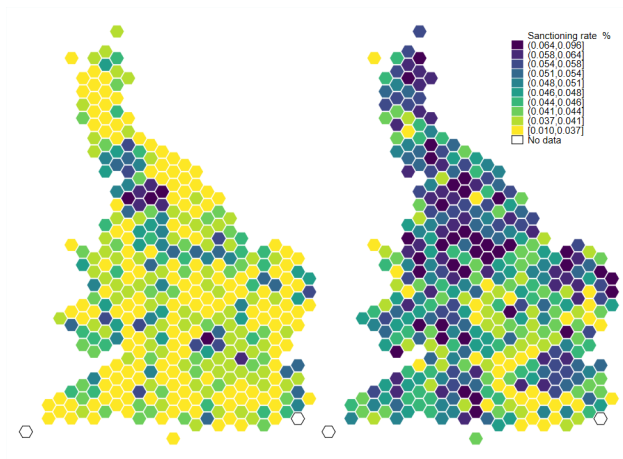
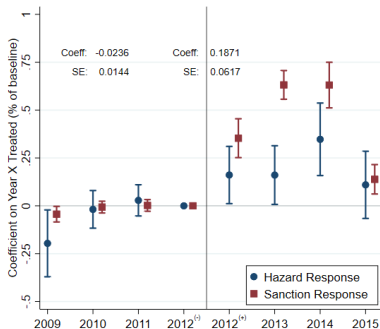
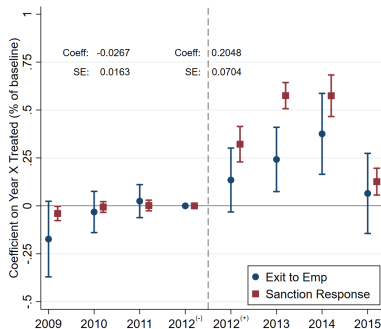


Figure 7: DID Estimates comparing high vs low intensity districts

(a) Exit rate, total (% of baseline)



(b) Exit rate, into employment (% of baseline)



Simplifying assumptions:

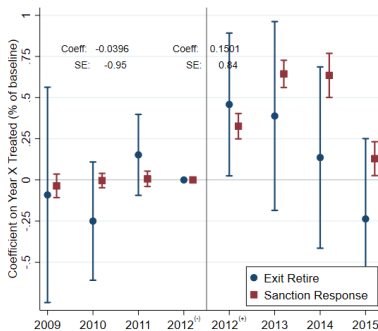
- worst-case: estimated coefficients are total effects (DE+IE)
- median duration of sanction approx 1 month
- $\Rightarrow \Delta \text{Incidence} = \Delta \text{Prevalence}$

Total Effect (% of baseline)	Direct Effect (%, sanctioned only)	Δ Prevalence (ppts)	Scaled Direct Effect (%)	Indirect Effect (%)
0.200	1.00	0.04	0.04	0.160

Table 1: Decompositon of Direct Effect and Threat Effect

Figure 8: Exit to retirement

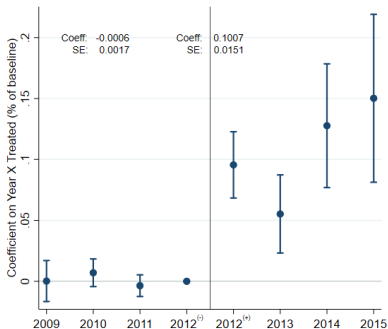
(a) Exit to retirement (% of baseline)



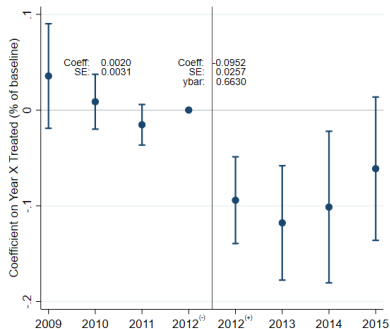
Post-reform spike one-and-done effect. Very low precision.

Figure 9: Reemployment Stability

(a) Cumulative Unemployment Spells



(b) Pr(reemployment tenure > 36 months)



Sanctioning policy acts on a wide set of job-seekers, not just the directly punished.
Effects go beyond immediate exit.

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Quicker exits from unemployment are paid in less stable jobs

- **reduces possibility** to run more generous social insurance
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Comments and feedback welcome:

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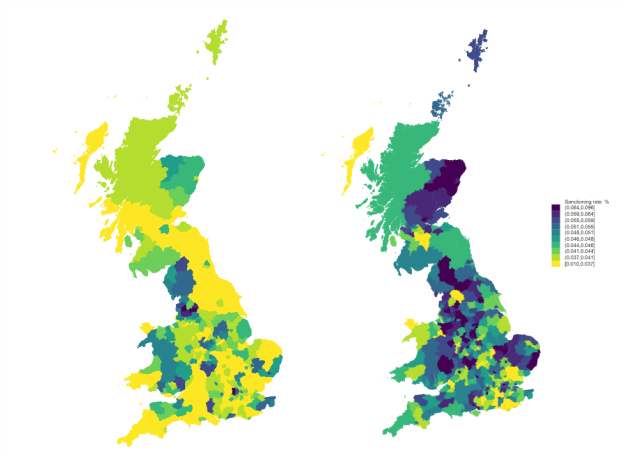
Appendix

Intensive Margin of Sanction Reform

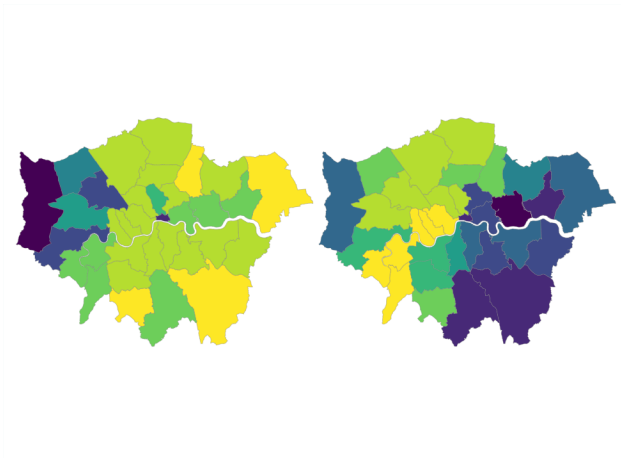
Infraction Level	Example Reasons	Sanction in weeks	
		<i>Before</i>	<i>After</i>
Lower	Failure to attend advisor meeting Failure to attend work program	1	4,13
Intermediate	Unavailable to work Ineligible search effort	0	4, 13
Higher	Refusing, voluntarily leaving work Dismissal for misconduct	1-26	4, 26, 156

Table 2: Intensive Margin of Sanctions within Infractions

Mapping Sanction Rates, 2010/12 vs. 2012/14

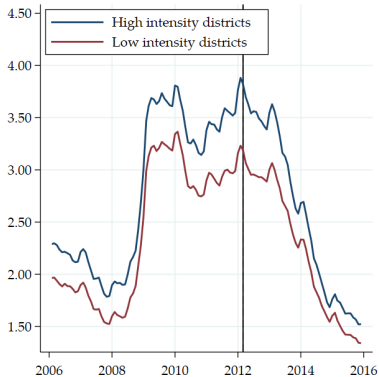


Mapping Sanction Rates, 2010/12 vs. 2012/14; London



Equilibrium Labour Market Outcomes

(c) Unemployment-Population Ratio



(d) Weekly Earnings

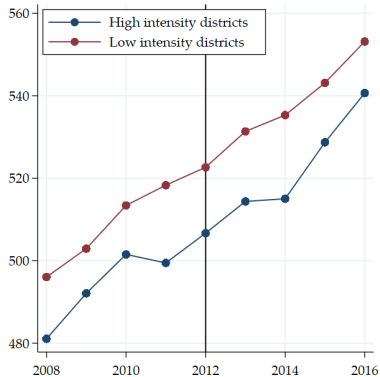
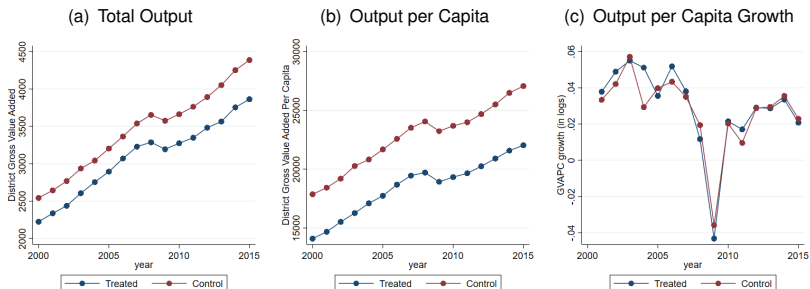


Figure 10: District-level Output (Real GVA)



*excludes Westminster and City of London due to high business concentration

Figure 11: District-Industry Output Shares ($GVA_{ind,dist,year} / GVA_{dist,year}$)

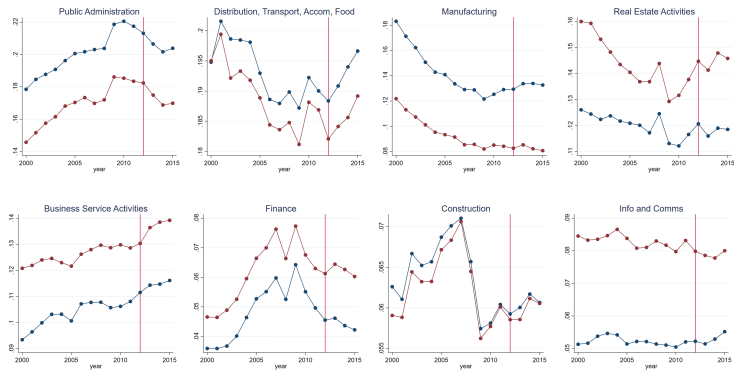


Table 3: Regression Results: ATT estimates

	Exit rate			Unemployment N_u	Re-employment duration			
	total	employed	retired		>12	>24	>36	
β ATT (ppts)	0.00860*** (3.03)	0.00796*** (2.91)	0.00455 (0.84)	0.112*** (6.65)	-0.0396*** (-2.85)	-0.0410** (-2.45)	-0.0631*** (-3.70)	0
β ATT (percent)	0.191*** (3.03)	0.205*** (2.91)	0.150 (0.84)	0.101*** (6.65)	-0.0504*** (-2.85)	-0.0583** (-2.45)	-0.0952*** (-3.70)	0
NT	59070	59070	12696	59070	59070	59070	59070	5

Model

can a search model:

- ① generate dynamics from regression estimates (exit rates and reemployment stability)?
- ② explain jointly causal and correlational evidence? (link above to medium-run income losses)?

workers

- a job is a (wage, riskiness) pair
- workers can search on the job with fixed efficiency

unemployed

- exert costly effort to (1) raise offer arrival probabilities (2) reduce the probability of a sanction
- accept/reject offers

offers

- drawn from exogenous distribution $F(w, \sigma)$

government

- pays UI, sanctions with prob $\pi(e)$