Housing Tenure and Job Search Behaviour. A Different Analysis of the Impact of the UK Jobseeker’s Allowance

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1. What is the Jobseeker’s Allowance (JSA)?
1. What is the Jobseeker’s Allowance (JSA)?

- JSA is a major reform of the unemployment benefit system introduced in UK on 7 October 1996

- JSA affected two main areas of the system
  1. Slight changes in both the duration and the level of benefit addressed to specific claimants
  2. Major changes in the eligibility criteria which comes with a substantial increase in job search requirements

- The tightening of eligibility rules is the relevant aspect and we focus just on this

- Intended effects of JSA:
  1. A removal from the register of those who are not assiduous in their search activity or are claiming fraudulently (the “weeding out effect”). Higher savings fro the government.
  2. A stepping up of job search efforts of jobseekers hopefully leading to higher flows into employment
2. What We Already Know About its Main Effects
2. What We Already Know About its Main Effects

Claimant Count (CC) & ILO Unemployment: the consistent gap

- Evident drop of both series when JSA was introduced.
- The gap became very wide right after the introduction of JSA: JSA removed several individuals from the claimant count, but most of them did not find a job, although they have kept looking for work according to the ILO definition.
2. What We Already Know About its Main Effects continued

1. JSA did increase the claimant outflow rate. (A. Manning, 2005, B. Petrongolo, 2009).

2. The impact on the claimant outflow to employment is zero: apparently only a negligible portion of those who moved off the claimant pool found a job. (A. Manning, 2005)

3. The effect is higher for claimants with low search intensity ("weeding out effect"). (A. Manning, 2005)
2. What We Already Know About its Main Effects continued

Unintended effects of JSA:

1. Movements towards other type of benefits: Unemployed are 2.5-3% more likely to move into Incapacity Benefits spells (B. Petrongolo, 2009)

2. Negative externalities for the society: crime rates rose more in areas most affected by JSA, that is where the increase of the outflow rate was higher (S. Machin and O. Marie, 2004)
3. A Simple Model of Search with Housing Tenure:

(A) The Likely Effects of JSA

(B) Housing Tenure and Job Search Behaviour
3. A Simple Model of Search: (A) The Likely Effects of JSA

(A) The likely effects of JSA

• Only unemployed who exert a search effort above a certain threshold are eligible for the benefit. JSA is modeled as an increase in this threshold.

• Only unemployed claimants whose search is between the old and the new threshold are affected by the JSA.

• Some will increase search, while others may even reduce it:
  
  o Those with a *low level* will be better off reducing it and they will drop off the claimant count.
  o Those with a *high level* of search effort will find optimal to increase it and keep on claiming.
3. A Simple Model of Search: (B) Housing Tenure and Job Search Behaviour

(B) Housing tenure and Job Search Behaviour

Two microeconomics channels:

1. Mobility cost effect or Oswald effect (Oswald, A. J. 1996, 1997, 1999):

   Homeowners, either outright owners or mortgagers, are more prone than renters to reject job offers which require a move, due to higher moving costs ($M$): this implies a lower job finding probability, which reduces return to search:

   \[
   M_O > M_m > M_r
   \]

2. Housing cost effect (Rouwendal, J., and Nijkamp, P. 2007):

   Housing costs ($H$) bear pressure to find a job when unemployed. Mortgagers and renters face positive housing costs, in particular we assume that mortgagers’ ones are higher (there is evidence for that):

   \[
   H_m > H_r > H_O
   \]
3. A Simple Model of Search: (B) Housing Tenure and Job Search Behaviour continued

The optimal Search Intensity by Housing Tenure

\[
F.O.C. \quad c'(s^*) = \frac{\lambda'(s^*)}{(r + \delta)} \int [1 - F(w)] dw
\]

\[M \text{Vs O: } s^*_m - s^*_o = s^*(M_m, H_m) - s^*(M_o, H_o) = \frac{ds^*}{dM}(M_m - M_o) + \frac{ds^*}{dH}(H_m - H_o) > 0\]

\[R \text{Vs O: } s^*_r - s^*_o = s^*(M_r, H_r) - s^*(M_o, H_o) = \frac{ds^*}{dM}(M_r - M_o) + \frac{ds^*}{dH}(H_r - H_o) > 0\]

\[M \text{Vs R: } s^*_m - s^*_r = s^*(M_m, H_m) - s^*(M_r, H_r) = \frac{ds^*}{dM}(M_m - M_r) + \frac{ds^*}{dH}(H_m - H_r) = ?\]

where \(M_o > M_m > M_r\), and \(H_m > H_r > H_o\) by assumption and

\[\frac{ds^*}{dM} < 0 \quad \text{(mobility cost effect)} \quad \frac{ds^*}{dH} > 0 \quad \text{(housing cost effect)}\]
4. Empirical Design: Dataset and Methodology
4. Empirical Design: Dataset and Methodology

**Dataset & Main Variable**

- Dataset drawn from the Labour Force Survey (LFS).
- LFS is a quarterly national-wide survey which collects address-based interviews of about 60,000 households for each quarter.
- The Claimant Variable: LFS’s variable as proxy of the admin Claimant Count.
Methodology

• We identify the impact of JSA on the claimant outflow rate by means of a Difference-in-Differences approach.

**Treatment group:**
Claimants in the 3rd quarter of 1996 (Jul-Sep 1996, wave 1). We check if they are still claiming or not in the 4th quarter of 1996 (Oct-Dec 1996, wave 2).

**Control group:**
Claimants in the 2nd quarter of 1996 (Apr-Jun 1996, wave 1). We check if they are still claiming or not in the next quarter (Jul-Sep 1996, wave 2).
4. Empirical Design: Dataset and Methodology continued

Wave 1
8 Jul - 6 Oct
Treatment Group

Wave 2
7 Oct - 5 Jan
Treatment Group

Wave 1
8 Apr - 7 Jul
Control Group

Wave 2
8 Jul - 6 Oct
Control Group

JSA
Mon 7 Oct

Housing Tenure and Job Search Behaviour. A Different Analysis of the Impact of the UK Jobseeker's Allowance
4. Empirical Design: Dataset and Methodology

- The baseline equation:

\[ y = \beta_0 + \beta_1 d_{96} + \beta_2 d_{97} + \beta_3 jsa + \beta_4 jsa \times d_{96} + \delta X + u \]

<table>
<thead>
<tr>
<th>Wave 1</th>
<th>Wave 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Claimant</strong></td>
<td><strong>Claimant</strong></td>
</tr>
<tr>
<td>TG</td>
<td>CG</td>
</tr>
<tr>
<td>JSA=1</td>
<td>JSA=0</td>
</tr>
</tbody>
</table>

- Seasonality issue: we generate treatment and control groups from the adjoining years 1995 and 1997 and we difference out the average seasonal effect.

- \( X = \) age, age\(^2\), sex, race, education, region and duration since last job. The inclusion of these controls does not change treatment effect estimates.

- \( \beta_4 \) identifies the Average Treatment Effect of JSA (probit model).
5. Results:

(A) The Treatment Effect on the Claimant Outflow

(B) The Housing Tenure Story
5. Results: (A) The Treatment Effect on the Claimant Outflow

(A) The impact of JSA on the claimant outflow rate

<table>
<thead>
<tr>
<th>Average Treatment Effect on:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow out of Claimant Status</td>
<td>0.1028</td>
<td>0.0765</td>
<td>0.1025</td>
<td>0.0761</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Flow into non-employment</td>
<td>0.0737</td>
<td>0.0696</td>
<td>0.0710</td>
<td>0.0656</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Flow into employment</td>
<td>0.0291</td>
<td>0.0071</td>
<td>0.0299</td>
<td>0.0094</td>
</tr>
<tr>
<td>(0.004)</td>
<td>(0.571)</td>
<td>(0.002)</td>
<td>(0.441)</td>
<td></td>
</tr>
<tr>
<td>Flow into unemployment</td>
<td>0.0468</td>
<td>0.0558</td>
<td>0.0429</td>
<td>0.0511</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Flow into inactivity</td>
<td>0.0269</td>
<td>0.0172</td>
<td>0.0245</td>
<td>0.0151</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.064)</td>
<td>(0.000)</td>
<td>(0.079)</td>
<td></td>
</tr>
<tr>
<td>Difference-in-Differences Controls</td>
<td>No</td>
<td>✓</td>
<td>No</td>
<td>✓</td>
</tr>
<tr>
<td>Number of observations</td>
<td>5958</td>
<td>16836</td>
<td>5904</td>
<td>16289</td>
</tr>
</tbody>
</table>

- JSA increases the probability of leaving the claimant pool by 7.7 points: from 31.2% to 38.9%.

- No effect on the probability of leaving the claimant pool and ending up to employment.

JSA reform had a sizeable impact on the claimant outflow. Those who leave the claimant pool but do not find job remain largely in the Labour Force.
5. Results: (A) The Treatment Effect on the Claimant Outflow continued

- JSA by search intensity
- High Search (HS) dummies
  (a) HS Variable: *search categories*
  \[ HS = 1, \text{ if searched for work last week} \]
  \[ HS = 0, \text{ if searched for work more than one week ago or did not at all} \]

<table>
<thead>
<tr>
<th>(2,3,4) Low Search</th>
<th>0.1374 (0.000)</th>
<th>0.1416 (0.000)</th>
<th>0.1348 (0.000)</th>
<th>0.1248 (0.002)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1000</td>
<td>994</td>
<td>990</td>
<td>987</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(1) High Search</th>
<th>0.0839 (0.000)</th>
<th>0.0751 (0.000)</th>
<th>0.0834 (0.000)</th>
<th>0.0721 (0.000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3401</td>
<td>3365</td>
<td>3365</td>
<td>3365</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Difference-in-Differences Controls</th>
<th>No</th>
<th>✓</th>
<th>No</th>
<th>✓</th>
<th>✓</th>
</tr>
</thead>
</table>

(b) HS Variable: *number of search methods* (from 0 to 9 methods)
  \[ HS = 1, \text{ if from 5 to 9 methods} \]
  \[ HS = 0, \text{ if from 0 to 4 methods} \]

<table>
<thead>
<tr>
<th>(0,1,2,3,4) Low Search</th>
<th>0.1168 (0.000)</th>
<th>0.1208 (0.000)</th>
<th>0.1155 (0.000)</th>
<th>0.1148 (0.000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2229</td>
<td>2197</td>
<td>2197</td>
<td>2197</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(5,6,7,8+) High Search</th>
<th>0.0796 (0.000)</th>
<th>0.0544 (0.004)</th>
<th>0.0810 (0.000)</th>
<th>0.0528 (0.004)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2171</td>
<td>2154</td>
<td>2154</td>
<td>2154</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Difference-in-Differences Controls</th>
<th>No</th>
<th>✓</th>
<th>No</th>
<th>✓</th>
<th>✓</th>
</tr>
</thead>
</table>

- JSA removed from the claimant count especially people with low levels of search activity

*Housing Tenure and Job Search Behaviour. A Different Analysis of the Impact of the UK Jobseeker’s Allowance*
We expect that the JSA effect is higher for housing tenure categories with lower search intensity.

• The JSA effect is higher for claimants with low search intensity.
• People with different housing tenure are expected to have different search intensity.

We expect that the JSA effect is higher for housing tenure categories with lower search intensity.
5. Results: (B) The Housing Tenure Story

*Search intensity measures: High Search (HS) dummies*
(from claimant not-in-employment to not-in-employment)

(a) HS Variable: *search categories*
HS = 1, if searched for work last week
HS = 0, if searched for work more than one week ago or did not at all

| Differences in High Search (HS) | Coefficient | \( p > |t| \) | obs. |
|---------------------------------|-------------|-------------|------|
| \( H S_m - H S_o \)            | 0.0362      | 0.005       | 4763 |
| \( H S_m - H S_r \)            | 0.0514      | 0.000       | 10584|
| \( H S_r - H S_o \)            | -0.0151     | 0.214       | 8705 |

(b) HS Variable: *number of search methods* (from 0 to 9 methods)
HS = 1, if from 5 to 9 methods
HS = 0, if from 0 to 4 methods

| Differences in High Search (HS) | Coefficient | \( p > |t| \) | obs. |
|---------------------------------|-------------|-------------|------|
| \( H S_m - H S_o \)            | 0.0992      | 0.000       | 4763 |
| \( H S_m - H S_r \)            | 0.0883      | 0.000       | 10584|
| \( H S_r - H S_o \)            | -0.0109     | 0.455       | 8705 |
5. Results: (B) The Housing Tenure Story continued

- DiD estimates by housing tenure (from claimant not-in-employment to not-in-employment)

<table>
<thead>
<tr>
<th>DiD by housing tenure</th>
<th>To not-in-employment</th>
<th>To employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DiD</td>
<td>p &gt; z</td>
</tr>
<tr>
<td>$DiD_o$</td>
<td>0.0059</td>
<td>(0.863)</td>
</tr>
<tr>
<td>$DiD_m$</td>
<td>0.0417</td>
<td>(0.056)</td>
</tr>
<tr>
<td>$DiD_r$</td>
<td>0.1009</td>
<td>(0.000)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Differences by housing tenure</th>
<th>Coefficient</th>
<th>p &gt; z</th>
<th>obs</th>
<th>Coefficient</th>
<th>p &gt; z</th>
<th>obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>$DiD_m - DiD_o$</td>
<td>0.0364</td>
<td>(0.378)</td>
<td>6207</td>
<td>0.0786</td>
<td>(0.146)</td>
<td>6207</td>
</tr>
<tr>
<td>$DiD_r - DiD_o$</td>
<td>0.0940</td>
<td>(0.031)</td>
<td>9726</td>
<td>0.0195</td>
<td>(0.533)</td>
<td>9726</td>
</tr>
<tr>
<td>$DiD_r - DiD_m$</td>
<td>0.0491</td>
<td>(0.090)</td>
<td>12409</td>
<td>-0.0288</td>
<td>(0.215)</td>
<td>12409</td>
</tr>
</tbody>
</table>

- The treatment effect is mostly addressed to renters.
- The treatment effect is significantly higher for renters than mortgagers and outright owners.
- The difference in treatment effects between mortgagers and outright owners is not significant.
5. Results: (B) The Housing Tenure Story continued

- DiD estimates on search intensity by housing tenure. Dependent variable: variation in the number of search methods between wave 1 and 2.
- Sample: non-employed claimants in wave 1 who are still non-employed in wave 2.
- Coefficients reported: marginal effects from ordered probit.

| Samples        | Coefficient | $p > |z|$ | obs.   |
|----------------|-------------|-------|--------|
| Whole Sample   | 0.16        | 0.029 | 11971  |
| Outright Owners| 0.40        | 0.054 | 1436   |
| Mortgagers     | 0.37        | 0.013 | 3296   |
| Renters        | 0.02        | 0.821 | 7239   |

- JSA increases search intensity of mortgagers and outright owners
- JSA has no effect on search intensity of renters.
6. Conclusions

• **Mortgagers vs Renters**
  - Our empirical results provide further evidence for mortgagers exerting higher search effort than renters. This result calls for a stronger housing cost effect in order to fit theoretical predictions.
  - As a consequence, the introduction of JSA moved off benefit more renters than mortgagers among those who remained non-employed. Moreover, mortgagers increased search intensity due to JSA while renters did not.

• **Mortgagers vs Outright Owners**
  - Our empirical results are consistent with theoretical predictions in that they reveal higher search efforts for mortgagers.
  - Though Outright Owners search less intensively than Mortgagers, they do not exhibit a higher DiD estimate: the lower search intensity does not reflect into a lower probability to be crowded out when search requirements are tightened.

• **Renters vs Outright Owners**
  - Our empirical results do not depict any difference in search intensity, while our theoretical model predicts higher search efforts for Renters.
  - In spite of a similar search activity, Renters have been strongly affected by the stricter search rules, while outright owners avoided entirely their impact. One partial explanation is that outright owners increased search intensity more than renters.
References


