Occupational Mobility and Mismatch Unemployment

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Occupational Mobility and Mismatch Unemployment

- Labour market mismatch at the occupation level
  - Jobs in some occupations, unemployed workers in others
  - Dispersion in labour market conditions (tightness, job finding rate)
- Conventional wisdom
  - Barriers to OM important source of MMU
  - Policy implication: subsidize retraining (Katz 2010)
  - Reason to doubt this view (Herz and Van Rens 2015)
- This paper
  - Observe workers switching occupation
  - Construct counterfactual unemployment if they had **not switched**

Preview of the results

- Worker mobility across occupations actually generates mismatch unemployment
  - Putting in place worker mobility frictions would reduce unemployment substantially
- UK vs US
- Wages

Review of (selective) literature

- Occupational mismatch important for unemployment (ŞSTV 2014)
  - MM important for unemployment (level and fluctuations)
  - Occupation-level MM most important component of MMU
- Sources of mismatch (Herz and Van Rens 2015)
  - MM caused by wage setting (and barriers to job mobility)
  - Virtually no role for barriers to *worker mobility*

Data

- US Current Population Survey (CPS)
  - Basic monthly files + ORG, 1987-2013
  - 4 months employment history + earnings
  - 4-digit occupations, consistent over sample period (IPUMS)
- UK Labour Force Surveys
  - Two-quarter longitudinal dataset + QLFS-SLA, 1993-2015
  - 2 quarters employment history (+ earnings)
  - 3-digit occupations (main + previous), consistent 1993-2000, 2001-2010, 2011-2015
  - *For today:* 1993-2000 (no SLA to construct persid)

Method

- Occupational mismatch
  - Jobs (vacancies) in some occupations
  - Unemployed workers in others
- Measure:
  - Dispersion in vacancy/unemployed (across occupations)
  - Dispersion in job finding rates
- Mismatch increases unemployment
  - Job finding rate is concave in v/u
  - Dispersion lowers aggregate job finding rate

$$f = \frac{m}{u} = \frac{u^{\alpha} v^{1-\alpha}}{u} = \left(\frac{v}{u}\right)^{1-\alpha}$$

Method

- Calculating job finding rates by occupation
  - JFR= $\frac{\#(\text{employed}_t/\text{unemployed}_{t-1})}{\#\text{unemployed}_{t-1}}$
  - Aggregate to years for sample size reasons
  - Drop occupation cells with very low number of observations
  - (Use only occupations that are available over the entire sample)

Method: counterfactual

- Observed occupational MMU
  - Assign unemployed to occupations where they find a job
  - Calculate jfr by occupation
  - Calculate unemployment due to dispersion in jfr
- Counterfactual occupational MMU
  - Assign unemployed to occupations where they previously held a job
  - Assume occupation-specific jfr same
  - Calculate unemployment due to dispersion in jfr across previously held occupations

Method: counterfactual

UNEMPLOYED			
Seek	**experience**	**jfr_seek**	**jfr_exp**
1	1	f1	f1
1	1	f1	f1
1	2	f1	f2
1	2	f1	f2
1	2	f1	f2
1	3	f1	f3
2	1	f2	f1
2	1	f2	f1
2	2	f2	f2
2	2	f2	f2
2	2	f2	f2

Preview of the results

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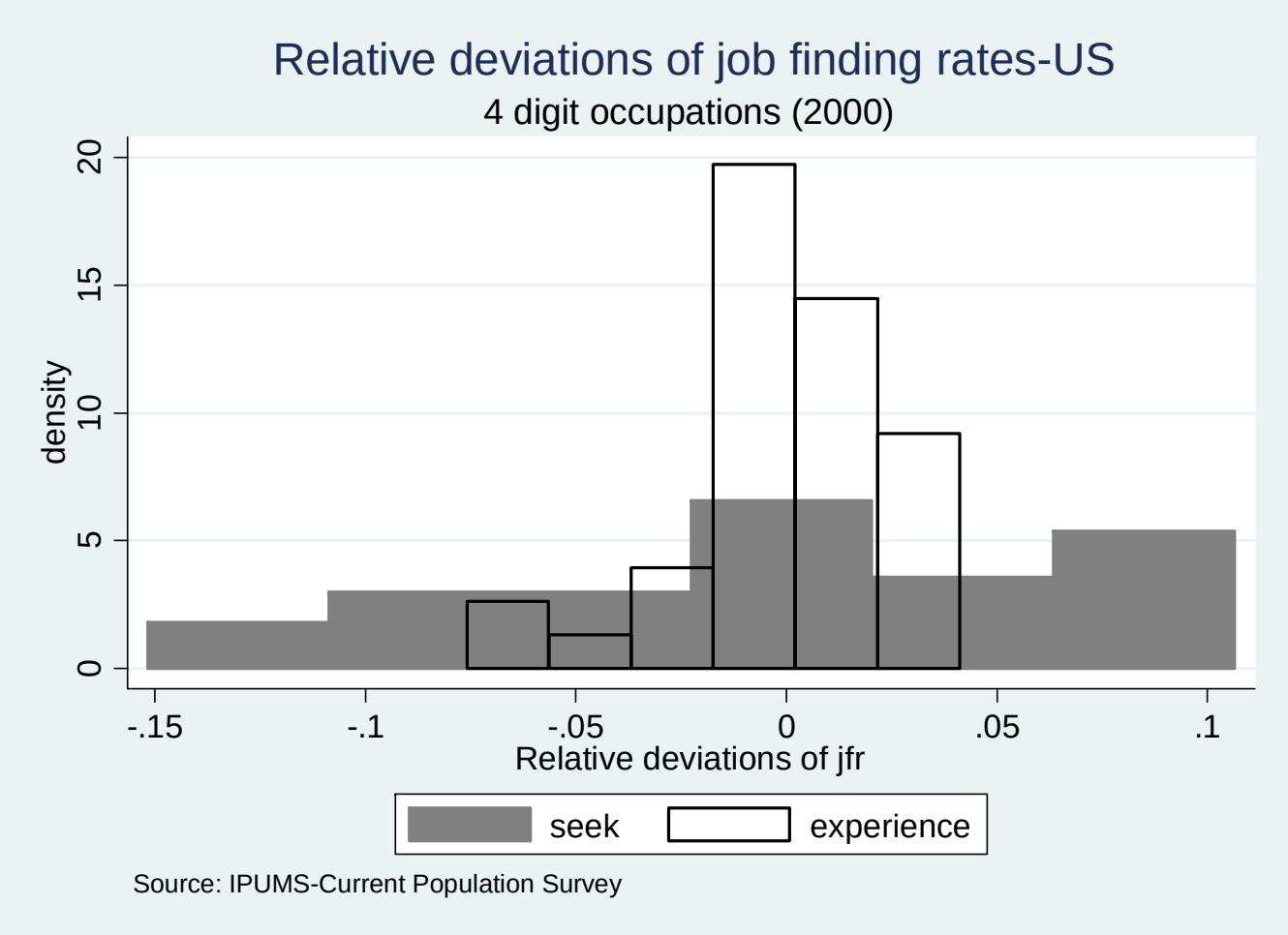
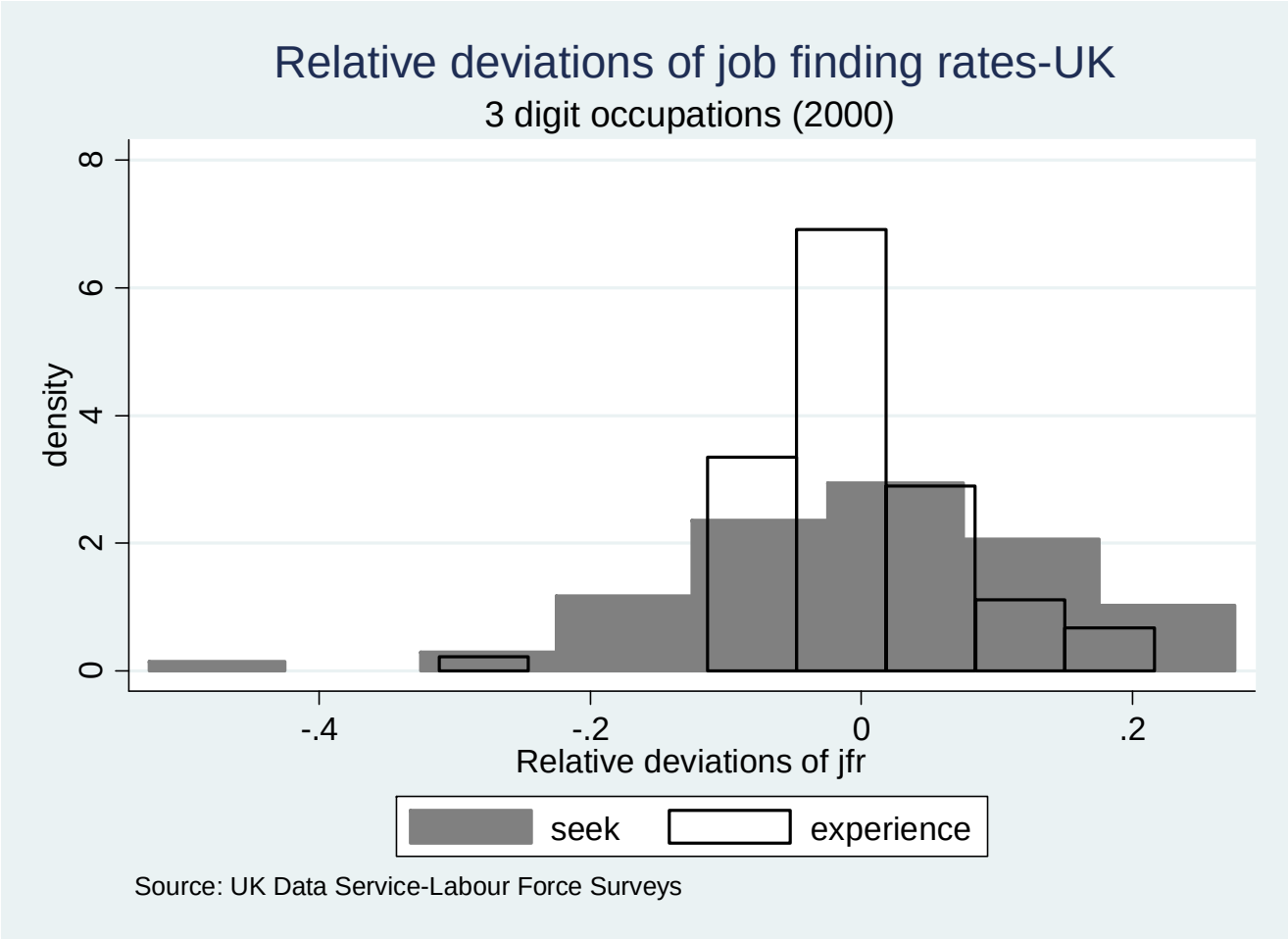
- **UK vs US**
- Wages

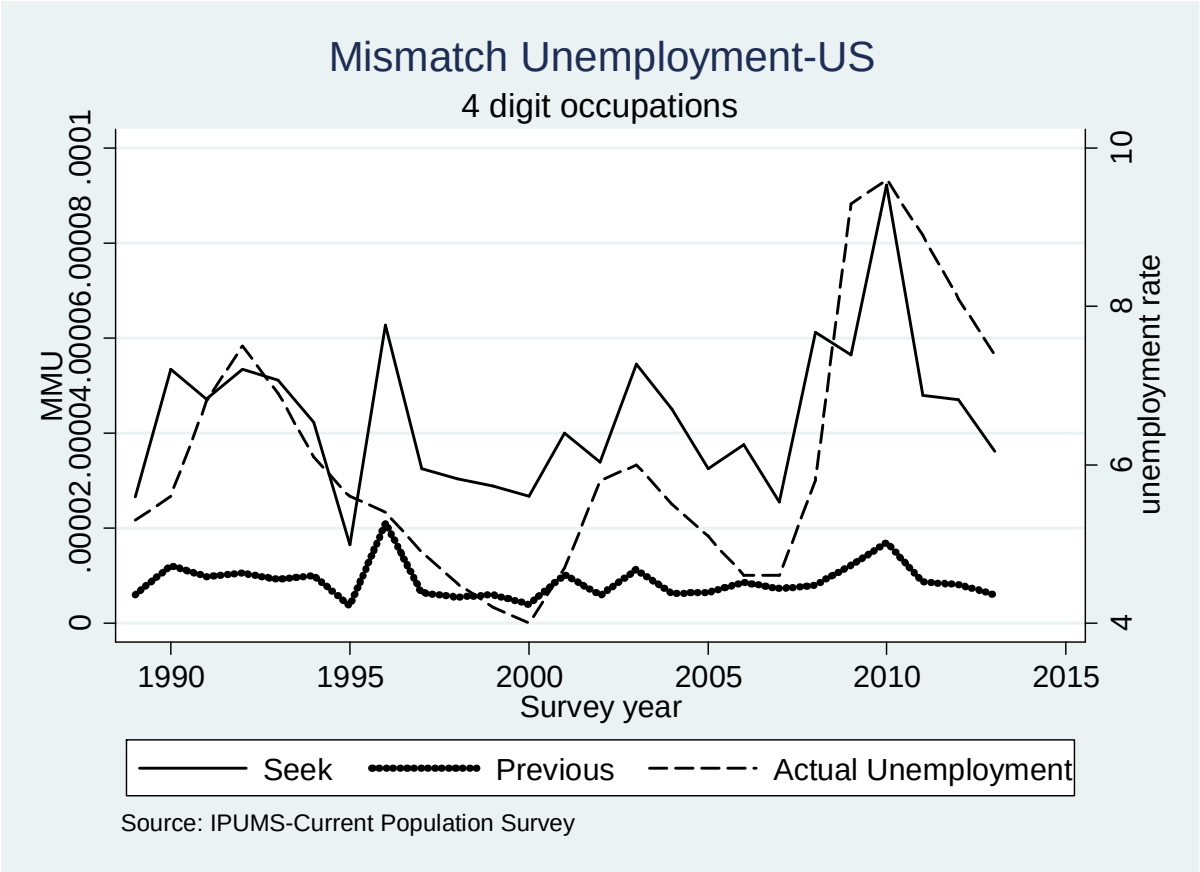
Dispersion in labour market conditions US



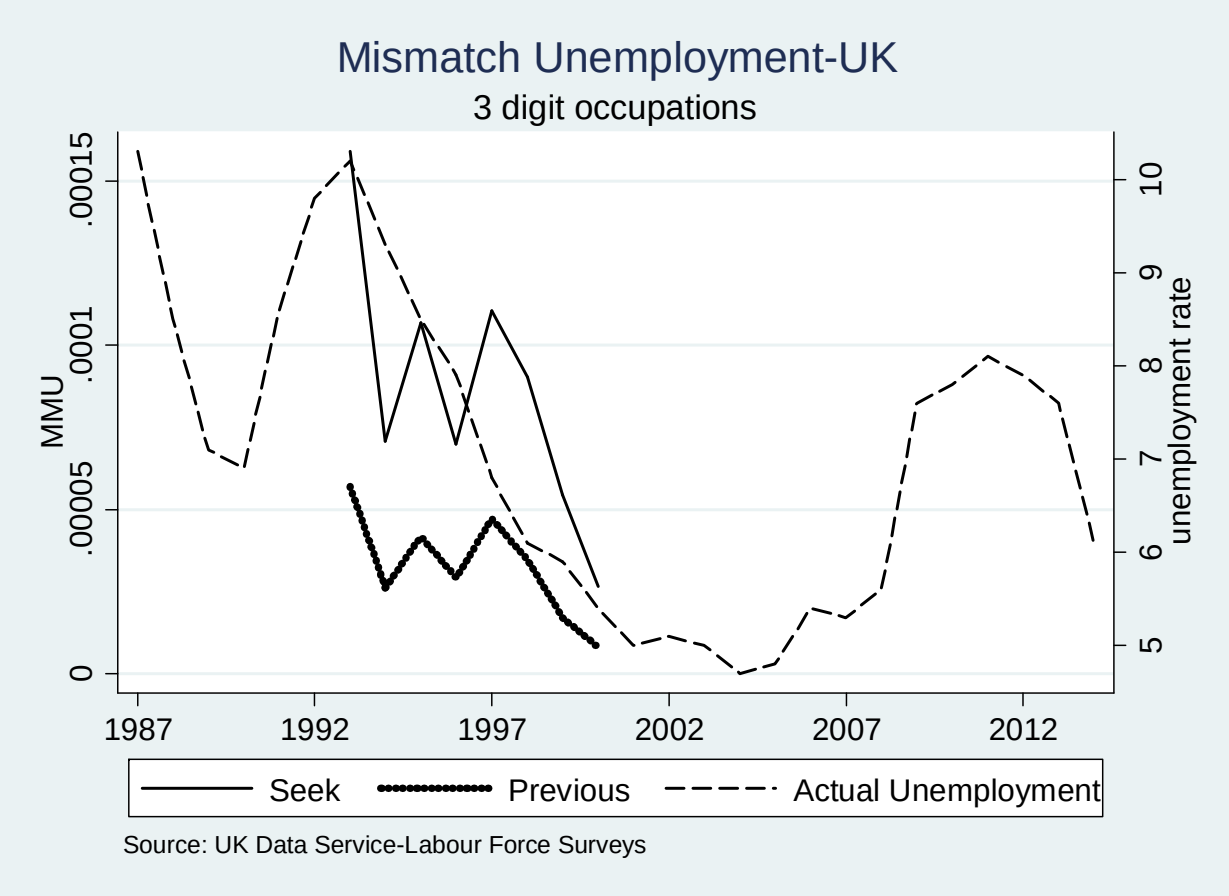
Dispersion in labour market conditions UK



Mismatch unemployment US



Mismatch unemployment UK



Results

- Counterfactual unemployment rate in the absence of OM is lower than the actual MMU
  - OM increases unemployment
  - Putting in place worker mobility frictions would reduce unemployment substantially

Preview of the results

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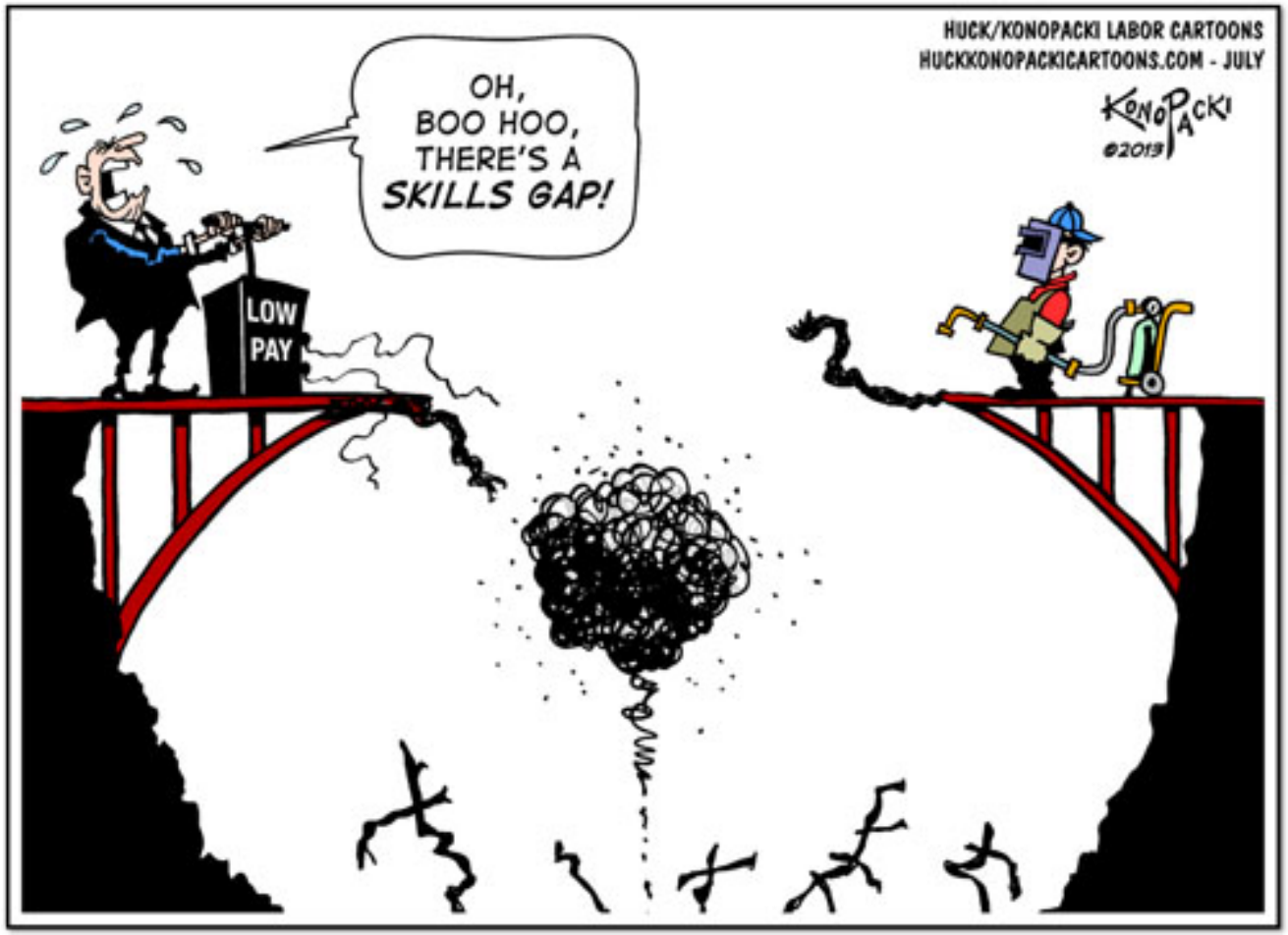
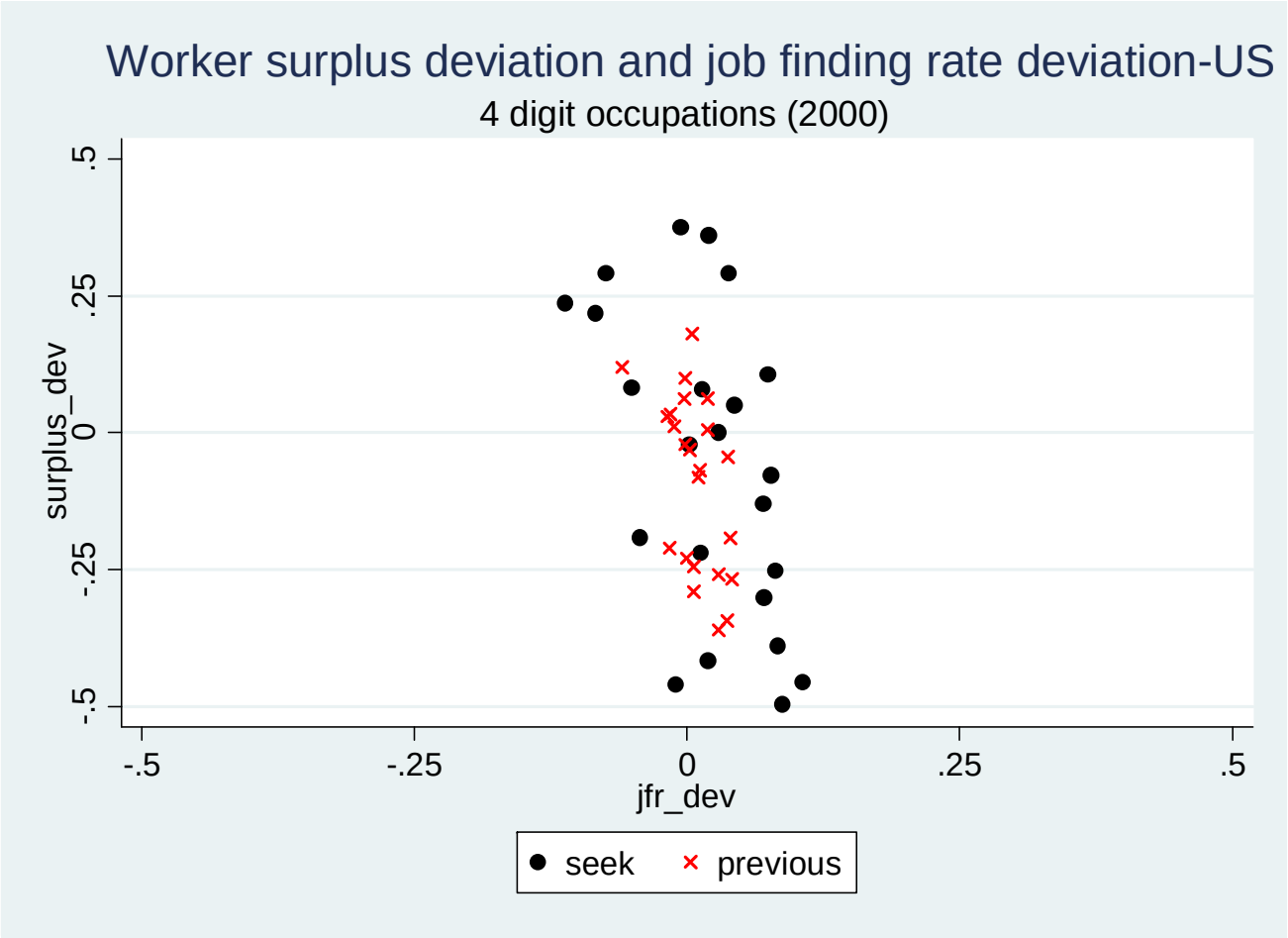
- UK vs US
- **Wages**

Wages do not reflect skill shortages

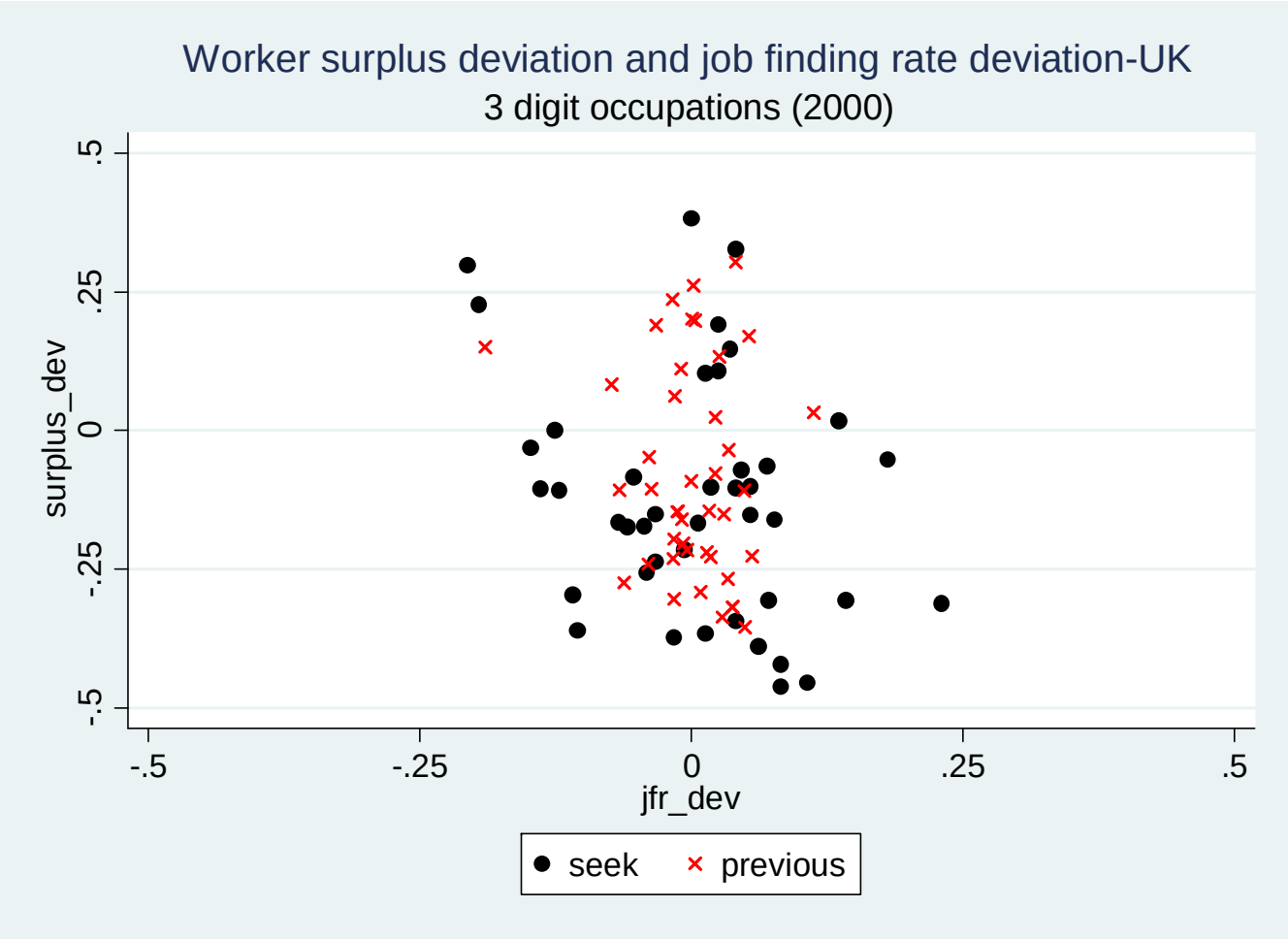


Source: David Groves, www.thestrand.org, 18.06.2013

Earnings vs jfr
US



Earnings vs jfr
UK



Results

- Workers are searching in occupations with high wages in which there is little possibility to find a job

Concluding remarks

- Our results are consistent with the results in Herz and van Rens (2015), but we go much further here.
- They find that worker mobility frictions contribute very little to mismatch unemployment
- Here, we show that if worker mobility frictions were in place, they would substantially reduce unemployment