

Spatial Differences in Disability Benefit Rolls

Duncan McVicar
Queen's University Belfast

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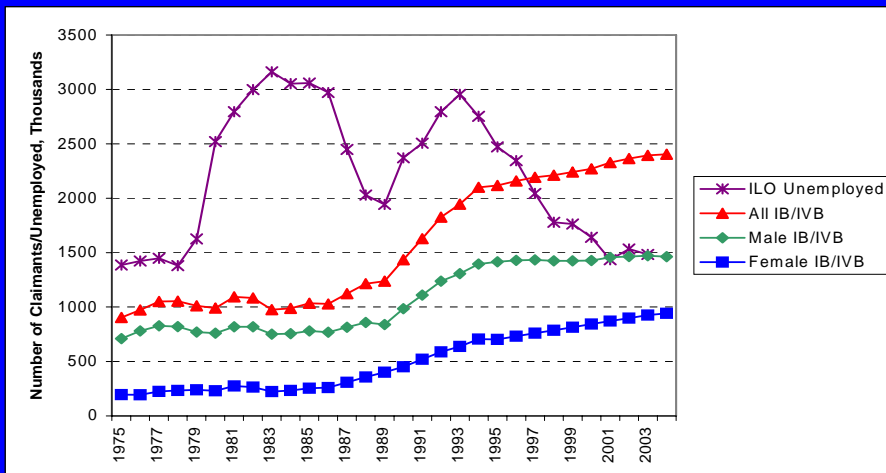


Introduction

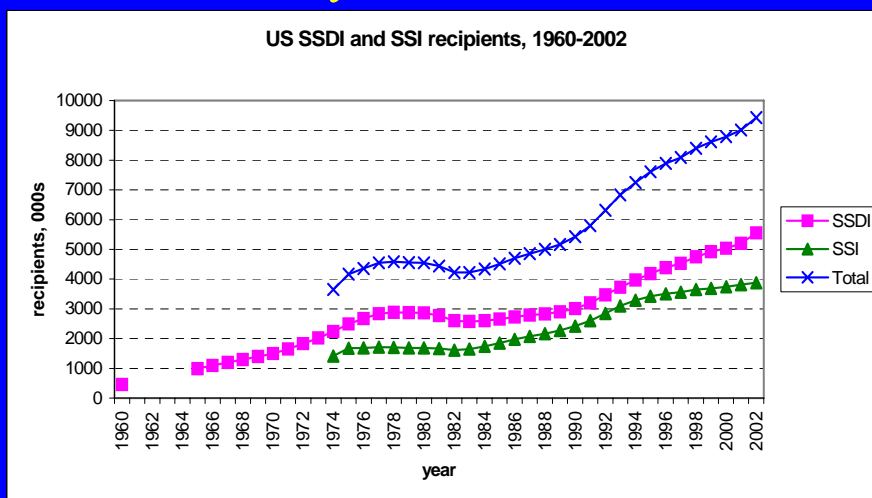
- Well documented rise over last 30 years or so in the number of people claiming disability benefits in UK and US
- The (economics) literature (mostly US) points to labour market conditions and benefit characteristics as the key drivers of this growth
- But also dramatic *spatial* differences in disability benefit claimant rates, across and within countries
- These spatial differences have attracted less attention in the literature
 - What lies behind them?
- Why should we be interested?
 - Amongst other things, because of links between disability (and claiming disability benefits) and poverty



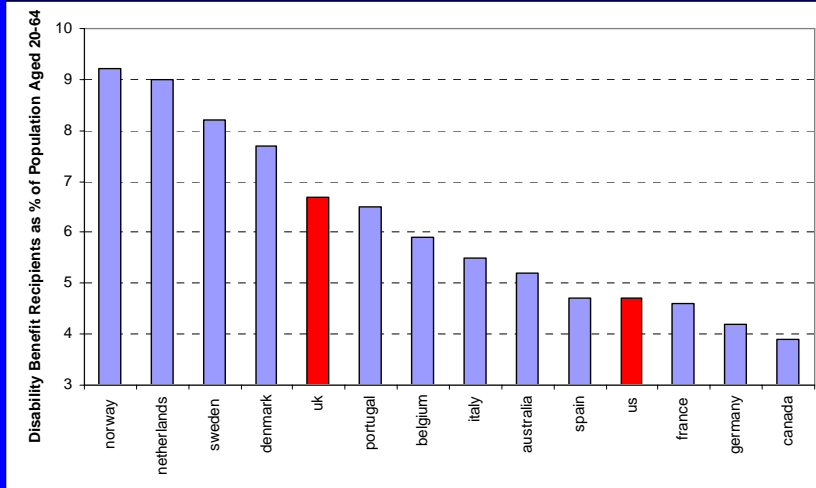
Aggregate growth in working age disability benefit rolls: UK



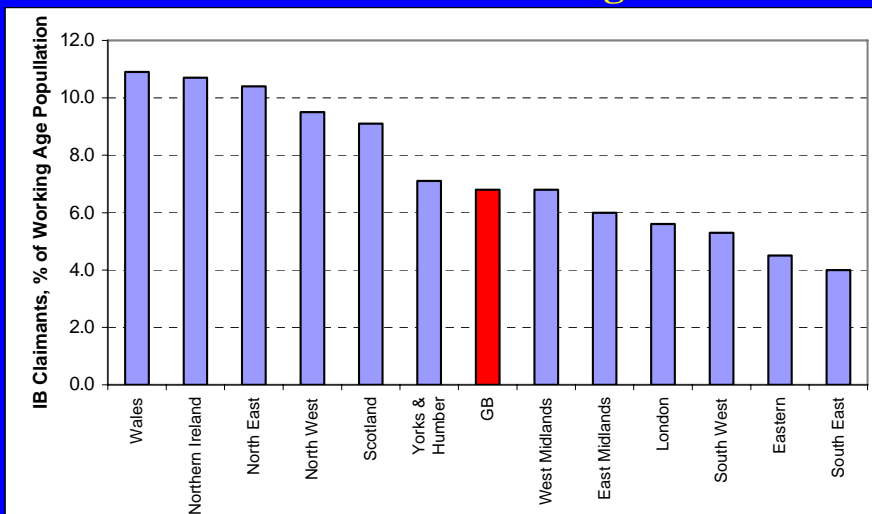
Aggregate growth in working age disability benefit rolls: US



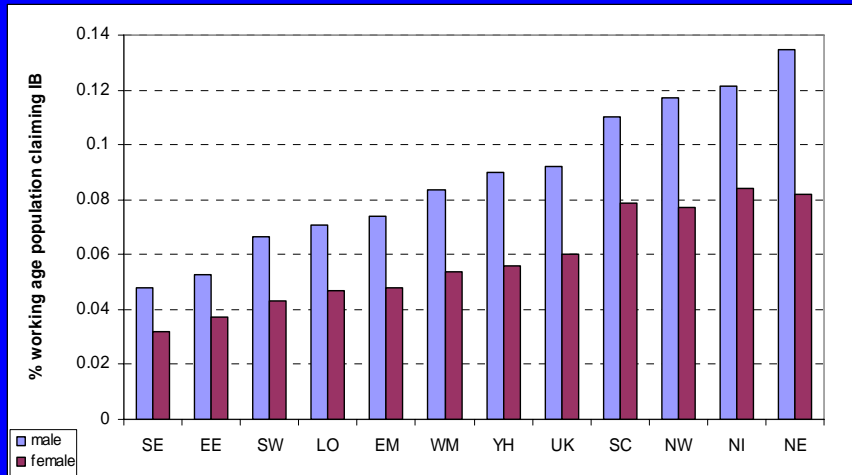
Disability Benefit Reciprocity Rates across Countries, 1999, % of 20-64 Population



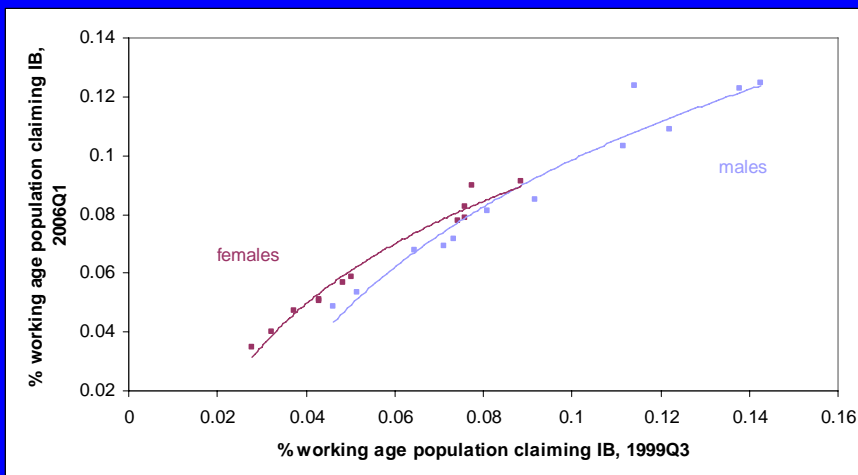
UK Incapacity Benefit Claimants as % Working Age Population, February 2004, Government Office Regions



Regional IB Rolls, Males and Females, 1999Q3-2006Q1 Averages



Regional IB Rolls, 1999Q3 v 2006Q1, Males and Females



SSDI Recipients as % Working Age Population, February 2004, by State

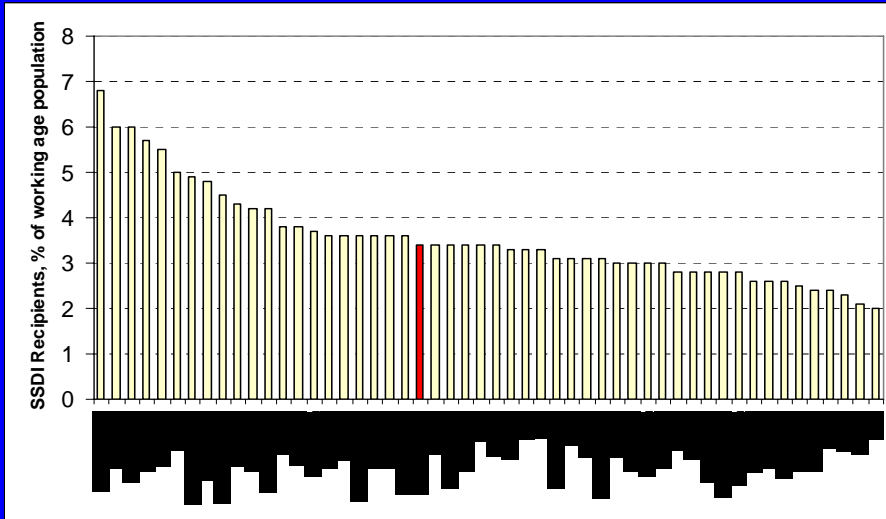
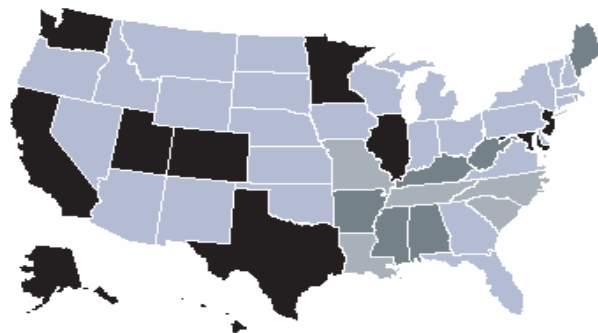


Chart 3.
Disabled beneficiaries aged 18–64 in current payment status as a percentage of state population aged 18–64, December 2002

Disabled beneficiaries aged 18–64 in current payment status accounted for about 3.5 percent of the population aged 18–64 in the United States. In 12 states, they represented less than 3 percent of the state population. The states with the highest rates of disabled beneficiaries—5 percent or more—were Alabama, Arkansas, Kentucky, Maine, Mississippi, and West Virginia.



SOURCE: Table 8.



Potential Explanations: Health?

- Why *might* the prevalence of mental or physical impairments vary across space?
 - Uneven spatial distribution of hazardous or physically demanding occupations and in work injuries
 - Uneven spatial distribution of poverty and correlation with ill health
 - Regional unemployment disparities and unemployment → ill health
 - Age distribution

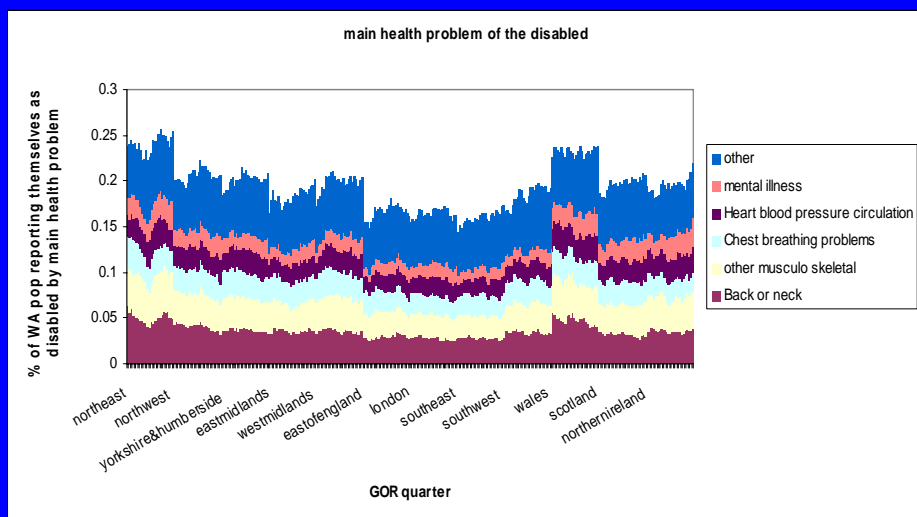


Are there spatial differences in health?

- Within both US and UK we see spatial differences in (self reported and clinical measures of) health
 - E.g. In 2000, 14.4% (8.3%) of 16-64s reported a work-limiting disability in Mississippi (Alaska).
 - E.g. 2001 age-adjusted mortality rates 20% higher (25% lower) than the US average in Mississippi (Hawaii).
 - E.g. 2003 proportion of working age population reporting a disability ranges from 7% in Test Valley to 38% in East Ayrshire.
 - E.g. 2003 male mortality rates per 100,000 population aged 55-64 = 13.3 in Scotland and 8.0 in SW England.
- But
 - Endogeneity of self-reported measures?
 - Mortality and disability statistics follow divergent paths?



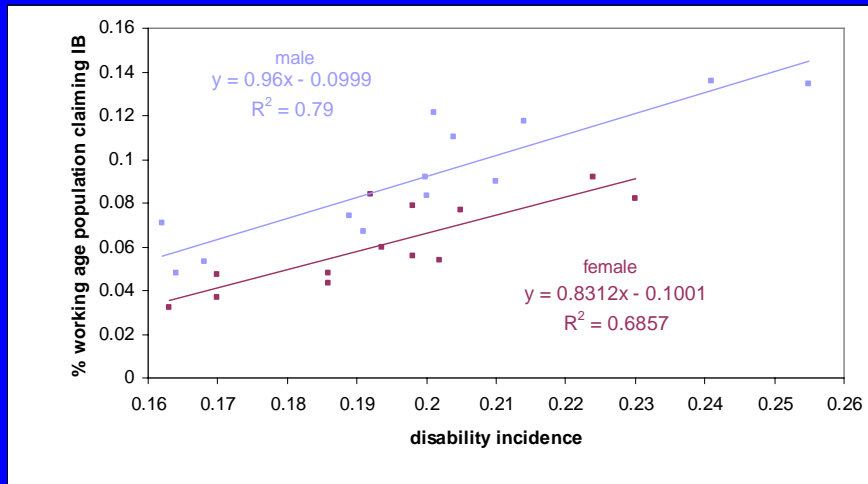
Main Health Problem of the Disabled (LFS, UK Regions, 1998Q1-2004Q2)



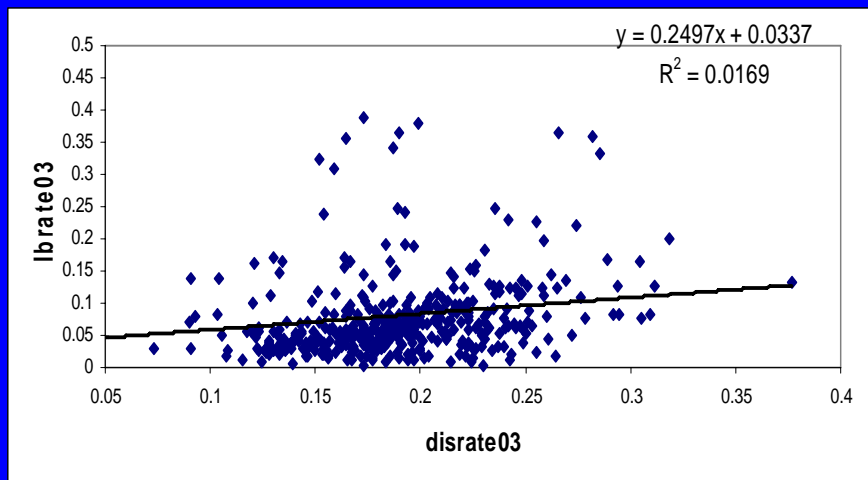
Do these spatial health differences affect disability benefit rolls?

- Cross sectional micro studies (unsurprisingly) find a link between labour force participation or disability benefit receipt and health status
- Therefore, given spatial differences in health, we should expect spatial differences in disability benefit rolls.
- But few aggregate studies explore the link between health and disability benefit rolls across space in a quantitative way
- Those that do are unsatisfactory for a variety of reasons
 - E.g. poor measures of health/disability
 - E.g. ignore potential endogeneity of self-reported health measure
 - E.g. lack of control for labour market factors

Regional IB Rolls v Disability Incidence, Males and Females, 1999Q3-2006Q1 Averages



Disability Incidence and IB Rolls, GB Local Authorities, 2003



Potential Explanations: Labour Market?

- We know labour markets vary across space
 - E.g. spatial differences in industry mix, unemployment rates, average wages
- Why might this matter?
 - Spatially concentrated job destruction in industries with high levels of employed (hidden) sick and disabled
 - Fewer/poorer vacancies to go round in high unemployment areas (longer job queue)
 - Replacement rates (value of benefits relative to wages) are higher in low wage regions, so work less attractive



Evidence on spatial differences in disability rolls and labour markets?

- Strong-ish for the US...
 - State and county level panel regressions
 - Disability benefit rolls found to be negatively related to various measures of local labour demand
 - But lack of control for health factors in these studies

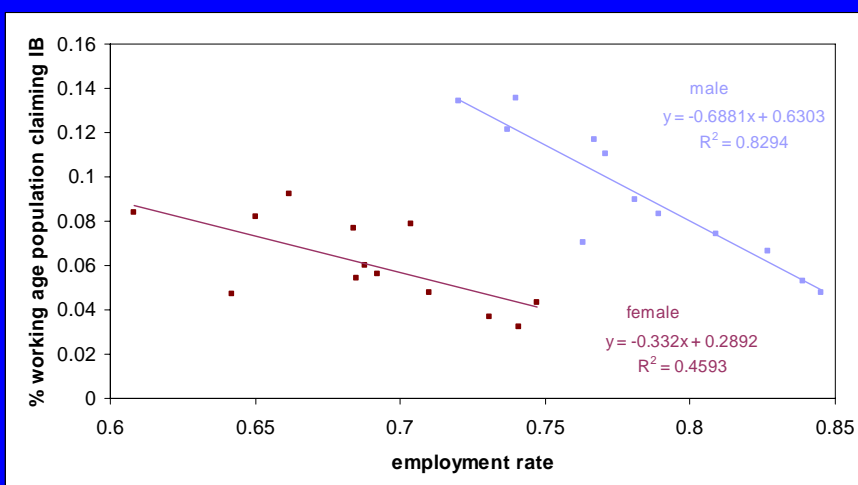


For the UK?

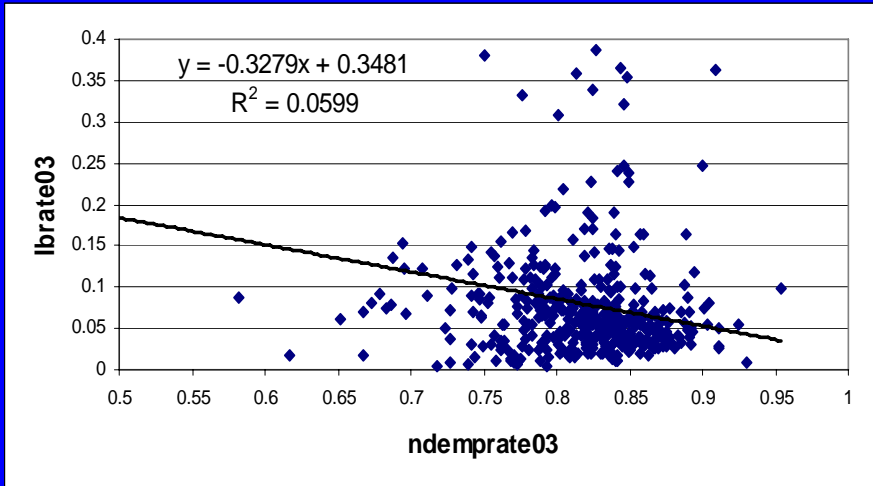
- Also strong-ish for the UK...
- Cross section micro studies in late 1980s/early 1990s had mixed results
 - E.g. effect of local unemployment rates on probability of disability benefit claim not always significant
 - But generally significant replacement rate and industry dummies
- Evidence from regional panel studies also mixed
 - D&W for 1980s: strong positive relationship between disability benefit rolls and regional unemployment rates (but lack of control for health)
 - F&N for 1990s: counterintuitive (?) negative relationship between regional unemployment rates and male inactivity rates (they are dropped)
 - F&N find strong negative relationship between regional wages and regional inactivity rates.
- Local area studies and qualitative work support strong relationship between state of labour market and disability benefit rolls



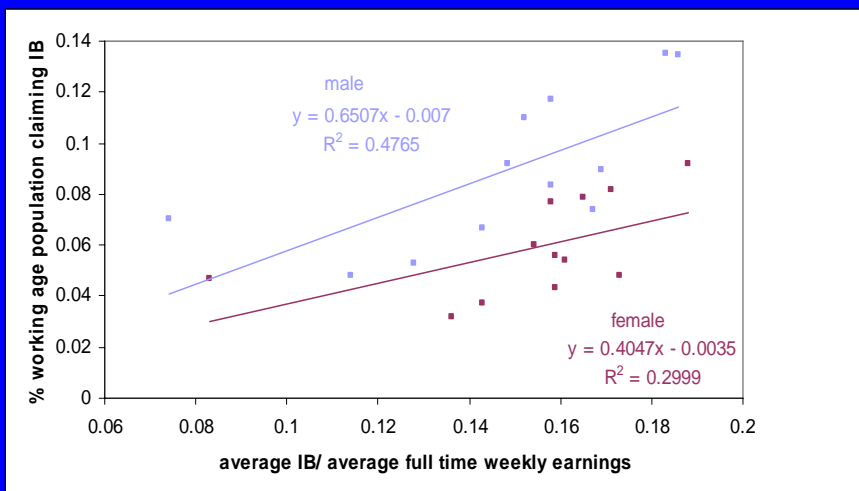
Regional IB Rolls v Employment Rates, Males and Females, 1999Q3-2006Q1 Averages



Employment Rates and IB Rolls, UK Local Authorities, 2003



Regional IB Rolls v Replacement Rates, Males and Females, 1999Q3-2006Q1 Averages



Potential Explanations: Benefit Characteristics?

- For US...
 - National benefits but administered at state level
 - Evidence that some states more stringent than others and that this has affected benefit rolls
 - Uneven cutbacks in other (state level) assistance
 - Some econometric and case study evidence
- For UK...
 - National benefits ‘rules’
 - But was there a policy of shifting eligible unemployed onto disability benefits in high unemployment areas?
 - Not a strong explanation of UK spatial differences?



Are *Other* Benefits More Important in the UK?

- Unemployment benefits?
 - Disability benefits paid at higher rate than unemployment benefits → incentive effects
 - Different job search requirements and series of reforms to unemployment benefits (JSA) → further incentive effects
- But why would these incentive effects vary across space?
 - Differentials in benefit rates might have more impact in low wage/low price regions
 - Lose motivation for job search in high unemployment areas, therefore don't seek search assistance and avoid monitoring?
- Early retirement vehicle, particularly for low earners?



Other Potential Explanations

- Uneven labour force participation of women therefore uneven eligibility?
 - But wrong direction?
- Fraud?
 - Concentrated in certain areas?
- Culture?
 - Social interactions/role models/stigma?
- Little evidence
 - But significant (unexplained) regional dummies in regressions



Some (very preliminary) new UK evidence: men, pooled regional LFS, 1999Q3-2006Q1

	OLS	2SLS	OLS - RF
Working age disability incidence	.362 (.093)	.238 (.133)	
Mortality rate 55-64			.700 (.051)
Proportion of working age population over 50			1.671 (.161)
Replacement rate	.239 (.087)	.280 (.088)	.136 (.063)
Relative IB/JSA value	.225 (.116)	.240 (.120)	-.254 (.115)
Employment rate	-5.109 (.214)	-5.367 (.294)	-5.665 (.174)
Constant	-2.646 (.180)	-2.801 (.231)	2.066 (.395)
Number of observations	286	286	286
R ²	.917	.900	.941



Some (very preliminary) new UK evidence: women, pooled regional LFS, 1999Q3-2006Q1

	OLS	2SLS	OLS - RF
Working age disability incidence	.751 (.128)	1.042 (.286)	
Mortality rate 55-64			1.106 (.095)
Proportion of working age population over 50			2.505 (.278)
Replacement rate	-.159 (.106)	-.281 (.148)	-.588 (.114)
Relative IB/JSA value	.554 (.151)	.618 (.152)	-.011 (.145)
Male employment rate	-5.951 (.486)	-5.319 (.714)	-5.614 (.410)
Female employment rate	1.562 (.385)	1.457 (.388)	.389 (.368)
Constant	-2.907 (.199)	-2.613 (.341)	-3.711 (.195)
Number of observations	286	286	286
R ²	.875	.872	.898

Concluding Remarks 1

- Substantial spatial differences in disability incidence & disability benefit rolls for UK and US
- Little in the way of detailed existing quantitative evidence 'explaining' these patterns
- What there is often uses poor quality data, or estimates poorly specified models, so more work needed
- Aim to build on some recent contributions
- (UK) Policy Context: 'Encouraging employment' and 'making work pay'
- But even in work, many of the disabled face disadvantage

Concluding Remarks 2

- Our own work in progress suggests that regional labour market differences play the key role in explaining regional IB roll differences
- Disability incidence less so (and more for women than men)?
- If all regions had the employment rate of the Southeast, then the target for a 1 million reduction in IB rolls would be met?

