



 

**Tax and welfare benefit changes: Issues in systematically reviewing the data on what works**

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The EPPI-Centre is part of the Social Science Research Unit at the Institute of Education, University of London

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## Social Science Research Unit **SSRU** Social Science Research Unit

Five streams of work:

- Childhood Studies
  - Evaluation of Social Interventions
  - Sexual Health, Reproduction and Social Exclusion
  - Evidence for Policy and Practice Information and Co-ordinating Centre
  - Perspectives, Participation and Research

<http://eppi.ioe.ac.uk/>



## Evidence for Policy and Practice Information and Co-ordinating (EPPI) Centre

Conducting reviews since 1993  
In health promotion,  
education, social care, crime,  
transport, work and pensions

Support and tools for review groups:  
Education (25 groups, 70+ reviews),  
criminology, employment,  
speech and language, social care

EPPI-Reviewer software

Formal links  
with Cochrane  
and Campbell  
Collaborations

Methodological work, e.g.  
Methods for Research Synthesis Node of  
the ESRC National Centre  
for Research Methods



On-line libraries  
of research evidence

Short courses and  
Masters course  
in evidence for  
public policy and practice

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## Tax and welfare benefits major class of Government social policy interventions

- Help with housing from the local authority
- Attendance allowance
- Carers allowance (previously invalid care allowance)
- Child benefit
- Council tax benefit
- Disability living allowance
- Housing benefit
- Income support
- Income-based jobseeker's allowance
- Severe disablement allowance
- Social fund payments
- Child tax credit
- Working tax credit
- Pension credit
- Income tax
- Expenditure tax (VAT, IVA)
- Capital Gains tax
- Inheritance tax

## Policy question

- Challenges: (1) poor children are increasingly likely to come from a *working* family, (2) almost 80 per cent of all *working poor* families with children are *two-parent* families.
- *What works to reduce in-work poverty in couple families with dependent children?*

## Flow of literature through the review

12,322 citations located  
439 studies (in 594 reports) met inclusion criteria

Search strategy included:  
19 electronic databases, 15  
websites

**Mapping exercise**  
201 non-intervention studies, 285 intervention studies

**Consultation with Advisory Group (Feb 2008)**  
Focus for in-depth review prioritised

**In-depth review**  
18 studies (13 were in map, 5 further studies located through reference checking)

## Summary of studies included in in-depth review

### IN-DEPTH REVIEW (n=18)

1. **Intervention studies (n=18)**
2. **UK (67%, n=12), USA (17%, n=3), Germany (n=1), Sweden (n=1), Australia (n=1)**
3. **Working couple families (n=18)**
4. **Financial interventions (n=18)**
5. **Retrospective evaluations (n=18) 16/18 used statistical modelling (including econometric evaluations)**

## Primary research

- Econometrics
  - Econometrics combines economic theory with statistics to analyze and test economic relationships
  - many econometric methods represent applications of standard statistical models,
  - Economic data are generally observational, rather than being derived from controlled experiments.
  - Developed simultaneous equation models - allow researchers to make causal inferences in the absence of controlled experiments

## Issues

- How to assess the quality of the studies?
- How to synthesize the studies?

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What evidence provided for these interventions by systematic review ?

## Not many systematic reviews of evidence on these kind of interventions?

- Lucas et al (2008) Financial Benefits for Child Health and Well-Being in Low Income or Socially Disadvantaged Families in Developed World Countries -
  - Campbell review - randomised/ quasi randomised experiments – usual approaches
- Bambra et al (2005) wider review of 'welfare to work initiatives for people with disabilities or chronic illness in the UK'
  - Financial benefits - 4 studies – 2 'qualitative'
  - 2 'observational'
    - quality assessment = control group, response rate, adequacy & appropriateness of sample sample, appropriate interpretation of findings
    - quantitative outcomes not clear from reporting nor method of synthesis

## Assessing study quality 1

- The review question, in asking about the impact of interventions, implies causality.
- When considering the interpretation and synthesis of the results, it is appropriate to estimate the extent to which each of the individual studies 'controlled' for the various threats to validity.
- EPPI-Centre Weight of Evidence (WoE) framework
  - WoE A (execution of the study)
  - WoE B (appropriateness of the research design for answering our question)
  - WoE C (relevance of the study focus)
  - WoE D (overall Weight of Evidence)

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## Assessing study quality 2

- Supplementary criteria specific to econometric model validation incorporated as appropriate.
- Economists don't agree amongst themselves !
- Little detailed guidance - Soto, 2002; Weinstein *et al.* 2003)
  - model structure and assumptions;
  - quality and appropriateness of data used as inputs to the model;
  - assessments of uncertainty in the models (e.g. were appropriate sensitivity analyses conducted?); and
  - formal model validation, both internal and external (e.g. testing and debugging; comparisons with the results of other studies/models).

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## Synthesis: methods

### Narrative numerical synthesis:

*1st stage 'direction of effect' ('positive' if the outcome favours the intervention; 'negative' if intervention does not favour the intervention).*

- A 'vote counting' approach was initially taken.
- Taking into account quality

*2nd stage of synthesis focused on searching for patterns of similarity or difference in the directions of effects.*

- Study quality
- Methods
- Sample characteristics
- Intervention characteristics

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## Synthesis outcome data

- **Employment participation** - movements into, and out of, work among second earners in couple families with dependent children
- **Working hours** - changes in the number of hours worked by one or both working members of couple families with dependent children
- **Wage rates and income** - changes to either (a) wage levels of members of couple families with dependent children (e.g. hourly rate or weekly wages), or (b) household income in such families

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## Synthesis of results

		Low WoE	L/M WoE	Medium WoE	M/H WoE	High WoE
Employment participation (second earner)	-		4	4		
	+		1			
Working hours (one or both earners)	-		4	2		
	+		1	2		
Income (allowing for changes in behaviour)	-					
	+		1			
Wage growth	-		1			
	No change		1			

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## Discussion

- Tax & Welfare – major category of Social Policy interventions
- ‘Modelling’ always likely to be a major provider of evidence
- Econometricians and Systematic Reviewers need more dialogue
- Development and testing of methods for quality appraisal and synthesis

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## Reports

### UK Govt Dept. Work & Pensions

[http://www.dwp.gov.uk/asd/asd5/report\\_abstracts/rr\\_abstracts/rra\\_549.asp](http://www.dwp.gov.uk/asd/asd5/report_abstracts/rr_abstracts/rra_549.asp)

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