



Using subjective well-being measures to value policy outcomes

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Overview

- What are well-being measures?
- How can we use them?
- Why do we need well-being measures?
- Do they produce different answers?

What are SWB measures?

- Dolan and White (2007)
 - “Mental-state accounts: well-being as a psychological phenomenon characterized by feelings of **pleasure and displeasure, happiness and sadness**, and **satisfaction and dissatisfaction**”
 - “Such accounts of well-being are generally grounded in **hedonistic philosophies** (e.g., Bentham, 1789/1996; Kahneman, 2000a, 2000b)”
 - “We view SWB as equivalent to a general mental-state account that considers **how people evaluate their lives**, as well as how they feel in a strict hedonic sense”

What are SWB measures?

- British Household Panel Survey (BHPS)
 - "How satisfied are you with your life overall?"
 - 1 = "not satisfied at all "
 - 7 = "completely satisfied"
- World Values Survey
 - "All things considered, how satisfied are you with your life as a whole these days?"
 - 1 "dissatisfied"
 - 10 "satisfied"

How can we use SWB measures?

$$SWB_{it} = \beta_1 X_{it} + \beta_2 Z'_{it} + \beta_3 Y_{it} + \varepsilon_{it}$$



1. Subjective well-being 0-12
2. Subjective well-being 0-36
3. Depression 0-4
4. Life satisfaction 1-7

How can we use SWB measures?

$$SWB_{it} = \beta_1 X_{it} + \beta_2 Z'_{it} + \beta_3 Y_{it} + \varepsilon_{it}$$



Policy outcome of interest

How can we use SWB measures?


$$SWB_{it} = \beta_1 X_{it} + \beta_2 Z'_{it} + \beta_3 Y_{it} + \varepsilon_{it}$$

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- 1. Gender
 - 2. Age, Age²
 - 3. Marital status
 - 4. Number of children
 - 5. Education
 - 6. Health
 - 7. Carer
 - 8. Social capital

Dolan et al
(2006)

How can we use SWB measures?

$$SWB_{it} = \beta_1 X_{it} + \beta_2 Z'_{it} + \beta_3 Y_{it} + \varepsilon_{it}$$

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1. Log equivalised household income
 2. Relative income

How can we use SWB measures?

$$SWB_{it} = \beta_1 X_{it} + \beta_2 Z'_{it} + \beta_3 Y_{it} + \varepsilon_{it}$$

$$CompY = e^{\frac{\beta_1}{\beta_3} + \ln(Y)} - \bar{Y}$$

Income required to create same WB gain as that associated with policy outcome

Why do we need SWB measures?

- Conceptual

Approach	RP / SP	SWB
What value?	WTP	Broader
Who value?	Individual	Individual
How value?	Preference	Experience

Why do we need well-being measures?

Outcomes	Economic utility	Non-economic utility
Achievement		✓
Bequest value	✓	
Citizenship	✓	
Community cohesion	✓	
Community-identity		✓
Connect btw cultures	✓	
Continuity with the past	✓	
Diversion and release	✓	
Enjoyment	✓	
Escape	✓	
Esteem / respect		✓
Existence value	✓	
Health	✓	
Inspiration	✓	
Option to use	✓	
Productivity	✓	
Self-expression	✓	
Self-identity		✓

DCMS: The value of engagement in culture and sport

Why do we need well-being measures?

- Methodological

- Stated preference
 - Bias (e.g. focusing effects, insensitivity to scope)
- Revealed preference
 - Data availability / model specification
 - Assumes markets function well
- SWB
 - Associated with behaviour + psychological variables
 - Data availability / model specification?
 - Endogeneity / instruments?
 - Duration of SWB effect?

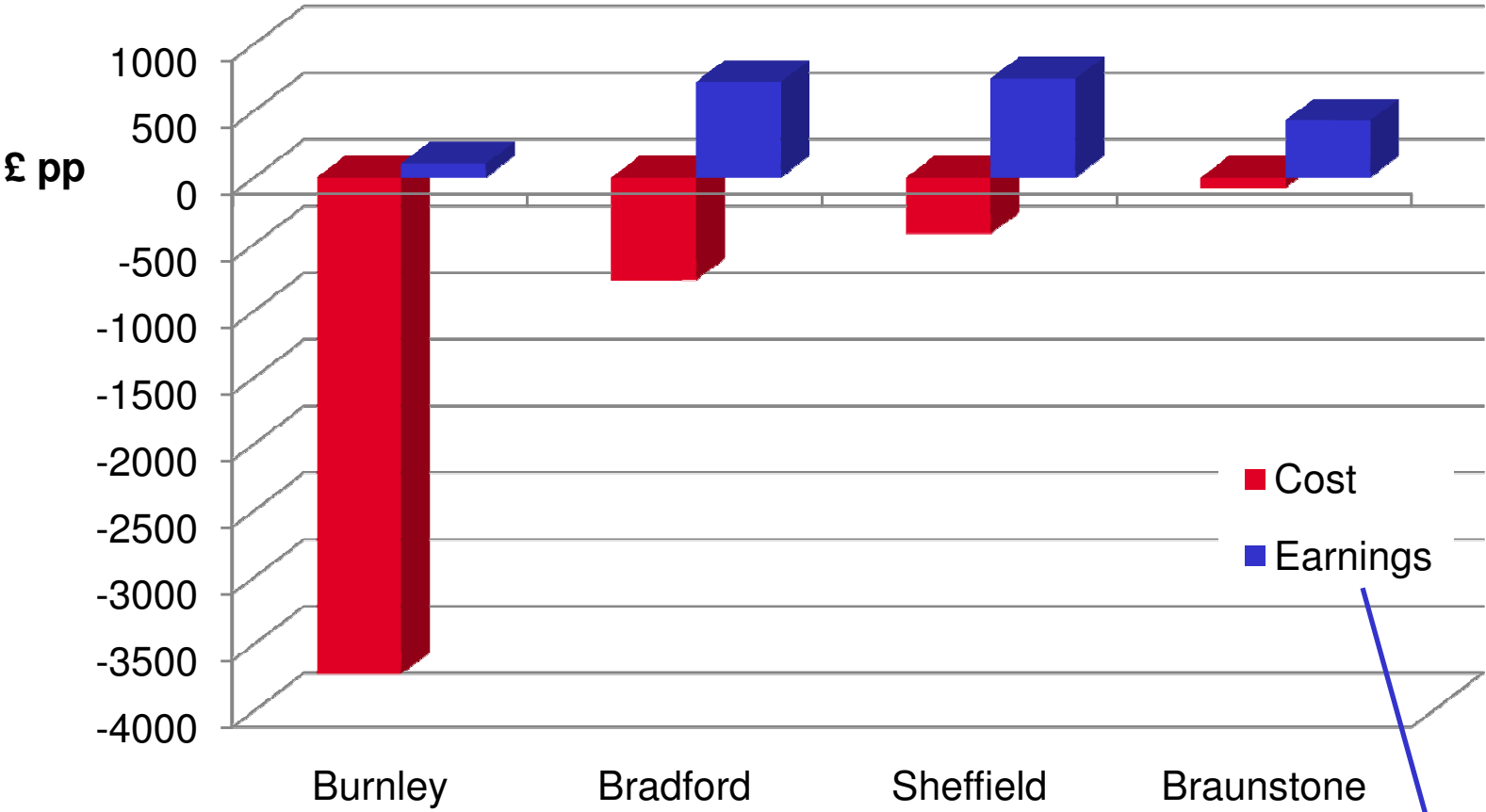
Do they produce different answers?

- Valuing regeneration (Dolan and Metcalfe, 2008)
 - WTP (SP): £230 to £240 per year for three years.
 - SWB: £6,400 (instrumenting for income) and £19,000 (not instrumenting for income)

Do they produce different answers?

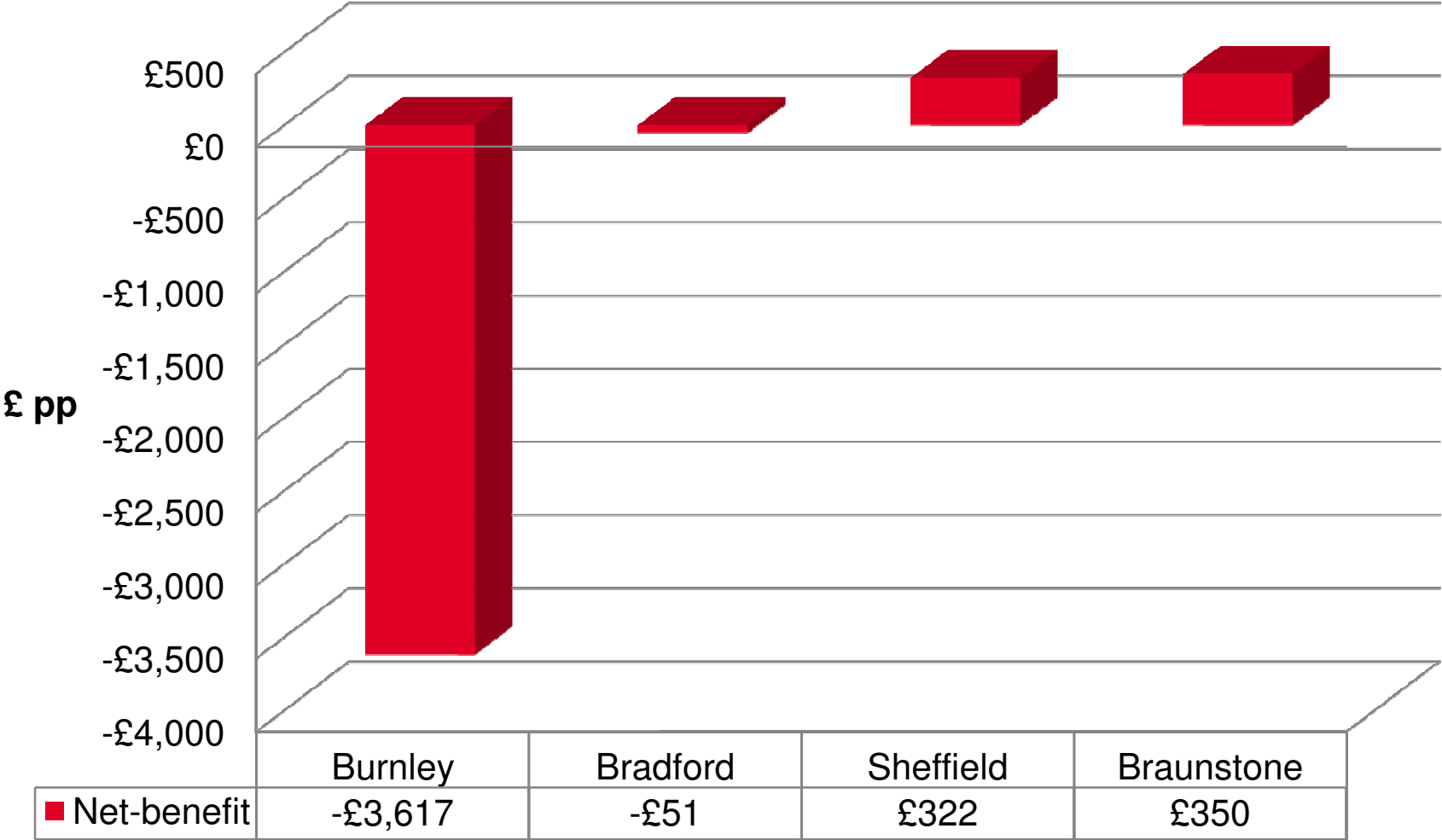
- Problem: are bus routes through deprived areas to increase employment cost effective? (DfT, 2008)
- BHPS
 - Panel data
 - Representative of England, Scotland and Wales
 - Annual since 1999
 - c10,000 individuals per annum
 - Questions: include well-being

Do they produce different answers?



Ignore non-income effects

Do they produce different answers?

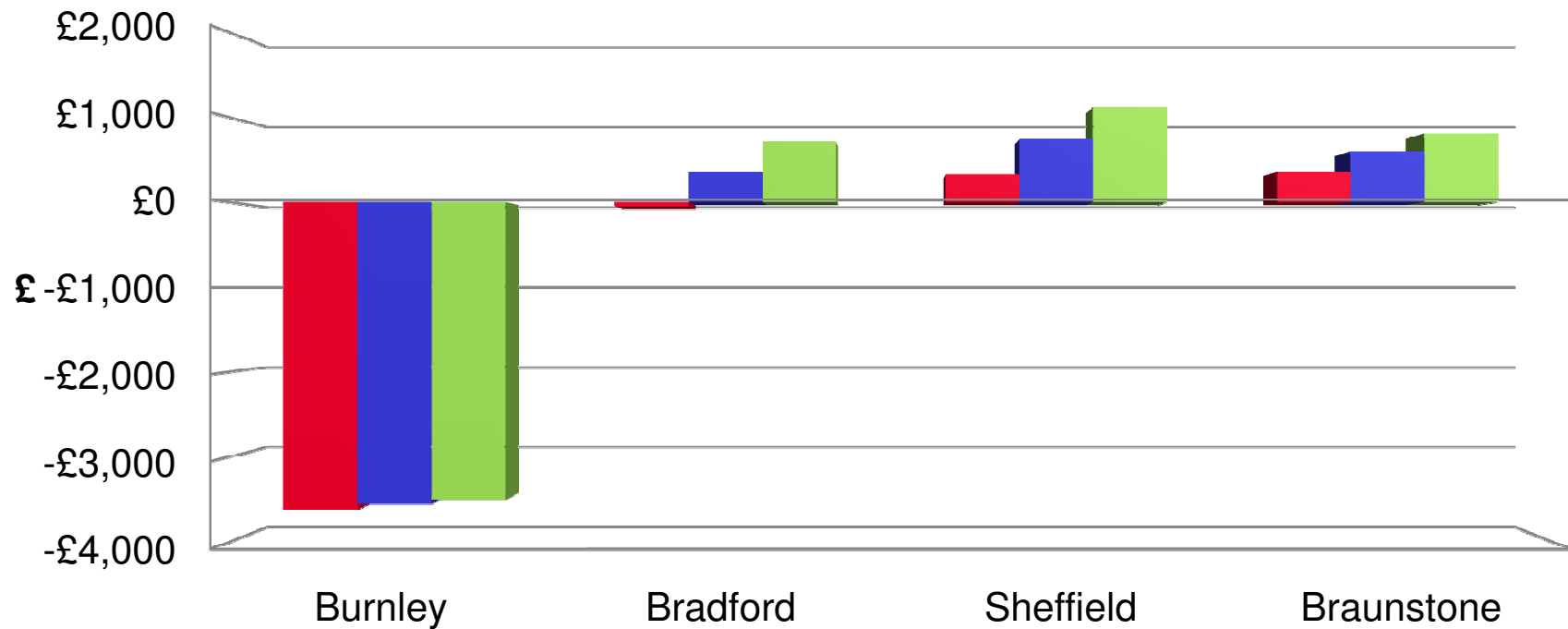


Do they produce different answers?

	SWB 12 scale	SWB 36 scale	Depressed	Life satisfaction
Unempl vs empl	£13,261	£15,338	£8,132	£12,015
SR unempl vs empl	£16,336	£18,038	£11,010	£13,526
LR unempl vs empl	£6,396	£9,709	n.s.	£9,872

Income required to compensate WB loss associated with unemployment

Do the produce different answers?



	Burnley	Bradford	Sheffield	Braunstone
■ NB: just earning	-£3,617	-£51	£322	£350
■ NB: Earning + SWB (low)	-£3,557	£356	£744	£592
■ NB: Earnings + SWB (high)	-£3,504	£716	£1,117	£807

Some final thoughts....

- Increasing interest in SWB
 - Sarkozy Commission (Stiglitz et al, 2009)
 - OECD conference of academics and policy makers
 - H.M. Treasury position paper on SWB

- Matrix research projects
 - Unemployment
 - Lifelong learning
 - Engaging in art, heritage, and sport
 - Crime

Going forward....

- What type of values should be employ in CBA?
 - Preferences vs experiences?
 - Types of utility?
- What type of value is being captured by SWB?
 - What can / can't be captured by WTP/SWB?
 - Variation in WTP/SWB due method or theory?
- Why values large?
 - Duration of SWB effects?
 - Model specification: missing variables, endogeneity?