

Indicators: interplay between policy and methods

Cecilia Wong

Professor of Spatial Planning &
Executive Director of Centre for Urban Policy Studies
School of Environment & Development
The University of Manchester

MANCHESTER
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Content

- Context setting: usage of indicators
- Changing ethos of indicators usage
- The case of developing deprivation measures
- Some policy and research thinking
- The case of measuring spatial planning outcomes
- Final comments

Context setting

Global context

- 1960s & 70s: *Social Indicators Movement*
- 1990s to now: *Community Indicators Movement*

British context: from 1980s to now

- Different socio-economic indicators for day to day management and monitoring of policy regimes
- Neo-liberalism and tightening of government expenditure
- new forms of institution and governance at different spatial levels

Indicators are employed as a managerial toolkit for area targeting, resource allocation, performance and procedural monitoring

Changing ethos of indicators usage: (1)

- changing political ideology and government ethos over public expenditure and policy monitoring have shaped both the methodology and the usage of indicators.
- formulaic culture of funding allocations: e.g. employment change was used to monitor urban and regional policies throughout 1960s to 1980s; deprivation indices were used to designate Urban Programme authorities.
simple statistics and rely on census data sources
- neo-liberalism and competitive culture: allocation of regeneration resources through a competitive bidding process (quasi-market forces)
focusing on the development of intermediate output measures rather than the impact and effectiveness of regeneration activities in meeting policy goals

Changing ethos of indicators usage: (2)

- New Labour and the de-standardisation of statistics: a continuous trend of shifting data collection responsibility from the centre to the local, but under strong central guidance.
- The idea of using indicators in regional planning was proposed in the *Future of Regional Planning Guidance* consultation document (DETR, 1998) and the *Planning for the Communities of the Future* White Paper (DETR, 1998).
- The government departed from its long-standing practice and opted for the de-standardisation and de-institutionalisation of household projection figures from local housing provision policy.

Changing ethos of indicators usage: (3)

- *Modernising Government* White Paper (HM Government, 1999) marked the government's strong commitment to performance measures and evidence based policy ethos
 - **performance, targets, objectives, audit and measures**
- Evidence-based policy-making, building upon the experience of the National Health Service.
- robust analysis to underpin policy decisions, to support policy choices and to generate public debate, especially in relation to the key factors and the way government policy affects outcomes.
 - **increasing emphasis on the longer-term horizon of outcome and impact measurement**
 - **the concept of baselines and contextual indicators**

Changing ethos of indicators usage: (4)

- hollowing-out of nation state and the global-local nexus of governance → decentralisation of indicator collection and usage (e.g. in USA)
- In Britain, delegation of power to local / regional actors to carry out monitoring and data collection is undermined by the ever-strengthening process of centralisation of funding and performance control.
- policy demand > technical capacity = tension
- Treasury's Allsopp review of statistics for economic policy-making:
 - Devolution of policy responsibility requires changes in the statistical system to go with it – there should be no economic policy responsibility without statistical provision.

Measuring Multiple Deprivation (1)

- *'the construction of census based deprivation indices is one of the most economically important uses of social statistics since they form a key element in the allocation of both local government and health resources'* (Gordon, 1995: S39).
- In examining 6 different deprivation indices for Scotland, Kearns et al. (2000) found that the coefficient ranging from 0.63 to 0.84 - suggest a less than 40 to 65 per cent overlap.
- methods and indicators used in constructing the index do matter, and that they can become the target of intense political debate if resources are then attached to the index value.

Measuring Multiple Deprivation (2)

DoE (1983)	The 1981 Index of Urban Deprivation for guiding expenditure under the Urban Programme, census data, Z-score.
Jarman (1983)	Underprivileged area score study for targeting primary health care resources, census data, Z-score.
Townsend (1987)	Material deprivation score (widely applied in poverty study and health inequality analysis), census data, Z-score.
Carstairs and Morris (1989)	The Scottish deprivation score for analysis of Scottish health data, census data, Z-score.
Forrest and Gordon (1993)	The construction of social and material deprivation indices following the release of 1991 Census, census data, indicator % is divided by the range.
Robson et al. (1995)	The 1991 Index of Local Conditions for the DoE, a mix of census and non-census data, Chi-square.
Gordon and Pantazis (1995)	The Breadline Britain score - following the method of Gordon and Forest (1993), weightings were derived from the Breadline Britain in the 1990s survey to produce a census deprivation index, census data, estimated % of poor.
DETR (1998)	The 1998 Index of Local Deprivation was an update of the 1991 Index of Local Conditions, mainly non-census data with 3 census indicators, signed Chi-square.
Dunn et al. (1998)	Indicators of Rural Disadvantage were developed for the Rural Development Commission for developing and delivering policies and programmes that impact on rural areas, a mix of census and survey data, in % and ranking.
Noble et al. (2000)	The Index of Multiple Deprivation 2000, make use of benefits, other administrative and census data, ranking of values.
Noble et al. (2004) (2007)	The Index of Multiple Deprivation 2004 & 2007, make use of benefits, other administrative and census data, ranking of values.

Measuring Multiple Deprivation (3)

Key conceptual and methodological issues

- The relevance to urban and rural circumstances;
- measuring deprived people or deprived places;
- vulnerable groups as proxy measures;
- choosing appropriate spatial units of analysis,
- implication of using different weightings, standardisation and transformation procedures.

Measuring Multiple Deprivation (4)

- become more sophisticated and complex, reduces transparency of the methods and approaches used
- use of survey data and modelled estimates to construct indicators:
 - Survey-derived estimates: national surveys such as the English House Condition Survey and the Labour Force Survey were used to derive indicator values for wards. Examples include the poor private sector housing indicator and the working age adults with no qualifications measure.
 - Attributing estimates: this normally involves the use of some criterion variables to directly attribute district level data to wards with the total figure controlled at the district level. Examples include the estimates of pensioner and disabled recipients of Council Tax Benefit in the IMD.
 - Allocated values: the indicator value of wards will be exactly the same as that for the entire district, this was applied to the Comparative Mortality Ratio indicator in the IMD.
- to form a spatial hierarchical nesting structure & embracing a wide range of measures into a composite index

Measuring Multiple Deprivation (5)

- symbolises the maturity of developing deprivation indices after two decade's experience and expertise, but also a response to pressing political demands of having a deprivation index that can address a whole array of issues and circumstances raised by different stakeholders and researchers.

Some policy & research thinking (1)

- Theory of change: articulation of explicit and implicit assumptions about how and why policies work - a systematic and cumulative evaluation approach to link activities, outcomes and context of the initiatives
- **Complexity theory**: chaotic, non-linear and complex systems - time sequential classifications to reconstruct the process of change

qualitative, interactive, dynamic, context – outputs – outcomes



Some policy & research thinking (2)

- Wicked (Rittel and Webber, 1973) or ill-structured (Simon, 1986) policy problems?
- **Bounded rationality** and flexible problem-solving process and satisficing strategy (Herbert Simon, 1979)
- Single vs double loop learning (Argyris & Schon, 1978)

Measuring a fixed set of indicators separately for different levels of administrative area, with the assumption that individual indicator values can shed light on the difference between expected and obtained outcomes; and policy-makers and others can then adjust their policy and actions to bridge the gap.



Some policy & research thinking (3)

- **Planning-as-learning**: 'strategic spatial plans must be evaluated, not primarily in the light of their material outcomes, but for how they improve the understanding of decision makers of the present and future problems they face' (Faludi, 2000)

a positive, future orientated monitoring approach



Spatial Policy Monitoring Framework (1)

Towards a Collaborative, Analytical and Communicative Framework for the region to express their vision in the policy formulation process. A culture shift from a single-loop model to a double-loop model of monitoring



Spatial Policy Monitoring Framework (2)

■ a framework of indicators

- **contextual indicators:** to highlight the current disparities, gaps and development potential of different areas concerned
- **output indicators:** both core and local output indicators are used to measure a series of quantifiable physical outputs
- **outcome indicators:** the impacts of policies on achieving the spatial planning objectives of sustainable development and on the wider process of socio-economic change

Spatial Policy Monitoring Framework (3)

■ use of analytical indicator bundles

- **tease out the key signals / messages that emerge from the analysis of the indicator set and disseminate the findings in a clear and direct manner to inform future policy-making.**
- **include a group of inter-related indicators to capture the multi-dimensional nature of the phenomenon.**
- **the basket of indicators required to examine spatial planning outcomes should not only include the proxy outcome indicators, but also the wider set of contextual, input and output indicators.**
- **these indicators, used in *combination*, will provide a more grounded framework to ascertain spatial planning outcomes; and the omission of a particular group will compartmentalise or distort our understanding. (detecting negative and unexpected outcomes)**

Indicator Bundle: an example

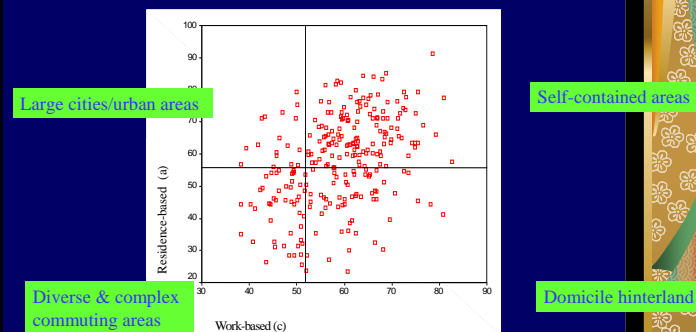
Journey to Work Indicators

- (a) % with journey to work of under 5 km – residence based, 1991
- (b) % with journey to work of over 10 km – residence based, 1991
- (c) % with journey to work of under 5 km – workplace based, 1991
- (d) % with journey to work of over 10 km – workplace based, 1991

Case Study Urban Areas

	(a)	(b)	(c)	(d)
Gr. London	44.5%	30.7%	38.2%	40.1%
New Addington	25.4%	19.3%	51.1%	23.2%
Prestbury/Macclesfield	60.0%	28.2%	67.0%	24.1%
Sheffield	52.3%	14.7%	49.3%	20.0%
Swindon	78.2%	11.1%	65.6%	20.1%
Sunderland	64.9%	18.1%	62.7%	15.0%
Washington	43.5%	24.7%	52.8%	22.4%
West Midlands	53.9%	18.0%	49.0%	24.2%
England	52.1%	27.1%	52.1%	27.1%

Short (under 5 km) distance journey to work – home vs workplace based values



Examples from Housing & Neighbourhood Monitor

- H4: market rent level: housing market indicator
- H5: social rent level: housing market indicator

Layers of analysis:

- (1) **Change analysis: change in market & social rent levels – create new indicators**
- (2) **Affordability analysis: combine H4, H5 with N6 (household income), and H8 (unmet housing needs), and H9 (ratio-based affordability measures).**
- (3) **Housing market and neighbourhood characteristics: H4, H5 and N4 (level of burglaries), N9 (secondary school attainment level), N10 (access to health services), N11 (retail provision) etc.**

Spatial Policy Monitoring Framework: (4)

- the analytical principles: to develop institutional analytical capacity
 - setting the context and establishing baselines for the spatial policies;
 - articulating the role and function of different types of indicator and their targets at different stages of the policy-making process;
 - using qualitative and quantitative information to enrich interpretation and to value different forms of knowledge and experience in policy monitoring;
 - developing analysis over time to analyse both spatial and temporal changes;
 - comparing broader contextual trends against changes in the output indicators and outcome indicators; and
 - making interpretative commentaries.

Final comments

- The interface between technical and normative rationality makes indicators attractive to policy-makers because the concepts to be measured can be shifted, and the indicators used can be adjusted.
- There is an inherent tension - especially on how to secure objective knowledge from belief, opinion and even prejudice.
- There are some intrinsic values and underlying strengths to indicators e.g. the policy enlightenment function - measurement is only part of the job and there is a need to analyse and interpret the indicators.
- Stronger emphasis has also been placed on user engagement in the development and harmonisation process of indicator sets - both the rational paradigm and the communicative, social learning approach towards indicator development are operating in parallel.
- The technical dimension of indicator research is tightly constrained by the wider political and institutional process of data management and organisation at the highest level.
- The pursuit of methodological excellence of some indicators sets, through major statistical processing and manipulation exercises, could undermine the transparency of the indicator creation process and stifle debate and discussion.