



SPHR@L

SCHOOL FOR PUBLIC HEALTH RESEARCH  
AT THE LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE

School for Public  
Health Research

Discussion Paper Series §  
Paper 1

# Policy Decisions in the Transport Sector

Rebecca Steinbach

May 2013



*National Institute for  
Health Research*

## School for Public Health Research @ LSHTM Discussion Papers

Published by:  
SPHR@L  
London School of Hygiene and Tropical Medicine  
15-17 Tavistock, London, WC1H 9SH  
<http://sphr.lshtm.ac.uk>

## Introduction

This discussion paper aims to inform SPHR@L's work as part of the NIHR School for Public Health Research. To contribute to the development of our work on providing useful evidence for evaluation relating to non-health sectors, we have reviewed some key issues in decision making in other sectors through literature mapping. Here, we outline the history and background framings of how decisions are made in the UK transport sector, and summarise the perceived legitimacy of different kinds of evidence in those decisions. Key decisions in transport were traditionally related to cost benefit questions related to economic investment. With growing interest in the public health (and other social) implications of transport sector decisions, a broader range evidence is now incorporated.

## Evidence for choosing between investments

Up until New Labour's push for evidence-based policy in the late 1990s, much of the discourse around the use of evidence in decision making in the transport sector revolved around "evaluation" and "appraisal", in particular using methods of cost-benefit analysis (CBA) as a decision tool when choosing between alternative investment scenarios. This focus on CBA in the transport sector began in the late 1950s-1970s in two main academic centres: Birmingham and Oxford (Foster 2001). Though there were some US precedents for using CBA in public investment, the interest was mostly theoretical in the UK. With the support of policy makers (especially London Transport) three transport economics posts at Oxford University were funded by the Institute of Transport, and researchers began to operationalise CBA methodology to transport situations. The first transport related application of CBA in the UK was a retrospective analysis of the M1 motorway (Beesley 1962) followed shortly after by a study of the Victoria Line (Beesley and Foster 1965). In the 1960s, CBA was adopted by Ministry of Transport and applied to a number of small projects in the roads programme. Since then it has been applied to both major road and rail schemes and become the dominant method for project evaluation in the transport sector.

This rise of CBA in the transport sector did not occur unchallenged. While methodology was consistently being improved, many of the technical assumptions of CBA were subject to criticism, often by the government's own advisory committee. Economic evaluations were often based on perfect market competitions conditions which many felt were unreasonable in the real world. Others have argued that there are more fundamental problems with CBA; that it is based on contested ontological and epistemological assumptions (Næss 2006). For example, social values, a key part of CBA, are often based on willingness to pay (WTP) measures, defined as the maximum amount a person would be willing to pay to achieve a

desired outcome or avoid an undesired one. Societal WTP measures are typically calculated by aggregating individuals' WTP. However, Næss (2006) argues that societal values are not reducible to aggregate preferences of individuals because society as a whole (and the social structures and agents within it) has particular properties and casual powers.

Despite critiques, CBA became formally embodied in the methods required for appraising transport investments in excess of £5m in 1998 under the New Approach to Appraisal (NATA), introduced by the Department for Transport, Environment and the Regions in the White paper *A New Deal for Transport: Better for Everyone* (DETR 1998). Broadly, this approach takes account of the cost and benefits in five domains: environmental impact, safety, economy, accessibility and integration. NATA was first applied to national road schemes in the 1998 Roads Review (where academic research suggests that appraisal scores in each of the domains are able to “explain” much of the decision making that actually occurred (Nellthorp and Mackie 2000)) but subsequently rolled out to all transport modes. NATA was reviewed and further developed by the DfT in 2007. It remained a cornerstone of transport appraisal in the UK until the current coalition government abandoned NATA, though kept many of its core concepts.

## **Research commissioning and changing strategic direction**

Academics have argued that the use of other forms of “evidence” in the transport sector is constricted by governmental principles for commissioning research (Terry 2000). Much research in transport is funded by the government. In previous years, most research was commissioned primarily through the Transport Research Laboratory (formerly part of the Department of Transport but privatised in 1996). However, now the government employs a range of external contractors. Since the Rothschild reforms of the early 1970s (as part of the Central Policy Review Staff) all research commissioned by the government is expected to have a “customer” and pragmatically also a practical application in order to maintain levels of research funding. This funding structure led to a framework where professionals set the research agenda and focused largely on technical issues- i.e. on achieving set out policy objectives efficiently, rather than wider policy thinking.

This framework began to change in the 1990s, as the result of a number of factors. Throughout the 1970s and 1980s there had been a strategic focus on road construction, providing for (the growing) predicted demand in car travel. Eventually it became clear that the UK government could not fund new roads and road improvements fast enough to keep up with demand. This led to the emergence of two divergent views on strategic transport policy objectives in the early 1990s. The first focused on a reduction in the negative impacts

of travel; while the second centred on demands (largely from the business sector) to improve transit flows to improve economic development and competitiveness. Debates about these views called for a more extensive range of evidence to be admitted in the policy process. (Terry 2000). At the same time, after the election of the Labour government in 1997, other discourses around evidence-based policy, apart from CBA, started to appear in government documents. The White Paper *A New Deal for Transport Better for Everyone* (DETR 1998), the first transport White Paper for 21 years (Grayling 2001), reflected both a 'new realist' shift in strategic focus of the transport sector (restricting car use and optimising existing infrastructure) and a wider evidence dialogue including "what works" and "best practices".

Academics have argued that the new realist policy objectives (including a reduction of car journeys) were abandoned in policy documents over the next few years in favour of congestion reduction priorities (Anable and Shaw 2007). However, the broader discourse of evidence-based policy in the transport sector remained.

In 2006 The Department for Transport released an Evidence and Research Strategy (Department for Transport 2006) (updating an earlier version from 2004), committing to using high quality evidence from public and private sectors, scientific research, economic modelling and compilation of transport statistics. DfT defines good-quality evidence as a "full understanding and assessment of the implications of policy interventions, and ensuring that our evidence base supports better regulation and informs our impact assessments and later evaluations."

## **From CBA to societal impact**

In late 2006, the government released the Eddington Transport Study (Eddington 2006), which suggested fundamental changes to the way decisions in the transport sector were made. Pre 2007, the Department for Transport was largely organized by transport mode with a director general for each mode: roads, rail, buses and local transportation and aviation and maritime. Policies tended to focus on achieving detailed transportation targets, which were compartmentalized by mode. While the UK's tradition of economic appraisal of projects dates back to the 1950s, results of appraisals did not always influence policy decisions due to a lack of intermodal comparisons (because of the compartmentalized approach) and media and political pressure on decision makers. The Eddington Study suggested a reorganization of policy making so that there are director generals in charge of City and Regional Networks, International Networks and Environment, and National Networks. Formal targets would focus on societal outcomes rather than modal and transportation ones.

Interventions which offer the highest value for money (benefit cost ratio) would be prioritized. This has been called a merit-based approach to decision making (Jones 2010).

While successive governments have been committed to implementing many of Eddington's recommendations, execution has not been straightforward. Under the Labour government 1997-2010 there was a shift in national transport decision making in England to a regional level, with regional priorities influencing how the government spent money on transport. There were three key overarching bodies in each region (outside London): the Government Office, the Regional Assembly, and the Regional Development Agency which help set strategic priorities through numerous mechanisms such as Regional Economic Strategies and Regional Spatial Strategies (which included the Regional Transport Strategies). The local authorities were then responsible for implementing transport schemes on the ground. After the introduction of the Transport Act in 2000, local authorities must submit a Local Transport Plan (LTP) which outlines how local authorities will address the strategic priorities set by the Regions. Under this structure, funding to the local authorities was complex and came from a number of sources including the DfT (for capital investment based on LAs LTPs), and Revenue Support Grants (to support day to day expenditure on items like highway maintenance, concessionary bus fares and tendered bus services).

The Coalition government legislated to abolish the Regional Spatial Strategy and Regional Development Agency and is committed to abolishing the Government Offices for the Regions. These will be replaced by Local Enterprise Partnerships, which are likely to form part of wider transport consortia sometime after 2015.

## **Ongoing tensions in evidence informed policy**

While the discourse around evidence based decision making plays a large role in national and local policy documents, a growing body of work outlines some of the tensions in local transport planning that makes evidence use difficult in practice. Local transport planners have criticized the contradictions within policy objectives at a national level and "short-termism" in political decision making at both the national and local levels (Hull 2008). Others have pointed out that key planning decisions are shaped by the availability and chances of getting funding (Palmer 2004). For example, despite the rhetoric of using the "evidence base" to inform the preparation of Local Transport Plans, local transport planners have a financial incentive to identify schemes that are consistent with national priorities in order to gain funding, even if they are not locally sustainable (Hull 2008). A study of transport decision making in local authorities in England found that decisions are often constrained by previous decisions that have on-going funding implications (e.g. Metro/Light rail) and that

local authorities tend to only consider a few limited options when addressing issues (Palmer 2004). Local authorities also face local pressures, especially regarding land-use and parking, which can further constrain decision making. These constraints around lack of control, involvement of other stakeholders, and intervention from other levels of government mirror those found in a study of local transport planning across Europe (Institute for Transport Studies 2003).

## References

- Anable, J. and J. Shaw (2007). "Priorities, policies and (time)scales: the delivery of emissions reductions in the UK transport sector." Area 39(4): 443-457.
- Beesley, M. (1962). "Some aspects of the economies of the M1." Journal of Industrial Economics 10(3): 204-208.
- Beesley, M. and C. Foster (1965). "The Victoria line: Social benefits and finances." Journal of the Royal Statistical Society 128(1): 67-88.
- Department for Transport (2006). Evidence and Research Strategy: 2006 edition, Department for Transport.
- DETR (1998). A New Deal for Transport: Better for Everyone, Department for Transport.
- Eddington, R. (2006). The Eddington Transport Study: The case for action: Sir Rod Eddington's advice to Government, HM Treasury.
- Foster, C. (2001). "Michael Beesley and cost benefit analysis." Journal of Transport Economics and Policy 35(1): 3-30.
- Grayling, T. (2001). An introduction to bus policy in Britain. Any more fares? Delivering better bus services. T. Grayling London, Institute for Public Policy Research.
- Hull, A. (2008). "Policy integration: What will it take to achieve more sustainable transport solutions in cities?" Transport Policy 15(2): 94-103.
- Institute for Transport Studies (2003). Transport strategy: A decision makers' guidebook, University of Leeds.
- Jones, O. (2010). Moving transportation reform: an inside perspective from the U.K., Metropolitan Policy Program: Brookings Institution.
- Næss, P. (2006). "Cost-benefit analyses of transport investments: neither critical nor realistic." Journal of Critical Realism 5(1): 32-60.
- Nellthorp, J. and P. J. Mackie (2000). "The UK Roads Review—a hedonic model of decision making." Transport Policy 7(2): 127-138.
- Palmer, D. (2004). Decision-making in English local transport planning. European Transport Conference. Strasbourg.
- Terry, F. (2000). Transport: beyond predict and provide. What works? Evidence-based policy and practice in public services. H. Davies, S. Nutley and P. Smith Bristol, Policy Press.