Questions of governance: Rethinking the study of transportation policy

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A B S T R A C T

This paper critiques the state of the art approaches to studying transportation policy. It does so through analysing 100 papers sampled from the two leading policy journals in the transportation literature. On applying two different frameworks for understanding policy, the review finds that only 13% of papers consider specific aspects of the policy cycle, that 60% focus on 'tools' for policy, and that two-thirds of papers did not engage with real-world policy examples or policy makers and focussed on quantitative analysis alone. We argue that these findings highlight the persistence of the technical-rational model within the transportation literature. This model, and the numerous traditions and disciplines that have fed into it have an important role to play in developing the transportation evidence base. However, we argue there are important questions of governance; such as context, power, resources and legitimacy, that are largely being ignored in the literature as it stands. The substantial lack of engagement with governance issues and debates means that as a field we are artificially, but more importantly, disproportionately generating a science of applied policy making which is unlikely to be utilised because of the distance between it and the realities on the ground. The paper identifies analytical approaches deployed readily in other fields that could be used to address some of the key deficiencies.

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1. Introduction

Many different (often positivist-led) disciplines have made a contribution to the development of transportation studies, notably engineering, operations research, economics, psychology and mathematics (Allsop, 2006). Each can legitimately claim to have provided insights into the nature of 'the transportation problem' and the study of 'transportation solutions'. However, contributing to knowledge on 'what to do' in terms of transportation policy development, whilst clearly important, is different to understanding why the policies that are in place today are the way they are, how new policies get formulated and what can, rather than could, be implemented in real-world settings.

This paper reviews the state-of-the-art in the study of transportation policy. The paper explores the dominant modes of enquiry into policy within the field and what these say about how policy is understood, and knowledge of it contributed to, within transportation research. To do so, the paper analyses 100 research papers from the two most relevant (and leading) journals in the discipline aligned to this agenda, namely *Transport Policy* and *Transportation Research Part A: Policy and Practice*. The former states that its 'subject areas reflect the concerns of policymakers in government, industry, voluntary organisations and the public at large, providing independent, original and rigorous analysis to understand how policy decisions

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have been taken, monitor their effects, and suggest how they can be improved'. While the latter states that it contains 'papers of general interest in all passenger and freight modes: policy analysis, formulation and evaluation; planning; interaction with the political, socio-economic and physical environment; design, management and evaluation of transportation systems.'

It is timely to conduct such a review of the field as it is increasingly recognised that, as the range of challenges facing policy makers grows and becomes more multi-level and cross-sectoral, decision-making becomes more complex (Anderton, 2010; Banister et al., 2012). Coupled with this are substantial changes to the ownership and management of parts of the transportation system which may be accelerating with the advent of new mobility services (Shaheen and Cohen, 2013). Such changes mean that policy is becoming less something 'done by the state' and 'received by the system' and instead increasingly something which is a complex negotiation through networks of actors (Dudley and Richardson, 2000). This more diverse and networked decision-making environment is now associated with the 'governance' of policy processes and areas (see Treib et al., 2007 for further definition).

The complexities of policy making in practice matter to what happens on the ground. They matter right from the debates about what the nature of the problem is (Tennøy, 2010), to the selection of what information is deemed to be relevant (Gao et al., 2013), through to what might be selected for implementation. Even at this stage, as Niemeier et al. (2012, 132) found in their study of climate change implementation, where policy alignment can be achieved in principle 'there are often vast disparities between the intent… and actual implementation'. Whilst it is possible to identify a number of authors asking questions around the policy process we demonstrate in this article that this is a very small minority and, we would argue, the field is therefore missing many critical advances in the understanding of policy which have been made elsewhere in political science.

It could be that questions of policy making are addressed in other areas of disciplinary focus. There is, for example, a strong tradition of studying regulatory economics and regulatory structures which would be under-represented in the two journals selected. Similarly, spatial policy might be equally captured in geography and regional studies facing journals. However, there has been a comparative lack of focus on transportation within other disciplines, such as urban planning and indeed political science, where questions of policy and governance arguably have a stronger tradition.[1] The study of transportation policy might therefore be considered to be spread thinly across different traditions, acting as a 'boundary object' (Star and Griesemer, 1989), and there is therefore a critical role for the transportation policy literature to capture and lead advances in the understanding of policy processes and implementation.

The review is structured around two policy frameworks; the policy cycle understanding of the policy process, and a taxonomy of policy components developed by Howlett and Cashore (2009). The first provides insights into the processes associated with policy, while the second allows for a nuanced understanding of the different elements that comprise 'policy'. These frameworks are, of themselves, an important element in advancing our reflections on the study of policy which itself can be interpreted and understood in a significantly more nuanced way than is currently the case. Our review identifies some important gaps in current research into policy, and we in turn identify an agenda for future research that, we argue, needs to more readily recognise issues of power, politics, context and legitimacy.

The paper starts in section two by explaining the two policy frameworks used here in more depth, while section three explains the methodology adopted. Section four presents the results of the review. We find strong evidence to suggest that transportation policy research is happening in the shadow of transportation policy; engaging with the technical 'what-ifs' of policy, but not the actual realities of policy processes, choices and their implications. Section five presents an analysis of the reasons for such findings; arguing that the technical-rational model that has been so embedded within transport studies is currently shaping the study of transport policy too, and in turn leaving important policy-related governance questions unpursued and unanswered. In section six we draw on insights from three well-tested theories (the multiple streams approach, advocacy coalition framework, and top-down/bottom-up implementation) borne out of the political science discipline to elucidate our argument as to where the discipline needs to re-double its effort in its understanding of policy. In section seven, we conclude by arguing that it is only through a holistic understanding and study of policy that the transportation field can be equipped to understand and tackle the most challenging issues of our time, such as transportation's role in addressing climate change, or moves towards automation, and in turn make the body of research on transportation policy advance our understanding of how to design more effective policy prescriptions and decision-support tools.

2. Two frameworks of policy

In order to determine the current state of the field in relation to policy research we first need to provide an informed interpretation of what 'policy' is. Here we draw on two understandings; one that relates to policy as *process*; the policy cycle, and another that draws out an understanding of the *components* of policy; Howlett and Cashore's (2009) policy taxonomy.

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[1] A search for 'transportation' within the Urban Studies journal for example, returns 14 results for research articles in the 2011–2015 period, four of which we would define as contributing to questions of policy and governance (as defined in Section 2 of this paper). Over the same period, the Journal of the American Planning Association has 6 articles which specifically address transportation governance and a further 9 policy evaluations. Leading political science journals such as Political Studies and the Policy Studies Journal return even fewer results.