

Governing Infrastructure Interfaces - Research Note 03 (September 2018)

## URBAN INFRASTRUCTURE IN POLITICAL SCIENCE AND PUBLIC ADMINISTRATION

By **Nuno F. da Cruz**

*Nuno F. da Cruz is an Assistant Professorial Research Fellow at LSE Cities, London School of Economics and Political Science.*

Public administration and public management scholarship views urban infrastructure as a means to an end – and that end is providing the population with access to essential services. The services typically enabled by infrastructure or infrastructure networks are considered to be ‘essential’ because their (un)availability has a direct impact on social welfare.<sup>1</sup> Given their societal significance, urban infrastructure services may be subject to ‘public service obligations’ and should respect certain normative principles such as ‘universality’, ‘affordability’, ‘equity’, ‘adaptability’, ‘continuity’ and ‘transparency’ (Defeuilley 1999, Simmonds 2003, Vincent-Jones 2006). In other words, these services will be delivered under different conditions – or will not be delivered at all – if there is no intervention by the competent public authorities. Even if this intervention simply takes the form of a written contract or consists of specific legislation (Spiller, 2008). In fact, whereas the ‘producer’ of urban infrastructure services may be public, private, communal, informal or mixed, the ‘provider’ is always the state. As Oakerson and Parks (2011) put it:

***Provision** means public decisions about which goods and services to provide by public means, which private activities to regulate, how much public revenue to raise and how to raise it, what quantities of each service to provide and what quality standards to apply, and how to arrange for and monitor production. **Production** means transforming input resources to make a product or render a service. (p. 149)*

Naturally, in some cases, the state may not fully meet its responsibilities as the provider. This is when

people tend to take matters into their own hands. Furthermore, depending on the country, region, or even the actual city, but also on the specific policy sector, this responsibility may be placed at the national, regional, local or hyper-local level.<sup>2</sup> In fact, the allocation of responsibility is seldom so clear-cut. Multiscalar and networked regimes of governance create fuzzy lines of accountability (Klijn & Koppenjan 2016, Arlotti & Hendrickson, Crum 2018). Still, we often see clusters of infrastructure services (predominantly) under the purview of the same level of governance across world regions – for example, energy (e.g. electricity, natural gas), broadband and telecommunications, highway and rail services at the national or state level and drinking water, wastewater collection and treatment, solid waste collection and treatment and bus services at local or metropolitan level (LSE Cities et al., 2016). These trends are mostly due to the size of the respective capital investments (city governments are less creditworthy than nations) but also due to the wider territorial impacts of some of these infrastructures.

The public management and administration literature on all of these provision and production issues is vast. In particular on the governance models of public infrastructure services (e.g. what role for the public and the private sectors? – Reeves 2008 – what is the adequate scale and scope for providers? – Blom-Hansen 2010), the influence of contextual factors (from socio-cultural, economic, and political factors and incentives to natural and technological constraints – da Cruz & Marques 2014) and how to better protect the public interest (e.g. higher possible

infrastructure quantity/quality for the citizens at the lower possible cost for the public purse – Borge et al. 2008 – and adequate accountability, transparency and participation mechanisms). The literature is pervaded with theoretical analyses and international case studies – though mostly from the Global North – on organisational and jurisdictional features and challenges (like overlapping and underlapping problems, Wegrich & Štimac 2014), institutional and regulatory frameworks (the rules of the game, Levy & Spiller 1994), the intricacies of procurement models (traditional procurement vs PPPs, Weber & Alfen 2010), project financing (Ball et al. 2007), and the corporatisation and privatisation of service delivery (Bilodeau et al. 2007). Regression analysis on large-N studies (e.g. all local governments in a country) is also commonly employed to empirically test hypothesis derived from theory or to unearth the determinants of observed outcomes.

The wider lens of political science also looks at all these issues but this literature positions infrastructure more clearly as a public good with significant political and electoral currency. For example, compared to fiscal consolidation, urban infrastructure is a much more visible outcome of the political process. This can lead to oversupply and a centralisation of decisions about infrastructure spending on the mayor (Drazen & Eslava 2010, Avellaneda, 2014). Political competition across administrative boundaries of neighbouring municipalities may also

curtail the development of ‘optimal’ or ‘rational’ infrastructure networks that consider the ‘functional city’ rather than the ‘political city’ (Eklund 2018). And although ideology seems to play a lesser role in local politics in terms of infrastructure delivery, in centralised countries and/or centralised policy sectors it is also a key factor in terms of what gets built and what doesn’t (as well as by whom and for whom, Mehriř, 2015). It has been known for a long time that state and local infrastructure investments have important effects on metropolitan land values and property markets (Haughwout, 1999). The impacts of these physical artefacts on wellbeing, liveability and the economy are crucial for the socioeconomic fabric of a city (Ivester, 2017) and go beyond the significance of many other decisions about government spending.

Finally, there is a growing interest on innovations that respond to the challenges and opportunities of the twenty-first century, explore new ways to finance critical infrastructure, and engage citizens in designing solutions (Warner, 2010). Many of the current reform ideas where digital technologies play a major role are being regarded as a ‘rediscovery of technocracy’ (Esmark, 2017). However, it is still largely unclear how far digital technologies and other institutional and governance innovations can be instrumental in overcoming the capacity limitations and the ever more complex challenges that cities have to deal with.

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## Endnotes

<sup>1</sup>In addition to or interchangeably with ‘essential services’, other terms are often used to express similar concepts, such as: ‘basic services’, ‘public infrastructure services’, ‘utility services’, ‘services of general interest’, etc.

<sup>2</sup>Part of the responsibility may even be placed at the supranational level. Consider, for example, the intervention of UN agencies in developing countries or the EU in European territories with less access to infrastructure networks.

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