

### The networks of circulation of local policy elites in large metropolises

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Abstract:	<p>The government of large metropolises has become increasingly complex during what many authors have characterized as a transition from government to governance. This paper tackles an unexplored facet of this complexity, the circulation of local policy elites within government structures through time in different institutional and political contexts. We analyse the networks created within the State by the migration of individuals between top positions of local governmental agencies in three large cities: Sao Paulo, Paris, Milan. The analysis demonstrates the presence of dense networks in each city, connecting policy sectors, administrations, and government levels. Contrary to accounts maintaining that governance has reduced government structures, all cities showed constant increases in network size and connectivity, mirroring the expansion and specialization of local bureaucracies. The case studies also indicate the resilient salience of the politics of political parties, policy fields and – especially in the Parisian case – different government levels. This suggests that governance involves a reorganization of government functions and increased policy specialization, but this was not made at the expense of politics, nor with State reduction. Lastly, in all three cities, we find a greater centrality of the same kind of agencies, associated with urban infrastructure and planning.</p>

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## The networks of circulation of local policy elites in large metropolises

São Paulo, Paris and Milan

### Abstract

The government of large metropolises has become increasingly complex during what many authors have characterized as a transition from government to governance. This paper tackles an unexplored facet of this complexity, namely the circulation of local policy elites within government structures through time in different institutional and political contexts. We analyse the networks created within the State by the circulation of individuals between the top positions of local governmental agencies in three large cities: Sao Paulo, Paris, and Milan. The cases demonstrate dense networks in each city, connecting policy sectors, administrations, and government levels. Contrary to accounts maintaining that governance has reduced government structures, all cities showed constant increases in network size and connectivity, mirroring the expansion and specialization of local bureaucracies. The cases also indicate the resilient salience of the politics of political parties, policy fields, and – especially in Paris – different government levels. This suggests that governance involves a reorganization of government functions and increased policy specialization, but this is not done by reducing the role of politics or the State itself. Lastly, in all three cities, we find a greater centrality of the same kind of agencies, more strongly associated with urban infrastructure and planning.

### Keywords

policy networks, urban governance, policy elites, local governments, cities

## Introduction

Governing large metropolises has become increasingly complex in recent decades during what many authors have characterized as a transition from government to governance (Pierre 2011), or even to governance without government (Rhodes 1996). While the intensity of the transformation may be a matter for debate, the rearrangement of the government-centred structures of the 1970s into a variegated set of State agencies at different institutional levels is undeniable. These agencies interact with private and civil society actors through different kinds of formal and informal relations. The literature has helped expand our knowledge concerning the workings of these new arrangements and their politics, as well as the connections between State agencies and civil society. The networked dimension of governance (Klijn 2008) has also been examined, albeit mainly in theoretical terms or through a consideration of the institutionalized and formal connections between agencies, or by focusing on the multiple connections between states and societies (Rhodes 1996; Torfing 2012).

Relational structures internal to the State, outside of the more traditional focus on policy networks (Laumann and Knoke 1987), have rarely been addressed and then mostly at the level of national administrations. These relational patterns represent a substructure of broader governance networks (Kapucu et al. 2017) and are essential to disclosing the mechanisms of governance. Individuals produce and maintain ties that bridge institutional boundaries, helping to sew governments together. Some of these connections are formal (and even contractual) by nature (Laumann and Knoke 1987), while others are informal, related to personal networks and/or career trajectories, shaping what has been called the relational tissue of the State (Marques 2012). These processes tend to be only rarely studied by the literature (Kapucu et al. 2017), especially at local level (Villadsen 2011).

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3 In this article, we present the results of an exploratory study on the subject,  
4 focused on a specific phenomenon entirely neglected by the literature: the dynamic  
5 circulation of local policy elites in three large cities: São Paulo, Paris and Milan. By  
6 circulation, we refer to the circulation/dislocation of public officials between top positions  
7 of local agencies within and/or between administrations, i.e. across time. By local  
8 political elite, we refer to individuals occupying top positions in the agencies that produce  
9 and deliver urban policies. We focus, therefore, on formal positions acknowledging that  
10 the ability to influence a policy is not confined to formal positions (Mills 1958). There is  
11 no doubt, however, that individuals holding a top position in an administration, as defined  
12 in this study, comprise an important part of the local policy elite.  
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26 Here we address four fundamental questions, with the aim of contributing to a  
27 better understanding of governance, starting from the idea that the circulation of the local  
28 elite is important: 1. Is there a local structure behind local politics and policies built  
29 through the circulation of top-level positions? 2. Does this structure change over time? 3.  
30 Are there central agencies in these networks? 4. Can we identify common structural  
31 patterns in the three cities and similar mechanisms at work in each?  
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41 Our analysis of the three case studies is guided by these same four research  
42 questions. Relational data was collected in a similar way in the three cities, adapting the  
43 research strategy to the context and availability of resources and information. Data was  
44 also systematically treated and elaborated using the same techniques. We have analysed  
45 the same phenomenon through the same lenses, therefore, allowing us to map and  
46 compare the similarities and differences across the three cases.  
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55 As we shall demonstrate, the findings point to important common processes in all  
56 cases. First, the three cities showed broad and highly connected networks formed by the  
57 circulation of public officials, something completely unaccounted for by the literature.  
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3 Second, these networks accompanied the expansion and complexification of governments  
4 through time, and not their withdrawal during the transition to governance, as affirmed  
5 by part of the literature. Third, these networks were structured through three mechanisms,  
6 which we define as: administrative consolidation, political affinity, and policy sector  
7 specialization. Administrative consolidation refers to the tendency for individuals to stay  
8 in top positions once in office, even after the end of mayoral terms. Policy sector  
9 specialization captures the propensity for strong connections between thematically close  
10 agencies, due to the increased expertise and intersectorality necessary to deliver policies.  
11 Last, but no less important, political affinity refers to the higher probability of connections  
12 between ideologically close administrations. This mechanism derives from what political  
13 science calls partisan politics (Lewitsky and Roberts 2011), highlighting the relevance of  
14 party affiliations and the existence of substantive policy preferences that political parties  
15 try to implement, once in office (Einstein and Glick 2018; Hajnal and Trounstone 2017).  
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33 The identification of these mechanisms jointly at work behind urban governance  
34 is, to the best of our knowledge, new. In fact, most authors consider these mechanisms  
35 form zero sum games, forecasting that administrative consolidation will lead to  
36 bureaucratic silos, reducing policy specialization, or that both would distance governance  
37 from party politics. Our case studies indicate that they operate together in the slow but  
38 ever dynamic transformation of the networks that lie behind the governance of large  
39 metropolises.  
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49 The article is organised into three sections. The first section theoretically grounds  
50 the research in recent debates about policy networks, governance, and the governance of  
51 urban policies. Section two presents the three cases, the definitions mobilized by them,  
52 as well as the data and methods employed. Data availability was a key element and the  
53 research design had to be adapted for each case, though always aiming to answer our main  
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3 questions. The third section includes the network analysis of the three cities, looking at  
4 the size of the networks and at their capacity to bridge governments, policy sectors and  
5 different government levels. The final discussion section summarizes the common  
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10 patterns and the main findings of the study and points to new research directions on the  
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12 topic.

### 17 1. Policy production and networks

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19 This article dialogues with at least three different literatures: one dedicated to the  
20 study of policy networks, mainly at the national level; another to governance, originally  
21 national, but more recently also urban; and a third to local political elites (and more rarely  
22 their connections), usually restricted to mayors and councillors.  
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28 The policy network literature followed the classic insights of Heclo (1978) who  
29 argued that policies were not the products of single and isolated decision makers and  
30 implementors. These studies explored the effects of relational patterns between  
31 government agencies, bureaucrats, and appointed politicians at national level, with  
32 important consequences for policy coordination, dissemination of information and policy  
33 stability (Heinz et al. 1997; Laumann and Knoke 1987; John and Cole 2000). This  
34 literature has likewise shown that the constitution and daily mobilization of government  
35 capacities involve not just administrative dimensions and political support, they also  
36 depend on the ability of the individuals occupying top positions to mobilize a wide variety  
37 of agencies through their relationships (Laumann and Knoke 1987).  
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51 More recently, research on policy networks has acquired new directions with the  
52 shift from government to governance. This shift (Pierre 2011; Torfing 2012) showed a  
53 growing specialization and fragmentation of governments (Lægneid & Verhoest 2010;  
54 Giraudy, Moncada & Snyder 2019), an increased role for technocracies (Kitchin 2014),  
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3 the incorporation of more varied actors from multiple scales of government (Sellers  
4 2019), and the production of more targeted policies specific to certain publics. These  
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6 transformations resulted in new urban institutional arrangements of substantial  
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8 complexity (Lowndes and Skelcher 1998; Pierre 2011) that necessarily brought  
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10 subnational scales to the forefront of governance studies (Giraudy, Moncada and Snyder  
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12 2019; Sellers 2019).

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17 The search for single and coherent local power configurations was present in both  
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19 the classical question of “who governs” (Dahl 1961), and in growth machine and urban  
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21 regime analyses. The concept of governance, differently, allows for a more malleable and  
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23 varied understanding of local power structures, compatible with empirically grounded  
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25 studies that try to understand “who governs what”, especially “when governments do not  
26  
27 govern” (Le Galès and Vitale 2017). This goal has been achieved by the systematic  
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29 incorporation of broader sets of (non-State) actors into the study of urban politics (Pierre  
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31 and Peters 2012), by overcoming the concept of the autonomy of both societal actors and  
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33 local governments (King and Pierre 1990), and by better incorporation of relations  
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35 between different scales, actors, and institutions (Le Galès 1998; 2011; Sellers 2019).  
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37 Research has demonstrated that cities previously considered ungovernable due to their  
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39 complexity, politics or institutions (Yates 1977) are, in fact, governed day-to-day and  
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41 deliver important policies on a regular basis (Ugalde and Le Galès 2017; Marques 2021;  
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43 Andreotti 2019).

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48 The study of local political leadership, once a classical theme (Dahl 1961), has  
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50 returned in several recent studies comparing institutional structures and attributes of city  
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52 political elites (Egner, Sweeting and Klok 2013; Mouritzed and Svava 2002; Goldsmith  
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54 and Larsen 2004, Wollmann 2004), discussing executive-legislative relations (Ledyae  
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56 and Chirikova 2017), investigating mayoral strategies and projects (Pasotti 2010;  
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3 Flanagan 2004) or their policy preferences (Einstein and Glick, 2018; Hajnal and  
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5 Trounstone 2017). Studies investigating the relational patterns of local elites are scarcer,  
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7 however. Among the few examples we can cite studies that explore interlocal connections  
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9 to explain local government coordination in the United States (Leroux and Carr 2010)  
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11 and policy dissemination by mayors in Denmark (Villadsen 2012), as well studies of  
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13 intralocal connections, focused on the increasing importance of local governments in  
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15 French and British cities vis-à-vis national governments (John and Cole 2000) or the  
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17 politics of infrastructure production in Brazil (Marques 2012). Except for the latter study,  
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19 all others were focused on mayors and councillors.  
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24 This article is situated at the intersection of these literatures on policy networks,  
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26 governance and local political elites. From these perspectives, we draw the following five  
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28 assumptions:  
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31 1) The urban scale is crucial. The transformations that occurred from the 1970s  
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33 onward have brought to the fore the importance of the urban level in all its complexity  
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35 and of the multiple actors and scales involved.  
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39 2) Many different actors are present and interact in policy production, but  
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41 governments are still central in governance. Despite the lesser attention received by  
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43 governments (public administration/ appointed and elected public officials) compared to  
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45 other actors in the governance literature, they are still crucial.  
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50 3) Policies are not produced by isolated decision makers, but by actors embedded  
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52 in several types of networks that help shape multiple and superimposed governance  
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54 patterns. These networks may be associated with key processes of political and policy  
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56 coordination, as well as political capture by parties and groups.  
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3 4) Among the networks connecting diverse actors within governments, the  
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5 circulation of local policy elites represents a key (and completely neglected) facet of the  
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7 relational structures that lie behind governance patterns, bridging policy fields, agencies  
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9 and governments.  
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13 5) Although mayors and councillors occupy leading roles in local governments,  
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15 several other actors, including bureaucrats and individuals appointed to key positions in  
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17 the local government, also influence policy production and implementation.  
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21 Setting out from these assumptions, therefore, we investigate whether the  
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23 governments of three quite different cities have local networks built by the circulation of  
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25 top-level officials, whether these relational structures change over time, whether some  
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27 agencies are more central than others, and finally whether these networks are organized  
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29 by common structural patterns or mechanisms. By applying the same questions and same  
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31 methodology to three different cases in urban and institutional terms, we can extract  
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33 conclusions about the similarities and differences in the circulation of policy elites, as  
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35 well as in the mechanisms that structure it.  
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40 We should add that we do not explore the consequences of the networks for  
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42 policy coordination in this article, due to the need to choose between a broader exploration  
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44 of the phenomenon and precise investigations of parts of its features. The study of the  
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46 effects of the networks would demand a quite different research design, focused on more  
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48 detailed analysis of specific policies, but covering a much smaller number of policy  
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50 sectors and cities. This remains a theme for future studies setting out from the mapping  
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52 of the networks developed here.  
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## 59 2. Data and methods

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3 The three cases – São Paulo, Paris and Milan – present similarities and differences.  
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5 All three cities have experienced administrative change towards governance in recent  
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7 decades. This has involved various forms of civil society participation in policy processes,  
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9 as well as outsourcing of services to private contractors and the transformation of directly  
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11 managed public agencies into semiprivate bodies, especially in infrastructure sectors. The  
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13 cities are all governed by mayors and local councils in competitive local political  
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15 scenarios, and they are all embedded in broader metropolitan regions, albeit with weak or  
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17 non-existent metropolitan institutions. Furthermore, the three cities were governed by the  
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19 same coalitions (of political parties) for long periods, followed by moments of change in  
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21 governing coalitions. In the case of São Paulo, the trajectory involved several swings  
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23 between party coalitions, but within two longer periods of political competition, while  
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25 Paris and Milan were also marked by two durable political periods, although with fewer  
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27 party swings.  
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33 Our cases also differ fundamentally in terms of the institutions involved. They  
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35 include cities of the global North (Paris and Milan) and South (São Paulo), as well as one  
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37 capital city (Paris) and two noncapital but leading metropolises (Milan and São Paulo).  
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39 Paris and Milan belong to unitary States (although with increasing decentralization),  
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41 while São Paulo belongs to a fairly decentralized federalist State. They also diverge  
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43 regarding their urban and infrastructural conditions, especially São Paulo, which is  
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45 marked by intense inequalities and extensive peripheries. Paris and Milan present  
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47 universalized access to infrastructure and extensive service networks.  
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51 Considering these similarities and differences, we developed three parallel case  
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53 studies setting out from the same questions and following research procedures that were  
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55 as similar as possible, considering the differences in institutions and in data availability.  
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57 In each case, we sought to test the existence of such networks, map their structures, and  
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3 understand whether there are similar mechanisms at work structuring the networks. To  
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5 make the case more closely comparable, as well as considering data availability in each  
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7 of the cities, we restricted the study to 1989-2012, 1995-2015 and 1997-2015 in São  
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9 Paulo, Paris and Milan, respectively.  
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12 The article is based on substantial empirical databases produced by the authors on  
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14 the local administrations of each of the three cities. We considered all persons that  
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16 occupied top posts, as well as their circulation between posts, or the appointment of the  
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18 same individual to another company or agency by the same mayor or under a different  
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20 mayor. The appointment of individuals represents the political desire to associate  
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22 agencies and is an important way to build and structure networks within and between  
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24 administrations. Differently from studies that access policy structures using reputational  
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26 methods, an approach adopted by most of the policy network literature, we set out from  
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28 exhaustive empirical assessments of the occupants of key institutional positions at the  
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30 most important agencies in each of the cities, producing a much more comprehensive  
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32 picture of local governance structures and their transformations over time.  
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38 Another key methodological element that added value to this study concerns the  
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40 dynamic aspect of networks, that is, how they change over time. Studies of policy  
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42 networks often provide snapshots of specific policy fields at one moment in time  
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44 (Atkinson and Coleman 1992; Isett et al. 2011; Villadsen 2012). Considering that  
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46 “governance is rarely static, and networks are changing in membership, structure, and  
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48 capacity to respond to new circumstances and to adapt to institutional fragmentation”  
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50 (John and Cole 2000: 253), the dynamic aspect is a key feature, but one usually missing  
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52 in the literature.  
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56 In this study, therefore, we traced the networks of the local policy elite over many  
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58 years. Time is thus embedded in the network connections themselves since the occupation  
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3 of posts between two agencies at two distinct moments by the same individual specifies  
4 a relation between agencies and/or administrations. To represent time, therefore, we  
5 created the category of agencies-administrations, such that a person's occupation of posts  
6 in the same health secretariat under two administrations, for example, indicates a network  
7 connection between these two entities (Health-administration 1 to Health-administration  
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17 These standardizations produced affiliation matrices formed by agency posts  
18 (columns) and individuals (rows) for each of the administrations during the period.  
19 Agency posts were then grouped by agency-administration, resulting in a single affiliation  
20 matrix containing all the information (individuals by agency-administration), which was  
21 then used for the analyses. To compare networks across policy fields, we assigned  
22 organizations to policy sectors (e.g. transport, housing, environment, health, sports,  
23 culture) and to broader policy fields (e.g. administration, social policies, political  
24 articulation).<sup>i</sup> Analysis of all three cities followed these same procedures, meaning that  
25 the units of analysis were always the post in each agency under each administration. To  
26 reach this standardization, however, various methodological decisions were adopted,  
27 some specific to each city, considering data availability and differences in the  
28 administrative structures.<sup>ii</sup>

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44 São Paulo is the largest and most important city of a metropolitan region  
45 composed of 39 municipalities. Here we have studied the municipality of São Paulo,  
46 which is a provincial capital and home to 12 million of the 20 million inhabitants of the  
47 metropolis. Since the government of the municipality of São Paulo is by far the most  
48 important in terms of policy delivery in the region, the study considers just municipal  
49 agencies and their top positions.<sup>iii</sup> This municipal government employs around 125,000  
50 civil servants, including some 8,000 appointed positions that may change from one  
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3 mayoral term to the next. Approximately half of these are reserved solely for civil servants  
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5 (who have a temporary salary rise when occupying coordination positions), while the  
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7 other half may also be occupied by non-civil servants.<sup>iv</sup>  
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10 In this case, each public body, autonomous entity, or public company was  
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12 considered to be an agency, regardless of institutional status. In total, there are 34 offices  
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14 and 866 agencies within them (for example a Social Housing Department within a  
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16 Housing Secretariat). For the period between 1989 and 2012, these included 1,316  
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18 different individuals in 111 different types of posts in the two upper tiers of the  
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20 organisational structure of each agency.<sup>v</sup>  
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24 Politically, São Paulo was marked by intense political competition during the  
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26 period, with 2 right-wing, 2 centre-right and 2 left-wing administrations. Among these  
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28 six elections, only in two cases did the incumbent manage to elect a successor. The  
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30 administrations were in chronological order: Luiza Erundina (PT-L),<sup>vi</sup> Paulo Maluf  
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32 (PDS/PPR/PPB-R), Celso Pitta (PR/PPR-R), Marta Suplicy (PT-L), José Serra (PSDB-  
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34 CR), and Gilberto Kassab (DEM-CR). From the late 1980s to the early 2000s, São Paulo  
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36 had a stable rivalry between right-wing parties and the left. This was then replaced by the  
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38 centre-right against the left, which has continued ever since (Limongi & Mesquita 2011).  
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40 Mayors almost always controlled pluralities in the local Council, but never absolute  
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42 majorities, leading to larger (and heterogeneous) governing coalitions (Marques 2021).  
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47 The specificity of the Paris case lies in its multilevel governance system: this  
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49 includes the *arrondissements*, city, and region, all with responsibilities and influences on  
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51 local policies. The city of Paris (within the ring highway), is a *département* and a  
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53 commune, governed by the mayor of Paris, and houses a population of about 2.1 million.  
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55 This core is further divided into 20 smaller units (*arrondissements*), which all have their  
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57 own mayor. Lastly, there is the region of Paris, known as Ile de France, which unites the  
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3 *département* of Paris and its seven adjacent *départements*. This entity is governed by the  
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5 Regional Council (CRIF: *Conseil Régional d'Île de France*), which is home to about 12.1  
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7 million inhabitants.  
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10 This 'fragmented governance system' (Kantor et al. 2012) is a result of both  
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12 decentralization processes and the continued quest of the national government to  
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14 influence the governance of the capital (Le Galès 2020). The different governance levels  
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16 are not hierarchically ordered: each level has authority within certain policy fields. To  
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18 illustrate example, while the communes are primarily responsible for planning and  
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20 housing, the *départements* for social affairs. Nevertheless, there are differences regarding  
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22 political power among these different levels. By way of illustration, the city of Paris, due  
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24 to its double status as *département* and *commune*, has more responsibilities and a higher  
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26 financial budget than the CRIF. The latter is a comparatively weak institution with "few  
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28 responsibilities, a budget much smaller than the Paris budget, and insufficient staff  
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30 numbers to even monitor the various policy sectors and programs the *région* is involved  
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32 in" (Kantor et al. 2012: 167).  
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45 In this case, the study began with the creation of a database of public officials for  
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47 the Paris region, based on directories published yearly and listing all public officials for  
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49 various spatial levels. We collected the names of elected and appointed public officials  
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51 working in the three highest ranking positions of the agencies at *arrondissement*, city, and  
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53 regional levels between 1995 and 2015, resulting in around 4,000 names.<sup>vii</sup> Considering  
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55 this institutional structure, in the case of Paris we included mayors, councillors and public  
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57 officials working in directorates at city and regional levels, the prefecture (regional level)  
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3 and the *Services déconcentrés de l'État* (city level). The latter's function is to implement  
4 decisions taken at national level at the city level, and to manage the central state services.  
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6 We also collected the information for employees of the technical service organizations,  
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8 which are situated at the regional level. All these actors were included since they are  
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10 associated with policy production in diverse ways.<sup>viii</sup>  
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15 Policies in this case are also produced by agencies operating at other levels, hence  
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17 the relevant agencies were also included in the network. However, since the city is the  
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19 most influential level of government for urban policies (and to enhance readability), we  
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21 use this level to describe political change throughout the period. Politically, the period  
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23 covers four different mayors, coming from France's two main parties, the Republicans  
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25 (UMP/RPR) and the Socialists (PS). These mayors were (chronologically): Jacques  
26  
27 Chirac (RPR-CR), 1995; Jean Tiberi (UMP-CR), 2000; Bertrand Delanoë (PS-L), 2005  
28  
29 and 2010; and Anne Hidalgo (PS-L), 2015.<sup>ix</sup> The study thus covers two political sub-  
30  
31 periods: two centre-right administrations (1995-2005), followed by three (longer) centre-  
32  
33 left administrations (2005-2015).  
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37  
38 Milan is Italy's second largest city with 1.4 million residents. It comprises the  
39  
40 Lombardy Regional County Seat and forms the core of a metropolitan area with 3 million  
41  
42 inhabitants. Milan concentrates most of the country's private financial and economic  
43  
44 activities, many of them intensely linked to international circuits. In this study, our focus  
45  
46 is on the municipal level and its local public services. These services are crucial for the  
47  
48 local population's welfare and also represent an important economic and political asset  
49  
50 for the city as they employ thousands of individuals, have the right to hire consultants,  
51  
52 and make calls for tenders. Their economic and political power is anything but negligible.  
53  
54 The local public services are managed and provided by companies owned by the  
55  
56 municipality, although formally autonomous, and are managed through an in-house  
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3 strategy. This means that the municipality is responsible for the budget (losses and profits)  
4  
5 of these companies and for the share of stock options it owns, which is all of them in most  
6  
7 cases. Company presidents are appointed by the mayor and the top positions (the board  
8  
9 of directors) are nominated by the mayor in agreement with the president. Members of  
10  
11 the board and presidents may receive an annual income that varies significantly according  
12  
13 to the municipality and the company involved. In the Milan case, income has changed  
14  
15 under different mayoral periods and indeed was reduced to zero under the Pisapia council  
16  
17 for several corporations.  
18  
19

20  
21 The specific institutional configuration of these companies (utilities) is  
22  
23 particularly interesting since politicians try to exert control over the top positions, yet  
24  
25 companies also need to be managed professionally. With the focus on the presidents and  
26  
27 the boards of directors of public service companies, the Milan case is particularly fruitful  
28  
29 for understanding whether the circulation of the political elite holds true and the  
30  
31 mechanisms structuring the relational patterns are similar to the other cases in a context  
32  
33 where economic logics might be prioritized.  
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37  
38 The Milan case thus focused on a subset of the local policy elite covered by the  
39  
40 São Paulo and Paris cases. Given the narrower sample, the absolute values of the analysis  
41  
42 are lower, though the rationale of the analysis remains the same. We collected data on the  
43  
44 presidents and top positions of 16 companies, amounting to 623 individuals across the  
45  
46 1997-2015 period. Companies were grouped into broader policy fields: mobility and  
47  
48 infrastructure, water supply, general markets and foods, leisure and sports, and  
49  
50 pharmaceuticals.<sup>x</sup>  
51  
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53  
54 Politically, the period under analysis was marked by three right-wing and two left-  
55  
56 wing mayoral terms over the last three decades. The administrations were  
57  
58 (chronologically): Albertini 1 (1997 to 2001, CR coalition); Albertini 2 (2001 to 2006,  
59  
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1  
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3 CR coalition); Moratti (from 2006 to 2011, CR coalition) and Pisapia (from 2011 to 2016,  
4  
5 CL coalition.  
6

7  
8 Given the smaller sample, we also collected qualitative data on the individuals  
9  
10 covering the posts, in particular party-political affiliation, and their professional careers,  
11  
12 for descriptive and analytic purposes. This information allows us to look at the structural  
13  
14 patterns and to add some interesting elements, clearing the way for further analysis.<sup>xi</sup>  
15

16  
17 To summarize, the research design was rather similar, though adapted in  
18  
19 response to the institutional differences between the three cases. In São Paulo and Paris,  
20  
21 the research included the top posts in all relevant agencies of the municipal government  
22  
23 (including those linked to budgetary and administrative tasks), most of which are  
24  
25 appointed. In Paris, the analysis included appointed and elected public officials of the  
26  
27 most relevant local agencies, but also considered the multiple levels of the urban  
28  
29 governance system. In Milan, we focused on a subset of the local policy elite, namely the  
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31 board of directors of public companies appointed by mayors.  
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38 Given the institutional and political differences between the cities, major  
39  
40 differences might be expected regarding the circulation of their respective local policy  
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42 elites. As we shall see, though, the networks present similar features and are influenced  
43  
44 by the same broader mechanisms, providing us with strong evidence of the relevance and  
45  
46 prevalence of these elements.  
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### 51 3. Structural patterns in policy elite networks 52

53  
54 In this section we present and analyse the networks in the three cities. The  
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56 circulation of policy elites can be investigated at two scales: at the level of connections  
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58 between administrations (part 3.1) and at the disaggregated agency-administration level  
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3 (part 3.2). The former already provides an idea of the existing patterns, which can then  
4  
5 be confirmed and detailed by the more fine-grained analysis of the latter.  
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### 10 *3.1. Administrative consolidation and political affinities as structuring mechanisms*

#### 11 a. São Paulo

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14 The circulation of the local urban elite is an important phenomenon in quantitative  
15 terms. Indeed, in each administration, the percentage of top positions covered by officials  
16 who were also named or appointed in other administrations is around 20% in all the  
17 periods under analysis.  
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23  
24 Table 2 presents the connections between administrations. Administrations are  
25 presented as both columns and lines,<sup>xii</sup> such that each cell represents the number of  
26 individuals common to the two administrations concerned. The diagonal contains  
27 individuals who migrated between different agencies within the same administration,  
28 while the final row indicates the total number of individuals of one administration also  
29 present in top positions in any of the other administrations.<sup>xiii</sup> For example, the first cell  
30 indicates that 394 individuals migrated between top positions during the Erundina  
31 administration (within the same administration), while the second row (first column)  
32 indicates that just 25 persons occupied top positions in both the former administration and  
33 the next one, Maluf's.  
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49 <Insert Table 2>

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53 One important specification is that we are interested in the networks of circulation,  
54 and not in the circulation of individuals per se. Consequently, someone who circulated  
55 between the Erundina and the Maluf administrations, but also between the former and the  
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3 Pitta administration, for example, would be counted in both cells (both in the 25 and the  
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5 9). Therefore, the last row – Total – indicates the total amount of circulations between  
6  
7 agencies within and between administrations, and not the total amount of different  
8  
9 individuals who circulated.  
10

11  
12 Observing the table, we can see four regularities. None of these are determinant  
13  
14 but they do suggest tendencies. First, the largest number of connections is internal to each  
15  
16 administration (shown in the diagonal of the table with a background shade). During the  
17  
18 Maluf administration, for example, 364 individuals circulated between top positions in  
19  
20 agencies. This reflects the circulation of individuals within each administration, an  
21  
22 indication of the role of the network in building policy and political coordination,  
23  
24 although possibly with policy instability.<sup>xiv</sup> Second, the total connections per mayoral  
25  
26 term increased over time (final row), expressing the increasing complexity and  
27  
28 connectivity of the network. Between the first administration in the sample (Erundina)  
29  
30 and the last one (Kassab), the number of connections both within and across  
31  
32 administrations rose from 457 to 853. These numbers include connections within a single  
33  
34 administration, but also across any two mayoral terms, which may be contiguous but also  
35  
36 separated in time by other terms. The increasing size and complexity of the administrative  
37  
38 structure is also reflected in the number of different types of posts, which rose from 42 in  
39  
40 the first administration to 61 in the last one.<sup>xv</sup> A third trend is that contiguous mayoral  
41  
42 terms tend to have more individuals in common, which can be seen by the declining  
43  
44 number of persons as we move away from the diagonal. This may just indicate the effects  
45  
46 of transitions, but also administrative consolidation at technical levels, especially among  
47  
48 the last three administrations, the most connected contiguous administrations. Finally,  
49  
50 administrations with party affinities tend to be more connected, similar to the result found  
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52 by Marques (2012). For example, although distant, the Erundina and Suplicy  
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3 administrations (both left-wing) tend to invert the previous decline. Right and centre-right  
4  
5 administrations are contiguous, so the two effects are combined. Hence, there are signs  
6  
7 of both administrative consolidation over time, including an increase in the local State,  
8  
9 and the resilient importance of political affinity between administrations. Politics and  
10  
11 administrative consolidation seem not to be mutually exclusive.  
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#### 17 b. Paris

18  
19 In the Parisian multi-governance system, the change of positions within each  
20  
21 administration was very low (shown in the diagonal line) and most circulation occurred  
22  
23 between administrations (Table 3). This suggests a stable institutional scenario for policy  
24  
25 production, despite the complexity of the governance system. If there was circulation  
26  
27 within a given administration, it usually occurred between the arrondissement and city  
28  
29 level. Very few connections exist between the city and regional levels, and none between  
30  
31 the arrondissement and region. This is a first hint at the influence of specialization and  
32  
33 administrative consolidation in the circulation networks of public officials.  
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40 <Insert Table 3>  
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44  
45 Similar to São Paulo, the broader circulation patterns point to an effect of  
46  
47 political affinity: during the last three administrations in particular, the numbers of  
48  
49 individuals circulating was high compared to the circulation of officials between  
50  
51 administrations of different political affiliations. To illustrate, during the transition from  
52  
53 the first to the second Delanoë administration, 496 remained in the administration, while  
54  
55 from the second Delanoë term to Hidalgo's term, 474 stayed on. In other words, of the  
56  
57 1,222 people identified in the second Delanoë government (not indicated in the table,  
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3 concentrated in circulations), 40% were also in the first, and 34% of those in Hidalgo's  
4 government also held an office during Delanoë's second term. As in São Paulo, we can  
5 observe that the overall circulation per administration increased over the years, from 779  
6 in 1995 to 1270 in 2010. During the last term, the number was slightly lower (949), but  
7 since 2015 was the year of data collection, it is likely that many internal circulations were  
8 not yet visible.  
9

10  
11 We can also observe an increasing complexity of the local government, indicated  
12 by the growth in the number of public officials over the years. Thereby, the number of  
13 administration officials increased primarily on the city and regional level. On the  
14 arrondissement level, in contrast, the numbers remained fairly stable. Between 2000 and  
15 2005, we observe the strongest growth in the local government. A likely reason for this  
16 growth is the 2003/04 Decentralization Act, which transferred responsibilities from the  
17 national to the local government and which considerably increased the number of civil  
18 servants (cf. Bezes et al. 2013).  
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### 38 c. Milan

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40 Like in Paris, the government of local services in Milan displays an increasing  
41 complexity, indicated by an overall increase in the number of posts over the years. This  
42 rise is the combined effect of two elements: the establishment of new companies over  
43 time, and their enlargement with the expansion of top positions. This tendency to expand  
44 top positions has been common to various Italian cities since the second half of the 1990s  
45 when a strong process of decentralization was inaugurated (IFEL 2012). The Pisapia  
46 administration put a halt to this trend, reducing the number of posts due to budget cuts  
47 and the rationalization of local services enforced by the National Budgetary Law.  
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3           Zooming in on a specific fragment of the political elite (Table 4) reveals some  
4  
5 differences, but also many similarities with the other two cases. In Milan, the change of  
6  
7 positions within each administration is extremely low (diagonal line in table 3) due to  
8  
9 institutional rules, and mayors seldom dismiss individuals and appoint them to other  
10  
11 agencies. Yet, we can see that across the administrations, the number of individuals who  
12  
13 moved from one agency to another has increased, almost doubling in the last  
14  
15 administration. In the Albertini II administration, for example, only three individuals  
16  
17 moved within the administration, while during the Pisapia term, sixteen individuals  
18  
19 moved. The rise in the number of absolute posts and in the circulation of individuals  
20  
21 provides more evidence of a trend towards administrative consolidation.  
22  
23  
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25  
26           The analysis of connections between administrations reproduces some structural  
27  
28 patterns like the other two cities.  
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31  
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33 <Insert Table 4>  
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36

37  
38           The largest number of connections is between contiguous mayoral terms. For  
39  
40 instance, the Albertini I and Albertini II administrations share 69 individuals, representing  
41  
42 29.6% of the total individuals working in the Albertini II term (233 individuals, not  
43  
44 indicated in the table). The Albertini II and Moratti administrations share 89 individuals,  
45  
46 representing 30% of all presidents and board members working in the Moratti term (297  
47  
48 individuals, not indicated in the table).  
49

50  
51           The effect of contiguity holds true even when there is no political affinity between  
52  
53 two administrations. Indeed, the Pisapia council period (centre-left) shares 25% of  
54  
55 individuals with the previous administration, albeit with a lower percentage compared to  
56  
57 previous administrations of the same political affiliation. Pisapia (CL) did not confirm  
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3 many of the previous appointees, therefore, a fact that can be interpreted as a first sign of  
4  
5 the importance of political affinity.  
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8 As we move away from the first administration, the number of individuals in  
9  
10 common decreases. Even so, in the Pisapia administration, for example, we still find  
11  
12 seven individuals who were present also in the Albertini I administration, more than  
13  
14 fifteen years earlier.  
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19 *3.2. Agency level – interactions between political affinities and sectoral specialization as*  
20 *structuring mechanisms*  
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23  
24 a. São Paulo  
25

26 The network of agencies-administrations (created with the already mentioned  
27  
28 procedures) connected 106 agencies in six administrations, linked to each other via the  
29  
30 circulation of individuals between posts, totalling 626 connections.  
31  
32

33 First, we can look at the associations through political affinity. The data on  
34  
35 centrality measured by degree and betweenness indicates that right-wing administrations  
36  
37 had more central agencies (on average) compared to left-wing administrations.<sup>xvi</sup> The  
38  
39 centrality of individual agencies-administrations confirms this phenomenon and among  
40  
41 the ten highest degrees were 6 agencies during centre-right administrations, 2 in right-  
42  
43 wing ones and 2 in left-wing administrations.  
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46

47 When we compare densities of the whole network and among agencies-  
48  
49 administrations of different attributes, the highest densities are within each political  
50  
51 affinity group – right/right (0.298), centre/centre (0.228) and left/left (0.116). Between  
52  
53 administrations, the highest densities are between two consecutive right-wing  
54  
55 administrations (0.462, Maluf-Pitta) and two centre-right administrations (0.337, Serra-  
56  
57 Kassab), confirming that affinity is superimposed with other elements, such as contiguity.  
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3 Sociogram 1 represents the network considering policy types, with the size of the  
4 nodes proportional to degrees, while the letters indicate administrations.<sup>xvii</sup> The figure  
5 presents the agencies-administrations classified according to five main policy sectors:  
6 Urban Policies; Political Articulation; Administration; Social; and Others.<sup>xviii</sup>  
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14 Sociogram 1. Network of agency-administration and policy types, São Paulo, 1989-

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17 2012 (node size proportional to degrees, letters designate administrations)  
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22 <Insert Sociogram 1>  
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26 Source: Authors' calculations using the CEM database.  
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33 We can see that the network is composed by one single, well-connected  
34 component, although with more compact clustering in the centre and smaller but still  
35 intensely connected regions to the left and bottom. Most of the highest degree centrality  
36 nodes involve urban policies and political articulation. In terms of location, urban  
37 agencies are present in the sociogram as a whole, but especially at its centre in a large  
38 continuous fabric. The locations of both political articulation and administration are  
39 divided into several clusters in different regions. Obviously, all these positions must be  
40 interpreted solely in relational terms, but the systematic occupation of the network's  
41 centre by some urban agencies (especially Planning and Housing) suggests that they  
42 perform intermediation roles in local governance.  
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55 In fact, Planning and Housing agencies occupy the centre of the network with  
56 most of the larger degree nodes, as we can see in Sociogram 2 below. The figure maintains  
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3 the same relative positions as the previous sociogram, but now showing urban agencies  
4 only. All the larger nodes at the top of the central darker cluster are Planning secretariats,  
5 while the ones at the lower level of the same region are Housing secretariats. These two  
6 policy sectors are also intensely connected between themselves. This result is unexpected  
7 and points to a possible technical and political integrative role (and centrality) of  
8 planning, housing production and land use control activities, usually considered less  
9 important and effective in Brazilian cities.  
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21 Sociogram 2. Urban agencies, São Paulo, 1989-2012 (node sizes proportional to  
22 degrees, letters designate administrations)  
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28 <Insert Sociogram 2>  
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33 Source: Authors' calculations based on the CEM database.  
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#### 38 b. Paris

39  
40 For Paris, we analysed the circulation of policy elites between 61 agencies,  
41 grouped into three broad policy fields: administration, social policies, and urban  
42 policies.<sup>xix</sup> As pointed out earlier, the particularity of the Parisian governance system is  
43 its multilevel dimension. Institutions at the arrondissement, city and regional levels all  
44 influence policymaking. Sociogram 3 confirms the fragmentation outlined in the  
45 literature. The Parisian governance system is clearly separated into three different  
46 systems, which largely overlap with the three territorial levels of governance (cf. Barwick  
47 and Gross 2019). These systems do not seem to be well connected, as we find most  
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3 circulation within a single administrative tier. Very few connections connect the different  
4  
5 tiers.<sup>xx</sup>  
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10 Sociogram 3: Links between the organizations at local, city and regional levels, Paris,  
11  
12 1995-2015 (node sizes proportional to degrees, letters designate administrations)  
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17 <Insert Sociogram 3>  
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22 Source: Authors' calculations  
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26 The city is the most connected tier, as it has links to both other levels, the regional  
27 and local. For example, elected officials who have a seat in the city and the  
28 arrondissement councils connect the two government levels. These connections fluctuate  
29 between one and 45 across the years. The observed decrease of these connections hints at  
30 a stronger separation of the city and arrondissement levels. There are also links between  
31 the city and regional levels, but they are very few, with a maximum of four links in 2015.  
32  
33 Three of these are one person connecting the two levels within or across years. The  
34 regional and local level are not connected at all. The most numerous connections are  
35 between agencies within one government level, namely the arrondissement, indicating  
36 the re-election of a council member.  
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49 An analysis of only above-average degree connections (i.e. organisations  
50 connected by more than six individuals, not shown) confirms the pattern, displaying two  
51 clusters, one consisting of the city and the local councils, the other of directorates and  
52 administrative organisations at city level. In addition to the strong connectedness between  
53 organisations at the arrondissement and city levels, this pattern also indicates a potential  
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3 division between the political and bureaucratic worlds of governance (cf. also Barwick  
4 and Gross 2019): the town halls are rarely connected to other organizations, such as  
5 directorates. These kinds of connections can only be found for the earlier years of data  
6 collection, e.g. for Jean Tiberi's administration.  
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12 The analysis of networks across space and time thus confirms a fragmented,  
13 multilevel governance system, with a pronounced separation of the regional level from  
14 the others. This has two potential explanations: compared to the arrondissement and the  
15 department, the region is still relatively young as an administrative unit, and it might take  
16 more time for ties to develop between the different levels. Second, many highly  
17 specialized technical services are found at the regional level, which might inhibit  
18 movement between any one of these and other, less specialized, governance organisations  
19 (cf. John & Cole 2000).  
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30 This suggests, therefore, that the fragmentation of the Parisian multilevel  
31 governance system is not only spatial. Taken together, there are three superimposed  
32 patterns; i.) many links between the city and local levels are between the town halls, ii.)  
33 the directorates of the city form a cluster, and iii.) there are very few links between the  
34 regional level, made up mostly of highly specialized technical services, and the city level,  
35 a fact that may also indicate a fragmentation of government functions. In addition to the  
36 spatial fragmentation, therefore, the data suggest a fragmentation into the political,  
37 administrative, and technical sub-systems of governance.  
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49 We also conducted a more detailed analysis of networks within the administration  
50 and the fields of social and urban policies. These analyses confirm the general structure:  
51 few links exist between the different levels of government and most links are within one  
52 organization or one policy sector. To illustrate, we use the urban policy field, which seems  
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3 to be the most integrated among the three (Sociogram 4), as was also the case in São  
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5 Paulo.  
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10 Sociogram 4. Agencies from the urban area, Paris, 1995-2015 (node sizes proportional  
11  
12 to degrees, letters designate administrations)  
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17 <Insert Sociogram 4>  
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22 Source: Authors' calculations  
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26 The field of urban policies is made up of organizations with responsibilities for  
27 housing, transport, infrastructure and works, urban development and environment (cf.  
28 Barwick and Gross 2019). While the strongest links still occur within these policy sectors,  
29 we still find circulation between sectors, with the environment occupying more central  
30 positions. To illustrate, the environment and transportation sectors have multiple  
31 connections, as do the sectors urban development and infrastructure and works, and  
32 environment. Comparing the number of connections between different sectors over time,  
33 we can observe a clear increase, with more links in the later years of data collection than  
34 the earlier ones.  
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46 Zooming in on the connections within the sub-sectors of the urban policy field  
47 shows that circulation takes place mainly within the same organization across different  
48 governments (i.e., time), but not across organizations, particularly if they are located at  
49 different government levels. To illustrate, two major organizations within the field of  
50 transportation, the departmental directorate for roads and highways (departmental level)  
51 and the Île de France Transport Federation (STIF: Syndicat des Transports d'Île de  
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3 France, regional level), are both connected across the years, indicating that people remain  
4 in the organization, but there is no circulation between the two. The pattern holds true for  
5 other policy sectors such as planning, or housing and urban development (cf. Barwick  
6 and Gross 2019). This may be due to stronger career stability in each of the organizations,  
7 as well as a deeper specialization that reduces circulation between policy areas, differently  
8 from São Paulo.  
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11 The network structure of the urban policy field thus once again confirms the lack  
12 of movement between organizations at city and regional levels, although a few  
13 connections do exist.  
14

15  
16 Summarizing, the Paris case shows three main patterns. First, as there are no links  
17 between policy sectors, Paris confirms previous findings on the influence of the  
18 specificities of policy sectors (i.e. expertise) on network formation. Second, it indicates  
19 the relevance of different government levels. We found very few connections between  
20 different government levels (e.g. the city and the region), even in the same policy field.  
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22 Third, most connections are within the same organizations, across time, which hints at  
23 the relevance of policy specialization and career progression within one specific  
24 field/organisation.  
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#### 45 c. Milan

46 The network of agencies in Milan connects 49 companies in four administrations  
47 with a total of 132 connections.  
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49  
50 As in the São Paulo case, the centrality of individual agencies-administrations  
51 highlights that among the highest degrees (higher than 8), six were agencies of the centre-  
52 right, three of the centre-left. Three agencies stand out for their centrality role, related  
53 respectively to metro lines, public transportation and roads.  
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3 Data on subgroup densities goes in the same direction as the São Paulo case, with  
4 the highest density between two contiguous CR administrations, Albertini II and Moratti  
5 (0.138), confirming that political affinity plays an important role.  
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9  
10 What is more interesting, however, is the analysis by policy sector. The sociogram  
11 below presents the agencies-administrations by sector: infrastructure and mobility, food  
12 and general markets, sport and leisure, pharmaceuticals.<sup>xxi</sup>  
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19 Sociogram 5. Network of agencies-administrations and policy types, Milan,  
20 1997-2015<sup>xxii</sup> (node sizes proportional to degrees, letters designate administrations)  
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26 <Insert Sociogram 5>  
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30 Source: Authors' calculation  
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35 One single well-connected component composes the network. A region of sectoral  
36 concentration is clearly visible in the top left, formed by companies related to the Water  
37 supply infrastructure, responsible for managing the municipal water pipe system. The  
38 graph shows a dense circulation of individuals within this cluster of companies, which  
39 can be interpreted as a sign of specialization (expertise).  
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46 Some relatively marginal nodes (almost white in the figure) on the right side of  
47 the graph refer to the pharmaceuticals sector, responsible for managing pharmacies. These  
48 companies are the least connected, a finding that holds true across administrations: they  
49 were marginal in the Albertini I administration and remain so in Pisapia's. In the bottom  
50 right of the graph, we can find agencies working in the leisure and sport sector. Even  
51 though they are well connected, they remain at the periphery of the network.  
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3 Most of the largest (possessing high degrees) and structurally central nodes are  
4  
5 “Mobility and Infrastructure” agencies. This means that individuals migrating from one  
6  
7 post to another work for companies with the same or similar policy specialization.  
8  
9 Individuals working for the metro line company, for instance, either stay in the same  
10  
11 company under different administrations or move to a company with a similar  
12  
13 specialization, like road management.  
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16  
17 The structural centrality of these infrastructural agencies has been shown  
18  
19 elsewhere (Andreotti 2018), and the circulation of the local political elite further confirms  
20  
21 this finding. Already three decades ago, discussing US urban governments, Logan and  
22  
23 Molotch (1987) identified the top management of these companies as a fundamental part  
24  
25 of the local elite for urban growth. The two authors highlighted how transport companies  
26  
27 had a clear interest in growth and its promotion along specific city routes, stimulating  
28  
29 residential development. In the last twenty years, Milan had seen the construction of two  
30  
31 new metro lines that enormously stimulated some areas of the city.  
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34  
35 The last point to highlight is political affinity, and more broadly the importance  
36  
37 of the political party affiliation. We have already seen that administrations with the same  
38  
39 political coalition (centre-left or centre-right) systematically show higher rates of  
40  
41 circulation between them, a result that seems even more common in centre-right  
42  
43 coalitions. It is initial evidence of the importance of political affinity to structuring urban  
44  
45 policy networks. It would be highly unlikely that this circulation would be associated with  
46  
47 career progression, unless we consider careers constructed within political affinity fields.  
48  
49 We subsequently saw that some structural network measures (e.g. density) are also higher  
50  
51 for administrations with political affinity. To further test the importance of political  
52  
53 affinity, and more broadly the importance of political parties in governing local services  
54  
55 in Milan, we turned to qualitative data on the professional profiles and backgrounds of  
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3 the individuals who migrated. Presidents and board members, in particular, may be  
4  
5 appointed for their expertise, and may come either from the professional and managerial  
6  
7 world or from inner political circles with clear political party affiliations. Were our data  
8  
9 to show that politicians are overrepresented among the percentage of individuals  
10  
11 migrating from one post to another, this would confirm that partisan politics (and thus  
12  
13 political parties) are still important in structuring policy networks.  
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17 The analysis of the qualitative information available for Milan shows that most  
18  
19 individuals moving in top positions are politicians, and in most of these cases they  
20  
21 belonged to the same political parties as the mayoral coalition (Andreotti 2018). This  
22  
23 result provides further evidence on the importance of political affinity and the role of  
24  
25 political parties in structuring these networks.  
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## 28 29 30 Discussion

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33 This article is a contribution to the literature on policy networks and urban  
34  
35 governance. It advances current studies by adopting a longitudinal and explorative  
36  
37 research design, focusing on an unexplored subject – the network spanning policy sectors  
38  
39 produced by the circulation of individuals between top positions. In addition to showing  
40  
41 the existence of such networks in three quite diverse political and institutional settings in  
42  
43 the cities of São Paulo, Paris and Milan, we sought to explore the mechanisms that  
44  
45 structure the network lying behind the production of urban policies. The analysis  
46  
47 confirmed the presence of a network in each city, potentially generating bridges between  
48  
49 policy sectors, administrations, and government levels.  
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53 Despite the differences between the cities, some common patterns emerged from  
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55 the analysis, hinting at the existence of similar mechanisms of network formation and  
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57 transformation.  
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3 First, governments of the three cities became more complex over the years, as  
4 shown by the continual increase in the number of individuals and posts in the networks.  
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6 This rise was due to an expansion of the local bureaucracies, following decentralization  
7  
8 processes in the Parisian and Milanese cases and the strengthening of local government  
9  
10 in São Paulo, all in the 1990s and 2000s. This phenomenon goes hand-in-hand with an  
11  
12 increased local specialization and professionalization, adding another layer of complexity  
13  
14 to the picture.  
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19 In terms of the mechanisms structuring the network, at least three elements were  
20  
21 observed. First, we identified administrative consolidation, since contiguous mayoral  
22  
23 terms tended to have more individuals in common, suggesting that networks play a role  
24  
25 in generating stability between administrations. Second, this effect was strengthened by  
26  
27 political affinity between administrations, expanding the number of persons in common  
28  
29 between administrations with the same ideological inclination. A third element involves  
30  
31 connections between agencies of the same policy or policy sector over time (between  
32  
33 administrations) or vertically (between levels of government). Thus, policy specialization  
34  
35 is a third mechanism structuring networks. Contrary to a substantial portion of the  
36  
37 literature, administrative consolidation and policy specialization are not opposed to, but  
38  
39 intertwined with, political affinities.  
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44 Connections between and within policy fields and political parties appeared more  
45  
46 clearly in São Paulo and Milan, while in the fragmented governance system of Paris,  
47  
48 networks were structured mainly around levels of government. We also found signs that  
49  
50 centre-right administrations tended to be more densely connected among themselves, as  
51  
52 well as more central in the general structure of the networks. Another common element  
53  
54 between the three cases concerns the crucial role played by some agencies. In all three  
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56 cases, some urban policies occupy the core of the network. In São Paulo and Milan,  
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3 planning and infrastructure agencies occupied more central positions, while in Paris these  
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5 functions are exercised by planning and environment.  
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8 The article contributes to a more complex understanding of urban governments  
9  
10 and governance by showing the existence of circulation networks composed by the policy  
11  
12 elite, creating regularities in the connections and positions between proximate  
13  
14 administrations, politically affiliated administrations, and policy sectors in three different  
15  
16 cases. On the other hand, given our specific research design, we did not analyse the effects  
17  
18 of these networks on policy production. Considering the complexity of the subject, as  
19  
20 well the absence of earlier studies, it would be impossible to cover a broad set of policies,  
21  
22 several cities and policy outcomes simultaneously. These policies may enhance policy  
23  
24 coordination, contribute to information dissemination and state capacity production, but  
25  
26 they might also provide room for the political capture of local agencies and policies by  
27  
28 political parties and groups. Only studies with research designs focused on specific  
29  
30 policies, which connect the networks with policy production and policy outcomes, can  
31  
32 help us advance further in this understanding. Such studies may also provide insights into  
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34 how much (and in which ways) the identified mechanisms influence policy production  
35  
36 and delivery.  
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42  
43  
44

#### 45 References

- 46 Andreotti, A. 2018, Tra politica e mercato: i componenti dei CdA delle società a  
47  
48 partecipazione pubblica a Milano. *Stato e mercato*, 2: 225-264  
49  
50  
51 Andreotti, A. ed. 2019, *Governare Milano nel nuovo millennio*. Bologna: Il Mulino.  
52  
53  
54 Atkinson, M. and Coleman, W. 1992, Policy Networks, Policy Communities and the  
55  
56 Problems of Governance. *Governance*, Vol. 5 (2), 154–80.  
57  
58  
59  
60

- 1  
2  
3 Barwick, C. and Gross, V. 2019, The circulation of public officials in a fragmented  
4 system: Urban governance networks in Paris. *Public Administration*. Vol. 97 (4):  
5  
6 892-909.  
7  
8  
9
- 10 Bezes, P.; Lise, A.; Le Lidec, P. and Læg Reid, E. 2013, Understanding Organizational  
11 Reforms in the Modern State: Specialization and Integration in Norway and France.  
12  
13 *Governance* Vol. 26 (1), 147–75.  
14  
15
- 16 Egner, B.; Sweeting, D. and Klok, P. (eds.) 2013, *Local Councilors in Europe*. New York:  
17  
18 Springer.  
19  
20
- 21 Einstein, Katherine and Glick, David. 2018. Mayors, Partisanship, and Redistribution:  
22  
23 Evidence Directly from U.S. Mayors. *Urban Affairs Review*, Vol. 54(1) 74–106.  
24  
25
- 26 Flanagan, Richard. (2004), Opportunities and constraints on mayoral behavior: a  
27  
28 historical institutional approach. *Journal of Urban Affairs*, Volume 26, Number  
29  
30 1, pages 43–65.  
31  
32
- 33 Giraudy, A.; Moncada, E. and Snyder, R. (eds.) 2019, *Inside countries: subnational*  
34  
35 *research in comparative politics*. New York: Cambridge University Press.  
36  
37
- 38 Goldsmith, M. and Larsen, H. 2004. Local Political Leadership: Nordic Style.  
39  
40 *International Journal of Urban and Regional Research* Vol. 28 (1), 121-33.  
41  
42
- 43 Hajnal, Zoltan e Trounistine, Jessica, 2017. Who or What Governs? The Effects of  
44  
45 Economics, Politics, Institutions, and Needs on Local Spending. *American*  
46  
47 *Politics Research*, 38(6), p. 1130–1163.  
48  
49
- 50 Hecló, H. 1978, Issue networks and the executive establishment. King, A. (ed.) *The new*  
51  
52 *American political system*. Washington, American Institute for Public Policy  
53  
54 Research.  
55
- 56 Heinz, J.; Laumann, E.; Nelson, R. and Salisbury, R. 1997, *Hollow core: private interests*  
57  
58 *in national policy making*. Cambridge, Harvard University Press.  
59  
60

- 1  
2  
3 Ifel. 2012, *Le partecipazioni dei comuni nelle public utilities locali*, Dossier, Roma,  
4  
5 Fondazione Anci.  
6  
7  
8 Isett, K.; Mergel, I.; LeRoux, K.; Mischen, P. and Rethemeyer, R. 2011, Networks in  
9  
10 Public Administration Scholarship: Understanding Where We Are and Where We  
11  
12 Need to Go. *Journal of Public Administration Research and Theory*, 21, 157–73.  
13  
14  
15 John, P. and Cole, A. 2000, When Do Institutions, Policy Sectors, and Cities Matter?  
16  
17 Comparing Networks of Local Policy Makers in Britain and France. *Comparative*  
18  
19 *Political Studies* 33 (2), 248–68.  
20  
21  
22 Kantor, P.; Lefèvre, C.; Saito, A.; Savitch, H. and Thornley, A. 2012, *Struggling Giants:*  
23  
24 *City-Region Governance in London, New York, Paris, and Tokyo*. Minneapolis:  
25  
26 University of Minnesota Press.  
27  
28  
29 Kapucu, N.; Hu, Q. and Khosa, S. 2017. The State of Network Research in Public  
30  
31 Administration. *Administration & Society*. Vol 49(8):1087-1120. Kitchin, R. 2014  
32  
33 The real-time city? Big data and smart urbanism. *GeoJournal* 79, 1–14.  
34  
35  
36 Klijn, E.H. 2008, Governance and Governance Networks in Europe. *Public Management*  
37  
38 *Review*, 10(4), 505–25.  
39  
40  
41 Lægreid, P. and Verhoest, K. 2010, *Governance of Public Sector Organization:*  
42  
43 *Proliferation, Autonomy and Performance*. Basingstoke: Palgrave Macmillan.  
44  
45  
46 Laumann, E. and Knoke, D. 1987, *The organizational state: social choice in the national*  
47  
48 *policy domains*. Madison, University of Wisconsin Press.  
49  
50  
51 Le Galès, P. (2020). *Rendre la métropole parisienne gouvernable – état, institutions,*  
52  
53 *reseaux*. Paris: Press de Sciences Po.  
54  
55  
56 Le Galès, P. 2011, Urban policies in Europe: what is governed? In: Bridge, G. and  
57  
58  
59 Watson, S. ed. *The New Blackwell Companion to the City*. Oxford, Blackwell.  
60

- 1  
2  
3 Le Galès, P. and Vitale, T. 2017, Les défis des métropoles: ce qui est gouverné et ne l'est  
4 pas. *COGITO, la lettre de la recherche à Sciences Po*. Available at  
5 <https://spire.sciencespo.fr/notice/2441/3b9437daib9u5o47r1fdef6h11>  
6  
7  
8  
9  
10 LedyaeV, V. and Chirikova, A. 2017, Power in Local Russian Communities: Patterns of  
11 Interaction Between Legislative and Executive Branches of Local Government.  
12 *Urban Affairs Review* Vol. 53(6), 990–1024.  
13  
14  
15  
16  
17 Leroux, K. and Carr, J. 2010, Prospects for centralizing services in an urban county:  
18 evidence from eight self-organized networks of local public services. *Journal of*  
19 *Urban Affairs*, 32 (4), 449-470  
20  
21  
22  
23  
24 Levitsky, S. and Roberts, K. (eds.) 2011, *Resurgence of the Latin American Left*.  
25 Baltimore: Johns Hopkins University Press.  
26  
27  
28  
29 Limongi, F. and Mesquita, L. 2011, Estratégia Partidária e Clivagens Eleitorais: As  
30 Eleições Municipais pós redemocratização. In: Kowarick, L. (ed.). *Sao Paulo: novos*  
31 *percursos e atores*. Sao Paulo: Editora 34/CEM.  
32  
33  
34  
35 Logan J. and Molotch H. 1987, *Urban Fortunes. The Political Economy of Place*,  
36 Berkeley, University of California Press.  
37  
38  
39  
40 Lowndes, V. and Skelcher, C. 1998, The dynamics of multi-organizational partnerships:  
41 an analysis of changing modes of governance. In: *Public Administration*, 76 (2), 313-  
42 333.  
43  
44  
45  
46  
47 Marques, E. 2012, Public policies, power and social networks in Brazilian urban policies.  
48 *Latin American Research Review* 47 (2).  
49  
50  
51  
52 Marques, E. 2017, A rede dos gestores locais em São Paulo. *Dados*, Vol. 60 (2), p. 437-  
53 472.  
54  
55  
56  
57 Marques, E. 2021, *The politics of incremental progressivism: urban policy changes in*  
58 *São Paulo*. Oxford: Wiley-Blackwell.  
59  
60

- 1  
2  
3 Mills, C. 1956, *The power elite*. Oxford: Oxford University Press.  
4  
5  
6 Mouritzed, P. and Svara, J. 2002, *Leadership at the apex: politicians and administrators*  
7  
8 *in Western local governments*. Pittsburgh: University of Pittsburgh Press.  
9  
10 Pasotti, E. 2010. *Political branding in cities: the decline of machine politics in Bogotá,*  
11  
12 *Naples, and Chicago*. Cambridge: Cambridge University Press.  
13  
14 Pierre, J. 2011, *The politics of urban governance*. Londres, Palgrave/McMillan.  
15  
16 Pierre, J. and Peters, G. 2012, Urban governance. In: Mossberger, K.; Clarke, S. and John,  
17  
18 P. ed. Oxford handbook of urban politics. Oxford: Oxford University Press.  
19  
20 Rhodes, R. 1996, The new governance: governing without government, *Political Studies*,  
21  
22 Vol. 44 p. 652-667.  
23  
24  
25 Sellers, J. 2019, From Within to Between Nations: Subnational Comparison across  
26  
27 Borders. *Perspectives on Politics*, Vol. 17 (1), 85–105.  
28  
29  
30 Torfing, J. 2012, Networked governance. In: Levi-Faur, D. ed. *The Oxford Handbook of*  
31  
32 *Governance*. Oxford: Oxford University Press.  
33  
34  
35 Ugalde, V. and Le Galès, P. (eds.) 2017, *¿Que se Gobierna? El caso de la ciudad de*  
36  
37 *Mexico*. Mexico: Colegio de Mexico.  
38  
39  
40 Verhoest, K., Bouckaert, G. and Peters, B. 2007, Specialization and Coordination in Four  
41  
42 OECD Countries in the Period 1980—2005. *International Review of Administrative*  
43  
44 *Sciences*, 73(3), 325–48.  
45  
46  
47 Villadsen, A. 2011, Structural Embeddedness of Political Top Executives as Explanation  
48  
49 of Policy Isomorphism. *Journal of Public Administration Research and Theory*,  
50  
51 Vol. 21 (4): 573–599  
52  
53  
54 Wollman, H. 2004. Urban leadership in German local politics: the rise, role, and  
55  
56 performance of the directly elected (Chief Executive) Mayor. *International*  
57  
58 *Journal of Urban and Regional Research* Vol. 28 (1), 150-65.  
59  
60

1  
2  
3 Yates, D. 1977. *The Ungovernable City: The Politics of Urban Problems and Policy*  
4  
5

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7 <sup>i</sup> Another analytic difficulty was caused by changes in administrative structures and policy responsibilities  
8 over time. In São Paulo, for example, social assistance policies were delivered by Municipal Secretaries for  
9 Family and Welfare, Social Welfare, Social Assistance and Social Development. For our purposes, these  
10 were all considered the same agency, reclassifying them to maintain as much consistency as possible about  
11 who delivered which policy, regardless of their names and apparent functions.

12 <sup>ii</sup> The data came respectively from the “Relação de nomes, cargos e endereços do governo do Estado de  
13 São Paulo”, published every four months by Fundação Seade in São Paulo, the yearly “Bottin administratif”  
14 and the “Bottin des communes” for Paris, and documents published by the Milan Chamber of Commerce  
15 for Milan.

16 <sup>iii</sup> We also analysed the circulation of individuals to other municipalities and to state and federal posts  
17 (elected and not elected), but just to control for their careers in descriptive statistics. These posts were not  
18 included in the network.

19 <sup>iv</sup> <http://observasampa.prefeitura.sp.gov.br/gestao-publica>.

20 <sup>v</sup> A detailed analysis of the São Paulo case can be found in Marques (2017), covering a broader period  
21 (1985-2012), as well as including education, health and social assistance agencies, totalling 2,032  
22 individuals, or 5,042 if we also consider the top three tiers of the government.

23 <sup>vi</sup> Through the article, initials after the acronyms of the political parties indicate their relative ideological  
24 position: thus R, CR, C, CL and L refer, respectively, to right, centre-right, centre, centre-left and left  
25 administrations. These classifications follow common practice in the local literatures.

26 <sup>vii</sup> The Parisian case study builds upon results published earlier, see Barwick and Gross 2019. This article  
27 also contains a complete and detailed account of the methodology and the details per policy sector.

28 <sup>viii</sup> The mayors of the arrondissements, for example, correspond to submayors in São Paulo, two  
29 administrative levels below the mayor, although they have the same name.

30 <sup>ix</sup> She is still the incumbent at the moment of the publication of this article, but the study includes data just  
31 for 2015.

32 <sup>x</sup> Companies include the management of public transport, construction and management of metro lines,  
33 supply and management of water pipes, management of roads, municipal public housing, planning,  
34 management of sports infrastructures, management of pharmacies, provision of foods, and general markets  
35 for food. Housing and metro lines are managed by the same company and are grouped here under the label  
36 Mobility and Infrastructure.

37 <sup>xi</sup> Information came from the Ministry of the Interior (<http://amministratori.interno.it/AmmIndex6.htm>)  
38 while data on education and careers came from CVs available on the internet. Most of this information has  
39 not been used in the present article. For a broader account, see Andreotti 2018 and 2019.

40 <sup>xii</sup> Technically, we started with tables of individualsXposts in agencies under each administration (one  
41 affiliation matrix per city). These were transformed into a table of individualsXagencies-administration  
42 (another affiliation matrix), and later into tables of agencies-administrationXagencies-administration  
43 (connectivity matrix). Finally, Table 1 was built by collapsing agencies of the same administration in both  
44 rows and columns. The latter connectivity matrices (one per city) were used to build the networks to be  
45 analysed (as sociograms and measures) in the next section. All three cities followed this same procedure.

46 <sup>xiii</sup> The cells above the diagonal have been left empty since the matrix is mirrored around the diagonal,  
47 meaning that the upper cells are identical to the lower ones.

48 <sup>xiv</sup> This dimension is strongly influenced by the institutions that regulate appointments and varies  
49 considerably between our three cases. If top positions are associated with fixed terms that match mayoral  
50 terms, for example (as in Milan’s public companies), individuals clearly cannot migrate during the  
51 administration in question. The Parisian case presents intermediate numbers due to the highly consolidated  
52 administrative structure but with a lack of fixed terms for many posts.

53 <sup>xv</sup> Considering the three upper positions of each agency (and not just the two upper tiers of the hierarchy  
54 considered in Table 1 and throughout this article), the total number of posts jumped astronomically from  
55 1,316 to 4,278 during the same period.

56 <sup>xvi</sup> Degree corresponds to the number of connections between one node and other nodes. Density is the  
57 proportion of existing connections divided by those theoretically possible. Centralization compares the  
58 network around the most central nodes with a completely centralized network (like a star in which all the  
59 connections radiate from the centre). All network measures were calculated at Ucinet 6.691 or Gephi 0.09.2  
60 and all sociograms were generated in the latter program.

<sup>xvii</sup> To standardize the analyses, the positions of the nodes in all sociograms were determined by the Gephi  
procedure “Multigraf Force Atlas 2”, subsequently edited to enhance legibility.



<sup>xviii</sup> These are: Urban: transport, housing, infrastructure and works, sub-municipalities, services, urban development, urban control and environment; Political Articulation: cabinet, government, government relations; Administration: finance, legal affairs, budget, audit office; Social: culture, sports, employment and economic development; Others: food supply, security, communication and several others of very short duration, such as support for the organization of the FIFA 2014 World Cup.

<sup>xix</sup> The agencies in these three policy fields have been merged from the following policy sectors: *Administration* – City government, Finance, Information, Legal, Security, Service; *Social policies* – Culture, Education, Health, Sports, Welfare; *Urban policies* – Environment, Habitation, Infrastructure, Transport, Urban development.

<sup>xx</sup> To obtain the different sociograms, we began with the connectivity matrices of Agency-administrationXAgency-administration, as described in Footnote 10, to create undirected graphs where the nodes are specific organizations, territorial levels or policy areas, and the weighted edges (or links) are the number of persons connecting them.

<sup>xxi</sup> Pharmaceutics refers to the management of Pharmacies. The original idea was to ensure that pharmacies were equally distributed within the municipal boundaries.

<sup>xxii</sup> The labels on the graph read as follows: A1 = Albertini I; A2 = Albertini II, M = Moratti and P = Pisapia.

Table 1 Agencies in the three tiers of government

Arrondissement	City of Paris	Region Île de France
Town halls	Town hall	Regional directorates
	Police prefecture	Prefecture
	Directorates	Technical service agencies
	Deconcentrated services of the state administration	

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Table 2. Post occupants common to administrations, São Paulo, 1989-2012 (ideological classifications in capital letters)\*

	Erundina - L	Maluf - R	Pitta- R	Suplicy - L	Serra - CR	Kassab - CR
Luiza Erundina – L	394					
Paulo Maluf – R	25	364				
Celso Pitta – R	9	108	250			
Marta Suplicy – L	15	17	34	344		
José Serra – CR	6	10	12	56	186	
Gilberto Kassab - CR	8	20	22	110	173	520
Total	457	544	435	576	443	853

\* L – left; R – right; CR – centre-right.

Source: Authors' calculations

Table 3: Post occupants common to administrations, Paris, 1995-2015 (ideological classifications in capital letters)\*

	Chirac, CR	Tiberi, CR	Delanoë, L	Delanoë, L	Hidalgo, L
Chirac, CR	32				
Tiberi, CR	381	47			
Delanoë, L	183	341	9		
Delanoë, L	116	180	496	4	
Hidalgo, L	67	111	278	474	19
Total	779	1060	1307	1270	949

\* L – left; CR – centre-right.

Source: Authors' calculations

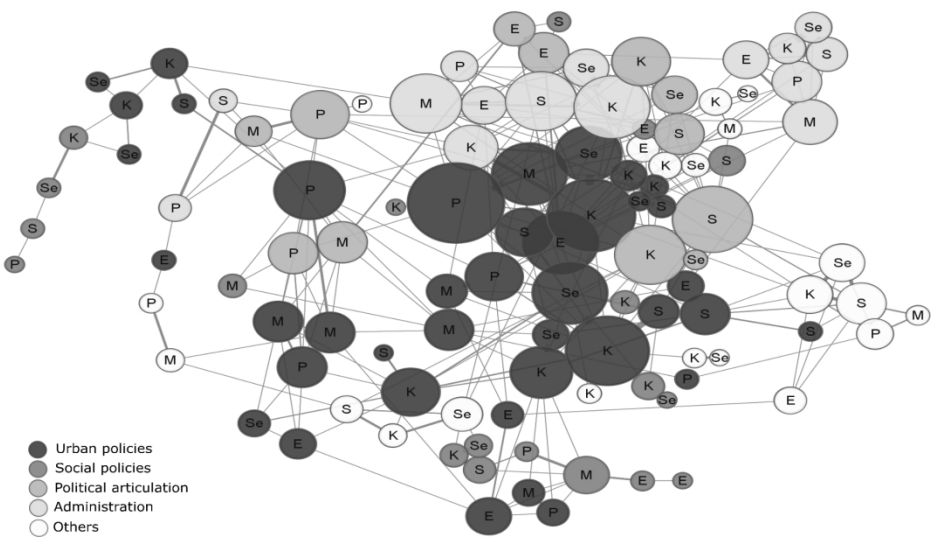
Table 4. Post occupants common to administrations, Milan, 1997-2015 (ideological classifications in capital letters)\*

	Albertini I (CR)	Albertini II (CR)	Moratti (CR)	Pisapia (CL)
Albertini I (CR)	0			
Albertini II (CR)	69	3		
Moratti (CR)	18	89	7	
Pisapia (CL)	7	19	118	16
Total	94	180	232	160

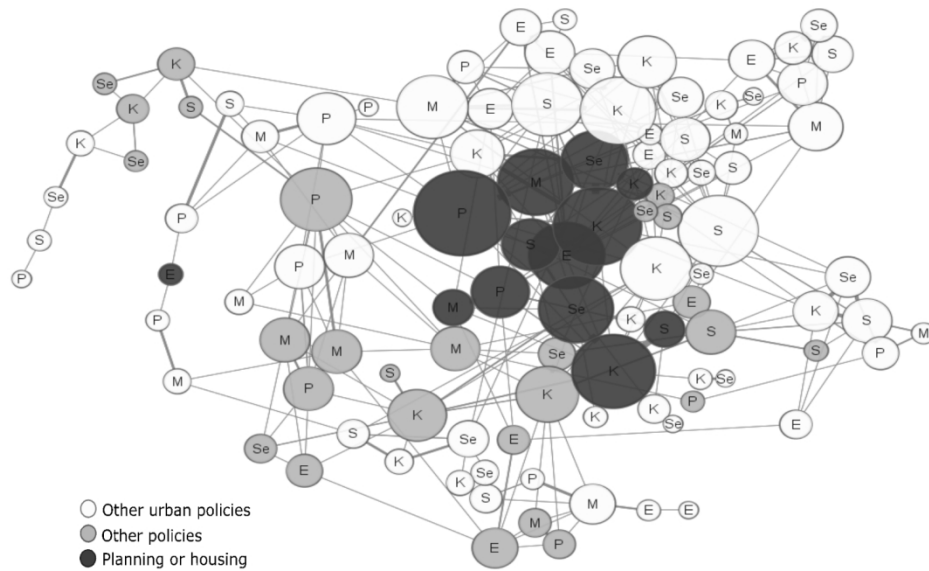
\* CL – centre-left; CR – centre-right.

Source: Authors' calculations.

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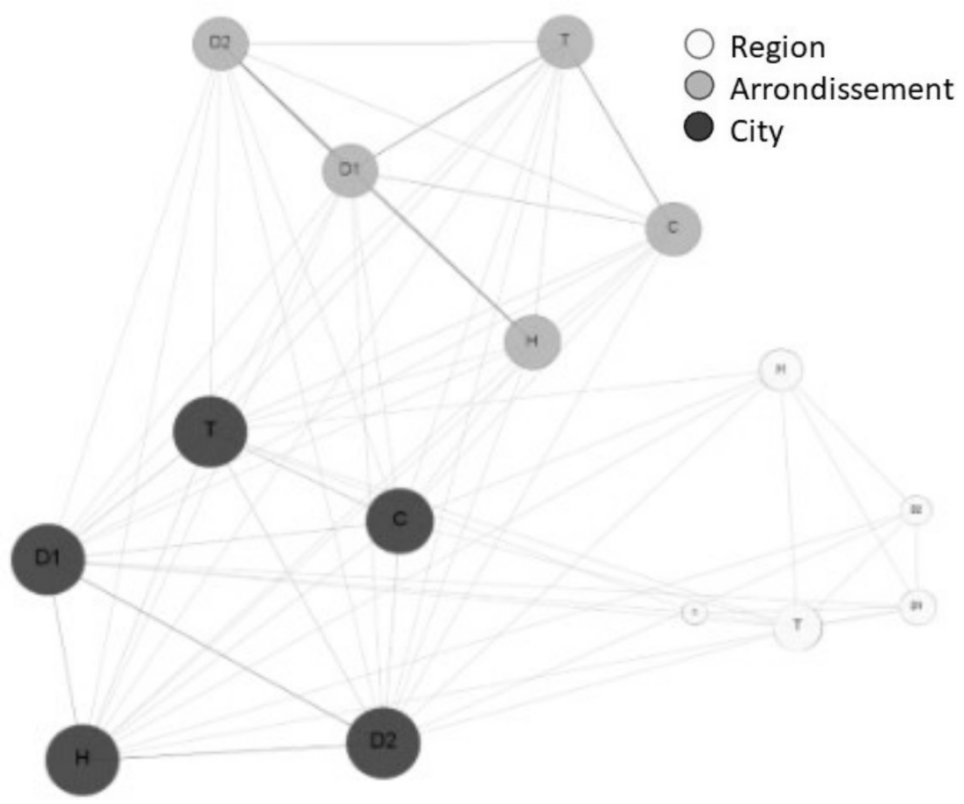


Sociogram 1. Network of agency-administration and policy types, São Paulo, 1989-2012 (node size proportional to degrees, letters designate administrations)



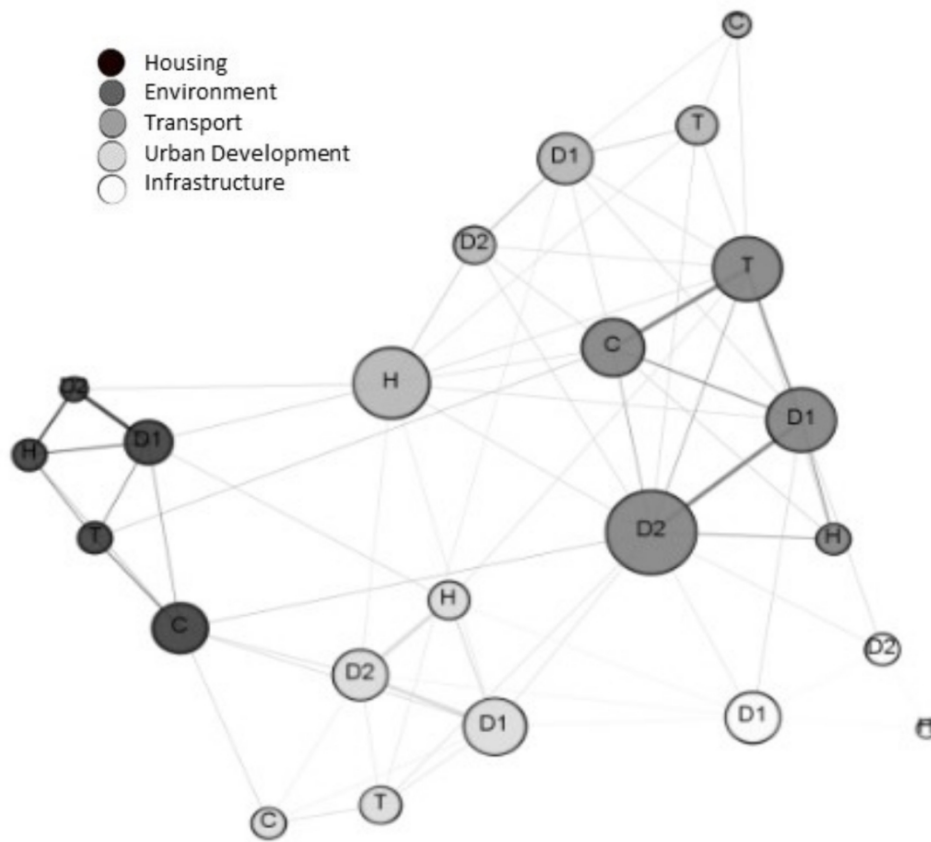
Sociogram 2. Urban agencies, São Paulo, 1989-2012 (node sizes proportional to degrees, letters designate administrations)

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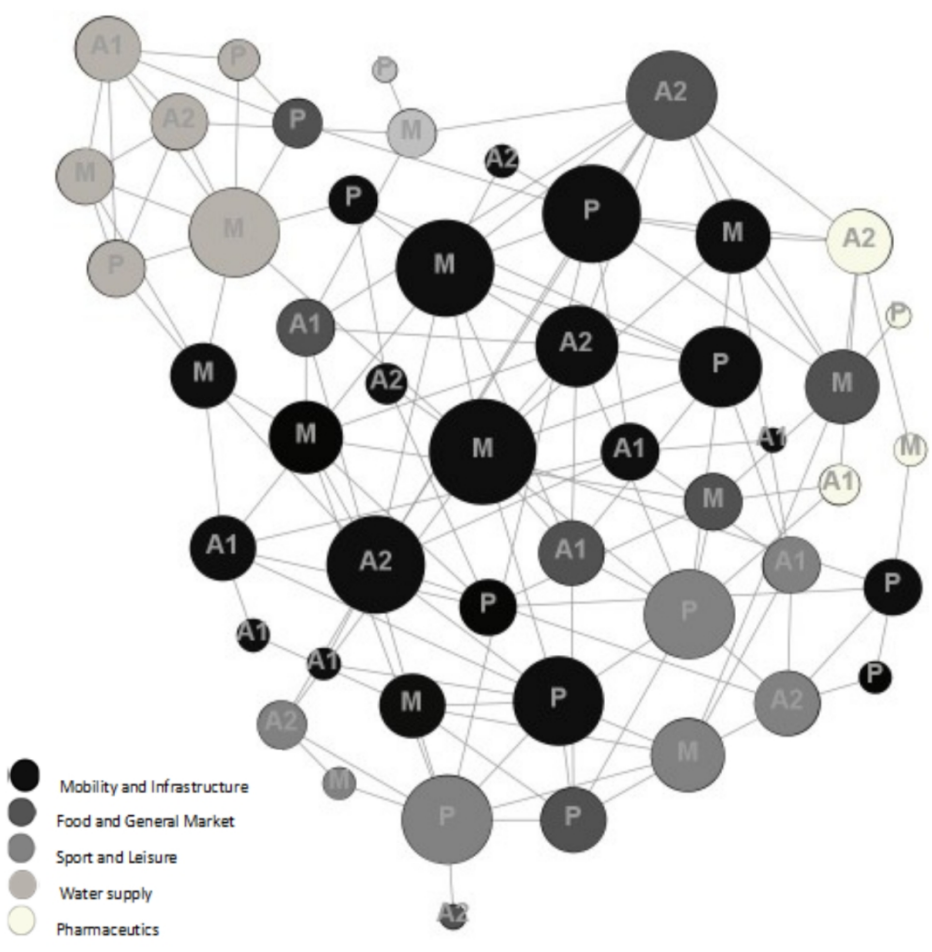
Sociogram 3: Links between the organizations at local, city and regional levels, Paris, 1995-2015 (node sizes proportional to degrees, letters designate administrations)





Sociogram 4. Agencies from the urban area, Paris, 1995-2015 (node sizes proportional to degrees, letters designate administrations)

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Sociogram 5. Network of agencies-administrations and policy types, Milan, 1997-2015 (node sizes proportional to degrees, letters designate administrations)