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Building Regulatory Bodies in the Brazilian States

By

Adam Joseph Cohon

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Political Science

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor David Collier, Co-Chair
Professor Alison Post, Co-Chair
Professor Steven Vogel
Professor Christopher Ansell
Professor Anne Joseph O'Connell

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Abstract

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Professors David Collier and Alison Post, Co-Chairs

Why do some bureaucratic bodies become robust after they are created, with adequate resources and authority to perform their tasks, while others remain underfunded and limited in scope? My dissertation explores this question using multisector regulatory agencies in Brazil. Before, during, and after the development of concessions and transfer of essential services to private control in Brazil, state governments created regulatory agencies to maintain an active state role overseeing of service delivery. Though regulatory agencies followed very similar formal outlines, their post-creation development varied widely. I explain this variation.

My arguments are based in political principals' electoral incentives. I begin with an instrumental explanation of agency creation. Governors created regulatory agencies to address a combination of consumer and concessionaire anxiety where they were unable to otherwise make long-term commitments to prevent abusive price increases or expropriation. I then argue that post-creation development was most pronounced where multisector bodies focused most heavily on work in electrical energy, sanitation, and piped natural gas distribution. Mayors and city councilmembers can claim credit for service improvements in these policy areas because these services are geographically bounded. By contrast, work in intercity highways and transportation provides few opportunities for improvement for which local officials can claim credit. Agencies focused on these second set of issues do not develop a positive reputation with mayors. Governors in turn care about mayors' opinions, and receive credible information about bureaucratic work from them, because mayors' support is key in future statewide elections. Agency leaders who employ their positive reputation to successfully lobby for more resources and authority produce robust agencies.

I explore this argument in multiple areas. First, I explain the workings of the proposed causal mechanism through a comparison between the agency Agergs in moderately well-developed state of Rio Grande do Sul and the agency Arce in the less-developed state of Ceará. Agergs's early focus on highway and transportation regulation meant that it grew far less robust by 2010 than did Arce, which focused on electricity and sanitation. I then test hypotheses across the case universe using descriptive statistics and causal process-tracing. I expand the argument slightly to examine sectoral agencies in São Paulo and Rio de Janeiro, and hypothesize how different political institutions might affect subnational regulatory body development in Argentina and Mexico, the next-largest Latin American federations.

My work contributes to our understanding of the functioning of the regulatory state in the global South. I raise new important questions about local state capacity in developing countries, and propose an explanation that can be transferred to multiple cases.

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I am unable to sufficiently thank and acknowledge the help I have received in bringing this project together. Below is my brief attempt to demonstrate my oversized gratitude.

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I dedicate this project to my parents and grandparents. In writing this project far from its intellectual home in the Bay Area, I needed a source of finance. I turned to a collection of old savings bonds, deposited for me in my childhood. I was taken aback that every adult who contributed gave so selflessly that I might have a chance to learn and go farther. My grandparents believed so strongly in the value of education as a road forward, despite having limited formal education themselves. My parents instilled the idea that there was nothing more important than to keep learning and to teach others. I am only where I am, and this project is complete, because of their love.

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Chapter 1: Introduction

In this project, I explain why regulatory organizations diverge after they are created. Some bodies become robust, with adequate resources and authority to handle the tasks assigned to them by law and delegation. Other bodies are staffed, but are underfunded and inactive in enforcing the institutions for which they are created. Scholars lack an explanation of this divergence.

Two examples drawn from the case universe of Brazilian state regulatory agencies illustrate this post-creation variation. Governors in the Brazilian states of Mato Grosso and Bahia both created regulatory institutions to oversee newly created concessions after neoliberal reforms in the 1990s. Mato Grosso Governor Dante Martins de Oliveira created the multisector regulatory agency Ager-MT in January 1999 to oversee the privatized energy company Cemat, the state water and sanitation company Sanemat whose physical plant had been returned to municipalities, and other public services. Bahia Governor Paulo Souto created the multisector agency Agerba in May 1998 to oversee similar companies and services in Bahia. By the end of the period under study, Ager-MT was active and well-funded while Agerba was less than fully active and under-funded.

By 2010, Ager-MT in Mato Grosso was more active and better funded than its counterpart in Agerba in Bahia was. Ager-MT had successfully overseen the re-concessioning of bus lines in Mato Grosso over the opposition of bus companies, in accordance with a 1995 federal law.[1] Two-thirds of its staff had entered via a competitive public service examination and thus had stability in their position. The agency scheduled another public examination for 2010.[2] Its work in energy distribution regulation had won it expanded authority over isolated and generation energy systems in the state.[3] By contrast, Agerba in 2010 had lost its cooperation agreement with the federal energy regulator Aneel for its lack of independence, and thus played no role in energy regulation. It had no permanent staff, and had never conducted a competitive public examination for staffers. The position of Executive Director at Agerba saw high turnover, with multiple directors resigning in disgrace.[4]

This divergence in outcomes affected public services. First, both agencies had delegation agreements with the federal energy regulator Aneel to oversee energy distributors. In 2000, energy supply in Mato Grosso, provided by the privatized Cemat, was interrupted on average 39.8 times per year, for an average outage of 29.22 hours. By 2010, these averages dropped: energy is still interrupted 21.9 times each year for an average outage of 28.7 hours. By contrast, in Bahia from 2000 to 2010 the privatized energy distributor Coelba went from 10.7 to 11.2

[1] Interview MT4; Simone Alves, "Governo extinge concessões a 129 empresas de transporte," *RD News* (Cuiabá), 25 March 2010, http://www.rdnews.com.br/noticia/governo-extingue-concessoes-a-129-empresas-de-transporte.
[2] Public service examination data are from Ager-MT staff responses to a mail survey I conducted in December 2011. A judicial affairs staff member completed the survey on April 7, 2011.
[3] Interview MT1.
[4] Camalibe de Freitas Cajazeira (2003-2007) was later under investigation for taking bribes, but no charges were filed ("Agerba e TWB têm contas investigadas pelo TCE" *Bahia Notícias*, 12 April 2010). Antonio Lomanto Netto (January 2007-Sept 2009) was arrested in 2009 for taking R$400,000 in bribes in exchange for letting illegal concessions proceed ("Ministério Público pede a Agerba que cancele contratos irregulares," *Correio da Bahia*, 25 November 2009). Aristides Amorim de Cerqueira (September 2009-March 2010) and Renato José de Andrade Neto (March 2010-February 2011) did not serve full terms after public demands for their removal.

interruptions per year and the average duration of each outage increased from 22.8 hours to 26.6 hours.[5] Though energy provision remains lower quality in Mato Grosso, electricity service quality improved under Ager-MT's oversight while it worsened under Agerba's oversight in Bahia. Second, while Ager-MT's bus line concessions provided greater transparency, safety, and certainty for bus users, Agerba's subpar oversight of transportation allowed companies to maintain capital city ferry concessions despite boats left adrift, passengers stranded, and the use of aged, unapproved boats. [6]

In this project I explain why some developing world bureaucratic bodies are able to expand their resources and authority while others are not. I focus specifically on regulatory agencies at the state level in Brazil. These organizations play central roles in the transformation of the relationship between states and markets after neoliberal reforms. Though much scholarship addresses variation in delegation and creation in the regulatory state, we know little about how the organizations that comprise the state develop after creation. Employing the "subnational method" also allows me to explore varying outcomes across a relatively homogeneous set of formal institutions (Snyder 2001).

This work contributes to a larger literature about capacity-building in developing countries. Scholars of comparative politics have studied the neoliberal reforms that changed the role of the state during and after the 1990s. New organizational forms like regulatory agencies, which took form in the developed West and have come to form a "regulatory state" since then, were adopted by developing countries with histories of low bureaucratic capacity. Governments established concessions for basic services and set formal institutions to guide the relationship between state actors and new concessionaires. Regulatory agencies assumed a role enforcing these institutions, and confronted the fundamental dilemma of informational asymmetry that is central to regulation. In brief, regulatory agencies had to learn about concessionaire activities, in order to perhaps modify or punish any statutory violations. Doing so required a minimal level of staff and resources, as well as authority to act in various ways. While scholars have documented various explanations for the development of these new institutions and the creation of these agencies, they have neglected the question of how regulatory agencies become capable.

My explanation is based on electoral incentives. In doing so, I make two reasonable assumptions. First, I assume that state governors hope to be re-elected or elected to future office. In doing so, I rely on an "electoral connection" similar to that of Mayhew (1974). I borrow scholarly work that finds that Brazilian statewide candidates seeking re-election rely on local elected officials and important party leaders to persuade voters or otherwise deliver votes. Second, I assume that local officials get elected by credit-claiming for service improvements in their bailiwicks, and that mayors and city councilmembers are better able to claim credit for services that impact residents' lives in their residence or place of work. By contrast, mayors are less likely to claim credit for, and thus likely to be interested in, public services that residents consume as they move among multiple locations. My argument would be undermined if governors did not seek further election or if local officials claim credit for services that are largely outside their cities.

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[5] All numbers are taken from the website of the Agência Nacional de Energia Elétrica [Aneel], the federal energy regulator.

[6] Thiago Pereira, "Agerba multa e notifica a TWB por aluguel não autorizado do ferry `Ivete Sangalo,'" *Tribuna da Bahia*, 18 December 2009; José Marques, "População à deriva: Multas, infrações, filas imensas e muitas reclamações marcam o service prestado pela TWB," *Agência Oposição* (Salvador), 5 December 2010.

I develop this theory further in the next chapter. I first identify gaps in the literature on public administration in developing countries and in the study of bureaucratic autonomy. I highlight my two outcome variables, level of activity and level of resources, as key inputs in bureaucratic development and bureaucratic autonomy. I then develop a novel theory of agency robustness, based on a deep understanding of agency functions and politics within the Brazilian federation. My theory emphasizes the incentives that key actors – governors, mayors, and bureaucratic leaders – face and how they react. I locate the determinants of my key causal variable, initial agency orientation, in exogenous factors and describe how decisions over how to orient the agency with regards to policy area focus shapes the electoral value of regulatory work. I connect this work to the agency's leverage in making appeals to the key state political principal, the governor, for additional resources and responsibilities. I discuss the application of my theory to Brazilian state regulatory agencies operating from 1997 to 2010.

In the third chapter, I provide background on the creation of private concessions and regulatory agencies in Brazil. I discuss the exhaustion of the developmental state and the resulting privatization of multiple state-owned enterprises at both the federal and state level. After identifying the intellectual origins of the regulatory state in Latin America and in Brazil, I discuss the process by which governors came to create agencies.

The fourth chapter discusses agency creation. I demonstrate that explanations based in political competition and diffusion processes fail to explain the creation of Brazilian state agencies, and instead develop an original instrumental explanation for agency creation. Governors faced a dual dilemma once state-owned firms were sold to private concessionaires. They feared that voters might revolt against higher prices and lower quality, and they feared that concessionaires would fail to make needed investments because the latter anticipated expropriation. Both fears had historic support. To solve this double dilemma, governors seized upon regulatory agencies as a solution. They created agencies to address both consumer and concessionaire anxiety. I test hypotheses derived from this theory using all cases.

Chapter five returns to the original theory and illustrates the causal mechanism using in-depth case studies of the regulatory agency Agergs in Rio Grande do Sul and its counterpart Arce in Ceará. I make a case for the comparability of the two cases, and note the interesting result that Arce from the less developed state has greater levels of resources and authority than does the agency from the richer state. I outline how Agergs focused heavily on transportation and highway regulation while Arce focused on energy and water and sanitation, and show that the former agency became embroiled in conflict and never developed a reputation for electoral usefulness, while Arce developed a positive reputation for electoral usefulness. I show how each agency then employed this reputation (or did not) to win additional resources and greater authority.

In the sixth chapter, the hypotheses on agency robustness across states in Brazil are tested. Given the size of the sample and data scarcity, I rely on a medium-N approach, using descriptive statistics and taking measures of intermediate outcomes along the causal chain. I employ agency documents, contemporary news accounts, notes from interviews I conducted in the academic year 2009-2010, and an original mail survey I conducted in December 2010. I provide supplemental case studies for two agencies whose leaders did not respond to the survey.

In the seventh chapter I explore how the theory might be modified to explain subnational public service oversight bodies outside of the Brazilian states. I first adapt the theory to explain variation in outcomes for sector-specific agencies in Rio de Janeiro and São Paulo, and use brief case studies to demonstrate that water and sanitation agencies grew in resources and authority to

a greater extent than did transportation agencies in the same state. I highlight the difference in outcomes between agencies regulating similar sectors, and attribute it to the degree and efficacy of regulatory work. I then show how Argentine and Mexican politics differ from Brazilian politics, and how these differences lead me to modify the theory further. Using the core of my previous work, I argue that regulatory bodies develop leverage to win greater resources and authority when they perform electorally useful work. The definition of electoral usefulness depends greatly on political actor incentives, which I discuss. I provide a brief background of the development of subnational authorities in public services at the provincial or state level in Argentina and Mexico. I conclude with hypotheses for future work.

The eighth chapter concludes my project, highlights its contributions to the literature, and suggests further avenues for research and refinement.

Chapter 2: A Theory of Robust Agency Development

2.1. Puzzle and Motivation

In the developing world, some bureaucratic bodies are active and well-funded while others reach low-activity, low-resource equilibria. Why?

Consider three of the twenty-four regulatory agencies established after infrastructure privatization in Brazilian states in the 1990s. Agergs was created in the middle-upper income state of Rio Grande do Sul on January 9, 1997 by PMDB governor Antônio Britto.[7] Arsep was created one month later in Rio de Janeiro, the third wealthiest state, by governor Marcelo Alencar of the center-right PSDB.[8] A few months later, Governor Tasso Jereissati of the PSDB in the poor state of Ceará, twenty-second out of twenty-seven states in per capita income, created Arce.[9] All agencies were authorized by law to regulate natural gas, inter-city transportation, and sanitation. The three agencies operated under the same national legal system, with equal guarantees of formal independence from the executive branch. Despite these common backgrounds, by 2010 these agencies varied drastically in their authority and resources and thus in how they carried out their similar legal mandate. Arce, from the poorest state of the three, had highly-educated employees earning salaries at the top public sector limit, and enjoyed national and international prestige for its pioneering work in sanitation and transportation. Agergs enjoyed auspicious beginnings, with a public service examination in December 1998 allowing the entry of qualified personnel and active work on energy, highways, and transportation (Interview RS2). By 2010, however, Agergs salaries had not been adjusted since the late 1990s, which produced high turnover and low capacity. Agergs, unlike Arce, had not won the ability to directly levy fines and had to rely on the state public prosecutor (*Ministério Público Estadual*) to punish statutory violations. Finally, Arsep in Rio de Janeiro saw its first staff members dismissed by the subsequent governor, populist Anthony Garotinho (PDT/PSB), before being re-constituted and then split into two agencies in 2005.[10] The new transportation agency earned a reputation as a hive for political loyalists, dependent on external funding and with few achievements, while the new water and gas agency received the bulk of funding and acclaim for its work in policing concessionaires.

The experience of these three Brazilian state agencies speaks to a broader debate on the role of the state after neoliberal market reforms. All of the agencies regulate firms transferred from state to private control shortly before or after agency creation, as well as public firms. Regulatory agencies were created to maintain state control and public accountability over private

[7] The Brazilian Democratic Movement Party (PMDB) is a catch-all party that is nationally centrist but center-right in Rio Grande do Sul.

[8] The Brazilian Social Democratic Party (PSDB) is the main center-right party in Brazil, which controlled the presidency from 1995 to 2002.

[9] Agergs (the Delegated Public Services Regulatory Agency of Rio Grande do Sul) was established by Law 10931 on January 9, 1997. Arsep (the Public Services Regulatory Agency of Rio de Janeiro) was created by Law 2686 on February 13, 1997. Arce (the Delegated Public Services Regulatory Agency of Ceará) was founded by Law 12786, signed on December 30, 1997.

[10] In 1999 Garotinho (from the left-wing Democratic Labor Party, and later the left-wing Brazilian Socialist Party) dismissed all agency staff but could not legally dismiss the agency leadership. The agency directors, realizing that little work could be accomplished without staff but that fighting the governor was futile, resigned together. Garotinho appointed his own directors shortly afterward, and his wife, who succeeded him in office, passed Law 4556 of June 6, 2005 splitting Arsep into a transportation agency and an energy, gas, and sanitation agency (Interviews RJ2, RJ4, RJ7).

operators and were designed following international best practices. This international model suggests that robust organizations are those with strong ties to civil society actors and an ability to enforce laws and punish concessionaire malfeasance (Stern 1997: 72-74; OECD 2008:13-14). The record on the model's implementation is mixed. In practice, many underfunded and ineffective regulatory state bodies may provide little public control over private firms in monopolist and near-monopolist markets, allowing for abuses.[11] Other agencies did become robust actors capable of overcoming informational asymmetries and effectively disciplining concessionaire behavior. Why does this variation occur? To date, scholars know little about why bureaucratic bodies do or do not become effective enforcers of formal institutions.[12]

I develop a theory for different levels of resources and authority among regulatory agencies in the Brazilian states from 1997 to 2010. These bodies were chosen both for their diversity in outcomes (state agencies range from well-funded to underfunded, and from active to almost inactive) amid very similar formal institutions and uniform national political institutions, and for the low probability that any one of them might be a successful case. Business groups and politicians are more organized than are consumers in Brazil. Thus the possibilities for regulatory capture are high. National and state regulatory regimes are the product of state reform and the privatization of public services, rather than of any organized grassroots movement for change. Without active support from invested civil society actors, according to the existing literature, professional and active regulatory agencies are unlikely.[13] Agencies in Brazil also cannot interact and form relationships with co-equal political principals, hypothetically balancing opposition from one with support from the other. Instead, state governments are dominated by a single executive with extensive powers over state administration and the state budget (Abrucio 1998b). These governors face minimal opposition from legislatures relatively bereft of capacity, with fractured geographical bases of support, and little technical capacity (Desposato 2001: Ch. 2, 4; Ames 1995:409-412). Governors have extensive abilities to, at any point, undertake administrative reorganizations and to hire and fire most public sector workers.[14] Given these institutions, we might expect agencies, which consume dear state resources, to be even less likely to develop high capacity and extensive powers. Yet diverse outcomes occur.

2.2. Existing Work on Regulatory Bodies and Brazilian Politics

I provide a unique argument to explain diversity in agency resources and authority. In general terms, I argue that executives care mainly about the opinions and support of subnational

[11] In other work I measure the consumer welfare benefit to having a state agency in electrical energy distribution (Cohon 2011). Energy is the most homogenous sector across states. I find no effect, but this work is ongoing. On problems with ineffective regulation, see, e.g., Ana Carolina Barbosa, "Águas do Amazonas não paga multa e vai para Dívida Ativa," *A Crítica* (Manaus), 16 September 2011; Clarissa Pacheco, "Ferryboat Ivete Sangalo fica à deriva na Baía de Todos-os-Santos," *A Tarde* (Salvador), 19 April 2011.

[12] Instead, scholars have studied how informal institutions substitute for formal procedures, or how other bodies take over the tasks assigned to their less-effective peers (Helmke and Levitsky, eds., 2006, McAllister et al. 2010, Taylor and Buranelli 2007).

[13] By contrast, regulatory agencies in the United States frequently emerged out of a movement filled with consumers and concessionaires seeking protection from each other. See, for example, Troesken (1996) on the gas industry in Illinois. While I find no active consumer movements around state-level public services, Rhodes (2005) documents the rise of *national* consumer defense groups formed in response to telecommunications privatization in Latin America.

[14] *Concursado* public workers in Brazil enter service by scoring highest on specialized public service examinations known as *concursos*. They form a special class and cannot be fired without just cause.

or national actors valuable to the executive for future elections.[15] These potential electoral allies in turn value regulatory activity in areas in which they can claim credit for policy improvements. Bureaucrats active in the areas most valuable to the executive's potential allies win these allies' endorsement, and thereby win leverage with the executive with which to expand their resources and authority. By contrast, bureaucratic bodies primarily working in policy areas that do not accrue benefits to executive allies have little leverage with political principals. Though they might be autonomous insofar as the governor declines to intervene in or veto their activities, agencies working in non-valuable sectors lack the ability to accrue resources sufficient to exercise effective police power.

In the Brazilian context, agency work in policy areas of immediate political importance to state governors' allies allowed agencies to win greater resources and additional responsibilities over time. State governors depend on federal financing and the support of local elected officials to achieve their goals of successful administration and (ultimately) successful future election or re-election. Agencies won support from mayors – who turn out votes in elections – by working in water and sanitation, electrical energy distribution, and piped natural gas, services with a bounded geographical scope for which mayors could take credit for improvements.[16] Agency directors who produced concrete results in these sectors could then use support from mayors and federal regulators to credibly demonstrate their value to governors, and win more resources and further responsibilities, forming a robust agency. By contrast, agency directors who chose to initially focus heavily on regulating highway and intermunicipal transportation concessions, even those who won conflicts with concessionaires or hostile state actors, provided few concrete benefits to mayors or federal bureaucrats. Agencies passively regulating electorally-valuable sectors and producing few results also won little leverage with mayors. As a result, agency directors were unable to win further responsibilities and additional resources, leaving their agencies in a low-capacity and low-activity state.

In this chapter I first discuss the literature on regulation and Brazilian politics, then outline my argument and outcome, the actors involved, and the proposed causal mechanism. I conclude with a discussion about how agencies' initial decisions over which sectors to address are exogenous to the model.

While scholars from various fields recognize the importance of bureaucratic and regulatory bodies in the developing world, our understanding of why they vary in quality is incomplete. As Carpenter (2010:53-57) notes, beliefs about the qualities of a "good" regulator vary widely. More importantly, however, how agencies develop the organizational features that are necessary preconditions of "good" regulation – especially resources and scope of mandated activity – remains understudied. This section reviews economic, public administration and regulatory capture approaches to the study of bureaucracy. I argue that existing scholarship is of limited applicability to developing world cases.

2.2.1. Economic Theories of Regulatory Activity

Economic scholars of regulation have not studied how agencies become robust actors, though such actors are central organizations in economic models of regulation. Multiple authors

[15] In my model, governors care about the beliefs of mayors and city council officials. More generally, it is possible that executives might also care about the opinions of national or supranational actors (international lenders, presidents, or EU heads, for example) that control valuable resources.

[16] Because federal politicians have limited understanding of and contact with state regulators, they are left out of the theory.

agree that adequate human resources and authority are necessary to producing high-quality regulatory bodies (Stern and Cubbin 2006:117, 133, 2004:3 and cited works therein; Domah, Pollitt and Stern 2002:2-3; Evans and Rauch 1999). Few of these scholars can explain, however, the process by which some agencies are able to acquire (and hold) such personnel or authority. For example, many economic models of regulation assume that an informational asymmetry exists between the agency and concessionaires, and that the agency can expend some effort or possess some amount of expertise that allows it to learn the true state of the world (e.g., Laffont 1994:594-595). Again, how this expertise is acquired is left undiscussed.[17] Finally, many scholars argue that regulators facing single or few firms in a sector are more likely to be "captured" by regulated firms, who can lobby for exemptions or present incorrect information that will not be countered by competing sources (Dal Bó 2006:204-206; Williams and Matheny 1984:430; Peltzman 1976). Multisector agencies will be less susceptible to capture and able to pool their resources across various tasks and sectors (Smith 1997:1; Gönenç, Maher and Nicoletti 2001:63). Such models do not explain why we would see varied outcomes for multi-sector agencies regulating a similar mix of firms.

2.2.2 Public Administration Approaches

Public administration theories of regulatory development are often ill-suited to developing countries such as Brazil. Scholars studying "responsive regulation" patterns in which private regulation (or self-regulation) complements underdeveloped state regulation argue that mobilized activist networks, whether domestic or international, can monitor concessionaire or firm activities (Ayres and Braithwaite 1992; Braithwaite 2006). For example, in labor and environmental law or standard enforcement, international NGOs and multinational corporations interact regularly and activist groups work to learn about regulated firm activities, ready to blow their whistles (Amengual 2009; Rodriguez-Garavito 2005; Pires 2009). However, such "police patrol" groups are still nascent in much of the developing world, especially in countries with histories of corporatist civil society organization or in areas with short histories of grassroots activism (McCubbins and Schwartz 1984).[18] Though we might expect neighborhood groups and other territorially-ordered groups to protest increases in prices for local public services, such groups are not organized to provide long-term monitoring of these concessions, and in many cases they lack the resources to adequately monitor activities absent some central coordination mechanism within the state.[19] For the same reason, models of interest group lobbying and bureaucratic reputation taken from developed world cases are of limited use in understanding how bureaucrats in developing countries develop reputations and leverage over public officials. In such models, regulators are subject to lobbying by opposed interests. Agencies respond to interest group demands and act within policy networks and thereby develop a reputation embedded in interest group beliefs that are communicated to politicians (Mazey and Richardson 2001; Richardson 2000; Downs 1967:Ch. 1). Without lobbying groups for users or other

[17] Econometric models associate regulated sector complexity to more staff, but without a clear causal path between the two (Domah, Pollitt and Stern 2002:10-11).

[18] A number of scholars study the development of civil society in Brazil, and its role in promoting democratic accountability. The current findings are that civil society organizations' role in keeping politicians accountable is still nascent (see, *inter alia*, Wampler and Avritzer 2004:292-293; Avritzer 2009:ch. 2; Friedman and Hochstetler 2002:27-36,; Houtzager and Gurza Lavalle 2010:2-3, and cautionary work by Goldfrank and Schneider 2006).

[19] In interviews, respondents noted that agencies were created as tools to maintain the state's role in ensuring service accountability [in Portuguese, *controle social*] after privatization. Politicians expressed concern about abusive practices that would otherwise have occured without state oversight.

traditionally less-organized groups, it is unclear that this process takes place in middle and low income countries. Regulatory agencies are additionally impeded in following such developed world models insofar as they lack a "natural" constituency. Whereas bureaus enforcing labor standards or environmental standards have clear mandates, the mandate for most regulatory agencies is to seek equidistant balance among the interests of users, concessionaires, and the concession-granting authority,.rather than absolute compliance.[20] Where labor regulators might determine whether or not a firm pays legal wages or meets safety standards, utility regulators seek a less-well-defined goal of appropriate tariff levels. Public administration theories do not predict that these agencies can develop authority and resources without clear standards of performance or competing lobbying by interest groups.

2.2.3 Autonomy and Capture

Political scientists studying bureaucratic organizations have focused on bureaucratic autonomy and regulatory capture. Some scholars studying bureaucratic autonomy emphasize how courts, legislatures, and other elements of the formal institutional environment affect the quality of the regulatory regime (Spiller and Martorell 1996:86; Spiller and Tommasi 2005:521-525; Spiller 1995; Andrés et al. 2008:235-236; Estache and Martimort 1999). Other models of bureaucratic autonomy simply assume that decisions and judgments actors make in one period will bind actors in the next period, which, as Weyland (2004) argues, may not occur in developing countries (cf. de Figueiredo Jr. 2002, Moe 2005:226). How bureaucratic agencies can become capable of managing and controlling low quality regulatory regimes is overlooked. This study returns focus to regulatory agencies as actors and organizations capable of gaining capacity and scope within (or in spite of) their institutional environment.[21] I examine agencies that operate in identical formal political environments, but in which only some agencies remain incapacitated and weak.

2.2.4. Modernization Theory

Simple modernization hypotheses fail; poor states have active and well-funded regulatory agencies while relatively richer states have less active and less well-supplied bodies. An explanation based on varying cross-state bureaucratic capacity would fail for the same reason.[22] Explanations of agency strength or regulatory impact that focus on supporting institutions (e.g., Levy and Spiller 1994; McAllister et al. 2010; Jalilian, Kirkpatrick and Parker 2007; Banerjee, Oetzel, and Ranganathan 2006) also fail, as all of these agencies operate under similar laws governing concessioning, judicial appeals, and state powers. Theories that emphasize initial bureaucratic design (Wood and Bohte 2004; Gilardi 2008) are also insufficient. Though Brazilian

[20] Equidistance among concessionaires, the state, and users is emphasized by multiple sources on regulatory agency development in Brazil. I encountered it, for example, in works by one of the primary authors of Agergs's creation law, by the first director of São Paulo's energy regulator, and in article six of the Arsal (Alagoas) creation law, among numerous other sources (Poli de Figueiredo 1999; Assad 1999; Lei 6267/01 (AL), 20 Sept. 2001, art. 6). This balance among three groups – often graphically represented as an equilateral triangle with the agency at the center in the middle – was one of the main pieces of "cognitively available information" (Weyland 2007:6-7) guiding agency design in Brazilian states.

[21] This focus on the power of agents in a principal-agent relationship has been studied by authors such as Moe (2006) and Ting (2011), but rarely outside the United States.

[22] To my knowledge, no systematic study of Brazilian state bureaucratic capacity or personnel resources exists. The federal Ministry of Planning and World Bank are currently engaged in a process of improving state bureaucratic capacity with the PNAGE program, but results are inconclusive at the moment (for an overview, see Abrucio 2005). Several scholars note that Brazil is a middle-income country, and therefore has the ability to recruit trained technical personnel to assume state regulatory functions (OECD 2008:229-231; Correa et al. 2006: 19) .

agencies varied somewhat in their initial creation laws, post-creation laws have added to or rescinded agency powers and responsibilities. Initial design is not determinant. Gubernatorial turnover could potentially explain the outcomes above, but we lack good theory on how ideology and partisanship shape beliefs about empowering state regulation.[23] Finally, sociological theories that emphasize agencies' immersion in civil society networks would lead us to expect that states with more dense associational life would have better performance.[24] However, using IBGE data on the number of registered civil society organizations in a state in 2005 and 2000 census population numbers, we find that Rio Grande do Sul is far more dense in associations (2938 groups per million residents (gpmr)) than is Ceará (1967 gpmr) or Rio de Janeiro (1852 gpmr) (IGBE 2008, 2000).[25] Agency outcomes do not match this ranking. Though measures of civil society density do not speak to interactions between civil society actors and the state body, or on how active civil society groups are, the measures should lead us to further investigation.III. Key Concepts: Capacity and Activity[26]

The inattention to the development of bureaucratic capacity and activity in the political science literature is striking in that both are key components of bureaucratic autonomy. Bureaucratic autonomy comprises "independent goal formation and the capacity to achieve desired outcomes," which in turn require minimum levels of resources and freedom to act.[27]

To overcome informational asymmetries, an agency needs the ability to learn about the world. Learning about the world, in turn, requires an agency to define most-preferred outcomes and draw up the means to achieve (or best approximate) these outcomes. The means to accomplish these tasks combines a) resources and b) the depth and breadth of the agency's activity.[28] We can conceive of *capacity* and the *level of activity* as prior inputs for autonomy, such that high capacity and high levels of activity help regulators transform *de jure* autonomy from principals into *de facto* autonomy. Yet the study of bureaucratic autonomy lacks explanations of how agencies become capable of resisting encroachment by principals. This gap is particularly pronounced in studies of developing world bureaucracies, where formal institutions often do not restrain politicians' behavior and where dense interest group networks have not yet developed.[29] Without civil society allies, agencies that are formally autonomous are unlikely to develop *de*

[23] A left-leaning populist governor seeking to punish or restrict private market actors may be equally as likely as a right-leaning executive seeking to protect private concessions to transfer resources and responsibilities to an agency.
[24] Evans (1995:45-47) notes, however, that it is possible for state bodies to be too close to civil society and lack autonomy.
[25] The state of Alagoas is the second-least associationally-dense state in the data (831 gpmr) but has an agency with medium authority and resources.
[26] I use the terms "authority" and "activity" interchangeably to denote the range and depth of tasks the agency undertakes.
[27] Caughey, Chatfield, and Cohon (2009:14).
[28] The remaining aspect of bureaucratic autonomy – interest formation – concerns the ways in which agency directors and staff form their preferences over outcomes. I believe that preference formation lies beyond the scope of the study, insofar as preferences are related to the social network ties of appointees and their ongoing relationships with concessionaires and political principals. I assume only that agency directors are focused on career advancement, and thus seek to carry out the agency's mandate and maximize their agency's budget to the extent possible. A greater theory of autonomy from political principals, civil society, and regulated firms remains for future work. *De jure* autonomy for the same set of cases as in this study is covered by Correa et al. (2006, 2008).
[29] By contrast, bureaucrats in developed states are able to "ally" with multiple groups formed of various actors from civil society and elected officials for a variety of ends (Carpenter 2001; Marvel and Resh 2013; Kaufman 1981). For examples in which formal insulation in developed (parliamentary) systems is sufficient to produce real autonomy, see Christensen and Lægreid 2006:207-208.

facto autonomy, according to existing accounts. (We also know little about other tools agencies might employ to resist encroachment.) While this study does not measure autonomy, I provide a theory of alternative allies that regulatory agency directors might cultivate and show how such alliances increase the agency's capacity and authority. My outcomes, I argue, are both theoretical precursors to and elements of *de facto* autonomy.

2.3. A Theory of Agency Robustness

Agency leaders who chose to devote more initial resources to actively regulate water and sanitation, gas, and electrical energy, in that descending order, were able to secure more resources and a higher level of authority at their agencies than did agency leaders who initially focused on highways and intermunicipal transportation, or who only passively regulated water and sanitation, gas, and energy. These decisions on initial agency activity produced different returns for political principals (governors) because of the payoff from public service improvements that regulatory activities produced for actors upon whom the governor depends for his or her future electoral prospects. Specifically, mayors saw greater payoffs to active regulation in the fields of water and sanitation, piped gas, and electrical energy than they did to activities in intermunicipal transportation and highways. By winning support from mayors and federal bureaucrats, agency leaders were able to credibly demonstrate their value to governors. Those directors able to credibly demonstrate their worth to governors leveraged this reputation into greater resources and permission to deepen regulatory activities across policy areas. I elaborate this argument in the following paragraphs.

2.3.1. Creating the Regulatory State in Brazil

Between 1994 and 2002, President Fernando Henrique Cardoso and State Administrative Reform Minister Luiz Carlos Bresser-Pereira undertook a number of reforms designed to substitute a supposedly smaller and more nimble regulatory state for the previous developmental Brazilian state, and end extensive ownership of major enterprises.[30] State-owned firms were sold as concessions to private actors, and regulatory bodies were created to monitor and discipline these new concessionaires. These reforms followed a more global trend toward the regulatory state.[31] At the local level, the majority of Brazil's twenty-seven states and a handful of its 5560 municipalities also divested state-owned assets and created new concessions.[32] Almost all states created a single multisectoral agency to oversee public services where the state government had shared or exclusive jurisdiction.[33]

As I explain in the third chapter in more detail, state agencies were created by executives concerned about the effects of privatization on their future electoral chances. Legislators and

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[30] On this paradigmatic shift, see, e.g., Bresser-Pereira 2003 (chapter 4 in Ross Schneider and Heredia, eds., 2003), 90-91; Bresser-Pereira 2004 (in Biderman and Arvate, orgs., 2005), 11-14. Prof. Bresser-Pereira, an economist, served as Minister of Federal Administration and State Reform in a specially-created ministry of the same name from 1995 to 1998.

[31] See Majone (1997) and Levi-Faur (2006) on the spread of regulatory capitalism and the regulatory state.

[32] Brazil is a federal country with twenty-six states and the federal district of Brasília. Within the states are found over 5500 municipalities, with the exact number changing frequently. Brasília's government and elections function like those of a state, and its population exceeds that of seven states.

[33] The exceptional cases were São Paulo and Rio de Janeiro governments, which created one agency for highways and transportation and another for water and sanitation, gas, and electrical energy. The governor of Paraiba originally created two agencies, the second of which never become functional. After 2007, the governments of Bahia, Espírito Santo, and Santa Catarina created separate water and sanitation agencies instead of delegating these regulatory responsibilities to their existing state agencies. I consider this reluctance to grant further responsibilities a negative mark on the first agencies' allocated level of activity.

interest groups played little role in establishing agencies, and lacked the expertise or resources to affect the final legislation.[34] Executive branch staff borrowed ideas and models for their agencies from the previous experiences of Chile, Argentina, and the United States.[35] As a result, agencies differed only slightly in their leadership structure, the veto powers of directors, and the core functions of regulation - information gathering and processing, and decision-making and rule enforcement - remain almost uniform across agencies.[36] The federal energy regulator signed cooperation agreements with the state bodies, leading to even more uniformity.

Though states varied in the extent to which they privatized public infrastructure, state regulatory agencies had roughly equal opportunities to act in each sector. In the electrical energy distribution sector, given the dominant constitutional role of the federal government, state bodies could only engage in inspections and ombudsmen services, leaving standard-setting and economic regulation to the federal National Electical Energy Agency (Aneel). Fines for failure to meet electricity quality standards might be first imposed by the state agency, but were subject to review by Aneel. The federal regulator actively sought state partners and further delegation (Interview DF3). In the sectors of piped gas, highways, and intermunicipal transportation, states have exclusive jurisdiction over both economic and social regulation of the end-user markets.[37] Regulation of intermunicipal transport might be shared with a legacy state body, frequently named DER, DERT, DAER, or DETRAN, which had historically handled both regulation and service provision (mainly road construction and maintenance).[38] Finally, in the area of water and sanitation, concessions are issued by municipal governments, who in the majority of cases historically contracted to a monopolistic state water company (Arretche 1999).[39] State regulators could engage in both social and economic regulation of water companies on behalf of city governments.

2.3.2. Governors as central principals

Governors dominate state politics in Brazil. Abrucio (1998b) calls them the "barons of the [Brazilian] federation," noting that they control sufficient patronage, expertise, and other resources to dominate the legislative and judicial branches in their states. First, governors have extensive powers of appointment in the state bureaucracy. Many appointments – called *cargos de confiança* or "trusted positions" – are given to political operatives, both former campaign

[34] Interviews RJ1, PA7, RS5, BA4.

[35] Multiple interviewees involved in drafting legislation explicitly stated that both North American and local models were used as examples; some interviewees attended courses on agency design offered by the University of Florida's Public Utility Research Center (Interviews RS5, PA3, RJ1). A collaborative team led by the British consulting firm Maxwell Stamp designed ARCE for the state government of Ceará, with multiple references to European and US examples (Sabóia 2007:100).

[36] Agencies' organizational structure and powers were often reshaped by subsequent laws or executive decrees, and many agencies experienced post-creation modifications (see, e.g., Lei Complementar 1025, Dec. 7, 2007 (São Paulo); Lei 11863, 16 Dec. 2002 (Rio Grande do Sul), Lei Complementar 175, Jun. 24, 2004 (Mato Grosso); Lei 6705, April 4, 2006 (Alagoas)).

[37] Gas production and transportation are under federal jurisdiction; states are free to set policy for gas *distribution* only (beyond the city gate).

[38] The acronyms represent the Department of Roads and Pavement, or of Highways, or of Buildings and Highways (DER), the Department of Roads and Transport (DERT), the Autonomous Department of Highways (DAER), or the State Department of Transit (DETRAN). The label varies unsystematically by state.

[39] These contracts were legally precarious, having expired or been lost in many jurisdictions. The legal responsibility for concession-granting also was uncertain and pending before the courts until late 2004, and not set in law until 2007.

staffers and elected officials from allied parties to win support. Governors can normally hire and fire staffers serving in *cargos de confiança* with few repercussions.[40] Governors also hold various vetoes and the means to release budgeted funds to constituencies and regions that are important to the re-election prospects of state deputies and mayors.[41] Governors are elected from a defined district, while deputies have nebulous support bases and no single defined district.[42] Finally, governors control appointments even to state oversight bodies, where directors serve life terms.[43] Governors' control over state politics, however, is not absolute. Political machines run by bosses did exist in some less-developed states, but their power waned with neoliberal reforms.[44] By the end of the period under study, even the longest-lasting machines had been defeated at least once.[45] These states are largely peripheral to my study, as few developed regulatory agencies.

The state legislature is the weaker, disadvantaged branch. State deputies lack professionalism, resources, solid electoral bases, and the ability to directly transfer funds back to their supporters (without assistance from the executive branch). Their strength relative to the governor varies by state, as Santos et al. (2001) argued in challenge to Abrucio's (1998b) thesis, but nowhere does the power balance reach parity. The authors in the Santos (2001) volume conclude that the state assembly in Rio de Janeiro is *sui generis* in possessing powers almost on par with the governor, and that high party discipline in Rio Grande do Sul complicates some governors' ability to pass legislation (20). In the remaining states studied, the executive dominates the legislature (Santos 2001:289-293). Very few state deputies build a career in the legislature, or develop a specific expertise.[46] There are few career incentives to oversee or investigate the executive branch, and few resources with which to accomplish those activities.[47] Though some state legislatures at times do have the resources to stake out adversarial positions against the governor, these cases are a small minority and achieve few results.

Governors' dominance of state politics makes them the key designer and manager of the state bureaucracy. Governors encounter little opposition in reorganizing the state bureaucracy and creating or extinguishing state bureaus. Legislators usually offer little resistence to these reforms, and few interest groups, if any, lobby for a bureau's funding.[48] Governors also exercise

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[40] *Cargos de confiança* are valuable to all state politicians. Legislators and the governor use such positions to keep political operatives employed between elections. Such posts reward key "electoral captains" [*cabos eleitorais*] with a temporary reliable salary for their campaign work. Certain positions may control the distribution of resources that can be channeled to politicians' base or to expand support. Thus legislators may seek out and use secretarial or sub-secretarial posts for themselves as a means of fortifying a support base for their future electoral prospects.

[41] Samuels 2003:19-20.

[42] State assembly elections have not been as heavily studied as have elections of federal deputies to the Congress, but the feature of amorphous districts is similar for both (see Ames 1995, 2001; Carey and Reinhardt 2004). Both state and federal deputies run in multi-member districts with open-list proportional representation rules.

[43] The 1988 Constitution allows the governor to appoint up to three of seven members and the state assembly to appoint four members (with vacancies), but complicance with these new rules lagged (Melo et al. 2009:1225).

[44] See Borges (2007; 2011) on the decline of state machine politics in Brazil.

[45] The Siqueira Campos machine in Tocantins, the Sarney machine in Maranhão, and the Magalhães machine in Bahia all lost gubernatorial campaigns in 2002 or 2006. See Borges (2011) for an explanation of this phenomenon quite similar to that put forward by Gibson (2005) for Argentina.

[46] Samuels 2003:32-34, Ch.4.

[47] Oversight of executive branch activity in Brazil is largely handled by the Tribunais de Conta, which are run by governors' appointees, and the Ministério Público in the judicial branch, which is more independent. Investigations and prosecutions by both bodies are notoriously slow (Taylor and Buranelli 2007:71-78).

[48] Exceptions exist where interests lobby for greater funding for education and health, and state bureaucratic bodies

an extensive power of the purse over state bodies, deciding how much funds each body will receive and then sometimes releasing funds in fractional amounts.[49] (Tenured state workers are usually paid out of a separate fund, but these funds too can be in arrears.[50]) As states were previously cash-poor, indebted by debt accrued before the onset of the Real Plan (and worsened by the high interest rates of the Real Plan), governors would often restrict funds to only the most crucial projects.[51] After the renegotiation of state debts in 1998 and the Fiscal Responsibility Law of 1999, states continue to be unable to run large deficits and are thus restricted in their spending. State bureaucrats must therefore compete for the governor's attention for the further release of funds and to ensure that their state bureau is not eliminated, curtailed or reorganized.

Agency directors have to regularly lobby to maintain or expand the policy areas and resources under their control. Agency directors have to resist encroachment; in various cases the agency's role was not well-defined and would overlap with tasks previously handled by another state body.[52] Some directors also need to lobby to receive funds to which they are legally entitled, as multiple governors and state secretaries withhold funds.[53] Directors might also lobby the governor for additional funds, for public examinations to bring in more qualified staff, for resources with which to expand their activities, and for help in getting stubborn concessionaires to comply with agency requests. In short, maintaining and increasing activity levels and resources depends on the outcome of requests to the state governor.

Governors judge agency requests for resources and greater scope amid multiple similar requests. Few state governments in Brazil can fully fund all of their (constitutionally-mandated) responsibilities, and thus multiple bureaus make requests for greater funding. No work has explored how governors decide to allocate funds. I assert only two very defensible tenets. Governors will fund projects that aid their future electoral chances. They will decline to fund or expand clearly ineffective programs. Therefore governors will fund state bureaus that demonstrated electoral benefits and technical qualifications over state bureaus with unclear benefits. To receive funds, agencies had to develop a reputation for *competence* and *electoral value*.

Given their position relative to the governor, and their new position in the Brazilian state apparatus, regulatory agency directors have a very limited ability to credibly communicate the value of their tasks. Agency directors compete with other bureaucratic leaders for a finite pool of resources. Governors should expect bureaucratic heads to overstate their importance and need

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implement these policies.

[49] These funds are *contingenciado*, their release made contingent on future revenue availability. The practice is largely due to unexpected changes in tax revenues, but is very common (see, e.g., "Governo de SP congela R$784,7 mil do Orçamento de 2012," *Folha de São Paulo*, Jan. 11, 2012).

[50] For example, state police, who are *concursado*, have launched protests over late salaries ("Oficias da PM alagoana dão ultimato a governador e ameaçam se rebelar," *O Globo*, 23 July 1999, 9).

[51] Alston et al. (2008) study this prioritization at the federal level, and media sources suggest that the same phenomenon occurs at the state level nationwide.

[52] As discussed above, this overlap is most pronounced in transportation regulation.

[53] In practice some states have a *caixa única*, or single register, into which all state receipts including regulatory fees go before they are distributed to state public bodies. Governors control these funds and will often give out only partial amounts. This practice occurs in Rio Grande do Sul, Mato Grosso do Sul, and an unknown number of states (Interviews RS2, MS1, MS7). In response to an interview question of whether the governor might end the agency, a director of the underfunded Mato Grosso do Sul agency replied, "Why should he? This agency is a good business for him" (Interview MS7). In my December 2010 mail survey, ten respondents declined to answer that their agency "receives all the fees due to it" "always."

for funds. Most communications, in game theoretic terms, are uninformative signals. Regulation, unlike other state activities in which direct investment can produce new physical structures and quantifiable results, does not immediately lead to better or easily measureable outcomes for the governor. By contrast, funds sent to other departments can help build new schools and hospitals, pave roads, attract new firms to invest and offer jobs, and provide shorter-term concrete results that governors can highlight in future campaigns. Regulatory agency heads therefore find themselves at a disadvantage in communicating to governors the value of their task and thus their need for more resources. State bureaucrats' opinions are far less important to governors.

Agencies cannot win leverage with the governor by impressing other bureaucrats. State bureaucrats send varying signals to the governor of their own worth and the worth of their peers. Bureaucrats have incentives to misrepresent their needs and worth, both in isolation and relative to peers competing for the same resources. Though some bureaus (but not regulatory agencies) implement policies immediately beneficial to governors' future electoral prospects, their evaluation of peers is inherently unreliable.

2.3.3. The Electoral Link: Mayors

Governors want to be re-elected, or to be elected to future office. Very little research, however, examines how voters select governors, whether on economic or other issues.[54] To achieve future election, governors rely on two sources. First, to turn out votes, governors (and all candidates for statewide office) depend on the support of local elected officials.[55] Both mayors and city council members turn out votes for statewide candidates. Mayors enjoy the support of a plurality of municipal voters, and control city funds and appointments much like executives at the state and federal levels do. Governors may win support even from mayors from opposing parties. Because mayors govern cities that have a large number of responsibilities and few resources with which to address these projects, they depend on transfers from the state and federal governments for additional funds. Mayors will readily cross party lines to win additional resources from the governor. Second, most states are poor and investments in vote-winning infrastructure is expensive. The debt crises of the 1990s and the passage of the Fiscal Responsibility Law of 1999 made state governments depedent on federal funds. Governors depend on cooperation with federal bureaucrats and federal politicians to release funds for their state. They also rely on federal actors for the release of funds from international lending agencies, as the Brazilian Senate must approve all international loan agreements.[56]

Mayors, though they depend on the state and federal governments for financial transfers, are prominent community figures often able to influence citizens' votes in their city. Because mayors control appointments to high-paying municipal posts, they are able to support loyal campaign workers - *cabos eleitorais* or electoral captains – outside of city election periods.[57]

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[54] Samuels (2003:20) posits that governors employ resources distributed through clientelist networks to win support, but these assertions fail to undermine the fact that governors rely on mayors to build networks and the federal government for funds. Though Samuels's work does not explore political careers beyond the governorship, since redemocratization in 1985 many governors have run for seats in the Senate, Presidency, or even Governorship again after leaving office. Singer (2013) provides new evidence that voters rewarded national incumbents in Latin American who presided over economic growth.

[55] See Ames (1994).

[56] Powerful senators can block loan agreements from being approved and deny states funds. Interviewees commented on Sen. José Sarney and Sen. Antônio Carlos Magalhães's delaying in approving international loans to political opponents in Maranhão and Rio Grande do Sul, respectively (Interviews MA2, MA5, RS12).

[57] City and state elections are spaced two years apart. Mayors are secure in office during statewide and national

Avelino et al. (2012) recently used a regression discontinuity design to find that winning mayors boosted the vote for co-partisan statewide candidates for federal deputy and state deputy.[58] They term this effect the "reverse coattail," arguing that "mayors act systematically as `electoral captains' for candidates for federal deputy from their respective parties" (2012:999).[59] The term `reverse coattails' comes from Ames (1994), who found that presidential candidates in 1989 relied on mayors for endorsements and electoral support. Mayors can deploy these lieutenants or use their personal prestige to win votes for an allied candidate in state and federal election years.[60] Amy Smith (2011) uses coarse matching to find that Brazilian voters are intimately familiar with local elected officials, and take their voting cues largely from their social networks, which often include candidates and activists tied to candidates for local office. By this logic, Brazilian voters might follow the opinion of trusted local officials in their vote choice, making these officials' allegiance more important in competitive statewide races.[61] Nicolau (2006) discusses how statewide candidates (open list legislative candidates in his example) organize campaigns by assembling networks of local political figures:

> Those [candidates] with more resources organize a support network in the smaller municipalities or in neighborhoods within the larger cities. Generally the chosen regions are those where the candidate already has some kind of political activity – in the case of incumbent candidates, they are their primary areas of parliamentary activity. Such networks can count on support from local councilmen, mayors, local leaders and candidates to other seats in the same election (mainly State Representatives). Support of local leaders either involves a commitment to support in future local elections, or is a reward for past support (696-670).

While governors have their own campaign staffs, they benefit greatly from any additional help at turning out local votes. For these reasons, governors aim to satisfy mayors and win the latter's support for future campaigns.

Mayors in turn seek recognition for good stewardship. Few scholars have systematically explored how voters choose candidates in local elections. Mayors attach greater value to concrete accomplishments, like new construction projects and delivered goods and services, than they do to projects for which it is difficult to claim credit, or long-term projects with unclear immediate returns. Lavareda and co-authors (2011) survey municipal elections in the twenty-six state capitals, and find the most prominent factor in voters' decisions to be retrospective evaluation of the mayors' tenure (in cases of re-election) with party identification, campaigns, and media strategies mattering far less (296-297).[62] Voters might also rely on mayors for cues on the viability of public programs that deliver public goods, and of candidates making promises

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executive and legislative campaigns.

[58] Elections for governors are not included for data availability reasons; not all parties run candidates for governor.

[59] Electoral captains (*cabo eleitorais*) actively campaign on a candidate's behalf for voters' support by a variety of means, not all of them legitimate. The classic work on *cabos eleitorais* in Brazil is Leal (1975).

[60] Avelino et al. (2012) show that mayors increase the vote share of co-partisan gubernatorial candidates in their cities. The effect for allied but non-copartisan candidates is unknown at present.

[61] In Montero's (2012:12) words, for traditional parties, "clientele networks [in Brazil] are decentralized, with ties delegated to local officials."

[62] They qualify their conclusions by noting that evaluations are often shaped by personal networks that tie voters together and (often) to prominent political figures in the community (Lavareda 2011:297).

about these programs. As Desposato writes regarding poor, low-information Brazilian voters:

> Voters are left with substantial uncertainty about the actual utility of public programs. This will lead risk averse voters to discount uncertain public good payoffs relative [to] highly certain private good payoffs. … Further, even if voters have no uncertainty regarding the nature of specific policy programs and their impact on their own utilities, there remains uncertainty regarding the delivery of the program (2001:31-32).

Where voters expect individual goods from elected officials or where they are unable to evaluate complex public programs with unclear costs, they will most likely follow the lead of trusted local officials in voting for or against state and national officials making promises. Mayors and city council members thus play an information-transmission role for low-information voters.

2.3.4. Regulator Decisions and Activities

Regulatory activities in various policy areas have different payoffs for politicians. Some activities can lead to improvements confined to a space in which a single politician, or set of politicians, can claim credit. Regulation in other policy areas improves (or worsens) user welfare in a nebulous area in which no single politician can credibly claim credit for policy change. The first type of activities is found in industries with fixed, nontransferable assets that are exclusively used by occupants of a bounded territory. For Brazilian mayors, water and sanitation, piped gas, and electrical energy distribution are such sectors. Pipes and wires are fixed, and go to the homes (or collection areas) of a geographically-bounded area (in this case, a city). In the case of sanitation, as the Supreme Federal Tribunal later clarified, the concession for water and sanitation is contracted by the city itself to a state, municipal, or private firm.[63] Gas distribution and energy distribution also take place inside the "city gate," though the concessions for local distributors are handled by the state and federal governments, respectively.[64] City politicians can point to improvements that occur for citizens in their places of home or business, whether in the form of fewer disruptions, higher quality, or lowered tariffs. By contrast, intermunicipal transportation and intercity highways are network industries that serve populations across a number of geographically-bounded units (cities). These resources are non-excludable for citizens who will not vote for the mayor in any given city. As a result, mayors care much more about improvements in the former set of industries (fixed wire and pipe services) than they do about improvements in the latter sectors (inter-city transport networks).

Performance in the chosen policy areas also mattered. Activities alone did not ensure the agency's reputation for competency; the agency had to develop a reputation for good or sufficient technical quality as it regulated electorally useful services. Agencies that focused on the areas valued by mayors and federal bureaucrats needed active and robust regulation to win their audience's appreciation. Given previous underinvestment by state firms, many concessionaires provided low-quality services. Agencies responded by setting the state's first quality standards and guidelines. An agency punishing or actively pushing improvements to poor provision therefore had the opportunity to champion ordinary citizens and their representatives against private or state firms. Companies compelled to invest to meet new quality standards would either improve service or undertake highly visible public works projects to do so. Second,

[63] Supreme Federal Tribunal, ADIn 1842-RJ, first decided April 12, 2004.
[64] Regulation of energy distribution is, as mentioned elsewhere, delegated to state agencies in many cases.

privatization led to tariff increases for services whose prices had been kept artificially low under state ownership. Freezing or halting price increases might raise mayors' opinion of the agency's work.[65] Third, agencies provided greater awareness of user rights. Users and elected officials were largely unaware of what they might demand from concessionaires (Interview CE7). Agency publicity campaigns and contacts gave users a chance to complain and a set of demands that might be made.

Agencies' initial efforts provided numerous opportunities to act in favor of mayors' interests and thus develop a reputation for competency and electoral usefulness. In advance of elections, mayors could employ new standards and new enforcement agents to make demands of concessionaires, lower tariffs, or improve services. They could then claim credit for visible public works, price freezes, or more reliable and higher-quality services such as fewer energy interruptions, higher water pressure or fewer impurities. Mayors' ability to claim credit in geographically-limited services depended on the extent and efficacy of regulators' work in these sectors.

From users' perspectives, both post-privatization energy and toll highways are considered expensive in Brazil. User complaints against any tariff changes other than decreases are frequent (Interviews RS1, RS6, PR1, RJ4; Senna and Michel 2000; Stigger Fernandez 2010). Therefore, agencies focused on transportation and highways – where they did not freeze or lower tariffs – faced criticism from both users and concessionaires. Agency work in electrical energy was less conflictual, except in matters of tariff increases, over which state agencies had no control. Work in sanitation and gas met less public opposition, which diminished the probability that any agency would be criticized for incompetence or overreach.

Governors also care about the opinions of the federal regulator Aneel because the latter manages economic regulation of energy distributors in each state. As such, Aneel staff decide on tariff adjustments for electricity, a controversial topic in Brazil and a key input in state economies. Governors might indirectly find themselves held responsible for electricity price increases given low citizen awareness about Aneel. Though the federal regulator handles economic regulation, in states with Aneel delegation to state agencies, user complaints go to the state agency. Follow-up inspections are conducted by state agency staffers. In sum, Aneel sets tariffs alone, but the blame for tariff increases and poor service is shared. Aneel can also provide reliable information on state agency performance. The federal energy regulator developed elaborate rules to govern task delegation to state agencies.[66] Each year, state agency staff members outline a set of tasks for the coming year, and a proposed budget. Aneel staffers confer with these state workers and negotiate the final annual plan. Money transferred from Aneel to state agencies cannot be used on activities not specified in the plan.

As a result of these relationships, Aneel staff members are the federal bureaucrats best informed about state agency performance.[67] As mentioned above, Aneel staff members preferred that their limited funds be used competently by state agencies.

While governors also depend on federal politicians for discretionary transfers from the

[65] State agencies could not halt energy price increases, given Aneel's exclusive role in economic regulation. In the early years of regulation in Brazil, however, several agencies attempted to freeze prices anyway.
[66] This delegation had been specified in Aneel's creation law, Lei 9247 of Dec. 26, 1996.
[67] Aneel staffers are considered technically qualified and professional, as they have been *concursado* federal employees since 2000 ("Funcionários cedidos por estatais têm futuro distinto nas agências," *O Globo*, Nov. 5, 2000, pg. 12).

federal budget, federal politicians take little notice of state agency work.

E. Agency "life cycles"

Each year, therefore, regulatory agency directors' ability to increase resources and authority depends upon the opinions of its performance held by mayors and federal bureaucrats. Though the agency is observed by multiple audiences, only one audience sends credible evaluations to the governor. Governors care about mayors' preferences. Active work in sanitation, piped natural gas, and electrical energy satisfies mayors, while work in transportation does not. Federal bureaucrats are uniquely credible. However, they focus almost exclusively on the agency's work in energy distribution.

The initial decision to allocate resources among sectors therefore affects the agency's reputation in the view of mayors and federal bureaucrats, which in turn affects agency directors' leverage and probability of success in winning the same or more resources and authority. Initial decisions over regulation are influential but not deterministic. I argue that early decisions constrained later choices and the costs of refocusing agency activities – in theoretical language, of moving to another institutional path (Levi 1997:28). First, early decisions were influential because regulatory activities were novel and staff members needed to make large sunk investments in particular roles. For many sectors, agencies began oversight, inspections, and tariff accounting over firms unaccustomed to such external monitoring. This novelty allowed agencies to force large changes in some cases, or instead generated intense conflict without positive payoffs. In concrete terms, if agency staff could highlight big problems caused by years of underinvestment or neglect, they might generate media attention over their activities and selectively highlighted findings. Alternatively, initial failures to force change or limit tariff increases could mark the agency as ineffective. Second, both directors and lower-level staff members made large sunk investments in training, expertise, and resources in the first years. Staff members specialized within the agency. Roles were assigned and routinized. These investments were costly, and later transitions to other roles would be increasingly costly in line with sector-specific or task-specific expertise.

These interactions among actors repeated over the agency's lifespan. Agency directors returned to the governor and state secretariats under his/her command for resources and new tasks. Initial successes improved agencies' later chances of expanding resources and activity, and initial frustrations led to later frustrations.

2.4. Initial Decisions Over Agency Policy Direction

2.4.1. Explaining Initial Policy Choices

In this section I explain why agency directors were unable to weigh the electoral benefits of their initial choices regarding regulated sectors and anticipate the most rewarding course of action. State agency directors decided the first areas in which they would act and devote resources. While the creation of new concessions required regulators to start activities in some areas, directors retained discretion over the level of resources that might have been spent. These decisions were both constrained and guided by prior experience. As I argue above, these initial decisions had large consequences, primarily for the relationship of the agency to the governor. What, then, explains differences in agency directors' initial sectoral focus?

I argue that state-specific agency features played only a limited role in initial agency orientation. Agencies were also unlikely to target easy sectors first. Instead, directors' personal backgrounds were critical.

Initial choices were only moderately constrained by events in each state. Every state agency with the legal mandate could regulate water and sanitation, electrical energy distribution,

and intermunicipal transportation, but for some agencies setting rules for gas or highways was premature or simply wasteful. Only some states received natural gas supplies or had private highway concessions. State privatization programs also created multiple new actors in some policy areas, which required that a nonzero amount of resources be dedicated to those areas. For example, Governor Marcelo Alencar in Rio de Janeiro created private concessions in metropolitan commuter trains, ferry lines, and subway; the agency he created at the same time was legally obligated to regulate these operators. Agencies vary in their legal mandates, which further constrained or directed initial decisions over resource allocation. Agency creation laws in some states required work in specific policy areas, or narrowed the agency's scope.[68] Despite these constraints, state agency resources are largely fungible among tasks at the initial stage.[69] Agency directors had freedom to appoint or select staff qualified in any area, and devote managerial attention to any area, subject to the above-listed constraints. Directors often came to agencies from other state bureaucratic posts or from recently-privatized firms. They brought trusted, familiar staffers with them, and began work largely in areas in which staffers had technical expertise. These decisions affected the reputations they developed, given sector preferences and unique features of each regulated policy area.

Directors' backgrounds were the primary influence on their initial decision on resource allocation. Agency directors become central actors in representing their agency before various audiences. Directors are selected by the governor in almost all cases, and submitted to review by the state legislature in several states.[70] Directors have been mostly former politicians, former state firm executives, or high-ranking officials from the state bureaucracy. Many directors entered the agency from careers in former state firms or in state secretariats. They drew their first staff members from their previous employers or from pools of trusted former subordinates.[71] As former employees of state firms, both directors and staff had technical training and professional backgrounds that oriented them toward activities in particular fields. Most frequently, former employees of privatized electricity distribution firms, including those who assisted in the privatization transfer, moved into oversight roles in newly-created agencies and began work in energy distribution regulation.[72] Initial decisions therefore were not made with foresight about the electoral value of every policy area. Instead, the practices that directors

[68] For example, Adasa in Brasília and Arsam in Amazonas were created primarily to regulate water resources and sanitation; only the latter has the legal mandate to regulate other markets (and has begun work in transportation).

[69] Funding from Aneel for electrical energy distribution is the exception, as these funds must only be spent on activities in electricity regulation agreed upon by Aneel and the state agency.

[70] In some states, the State Assembly plays no role in filling top regulatory agency positions. Representatives from outside groups are selected by the governor at Agergs in Rio Grande do Sul (Lei Estadual 10,931, 9 Jan. 1997); the governor chooses all directors for ARPB in Paraíba (Lei Estadual 3365, 28 Jun. 2002); the governor picks three officials with at least one internal candidate chosen by the governor's own secretary for Arce in Ceará (Lei Estadual 12,786, 30 Dec. 1997); and for Arcon in Pará, the governor alone chooses the Diretor-Geral and all other Directors (Lei Estadual 6099, 30 Dec. 1997).

[71] As public examinations must be announced in advance and required governor approval, few examinations were held quickly after the agency started operations. Once examinations are offered, top scorers must wait to be notified and called into service. As a result, the fastest time between agency creation and the entry of *concursado* staff was three years in Rio Grande do Sul. (Agergs was created in January 1997, began operations in July 1997, and had its first *concursado Técnicos Superiores* enter in January 2000.)

[72] Energy distribution firms were the most frequently privatized state-level assets in Brazil. Former energy firm executives became initial directors at Arcon in Pará (V. Grunwald), Agergs in Rio Grande do Sul (G.J. Capelleto), CSPE/Arsesp in São Paulo (L.S. Assad), Arce in Ceará (J. Picanço), Arsal in Alagoas (M. Cotrim), and other agencies.

learned from the best existing literature and foreign models and advisors emphasized the need for connections with civil society actors and for maintaining distance from political principals.[73]

Agency directors did not necessarily focus initial work in the least conflictual policy areas. The easiest sectors for regulators were electricity and highway concessions. Electric energy companies are owned by large domestic firms, multinational firms, or the state energy company Eletrobrás. Highway concessions too are owned by domestic private firms.[74] Firms in energy and highways prefer greater transparency and predictability and are amenable to being regulated. Agencies faced the most resistance to regulation from transportation concessionaires, long-established family firms whose licenses to operate are legally precarious. Transportation firms are big donors to state campaigns, and leverage this close relationship with elected officials to stall public bidding and re-concessioning projects, required by federal law since 1995. Such re-concessioning processes might restrict their margins or drive them out of the market (Interviews AL2, RS10, MT12).[75] Transportation firm owners were and are reluctant to disclose company data or comply with tariff limits, and relations between these firms and regulators are adversarial (Interviews MT11, MS1, PA1). Gas and sanitation firms, which include both public and private concessionaires, were intermediate cases of concessionaire resistance to regulation. Sanitation firms are mostly state-owned large monopolies, with some municipal-owned and private operators in other cities. Historic underinvestment and cross-subsidization of tariffs meant that most services were poor-quality but not generally expensive (Turolla 2002:12-18). Regulation of sanitation met limited, varied resistance. Gas firms outside of Rio de Janeiro and São Paulo are all partially owned by the mixed private-public firm Petrobrás; in the two economically-largest states, gas companies were acquired by multinational firms. As gas markets are still developing, prices were rarely a source of contention; most gas consumption is for industrial or energy generation purposes, with vehicular consumption ranked third.[76] All gas firms accept and encourage regulation for greater transparency and predictability (Interview RJ9, BA5). Conflict with gas firms is low.

2.5. Outline of the project

Brazilian state regulatory agencies were created under very similar conditions and began with similar levels of resources and a very similar mandate. The trajectory of each agency, I argue, was determined by the particular benefits that regulatory activities provided for mayors, actors that are able to provide the assets and credible information that governors value. Robust initial action in water and sanitation and energy generated benefits for mayors, who could claim credit for service improvements. Agencies focused on highways and intermunicipal transportation had few concrete means of demonstrating the value of the agency to the governor.

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[73] This decision is best exemplified by various agencies' early use of funds for publicity campaigns and "voluntary users" registration campaigns empowering civilians to monitor and report on concessionaires (Interviews MS5, RS3).

[74] All highway concessions are owned by large domestic construction companies known as *empreiteiras*. Samuels (2002) discusses their central role in financing campaigns.

[75] For example, the fight over new bus concessions has been ongoing for almost four years in the state of Mato Grosso, with the agency Ager a frequent target of concessionaire criticism (see, e.g., Thalita Araujo, "Novo sistema de transporte proposto pela Ager é `inviável,' diz Setromat," *Olhar Direto* (Cuiabá), Feb. 11, 2010; Sabrina Gahyva, "Vandoni rebate as críticas de deputados sobre transporte," *Olhar Direto* (Cuiabá), Dec. 12, 2009.)

[76] By December 2007, Brazil consumed 46,615,000 cubic meters of natural gas daily, of which 53.9% was for industrial purposes, 21.9% for electricity generation, and 15.8% for automotive use. By December 2010, Brazil consumed 52,020,900 cubic meters daily, of which 49.4% was for industrial use, 28.7% for electricity generation, and 11.05% for automotive use (ABEGAS 2007, 2010).

As a result, agencies initial sectoral focus explains whether they were able to expand their authority and level of resources. In later chapters, I use an in-depth paired comparison and a medium-N investigation to examine the theory across multiple cases in Brazil. Before doing so, I turn in the next chapters to questions of why delegation took place.

Chapter 3: Public Service Reforms in the Brazilian States

To understand the development of regulatory organizations in Brazil, it is necessary to understand the institutional and structural environment in which such organizations were created. State executives organized regulatory agencies and developed the bodies' activities amid a large-scale transformation in the role of the state. In some states, enterprises that had been state-owned and financed were transferred to private sector owners. The state, in this new model, was to assume the role of impartial referee, and move away from the developmental role that it had played for over fifty years. This shift, however, was uneven across region and across time periods.

In this chapter I provide an overview of privatization and regulatory processes in Brazil. First, state-led development encountered significant problems in Brazil's debt crisis of the 1980s and 1990s. States were unable to make needed investments, and unable to further roll over debt with the end of high inflation. Multiple state governors thus took advantage of the eagerness of foreign capital to enter the Brazilian market, and chose to hand control over to private investors.[77] Governors of other states failed or declined to sell state-owned providers. I offer an overview of how this process developed in various states. Second, privatization removed the state`s role as a provider of some key public services, yet also left a void in control over unaccountable private agents. Actors in international bodies and in the federal government promoted regulatory agencies as a solution to this perceived lack. I examine how these ideas diffused, and why causal explanations that rely on diffusion come up short. Finally, agencies were created and grew robust in multiple states. I survey these dates and patterns to provide initial support for my causal argument.

This chapter is designed to familiarize the reader with the factual background for the causal argument. I briefly survey the end of state-led development in Brazil and the state of infrastructure industries at the time of widespread state privatization. I discuss privatization and the legal institutions developed around it. The next chapter examines potential explanations for agency creation found in the literature, and deepens my argument. Case studies then illustrate and support the argument, the chapter after that tests the argument for the remaining Brazilian states, and a concluding chapter explores the fit of the argument for other subnational cases in Latin American federal states.

3.1. Exhaustion of the Developmental State Model

3.1.1. State-Led Development to the 1980s and Stagnation

In this section I provide an overview of the public service sectors later subject to state-level regulation. Many of the state-owned enterprises below were subject to privatization in the 1990s and 2000s.

Most infrastructure services in the second half of the twentieth century in Brazil had been provided by the state, though this varied by sector. Industries that required large sunk cost investments in physical networks were assumed by state and federal governments, while urban and inter-city transportation firms were controlled by a handful of large private operators working under a legally-uncertain regime. State investment in network services was justified with nationalist and feasibility reasons. Though some private investment in energy, telecommunications, and water had been made in the first half of the century, control of these

[77] In most cases, the physical plant was handed over to private investors after a competitive bidding process, for a limited-term concession. At the end, the physical plant is to be returned to the state.

firms passed to the state and national government with the subsequent adoption of a national program for state-led development. The trajectory of this program of import-substitution industrialization has been treated extensively elsewhere.[78] Below I focus on the development of public service networks in each of my sectors of interest.

3.1.1.1. Energy

While private firms in Rio de Janeiro and São Paulo, the two most developed industrial centers, flourished in the first half of the twentieth century, the state itself assumed responsibility for extending electricity networks across the continent-sized country.[79] Electricity distribution in the country was originally the responsibility of small municipal firms and two large foreign concessionaires, Light, which began operations in São Paulo in 1899 and in the capital Rio de Janeiro in 1905, and Amforp (American & Foreign Power Company) which managed concessions in other important cities from 1927 on.[80] President Vargas's 1934 Water Code assigned control of energy generation exclusively to the federal government, and provided the first set of regulations for the energy sector.[81] The first regulatory body, Cnaee, was created in 1939 to oversee the energy sector, but it lacked sufficient resources and was essentially captured by Amforp and Light (Gomes and Vieira 2009:304). Following World War Two, a more developmentalist model led the federal government to consolidate generation and transmission into Eletrobrás, a holding company created in 1962.[82] In November 1964, Eletrobrás bought the remaining properties of Amforp and in January 1979 it bought Light's properties.[83] Companies owned by the states emerged out of the consolidation of municipal concessions and the transfer of properties from Amforp to the states by Eletrobrás.[84] From the late 1960s to the 1990s, states owned companies that distributed energy to the overwhelming majority of users.[85]

Tariff policy and large investments expanded the system but would later create substantial problems. The military regime that entered in 1964 presided over economic expansion dubbed the "Brazilian miracle" and an accompanying electrification project. To ensure expansion and fair rates for consumers, the federal government and state governments poured money into Eletrobrás and into their state companies. Federal Law 5,655 of May 20, 1971 required that all energy concessionaires have a profit of between ten and twelve percent annually, to be invested back into the company. To ensure that this profit could be achieved, the same law allowed for cross-subsidization; distribution companies not meeting high profit margins would receive subsidies from the *Conta de Resultados a Compensar* (the Compensated Results Account -

[78] See, *inter alia*, Hirschman 1968; Baer 1972; Haggard and Kaufman 2008; Cardoso and Helwege 2000.

[79] I focus here on electricity last mile transmission and distribution, as the latter area is the only responsibility that is directly under the control of the states. The federal government, according to the 1988 constitution, governs electricity generation and transmission.

[80] For an overview of the activities of Light and Amforp, see Hausman and Neufeld (1997) on Amforp and McDowall (1989) on "the Light." Amforp began investments in 1920 with a railway and hydroelectric plant in Santa Catarina (Hausman and Neufeld 1997:49).

[81] In Portuguese, the *Código de Águas*, Decree 24,643 of July 10, 1934. Portions of the law remain in force.

[82] Castro and Gomes 2007:4-7.

[83] Amforp had been dissolving slowly, when in 1959 Governor Leonel Brizola seized Amforp's operations in Rio Grande do Sul and made it state property (Hausman and Neufeld 1997:399, fn. 7)

[84] For example, Coelba in Bahia and Celesc in Santa Catarina formed of the conglomeration of small private and municipal utilities, while Eletrobrás took control of former Amforp concessions in São Paulo.

[85] Small energy distribution concessions continued in a handful of cities, and the federal government owned Light, which distributed electricity in the former national capital of Rio de Janeiro.

CRC), which would in turn be funded by super-profitable firms.[86] In 1975, however, the federal Ministry of Mines and Energy set uniform electricity tariffs across the country, enabled by a central Global Guarantee Reserve (RGG, *Reserva Global de Garantia*) that would allow for government subsidies of any shortcomings. This tariff policy and the RGG would last until 1993. These tariffs were set regardless of transmission and delivery costs, and would be frozen or set artificially low in the early 1980s in an attempt to stymie rising inflation.[87] Keeping these tariffs low while continuing to subsidize money-losing companies eventually indebted almost all energy firms.[88]

The Real Plan in 1994, however, ended energy companies' ability to roll over their debts, and thus states had to seek other means of supplying electricity.[89] By the mid-1990s, most energy firms and states were heavily indebted. As will be explained below, the transfer of energy firms to private sector management addressed these problems.

3.1.1.2. Water and sanitation

Water and sanitation service delivery is a concession granted to state-owned basic sanitation companies (CESBs in Portuguese) or smaller municipal firms. While water access greatly expanded from the 1960s onward, access to sewage facilities has not kept pace. Large investments in both sectors stalled in the 1980s and 1990s, leading to various forms of delegation reforms, including privatization of concessions for fixed terms.

Water and sanitation companies were originally municipal, but the fusion of municipal entities in the 1960s and 1970s created large state-owned entities that employed cross-subsidies to fund expanding access to poor or distant cities.[90] The military regime developed Planasa (the National Sanitation Plan) with the goal of expanding sanitation access. As part of the plan, the National Habitation Bank (BNH) would partner with states in making joint investments to expand coverage, funded by the unemployment insurance pool (FGTS).[91] These investments yielded impressive results. The number of citizens served by water increased from 26.7 million (50.4% of the urban population) in 1970 to 82.8 million (eighty-seven percent) in 1985, while the increase in sewage access was less extensive, from 10.1 million (twenty percent of the urban population) in 1970 to 29 million in 1990 (Arretche 2005).[92] Although Planasa incentivized municipalities to delegate responsibilities to CESBs, about 20% cities remained with their own municipal companies (Turolla 2002:12). The vast majority of these cities with municipal companies are in the states of São Paulo, Rio Grande do Sul, and Minas Gerais.[93]

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[86] These tariff schemes are discussed in Linhares Pires and Piccinini 1998:29-43.

[87] Pires and Piccinini 1998:38.

[88] See Chuahy and Victer 2002: 33-39.

[89] Baer and McDonald (1998:512) show that, by 1984, 60% of energy company receipts were international loans, given the fall in state investment and decline in real tariffs.

[90] For example, Corsan in Rio Grande do Sul was created in March 1966, Embasa in Bahia was created in May 1971, and Cedae in Rio de Janeiro followed in 1973 the creation of the Empresa de Saneamento da Guanabara in 1972. Guanabara was the state surrounding the former federal capital of Rio de Janeiro; the two merged in 1974 to create the present state of Rio de Janeiro with a single water company. All of these companies joined together existing municipal companies with concessions in cities that lacked access to water.

[91] The *Banco Nacional da Habitação* – BNH was created by federal law 4380 on August 21, 1964, and began full operations in 1971. The *Fundo de Garatia do Tempo de Serviço* – FGTS was created by Law 5107 of September 13, 1966. Both were projects of the military regime.

[92] Arretche (2004) does note that the investments made by Planasa favored the South, Southeast, urban centers, and upper income level groups.

[93] Vargas and Lima 2004:71.

Though initial investments greatly expanded access to water and, to a much lesser extent, sewage systems, Planasa fell apart in the 1980s. By the 1990s CESBs and municipal concessions faced large challenges. Pinto (2003:4) attributes the decline of Planasa to "end of the grace period of previous [investments], widespread fiscal crisis at all levels of government, [and] use by companies as an instrument of clientelism and patronage."[94] As a result, many CESBs in the early 1990s were highly inefficient and money-losing.[95] Finally, the 1988 Constitution left the limits of municipalities' control over sanitation concessions unclear, and sharply cut funding for sanitation. The Constitution divided responsibilities over basic sanitation and water in multiple ways, which led to significant uncertainty.[96] This uncertainty prevented large-scale investments in sanitation by any actor (Galvão Jr. and Paganini 2009: 79-80). Elected officials in the 1990s tried to address these deficiencies with reforms and privatization.

3.1.1.3. Piped gas

The majority of state gas concessions in Brazil are greenfield projects; only the states of São Paulo, Rio de Janeiro, and Bahia have long histories with gas concessions. Gas concessions in Rio de Janeiro and São Paulo were granted by royal decree in 1851 and 1872, respectively. The Light company, controllers of energy concessions in the same states, owned and managed the gas concessions in Rio de Janeiro from 1910 and in São Paulo from 1912 until after World War II, but gas use actually *declined* over that time period as a source of energy (Gás Natural Fenosa 2011). In 1959, the federal government nationalized Light's São Paulo concession to create the Companhia Paulista de Serviços de Gás, which then passed to municipal control and finally to the state energy firm, Companhia Energética de São Paulo (CESP) (Comgás 2011). In May 1969, the State of Guanabara took over the concession from Light, and created CEG, the Companhia Estadual de Gás de Guanabara.[97] These concessions developed, but did not attend all areas or potential users in each state; consumption was restricted mainly to industry. Natural gas was also discovered and developed for industrial and vehicular use in the 1950s in the Bay of All Saints in Bahia.[98] This extraction, refinement, and distribution, however, fell under national control, first under the National Petroleum Council, decreed on July 7, 1938, and later under Petrobrás. Other states had no source of natural gas and thus no distribution until the 1980s.

State companies began to develop under national guidelines. In 1987, the National Natural Gas Plan set out standards for delivery and service expansion. The 1988 Constitution gave states exclusive responsibility for the distribution and sale of piped gas.[99] Various states

[94] Similarly, Seroa da Motta attributes the end of Planasa and to hyperinflation, which made tariffs inadequate to cover costs, lack of funds for investment, and the decentralization of funds set in the 1988 Constitution (2004:7).

[95] In 1998, the federal government estimated that R$44.2 billion in investments would be required for universalization of water and sanitation by 2010. This amount would total 0.36% of GDP annually, which was above the 0.34%, 0.28% and 0.13% of GDP spent in the 1970s, 1980s, and 1990s (Pinto 2003: 2-3).

[96] Article 21, section 20 gives the federal government the ability to set directives in sanitation, article 23, section 9 gives shared responibility among the federal, state, and municipal governments to "promote construction programs .. of basic sanitation," and article 30, section 5 gives municipalities control over "local services." Article 200, however, considers basic sanitation part of health policy, which is shared among all levels of government. A STF case opened soon over whether municipalities could work together to develop new concessions, and thus, at base, how cities might set new concessions.

[97] When Guanabara and Rio de Janeiro merged in 1974, CEG was renamed Companhia Estadual de Gás do Rio de Janeiro.

[98] This discovery of gas coincided with the first discovery of oil in Brazil. Natural gas had, to that point, been manufactured from coal (Dias and Quaglino 1993:22-26).

[99] Article 25, section 2 states "States are to operate, directly or through concession, the local services of piped gas, as

developed state gas distribution companies with long concession times.[100] A large gas pipeline from Bolivia to Rio Grande do Sul, operational since 1999, a pipline from Rio Grande do Norte to Ceará, pipelines connecting the northern and southern parts of the country, and additional offshore gas discoveries led to gas delivery in the majority of states. Ownership in all of these state firms outside São Paulo and Rio de Janeiro follows a roughly similar model: the state owns a majority stake, either directly or indirectly through the state energy company, and a minority stake is held by Petrobrás (through its distribution arm) and sometimes the Brazilian subsidiary of the Japanese firm Mitsui Gás.[101] Small, peripheral states sometimes have companies owned completely by the state (e.g., Gasmár in Maranhão) or no state company to date (Acre, Roraima, Tocantins).[102] Finally, as will be explained in the next section, state companies and greenfield opportunities were privatized in São Paulo and Rio de Janeiro.

Gas regulation is left up to the states. The National Petroleum Agency (ANP), created by Federal Law 9.478 in 1997, regulates the manufacture and refining of petroleum and other "fluid hydrocarbons," which are the the responsibility of the federal government.[103] No federal guidelines restricted state regulation, but the presence of Petrobrás as minority owner and the relative inexperience of government actors in managing gas concessions meant that concession contracts followed standard formats.[104] Initial contracts rarely specified a role for a regulatory agency; instead, concession contract amendments specified a role for an agency. These single state-owned companies continue to deliver services everywhere outside São Paulo and Rio de Janeiro.

3.1.1.4. Intermunicipal transportation

Multiple private companies and a few state firms in large urban areas historically provided intermunicipal transportation in Brazil. First, buses are the main means of transport among cities within states.[105] Intermunicipal transportation had been considered a state responsibility in federal constitutions prior to 1988, and thus Article 25, Section 1 of the 1988 Constitution delegating all unspecified policy responsibilities to the state covered intermunicipal services (Rolim and Brasileiro 2009:14, Moraes 1995). Operations began in the 1920s and 1930s with the arrival of buses in Brazil. Intermunicipal bus companies have long been provided by the same set of private companies, operating under precarious legal auspices.[106] Renewals

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provided by law, but not to be regulated by provisional decree." (author's translation).

[100] Issues such as the availability of natural gas in the state and state investments determined the creation date of firms such as Gasmig in Minas Gerais (1986), Bahiagás in Bahia (1993), Compagás in Paraná (1994), Algás in Alagoas (1994), Sulgás in Rio Grande do Sul (1993), SCGás in Santa Catarina (1994), MSGás in Mato Grosso do Sul (1998), and Goiasgás in Goias (2001). Concession terms range from thirty years (Compagás, from Decree 4695 of Jan. 20, 1989) to fifty years (Algás by Law 1088 of 1994, Bahiagás from Decree 4401 of 1991, Sulgás, others).

[101] This ownership structure creates potential conflicts of interest, as Petrobrás, which is majority-controlled by the federal government, both sells piped natural gas to the distributors and helps manage distribution.

[102] Not all companies actively distribute gas yet, as connections have not brought viable sources to the Northern states of Pará, Maranhão, Amapá, Roraima, Rondônia, Acre, and Tocantins.

[103] Article 177 of the 1988 Constitution contains this language.

[104] Specifically, private sector concessions in Rio de Janeiro and São Paulo required "build-out" and investments, while mixed-ownership firms had no such provisions (compare Junqueira 2002:15-17 to, e.g., Lei 5408 of Dec. 14, 1992 in Alagoas granting the Algás concession).

[105] Though there are no comprehensive numbers on within-state intermunicipal services, the national land transport regulator ANTT estimated 50.2 million interstate and 101.8 semi-urban bus passengers (ANTT *Relatório Annual 2010*: 71-72).

[106] Bus lines operated according to *authorizations* or *permissions*, wherein the state allowed operations for short terms, renewed annually. Such licenses can be revoked by the governor at year's end or at any moment. By contrast,

were automatic, but their operation soon violated the 1988 Constitution's requirement, later elaborated in "Concessions Law" 8,987 of Feb. 13, 1995, that all public service concessions be won by through a public bidding process (Rolim and Brasileiro 2009:14,15). Most companies were turned into concessions without adhering to the law's requirements shortly after the 1988 Constitution, in violation of the constitutional requirement and later the law (ibid:15). States issued regulations on bus services, but standard enforcement was complicated by large informational asymmetries and low state capacity.[107] Bus companies do have to compete for low-end customers with informal (illegal) operators offering discounted irregular services on peripheral routes. Unfortunately, no cross-state aggregate numbers on intercity buses exist (Gifoni 2002:76). Studies of urban bus companies find market concentration among a few large firms and much smaller market shares for a handful of small operators, with about half of operators being family-run (Henry 1997; Aragão and Brasileiro 1999). Several case studies suggest that the industrial organization of intercity bus companies is similar (see, e.g., Cançado et al. 1998, Funatsu 2008).

By contrast with private operators in the bus sector, urban trains and ferries were developed as companies controlled by state and federal governments. Of all cities and of the twenty-seven states, only the urban areas in the states of São Paulo, Rio de Janeiro, Minas Gerais, Pernambuco, Distrito Federal, and Rio Grande do Sul have subway systems or urban commuter rail. Rail projects are planned but yet to be developed in multple state capitals.[108] The states of São Paulo and Rio de Janeiro owned commuter rail and subway services from 1994 on, while subways in Brasília, Porto Alegre, Recife, Teresina and Belo Horizonte are federally managed. The city of São Paulo created and managed its own subway. The state of Rio de Janeiro also ran ferry services connecting downtown Rio de Janeiro to suburbs around Guanabara Bay, and the subway wholly within the city of Rio de Janeiro. Both states ran operational deficits in public transit. As examples, São Paulo transit companies ran deficits that averaged 20% of their budgets all four years of the term of Governor Fleury Filho (1991-1994), and urban trains in Rio de Janeiro had seen track extensions frozen since 1985 due to lack of funds (de Moraes 2010: 341; Rebelo 1999: 1-2).

3.1.1.5. Highways

All levels of government in Brazil build and manage roads. Not all are paved. Investments in highways, funded mainly through a tax on gas and a tax on bus lines, increased the percentage of paved federal roads from 26.7% in 1960 to 79% in 1990, and the percentage of paved state roads from 5.3% in 1960 to 41.4% in 1990 (Ferreira and Malliagros 1999:18).[109] Construction and maintence were managed by the National Department of Roads (DNER) and by a counterpart Department of Roads (frequently abbreviated as DER or similar) in each state. With the decentralization of funds in the 1988 Constitution however, the taxes used to fund highway construction at the federal level were bundled into a car tax (IPVA) and sales tax

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a *concession* in Brazilian law is operated by the winner of a public bidding [*licitação*], specified in an *edital*, for a long period, usually fifteen years or more.

[107] Interview RS1; on capacity see Luis Nassif, "A estratégia do Paraná," *Folha de São Paulo*, 2 October 1997 and "Anistia para o transporte ilegal," *O Globo*, 4 November 1999.

[108] The *metrô* in Salvador, Bahia famously runs only one (unused) kilometer after over one decade of planning, bidding, funding, and construction. Over R$700 million has been spent, and maintenance costs of idled machinery costs thousands monthly ("Após 11 anos do início das obras, metrô de Salvador não funciona," *Jornal da Globo*, 14 April 2011).

[109] Comprehensive statistics on roads wholly within municipalities over the same timeframe are unavailable.

(ICMS) that were passed on to the states without the requirement that they be spent on highways; a steep drop in investment at all levels resulted (Ferreira and Malliagros 1999:24, 25). By 1993, the real level of investments in transportation had fallen to 30% of the amount spent in 1975, despite an increase in the number of cars and trucks on the highways (ibid:18)

Although the industrial organization of public service providers varied by firms, a general pattern emerges. Initial large investments undertaken before the 1980s were not followed by investments through the debt crises of the 1980s and early 1990s. The onset of the Real Plan, moreover, limited states' abilities to further rollover their debts, or the debts incurred by their entities. Below, I explain how crisis and a new conception of the state led many of these services to be privatized at the state level from 1993 to 2001.

3.2. Privatization and Concessioning

3.2.1. The Problem of State Debts

Brazilian states by the mid-1990s carried heavy debts, which led to the transfer of state assets to private sector managers. To understand the transformation in the role of the state in the 1990s, one must understand state indebtedness.[110] High inflation and the 1980s debt crisis dried up private sources of credit for the states, and thus states turned to their own state-owned banks to finance their deficit spending.[111] When states were unable to sell debt on private credit markets, they "leaned" on their state banks to buy the unmarketable bonds (Bevilacqua 2000: 14). The federal government was unable to stop state deficit spending, given both the dependence of the federal executive on state governors for passing legislation and formal restrictions on federal government involvement in state affairs (Rodden 2006: ch. 8; Lopreato 2000: 8, 10). The end of high inflation in the Real Plan of 1994, and the subsequently high interest rates necessary to maintain the Plan, greatly expanded state debts (Rodden 2006:206-207). High state indebtedness led to federal bailouts of the states in 1992, 1993, and finally 1997-1998. Only in the final bailout were moral hazard problems elimintated and states constrained from taking only additional debt. Unmarketable, unpayable state bonds and debts were swapped for federal debt, the federal government consolidated state debts with those of other bodies, and states rescheduled their debts for twenty year terms at low interest rates that were made contingent on states' ability to meet fiscal standards.[112]

State governments' indebtedness also lessened their ability to make investments to maintain or upgrade public services. As noted above, the tariff system put in place by the military regime made energy firms highly reliant on external funding; the 1970s and 1980s debt crises cut that funding and crippled the sector. Baer and McDonald (1997) remark that by 1995 Brazilian infrastructure required investments for the following five years of approximately US$71.7 billion, or between US$14.3 and US$17.3 billion annually (25). Aligning access to electricity with population growth would require investments of $25 billion from 1995 to

[110] This history of state debts is abbreviated for space reasons. For a more comprehensive take on the state debt crisis and negotiations, see, inter alia, Lopreato (2000), Almeida (1997), Couto e Silva (1998), Rodden (2006: ch. 8) and others.

[111] According to Armijo and Jha (1997), "By mid 1991 the total debt of state and municipal governments to the center was about [US] $57 billion, of which the three wealthy southeastern states of São Paulo, Minas Gerais, and Rio de Janeiro owed 53 percent" (53). Lopreato (2000) writes that "state banks were responsible in 1988 and 1989, respectively, for 28.2 and 46% of the total of loans and financing given to states and municipalities, maintaining in 1988, 77.8% of the total value of public sector credit operations" (11).

[112] See Rigolon and Giambiagi 1999:123-124, 135-127.

1999.[113] Turolla (2002:13-14) discusses the fall in investment in sanitation companies in the 1980s and early 1990s, with the withdrawal in financial support for Planasa. Indebted state governments were unable to make needed investments, and had no access to outside borrowing. By contrast, private owners had the means to both access credit and make investments.

Debt negotiations assisted the privatization of state banks and state infrastructure firms in multiple ways. The federal Ministry of Finance required all participating states to develop a fiscal adjustment plan demonstrating how they might end deficit spending (Bevilacqua 2000:25). Chief among these methods was the end of subsidies to money-losing infrastructure firms (Rigolon and Giambiagi 1999:128). States were also required to make a twenty percent downpayment on their outstanding debts to the federal government in order to secure low interest rates on their loan repayment plan (Lopreato 2000:30). Federal actors suggested, but did not require, that both profitable and unprofitable state firms be sold to make this payment.[114] Finally, even states with relatively good fiscal balances considered privatizing, closing, or jettisoning state firms, as I explain below.[115]

3.2.2. New Conception of the State

A new conception of a narrow, regulatory state helped guide privatization at the federal and state levels in Brazil. This change emerged from a new neoliberal consensus that the developmental state had exhausted itself, and that the inefficient exsiting model needed to be purged. These ideas emerged first at the federal level. President Fernando Henrique Cardoso created the Federal Administration and State Reform Ministry (MARE) in 1995 and appointed Luis Carlos Bresser-Pereira to lead it. In his address to allied deputies in early 1995, Bresser-Pereira outlined what he saw as the three crises of the state: a fiscal crisis, a crisis in the modes of intervention by the state, and a crisis of the state bureaucracy (Bresser-Pereira 1995:1-2).[116] The reformers sought a more flexible state, capable of overcoming the perceived stasis of captured bureaucratic bodies. State-owned enterprises were to be split off because their activities did not comprise critical, legitimate exercises of power or policymaking authority (ibid., 13, 19). These points were outlined in a State Apparatus Reform Master Plan, which proposed removing the state from all non-strategic business sectors.[117] These reforms passed the national Congress quite quickly, despite not being a subject of discussion in the 1994 presidential campaign.[118]

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[113] Mello (1996:10) cites the Eletrobrás Annual Report from 1995 and public comments by Benedito Carraro, the Director of Planning and Engineering for Eletrobrás.

[114] Law 9496 of September 11, 1997 set the criteria by which state debts could be refinanced, allowing for equal treatment among the states. On the push to privatize state firms to repay sebts, see Rigolon and Giambiagi 1995:125-126 and Araújo 2005: 164-167.

[115] The decision to keep or sell infrastructure concessions has been treated extensively elsewhere. See, e.g., Arretche 1999 on the three choices for sanitation concessions.

[116] Bresser-Pereira's own writings on this topic are prolific. See his various items at www.bresserpereira.org.br. Also, his third crisis directly translates as a "crisis of the state apparatus," but the term "apparatus" is vague and his argument mainly concerns bureaucratic failings.

[117] The Master Plan, the *Plano Diretor da Reforma do Aparelho do Estado*, published in 1995, was heavily influenced by contemporary administrative reform ideas in the United States, particularly Osborne and Gaebler's *Reinventing Government* (1992), that sought to create a managerial state from a bureaucratic state (Bresser-Pereira 1999:5-7). The original Master Plan is still available online at http://www.planalto.gov.br/publi_04/colecao/plandi.htm .

[118] Bresser-Pereira (1999:5,10) notes that the 1994 campaign did not focus on administrative reforms, while the chapter by Bresser-Pereira (2003: ch. 4), in the Schneider and Heredia volume, explains that administrative reform was passed while pension and tax reforms stalled because of the coalitions formed and arguments made for the first initiative.

Previous presidents had made small moves to sell off some state enterprises, but the scope was limited.[119] The Cardoso administration, by contrast, undertook an extensive privatization program.[120]

These ideas on state reform extended to the state level. It is difficult to define how these ideas spread or defused, but state privatization programs followed the federal model shortly after the latter's creation. Cardoso's party in 1994 won the governorship in the three most populous and important states of the federation and some outlying states, and allied governors controlled a majority of states.[121] Party membership, however, does not provide an adequate explanation for the diffusion of ideas about privatization. Armijo and Jha (1997:134-137) note that Governor Marcelo Alencar in Rio de Janeiro enthusiastically welcomed the idea of privatization after federal intervention, while Gov. Mario Covas in São Paulo initially stood in firm opposition and fought federal attempts to privatize his state banks.[122] Both were members of President Cardoso's PSDB. State privatization was most extensive in the state banking and electricity distribution sectors, and the latter sector was guided partially by the federal energy firm Eletrobrás's restructuring plan.[123] Eletrobrás's plan concluded that large generation projects and transmission lines should remain state property, but that there were no obstacles to transferring distribution to private firms if the state retained adequate means of oversight.[124]

3.2.3. External Pressures for State-Level Privatization

The federal government and international lending institutions both had limited means to encourage privatization. First, many state energy company debts were owed to Eletrobrás, the federal energy generation firm, for the purchase of electricity. Eletrobrás encouraged state energy firms to privatize in order to be able to pay those debts (Interview SP2). By requiring a downpayment on state loan repayment plans in order to win lower interest rates, federal Finance Ministry officials essentially pushed the concessioning of state assets to private operators (ibid). States had few other means by which to raise funds for the downpayment.[125] Again, as each state's debt and fiscal situation differed, the need to make these payments varied. The World Bank also offered financial support for "sanitization" programs whereby state banks (through the PROES program) and state energy firms (through individual loans) could offer retirement packages to duplicate workers and reorganize firm debts in preparation for transfer to private

[119] President Collor had previously privatized some state firms in steel and aviation, but his larger plans stalled (Montero 1998: 27-29).

[120] The federal government used the term "de-state-ifying" (*desestatização)* to indicate that privatization was the removal of the state from economic sectors.

[121] The PSDB won the governorship in 1994 in Rio de Janeiro, São Paulo, Minas Gerais, Pará, Ceará, and Sergipe. Cardoso's coalition in the first round of the 1994 election included the PFL and PTB, which had winning gubernatorial candidates in Bahia, Roraima, and Maranhão. By contrast, the opposition PT won governorships in the Federal District and Espírito Santo in 1994.

[122] Garman, Silva Leite, and Marques (2001) provide details on the conflict over the state bank Banespa in São Paulo.

[123] In 1996, Eletrobrás hired an international consulting team led by Coopers & Lybrand to restructure the Brazilian energy sector. The final plan, Carlos Rufin et al. note, was the product of a conflict between the more privatization-friendly BNDES and the more statist Eletrobrás (2003:138). In the end, Eletrobrás kept transmission and large generation projects state-owned, while pushing viable distribution concessions - mainly firms owned by the states - to the private sector.

[124] See Cooper & Lybrand's *Draft Report II – 2 of Stage II – Privatization of Pars of Eletrobrás,* the report prepared for the federal government on energy sector restructuring (June 1997).

[125] States were locked out of other credit markets by the Senate's veto over international lending and existing debts.

investors (see Makler 2000, Beck et al 2005). These loans were not required, but they provided governors the funds by which to resolve fiscal problems where such resources would otherwise be dear.

Selling state assets also provided governors financial windfalls in advance of re-election campaigns. Firms were privatized in even the least-indebted states, and the proceeds made available to the state treasury and used for electoral ends.[126] Privatization funds could provide financing where increased taxes were unavailable; the late 1990s saw a limited "fiscal war" among states seeking to attract firms by lowering in-state production taxes (ICMS).[127]

Given the above incentives for privatization, states extensively sold firms in the energy sector, while movements toward private concessions in gas and sanitation were more limited. I review these movements next.

3.2.4. Privatization by Sector

Privatization proceeeded most extensively in services that might attract foreign investors. The majority of Brazilian states sold off their energy companies to private investors, while only Rio de Janeiro and São Paulo auctioned off gas concessions. Sanitation concessions followed several unique paths, but most firms remained under state control. In metropolitan areas, Rio de Janeiro offered private concessions in transportation, while toll highway concessions were created in Rio Grande do Sul, Paraná, São Paulo, and Rio de Janeiro.[128] I consider each process by sector.

3.2.4.1. Energy

The majority of states in Brazil sold their electrical energy firms to private investors for a set time, but the decision (and ability) to sell varied according to decisions on timing and restructuring. Winning private consortiums and firms gained thirty-year energy concessions, at the end of which the firm would return to state control. Large, wealthy states sold off separate pieces of their distribution networks separately, while companies with few debts were retained by states for reasons of timing or ideology. Administrators in the Mario Covas government in São Paulo succeeded at producing higher profit margins by selling off territories originally held by CESP and Bandeirante as separate firms to be operated as separate concessions; the Britto government in Rio Grande do Sul did the same thing while keeping one-third of the territory for its state-owned distributor.[129] Rio de Janeiro firms were sold as the metropolitan distributor Light (owned and sold by the federal government) and the interior distributor CERJ (sold by the state). All other states that transferred energy concessions to the private sector sold their state firms as entire entities. The highest bidder won the rights in all cases. For ideological reasons, governors in Minas Gerais, Santa Catarina, and Paraná decided not to sell their state firms, but instead invite private minority ownership and management by the sale of equity shares. These decisions were reinforced by timing. The pro-privatization PSDB governor of Minas Gerais was defeated in 1998 and replaced by anti-privatization former president Itamar Franco of the PMDB; any planned privatization of the state energy firm Cemig ended. The planned privatization of a controlling interest in Copel in Paraná on international equity markets was

[126] Silvio Bressan, "R$3 bilhões embalam campanha de governadores," *O Estado de São Paulo*, 5 July 1998; Venda de estatal reforça campanha em Estados," *O Estado de São Paulo*, 2 August 1998.
[127] Varsano (1997); Prado (1999).
[128] The federal government developed toll highways in several states, but they are not the concern of this project. For an overview of federal transportation and highway concessions and regulation, see Gomide (2012).
[129] Interviews RS16, RS17.

ended by the lack of interest related to a post-Sept. 11, 2001 economic decline.[130] The solid financial position of Cemig (MG), Celesc (SC), and Copel (PR) and the availability of funds by which to repay state debts - by liquid fiscal surpluses, refusal to pay, or the sale of other state assets - allowed governors to resist pressure to privatize. Finally, poor peripheral states were largely unable to find private buyers in the brief period between the 1995 concessions law and the 1999 collapse of the Real Plan.[131] In multiple cases, high state debts led state governments to sell their energy companies to the federal government and Eletrobrás, who would then manage the (often unsuccessful) privatization process.[132] While poor states like Maranhão and Paranaíba were able to sell their firms by acting early, whether such concessions were economically viable or not, the federal government was unable to find buyers for indebted concession auctions in Alagoas and Rondônia after a 1999 fall in FDI in the wake of the Asian financial crisis of 1998-99 and the end of Brazil's crawling peg currency.[133]

As a result, the energy sector is the most extensively privatized infrastructure sector in Brazilian states. The chart below details firms, privatization dates, profit margins from auctions (above required minimum prices), and buyers.

3.2.4.2. Sanitation

Multiple factors impeded a clear path for sanitation concessions and state water company privatization in Brazil amidst other significant state reforms. Significant judicial uncertainty undermined the development of private sanitation concessions throughout the 1990s and 2000s. As noted above, the 1988 Constitution left uncertainty over which level of government controlled water and sanitation services. Various actors entered cases in the Supreme Federal tribunal asking them to clarify the matter.[134] The legal uncertainty over concession control retarded investments in sanitation infrastructure, which remained necessary after the end of Planasa.[135] Indebted and newly restricted state budgets undermined states' abilities to make

[130] Interview PR8; "Lerner confirma suspensão na privatização da Copel," *Gazeta Mercantil*, 28 January 2002, p. B2.

[131] Seripe sold Energipe on December 3, 1997 and Rio Grande do Norte sold Cosern on December 17, 1997, while Rondônia, Alagoas, Amazonas (CEAM, outside Manaus), Piauí, and Acre couldn't find buyers and were sold to the federal government. The Paraíba state government sold energy firms Borborema for the minimum price of R$87.3 million on November 30, 1999 and Saelpa for the minimum price of R$362.9 million on November 30, 2000 to the domestic firm CFLCL (Mônica Coarelli. "Cataguzes fica com Celb por R$87.2 milhões," *Estado de São Paulo,* 1 December 1999; Ricardo Rego Monteiro and Paulo Emilio. "Cataguazes arremata a Saelpa por R$362 mi" *Gazeta Mercantil*, 1 December 2000, p. B4).

[132] Federal law 9,491 of September 9, 1997, federal law 9619 of April 2, 1998, and several state laws allowed the federal government to acquire the state energy companies of Rondônia (Oct. 1997), Acre (September 1997), Piauí (January 1997), and Alagoas (August 1997). These companies were "federalized" and now operate as subsidiaries of Eletrobrás Distribution. The state of Amazonas later sold CEAM, which serves less than half of the state's population, to the federal government for R$200 million in 2000. The companies of Roraima and Amapá, both poor peripheral states, remain state-owned.

[133] Mônica Ciarelli, "Americana PPL compra Cemar por R$522 milhões," *Estado de São Paulo,* 16 June 2000; "Últimos leilões de 1998 fracassaram," *Estado de São Paulo*, 11 January 1999; Suzy Gasparini,"BNDES adia leilão estadual," *Gazeta Mercantil*, 11 February 1999.

[134] Two cases raised the issue of who held title [*titularidade*] over water concessions. The PDT questioned the State of Rio de Janeiro's competency to create a metropolitan region of Rio de Janeiro that could then grant a concession to the state company (ADIn 1842-RJ, 1996), and the PT questioned a provision of the Bahia state constitution that granted it the ability to grant concessions for all infrastructure services it provided (ADIn 2077-BA, 1999). The cases were combined because they addressed similar constitutional issues.

[135] On uncertainty worrying investors, see "Indeficinição sobre titularidade afasta investidores," *Valor Econômico*, 23 April 2002. An independent estimate in 2006 found that R$200 billion dollars would be necessary over 20 years

needed investments in many cases. A fiscally-constrained federal government, which lost significant revenues after the signing of the 1988 Constitution, failed to provide adequate funding for system maintenance or expansion.[136] Thirty-year concession contracts between CESBs and cities that had begun in the late 1960s and early 1970s neared their end, and multiple wealthy cities and state capitals considered leaving state CESBs and thus ending their contributions to cross-subsidization.[137] Both mayors and governors looked for solutions to these problems.

Water companies followed three paths in addressing poor quality concessions: some cities privatized sanitation services, other cities had the physical plant returned to them with the dissolution of the CESB (called "municipalization"), and some states chose to strengthen their CESB and fight for concession contract renewals.[138] The poor peripheral state Tocantins, uniquely among states, tried to privatize its CESB Saneatins in 1998, but found no buyers; it then sought out a private minority owner, with mixed success.[139] States that considered selling their entire CESB were halted by delays in the resolution of exactly which body was competent to grant concessions. Governor Marcelo Alencar in Rio de Janeiro proposed the transfer of Cedae to private investors, but numerous judicial actions slowed the process and he was unable to schedule an auction before being succeeded by anti-privatization Governor Anthony Garotinho.[140] In Bahia, the transfer of Embasa faced similar delays before judicial uncertainty and a fall in foreign investment in Brazil following the Asian financial crisis led to the cancellation of any sale project.[141] Despite these obstacles, a number of municipalities have signed concession contracts with private firms and not the CESB. Privatization processes and contract terms vary widely. These cities were concentrated in the interior of São Paulo (1990-), where CESB Sabesp only covered a limited number of cities, but also included the Lakes Region of Rio de Janeiro (1997-98), the capital cities of Manaus, Amazonas (2000) and Campo Grande, Mato Grosso do Sul (2000), and a handful of other cities.[142] In each case, the concession

– or R$10 billion per year ("Senado aprova projeto do saneamento básico," *O Globo*, July 13, 2006).

[136] On the de-centralization of tax revenues after 1988, see Eaton (2004: Ch. 6). On the lack of federal funding, see Turolla (2002: 13-18).

[137] In some cases, opposition to the existing contract could be explained by political opposition between the mayor and governor. For example, at the end of Campo Grande's thirty-year contract with the Mato Grosso do Sul CESB Sanesul in 2000, the PMDB mayor André Puccinelli decided not to renew and instead opened city water services to private bidders. A Spanish corporation won (Interviews MS3, MS4). The governor at the time was from the PT.

[138] This three-part division follows Arretche (1999:89-102).

[139] Ivonete P. Motta, "Privatização do Saneatins é suspense por falta de candidato," *Gazeta Mercantil*, 13 May 1998. The state government managed to sell shares to Goiás-based Emsa, but retook control of Saneatins to be eligible for federal government sanitation funds in 2001 (Ivonete P. Motta, "Tocantins estatiza sua empresa de saneamento," *Gazeta Mercantil*, 4 April 2001, p. A8). The state government then handed control back after securing federal bank financing ("Emsa retakes control of Tocantins water utility," *Business News Americas*, 5 June 2002).

[140] See, e.g., "'Não dá para eles chegarem a 100 paus?'" *Veja*, December 9, 1998. Alencar had also considered breaking Cedae into blocks for auction (Vargas 2005:116-119).

[141] Political opposition to the sale of Embasa also slowed plans for its transfer. When sale plans were abandoned, powerful Senate President and former governor of Bahia Antônio Carlos Magalhães reversed and argued that he had always been opposed to the idea ("Falta de regras leva Bahia a desistir de vender a Embasa," *Gazeta Mercantil*, 22 November 2001).

[142] World Bank loan funds assisted privatization and investment projects in the Lakes Region. Federal funds were also made available to private concessionaires and for "re-structuring" of companies in preparation for auction. For an overview of the sector, see, *inter alia*, Vargas and Lima (2004) and Vargas and de Gouvello (2011). For a list of cities with private concessions, see www.abcon.com.br/sobr_02.php.

contract gives private investors control over facilities that will be returned after a set period. The state of Mato Grosso opted to devolve its water company's physical plant and workers to municipalities after it decided it was unable to restructure the firm or continue subsidizing its losses.[143] The results have been poor, though wealthier towns have since sold concessions to private firms.[144] Finally, the states of Paraná, São Paulo, and Minas Gerais acquired the funds necessary to improve their water companies.[145] Private firms own minority stakes in Sanepar (PR), Copasa (MG) and Sabesp (SP).[146] Despite these moves toward the private sector, most water and sanitation concessions in Brazil remain with state-owned firms.

Municipal water and sanitation concessions recently acquired a loose regulatory framework. The STF's long discussion on which level of government had concession-granting authority extended from 1998 to 2013, when the STF decided in favor of municipal-issued concessions and for joint state-municipal control of concessions for multi-city blocs, as in a metropolitan region.[147] Draft projects had circulated for over twenty years in the Congress, meanwhile, granting responsibility to either the state or municipalities.[148] President Lula signed Law 11,445 on January 5, 2007, setting aside for the STF to decide on the *titularidade* (title) of water and sanitation.[149] The 2007 law required that each municipality have a current concession contract, a municipal plan for sanitation construction and improvement, and a "regulatory entity" [*ente regulador*] to monitor the concessionaire.[150] Cities failing to meet these requirements by December 31, 2010 would be ineligible to receive infrastructure funds from the national Growth Acceleration Program (PAC).[151] This law put regulation of sanitation services on much more solid legal ground, though several agencies' activities pre-date the national standard. The Supreme Federal Tribunal still has yet to rule every part of the 1998 cases. Throughout the time period covered in this study, sanitation regulation could have been either municipal or state, while municipal concession-granting authority was confirmed only from January 2007 on.[152]

3.2.4.3. Piped natural gas

Natural gas firms were privatized in Rio de Janeiro and São Paulo where they were most developed, while a hybrid model of minority ownership by private firms (and the quasi-state firm Petrobrás) prevailed in a plurality of other states. At the beginning of privatization reforms in the

[143] Arretche (1999:99-102).
[144] On Mato Grosso, see Arretche 1999:99-102; Araújo 2005:119-120. As of December 2010, the cities of Colíder, Alta Floresta, Comodoro, Pontes e Lacerda, and Canarana are served by private concessionaires.
[145] Cedae in Rio de Janeiro was restructured much later (Interview RJ6).
[146] José Maschio, "Múltis disputam mercado de R$10 bi anuais," *Folha de São Paulo*, 22 January 2001; Maria Angela Jabor, "Operadoras investem mais em saneamento," *Gazeta Mercantil*, 9 July 2001, p. A7.
[147] Christianne Boulos, "Decisião do STF: Repartição de competências em material de saneamento," *Última Instância*, 9 March 2013. Ultimainstancia.uol.com.br/conteudo/colunas/61115.
[148] See, e.g., "Trocando em muídos," *Valor Econômico*, August 24, 2006; "Proposta que institui as diretrizes do setor deve ser votada até fim de maio," *Valor Econômico*, April 23, 2002; "Câmara aprova lei para o saneamento básico," *O Globo*, 13 December 2006.
[149] Decided in early 2013.
[150] The regulatory body could be either municipal or state; for the overwhelming majority of cities, city regulation is not economically viable (Galvão Jr., Turolla, and Paganini 2008).
[151] Lei 11.445 (2007), Capítulo II, Article 9 and Capítulo VII, Article 46. Multiple interviewees acknowledged that these criteria will probably not be strictly applied, and the deadline has since been extended to 2014 by decree. Infrastructure funds are highly desirable for incumbents standing for future elections. With Articles 26 and 34 of Decree 7,217 of June 21, 2010, Lula extended the deadline for municipal sanitation plans to 2014.
[152] For example, Municipal Law 5346 (2001) created municipal regulatory agency ARSBAN in Natal, RN, and Municipal Law 4423 (2006) created the agency AGEREG in Campo Grande, MS. Both handle sanitation.

1990s, natural gas firms had extensive networks for residential and industrial use only in parts of São Paulo state and Rio de Janeiro state. São Paulo divided its gas distribution concessions into three non-overlapping territorial units, in which two concessions were greenfields. Consortiums led by foreign firms won concessionaire rights in all three areas.[153] Rio de Janeiro sold its two gas companies, a metropolitan firm and a firm serving the interior, to a multinational Spanish-led consortium.[154] The Espírito Santo firm is wholly controlled by the Petrobrás Distribuição subsidiary of the federal petroleum firm Petrobrás. In many states, the state owns a majority share of gas company shares, while Petrobras's subsidiary Gaspetro and Gaspart, a private consortium, hold minority ownership of state gas distribution companies.[155] (This second minority holder, Gaspart, was purchased by the American firm Enron in July 1998, and subsequently sold to the Japanese firm Mitsui Gás in 2005.[156]) Concession terms vary from thirty to fifty years.

The minority owners take an active management role in mixed-ownership state distribution concessions. For example, Algás (Alagoas) executive director seats are split in thirds among the state and two prominent minority owners (Interview AL2). Petrobrás is also the main supplier of gas in the country, and is thus actively involved at both buying and selling gas.[157] While Petrobrás is majority government-owned, its status as the largest publicly-traded firm in Brazil by market capitalization and as a federal firm imposed stricter discipline on state distribution firms (Carvalho and Goldstein 2009:113-114).

Completed gas pipelines and new natural gas discoveries in the 1990s and early 2000s brought the necessary supplies to begin operations in multiple states. Most significantly, the Bolivia-Brazil pipeline (called GASBOL), operational in 1999 and fully completed in 2010, provides gas to five states that comprise the majority of GDP, energy consumption, and industrial production in the country.[158] Another pipeline connects several northeastern states, traveling from Bahia to Ceará by a coastal route.[159] A reliable piped supply of natural gas allows state firms to expand operations, while the lack of gas keeps firms such as Gasmar (Maranhão), Gasap (Amapá), and Rongás (Rondônia) inoperational. Gas discoveries have largely been found offshore. Thus many state natural gas companies with concessions contracts signed in the 1990s are now operational.

3.2.4.4. Highways

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[153] The Italian firm ENI won the concession Gas Brasiliano, British Gas and Shell bought the Comgás firm, which was already operation, and the Spanish firm Gas Natural won the São Paulo Sul concession. Only Comgás was a brownfield concession; the other two were greenfield.

[154] The Spanish firms later purchased shares held by Enron. The second-largest shareholder now is the invetment arm of the Brazilian national development bank, BNDESPAR ("Gas Natural quer comprar parte da Enron na CEG," *Valor Econômico*, 6 October 2003).

[155] Gaspart was a minority partner in state gas firms in Santa Catarina, Alagoas, Pernambuco, Bahia, Sergipe, and Paraíba. Today, Mitsui Gás operates in the same states, plus Paraná (Mitsui Gas 2005).

[156] Fernando Thompson, "Distribuição nos estados atrai BR," *Gazeta Mercantil*, July 2, 1998; "Mitsui in $250 mln deal to buy Brazilian gas firm" Reuters, 1 Nov 2005.

[157] Multiple interviewees noted this relationship as a conflict of interest.

[158] The states are Mato Grosso do Sul, São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul. See www.tbg.com.br.

[159] The pipeline brings gas from the Baía de Todos os Santos in Bahia northward, and is soon to be connected to the southern supply via Gasene and extended to Maranhão (Petrobrás. "Maior gasoduto do Brasil nos últimos dez anos," 26 March 2010. www.petrobras.com.br/pt/noticias/maior-gasoduto-do-Brasil-nos-ultimos-dez-anos/). The Baia de Todos os Santos near Salvador has produced gas since the 1950s (Dias and Quaglino 1993:24).

Private concessionaires operate toll highways in several states, covering both state and federal roads. The federal government, aware that it was incapable of making necessary investments, delegated multiple federal highways to state governments with Law 9277 of May 10, 1996. The federal government itself had earlier created highway toll concessions for several federal highways, most prominently the Via Dutra connecting Rio de Janeiro and São Paulo. States then had the option to design highway concessions, awarding concessions to the highest bidder according to multiple criteria.[160] Several states also developed concessions for state highways, which were transferred to private operators.[161] In multiple cases, political opposition to new highway tolls led governors to unilaterally lower tolls or suspend collection and try to reverse contracts.[162] In response, concessionaires halted or lowered contracted investments, and relied on the juidiciary for (slow) relief. Concessionaires also pushed state governments to aid them in preventing toll evasion (Interview PR6, PR9, RS13). Finally, highway concessions were explored in various states (Mato Grosso and Mato Grosso do Sul, for example) but never developed when they were deemed economically unsustainable due to low traffic.[163]

Experience with toll highways was novel and conflictual in Brazil. Truck drivers, private users, and politicians all reacted negatively to new tolls, having no prior experience with them and seeing little return to the private management and investment. Mayors and other business actors feared toll roads would drive seasonal tourists away.[164] Truckers blocked highways and tolls plazas in revolt against tolls that hurt their profits and income.[165] Though public opinion may have been strongly against highway tolls, Senna and Michel (2000) find increasing acceptance among private drivers but continued opposition and disgruntlement among cargo drivers. In resopnse to public opinion, governors such as Jaime Lerner (PR) and Olívio Dutra (RS) attempted to unilaterally suspend or cut tolls.[166]

3.2.4.5. Intercity and urban transportation

Transportation concessions changed the least. State-owned urban transportation facilities were auctioned for multi-year concessions to private firms in Rio de Janeiro in the neoliberal reforms of the 1990s, while intermunicipal lines in multiple states were transformed into concessions often only after significant political conflict. I review the two areas separately.

Urban trains and ferries that were state-owned were transformed into operating

[160] For example, concessions were awarded in some cases to the highest proposed lump payment to the state, in other cases to the firm that promised the lowest tariffs, and in some cases to firms that promised to make the most investments in state roads (Rosa, Senna, and Lindau 2009:6-11). The Rio Grande do Sul state government followed the second model and the Paraná state government followed the third model.

[161] Bahia (Feb. 2000) and Minas Gerais (May 2007) managed delegated federal private highway concessions, while Espírito Santo (Dec. 1998, Rio de Janeiro (1996, 2001), and São Paulo (1998, 2000, 2008) manage exclusively state private highway concessions. Paraná (Nov. 1997), Rio Grande do Sul (Jan.-Jun. 1998), and Santa Catarina (Dec. 1994, Dec. 1998) manage both state highway and delegated federal highway concessions. Dates in parentheses denote the start of concession contracts.

[162] Jaime Lerner (PR), Olívio Dutra (RS), and Anthony Garotinho (RJ) all tried to freeze or lower tolls by decree (Marcelo Flach, "Concessionárias vão à Justiça no RS," *Gazeta Mercantil*, 15 April 1999 ; "Preço de pedágio cau pela metade no Paraná," *O Estado de São Paulo*, 16 July 1998; "Concessionária terá que explicar valor do pedágio," *O Globo*, 17 February 1999, p. 8.

[163] Interviews MS3, MT7

[164] "Pedágio na BR-101 irrita prefeitos de Região dos Lagos," *O Globo*¸6 November 1998, p. 20.

[165] "Pedágio/Redução," *Jornal do Brasil*, 14 March 1999; Sergio Torres. "Caminhoneiros para estrada por 4 horas," *O Folha de São Paulo*, 1 September 1998.

[166] Karam and Shima 2007:104; Marcelo Flach. "Concessionárias vão à Justiça no RS," *Gazeta Mercantil*, 15 April 1999.

concessions and auctioned to private operators as a means of shrinking the role of the state and filling state coffers. Until 1994, the state of Rio de Janeiro owned several ferries, a commuter rail line, an urban subway system, and even a parking garage.[167] The state retained ownership of the subway's physical plant, but made its daily operation a twenty-year concession on December 7, 1998. The remaining services were auctioned off with additional required investments for maintenance and new lines.[168] Plans for urban train and ferry concessions and privatization were developed for other states but never came to fruition.[169]

Existing transportation services also had to be turned into concessions. According to the 1988 Constitution and Law 8987 (1995), any public service should be subject to open competitive bidding. The requirement was applied unevenly. The Public Prosecutor's Office in several states sued the state government to compel it to reorganize permissions and authorizations for intermunicipal transport into proper concessions.[170] In other states, such as Rio de Janeiro, permissions and authorizations continue without legal challenge. Bus companies are big campaign donors and considered politically powerful.[171] Alongside regular operators, so-called clandestine services continue to operate outside of safety and business regulation, carrying passengers illegally.

Finally, bus terminals are operated as concessions by private firms in some cities across Brazil. Their joint public-private management, however, is not necessarily related to privatization reforms and concession laws of the 1990s.[172]

I summarize reforms and privatizations in these sectors in tables below.

3.3. Regulatory Agencies

3.3.1. Federal Agencies

President Cardoso and State Reform Minister Bresser-Pereira created the first regulatory agencies in Brazil, reshaping the administrative state. Historically, Brazil had little of a state apparatus not under the direct authority of the executive.[173] Brazilian executives at all levels retained the ability to hire and fire bureaucratic directors, with the exception of staff hired by open public examination.[174] Constitutional support for the concept of indirect administration in

[167] Interviews RJ3, RJ7.

[168] The state auctioned off management of urban trains on July 15, 1998, and ferry lines on February 5, 1998. The parking garage was sold in October 1998 ("Menezes Cortes sai por R$80 milhões," *O Globo*, 29 October 1998, p. 18. The train concession was recently extended to 2048 (Italo Nogueira, "Recordista em multas, Supervia renova contrato com RJ," *Folha de São Paulo*, 31 March 2010).

[169] See Cavalcanti (2002:5-6) for details.

[170] Notably, the state Ministério Público signed settlement agreements known as TACs with state governments in Ceará and Mato Grosso under which the state would hold bidding for monopoly lines (Interviews CE10, MT3, MT4). Incumbent operators have worked hard to stall implementation in both cases ("Governo quer reorganizer sistema de transporte em Mato Grosso," *A Gazeta* (Cuiabá), 4 May 2011).

[171] Interviews MT4, PR1, PR9.

[172] Socicam, by far the largest private operator, assumed management of Tietê and Novo Rio, the terminals in São Paulo and Rio de Janeiro, respectively, and the two largest in the country, in 1990. Socicam has run the terminal in Ribeiro Preto, SP, since 1976. See its website at www.sociocam.com.br.

[173] Geddes (1994:Ch. 3) discusses this history. The independent judiciary is an obvious exception.

[174] On super-presidential control over public hiring, see Abrucio 1998a; Daniel Bramatti and José Roberto de Toledo, "Governadores controlam máquina de 105 mil cargos sem concurso público," *O Estado de São Paulo*, 30 March 2013. Public servants who enter their position by means of a *concurso público* [public competition] are considered *concursado* and have job tenure, subject only to firing for just cause. By contrast, those who are not *concursado* can be dismissed at will.

office had to be found by the Supreme Court only after such bodies had been created.[175] Multiple governors and President-elect Lula voiced their intentions to remove directors appointed by their predecessors as late as 2003, despite these directors' stable legal mandate in office. By design, agencies were to be positioned at the center of an equilateral triangle, refereeing and balancing the interests of a trio of concession-grantors [the *poder concedente*], service users, and service providers/concessionaires. The model was adopted from historical experience of agencies in the United States and United Kingdom.[176] Regulators for energy, telecommunications, and oil and gas, Aneel (1996), Anatel (July 1997), and ANP (August 1997) respectively, came first.[177] The Cardoso administration then created agencies for food and drug sanitation (Anvisa), supplemental health care (ANS), water management (ANA), land and water transportation (Antt/Antaq), and even film (Ancine).[178] The federal models were soon copied at the subnational level.

State governments used the same model to create their state agencies. Creators and initial directors continued to emphasize the agency's role as a unit apart from direct control, equidistant among users, concessionaires, and grantors. As was the case for their federal counterparts, agency director terms were fixed, and in many cases terms were staggered.[179] While federal agencies were created per sector, most state agencies that followed were multisectoral. Most states initially created only one agency to handle all state services, with laws assigning the agency responsibility over an extensive number of policy areas. Actors charged with drafting agency creation laws also received support from the Public Utility Research Center at the University of Florida and from visiting staff of the World Bank and Interamerican Development Bank, all of whom relied on the same agency precedents.[180]

3.3.2. State Agencies

The regulatory model spread widely among states. Between 1997 and 2010, governors in a majority of Brazilian states signed laws creating regulatory agencies for infrastructure services. The first few agencies were founded in states controlled by governors belonging to President Cardoso's PSDB or allied parties, but other states soon followed.[181] In several states, agency creation laws were passed but the agency was never created.[182] The spread of agencies continued even after privatization activities slowed at the end of Cardoso's second term as president in 2002. The sanitation law of 2007 required that municipalities develop a "regulatory body" to oversee sanitation activities, which spurred the creation of regulatory bodies in several

[175] On these Supreme Court cases, see E.B. Krause (2005). The STF cited *Humphrey's Executor v. United States* (295 US 602 – 1935), which preserved fixed appointee terms in US administrative law, and distinguished between bodies responsible for policymaking and bodies charged with policy implementation. Because the latter did not *create* public policy, the STF considered their role constitutional (Krause 2005:45-59).

[176] Pacheco 2006; Bresser-Pereira 1998

[177] Aneel: Law 9427, 26 December 1996; Anatel: Law 9472, 16 July 1997; ANP: Lei 9478, 6 August 1998.

[178] Anvisa: Law 9782, 26 January 1999; ANS: Law 9961, 28 January 2000; ANA: Law 9984, 17 July 2000; Antt/Antaq: Law 10233, 5 June 2001; Ancine: Medida Provisória 2228, 6 September 2001.

[179] Agencies in Bahia and Espirito Santo were exceptions; directors there do not have fixed mandates.

[180] Interview RJ1.

[181] As will be explained in the chapter to follow, that co-partisans founded agencies first is not a sufficient causal explanation for agency creation.

[182] Brazilian constitutional law requires that the executive implement or "regulate" a law creating a new state body once it has been passed. Governors paid no legal penalty for not doing so, and agencies were not implemented in Minas Gerais, Tocantins, Piauí, Sergipe, and Santa Catarina.

cities and in Santa Catarina, Paraná, Espírito Santo, and Minas Gerais.[183] The three generations of regulatory creation are outlined and examined in the following chapter. Federal regulators also pushed the creation of local agencies.[184]

State agencies were usually multisector, with mandates to act across multiple policy areas. In some cases, regulatory agencies could regulate "public services."[185] Other laws listed the five core areas, and some even proposed that the agency oversee irrigation, telecommunications, and gyms and soccer fields.[186] According to the constitution, the core public services that are the state's exclusive resopnsibility are piped natural gas and interstate transportation, broadly defined. State agencies act to inspect and resolve complaints in electrical energy sources only through a delegation from the federal regulator Aneel. States can only regulate water and sanitation where they are given permission from municipal governments. Some agencies also split, or divided responsibilities with new agencies. The Rio de Janeiro agency was split into two separate bodies in 2005, and the state of São Paulo created a separate transportation agency in 2002 while transforming its energy council into an energy, gas and sanitation agency in 2007. Recently, the states of Espírito Santo, Bahia, and Santa Catarina created new separate state sanitation agencies, despite each already having a multisector agency. Several agencies were renamed, reformed, or terminated. A table in the next chapter details these events.

Even where agencies were created, not all were able to fulfill their mandates. Agencies remained underfunded, overruled, or otherwise unable to complete the functions assigned to them by their creation law. Two measures were taken to measure agency robustness. In the first, Correa et al. (2006, 2008) measure the formal aspects of agency implementation. Second, I performed an internet survey of all state agencies in the (southern) summer of 2010. Agencies were scored on several formal aspects and on informant perceptions of agency autonomy. The scores are compiled in a chart below.

The next chapter examines existing explanations for agency creation and robustness, and offers a novel causal theory to explain these events.

[183] Agesan (SC) created by Comp. Law 484, 4 January 2010; Arsae (MG) created by Law 18309, 3 August 2009; ARSI (ES) created by Comp. Law 477, 29 December 2008. In Paraná, Agepar was created by Comp. Law 94 of July 23, 2002, but finally regulated by decree on November 20, 2012 ("Governo cria agência que vai regular serviços públicos no Paraná," *Gazeta do Povo* (Curitiba), 20 November 2012). Roberto Requião, who served as governor after Lerner but before Richa, had refused to implement the agency.

[184] As a former Aneel director explained to me, Aneel staff had an interest in creating local ombudsmen to service complaints from distant areas. To this end, in their meetings with receptive governors and state secretaries, Aneel directors would offer draft legislation "under the table" (Interview DF3).

[185] For example, Agesc in Santa Catarina was charged with ensuring contracts are followed, users protected, and concessionaires given guidance in Article 86 of Lei Complementar 284 of February 28, 2005. Arcón in Pará was given a very similar responsibility in Article 2 of Lei 6,099 of December 30, 1997. In neither law are the services or policy areas to be regulated mentioned.

[186] Agergs was given authority over telecommunications and irrigation in article 3, items d and f of Law 10931 (1997). Agr has regulation authority over sports and leisure from Section 2, item v of Law 13,569 (1999). The provisions for telecom contradict the federal constitution's provision that telecom is a federal responsibility.

APPENDIX

Table 3.1: Public Service Provider Reforms in the Brazilian States

FIRM	STATE	DATE	COMMENT
ENERGY: Transferred to Private Operators for Limited Period			
Escelsa	ES	07/15/95	Previously federal
Light	RJ	05/21/96	Previously federal
Cerj	RJ	11/20/96	
Coelba	BA	07/31/97	
CEEE Centro-Oeste (AES Sul)	RS	10/21/97	
CEEE Norte-Nordeste (RGE)	RS	10/21/97	
CPFL	SP	11/05/97	
Enersul	MS	11/19/97	
Cemat	MT	11/27/97	
Energipe	SE	12/03/97	
Cosern	RN	12/12/97	
Coelce	CE	04/02/98	
Eletropaulo Metropolitana	SP	04/15/98	
Celpa	PA	07/09/98	
Elektro	SP	07/16/98	
EBE (Bandeirante)	SP	08/17/98	
CESP Paranapanema	SP	07/28/99	
Celpe	PE	02/18/00	
Cemar	MA	06/15/00	
Saelpa	PB	11/30/00	
Celtins	TO	09/27/89	
Borborema	PB	11/30/99	
ENERGY: Federalized			
Ceron	RO	October 1997	
Ceal	AL	August 1997	
Ceam	AM	April 2000	
Cepisa	PI	January 1997	
Eletroacre	AC	September 1997	
PIPED NATURAL GAS: Transferred to Private Operators for Limited Period			
CEG	RJ	07/14/97	
Riogas	RJ	07/14/97	
Comgas	SP	04/14/99	
Gas Natural Sul	SP	04/26/99	
Gas Brasiliano	SP	11/09/99	
URBAN TRANSPORT: Transferred to Private Operators for a Limited Period			
SuperVia	RJ	07/15/98	

(fmr Flumitrens)			
MetroRio	RJ	12/19/97	
Conerj	RJ	02/05/98	
HIGHWAYS: Transferred to Private Operators for a Limited Period			
Litoral Norte	BA	02/20/00	
Rodosul	ES	12/21/98	
Nascentes das Gerais	MG	05/21/07	
Caminhos do Paraná	PR	11/14/97	
Econorte	PR	11/14/97	
Ecovia	PR	11/14/97	
Rodonorte	PR	11/14/97	
Rodovia das Cataratas	PR	11/14/97	
Viapar	PR	11/14/97	
Via Lagos	RJ	12/23/96	
Rota 116	RJ	03/16/01	
Brita	RS	05/20/98	
Convias	RS	04/14/98	
Coviplan	RS	01/21/98	
Metrovias	RS	04/14/98	
Rodosul	RS	06/15/98	
Santa Cruz Rodovias	RS	05/25/98	
Sulvias	RS	04/14/98	
Colesc	SC	12/30/98	
Ecovale	SC	12/18/98	
Linha Azul Auto Estrada	SC	12/29/94	
AutoBan	SP	05/01/98	
AutoVias	SP	08/01/98	
Centrovias	SP	06/18/98	
Rodovias das Colinas	SP	03/02/00	
Ecovias dos Imigrantes	SP	05/27/98	
Intervias	SP	02/17/00	
Renovias	SP	04/14/98	
Rodoanel	SP	06/02/08	
SPVias	SP	02/10/00	
Tebe	SP	03/02/98	
Triângulo do Sol	SP	06/18/98	
Via Norte	SP	03/06/98	
Viaoeste	SP	03/30/98	

Sources: News accounts, various dates.

Notes: Escelsa and Light were owned by the federal government, not the state government, when they were sold. Companies that were "federalized" were sold to the federal government by the state to pay off debts.

Chapter 4: Delegation to Independent Regulatory Agencies

In this section, I elaborate and present evidence for my argument on agency creation. I argue that agencies are created in three distinct generations by governors who react to changing environmental prompts according to ideological pre-dispositions. These environmental conditions shift over time, becoming catalyzing stimuli at varying points in different states. The ideological dispositions of governors remain constant, but executives change in office. I explain this theory in detail, drawing on case studies and interviews conducted with the actors involved, and then present the evidence for it across all cases. All agencies were created to regulate over one or more private operators. I therefore develop a theory of agency creation for governors making decisions as private operators assume control of concessions. I also explore existing hypotheses in the literature, and employ evidence to demonstrate that these theories fail to explain my cases.

The chapter has three motivations. First, most models of delegation to an independent or quasi-independent agents rely on political competition and institutional arrangements that do not occur in the case of Brazil and its states. This study attempts to argue that delegation for instrumental ends is still possible in the absence of a) interbranch competition and b) institutional stickiness. Second, this study responds to previous work that considers the creation of regulatory agencies in Latin America the product of "imitation" or non-strategic choice (Jordana and Levi-Faur 2005; Jordana, Levi-Faur, and Fernández i Marín 2011). This project seeks to explain why and when particular governors decide to create regulatory agencies, as part of the global trend toward quasi-independent regulatory governance, for strategic reasons related to core interests. Finally, I will further relate the decision on timing and delegation to my following theory on agency robustness. Understanding the choices that lead to agency creation helps us understand how some agencies come to be active and well-supported.

My argument takes the following structure. I first define the outcome under study and develop an instrumental explanation for agency creation. I test this explanation with various data, and then demonstrate the shortcomings of competing explanations.

4.1. Outcomes of Interest

This chapter examines why and when regulatory agencies were created at the state level in Brazil in the period 1997-2007.[187] A single measure of the outcome would be dichotomous, with a law creating an agency either passing or not. All agency creation laws were authored by the executive branch, or by deputies working cooperatively with the executive branch.[188] Empirically, we see agencies created in three distinct generations: while state assets were being actively sold (1996-2002), immediately after this phase and during the first President Lula da Silva national administration, and after the passage of a new national regime for water and

[187] All agencies created in this period are multisectoral in nature. Their legally mandated functions and powers are substantially similar across states and sectors, making them a sufficiently homogeneous outcome. Agency directors did not always decide to employ all mandated powers, but that decision is left for discussion in following chapters.

[188] I have not verified this statement for all states, given the paucity of information about legislative processes in many states. As examples, Governor Britto (PMDB-RS) sent Projeto de Lei 342/1996 to form Agergs to the state assembly and eight minor amendments were offered by state deputies from the PMDB, PDT, and PP on December 18, 1996 and December 20, 1996. Only two amendments from Dep. Paulo Odone (PMDB) passed (ALERGS 1996). In Santa Catarina, the state executive sent Projeto de Lei 247/2005 to create Agesc, which entered into debate and passed on September 27, 2005 (ALESC 2005). I have not found any contrary examples in which legislators successfully passed laws creating agencies without authorial input from the executive.

sanitation, in January 2007. These three generations correspond to three distinct sets of institutions, both formal and informal, governing the role of regulatory agencies in Brazil.[189] I thus add a second dimension to the outcome: in which generation agencies were (or were not) created. After laying out the causal variables, I return to a model that connects the causal variables to the two dimensions of the outcome.

Not all laws, however, were enacted. Some governors signed laws ordering the creation of an agency, yet neither they nor their successors supplied the resources to form such a body. We might therefore create another dimension of *enactment*. I decline to add this to the causal explanation, however, because the reasons for non-enactment are largely idiosyncratic and add little to the theory.[190] I do discuss how adding this dimension might affect the larger explanation, however.

Governors also reformed, restarted, ended, split, or merged state regulatory agencies in the period under study. Such actions, however, fall under the separate purview of administrative reorganizations. While such a study could potentially be fruitful, I bracket it for future work. In my survey, governors employed administrative reorganizations to provide greater opportunities for public employment (for political allies), or to improve agency function.[191]

The outcome *creation* thus has two components: *passage* and *generation of law*. A third component, *legal enactment*, is treated separately at the end.

4.2. Theory Development

I begin my explanation by outlining several key propositions about the actors involved. The scholarly support for these fundamentals is found in a previous chapter. First, almost all governors seek to be re-elected, or to be elected to further office (the Senate or the Presidency).[192] To achieve future election, they aim to satisfy voters and promote economic growth in their state. Governors largely attempt to achieve these goals through large public works projects, sometimes in cooperation with the federal government or the private sector.[193] They also aim to satisfy voter concerns, though they draw votes from electorates of varying profiles, due to intra-state and intra-country diversity. Second, state legislative deputies play little role in policymaking or in overseeing the executive branch. Deputies thus have little involvement in the decision to create an agency. The governor possesses resources and powers

[189] In the first period, the federal government encouraged both privatization and the creation of local regulatory agencies. President Lula entered office opposed to further privatizations and skeptical of agency independence and legitimacy. The sanitation law of 2007, however, required cities to contract regulation to a "regulatory entity."

[190] Governors either declined to enact agencies that they had created, or, more commonly, their successors declined to transfer authority to the body or create a new agency.

[191] For example, interviewees RJ3 and RJ7 differ on the motives of Rosinha Garotinho – either increased sources of patronage or increased efficiency – in breaking the Rio de Janeiro agency Asep into separate agencies for a) transportation and b) water and gas.

[192] Though some former governors have entered the Chamber of Deputies as a federal deputy (e.g., Anthony Garotinho from Rio de Janeiro, Paulo Maluf in São Paulo) or tried to return as mayors of large cities (José Serra in São Paulo, Rosinha Garotinho in Campos, RJ), these positions are not on a normal career path. Former governors may also seek positions as federal ministers, though few scholars address how politicians win those positions. Governors (and executives at all levels) were eligible for re-election once after the passage of Constitutional Amendment 16 on June 4, 1997, but were able before and after that to run for all other offices.

[193] To the best of my knowledge, no cross-sectional study investigates the reasons gubernatorial candidates succeed (Maia Júnior 2003). Samuels (2002) argues that federal deputies seek to release funds for large infrastructure projects because the firms that win contracts for these projects will donate to the campaigns of helpful politicians. Similar behavior among governors is plausible.

that far outstrip those held by the legislative branch, and thus the former dominates the latter.[194] In most cases, governors can undertake administrative reorganizations with very minor resistance from legislators. Given their resource disadvantage, legislators are largely unable to develop sophisticated alternatives to policies proposed by the executive. Governors easily build coalitions to pass policies with a combination of pork and policy; most legislators depend on funds and government jobs controlled by the governor to sustain their political careers. Third, governors are the most visible and focal elected official at the least-visible level of government. Governors are the only elected officials at the state level that represent a formal district. State deputies instead are elected from nebulous political bases, whether concentrated in or distributed across a state (Ames 1995:326-331). As a result, individual deputies are rarely held responsible for policy changes or for problems arising across the entire state or within a specific region.[195] By contrast, governors are largely held responsible for general problems and policy improvements in the state. Fourth, autonomous civil society organizations were disorganized and largely ineffective at the state level in the contests over privatization and changes in the regulatory regime. High inequality and a culture of corporatism retarded the development of active civil society organizations in Brazil in general. Though local organizations serve neighborhoods and cities, few analogous bodies exist at the state level, and few groups organized a wide coalition sufficient to shape regulatory policy. Labor unions are a notable exception, but they succeeded mainly in delaying privatization, and only rarely stopping it.[196]

Given the above points, I base a theory of delegation on the "electoral connection" that guides governors' decision-making (Mayhew 1974). Rarely are governors guided by the need to satisfy state legislators or specific domestic interest groups. Governors may lobby for funding from the national executive or from international lending organizations for outside assistance, but do so with a view toward the end of future election and re-election. Governors also depend on allied mayors and important local political figures to turn out votes in future elections. Economic stability and growth, new services, and improved service provision are accomplishments for which they are uniquely positioned to claim credit.[197] Interbranch competition, which underlies most delegation models, played little role in governors' decision to delegate.[198]

Within this set of institutions, neoliberal reforms in the 1990s and early 2000s generated conflict that threatened governors' future electoral chances. I argue the following. First, consumers feared (or were led to fear) that private concessionaires would provide more costly

[194] Figueiredo (2001:9-11) notes that legislatures in Rio de Janeiro and Minas Gerais are exceptionally autonomous. See Abrucio (1998book) on state executive dominance.

[195] Of course deputies often claim credit for laws they author or advocate, and for bringing resources back to the towns within their electoral base (Ames 1995:333; López 2004:156, 157).

[196] Only in three notable cases did resistance by unions and allies completely halt privatizations: the water companies Embasa in Bahia and Cedae in Rio de Janeiro, and the energy company Copel in Paraná. In all three cases, events (judicial uncertainty on water concessions, capital market shifts) played larger roles in ending proposed auctions (Interviews PR5, PR8, RJ7; Ruy Fabiano *et al*. "Risco politico afeta ações das estatais," *Gazeta Mercantil*, 22 September 1998; José Pacheco Maia Filho. "CEF prorroga contrato com Embasa," *Gazeta Mercantil*, 5 October 2001; "Falta de regras leva Bahia a desistir de vender a Embasa," *Gazeta Mercantil*, 22 November 2001; Ricardo Rego Monteiro, "Dúvida sobre contratos pode adiar venda da Copel," *Gazeta Mercantil*, 26 July 2001; "Acordo para vender Cedae abre crise na Assembléia," *O Globo*, 10 November 1998, p. 13).

[197] Many may share credit with favored deputies from nearby hometowns.

[198] There are some cases where ideological opponents in the executive and legislature clashed (Anthony Garotinho in Rio de Janeiro, Olívio Dutra in Rio Grande do Sul, and Itamar Franco in Minas Gerais). In all cases, no delegation occurred.

service and would not improve services to a degree commensurate with cost increases, or at all. Secondly, new private owners of firms (with term-limited concessions) operated in a very uncertain environment, and were therefore wary of making needed large sunk investments. Governors' responses to these two concerns were largely affected by the ideological environment in which they operated, and sometimes by concrete incentives provided by outside actors. Governors borrowed from international and domestic experiences to create regulatory agencies as easily-available solutions to these dual dilemmas. Structural changes in consumer and concessionaire anxiety helped determine the generation in which agencies were created.

Below I map out these three mechanisms using case histories developed through intensive fieldwork in Brazil, and then look for support for the theory across all Brazilian state cases.

4.2.1. Privatization Reforms: Consumer Anxiety

The transfer of public service concessions to private owners raised voter anxiety.

First, state-owned firm transfers were themselves highly public and disruptive events. Governors aimed to win high sale prices in auctions for former state assets. To do so, they first had to relieve state firms of their extensive passive debts and high costs. State firms were to be "sanitized," which entailed firing redundant workers and addressing shortfalls in pension funds.[199] "Sanitized" firms would win higher auction prices and thus more state revenue.[200] As most state employees were unionized, "sanitizing" companies entailed confrontation with worker unions, and conflicts of varying degrees. In Pará, for example, sanitizing the state electrical company Celpa led workers from the PT-aligned union (CUT) to strike and sabotage equipment, which delayed the transfer of the company for four years from 1995 to 1999 (Interview PA7). Workers from the CUT union, in cooperation with the Movimento Sem Terra, invaded offices of Eletrosul (the Mato Grosso do Sul distributor) with demands to hold an assembly to discuss the firm's privatization.[201] Union leaders also resorted to judicial means to delay or thwart auctions. Any Brazilian judge can issue a temporary order blocking action known as a *liminar*.[202] In São Paulo, in the words of an interviewee, "it was hard to privatize CESP [the state energy firm, later broken up] ... each time we were ready for an auction, the judiciary would issue another *liminar*" (Interview SP3). An interviewee in Rio de Janeiro likened the same process to "trench warfare," noting that each step in the planning process was met by a lawsuit or a protest in front of the Rio de Janeiro stock market (the site of auctions) (Interview RJ5). Other stakeholders, mainly creditors, also sued to stop the transfers. As examples, the state of Maranhão sued to delay the sale of its energy company by the federal government, shop stall owners within the Menezes Cortes parking garage in Rio de Janeiro sued to stop its privatization, and city officials sued to block the transfer of state water companies.[203] These measures delayed sales, and cancelled several by demonstrating genuine public discontent and delaying reforms until the end of

[199] Interviews RS16, SP2.
[200] Gama Neto (2011: 141-143).
[201] Fabio Zanini. "Manifestantes ligados a CUT e MST invadem sede da Eletrosul" *Folha de São Paulo,* 24 December 1997.
[202] "Adiada venda de terminal" *Gazeta Mercantil*, 24 September 1998; Tatiana Bautzer, "Cedae/Adiamento," *Jornal do Brasil*, 28 September 1998. The auction of Celpa to private control in Pará was also delayed by judicial actions. See, e.g., Simone Romero. "Liminar anula a transferência de ações da Celpa" *Gazeta Mercantil*, 30 April 1998.
[203] See, *inter alia*, Suzy Gasparini, "BNDES define consultorias para avaliar energéticas," *Gazeta Mercantil*, 27 August 1998; "Adiada para dia 24 leilão do Terminal Menezes Cortes," *O Globo,* 16 September 1998, p. 19; Miriam Fernandes, "Novas regras para a venda da Cedae," *Jornal do Commércio do Rio de Janeiro,* 2 August 1998.

gubernatorial terms.[204] The net result of these delays was to heighten public awareness of the neoliberal reform process and attempt to generate opposition. These actions may have had some effect; by the time of the last transfer in 2001, voters had come to oppose privatization.[205]

Over the decade of privatization reforms, voters moved from mixed feelings about the process to opposition. Unfortunately, few firms conducted polls on voter beliefs at the time of privatization. Datafolha found that only 38% of respondents in São Paulo in February 1998 believed that the services provided by the state energy distributor Cesp would improve after its (scheduled) transfer, while 19% thought that the service would worsen and 19% of respondents believed that they would see no change.[206] Instituto Atlântico comissioned a poll of the Greater São Paulo area in November 1998 and found that 39% of those surveyed were against privatization, 43% of respondents agreed that privatization brought no benefits to the country, while some were slightly (13%) or very (34%) supportive of privatization.[207] This support fell over time, as price increases outpaced inflation. The firm Vox Populi produced results that support for President Cardoso's re-election rose even as support for further privatization fell.[208] According to an unsigned *O Globo* article, the development bank BNDES, which helped manage state-owned firm transfers, commissioned an internal survey in early 2000 that found very low support for the process. They declined to make the results public.[209] A few indicators suggest that the fears surrounding privatization declined. By 2001, only 10.2% of respondents in a poll blamed electricity shortages and rationing on privatization.[210] Yet opposition persisted. Where voters once expressed anxiety that private operators might price gouge, they remained unhappy with real price increases.[211] In Paraná, a survey by the Requião campaign showed that while 87% of users approved of toll highways in the state, 90% believed that the toll was too high.[212] Second, reform opponents charged that privatizing politicians and their cronies personally benefited from such processes.[213] For these reasons, Baker (2009) notes that after 1998, only a

[204] For example, Copel in Paraná and Cedae in Rio de Janeiro were scheduled to be transferred to private control, but a number of *liminares* delayed the auctions until no buyers remained interested (Copel) or the governor's term ended (Cedae). Successor governors did not continue the process for either company.

[205] Interviewees conceded that "the PT won the public opinion battle" on privatizations (Interviews PA7; SP1). As late as 2010, presidential candidates traded accusations that the other would privatize more parts of the state, or do so at a large public cost. Both candidates denied these charges ("Na TV, petistas e tucanos se dizem vitoriosos no debate," *O Globo*, 12 October 2010, page 14).

[206] "Para 38%, Cesp vai melhorar," *Folha de São Paulo*, 5 March 1998.

[207] Paulo Rabello de Castro, "Privatização e capitalismo para poucos," *Folha de São Paulo*, 29 November 1998.

[208] "A volta dos que não foram" *O Globo*, 20 June 1998, page 2. The firm Vox Populi found Cardoso`s support increasing from 31% to 34% (versus 29% for Lula), and noted that while voters were disappointed with the left's attacks on privatization, they were also disappointed with the results of public services privatization.

[209] "Discutir a omelete," *O Globo*, 31 August 2000, pg. 2.

[210] "Popularidade de FHC despenca," *Jornal do Commércio*, 30 May 2001.

[211] These initial concerns are reasonable given most energy distributors' previous history of deficits and artificially low tariffs. Private owners were allowed in most concession contracts to maintain a minimally profitable firm. Toll highways were also created on formerly free roads (Bandeira de Mello 2009).

[212] Maria Ines Nassif, "Paraná promete duelo de titãs e de métodos," *Estado de São Paulo*, 26 July 1998.

[213] These charges, with a focus on national-level privatization, have recently been collected in Amaury Ribeiro Jr. *A Privataria Tucana*, São Paulo: Geração Editorial, 2011. However, the charge that privatization was "selling away the state" was frequently used in campaigns from 1994 on. As one of many examples, there was the charge that "the PSDB is selling the state," made by PMDB pre-candidate Newton Cardoso in the 1998 campaign for governor in Minas Gerais (Paulo Barletta Paiva, "Newton diz a FHC que é candidato ao governo de Minas," *Gazeta Mercantil*, 11 February 1998, pg. A11).

minority of poll respondents favored privatization, and that support fell between 1998 and 2003; "[b]y 2003, at most 37% of Brazilians supported privatization, and just 27% believed that it had improved the quality and prices of services" (195). By 2005, almost 50% of respondents wanted to reverse privatization reforms (ibid:196-197).[214] Unfortunately, no state-by-state breakdown of public opinion exists, and it is difficult to distinguish exactly which groups opposed these reforms most zealously. Balbachevsky and Holzhacker (2006) show that feelings about privatization are correlated with opinions on the proper role of the state and partisanship. Murillo (2009:30-37) likewise argues that voters from different income groups should react in varied ways to privatization reforms.

Though price increases might have been commensurate with additional investments in service improvements, these improvements were usually slow to arrive. Multiple articles in the press highlighted poor service by new private concessionaires.[215] These issues might have been difficult for concessionaires to resolve, given substantial underinvestment in previous years.

Voter anxieties regarding privatization threatened governors' future electoral prospects. Governors undertaking transfers to new private concessionairess were popularly perceived to have benefited from the process, insofar as auction proceeds allowed state governments to repay debts and improve state fiscal accounts, and perhaps allowed governors to enrich themselves or cronies. Governors were also singularly focal in the process. A governor perceived to be receiving short-term benefits to the transfer of state-owned firms to private control while consumers paid more and received less value would lose support. This electoral vulnerability, of course, depended on the size and composition of the coalition that helped elect and support the governor, and on popular beliefs about the transfer process.

4.2.2. Privatization Reforms: Concessionaire Anxiety

At the same time that governors faced these voter anxieties, successful transfers to private owners would also require addressing the anxiety of actual or potential concessionaires.

New and potential concessionaires feared that states might keep service tariffs artificially low, or that they might renegotiate or breach contracts. There were historical precedents for this: in the 1960s the state of Rio Grande do Sul, under Governor Leonel Brizola, assumed ownership of the property of ITT and the energy distributor Amforp to create the state firms CRT and CEEE. In both cases he offered compensation far below market value, sparking diplomatic fights (Rodman 1998:171-172). The federal government had also nationalized properties and kept tariffs artificially low for energy distributors for much of the 1980s and 1990s, as detailed in the background chapter. Contemporary examples did not alleviate these concerns. Numerous governors lowered tariffs unilaterally for highways and populist governors threatened to cancel previously-signed concession contracts.[216] Other populist candidates campaigned on similar

[214] Baker does find variation in support for privatization across service sectors (2009:194-197).

[215] See, *inter alia*, "Alerj vai entrar no caso de Barcas S/A," *O Globo*, 21 July 2003, p. 11; Marco Antônio Moreira and Camila Matias, "Aneel reduz em 2,3 pontos percentuais reajuste da Light," *Gazeta Mercantil*, 3 August 2000, p. A11; "Aneel ameaça cassar a Coelce," *Gazeta Mercantil*, 30 May 2000; "Idec – privatização não melhorou os serviços," *O Globo*, 22 February 2000, p. 25.

[216] Both Roberto Requião in Paraná and Olívio Dutra in Rio Grande do Sul campaigned on the slogan that they were the way or path ("caminho") and their opponents the toll, promising to end highway concessions (Interview RS17; Maria Inês Nassif, "Paraná promote duelo de titãs e do métodos," *Estado de São Paulo*, 26 July 1998). Anthony Garotinho in Riode Janeiro campaigned with a promise to "review" all concessions, threatening to terminate them (Pereira da Silva, "Questão tributária norteia projeto," *Jornal do Commércio do Rio de Janeiro*, 31 May 1998; "Rumo ao Segundo turno: Candidato promote salto de arrecadação com o ICMS," *O Globo*, 24 October 1998;

promises. Multiple governors did deny tariff increases or lower tariffs.[217] Firms concerned that they might fail to make a sufficient return on their investment were hesitant to make the large sunk cost investments typical of infrastructure industries.

Concessionaires also required a high rate of return on their investments from 1995 to 2000. To maintain the Brazilian currency at parity with the dollar, both short-term and long-term interest rates were maintained at a very high level (Da Fonseca 1998:634-637). Country risk, the so-called "Brazil risk," remained high and volatile until late in 2003 (Garcia and Didier 2003:115-119). As a result, the cost of domestic credit was extremely high and may have further limited concessionaires' willingness to make large investments for fear of not recovering them.

Concessionaire fears, however, did vary by sector. State reforms placed economic regulation of energy firms with the federal energy regulator Aneel.[218] Electrical energy tariff adjustments were to be evaluated and approved by Aneel's staff, thus removing subnational agents from that line of regulation.[219] Although bus and ferry concessionaires might have worried about interference, their role as large donors to state assembly campaigns historically allowed them leverage in securing favorable tariff increases.[220] Concessionaires in highways, piped natural gas, and sanitation, however, remained largely subject to state government interference. We should expect transfers of piped gas, intermunicipal transportation, and water and sanitation concessions, policy areas beyond the reach of national regulators, to generate greater concessionaire anxiety. Transfer of electrical energy firms, subject to economic regulation by the federal body Aneel after 1997, should have generated far less concessionaire anxiety.

Governors, moreover, often had difficulty in convincing concessionaires (or voters) that policies would stay constant. As noted in the previous background chapter, governors faced few obstacles in setting policy or reversing the policy set by predecessors. For this reason, governors could not credibly promise that concession contract provisions would always be honored.

Governors needed concessionaires to make extensive sunk investments in infrastructure. In years shortly preceding transfers, high debts had prevented governors from making needed investments. High inflation in previous years had made long-term upgrade projects infeasible. Many interviewees stated that state-owned firms were transferred to private operators mainly because the state had lost its ability to make investments, but not its need for further investment.[221] Any improvement in services was contingent on these investments.

Interview RJ2).

[217] Dutra in Rio Grande do Sul and Lerner in Paraná both lowered highway tolls unilaterally. Dutra also refused to approve increases in water tariffs, while Requião in Paraná went to court to cut the board seats controlled by private minority owners of the state water company, and thus their share of profits (see "Briga pela Sanepar," *Valor Econômico*, 12 Feb. 2003; "O peso do risco político," *Valor Econômico*, 27 January 2004; Interviews PR2 and PR4). Requião also denied Copel a tariff adjustment authorized by Aneel and increased the total outstanding shares of Sanepar to diminish the percentage held by private Dominó Holdings.

[218] Economic regulation concerns the setting of prices, according to most commonly price-cap or rate-of-return formulae.

[219] Subnational actors could thus also do little to alleviate these specific concessionaire concerns.

[220] Multiple interviewees noted that bus companies are major donors to political campaigns, and thereby can win favors from sympathetic legislators and executive branch actors (Interviews MT4, PR1, PR9). At the moment, data on campaign contributions is not sufficiently fine-grained to identify bus-affiliated donors.

[221] For example, Jaime Lerner in Paraná asked that federal roads be delegated to the state as part of his 1994 campaign, promising an Integration Ring of roads connecting the main cities as central for economic growth (Interview PR1). A former state secretary recalls that over 70% of intermunicipal traffic in the state took place on

Concessionaire fears endangered governors' electoral prospects insofar as worried concessionaires might not make the large sunk investments needed to improve services. As governors are focal in state politics, they could take credit for new investments and improvements while being criticized for continuing problems. In general, as explained above, state legislatures play very minor roles in policymaking and as such rarely receive credit or blame for policy shifts. Governors and the state executive branch are much more visible and focal. Governors in office when service improved could claim credit for improvements. Inversely, governors of states that failed to make important investments would have reason to worry that citizen dissatisfaction or frustration would lead citizens to vote against the singularly focal incumbent. Finally, many concessions contracts failed to set adequate mandatory standards for service improvements. Early energy concessions contracts were vague, requiring only that over the thirty year term concessionaires were "obligated to realize, on their part, up to the investment limits set by legislation, projects and works necessary to the supply of electrical energy to those interested" without specifying concrete standards.[222] (Concrete standards came in later years with contract addenda set by the federal regulator.) Contracts in other infrastructure industries had been similarly vague or even overly favorable to the concessionaires. For example, former state secretaries noted that the highway contracts in Rio de Janeiro specified very minimal improvements to the road if the concessionaire was to charge the full (high) toll. Vague standards had been set in order to attract the highest bid from potential concessionaires (Interviews RJ7, RJ8).

Governors tried to commit to solving both consumer anxiety and concessionaire anxiety, but no failsafe option existed.

4.2.3. Issues of credibility

Governors can very seldom credibly commit to enduring public policies. They have short time-horizons, with four-year terms. As Abrucio notes, a lack of checks and balances and oversight allow executives to reverse policy decisions by their predecessors (1998b: 140, 141, 236). This lack of checks also allows governors to reverse their own previous decisions. As a result, wild policy shifts across and even within executive terms are common in Brazil (Alston et al. 2008: 111-117). Several new concessionaires went to court when the governor conducting the auction, or his successor, unilaterally failed to comply with contractual obligations for political advantage. Though few contracts were revoked, many had to be renegotiated, with concessionaires incurring interim losses.[223]

4.2.4. Available Options

Governors alone faced high anxiety from both voters and concessionaires, with few credible means of permanently addressing these concerns. They could choose among several

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federal roads, but maintenance of those roads was nonexistent (Interview PR1). Many previous state governors had allocated money to larger staffs instead of physical plant at state energy companies, given that the former was a more expendient use of electoral funds (Interviews PA4, MT1, AL2). Investment had also fallen in sanitation investment with the end of Planasa subsidies, despite Brazil's growing population (Saiani and Toneto Júnior 2010:99-100).

[222] This text is taken from the concession contract of Coelce in Ceará in 1998, second clause, fifth subclause. Other concession contracts of the period contain very similar language, being mostly standardized by the federal energy regulator.

[223] See the background chapter for a history of unilateral decrees on Paraná and Rio Grande do Sul highways. Requião eventually had to compensate a private shareholder to retake majority control of Sanepar (Celso Nascimento, "Efeito Dominó no Sanepar," *Gazeta do Povo* (Curitiba), 26 September 2007.

options.

First, governors might address these concerns through unilateral decrees. These decrees, like federal executive decrees, had the force of law for ninety days, until reversed, seconded, or allowed to expire by the state legislature, or became law instantly because the legislature or state constitution had delegated such authority to the executive.[224] Decrees could set (or reduce) prices for the transportation, gas, and sanitation sectors. To raise or lower tariffs, however, would open the governor up to criticism and pressure from concessionaire firms, consumers, or both. Concessionaires had legal recourse to the judiciary when the concession-granting power failed to comply with contractual obligations, but would incur costs to do so.

Second, governors might also delegate away price and quality-setting powers to remaining state-owned firms or to a federal regulator, intervening only when user complaints became overwhelming. Governors might trust that state and private concessionaires could act with minimal supervision, guided by directives from their directly appointed state secretaries. The prospect of stiff penalties would provide adequate deterrence. They might also choose to believe that the federal energy regulator Aneel could provide adequate channels for complaints and adequate inspection efforts. Such post-hoc corrections, however, left the governor open to criticism and lobbying for greater pro-active activities. Aneel has always been underfunded, with resources inadequate to monitor distributors in a large country like Brazil.[225]

Finally, governors might also create a regulatory agency designed to develop specialized expertise in setting tariffs and quality standards. Such governmental forms, in Brazil starting in the 1990s and globally

> became the `appropriate' model of governance in capitalist economies. .... Although ... agencies' autonomy varies widely across sectors and countries, they all represent an effort (a) to strengthen the autonomy of professionals and experts in the public policy process, (b) to keep the regulators at arm's length from their political masters, and (c) to separate the responsibility for policy making from the responsibility for regulation (Majone, 1994, 1997, quoted in Jordana et al. 2011:1344).

The regulatory agency model was a new technology introduced and promoted by the federal government, especially by Federal Administration and State Reform Minister Bresser-Pereira.[226] Additional actors such as the Interamerican Development Bank and the World Bank also promoted regulatory agencies as a solution for the credible commitment problem, even though the agencies would not create fully credible regulatory policy. Agencies could still be shut down, reversed, or defenestrated.[227]

4.2.5. Incentives to Choose Among Options

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[224] On state variation in executive and legislative powers with regards to decrees and laws, see Pereira 2001:261-269).

[225] A former Aneel director also noted that poor and less-educated users might be hesitant to contact Aneel's complaint line in Brasília for resons of unfamiliarity and culture (Interview DF3).

[226] Bresser-Pereira has extensively documented the federal state reform project and the introduction of regulatory agencies in Brazil at the federal level. He was a protagonist in both processes. See, e.g., www.bresserpereira.org.br and Bresser-Pereira (1998).

[227] For example, the Rio de Janeiro agency was stripped of resources in 1999 and leaders quit (Interview RJ5). The agency in Sergipe was shuttered without notice.

Governors had particular incentives both concrete and ideational to select each of the above options (unilateral decree, delegation to state firms, regulatory agency creation), incentives shaped by their external environment. I consider the institutional and ideational arrangements that shaped these incentives.

Governors sometimes were motivated by concrete incentives to create a regulatory agency. First, international lending institutions came to require a regulatory agency be put in place in order to extend credit to the state. These requirements were made more strict after the first generation of agencies were already in place; earlier loans only suggested regulatory agencies without specific provisions (World Bank 2003:vi, 8-9). For example, in the Federal District, the governor was required to form an agency within the state's basic sanitation program to continue receiving Inter-American Development Bank assistance (Interview DF1). The Bank thought inspections and a more transparent tariff-setting system would create a higher return on both parties' investments in water and sanitation infrastructure (ibid.). The federal government also made the argument that local agencies would be more responsive to the needs of the local population than would existing national regulators, and so pushed the regulatory model. Former directors of the national energy regulator Aneel helped develop draft laws for interested state actors (Interview DF3). Finally, the 2007 national sanitation law mandated that every municipality have a sanitation plan and a "regulatory entity" to manage water and sanitation projects, in order to receive national funds from the Program to Accelerate Growth (PAC).[228]

Concrete incentives also steered governors toward non-agency alternatives. Consumers would receive an immediate benefit to tariffs lowered by decree. Governing by decree or through secretariats did not require the resource outlay that new agencies entailed.

Governors' ideas and beliefs on the role of the state also oriented them toward one solution or another. Led by President Fernando Henrique Cardoso and Federal Minister Bresser-Pereira, the federal executive from the center-right PSDB argued that Brazil should move away from a state that plays an active role in fostering economic development through large public investments to a more minimal regulatory state that only acts as a referee among private firms while protecting popular interests (Bresser-Pereira 2003). Governors in all of the states that sold firms and created regulatory agencies before the October 1998 elections were from President Cardoso's party and his ruling coalition.[229] Governors created regulatory agencies because they felt that the specific form would enable them to retain control over and accountability from private concessionaires (or state concessionaires) while shrinking the state's workforce and allowing it to make investments in more important sectors such as health and education (Interview RS17). The concept of indirect governance through an agency, out of the direct control of the executive, however, was novel in Brazilian law and Brazilian politics.[230]

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[228] Law 11.445 of January 2007 requires an "ente regulador" be in place in order for municipalities to receive funds from the Programa de Acceleração do Crescimento [the "PAC"]. The law does not specify whether this regulatory entity should be statewide or municipal, but requires that the plan and entity be in place by the end of 2011. Several interviewees offered the opinion that these requirements would be loosened and PAC monies dispersed to non-compliant cities due to political pressures, and they were with Decree 7217 of June 10, 2010. The new deadline is December 2014.

[229] The non-PSDB governors who created agencies before 1998 were from the allied right-wing PFL (BA), the allied PMDB (RS), and from (but actively broken from) the opposition PT (Vitor Buaiz in ES – see Scherer and Pareira 2005). It is improper, however, to directly attribute this pattern to a simple partisan diffusion effect, as will be explained below.

[230] Major Brazilian legal scholars published multiple volumes in the early years of agencies to debate and explain

Opposition actors associated regulatory agencies' consideration for concessionaire profits an improper acquiescence to the new neoliberal project, and closely associated agencies with privatization. Populist governors seeking to re-negotiate concession terms therefore would be less interested in delegating authority to a formally impartial actor. Populist measures to redistribute concessionaire surpluses to users held more appeal for those initially opposed to neoliberal reforms.

These concrete and ideational incentives, however, were shaped by exogenous events. State-owned enterprise transferss and international loans both shaped governors' urgency regarding consumer and concessionaire anxiety. Both events, transfers of state firms and international lending opportunities, arose at discrete time periods determined by a number of factors. For this reason, governor concern over consumer anxiety and concessionaire anxiety varied over the time period. The decision to create an agency at a given time, therefore, was influenced by a number of time-sensitive events. Privatization also failed to take place in many poor peripheral states, because the potential investment returns for these small markets failed to attract buyers. Governors of these smaller states then felt less need to address latent anxiety. Some governors won election overwhelmingly, and felt little need to address consumer anxiety. For example, Governor Roseana Sarney was re-elected in 1998 with 66% of the first-round vote in the very poor state of Maranhão. Her family, led by her father, former President and current Senator José Sarney, has had significant political bases and clientelist networks in Maranhão since the 1950s (Interviews MA2, MA6). The transfer of the state energy company, Cemar, on June 15, 2000, brought the state a large windfall, which allowed for the dispersal of many funds necessary for further election.[231] Roseana had no need to create a regulatory agency in order to assuage voter concerns. Based on her popularity, Roseana Sarney planned to run for president in 2002, until a bribery scandal implicating her husband ended her campaign.[232]

We should also expect demonstration effects, though these are not central to the hypotheses presented above. Governors most likely observe the actions taken by peers in other states, and could thereby observe the functions and consequences of various strategies of addressing anxeities. In the early period under study, for example, the staff charged with drafting an agency law in Rio de Janeiro traveled to the United States, Chile, and Argentina to examine regulatory models' design and practice (Interviews RJ1; RJ6; RJ10). In Mato Grosso, the governor sent envoys to other states, Ceará, Rio Grande do Sul, and Goiás, to study how agencies operated there (Interview MT9).[233] Though the experiences of other states might influence governors' decisions, a diffusion explanation is incomplete insofar as it fails to specify *why* any governor would follow through and "copy" the neighbor's actions. Diffusion explanations trace the course of an idea or innovation, but often fail to trace concrete motives back to actors making decisions, both in theory and in empirical testing.

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their role in Brazilian law (Justen Filho 2002; Aragão 2006; DiPietro 2004). The Federal Supreme Tribunal judged fixed terms for agency directors constitutional in 2000, after a contentious battle between agency directors and the governor in Rio Grande do Sul. To date, however, regulatory agency autonomy has no federal constitutional basis in Brazil, and an "agency law" specifying the basis for such autonomy remains stalled in the federal Congress (Projeto de Lei 3,337, introduced 13 April 2004 and withdrawn 14 March 2013).

[231] Silvio Bressan and Ricardo Osman, "Privatizações dão R$35 bilhões em ano eleitoral," *Estado de São Paulo*, 18 January 1998.

[232] She ran for and won a Senate seat instead ("A operação da crise," *O Globo*, 3 March 2002, p. 3).

[233] My first interview at the Ceará agency coincided with a visit by the president of a newly reformed agency in Paraíba (Interview CE1).

In sum, governors created regulatory agencies to address high consumer anxiety and/or high concessionaire anxiety when presented with incentives to do so by their institutional environment and ideological position. Delegation was an instrumental decision. We should expect agencies to be created where governors are most concerned with high consumer anxiety and/or high concessionaire anxiety, and where incentives to create an agency were strong. We can separate these out as hypotheses to be explored. I explore all three of these variables and discuss their connection. I end with a discussion of alternate explanations.

4.3. Multiple Case Evidence

Below I explore possible measures for the three hypotheses developed above.

1. *Governors are more likely to create regulatory agencies when consumer anxiety is high.*
2. *Governors are more likely to create agencies when concessionaire anxiety is high.*
3. *Regulatory agencies will be chosen over unilateral action or direct governance where ideational and concrete incentives lead them to do so.*

Measures of the above causal variables will be indirect. It is impossible to reconstruct governors', voters', and concessionaires' decisionmaking processes, and very few surveys were taken at the state level in the period under study.[234] I instead rely on measures of related phenomena that might shape actors' decisionmaking in very similar ways.

4.3.1. High user/consumer anxiety

Governors will act to assuage and lower consumer fears that privatized services will cost more and deliver less. Users feared that transferring public service concessions to private operators would result in higher prices and changes in service quality incommensurate with (or lower than) the marginal change in user costs. I posit that these concerns varied among states.

I restrict attention to private concessionaires, as state-operated firm directors had no need to fear expropriation. State-owned firms continued to be run by appointed bureaucrats loyal to the executive or an allied party. Their interests varied little from those of the executive and his allies. Directors had few incentives to generate conflict and controversy to defend their firm; the same firms relied on funds under state control for investments.

My theory suggests that governors acted upon perceptions, which may or may not have been based on real events or concerns. As we cannot replicate their decision-making processes or elicit perfect recall from former officials, I rely on indirect measures of consumer anxiety in these years to find support for the theory. Case studies reconstructed from primary and secondary documents and semi-structured interviews with involved participants provide support for the theory and are employed throughout the chapter. To measure consumer anxiety indirectly, I measure the following phenomena. First, I investigate the timing of agency creation relative to the transfer of state-owned firms. I make the assumption that uncertainty and anxiety are highest at the moment of sale in most cases, as new concessionaires and the potential outcomes associated with their management are unknown. Second, I investigate the electoral position of governors who sold control of state firms. I expect that governors who were elected by narrower margins, and thus more vulnerable to lose future elections because of small shifts in support or approval, will be more likely to create an agency when or after they transfer public service firms. Finally, I employ a suvey on attitudes toward public and private administration as

[234] There are no comprehensive cross-state surveys on the effects of privatization on either public opinion or concessionaire concerns.

an indirect measure of public opinion on privatization.[235] I explain each measure below.

First, consumer anxiety about the effects of privatization should peak with the initial transfer of assets to private control. At the time of the auction, buyers were unknown. Consumers had no experience using public services provided by a private actor. Opposition to the transfer peaked before or at the auction itself; few protests occurred after the event passed. Political opponents made public statements about the potential risks associated with private control.[236] I measure the time interval between sales and the passage of a law creating an agency, in months.[237] I have no prior belief that agencies should be created before or after a transfer to private control occurs.[238] Both state reform and agency creation were long processes that overlapped or complimented one another.[239] Agency laws had few precedents initially, and executive staff often had to borrow models to write legislation. For this reason, I measure the number of months between creation and the closest auction event, whether before or after.[240]

The results are found below.

The numbers generally support the hypothesis. As shown in Column A of Table 4.3, governors in most states created agencies within one year of state firm transfers. Poor peripheral states failed to transfer assets to private firms and thus had no need to create agencies to address voter anxiety or concessionaire anxiety.

Evidence from some states whose timing in agency creation fails to support the thesis also fails to undermine it. Specifically, the states of Alagoas, Espírito Santo, Maranhão, Mato Grosso do Sul, Mato Grosso, Paraíba, Paraná, Rio Grande do Norte, and the Federal District created agencies more than one year after privatization, or seemingly in the absence of privatization. However, agency laws passed in several states as reform and transfer plans developed. Governor Jaime Lerner of Paraná created an agency in July 1998 before a sale of Copel shares planned for October 1998.[241] Governor Ronaldo Lessa in Alagoas anticipated that the federal government, having taken over the state energy distributor Ceal, would sell the company in 2001.[242] Governor Vitor Buaiz in the state of Espírito Santo sought to privatize sanitation assets toward the end of his term, and even obtained a BNDES loan to begin sanitizing the state water company Cesam in 1998.[243] Mato Grosso failed to find buyers for its state water

[235] A previous version of this argument explored whether governors who created agencies were elected by voters from more developed cities, as middle and upper class voters are more aware of and sensitive to service and price changes. That approach was dropped for an inability to use any source other than city-level data and get around the problem of ecological inference.

[236] Ruy Fabiano *et al.* "Risco politico afeta ações das estatais," *Gazeta Mercantil*, 22 September 1998; "Garotinho planeja rever privatizações de Marcello," *O Globo*, 20 May 1998, p. 5.

[237] To calculate months, I divide the number of days by thirty.

[238] Unlike Levy and Spiller (1994; 1996), I do not argue that governors created agencies in advance of privatization in order to attract investors and win more investments.

[239] Due to delays and opposition, privatization dates were often rescheduled (see the background chapter). Writing and revising regulatory laws also took time (Interviews RS5, RJ1). As a result, timing rarely went as planned.

[240] For the average durations in the study, months are more easily interpreted than are days or years. Negative numbers indicate that agencies were created some months before a privatization auction.

[241] As explained in the background chapter, the proposed transfer of Copel to private control failed. Repeat judicial delays led the Lerner government to reschedule the auction for the fall of 2001. The early 2000s recession and events of September 11th cut the number of potential buyers to zero (Interview PR8, "Lerner confirma suspensão na privatização da Copel," *Gazeta Mercantil*, 28 January 2002, p. B2).

[242] "Governador reclama de alto indice de comprometimento de receita," *Estado de São Paulo*, 6 February 2000.

[243] Silvio Bressan and Ricardo Osman, "Privatizações dão R$35 bilhões em ano eleitoral," *O Estado de São Paulo*, 18 January 1998.

company Sanemat in 1998, and so returned the physical plant of the company to cities in a "municipalization" process. According to interviewees, Governor Dante Martins de Oliveira created AGER-MT to ensure quality in local sanitation concessions (Interview MT7). Several cities independently contracted with private concessionaires (Interview MT1). In order to not assume Sanemat debts, cities were required to sign contracts for inspections with the new state agency (Interview MT7).[244] Santa Catarina experienced no privatization in 2000, and the agency created (ARCO) never functioned. However, in 2004 the state energy company Celesc refused to compensate users for an October 2003 two-day blackout in the state capital Florianópolis, and was subsequently fined a record amount by Aneel.[245] Shortly afterward, the government created and installed the agency Agesc.[246] In summary, most fears about the potential harm (or uncertainty) of privatization were contemporary to the transfer or planned transfer.

Second, I measure whether governors faced heightened political competition before or after they created an agency. We might expect that governors who foresaw that they would be re-elected easily would be less inclined to address potential consumer fears. Governors who had been previously elected by a narrow margin or foresaw high competition in the next round would respond to voter anxiety, *conditional on transferring state infrastructure*. I distinguish this hypothesis from other explanations relying on political competition below. I first record whether governors faced a second-round challenge in prior or later elections.[247] I then measure the margin between the winning candidate and the candidate winning the second-most votes in the previous election. We should expect governors with lower margins in previous elections to be more likely to delegate and create an agency.[248] Data are taken from the Superior Electoral Tribunal in Brazil. Data outside of electoral years are not used.[249] I argue that agencies created within one year of privatization auctions provide supportive evidence for this mechanism. As is explained elsewhere in this chapter, both drafting laws for agencies and auctioning state assets were lengthy, complex processes; we should not expect them to occur on the same date. When they occur within one year of each other, however, they might be recorded as positive scores on the same year observation in survival data.[250] I consider these qualifying scores (within twelve months) supportive evidence.

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[244] This provision was never enforced (Interview MT7).

[245] Tina Braga, "Celesc anuncia que não indenizará consumidores prejudicados com apagão," *Jornal do Brasil*, 7 January 2004; "Agência aplica multa recorde por causa de blecaute em Florianópolis," *Folha de São Paulo*, 10 February 2004. Celesc was not privatized insofar as the state maintains majority ownership, but its shares have traded publicly on the São Paulo Stock Market since the mid-1990s.

[246] Lei Complementar 284 of February 28, 2005 created Agesc.

[247] Candidates for governorships, the presidency, or the mayoral office in large cities and state capitals in Brazil must win 50% plus one vote in the first round in order to prevent a second-round runoff contest between the two candidates winning the first round vote.

[248] Some governors chose not to run or ran for different offices following their term in office, for many reasons. I therefore decline to measure the same vote difference in the subsequent election. This measure introduces censoring insofar as those who are barely elected may choose not to run again.

[249] One might also measure the share of mayoral positions in each state won by the governor's party or by parties in coalition with the governor's party. However, I decline to do so because of the plethora of local issues that might decide city races. State races where the governor is the focal candidate, though they occur only every four years, are more accurate measures of the governor's support. I also decline to use opinion polls conducted between electoral periods, made available by Datafolha and Vox Populi, as the data are far from comprehensive and comparable. Only a select number of states were polled, at irregular periods.

[250] Years are the most common units used in survival and duration models employed in studies most closely related to this one (e.g., Murillo and Martinez-Gallardo 2007).

The evidence on the effects of political competition is mixed. First, there are few negative cases that can be used as counterfactual cases. It is difficult to know whether state governors who privatized and faced little political competition might not have created agencies, as there are only two counterfactual cases. Maranhão provides one case. Governor Roseana Sarney was re-elected in the first round in 1998 with over 66% of the vote.[251] She sold Cemar, the state energy firm, to the American firm PPL Global in June 2000, reaping a windfall, but declined to form an agency. As noted above, Sarney enjoys a dominant position in Maranhão politics. Wilson Martins in Mato Grosso do Sul also sold the state energy distributor, Enersul, in November 1997 without creating an agency. Martins too had been easily elected in the first round in 1994 with 53% of the vote, but declined to run for re-election in 1998. (He retired from politics at age 81 in 1998. His vice-governor received the most votes in the first round in 1998 but lost the second round.) These negative cases provide some support that low political competition accompanies a lower need for an agency.

Governors creating agencies are almost evenly divided between those who won in the first round and those who had to contest a second round. Their vote margins are also mixed. As seen in column B, twelve governors who created agencies won office in the first round with no need for a run-off. Twelve governors who created agencies won only in the second round after advancing to a run-off.[252] In Column C I give the average margin in the first round between the eventual incumbent and the nearest vote winner (by definition, the eventual winner is one of the two highest vote recipients). The averages for the 1994, 1998, and 2002 elections, across all states, are 14.76, 17.34, and 12.26, respectively. Eleven governors who created agencies had vote margins above the national average when they were elected (prior to creating an agency). Thirteen scored below the average in their prior election vote margins. Finally, the measures are admittedly blunt insofar as they fail to capture governors' popularity and sensitivity to changes in public opinion after their elections. The measures may also fail to capture the true extent of political competition in the state. I thus find mixed support for this hypothesis in the cross-case data.

Finally, the only state-by-state breakdown of feelings on privatization is found in the 2002 post-election survey conducted by the Universidade Estadual de Campinas's Center for Studies on Public Opinion (ESEB 2002). The survey codes each of 2514 respondents' state of residence, and interviewed a number of respondents from each state roughly proportional to state population.[253] In the December 2002 survey, among a battery of other questions, respondents were asked who should run various public services: the government, the government and private firms, or private firms.[254] We might re-code these responses as opposition to private control, equanimity (or ambivalence) with regards to private control, and support for private control. For

[251] Her vice-governor José Reinaldo Távares finished her term in 2002 and signed the law creating a regulatory agency.

[252] In the two of the states where agencies were never created, gubernatorial elections reached a second round in 1994, 1998, and 2002. In Piauí, the gubernatorial race included a second round in 1994 and 1998. These data fail to support the idea that greater political competition should lead to delegation.

[253] The per-state range is from three respondents for the small state of Tocantins to 738 from São Paulo.

[254] Unforunately, a codebook is unavailable. The responses to question 107a-n are scored as zero, one, and two for responses "government, "government and private firms," and "private firms" ["governo," "governo e empresas particulares," "empresas particulares"] to the query "opinion on who should administer..." [*opinião sobre quem deve administrar...*] Fourteen policy areas are covered, but I leave most areas out (e.g., banks, car manufacturing, health, justice).

our purposes, respondents were asked for their opinions on who should administer transportation, highways and roads, water, sewage, and electrical energy. Gas was not included. The data come with several caveats. First, we might be overly broad or narrow in interpreting the Portuguese verb *administrar* to mean "operate" or "own." Respondents may have associated service administration with service regulation or command. Second, these questions might capture users' statist attitudes or their particular experiences with service delivery.[255] For example, a respondent might firmly believe in public provisions for all services, or her poor experience with state-run water delivery (which occurs in most states) might make her open to private operations, though she has never lived with private water delivery. Finally, we should take account of the very small sample sizes for several states; I include sample sizes.

With these caveats in mind, the percent of users in favor of government administration are displayed in Table 4.1 and Table 4.2 below. In Table 4.1, per-state percentages are given of respondents that gave the opinion that only government should administrate the service or sector. In Table 4.2, the percentage of respondents saying that only government or both government and private firms should administrate the service or sector is given. Both percentages can be loosely interpreted as the rough level of opposition to private operations, using either a broad or narrow definition. Higher numbers indicate greater opposition.

These charts provide limited information. Beliefs that government should administer transportation are remarkably high, given that governments operate public transportation only in limited urban areas in a handful of states.[256] As we might expect, however, the lowest percentage of respondents believe that transportation should be administered by the government. The belief that only government should administer services is remarkably low across all sectors in Rio Grande do Norte, and to a lesser extent in Mato Grosso.

I am particularly interested in the relationship of beliefs about public administration as they relate to agency creation. Governors created agencies in four states in 2002, the year that the survey was administered: São Paulo, Paraíba, Paraná, and Maranhão.[257] The governor of Acre created a state agency in January 2003. Beliefs about consumer anxiety over private control, here expressed as opposition to private ownership, should be higher in these states than in others at the time that the survey was conducted (in December 2002). In making this comparison, I implicitly assume that states with functioning regulatory agencies (created in 2001 or before) have bodies working to alleviate these concerns, and that states without agencies have not yet met a critical threshold for consumer anxeity that compelled the governor to create an agency. This comparison sets up three counterfactual claims to be evaluated. First, we can compare the four states creating agencies in 2002-03 to states still without agencies. We might also expect support for private operations to be lower than the population average, and make a comparison. Third, we might suppose that states with agencies have lower consumer anxiety and thus higher support for private control of public services. We can then compare support for private operation in states with and without agencies. The averages for these states and the remaining states are below.

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[255] As noted above, Balbachevsky and Holzhacker (2006:47-49) find that beliefs about the proper role of the state are highly correlated with attitudes toward privatization.

[256] States do provide school busing; it is unclear whether respondents thought first of school buses when prompted for an opinion on "transporte." The specific phrases "public transport" or "public transportation" were not used.

[257] I leave aside for now the fact that two of these agencies (in Paraná and Maranhão) were never implemented. São Paulo also only created a transportation agency; an energy and gas agency already existed.

In none of these categories is the difference between states that created agencies in 2002 or 2003 and those states that did not statistically significant.[258] Small modifications to the categories do not produce different results.[259] The difference in average responses between states that had and had not created agencies by December 2002 was also found to be insignificant. The ESEB results thus fail to support my hypothesis.

4.3.2. High concessionaire anxiety

Concessionaires feared that states would, fundamentally, not comply with their promises to not expropriate. Thus measures of concessionaire anxiety and uncertainty should focus on how likely the state would be to break commitments.

I first measure the state's history of debts, as a measure of its history of failure to comply with commitments. All state debts were finally re-negotiated in 1998, with two notable exceptions.[260] The debts are taken from the Ministério da Fazenda's numbers, provided by Abrucio and Costa (1998:89). The numbers are provided below, given as the ratio of outstanding state debt in 1996 and 1998 to state revenue in 1996 and 1997. Agency creation in higher-debt states would be supportive evidence for the hypothesis.

The data provide qualified support for the hypothesis. All the states with debt-to-income ratios above the median do create agencies. It is not the case, however, that the highest-debt states are first or quickest to create agencies. Among the top scores are those for Mato Grosso, Mato Grosso do Sul, and Maranhão, all of which created agencies in 1999, 2001, and 2002. I drop Goiás from consideration because its privatization program, and thus its contractual obligation to private infrastructure firms, was very limited. Several states below the median created agencies that were not enacted: Paraná, Espírito Santo, and Tocantins.[261] In all, the evidence is limited that high state debts led governors to create agencies as a means of signalling an improved ability to fulfill its commitments.

I next investigate whether states that ran greater deficits are more likely to create a regulatory agency. I again use the state's fiscal balance as a proxy for its ability to commit to not expropriate from private concessionaires. While levels of debt reflect the state's ability to pursue balance over decades, fiscal deficits are indicators of recent political management. I use data for the years 1995 to 1999, taken from the National Treasury Secretariat (STN) on deficits or surpluses as a percentage of total state revenue.[262] Data on fiscal balance begin in 1995, the first full year of the Real Plan. The year 1999 is a logical endpoint because the Fiscal Responsibility Law began to govern state fiscal policy the following year, restricting state budget spending. I compare the average proportion for states that did (sixteen) and did not pass (eleven) an agency

[258] Computed using a t-test for unequal sample sizes and unequal variances.

[259] Switching the states of Acre and São Paulo from one category to the next, individually and jointly, does not produce significant differences. (São Paulo created a transportation agency in 2002, having already created an energy and gas "commission" in 1997.)

[260] Incoming governor Anthony Garotinho in Rio de Janeiro chose to reopen debt negotiations upon entering office in 1999. Joaquim Roriz in the Federal District demanded the same. I record the debts that the state and federal district had incurred in 1998.

[261] Tocantins became a state in 1989, and its low debt level should not indicate a strong commitment to meeting repayment schedules.

[262] One might also use data on deficits or surpluses as a percent of state spending, but state revenue and state spending are highly correlated and the proportions would be highly similar. I decline to use the fiscal balance as a percent of GDP due to high skew in state GDPs and the size of the private sector relative to the public sector (both have long tails for observations for São Paulo). The data I use is at http://www3.tesouro.fazenda.gov.br/estados_municipios/index.asp.

creation law by 2000.

The results moderately support the hypothesis. While the overall average for all states across five years is a 6% deficit, the average for states creating agencies is 8% and the average for states not creating an agency is 3%. A test for two unequal sample sizes with unequal variances produces a t-statistic of less than 0.01, indicating that the difference is not statistically significant.

Second, we might measure the possibility that a populist candidate would enter office and attempt to expropriate concessionaire funds. This argument is similar to Rui de Figueiredo Jr.'s (2002) model in which the probability of delegation to an agent increases directly with the increases in the possibility of replacement in office. I measure this possibility as the total vote share won by left-wing gubernatorial candidates in the prior election.[263] I define left-wing candidates according to an expert-survey-based coding scheme developed by Krause et al. (2010). This coding scheme is more expansive than the coding developed by Power and Zucco (2009) using national legislative voting histories, insofar as more parties are included. Though it might be argued that not all populist parties are left-wing, it is difficult to identify exactly which parties are populist in each state at different elections. I believe that leftist parties are a good proxy for parties liable to expropriate invested funds, given their stated opposition to privatization.[264] I decline to measure the percentage of mayoral seats, state assembly seats, and national assembly seats, as these numbers are largely a function of the candidate-centric electoral rules in Brazil. Though Samuels (2003) explains that all three positions – mayor, state deputy, and federal deputy – provide the most likely candidates for statewide executive office, their elections are largely due to varied municipal politics and scattered electoral bases. Finally, Pereira and Melo (2004) used a measure of the history of turnover in executive as a proxy for volatility, investigating whether higher political competition and higher turnover rates in office increase the probability of delegation to an independent regulatory body. (The paper asks a question very similar to that which motivates this chapter.) They found no effect, and I decline to replicate their results at this time.

Turning to the data, the potential that left-wing candidates came close to winning office in the previous election seems to have no bearing on agency creation. The relevant vote percentages are shaded in the attached chart. Of the agencies created in between the 1994 and 1998 elections, six were created in states with above-average left-wing vote totals (with one agency created by a member of the PT himself). In three states, governors faced lower-than-average vote totals by the left in the prior election. After the 1998 elections, governors created agencies in four states in which the leftist vote was higher than average, and in eight states where the left-wing party vote total was lower than average. In three of the states with above average vote totals, governors creating agencies were themselves from left-wing parties. Finally, after the 2002 elections, a PT governor from the left in Acre and the PMDB governor in the Federal District both created agencies. In both states the first-round cumulative vote for the left was above the national average for that election. The results are too mixed to provide any support.[265]

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[263] As before, comprehensive state-by-state pre-electoral polls do not exist for this period.

[264] Unfortunately, including only left-wing parties leaves out the PMDB, a catch-all party (and one of Brazil's largest) that had both anti- and pro-privatization leaders. A state-by-state classification of the PMDB is infeasible. I can point to specific examples: the PMDB under Roberto Requião in Paraná ran anti-privatization campaigns, as did Itamar Franco and the PMDB in Minas Gerais.

[265] I acknowledge that the use of national averages is not a very good measure of national effects/tendencies in support for left-wing candidates, given large population disparities among states and diversity on the Brazilian left.

Finally, I decline to use several measures for concessionaire uncertainty. It might be argued, for example, that a higher number of buyers represents a greater willingness to risk large sunk investments on public concessions, and that this greater number represents less concessionaire uncertainty. A higher profit margin on each auction might also signal a greater risk acceptance. Both factors, however, are shaped by too many causal variables unrelated to concessionaire uncertainty. Most significantly, international capital flows into Brazil fluctuated over time. After the Asian financial crisis, and after the de-pegging of the Brazilian real in January 1999, empirically, fewer buyers were willing to invest in Brazilian assets. Setting a very low minimum price, moreover, might both attract more buyers and create a higher margin in the auction. State secretariats set minimum prices under a great deal of uncertainty, and these baseline prices are hardly comparable. Thus I focus primarily on variables more closely related to concessionaires' perceptions of political risk.

The results are found in a table below, given for multiple election cycles.

4.3.3. Ideational and concrete incentives

To examine why Brazilian governors seized upon regulatory agencies as a solution for the twin dilemmas addressed above, I turn to both ideational and concrete incentives. The first independent variable can be measured best by party identification. Though parties are ideologically mixed and even inchoate throughout Brazil, a) no better measure for a governor's ideology exists and b) Hagopian et al. (2009) finds that parties have eventually formed an ideological divide precisely around the issues (privatization and the role of the state) under study.[266] Concrete incentives are less systematic. Beyond privatization, governors raised funds through international finance loans and national finance loans. Various factors might explain which governors sought and received loans, but those who received loans after 1998 were frequently required, or at minimum received a recommendation, to form a regulatory body to ensure proper compliance with contractual obligations. In 2007, federal funds for sanitation expansion were made contingent on the establishment of a regulatory entity. I treat cases separately, with an acknowledgement that we cannot know which states failed to win loans.

First, I examine partisanship as a measure of ideology.

In the first generation of agencies, from 1997 to 2002, almost all governors who created agencies were members of President Fernando Henrique Cardoso's PSDB or parties of the right and center allied with the PSDB. The national PSDB and President Cardoso's staff promoted quasi-independent regulatory agencies as legitimate solutions to the fears provoked by privatization.[267] Following his success at combating inflation, Cardoso promoted a narrower Brazilian state focused on making needed investments in core policy areas while delegating away control over non-essential services to private firms. PSDB and allied governors faced strong pressure not to undermine this new national regulatory regime under construction. Governors were encouraged not to issue decrees contrary to new rules and decisions by new bodies.[268] This new national regime mainly concerned telecommunications and electricity producers and distributors; there was less area to act against the president in the area of transportation, for example. As noted before, directors of the federal energy agency actively lobbied states to form agencies, offering help for such measures (Interview DF3).

[266] Lucas and Samuels (2010) disagree.

[267] Their ideological bent can be found in the works of the Federal Administration and State Reform Ministry, led by Luiz Carlos Bresser-Pereira.

[268] Jaime Lerner of Paraná, not originally from an allied party, faced less pressure.

Beyond the first generation, regulatory agencies became more legitimate institutions. Incoming President Lula da Silva provoked a minor crisis of legitimacy in agency-run regulatory governance by wondering after his victory why the president, as the primary policymaker, could not replace agency directors unsympathetic to his goals.[269] He declared his intentions to make such changes. The crisis passed when Lula neglected to act in such a manner, and the PT, the most visible and active opponent of privatization and agency creation, ccame to accept the role of agencies. The federal government began PRO-REG in 2003 to promote a collection of documented best practices in regulation. The PT governor of Acre formed an agency in 2003. Finally, agency directors and staff themselves created a national organization aimed at improving the performance, visibility, and legitimacy of regulatory bodies in Brazil.[270]

We should therefore expect strong ideological influence on agency creation before the election of Lula in 2002, and declining influence thereafter. The pattern holds, with two exceptions: PT governors in Espírito Santo and Mato Grosso do Sul. However, both these governors faced pressure from voters and concessionaires at idiosyncratic times. Specifically, when the PT governor in Mato Grosso do Sul assumed office in 1998, state workers had not been paid for four months, over three thousand public works projects were paralyzed, and energy concessions had been privatized entirely without standards for investment (Interviews MS3, MS4, MS8, MS9). Underinvestment in state gas and water concessions undermined service, and the only profitable city in the state sanitation network – the state capital Campo Grande – was actively negotiating to leave the state water company Sanesul and privatize its concession (Interviews MS3, MS4).[271] Governor Buaiz in Espírito Santo had effectively broken from the PT in 1997, before he created an agency. He refused to block the transfer of the (main) federal energy distributor in the state in 1995, and was actively seeking private investment in the state water company when the agency law passed.[272]

The effect of partisanship cannot be separated, however, from the effects of partisanship and debts on privatization. PSDB and allied governors' decisions to create agencies were primarily driven by their decisions to privatize state firms and introduce private concessions. After the 1994 elections, the PSDB controlled six state governorships, including the three richest and most populous states, Minas Gerais, Rio de Janeiro, and São Paulo. The allied PMDB controlled another nine of twenty-seven states. Many of these states had accumulated large debts and held large saleable assets that could be used to improve their debt situations. The national PSDB government encouraged allied governors to sell these assets, and many did so.[273] Transfers to private control, as shown before, generated anxiety among users and

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[269] Recall that the president has extensive hiring and dismissal powers over non-*concursado* posts in all government bodies except a few autarkies (José Ramos and Cida Fontes, "Lula quer rever papel das agências reguladoras," *Estado de São Paulo*, 20 February 2013).

[270] The organization, ABAR [the Brazilian Association of Regulatory Agencies], joined members of national, state, and municipal agencies in 1998 and later held seminars and congresses to bring together actors and best practices among regions and nationally. With the assistance of ABAR and specific agencies, universities in Rio de Janeiro, Mato Grosso do Sul, and São Paulo developed extension and masters' courses in regulation, a novelty in Brazil.

[271] Campo Grande, a profitable center for Sanesul that helped subsidize water delivery to other, much poorer cities, did decide not to renew its Sanesul contract and contracted to a private company in 2000, before the state regulatory agency's creation.

[272] Hunter (2010:66) errs in stating that Buaiz waited until the end of his term to leave the PT. He left on August 11, 1997 and later joined the PV (Scherer and Perieira 2005:14-15). On the proposed reform of state firms, see Sérgio Gomes, "Venda da empresa do ES sai em dezembro," *Gazeta Mercantil*, 21 September 1998, p. B5.

[273] Interview with former Ministry of Finance official, São Paulo, July 6, 2010.

concessionaires.

That PSDB and allied governors created agencies does not suggest a "diffusion" approach. Any theory of organizational creation should focus on the incentives for actors to create new bodies to which they delegate power. Governors allied to the incumbent federal government until 2002 acted in an environment in which favorable incentives pushed them toward regulatory agencies as solutions to electoral dilemmas. At the heart of this decision-making process, however, was the electoral dilemma created by the decision to privatize state services. Though an outside ideological or concrete influence may have guided their choice of solution, their search for a solution and even choices over a solution were more centrally caused by the double dilemma of voter and concessionaire uncertainty.

After 2002, partisan identification played a diminished role in agency creation, while concrete factors played greater roles. Populist governors continued to decide against agencies. Roberto Requião of the PMDB in Paraná refused to implement the agency created by his predecessor, just as Itamar Franco did in 1999 in Minas Gerais (Ferreira and Jayme Jr. 2002). Where governors sought outside help, however, they encountered requirements that a regulatory agency be put in place. In the Federal District, Governor Joaquim Roriz signed a loan agreement with the Interamerican Development Bank for water and sanitation projects. In doing so, he agreed to create the regulatory body Adasa primarly to manage sanitation and water resources (Interview DF1). The 2007 national sanitation law specifying the need for a regulatory entity in city sanitation plans led governors in Minas Gerais and Tocantins to create agencies where they had never functioned.[274] We might consider these agencies an extreme case of addressing concessionaire or user anxiety, in that an agency was created to meet the explicit demands of actors investing in public services.

In summary, though we can find examples where center-right governors symapthetic to the state reform project of the center-right federal government followed the latter's model, it is impossible to separate their ideological preference for regulatory agencies from their concrete incentives to address concessionaire and voter concerns.

Below, I summarize the argument and relate it to other explanations in the political science and political economy literatures.

4.4. Alternative Explanations

In the sections above, I have laid out the case for an instrumental theory of regulatory agency creation in which governors, mindful of future elections, confronted with user and concessionaire fears that new private concessions might be exploitative or expropriated. They acted to address these concerns though the adoption of a unique technology. My theoretical approach anchors the delegation decision in the electoral incentives of political principals, an oft-ignored attribute in studies of comparative regulatory reform. Though I employ case study evidence to illustrate the theory and its functioning, aggregate cross-case evidence is thin and insufficiently fine-grained to offer robust support for the hypotheses that follow. Better tests of the theory will come with better evidence; such evidence for these cases does not exist.

Alternative explanations drawn from the literature fare worse.

First, scholars hypothesize that divergence between governmental branches leads to the delegation of authority (Epstein and O'Halloran 1994, 1999; Huber and Shipan 2002). As argued above, however, legislators rarely challenge state governors, especially over topics requiring expertise not available to the legislature. The cases that Santos and co-authors (2001) identify as

[274] ATR in Tocantins: Law 1758, January 2, 2007; ARSAE in Minas Gerais: Law 18309, August 3, 2009.

possible sites of legislative professionalism and resistance - Minas Gerais and Rio de Janeiro - both saw agencies created (Figueiredo 2001:9-11; Santos 2001:289-291). However, states in which the governor dominates the legislature, in their analysis, Sao Paulo and Espirito Santo, also saw governors create agencies. Governors created agencies across Brazil, often with little or token resistance from the state legislature.

Policy complexity might also lead to delegation to a specialized agent, as Huber and Shipan (2002) and Alesina and Tabellini (2008) argue. Though this argument is plausible, it finds little empirical support. State secretariats could have been empowered to carry out all the functions entrusted to agencies. In many states, state bureaucrats continued to exercise agency-like functions.[275] Agencies' supposed autonomy did not better enable them to collect information that lay beyond the grasp of legislators and executive branch staff. Rather, this position of autonomy vis-a-vis the government at most allowed the agency to hold the government responsible, imposing fines for non-compliance with contractual obligations and thus protect users and concessionaires. Creating an agency may create a post hoc monitor (McCubbins, Noll, and Weingast 1989, McCubbins and Schwartz 1984), but not a better monitor.

My argument fits with theories on policy choice insulation in a subsequent period, with one prominent qualification. Boylan (2001), Moe (2005), and Moravcsik (2000:220-221) all develop theories in which actors create institutions to lock in status quo institutions in a politically uncertain point in time. I show that such attempts may lead to institutional innovation even where no fully credible commitments can be made. Though other institutions prevent new institutions from being locked-in, actors will still attempt partial changes to signal commitments in the present period or increase future costs. These attempts may also send signals or change relative costs for multiple involved actors.

My argument moves away from naive stories of diffusion. A growing literature on policy innovation in Latin America studies channels by which new ideas and policy proposals are adapted by proximate or related actors in separate political units. Though such studies give insight into how politicians learn of ideas and policy change, they continue to lack a theoretical core as to which incentives determine concrete steps taken by politicians. I acknowledge that the ideas for and design of regulatory agencies came from and were advocated by supra-state actors. I locate the decision to create an agency, however, in perceptions and legitimate beliefs by governors that voters might vote against them and concessionaires might underinvest. My approach is superior in that it provides a more complete individual-level mechanism for action.

Finally, I should address other ways of measuring my dependent variable. As detailed in the charts below, several agencies were created as laws but never implemented. I indicate these agencies with parentheses around their acronyms.

I use a measurement of delegation as the first law in order to restrict the debate to the intent to delegate, and when governors make that choice. It is possible that governors acted insincerely, or were not compelled to send a strong signal. However, distinguishing among subsequent gubernatorial actions, such as to fund or transfer power, enters into a separate theoretical discussion beyond the scope of the first. Specifically, why do political principals transfer resources, act sincerely, and delegate real (and not just formal) authority? I cannot make any claim to answer these questions with the material at hand.

[275] For example, bus regulation in Rio de Janeiro remains the exclusive purview of a direct state body, while it is a shared responsibility between DAER and the agency AGERGS in Rio Grande do Sul. A state secretariat handles highway tariffs in Paraná, while that same function is handled by agencies in Rio de Janeiro and Rio Grande do Sul.

In some states non-implemented agencies were later replaced by implemented agencies. Thus governors in Minas Gerais and Tocantins both developed regulatory bodies in 2007 to conform with the new sanitation law – a new national institution – and make their cities eligible to receive federal funds. No privatizations accompanied these agencies' founding. As noted before, some states went through multiple shifts and administrative reorganizations, and functioning agencies appeared in Espirito Santo, Paraíba, and Santa Catarina. All three states continue to have functioning agencies. The same governor created, gave authority to, and extinguished an agency in Maranhão.[276] Finally, the state agency in Amapá never functioned, and was never replaced by a functioning body.

I address questions of real and formal authority by studying a subset of created agencies in the following chapters. I explore why some regulatory bodies came to assume real authority while others lacked the resources and failed to carry out activities essential to their functions.

APPENDIX

Table 4.1 - Percent Answering "Government Only" for the solicited opinion on who should administer public services, by sector

State	Total Respondents	Transport	Highways and Roads	Water	Sewage	Electrical Energy
AC	25	0.520	0.680	0.600	0.720	0.480
AL	47	0.596	0.723	0.702	0.745	0.638
AM	16	0.813	0.875	0.875	0.938	0.813
AP	6	0.333	0.667	0.667	0.667	0.833
BA	138	0.681	0.877	0.833	0.833	0.732
CE	95	0.642	0.800	0.832	0.842	0.811
DF	32	0.719	0.688	0.781	0.781	0.750
ES	66	0.515	0.742	0.682	0.727	0.667
GO	67	0.627	0.806	0.836	0.791	0.746
MA	63	0.444	0.762	0.730	0.683	0.683
MG	286	0.556	0.727	0.692	0.671	0.745
MS	26	0.538	0.692	0.692	0.615	0.731
MT	33	0.394	0.606	0.636	0.667	0.576
PA	48	0.688	0.854	0.854	0.854	0.750
PB	51	0.569	0.843	0.824	0.824	0.745
PE	87	0.586	0.862	0.828	0.816	0.782
PI	35	0.514	0.771	0.771	0.714	0.771
PR	127	0.512	0.740	0.717	0.717	0.764
RJ	226	0.549	0.704	0.779	0.783	0.752
RN	33	0.333	0.455	0.515	0.455	0.455
RO	4	0.500	0.500	0.500	1.000	0.500
RR	7	0.857	1.000	0.571	0.714	0.857
RS	156	0.513	0.744	0.718	0.737	0.731

[276] A former staff member denied this in an interview, and staff members from a subsequent administration claimed credit for reviving an agency that for which I could not locate any documents (Interviews MA1-4).

SC	68	0.632	0.779	0.735	0.676	0.765
SE	31	0.516	0.645	0.806	0.806	0.806
SP	738	0.575	0.722	0.724	0.722	0.713
TO	3	0.667	0.667	0.333	0.333	0.667
Total	2514	0.568	0.745	0.741	0.739	0.730

Source: ESEB 2002

Tables 4.2
Percent answering "Government Only" or "Government and Private Firms" when asked who should administer public services, by sector

State	Total Respondents	Transport	Highways and Roads	Water	Sewage	Electrical Energy
AC	25	0.800	0.920	0.880	0.920	0.880
AL	47	0.702	0.766	0.787	0.830	0.723
AM	16	0.813	0.938	0.875	0.938	0.875
AP	6	0.667	0.833	0.833	0.833	1.000
BA	138	0.725	0.913	0.855	0.862	0.768
CE	95	0.779	0.853	0.863	0.884	0.863
DF	32	0.781	0.781	0.875	0.844	0.844
ES	66	0.652	0.803	0.773	0.803	0.758
GO	67	0.687	0.851	0.866	0.821	0.776
MA	63	0.698	0.921	0.873	0.889	0.857
MG	286	0.689	0.815	0.769	0.769	0.818
MS	26	0.692	0.885	0.923	0.846	0.808
MT	33	0.606	0.818	0.788	0.818	0.667
PA	48	0.688	0.875	0.875	0.854	0.771
PB	51	0.667	0.902	0.882	0.882	0.765
PE	87	0.713	0.885	0.862	0.851	0.851
PI	35	0.571	0.800	0.800	0.743	0.800
PR	127	0.685	0.843	0.811	0.811	0.850
RJ	226	0.664	0.774	0.823	0.836	0.805
RN	33	0.485	0.818	0.909	0.667	0.848
RO	4	0.500	0.500	0.500	1.000	0.500
RR	7	0.857	1.000	0.571	0.714	0.857
RS	156	0.583	0.795	0.769	0.776	0.788
SC	68	0.691	0.838	0.824	0.765	0.824
SE	31	0.613	0.742	0.903	0.871	0.903
SP	738	0.714	0.829	0.801	0.798	0.804
TO	3	0.667	0.667	0.333	0.333	0.667
Total	2514	0.689	0.832	0.816	0.813	0.807

Source: ESEB 2002.

Average percent responding “government only” when asked opinion on who should “administer”

	Transport	Highways and Roads	Water	Sewage	Electrical Energy
States creating agencies in 2002 or 2003	0.524	0.749	0.719	0.733	0.677
Remaining states	0.580	0.736	0.711	0.735	0.722

Source: ESEB 2002

Average percent responding “government only” or “government and private firms” when asked opinion on who should “administer”

	Transport	Highways and Roads	Water	Sewage	Electrical Energy
States creating agencies in 2002 or 2003	0.713	0.883	0.849	0.860	0.831
Remaining states	0.674	0.816	0.790	0.803	0.796

Source: ESEB 2002.

Table 4.3: Agency Creation

			Col. A	Col. B		Col. C	Col. D
STATE	AGENCY ACRONYM (Agencies in parens never implemented)	Founding Law Date	Months from Privatization to Founding Law	Governor situation before agency creation	Governor situation after agency creation	Previous election governor's 1st round margin of victory (Pct.)	Party of governor signing law
AC	Ageac	01/15/03	--	won in 1st round (02)	did not run; vice-govr won in 1st round (04)	29.9	PT
AL	Arsal	09/20/01	--	won in 1st round (98)	won in 1st round (02)	19.3	PSB
AM	Arsam	11/25/99	-4.7	won in 1st round (98)	did not run (02); lost mayoral run in Manaus (02)	3.4	PTB
AP	(Arsap)	10/31/01	--	won in 2nd round (98)	won Senate seat (02)	10.2	PSB
BA	Agerba	05/19/98	9.7	won in 2nd round (94)	won Senate seat (98)	24	PFL
CE	Arce	12/30/97	-3.1	won in 1st round (94)	won in 1st round (98)	17.7	PSDB
DF	Adasa	07/16/04	--	won in 2nd round (02)	won Senate seat (06)	2.1	PMDB
ES	(Agesp)	08/19/98	37.7	won in 2nd round (94)	did not run (98)	19.3	PT
GO	Agr	11/11/99	--	won in 2nd round (98)	won Senate seat (02)	1.5	PSDB
MA	(Arsep)	04/19/02	22.4	won in 1st round (98)	won in 1st round (02)	39.6	PFL

MG	(Arse)	07/31/98	--	won in 2nd round (94)	lost in 2nd round (98)	-21.1	PSDB
MS	Agepan	12/19/01	49.7	won in 2nd round (98)	won in 2nd round (02)	-5.3	PT
MT	Ager	01/14/99	13.8	won in 1st round (98)	won in 1st round (98); lost Senate race (02)	16	PSDB
PA	Arcon	12/30/97	-6.4	won in 2nd round (94)	won in 2nd round (98)	-1	PSDB
PB	(Ageel)	06/28/02	19.8	won in 1st round (98)	won Senate seat (02)	64.6	PMDB
PE	Arpe	01/14/00	-1.2	won in 1st round (98)	won in 1st round (02)	37.7	PSDB
PI	--	--	--	Won in 2nd round (94; 98) or 1st (02)	--		
PR	(Unnamed Agency)	07/23/02	57.1*	won in 1st round (98)	did not run (02)	6.3	PFL
RJ	Asep	02/13/97	2.8	won in 2nd round (94)	did not run; vice-governor lost in 1st round (98)	8.1	PSDB
RN	Arsep	03/02/99	14.8	won in 1st round (98)	won in 1st round (98); won Senate seat (02)	8.8	PMDB
RO	--	--	--	won in 2nd round (94; 98; 02)	--		
RR	--	--	--	won in 2nd round (94; 98; 02)	--		
RS	Agergs	01/09/97	-9.5	won in 2nd round (94)	lost in 2nd round	14.5	PMDB

SC	(Arco)	01/18/00	--	won in 1st round (98)	lost in 2nd round	35.8	PPB
SE	(Ases)	06/10/98	6.3	won in 2nd round (94)	won in 2nd round	-0.2	PSDB
SP	CSPE	10/17/97	-0.6	won in 2nd round (94)	won in 2nd round	24.6	PSDB
TO	(Astins)	12/14/00	--*	won in 1st round (98)	did not run	28.5	PFL
1994 Avg.						14.76	
1998 Avg.						17.34	
2002 Avg.						12.26	

Asterisks indicate notable exceptions. First, Paraná was preparing for an auction of its energy company Copel several months before an agency was established, but this transfer never took place. The score relates agency creation to the development of private highway concessions in 1997. Second, Tocantins's energy company Celtins was privatized in 1989 with the creation of the state; it had no other viable asset to sell off in the period under study.

Table 4.4: Agency Creation and Service Privatization

STATE	Agency founding law date	Months from Privatization to Founding Law	Nationality of Private Concessionaire	Governor weighted HDI score, pre-agency election	State HDI score (91/00)
AC	01/15/03	--		0.699	0.697
AL	09/20/01	--		0.658	0.649
AM	11/25/99	-4.7	Foreign (water - Suez)	0.718	0.713
AP	10/31/01	--		0.750	0.753
BA	05/19/98	9.7		0.587	0.59
CE	12/30/97	-3.1		--	0.593
DF	07/16/04	--		0.844	0.844
ES	08/19/98	37.7		--	0.69
GO	11/11/99	--		0.775	0.776
MA	04/19/02	22.4		0.623	0.636
MG	07/31/98	--		--	0.773
MS	12/19/01	49.7		0.779	0.778
MT	01/14/99	13.8		0.772	0.773
PA	12/30/97	-6.4		--	0.65
PB	06/28/02	19.8		0.646	0.661
PE	01/14/00	-1.2		0.718	0.705
PI	--	--		--	--
PR	07/23/02	57.1*	Domestic (highways, 30% of water company)	0.788	0.787
RJ	02/13/97	2.8	Foreign (gas, energy)	--	0.753
RO	--	--		--	
RN	03/02/99	14.8		0.690	0.705
RR	--	--		--	--
RS	01/09/97	-9.5		0.747	0.753
SC	01/18/00	--		0.820	0.822
SE	06/10/98	6.3		0.573	0.597
SP	10/17/97	-0.6		0.779	0.778
TO	12/14/00	--*		0.709	0.71
Average		10.1			

Note: HDI scores taken from IPEA. I use 1991 HDI scores for the 1994 election and 2000 scores for the 1998 and 2002 elections. Municipal vote totals are unavailable for some states in the 1994 election (Minas Gerais, Ceará, Espírito Santo, Pará, and Rio de Janeiro).

Table 4.5: State Debts and State Politics

	Col A	Col B				
State	State debt to income ratio, January 1996	State debt to income ratio, January 1998	Vote for leftist party executive candidates, 1994	Vote for leftist party executive candidates, 1998	Vote for leftist party executive candidates, 2002	Vote for leftist party executive candidates, 2006
AC	1.45	0.89	24.7	57.70	65.9 (L)	88.5
AL	2.56	0.95	10.6	59.00 (L)	59.7	12.2
AM	1.1	0.50	7.6	0.80	79.2	3.1
AP	0	0.12	48.2	76.30 (L)	84.9	96.3
BA	1.51	1.03	25.3	28.00	41	53.6
CE	1.19	0.72	6	15.30	37	65.2
DF	0.22	0.21	38.3	42.90	49.7	25.3
ES	0.7	0.39	59.7 (L)	26.00	54.8	22.6
GO	3.97	2.10	8.8	4.40	15.3	7.1
MA	2.41	1.62	22	7.60	48.9	48.9
MG	2.26	1.27	9.8	16.50	35.6	22.7
MS	2.93	1.56	10	32.80 (L)	55.2	38.5
MT	3.11	1.39	71.3	7.40	70.5	79
PA	0.95	0.48	18.3	18.60	54.1	42
PB	2.07	1.32	7.9	18.00	12.8	1.5
PE	1.39	0.66	57	27.00	39.2	59.8

PI	2.25	1.20	15.2	2.70	52.8	62.2
PR	0.7	0.44	59	0.60	55.8	56.9
RJ	1.73	0.99	40.4	48.90	90.6	34.5
RN	1.17	0.76	47.3	7.40	49	50.7
RO	2.14	0.28	47.6	7.60	32.5	93.6
RR	1.72	0.17	8.3	1.20	0.3	6.8
RS	2.53	0.99	40.3	52.60	50.8	33.2
SC	1.96	0.82	9.1	17.70	30	18.1
SE	1.26	0.64	51.1	19.10	28.7	54.9
SP	2.78	1.18	37.1	39.80	34	37.3
TO	1.03	0.28	3.5	3.80	5.6	1.6
Averages	**1.74**	**0.85**	**29.1**	**23.7**	**45.7**	**41.3**

Sources: Abrucio and Costa (1998); Election Results, Tribunal Superior Eleitoral. States are shaded for the election prior to a law creating an agency.

Chapter 5: Paired Case Studies of Agergs in Rio Grande do Sul and Arce in Ceará

By the end of 2010, the developed Southern state of Rio Grande do Sul had a much less robust – less active and more poorly funded – regulatory agency than did the poor Northeastern state of Ceará. While the agency in Rio Grande do Sul suffered high staff turnover and limits on its police power, the agency in Ceará became a model for other state agencies particularly respected for its pioneering work in sanitation regulation. Regulated services also improved more slowly in Rio Grande do Sul than they did in Ceará. I use this divergence to illustrate the causal processes in my argument. The cases of the Rio Grande do Sul State Regulatory Agency for Delegated Public Services (AGERGS or Agergs) (1997-2010) and the Ceará State Regulatory Agency for Delegated Public Services (ARCE or Arce) (1998-2010) provide a good comparison pair. In summary, Arce's initial work in electorally-valuable policy areas won it support among city officials central to statewide campaigns. Arce then leveraged this positive reputation among critical actors to win additional responsibilities and resources from the state executive. By contrast, Agergs's initial heavy focus on less valuable-to-mayors transportation and highway regulation won it no allies and thus no leverage for additional resources and responsibilities.

I employ a critical-junctures framework, following Collier and Collier (1991:29-39), as most suitable for organizing and explaining initial decisions and agency development. At the time of creation and privatization, agency directors and political principals had a variety of models and choices for how agencies ought to function and how best to develop agency robustness.[277] In this moment of uncertainty, given the previous choice of a multisector agency model, directors made choices that led them down particular pathways and not others. As their choices resulted in changing payoffs to involved actors, path dependency emerged and resulted in the agency outcomes observed. I trace the two outcomes back to directors' original choices in an uncertain environment.

The chapter proceeds as follows. I first compare the two cases on significant potentially causal variable scores. I give reasons to dismiss alternative explanations, and then move to the mechanism. I argue that the initial agency orientation results from the array of state concessions, initial directors' backgrounds and the staff directors bring to the agency. I trace how initial agency work resulted in significant or only partial victories, and how these results shaped agency reputation. I give evidence that mayors paid attention to certain policy areas more than others, and show that Arce was better able to leverage its reputation for additional resources and responsibilities than was Agergs. I conclude by examining both cases' scores on the outcome variables.

5.1. The two cases are comparable

Agergs and Arce were created almost contemporaneously under similar conditions; they are good candidates for a paired comparison. Most of the details of their origins are explored below. In short, both agencies are multisector and were based in their design on regulatory agencies

[277] Much of the contemporary literature used as guides concerned agency independence from political actors and equidistance from concessionaires, users, and government. Directors never published work on which areas might electorally benefit political principals; their writings instead concerned how to distance the agency from principals. For examples, see sources cited in Poli de Figueiredo 1999, whose author helped write Agergs's creation law and discussions by Agergs's first directors in their magazine *Marco Regulatório* [*MR*] (e.g., Dagoberto Lima Godoy, "Tarifa justa," *MR* 1, 25 (1999); Gilberto José Capeletto and Alfredo D. Hecht, "Indústria de energia elétrica: transformações e os desafios das agências estaduais," *MR 1,* 38 (1999)). See also Stern (1997) and Stern and Holder (1999).

from the developed world, especially the United States. The World Bank and its IFC arm provided assistance in design. Both agencies had broad mandates to act in multiple policy areas, and began at least limited work in one or more policy areas within a year of their creation. Concessions operated under federal guidelines in both states. More importantly, agencies in both states exercised authority over both private and public sector concessionaires. The resulting difference in outcomes cannot be explained by regulated sector ownership, as in Murillo (2009). Variation in state politics and regulated sectors is discussed below for potential confounding causes.

The agencies diverged in their final outcomes. Though Arce operates in a less-developed state, with generally worse demographic indicators, than Agergs, the first agency has far more resources and more expansive regulatory responsibilities than the latter. This result contradicts expectations that bureaucratic quality improves with the level of development (Rauch and Evans 2000:57). Agergs also has jurisdiction over more sectors, and its worse outcomes fail to support theories that agencies with a greater range of tasks are less vulnerable to capture by regulated firms (Schwarz and Satola 2000:30-32). I explain the divergence in outcomes as the product of initial decisions on the areas in which to focus resources, as mediated by interactions with political actors.

Before explaining how the causal mechanism functions, however, I explore possible alternative explanations. In doing so, I explore more the extent to which the cases are a good comparison set.

5.2. Initial design did not cause the divergence

I first investigate variation in state politics and formal design. Formal institutional design might potentially explain agency divergence insofar as institutions assign actors responsibilities and authority, and prevent or allow leaders to make changes to the organization itself.[278] Some scholars argue that formal institutions that allow leadership and staff longer and more stable tenures, for example, produce more robust agencies (W. Smith 1997, Moe 1982).

Formal institutional design might in turn be affected by the partisanship and coalitional support of executives and legislatures that create the institution. Murillo (2009) argues that left-wing populist executives create regulatory agencies that are more market-constraining while rightist executives design more market-conforming institutions (29-30). Other authors have found that institutional design is affected by international diffusion and borrowing processes (Levi-Faur and Jordana 2006). I therefore investigate the partisanship and political context in which agencies are developed, as well as the models used to design the agencies.[279]

5.2.1. Creation: Political Context

Both agencies were created as pre-privatization bodies by center-right governors in Fernando Henrique Cardoso's neoliberal reformist coalition, as part of contemporaneous state reform projects. Both agencies were modeled on developed world institutions. Agencies were tasked with general regulatory functions and charged with enforcing concession contracts that followed national guidelines. Neither agency was therefore, at creation, charged with enforcing more market-conforming or market-constraining institutions than its peer. Both Agergs and Arce had mandates to regulate both private and state-owned (public) concessionaires, and began work

[278] See, for example Tsebelis (2002:2-3) on agenda-setters, and others.

[279] The term "political context" can be narrowed drastically. I investigate the privatization processes and political conflicts contemporaneous to agency creation, given that political competition and privatization processes have been previously identified in the literature as causal variables affecting agency design.

overseeing and setting rules for both types of firms.[280]

The two agencies were created contemporaneously under similar legal regimes. Federal Law 8987 of February 13, 1995 set concessions rules, and the federal energy regulator Aneel signed near-identical concessions contracts with privatized energy distributors. Both agencies are the products of a state privatization process under center-right governors amid President Fernando Henrique Cardoso's larger national privatization program. Both agencies pre-date privatization auctions.[281] Both states fall in the middle range in terms of population and economic production in Brazil, and are large enough to have single state-owned water and gas companies.[282] Both governors privatized energy firms after creating regulatory agencies in law, but before either agency was active.

On the other hand, Rio Grande do Sul has two private electricity distributors and privatized toll roads, while Ceará has only one private electricity distributor and no toll roads.[283] Gubernatorial decisions in the 1990s shaped the size and variety of regulated sectors.

Governor Antonio Britto created Agergs in Rio Grande do Sul first, using models taken from developed world states. Britto was elected in 1994 as a member of the PMDB, the centrist party of a state historically polarized between the PMDB and right-wing PP, but in which the left-wing PDT and PT were ascendant.[284] We might classify the PMDB as center or center-right. Britto enjoyed a parliamentary majority in the state assembly for his entire term.[285] The end of high inflation and high state debts led him to prioritize fiscal and state reform shortly after assuming office.[286] State-owned enterprises were closed or sold to the private sector for windfall funding and to reduce the state's investment burden. Most significantly, the American firm AES Corporation and an American-Brazilian consortium each bought energy distributors divided from the state-owned CEEE. A team working under Secretary of Planning João Carlos Brum Torres, comprising state attorneys and Planning Secretariat staff, designed the regulatory agency Agergs.

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[280] Differences in agency performance cannot be explained by one agency regulating private or public concessions.

[281] The majority of state agencies pre-date privatization, but the variation is not systematic across Brazil. For example, the agency Agepan in Mato Grosso do Sul was created after the energy firm Enersul had been privatized, and the water regulator Adasa in the Federal District was created without any state privatization.

[282] Given state-by-state differences, there are no purely representative states. However, on major demographic variables, neither Ceará nor Rio Grande do Sul lies at extreme values. In 2010, Rio Grande do Sul was the fifth most populous state with the fourth highest per capita income, while Ceará was the eighth most populous with the eleventh highest per capita income (IBGE 2011). The majority of states have state-owned water companies and mixed state-and-private-sector natural gas firms like Ceará and Rio Grande do Sul do. Gas concessions are fully controlled by the private sector in Rio de Janeiro and São Paulo, and are federal in Espírito Santo. Significant private sector participation in water companies occurs primarily in Minas Gerais, Rio de Janeiro, Paraná, São Paulo, and Mato Grosso.

[283] One-third of the former state-owned energy concessionaire is still state-owned. The state-owned firm, still known as CEEE, serves about one-third of energy consumers in the state, in 72 cities (CEEE, "Institutional – A Empresa," http://www.ceee.com.br/pportal/ceee/Component/Controller.aspx?CC=1755. Last accessed April 25, 2013).

[284] The left-populist PDT, founded by Leonel Brizola, has historic roots in the state, and the leftist PT governed the capital (and largest) city of Porto Alegre from 1989 to 2004. On recent politics in the state, see Abers 2000:35-44. Joseph Love (1971) surveys historical polarization in the state, and Igor Grill (2004) documents the rise of the PDT.

[285] Grohmann (2001) notes that though the executive in Rio Grande do Sul has no decree powers, the only limits on his or her ability to set an agenda and pass legislation are the state constitution and the partisan composition of the State Assembly (159-161). The executive almost always dominates the state legislature (160).

[286] According to interviewees, Britto focused his 1994 campaign not on the state debt but instead on proposals of how to improve Rio Grande do Sul's economy and restore its former dominant position among Brazilian states. He only learned the state's precarious fiscal conditions upon assuming office (Interview RS8, RS9, RS11).

One of state attorneys documented the decision to create an agency as a necessity in light of federal laws that required new concessions of public services (Poli de Figueiredo 1999:38-39). Previous state bodies charged with both operating and regulating state roads were transformed into operators while highways delegated by the federal government to the state of Rio Grande do Sul were auctioned as private concessions. This state transformation, along with the impending privatization of state energy firms, created an institutional gap for an agency. [287] The agency design drew inspiration from American and European models, as suggested by a World Bank team advising the project.[288] Rio Grande do Sul's state government created the first state regulatory agency in Brazil on January 9, 1997, before state privatizations. Three electricity distributors were carved from the single state operator and two auctioned to private entities on October 21, 1997. The state assumed responsibility for federal highways within the state and turned them into private concessions in the period from January to June 1998. The water company Corsan and gas company Sulgás remained state-owned.[289]

In Ceará, Governor Tasso Jereissati created Arce for similar reasons. Jereissati was elected as the candidate of the centrist, pro-business reformist PSDB in 1994, and re-elected in 1998.[290] His main competition in the state was historically-dominant right-wing clientelist *coroneis*, or political bosses, who had largely lost support by his second stint as governor.[291] In cooperation with the International Finance Corporation of the World Bank, and in preparation for privatizing state firms, the state of Ceará hired the British firm Maxwell Stamp PLC to design a regulatory body.[292] The agency was planned before the public auction of the state energy firm Coelce, but after preparations for privatization had begun.[293] The proposed design of ARCE foresaw responsibility in electricity distribution, natural gas, water and sewage, and transportation. Delegation of responsibilities in energy, gas, and transportation were to be immediate or started as soon as possible; for sanitation, according to the consulting firm, delegation should occur slightly later because the "[r]egulatory framework must be developed to address municipal, state issues" (Maxwell Stamp 1998:4-5). The Maxwell Stamp proposal was adopted wholesale by the state government with only one small change: directors' appointments are not subject to approval by the State Assembly (Interview CE8).

The difference in the size of the regulated private sector might have two effects. First, we

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[287] A state concession law pre-dated the federal concessions law in Rio Grande do Sul (Poli de Figueiredo 1999:39).

[288] The World Bank neither authored nor helped author the law. At the time, however, the World Bank had issued a State Reform Loan to Rio Grande do Sul to improve infrastructure and had urged it to create an agency. World Bank staffers visited Rio Grande do Sul frequently to monitor the progress of state reform (Interview RS5; World Bank. 2003. *Project Performance Assessment Report #25971-Brazil*, 3-14).

[289] In both states, a number of municipalities ran their own water companies, but the state-owned company was the dominant concessionaire. Corsan in Rio Grande do Sul serves 321 cities and two-thirds of the population; in Ceará, Cagece serves 150 of 184 cities and 96% of the state population.

[290] The PSDB and Jereissati had been instrumental in removing old clientelist elites from power in Ceará. For details, see Tendler (1997:Ch. 6) and Parente and Arruda (2002).

[291] Tasso Jereissati was first governor from 1987 to 1991. He enjoyed supportive majority coalitions in the State Assembly in both terms. Moraes (2001) outlines how the governor of Ceará, like his or her counterpart in Rio Grande do Sul, has no decree power but can advance any agenda by using resources to build a multiparty coalition at the beginning of the term in the State Assembly.

[292] Maxwell Stamp (1998:1) reports close collaboration between consultants and state and federal bureaucrats from August 25, 1997 to December 5, 1997.

[293] Interview CE8. In Portuguese, Coelce was in the process of being sanitized (*saneado*) for auction. Law 12,786 creating Arce was signed by the governor on December 30, 1997. Coelce was sold on April 2, 1998 to a Chilean-Brazilian consortium.

might expect regulated private actors to demand greater transparency in regulation in order to provide certainty for their investments.[294] Furthermore, regulators overseeing multiple private actors in different sectors with fungible resources might be less susceptible to being captured by regulated firms.[295] Rio Grande do Sul's greater variety of regulated private actors and greater number of private firms being regulated should then make Agergs less susceptible to capture and more capable than Arce at accruing resources and autonomy. In a second formulation, a greater number of regulated firms might overwhelm or dominate regulatory staff members. Staff members usually earn less than their private sector peers do and begin their work at an informational disadvantage.[296] Difficulty in dealing with multiple sectors might hinder the agency's ability to overcome multiple informational asymmetries, and make it more likely to be captured by firms with private information.[297] Agergs should then be more susceptible to capture than Arce is. As the two hypotheses predict opposite results, I instead dig deeper. I focus on relationships and reputations that each agency built with concessionaires from different sectors.[298] I argue that concessionaires from different sectors, and even firms within sectors, had different preferences over regulatory transparency and regulatory robustness. More importantly, regulation in different sectors had different audience costs and benefits for the agency.

The timing of agency creation and subsequent conflicts had little to no causal effect on the outcomes. While political competition was higher in Rio Grande do Sul, major conflicts in each case occurred *after* elections and governors had reconciled to normal agency functioning before a subsequent election.[299] The cases selected do not fit Murillo's (2009:42-43) prediction that higher competition would lead governors in Rio Grande do Sul to successfully seek greater redistribution to users. Though Governor Dutra did seek redistribution from highway concessionaires, his fight only indirectly concerned the agency and did little to reshape status quo regulatory institutions. This difference is not directly causal.

5.2.2. Creation: Formal Design

We might suppose that the formal design of the regulatory agencies contributed to variation in the outcomes. As Tsebelis (2002), Epstein and O'Halloran (1999:10-11), and others note, formal institutions position particular actors in positions from which they are able to hinder, assist, or retard organizational development.

The formal design of Arce in Ceará should have disadvantaged organization leaders relative to their counterparts at Agergs in Rio Grande do Sul. I consider leadership first. The presidency at Agergs is a four-year fixed term, as are terms for all directors.[300] Directors and presidents are

[294] This logic is similar for firms that are owned jointly by public and private sector bodies, like gas concessions.
[295] Insofar as they are able to rotate staff members or pool resources for deployment in multiple sectors, multisector agencies should be less likely to be captured by firms (Schwarz and Satola 2000:30-32; Galvão Júnior, Turolla, and Paganini 2008).
[296] In most models of agencies, the firm has private information about its true costs. Belluzzo, Anuatti-Neto, and Pazello (2005) find that, for low-income workers, public sector jobs pay more than private sector jobs, while for middle and upper-income ranges, of the type that would include regulatory staff with higher education degrees, the private sector pays more than the public sector (529).
[297] The multisector nature of agencies may also increase the likelihood that firms and agencies collude (see Aubert and Laffont 2002:17-18, citing work by Laffont and various co-authors).
[298] I do not measure capture for reasons of infeasibility.
[299] Specifically, conflicts detailed below between Olívio Dutra and the agency, and between Lúcio Alcântara and the agency, concerning highway tolls and sanitation contracts, respectively, occurred in 1999 and 2003. By 2002 and 2006, both governors had appointed their own directors but had accepted the agency's role as legitimate.
[300] In accordance with international best practices in agency design, terms in both agencies are staggered so that not

reviewed and approved by the State Assembly after nomination by the Governor. These longer terms should provide Agergs directors and presidents more security and allow them to develop longer time horizons in which to develop organizational projects. Arce directors serve only three-year terms. The one-year presidency at Arce rotates every year among the three directors, complicating the leadership's ability to articulate consistent messages to other state officials or maintain consistent managerial direction.[301] Directors in Ceará also avoid a hearing and review [*sabatina*] in the State Assembly, and are thus generally unknown to state legislators. By contrast, I might expect Agergs directors to be better at building relationships without outside actors than are Arce directors. Instead, I find that Arce was better able to leverage its relationships into additional resources and authority.

First, while Agergs had specific policy areas written into its founding laws, its overly-broad inclusion of policy areas does not differ significantly from Arce's non-policy-specific powers.[302] Founding laws specified broad powers for both agencies to conduct economic and normative regulation while addressing user complaints. In both cases, the agencies' responsibilities cover "delegated services."[303] Both laws require the agency to act not as the concession-granting authority, but instead to strike a balance among users, concession grantors, and concessionaires and preserve adequate services.[304] Agencies' mandate and powers to some extent overlapped with the powers of existing state bodies, or were to be transferred from the latter.

Arce had greater police powers written into its formal structure; this difference is significant. Agergs never has had the ability to issue fines or punish statutory violations; agency staff must pass these violations over to the public prosecutor's office for prosecution (Interview RS1); Arce can issue fines and compel compliance without relying on the public prosecutor.[305] I consider this difference as a potential cause in the contrast between Agergs and Arce. To better explore the causal weight of this factor, I highlight instances in which Agergs might have been unable to punish violations and whether and how these instances affect the agency's reputation and leverage vis-à-vis other actors. For example, the agency might develop a reputation for uselessness and inefficacy because of its inability to address problems despite a desire to do so.

However, the inability to issue its own fines and penalties did not alone significantly weaken Agergs. First, original design was and is not destiny. Multiple agencies were able to revise their legal authority to add staff, new policy responsibilities, and additional authority.[306] Instead, I focus on Agergs's inability to correct this imperfection in the agency's design. Second, Agergs had and continues to have a functional relationship with the public prosecutor, and has

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all directors leave office at the same time.

[301] Interviewees noted that the president "acts as the representative of the agency for the rest of the state" and the constant shift undermines this role (Quote from interview CE10; Interview CE1).

[302] See the agency competencies defined in chapter 3, articles 7 and 8 of the law creating Arce (1998) and in article 3 of the law creating Agergs (1997). Agergs by law has regulatory authority over irrigation, mining, and communications, but in practice does nothing in these areas.

[303] In Rio Grande do Sul, see Article 3 of State Law 10,931 (1997), as modified by State Law 11,292 (1998). In Ceará, see Article 3 and section III of Article 2 of State Law 12,786 (1997).

[304] Poli de Figueiredo 1999:79; Article 2 of State Law 10,931 (RS 1997) and Article 5 of State Law 12,786 (CE 1997).

[305] I use the term "public prosecutor" for the *Ministério Público*, the investigative and prosecutorial branch of state and federal governments in Brazil. The MP is largely responsible for opening investigations and bringing civil and criminal cases before judges. For more on their powers, see McAllister (2008) and Mueller (2010).

[306] See the chapter immediately following for examples, especially the section on post-creation laws.

passed multiple violations that have been pursued.[307] (In contrast to many state government bodies in Brazil, the public prosecutor's office has a large professional staff and few political appointees and is generally efficacious in punishing statutory violations (Mueller 2010:105-109).) The extra bureaucratic step required should not have nullified its ability to punish violators and thus develop a reputation for effective enforcement. Agergs also maintained inspection and oversight powers and the ability to process user complaints, which were in line with those of Arce and other agencies. Finally, Agergs possessed alternative means to enforce compliance. It enjoyed a good deal of media attention that could be used to publicly shame concessionaires. It was able to engage in price regulation and punish past violations by disallowing tariff increases.[308] The extra complication of relying on the public prosecutor did slightly disadvantage Agergs in punishing violations, but these obstacles were minor.

Though police power varied slightly, both agencies have equal abilities to levy and collect fines specified in concession contracts.[309] For both agencies, fines collected as penalties go to the state general fund or back to users; neither agency directly profits from fines. Regulated company annual reports show that fines are collected in both states, if somewhat belatedly in some cases.[310] Concession contracts contained extra penalties for late payment of fines, but these penalties were never invoked.[311]

Finally, both agencies initially received equal amounts of funding, though Arce enjoys more financial autonomy. Both agencies began their work reliant on state funding, but came to rely on a set percentage of concessionaire receipts set in concession contracts.[312] Both agencies had annual budget surpluses by 2010. The key distinction lies in state-specific public-funding mechanisms. In Ceará, Arce receives payments directly. In Rio Grande do Sul, since 1991, the state government centralizes all public tax and fee collection in the governor's central fund [*caixa único*] before dispersal to state bodies according to their needs.[313] Thus the governor's office collects the percentage of concessionaire receipts intended for Agergs, but disperses funds to the agency only at his or her discretion. The remaining balance remains as a surplus on the agency's central account at the state government. Agency staffers reported that the agency never receives all of the receipts due to it, and thus has a large outstanding surplus.[314] However, as will be illustrated below, though the agency sometimes lacked funds for expansion of its activities, it had sufficient funds to perform core tasks and deliver regulatory services. Other state bodies in Rio Grande do Sul also perform functions at standards above those of their counterparts in Ceará (and other poorer states), despite being subject to the same fiscal restrictions.[315] I argue that

[307] See, e.g., the Agergs Conselho Superior decisions in Ata 508 of July 31, 2002 and Ata 074 of October 11, 2005.
[308] Resolution 78 (2000), Resolutions 94 and 103 (2001).
[309] See, e.g., Cegás's *Primeiro Termo Aditivo ao Contrato de Concessão*, Clause Twenty-Six [*Clásula Décima Sexta*] on sanctions, 1 March 2004; Contrato No. PJ/CD/087/98 for the Polo de Concessão Rodoviária Metropolitano/RS [Metropolitan Highway Line, RS], 14 April 1998, Section 13.1 – "Penalidades Contratuais."
[310] Energy distributors in both states are publicly-traded corporations that list expenditures for regulatory penalties in their annual reports (see, e.g., Coelce, *Relatório Anual 2000*, p. 26, *Relatório Anual 2006*, p. 160, *Demonstrações Financeiras Publicadas* [*DFP*] *2009*, p. 92, and *DFP 2010*, p. 43; AES Sul, *DFP 2004*, p.5, *DFP 2005*, p.5, *DFP 2007*, p.8; RGE *DFP 2004*, p. 58, *Relatório de Administração 2006*, p. 5).
[311] Author's search of agency decisions.
[312] The amount was usually 0.5% of gross receipts.
[313] The system has been in place since state decree 33,959 of May 31, 1991.
[314] Interviews RS2, RS4, and see survey responses covered in the measure of the outcomes below.
[315] For 2002, the first year in which comparable numbers are available, Agergs had a budget of R$5,327,376 and Arce had a budget of R$3,778,049. By 2010, Arce had a budget of R$11,510,784 and Agergs had a budget of

Agergs's inability to build a reputation for electoral usefulness undermined the agency's ability to reverse or overcome its lack of financial autonomy.

Having considered the minimal impact of variation in formal institutions on the outcomes, I turn to potential causal variation in initial leadership and staffing.

5.2.3. Creation: Initial Leadership

Prominent political figures were initially appointed as leaders in both state agencies, in order to lend credibility to the young agency.

Rio Grande do Sul had a greater variety of initial directors, having seven seats in total. Seats on the Superior Council were assigned to a variety of interests in order to provide ready-made societal links for the agency and create a diversity of viewpoints.[316] The first directors produced some divergence in interests. The concessionaires appointed Guilherme Socias Villela, a prominent PMDB politician, former president of the state energy company CEEE, former (appointed) mayor of Porto Alegre, and author of the 1994 state concessions law, to represent them.[317] Maria de Lourdes Reyna Coelho, a prominent consumer rights advocate, and former CEEE consumer liaison Gilberto José Capeletto represented consumers.[318] The remaining directors comprised prominent state figures, state attorneys, electrical engineers, and university professors.[319] For both agencies terms are fixed and directors serve under the governor that appointed them and his or her successor.[320]

In Ceará, Governor Jereissati chose a prominent retired federal judge and two former directors of the privatized state energy company Coelce to serve as first directors.[321] While both directors from Coelce, Jurandir Picanço and José Bonifácio de Sousa Filho, were engineers with long careers at Coelce and had been active in "sanitizing" the firm in preparation for its auction to private management, the retired judge Hugo de Brito Machado arrived at the agency without sector-specific experience.[322] In the estimation of former staffers, Governor Jereissati invited

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R$9,488,117 million. I argue that the reversal in agency resources is due not to initial endowments, but to the policy activities pursued by each. Melo et al. (2009:1226) note that the Rio Grande do Sul audit institution employs 1,005 employees and consumes 1.01 percent of the budget, while the numbers for the Ceará auditing bureau are 205 employees and only 0.28 percent of the budget. In 2010, the Rio Grande do Sul state government spent R$34.880 billion, while the Ceará state government spent R$15.964 billion (STN 2013).

[316] The governor can appoint three directors of the council, as well as one person from among agency staff; two directors represent consumers and are chosen by the state consumer defense agency (Procon) and the concessionaires' own consumer interest councils. Concessionaires appoint the last director. Article 6 of Rio Grande do Sul State Law 10.931 (1997), as modified by Article 6 of Law 11.292 (1998) sets these rules.

[317] Law 10.086, January 24, 1994. Vilella served as state deputy and mayor of Porto Alegre under the military regime. He authored the law, known popularly as the Lei Villela, while a state deputy. Villela was elected to Porto Alegre's city council as a member of the conservative PP in 2012.

[318] Interview RS11.

[319] Dagoberto Lima Godoy is a lawyer and economist who was formerly head of FIERGS, the state (private) industry council. Odilon Abreu had been administrative director of CEEE, a member of the state public prosecutor's office, and Sub-Procurador Geral da Justiça (Assistant Attorney General) for the state. Romildo Bolzán was mayor of Osório in the 1950s and 1960s and state deputy multiple times for the MDB and then the PDT; he twice served as president of the state oversight body, the Tribunal de Contas (TCE). His re-election to the TCE was due to his acceptability to multiple political factions in the state (RS1). There was no appointee from among Agergs staff members initially, thus forming a council of six.

[320] All first-generation directors served at least one full term except Romildo Bolzán, who died while in office. No director voluntarily left his or her position early.

[321] Interview CE9.

[322] Machado's academic specialty is tax law; he served as a professor of law at the Federal University of Ceará (UFC).

Machado in order to lend the agency his prestige in establishing its independence.[323] Both Bonifácio and Machado were re-appointed to a second term; Picanço was not, for disputed reasons. Picanço and Bonifácio brought former staff members from Coelce to the agency to begin inspections and initial regulatory work; Machado did not bring any staff appointees.

These differences in initial leadership are minor. Both agencies are collegial decision-making bodies led by multiple executives and a president. Initial directors at both agencies were prominent state bureaucrats, with the exception of one former elected official (at Agergs). Having created regulatory institutions largely in concession contracts, both governors opted for technically-qualified "mandarins" at both agencies.[324] The deliberate allocation of director positions to consumer and concessionaire groups might facilitate Agergs's ability to build relationships with civil society groups and concessionaires, which might more easily embed a reputation (Carpenter 2001). By contrast, all three directors at Arce are appointed by the governor, who can draw from directors from any field.[325] Thus differences in leadership structure favored Agergs over Arce in potential institutional development. This hypothesis tells us nothing about the value of the eventual reputation developed – only that it is more easily developed – and would require an assumption that directors invest in reputation development based on their personal background, which seems unsupportable.[326] Governors might appoint directors with strong ties to civil society organizations, or directors who are well-connected to politicians. Representatives of interest groups may also decline to invest in organizational development if their personal and career incentives are unrelated to the agency's functions. In short, having more opportunities and appointees does not mean greater work toward positive organizational development will result. The array of interests represented should by itself not be considered causal; I focus instead on the reputation-building decisions and policies developed by the leadership.

Subsequent directors in both agencies were mainly career technocrats and bureaucrats. Some directors had led other bureaus or state companies before being nominated to direct the agency.[327] A handful of agency directors had been elected to office.[328] Many directors may have used their work in the agency to secure future positions, but to date only one former director has stood for election after their term ended. Guilherme Villela was elected to the Porto Alegre City Council, over one year after leaving the agency.[329] In short, it is highly unlikely that any director

[323] In a personal communication, Hugo de Brito Machado told the author that he was suggested for the presidency because he had worked post-retirement as an attorney for the father of a state secretary. He met the secretary at a FIEC event and was recommended by him to Governor Jereissati.

[324] Aberbach and Rockman (1988:606 on mandarins; 2009:40). These choices can be partially explained by the low need to assert political control when institutions had already been set, and partially by the need for technically qualified leadership that understood all aspects of concession contracts.

[325] Section IV of Article 12 of Arce's creation law (Lei Est. 12,786 (1997)) does require Directors to have some background pertinent to regulatory activities.

[326] Note that Carpenter's mezzo-level managers (2001:19-21) can also develop reputations for low competency.

[327] In Rio Grande do Sul, Pedro Bisch Neto had been CEEE president during its late 1990s reform, and in Ceará Marfisa Maria de Aguiar Ximenes had run the Port of Pecém.

[328] Gertrudes Pelissaro dos Santos had been mayor of Paraí, RS, and Clovis Ilgenfritz da Silva had been a city councilman in Porto Alegre, RS, and substitute federal deputy for the PT. Alcides José Saldanha had been a federal deputy in the 1960s and mayor of Caçapava do Sul, RS, as well as a substitute senator in the 1980s and briefly Minister of Transportation in the first F.H. Cardoso presidential administration. Maria Augusta Feldman had been a state deputy for the PSB and unsuccessful candidate for mayor of Porto Alegre, RS, in 1996.

[329] He was previously mayor of Porto Alegre (1975-1983).

used their term at the agency for personal electoral advancement.[330]

As I will argue below, however, initial leaders' backgrounds and immediate prior experiences did help guide their early decisions on how to allocate agency resources. Directors' backgrounds and experience mattered. They also brought staffers familiar to them to begin the agency's work. These sectoral choices, rather than diversity of interests represented, explain why Arce developed more resources and gained more responsibilities than did Agergs.

5.2.4. Creation: Initial Staffing

One agency was not initially provided greater human resources than was its counterpart, and initial staffing cannot explain variation in final outcomes. Current and former public sector employees comprised the initial workers at both agencies, but neither team stayed long in the agency. In both cases, initial staff members had no guaranteed tenure, but were instead appointed by the first directors and paid mainly from state funds.[331]

Initial directors at Agergs began work with staff borrowed from other state bodies and former staffers of privatized state firms. Staffers borrowed from the Transportation Secretariat were to oversee the creation of private toll highways, and workers employed through a contract with the federal university in Santa Catarina were hired to conduct electricity inspections, under the supervision of employees from the privatized parts of the state energy firm CEEE.[332] Neither group planned to stay in office for long. In December 1998, the state held an open public examination for upper-level staffers.[333] Such staffers didn't enter until August 2000, due to conflicts with the state governor.[334] Staffers' backgrounds only partially determined the initial policy focus of Agergs; its responsibility to oversee private highway concessions had been written into its creation law.

Jurandir Picanço brought former Coelce staffers to Arce.[335] These workers, mainly engineers, had helped prepare Coelce for transfer to private interests; in the first directors' opinions, the workers were sufficiently familiar with the electrical industry and Coelce's infrastructure to be able to conduct inspections and oversight of the newly private firm. These staffers' background influenced the agency's initial policy focus, as will be explained below. They left office when *concursado* workers entered in 2001.[336]

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[330] The remaining exhaustive list of directors includes David Failkow Sobrinho, Eduardo Delgado, Luiz Miranda, Denise Zaions, Eduardo Battaglia Krause, Manoel Maria dos Santos, Ricardo Pereira da Silva, Luciano Schumacher Santa Maria, and Edmundo Fernandes da Silva in Rio Grande do Sul, and Lucio Correia Lima, José Luiz Lins dos Santos, and Haroldo Rodrigues de Albuquerque Júnior in Ceará.

[331] For example, in 1999, its first full year of operations, Arce received R$649,629 from the state treasury of its R$972,962 total funds (Arce, *Relatório Anual 2000*: 26). Arce continued to receive small contributions from the state treasury up to 2010, as part of its collaboration on projects with other state bodies (Arce *Relatório Anual 2010*, 120). Agergs's operations were funded 100%, 61.9%, and 44.5% by state treasury funds in 1998, 1999, and 2000, respectively, and by a miniscule amount thereafter (Agergs, *Relatório Anual 2002*: 27).

[332] Interview RS11.

[333] Planners hoped the *concurso* would bring in one hundred staffers, but the number admitted was far lower at 33 in 2000 and 14 more in 2002 (Eliane Veloso. "Endesa escolhe a Enersis para investor" *Gazeta Mercantil* 13 Aug. 1998; Interview RS2; Agergs *Consolidação, Transparência e Controle Social* 2005:20.).

[334] Vanessa Canciam. 2007. "CPI ouve presidente de Agergs." Press release, State Assembly of Rio Grande do Sul, July 16. http://www2.al.rs.gov.br/noticias/ExibeNoticia/tabid/5374/IdMateria/179151/language/pt-BR/Default.aspx Last accessed April 25, 2013.

[335] Pincanço served as Coelce president before its privatization.

[336] The concurso was held in July 2000, with 35 general slots available and ten extra slots for sanitation. The winners were named on July 24, 2000 ("Classificados no concurso da Arce," *Diário do Nordeste*, July 24, 2000. Diariodonordeste.globo.com/2000/07/24/010039.htm. Last accessed April 24, 2013; Arce, *Relatório Anual 2001*, 2).

Finally, initial long-term human resources did not vary in causally important ways between agencies. Permanent employees did not begin work earlier at one agency than they did at the other. The delay between the entry of appointed and *concursado* workers is the same in both states, approximately two years (and three years from the creation law). Thus neither agency had permanent staff – the middle-management Carpenter (2001) proposes as key relationship-builders with outside actors – longer than the other.

However, the initial background of both leadership and staff members affected the initial orientation of the agency, which comprises the first section of my causal mechanism. Both sets of agency directors began work at agencies with broad legal mandates and state support, and with some guidance on how to manage an agency. In this undefined environment, the directors relied on their backgrounds and members of their social networks to orient the agency.

5.2.5. Creation: Regulated Sectors

The two agencies vary with respect to the firms and sectors they were to regulate. Governor Antônio Britto assumed responsibility for federal highways within Rio Grande do Sul, and auctioned them off as 15-year concessions to private operators. His government divided the energy operator into three separate concessions and auctioned two concessions to private firms. BY contrast, Governor Jereissati in Ceará privatized the energy distributor Coelce as a single firm and did not create highway concessions.[337] Incoming directors at Agergs therefore had a responsibility to engage in at least minimal regulation of the state's new toll highway system, while directors at Arce had no such responsibility.

The requirement to regulate highway concessions partially explains Agergs's initial agency orientation, the key causal variable developed below. The state highway concessions program envisioned a regulator to monitor contractual obligations for toll adjustments and required investments set in the contracts. Three ferry concessions had been re-organized and regularized as concessions. The presence of highways, however, did not automatically consign Agergs to a low-quality outcome. First, Agergs also regulated transport concessions that could have been voluntarily ignored. Other intercity ferries and bus lines were already supervised by Daer, the incumbent state transportation body. Agergs's statutory role comprised only hearing complaints and certifying that tariff adjustment calculations were performed correctly, not any direct regulation, *but not for any particular sector*. Agency directors might have chosen not to regulate passenger and cargo transportation. Second, Agergs directors opted not to begin work in electorally-valuable sectors. They might have worked to begin inspections or standard-setting at Sulgás or Corsan, the state natural gas distributor and water and sanitation firm, respectively.[338]

Arce directors decided not to engage extensively in transportation regulation when they might have legally done so. The state transportation body DER maintained a supervisory role over intercity bus transportation, but Arce's founding law gave it authority to poach this role. Instead, agency directors worked with other state bureaucrats to craft a clearly defined role for the agency, which came with state law 13,094 in January 2001. In negotiating its role rather than immediately beginning oversight activities, Arce directors guaranteed that their agency was more initially oriented toward energy and sanitation, two valuable sectors.

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[337] Highway concessions would probably not be economically viable, given low average incomes, the lack of cargo road traffic, and the fact that the largest city not in the Fortaleza metropolitan region, Juazeiro do Norte, is distant and has one-tenth of Fortaleza's population.

[338] With resolutions 14 (1998) and 45 (1999), the agency did approve tariff changes for Sulgás. As described below, their work in regulating Corsan was reactive and *post hoc*.

In short, though the array of regulated firms resulted in some policy areas' mandatory inclusion in agencies' initial work, this fact did not determine the distribution of resources among sectors or the complete set of possible activities that would shape agency initial orientation.

5.3. Mechanism

5.3.1. Initial Agency Orientation

Agency leaders first addressed policy areas for which they had the resources, legal mandate, and background. Agergs was first led by a former state Secretary of Transport that brought former staffers to the new agency; the agency also had a legal mandate to regulate new private highway concessions. Agergs contracted energy inspectors from the Federal University of Santa Catarina, which made it a secondary focus. In Ceará, because most initial Arce staffers and a director were former Coelce employees, and because Coelce had been the center of recent public controversies, they initially decided to focus their efforts on overseeing energy distribution. They had no private transportation concessions in need of immediate regulation. The first public service examination brought in staff for sanitation regulation, which might have been driven by the state's historic water shortages.[339] Note that this initial divergence in focus is largely exogenous to any other agency decisions; governors picked leaders that came with their own backgrounds and networks.

I argue that initial agency focus comprises a "critical juncture," insofar as regulatory roles were undefined and great uncertainty surrounded which direction and what form public infrastructure regulation would take in Brazil. Collier and Collier (1991) define critical junctures as "a period of significant change which typically occurs in distinct ways in different countries (or in other units of analysis) and which is hypothesized to produce distinct legacies" (29). First, the privatization of former state infrastructure firms and relinquishing of state control presented an unresolved dilemma for policymakers, if not a "crisis" or "cleavage" as specified by Collier and Collier (1991:30). As explained in a previous chapter, governors sold off state firms to resolve state debt problems, but were anxious about increases in prices or worsening service quality. Yet governors also were concerned that new owners make needed investments in improving the privatized firms. They seized upon the regulatory agency model to solve this double dilemma: it could provide state control over abuses and transparency to concessionaires. How agencies should function, however, was highly uncertain and unknown. Both scholars and practitioners struggled to explain how independent regulators might function with respect to concessionaires, politicians, and users.[340] None of the early literature on regulation in Brazil, however, mentions the electoral payoffs or coalitions behind particular sectoral regulation. Early decisions orienting agencies relied primarily upon director backgrounds and legal mandates, not on instrumental decisions over coalition-building.[341] Let us see how this developed.

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[339] Among Tasso Jereissati's first policies upon assuming office in the 1980s was the creation of dams to make the water supply more reliable outside Fortaleza (Interview CE7). Early Arce staff had discussed the agency's regulatory role in water and sanitation before the entry of *concursado* specialists (Arce. *Relatório Anual 2000*,17).

[340] Practitioners and scholars did rely on the long experience of North Atlantic regulatory agencies, which appears in their writings. For example, Poli de Figueiredo (1999), one of the authors of the law creating Agergs, explained the concept of regulation in Agergs's own journal *Marco Regulatório* by citing work by Barry Mitnick (1980), Alfred Kahn (1988) and the U.S. Supreme Court case *Wolff Packing Co. v. Kansas* 291 U.S. 502 (1923). Their work largely concerns autonomy from political principals. In upholding Agergs's autonomy, the STF cited *Humphrey's Executor v. United States* 295 U.S. 602 (1935).

[341] This behavior might be seen as "off the equilibrium path," insofar as agency leaders did not consciously direct regulatory activities to build coalitions as described in the mechanism. Instead, their decision-making occurred in

Agergs initially focused on highway concessions, transportation and energy distribution, in that order. Its first on-site regulatory activity in September 1997 produced a study of user satisfaction with intercity ferries in the Port of Rio Grande (Krause 2005:44). Highway regulation was a *de facto* requirement, given the novelty of toll highways.[342] Initial regulation required the agency to approve the opening of new (auctioned) concessions and approve initial tolls.[343] Its first formal act was to approve the concession for the bus station in Porto Alegre on November 17, 1997 (Krause 2005:44). Its first official acts for the duration of 1998 overwhelmingly concerned setting up the agency (Resolution 34) or approving new transportation regulations and tariffs.[344] In its first years, Agergs did not calculate tariff adjustments, but instead saw that their calculation elsewhere was proper (see, e.g., Resolution 14). For example, in its work in natural gas, Agergs approved public concessionaire Sulgás's tariffs by noting that a plan demonstrating tariff adjustments necessary to preserve the company's "economic-financial equilibrium" had been duly presented (c.f. Resolution 14, 1998; Resolutions 45, 49, 1999).[345] In energy regulation, Agergs conducted inspections in cooperation with Aneel in 1999, but issued only limited warnings to energy concessionaires and was unprepared for one concessionaire's challenge to its authority.[346] Agergs's initial focus on transportation led it to neglect other areas. In the most significant cases, water and energy concessionaires unilaterally raised tariffs and forced the agency to react *post hoc*.[347]

By contrast, Arce spent most of its initial resources overseeing energy concessions. The state gave initial directors guidance on transportation regulation only in 2001, whereas the role of Arce in overseeing Coelce was quite clear.[348] Most initial staff members came from Coelce, and were able to start their work in energy regulation even before a delegation agreement with the federal energy regulator Aneel had been finalized (ibid).[349] According to an interviewee, Coelce's new owners fired many workers at the firm, which caused some service disruptions and problems when institutional memory was lost (Interview CE7). Arce's inspections revealed multiple problems, and the agency fined Coelce R$6.9 million in 2000 for five violations in April 2000.[350] The agency had previously penalized Coelce for failing to reimburse consumers for faulty meters (Resolutions 4 and 5, 1998) and set out provisions for consumer recourse in cases

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situations of great uncertainty and with judgments shaped by their previous experience. I thank Randy Stone for a discussion on this point.

[342] No other state body was prepared to begin highway regulation.

[343] As an example, Resolution 32 of December 28, 1998, approves the work done to prepare the Santa Cruz toll highway, allows it to begin operation, and notifies mayors of adjacent towns and the state secretariat that the highway is approved.

[344] See the chart below of Agergs's decisions sorted by policy area.

[345] These resolutions are each only one page long.

[346] Agergs *Relatório Anual 1999*, p. 5-7. The conflict is explained below.

[347] "Aumento de tarifas de Corsan será investigado" *Zero Hora*, 8 October 1999, p. 26; "Mais um susto com as contas de agua e luz - A Corsan e a AES-Sul decidem cobrar valores que consideram atrasados e provocam a reação dos consumidores" *Zero Hora*, 22 October 1999, p. 18.

[348] Interviews CE1, CE8, and CE9; Arce signed a cooperative agreement, Convenio 036/2000, in June 2000 with DERT, DETRAN, and the State Secretary of Infrastructure, and entered into a dialogue on how powers were to be shared (Arce. 2000. *Relatório Anual*, 18; Arce. 2001. *Relatório Anual*, 18).

[349] The Aneel agreement began on August 19, 1999; Coelce was fined April 3, 2000.

[350] To estimate the size of this fine, it should be noted that the Chilean-led consortium led by Enersis paid R$987 million for Coelce in April 1998. However, the Brazilian real devalued in January 1999 (Janary Júnior. 2000. "Coelce é multada em R$ 6,9 milhões" *Gazeta Mercantil*. April 4).

involving Coelce and other concessionaires (Resolutions 8-10, 12, 13, 1999-2000).[351] Initial agency resolutions (to 2000) and interviewees depict Arce as heavily focused on asserting its authority in energy regulation and strengthening its relationships with users.[352]

Energy regulation followed similar formal designs, but Arce was far more aggressive in developing oversight. Both agencies began energy inspections under delegation agreements with federal energy regulator Aneel, as required by the national Concessions Law, though their paths to an agreement varied. Agergs signed the second agreement among state agencies (after São Paulo) in December 1998 (Convênio 008/98), while Arce delayed for one year, negotiating with Aneel for greater autonomy and greater oversight of Coelce (Interview CE9). In the words of a former director, Aneel only signed the agreement with Arce "when there wasn't any other alternative" (ibid.). Under Aneel's creation law, it had the option to delegate inspections and ombudsman authority to state agencies by agreement, or it could conduct the same services on its own. As Aneel was limited in its resources – and even its budgeted appropriations were limited by President Cardoso – Aneel directors preferred to delegate (Interview DF3). Aneel finally signed an agreement with Arce in August 1999 (Convênio 006/99), with terms identical to those agreed to by Agergs.

Finally, Arce was quicker to develop active sanitation regulation than was Agergs. State regulation of sanitation lay on questionable legal ground; as described in the background chapter, the Federal Supreme Court (STF) delayed for several years a decision on which level of government was the proper concession-granting authority for sanitation according to the 1988 Constitution.[353] Any agency designing and carrying out regulatory activity in this policy area ran risks of reversals and court fights.

5.3.2. Initial public regulatory accomplishments

The initial focus of each agency produced different results that contributed to the agency's reputation. While Agergs was embroiled in transportation regulation controversies and tardy to address sanitation concerns, Arce aggressively fined and corrected state energy and sanitation firms. These initial regulatory steps proved detrimental to Agergs's reputation while developing Arce's positive reputation. I lay out each set of the steps in turn.

5.3.2.1. Agergs

Agergs began its work largely by approving the deployment of toll concessions and bus station concessions. The distribution of resolutions is found in Table 5.1 below.[354] Resolutions on highways and intermunicipal transportation concerned the establishment of toll concessions and toll plazas on federal highways delegated to the state under 15-year agreements, set tariff prices, and allowed or disallowed exceptions for paying tolls for different vehicle classes.[355] Resolutions in other areas concerned economic regulation and rulemaking, and rule enforcement; administrative judgments on mediations or appeals were not issued as resolutions in this

[351] Antonio Furtado. "Agência anula cobrança da Coelce" *Gazeta Mercantil.* 26 Nov. 1998.
[352] Interviews CE8, CE9.
[353] The various cases to come before the STF were ADIn 2077-BA (Bahia), ADIn 1842-RJ (Rio de Janeiro), and ADIn 109.600.0/3, from the Tribunal da Justiça de São Paulo.
[354] I use the first four years to illustrate the agency's early work. Tallies of resolutions in three- and five-year terms produce similar results.
[355] As explained by an interviewee, the original regulatory fee for transport companies was transformed into a percentage from a lump-sum, as the latter was too onerous for small operators (Interview RS2). Initial resolutions denied toll exceptions for government-owned official vehicles and allowed per-axle tariff differentiation.

timeframe.[356] Institutional resolutions covered administrative procedures within the agency, as well as re-assertions of the agency's authority.[357]

[356] In the years between 2005 and 2009, Agergs listed councilor decisions on appeals and mediation cases as resolutions. The agency does not do this at present.

[357] For example, Resolution 38/1999 is entitled "Reaffirms the position of Agergs in toll highway regulation" and Resolution 44/1999 "[r]eiterates [its] position against unilateral intervention in [highway] tolls."

Table 5.1: Agergs (RS) Resolutions by Year and Policy Area

Year	Policy Area	Resolutions
1997[358]	Transportation	2
1998	Transportation	3, 4, 5, 6, 7, 18, 19, 20, 25
	Highways	9, 10, 11, 12, 13, 15, 16, 17, 20, 21, 22, 23, 24, 26, 27, 28, 30, 31, 32, 33
	Natural Gas	14
1999	Transportation	37, 39, 40, 41, 51, 52, 53, 55, 56
	Highways	35, 36, 38, 43, 42, 44, 46, 47, 48
	Natural Gas	45, 49
	Sanitation	50, 54, 57
	Energy	58, 59
2000	Transportation	65, 67, 71, 72, 73, 74, 75, 77, 78
	Highways	66, 68, 76, 80
	Natural Gas	64, 69
	Energy	60, 70, 79
	Institutional	61, 62, 63

Source: Legislação – Resoluções, www.agergs.rs.gov.br

Agergs's early work in transportation also focused heavily on economic regulation, but largely in defense of user interests. Agergs did not develop a negative reputation due to tariff increases. The new agency issued six, sixteen, seven, and five resolutions on tariffs in each of the years from 1998 to 2001.[359] Yet tariff decisions did not always favor concessionaires. In 1998 the agency deferred a ferry tariff increase, required state vehicles to pay highway tolls, and only partially approved increases in tariffs for intercity bus routes and natural gas.[360] In 1999, the agency allowed a small ferry toll increase and an increase in the price of gas but came out against higher tolls requested by highway, bus, energy, and sanitation concessionaires.[361] Federal public defenders and state prison vehicles were required to pay tolls. The agency drew up new formulas for highway and bus tolls in response to consumer complaints, and proposed adding these calculations to concessions contracts.[362] In 2000, the agency approved bus, ferry, and gas tolls that had been previously unadjusted.[363] This year was abnormal. In 2001, the agency denied ferry increases twice, approved gas rate changes and bus fare increases.[364] In sum, opposition to the agency's work is unlikely to have come because of its work raising tariffs. If one includes the opening of new highways as tariff increases – transforming formerly free roads into toll roads

[358] Resolution 1 is not available.
[359] Full data can be found in the appendix below. I exclude decisions that freed concessionaires to charge highway tolls once necessary investments were in place, as these resolutions were issued by the agency signing off on contractual build obligations.
[360] Resolutions 3, 4, 14, 19, 20, 29 (1998). The degree of adjustment for buses and natural gas is unclear from the resolution texts; I assume that both concessionaires asked for an increase.
[361] Concessionaires were denied increases and told to reverse excessive charges in energy (Resolutions 58, 59), highways (Res. 42), buses (Res. 51, 55, 56), and sanitation (Res. 57). As before, the degree or nature of the adjustment in gas tariffs is unspecified (Resolutions 45 and 49, 1999).
[362] Resolutions 46 and 52, 1999.
[363] Resolutions 64, 65, 68, 69, 71 73, 75 (2000).
[364] Resolutions 83, 94, 95, 96, 103 (2001).

– then one could argue that the agency raised tariffs. However, these activities are intimately tied to highway concessions themselves (tolls were included as part of the original concessions bidding process), and it's more accurate to argue that Agergs's negative reputation developed from its close association with highway concessions *in toto.*

In Agergs's first years, energy tariffs in Rio Grande do Sul rose much more steeply than did the transportation tariffs that Agergs approved. The federal energy regulator Aneel allowed private distributor RGE to increases of 10.91%, 9.53%, 18.21%, and 12.20% yearly from 1999 to 2002, respectively, and distributor AES Sul to increases of 10.30%, 9.58%, 20.94%, and 11.84% yearly from 1999 to 2002, respectively.[365] In sum, tariffs increased more for energy than for other public services. However, these price increases are orthogonal to Agergs's work in energy regulation; their more public work comprised inspections and a *post hoc* demands that AES Sul not be allowed an unauthorized price increases. Rising energy prices should not have directly affected Agergs's reputation.

Agergs's early work in highway regulation generated controversy. The left-wing PT governor elected in 1998, Olívio Dutra, sought to end toll highway concessions. Dutra had successfully campaigned on a slogan that he was the way ("caminho") and his opponent Britto the toll ("pedágio"), among other slogans.[366] As the toll highway institutions had been approved by his predecessor Antônio Britto, Dutra first sought to remove all Agergs directors.[367] Dutra sought an opinion at the federal Supreme Court that the terms of the creation law forbidding their ouster were unconstitutional.[368] Directors' fixed terms and the fact that only State Assembly votes could remove them, Dutra argued, contravened the executive branch's authority to set policy in the state. Next, Dutra's Transportation Secretary announced on March 14, 1999 that the administration would "forcefully intervene in the area of tolls," following a protest by truckers attempting to close the 28 functioning toll plazas in the state.[369] In mid-April 1999, Dutra acted by decree, reducing tariffs unilaterally 20% for cars and 28% for trucks; the administration justified the reduction by highlighting the excess profits and choice properties that concessionaires enjoyed.[370] The concessionaires responded one week later, arguing that only Agergs, and not the governor, had the legal authority to change highway tolls.[371] When the PSDB-led federal government asked the state government to correct the tariffs, the state transportation secretary threatened to cancel all contracts.[372] Later that year, Olívio Dutra's government returned to the Supreme Court with a second lawsuit questioning the legislature's

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[365] Maurício Corrêa, "Energia elétrica tem reajuste de 10% no RS," *Gazeta Mercantil*, 19 April 1999; Roberto Cordeiro, "Tarifa de energia elétrica sobe 9,5% no RS," *O Estado de São Paulo,* 20 April 2000; "Aneel autoriza aumento para tarifas de seis distribuidoras," *O Estado de São Paulo,* 18 April 2001; Patricia Zimmermann and Elaine Cotta, "Energia – Aneel autoriza aumento de tarifa no Rio Grande do Sul," *Folha de São Paulo,* 17 April 2002. A separate request for price increases in December 1999 was rejected for both companies (Gustavo Paul and Milton da Rocha Filho, "Aneel rejeita aumento de concessionarias," *O Estado de São Paulo*, 15 December 1999).
[366] Interview RS13; Dutra narrowly beat Britto in the second round on the latter's campaign for re-election on October 25, 1998.
[367] Governors of Brazilian states have long been able to remove upper-level state bureaucrats at the beginning of their terms.
[368] "Governo gaúcho volta ao STF," *Jornal do Commércio do Rio de Janeiro,* 19 February 1999.
[369] "Pedágio/Redução" *Jornal do Brasil*. 14 Mar. 1999.
[370] "Pedágios/Redução/RS" *Jornal do Brasil.* 13 April 1999.
[371] "Pedágios/Justiça/RS" *Jornal do Brasil*. 20 April 1999.
[372] "Rodovias-RS/Devolução/União" *Jornal do Brasil.* 7 July 1999. He later learned cancelling contracts unilaterally was legally impossible (Interview RS12).

ability to delegate tariff-setting authority to an independent agency, given that only the executive had the tariff-setting authority previously.[373]

The agency won qualified victories in both Supreme Court cases. First, in November 1999, the Supreme Court ruled that Agergs directors could be removed only by the executive in case of extreme incompetence and through an administrative process.[374] In March 2000, the Supreme Court decided that Agergs did in fact have the legal right to set concession tolls (Krause 2001:54-59).[375] Both decisions did much to establish the independence of regulatory agencies throughout Brazil (Krause 2001). Though both decisions were almost entirely in Agergs's favor, the agency endured multiple set-backs due to its involvement in the case.

The agency's focus on transportation won it few allies. First, highway tariffs were highly unpopular, and Agergs lacked the institutional resources to cap tariffs, having no history against which to measure tolls. Second, as part of his opposition to transportation concessions, Dutra was able to "leave the agency on standby" while its fate lay before the Supreme Court (Interview RS3). Potential staff members that scored highest in a public service exam run in December 1998 did not enter until January 2000.[376] The agency did not completely end its activities, but qualified high-scoring candidates either did not enter the agency in 2000 or left the agency shortly afterward in search of more stable or higher-paying jobs (ibid.).[377] Third, the controversy established Agergs as a defender of neoliberal reforms that remained unpopular and controversial until the present.[378]

By contrast, Agergs did relatively little initial work in sanitation and energy regulation, which both depleted available allies and hindered its ability to set electorally-useful decisions.

In the area of sanitation, Agergs's tardy and ineffective response to sanitation company actions contributed to its negative reputation. In September 1999, the state water company Corsan increased residential prices by an average of R$1.18 per cubic meter, a substantial increase, without public notice, agency approval, or consultation.[379] Agergs inquired afterward into Corsan adjustments with Resolution 50/99 in October 1999; Corsan replied to inquiries primarily in non-pertinent obfuscatory statements (Krause 2001:64-65). Agergs then denied the tariff adjustment on October 27, 1999 and asked the state public prosecutor to block Corsan adjustments while they could adjudicate the issue.[380] Corsan proceeded to ignore Agergs's resolutions and continue charging higher tariffs (Krause 2001:63). At the same time, the state association of municipalities FAMURS and various state assembly members also requested that

[373] Juliane Basile. "Governo do RS volta a questionar Agergs." *Gazeta Mercantil.* 4 November 1999.
[374] The case was ADIn 1949-0/RS. Juliane Basile and Luiz Guimarães. "STF garante independência de agência reguladora" *Gazeta Mercantil.* 19 November 1999. The requirement that directors could only be removed by a vote of the State Assembly was ruled unconstitutional (ibid.).
[375] ADIn 2095-0/RS.
[376] Interviews RS2, RS6.
[377] Unfortunately, exact turnover figures are unavailable. Salaries went unadjusted from those advertised in 1998, even as the purchasing power of the Brazilian real eroded with de-pegging in January 1999.
[378] In 2010, Governor Crusius attempted unsuccessfully to return the highways to federal control before concessions ended.
[379] "Usuários pedem explicações a Corsan - Entidade que regulamenta serviços públicos quer justificava técnica para reajustes em contas," *Zero Hora*, 7 October 1999. p. 34.
[380] Resolutions 54/1999, 57/1999; "Agergs pede explicações a Corsan - Agência quer esclarecer como a estatal pretende fazer o novo aumento de tarifa." *Zero Hora*. 7 December 1999. p. 30.

the public prosecutor act.[381] The resulting legal case and various appeals became a fight between Corsan and the public prosecutor's office, with temporary victories for both sides before a final, approved settlement.[382] Throughout the entire process, Agergs's role in sanitation regulation, though formally recognized in court decisions, was marginalized.[383] FAMURS itself became party to suits and concession-renegotiation decisions.[384] Corsan continued to ignore Agergs; it did not send a representative to a public hearing on water tariffs in 2000.[385] Corsan also again unilaterally increased water prices in 2001 without Agergs's approval, leading FAMURS to seek to revise Corsan contracts on their own.[386] Agergs's activities in sanitation regulation only began again in 2004, when the agency signed an agreement with FAMURS to provide inspections for any interested cities of CORSAN's physical plant; no city was interested until September 2007, after the passage of federal Law 11.445 requiring a regulatory body in sanitation.[387]

In the area of energy, Agergs was again reactive, tardy, and limited in its overall activities. In 1999, the private distribution concessionaire AES-Sul decided to raise residential tariffs without prior approval.[388] Agergs reacted by suspending any increases.[389] On review, however, Aneel decided the new tariff calculations valid; it later granted AES an increase of 18.21% in 2001.[390] Agergs's role was again reactive and marginal. Its regular inspections of energy distribution infrastructure in the state turned up an unexceptional number of problems and violations to be corrected (see, e.g., Capeletto 2000 in *Marco Regulatório* 3, p. 9). Agergs fined the independent power producer Uhenpal R$3,950.14 in 1998 for violations; after all appeals were exhausted, it applied the same fine in 2000 (Resolution 70/2000, 13 June 2000). There is no evidence that they fined another energy concessionaire for violations until 2006. Agergs acted as a functioning agent of Aneel in the latter's delegation, but did little to distinguish itself in energy oversight.

As a result of this involvement in transportation and relatively minor role in electorally-valuable sectors, Agergs made few valuable allies, as will be explained below. Before moving to the next part of the mechanism, I cover the history of Arce.

5.3.2.2. Arce

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[381] "Juiz nega suspensão de tarifas da Corsan - MP anuncia recurso ao Tribunal de Justiça" *Zero Hora*. 13 November 1999. p. 25; ""Famurs debate concessões com prefeitos," *Zero Hora*. 14 November 1999. p. 29. FAMURS is the *Federação das Associações de Municípios do Rio Grande do Sul*, the umbrella municipal organization.

[382] *Zero Hora* (Porto Alegre), various issues; "Corsan define devoluções esta semana - Estatal ainda estuda como fazer o ressarcimento nas contas dos consumidores" *Zero Hora*. 11 January 2000. p. 21.

[383] This was not the first time that Agergs was ignored. Shortly afterward, the agency had to complain that it was not consulted when the state transport department DAER raised bus fares unilaterally ("Reajuste dos onibus pode acabar na Justica - A Agergs decide na quarta-feira se contestará o aumento das tarifas autorizado pelo Daer" *Zero Hora*, 1 Nov. 1999, p. 31).

[384] "Deputados questionam indice de reajuste adotado pela Corsan" *Zero Hora*, March 29, 2000, p. 20.

[385] "Corsan foge da Agergs," *Zero Hora*, 30 October 2000, p. 10

[386] "Famurs anuncia revisão de convênios com Estado e União," *Zero Hora*, 23 November 2001, p. 18; Agergs Resolutions 102, 103 (2001).

[387] "Mirante," *Zero Hora*, 6 July 2004, p. 10; Agergs *Relatório Anual 2006*, p. 51; Agergs *Relatório Anual* 2007, p. 19; The search for a role for Agergs in sanitation regulation had been ongoing yet fruitless since 2003 (Agergs *Relatório Anual 2003*, p. 7).

[388] "Mais um susto com as contas de agua e luz," *Zero Hora*, 22 October 1999, p. 18.

[389] "Agers [sic] suspende cobrança de AES" *Zero Hora*, 22 October 1999, p. 22.

[390] "Consumidores criticam reajuste da conta de luz" *Zero Hora*, 19 April 2001, p. 28.

Regulators at Arce in Ceará distinguished themselves and won valuable allies by aggressively regulating energy and sanitation concessionaires early in the agency's term. Their sanctions of energy and sanitation concessionaires firmly placed the agency as an intermediary between concessionaries and users, defending the interests of the latter.

Arce focused almost exclusively on energy and sanitation in its first years, and only came to regulate transportation at a later point. As an illustration of the agency's focus, its resolutions in its first four years, divided by policy area, are listed below in Table 5.2.[391] Institutional resolutions covered general administrative processes, while energy and sanitation resolutions concern economic regulation, rulemaking, and rule enforcement. Arce never issued mediation resolutions or judgments.[392]

Table 5.2: Arce (CE) Resolutions by Year and Policy Area

Year	**Policy Area**	**Resolution Numbers**
1998	Institutional	1, 2, 3
	Energy	4, 5, 6
1999	Institutional	7, 8, 9
	Energy	10, 11, 12
2000	Institutional	13, 15, 16, 18, 19
	Energy	14, 17
2001	Institutional	22, 23, 27
	Energy	28
	Sanitation	20, 21, 24, 25, 26

Source: *Publicações – Resoluções*, www.arce.ce.gov.br

Arce's initial work in energy and sanitation involved little economic regulation. Aneel set Coelce tariffs, which increased 5.31%, 10.19%, 15.04%, and 14.27% annually from 1999 to 2002, respectively.[393] The state still set Cagece rates, and Cegás rates were first calculated in 2004, with Arce approving fee increases based on swings in wholesale natural gas prices. In rare exceptions, Arce intervened to prohibit retroactive metering and allow formerly delinquent accounts to be reconnected.[394] The agency focused instead on standard-setting and inspections to monitor compliance. In sum, the agency's work delivered a better regulatory product in an electorally-valuable sector for an increasing price.

Arce's early vigilance in energy inspections, in addition to poor management at newly privatized Coelce, resulted in conflict.[395] Arce began oversight of energy even before it signed a delegation agreement with Aneel. As explained above, the agency's focus was largely a function of early staff members and directors' backgrounds, and of the absence of clear state transportation standards until 2001. First, Coelce set out to fix energy meters for residential and

[391] The first resolution on transportation is Resolution 41 of November 20, 2003.
[392] As examples, institutional resolutions set processes for user complaints (Resolution 1/1998 and Resolution 9/1999) and how users are to be compensated by concessionaires after administrative decisions (Resolution 8/1999).
[393] Mônica Tavares, "Energia/Aumento," *Jornal do Brasil*, 20 April 1999; "Energia elétrica sobe 9,6 pct no sábado no Nordeste – Aneel," *Reuters Focus*, 19 April 2000; "Aneel autoriza aumento para tarifas de seis distribuidoras," *O Estado de São Paulo,* 18 April 2001; "Aneel reajusta tarifas," *Valor Econômico,* 19 April 2002
[394] Resolutions 4-6 (1998); Resolution 17 (2000).
[395] Recall that Coelce's new Chilean owners from Enersis fired most middle management upon assuming control, thereby losing institutional memory (Interview CE8).

commercial users, to improve collection. Arce denied Coelce's subsequent decision to then charge retroactive tariffs in cases of obvious fraud.[396] Arce's actions came before it had signed an agreement with Aneel to assume the latter's functions locally, and thus stood on shaky legal ground.[397] Arce acknowledged as much to the press, with director Jurandir Picanço arguing that their power derived from the contract signed between the state government and Coelce's new owners.[398] Aneel stepped in to resolve the matter while upholding Arce's prohibition on retroactive fees.[399] Second, having signed a delegation agreement in August 1999, Arce undertook more extensive inspections in early 2000. They found multiple problems. In commercial activities, Coelce had had not returned R$2 million of unjustly collected double charges, had serious deficiencies in customer service, had closed customer service agencies, had not resolved injuries caused by electrical wires, and had irregularities in the ways it classified low-income residents (Arce *Relatório Anual 2000*, 11). In supplying electricity, Arce found multiple problems in operation, energy conservation, maintenance, and worker safety.[400] Arce, in light of these problems, issued Coelce a R$6.9 million fine in April 2000 for, "five infractions, the most grave being non-compliance with energy supply continuity levels."[401] Shortly after the fine was issued, Aneel authorized a planned electricity tariff increase.[402] After analyzing Arce's report and justification for its fine, however, Aneel moved to reconsider Coelce's performance. Aneel directors, the Minister of Mines and Energy, and even the President considered publicly whether to rescind Coelce's concession contract for its poor performance.[403] Coelce had been the subject of approximately 340,000 consumer complaints in 1999, an extraordinary number.[404] Arce director José Bonifácio de Souza's prepared report detailed Coelce's failures and proposed ending the concession.[405] Aneel opened up an administrative case against Coelce in May, asking the distributor to correct 62 of the errors put forward in Arce's reports within 90 days.[406] The leading, largest-circulation newspaper in Brazil applauded Aneel's efforts as the first sign of robust regulation in Brazil.[407] Coelce's first owners had also been punished by being excluded from any Aneel auctions or sales for one year.[408] Coelce paid the R$6.9 million fine issued by Arce, and was ultimately allowed to keep its concession.[409] Its first owners soon handed over control to other firms.[410] In sum, Arce positioned itself as a hawkish regulator and defender of

[396] Resolution 4/1998; Antonio Furtado. "Agência anula cobrança da Coelce," *Gazeta Mercantil*, 26 Nov. 1998.
[397] Resolution 4/1998 relied on an interpretation of a DNAEE rule, article 55 of Portaria 466 (12 Nov. 1997). DNAEE was the national energy agency predecessor to Aneel.
[398] Antonio Furtado. "Agência anula cobrança da Coelce," *Gazeta Mercantil*, 26 Nov. 1998; "Curto-circuito no Ceará," *O Globo* (Rio de Janeiro), 25 November 2000, p. 30.
[399] Ibid.
[400] Ibid.
[401] "Coelce é multada em R$6,9 milhões," *Gazeta Mercantil*, 4 April 2000. This fine represented over 5% of Coelce's annual profit of R$83.9 million (on revenue of R$700.45 million) in 2000 (Janary Júnior. "Lucro da Coelce cresceu 12%" *Gazeta Mercantil*. 5 April 2001).
[402] "Energia eletrica sobe 9,6 pct no sábado no Nordeste – Aneel," *Reuters Focus*, 19 April 2000; Interview CE8.
[403] "FHC pode cassar concessão da Coelce," *Jornal do Commércio do Rio de Janeiro*, 27 May 2000.
[404] Ibid.
[405] Ibid.
[406] Roberto Cordeiro. "Aneel abre processo contra a Coelce," *O Estado de São Paulo*, 30 May 2000.
[407] "Editorial – Suspiro Regulatório," *Folha de São Paulo*, 31 May 2000.
[408] Ibid.
[409] Coelce *Relatório Anual* 2000, p. 26.
[410] Coelce came to be controlled by Cerj (36,43%), Endesa (37,55%), Estelmar (10,41%) and Interocean (15,61%) ("Controladores da Coelce são punidos," *Jornal do Commércio do Rio de Janeiro*, 17 August 2000; Roberto

users against concessionaires very early in its tenure. Its expertise and oversight of energy gave it a reputation as a sharp regulator in this area.

Arce's active regulation of sanitation was as ambitious and aggressive as its regulation of energy. Sanitation regulation followed the addition of expertise, as most pre-*concurso* workers were not familiar with sanitation.[411] The first 45 *concursado* workers entered the agency in 2001, including ten technicians [*peritos*] in sanitation (ARCE *Relatório Anual* 2001, 5). At the time, the Ceará state government was considering selling the state water company Cagece to private investors, which spurred the addition of regulatory specialists in sanitation (Interview CE5).[412] Ceará and Cagece had long been held up as models of state water management, and Cagece was profitable in 2001, a rarity among state firms.[413] Arce's new team drafted quality standards for Cagece and signed an agreement with Cagece and the Secretary of Infrastructure to prepare inspections, which began in September.[414] The inspection work continued into 2002, when Arce found that Cagece was not in compliance with 265 quality standards (Arce *Relatório Anual* 2002, 13). Arce staff found problems in the quality of the water, its supply, reservoirs, sewage treatment plants, and commercial services.[415] In the words of an interviewee, Arce found that Cagece's own numbers on performance were not reliable, and that quality was in fact poor; whereas Cagece had certified itself as in compliance with one hundred percent of the standards, Arce inspectors found that fewer than ten percent of the standards were being met.[416] The revelations embarrassed Cagece. Some underperforming staffers were dismissed and changes made (Interview CE5). Cagece made multiple investments in its physical plant, with the assistance of the national development bank BNDES.[417] Arce continued to find Cagece in violation of standards (with 229 tickets in 2003 and 364 tickets in 2004).[418] These discrepancies, furthermore, went generally unpunished; under the terms of the agreement among Cagece, Arce, and the Secretary of Infrastructure, all problems were reported to Cagece and then to the Secretary of Infrastructure.[419] The agency had no power to levy fines (ibid.). Publicly shaming Cagece, a state firm, led eventually to conflicts with new governor Lúcio Alcântara.[420] Alcântara refused to re-appoint Picanço and his Secretary of Infrastructure devised new concessions contracts between Cagece and municipalities that locked Arce out of its inspections role. Despite protests from the Association of Cearense Municipalities (APRECE) warning mayors not to sign the new contracts, over one hundred cities signed contracts; the largest and

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Cordeiro. "Aneel envia técnicos para verificar cumprimento de metas pela Coelce," *Estado de São Paulo*, 29 August 2000).

[411] In 2000, ARCE conducted planning for sanitation regulation, envisioning a start date of July 2001 (ARCE *Relatório Anual* 2000, 17).

[412] The auction, like other planned transfers of state water companies (CESBs) in Brazil, never happened. At the end of Cardoso's second term, public opinion on privatization that had been divided turned decisively against further work (Baker 2007:175-177). See the background chapter for details.

[413] João Domingos. "Modelo de gestão da água em estuda," *Gazeta Mercantil*, 5 January 2001; "Notas: Empresas & Carreiras," *Gazeta Mercantil*, 22 November 2001.

[414] Resolutions 24, 25, and 26 (2001); Arce *Relatório Anual 2001*, 15.

[415] Arce *Relatório Anual 2002*, 13-14. Unfortunately, more detailed information is not available.

[416] Interview CE5; Arce *Relatório Anual 2002*, 14.

[417] "CEF assina contrato para saneamento no Ceará com recursos do FGTS," *Valor Online*, 15 October 2002.

[418] Arce Annual Reports, 2004, p. 27 and 2003, p. 25.

[419] Interview CE5.

[420] Alcântara was elected governor in October 27, 2002 and began his term on January 1, 2003.

third-largest cities of Fortaleza and Juazeiro do Norte, however, refused to sign.[421] Cagece's largest concession areas, and more than eighty cities, remained under Arce's oversight.[422] Arce performed all of these activities while operating under tenuous legal circumstances; the Supreme Court did not rule until 2004 on the question of which level of government is the concession-granting power for water and sanitation. Arce's work, however, developed for the agency a reputation for expertise and for intermediation on the side of users and municipalities against inefficient state firms. It would later leverage this ability to win additional resources and roles.

In contrast to its pioneering work in energy and sanitation, Arce performed few regulatory tasks in other areas at its start. In the area of transportation, only in 2002 did Arce start collaborative work with other state bodies to develop a concessions bidding framework for intercity bus routes (Arce *Relatório Anual* 2002, 15). Arce workers helped collect and analyze public bids for the awarding of the contracts in 2003, but never engaged in direct regulation of transport operators (Arce *Relatório Anual* 2003, 32). The state of Ceará also lacked access to piped natural gas sources until 1999 and had little demand for gas in the first years of the agency, and so Arce's foremost efforts in that policy area by late 2003 comprised developing a set of service delivery standards and plan for regulation when supply arrived (ibid., 22).[423]

In summary, Arce's initial active regulation of energy and sanitation helped it develop a reputation for expertise and aggressiveness on behalf of user interests. It generated policy changes for which local elected officials might claim credit.

In the next sections, I consider how agency reputations developed and were employed to gain further responsibilities and resources.

5.3.3. More Aggressive Regulation May Have Produced Greater Service Improvements

Energy services did not improve as much in Rio Grande do Sul as they did in Ceará. The extent to which these changes can be attributed to more or less thorough regulation is beyond the scope of this project. On the other hand, the information provided by the national energy regulator Aneel help us compare the quality of services across states.

I use measures of electricity service quality to indirectly measure the efficacy of electricity regulation. Service quality is a product of a) the physical investments that energy companies make in lines, connections, transformers, and safety, b) oversight of this infrastructure, and c) exogenous natural events such as storms, lightning strikes, and drought.[424] With rare exceptions, the first and last factors are difficult to measure. I make the assumption that build-out requirements are similar for all private concessionaires (AES Sul, RGE, and CEEE-D in Rio Grande do Sul and Coelce in Ceará), as none had investment requirements specified in their concession contracts. The two main indicators of service quality are FEC, the frequency of service interruptions per year, and DEC, the average duration of interruptions. Concession contracts and revisions define DEC and FEC ceilings by concessionaire and municipality. Measuring changes in DEC and FEC alone would indicate overall improvements, but would bias results in favor of the poorer, less-developed state, which probably has a higher baseline of interruptions and interruption durations and thus would see greater absolute and

[421] Interview CE5.

[422] Ibid. During the period under study, only eleven cities in Ceará were found to be profitable for Cagece. The profits from these eleven cities financed services in over 150 other cities ("BH: Fortaleza inicia debates nacionais," *Gazeta Mercantil*, 21 July 2004).

[423] On demand, see "Cegás começa a fornecer para usinas termelétricas," *Gazeta Mercantil*, 3 July 2002.

[424] In Brazil, where most electricity comes from hydroelectric sources, major droughts can cause outages. Exceptional drought led to brownouts and blackouts in 2001 and 2002.

proportional decreases. Measuring changes in the absolute limits would give an indication of how Aneel and state agencies readjusted standards. I instead measure the difference between measured FEC and DEC and standards set for that city, concessionaire, and year. I develop an average population-weighted measure for the state. Higher positive numbers should indicate that the energy concessionaire is providing above-standard service, at least partially due to more aggressive oversight.

The relative difference between ceiling and actual DEC and FEC measures should provide an estimate of the relative thoroughness and efficacy of energy inspections in each state. I approach the data with some precautions. First, a significant drought in 2001 and 2002 should have caused a spike in interruptions in those years, causing some concessionaires to exceed allowable limits at some sites. This drought affected both states equally. Second, allowed ceilings for interruptions should fall as service improves. Thus I include a separate measure of average DEC and FEC limits over time. Falling averages indicate improving services. I use data on DEC, FEC, and number of users from the Aneel website for the three largest concessionaires in Rio Grande do Sul and Coelce, the state concessionaire in Ceará, scored annually from 2000 to 2010.

Improvements in service quality were greater in Ceará than in Rio Grande do Sul. Figures 5.1 and 5.2 in the appendix below illustrate that though the contractual ceilings for DEC and FEC fell at roughly equal rates for both states, both measured DEC and FEC fell faster in Ceará. The initial steep drop in Ceará measures is most relevant for my argument that Arce began aggressive regulation early in its term. The difference between measured indicators and contractually-allowed ceilings was consistently higher in Ceará than in Rio Grande do Sul, suggesting that energy quality in the first state was better than the contractual ceiling required. By contrast, in Rio Grande do Sul, the measured average duration of interruptions stayed roughly constant from 2000 to 2010 and the frequency of interruptions declined only modestly over the same period.

5.3.4. Reputation Development

Before outlining each agency's reputation, I reiterate which important actors hold the set of beliefs and meanings that matter for agency reputations. In the theory chapter, I argued that city elected officials – mayors and city council members – enjoy unique positions in the Brazilian federation wherein they are able to command both local respect and respect (and attention) from state-level politicians. We lack any consensus theory on how governors and state officials get elected, but most partial evidence (e.g., Ames 1994, Ames 2001, Samuels 2003, Abrucio 1998a, 1998b) suggests that statewide elections are greatly aided by turnout-buying or vote-buying institutions coordinated at the municipal level by party elites and elected officials. In other words, candidates for statewide office rely on local political actors to turn out (or swing) voters, and local elected officials are uniquely positioned to perform these tasks due to their control of state resources.[425] Thus we should differentiate activities that positively develop the agency's reputation in the minds of mayors and city council members from activities that create a neutral or negative view of the agency for local elected officials.

The task of demonstrating mayors' approval for some types of regulation and opposition to others can be broken into two parts. First, I show that water and energy concerns affect the

[425] Specifically, mayors and city council officials control employment in local public offices and control budget resources in poor towns (Desposato 2001:21-24; Tititunik 2011:2-6; López 2004). Obviously the relative value of these resources depends on city development and wealth.

entire state, and that work by agency staff in these sectors brought them into direct contact with mayors and city councilmembers. Second, I show that transportation regulation affected isolated cities or served populations under unclear mayoral authority. I further demonstrate that mayors expressed skepticism about transportation regulation in multiple venues.

5.3.4.1. Geographic distribution of agency activities

More mayors were affected by sanitation and energy regulation than by transportation regulation. Though some transportation concessions affected clearly-defined cities, most lines connected multiple cities in which no clear blame or responsibility for policy changes could be defined. By contrast, almost every city had energy or sanitation concessions that could be inspected and regulated.

In Rio Grande do Sul, transportation regulation early in the agency's tenure only affected a handful of cities, while energy inspections covered many cities. Agergs began inspections of intercity water transportation in 1998, but its regulations only affected two ports (Pelotas and Rio Grande) and two ferry routes (Rio Grande do to São José do Norte and São Jerônimo to Triunfo).[426] These ferry routes affect perhaps seven cities in total (all cities named plus General Câmara on the latter route and Mostardas and Tavares on the former route) out of over 475 cities in the state. Rio Grande is the most populous city affected but only the tenth most populous city in the state, with about 198,000 residents. Mayors' interest in these concessions can be seen in the attendance records for public hearings on ferry tariff revisions and service quality; both mayors and city council members from affected cities attended and spoke.[427] Transportation regulation concerned highway toll plazas and highway concessions, which touch multiple cities and thus fall under no single mayor's authority. Mayors' lack of interest in these matters meant that no mayor or city councilman spoke at any public hearing on long-distance transportation from 2007-2010.[428] Transportation hearings are instead largely dominated by concessionaires and agency representatives. Finally, Agergs inspectors visited bus stations randomly selected throughout the state. In 2002, the fifth year of operation for the agency, the agency only visited bus stations in 19 different cities (*Relatório Anual* 2002, p. 37). By contrast, energy inspections by 2002 covered all eight distribution concessionaires, twelve CEEE substations, and thirteen rural electricity cooperatives (ibid., pp. 45-52).[429] Electricity work affected every city in the state, including the capital and most populous city, Porto Alegre. Public hearings held jointly with Aneel in the period under study attracted a variety of civil society representatives.

Agergs's program of voluntary users did not significantly shape mayors' opinions on the agency. The agency, from 1998 on, enrolled individuals to be *usuários voluntários*, charged with reporting on their daily experiences with public services to the agency and thus expanding the agency's oversight. Voluntary users also received briefings and updates on the agency's mission and accomplishments, but probably gave the agency little leverage in expanding its authority. First, voluntary users were widely spread across the state, such that they did not form a potentially significant or unified voting bloc in any single city.[430] Second, they interacted with

[426] See Resolutions 7/1998 and 18/1998 on first port regulations and Resolutions 3/1998 to 05/1998 on ferry regulations. Regulatory work on the Taquari to General Câmara ferry started with Resolution 124/2002.
[427] The data is from 2007 onward, and a list of public hearings is found below.
[428] No earlier data is available.
[429] In addition to the state-owned energy distributor CEEE and private distributors AES Sul and RGE, five smaller energy distributors serve one or two isolated cities each in Rio Grande do Sul
[430] One-third of all voluntary users are in Porto Alegre, totaling 1507 in 2004 in a city of 1.4 million residents (Vasconcellos de Araújo 2005:39 in *Marco Regulatório*).

the agency, reporting their activities directly to the central office in Porto Alegre rather than to any local representative. Third, their education in the agency's functions should have made them less likely to assign either credit or blame to mayors or city council members with regard to public services; their greater knowledge that concessions and regulation were state responsibilities should have worked against city elected officials' ability to claim credit. Agergs's outreach to voluntary users, though it might have increased civil society awareness of the agency's role, did not strongly affect mayoral opinions of the agency.[431]

In Ceará, agency work in energy and sanitation touched many cities, while its early work in transportation only affected combinations of cities such that no mayor had direct contact with the agency. Energy inspections began in 1999, and by 2002 inspectors had visited energy distribution stations in 30 of 184 cities, 17 generation plants, and 21 customer service centers.[432] Sanitation inspections in 2001 took place in Quixada and Fortaleza, and by 2002 covered nineteen cities, with eight further cities' inspections partially complete at the end of 2002.[433] Inspections for both services included the top ten most populous cities in Ceará by 2002.[434] As sanitation concessions were technically municipal, visits involved reports back to municipalities on the regulatory services performed (Arce *Relatório Anual 2003*:14). Below I catalog visits by Arce staff inspecting sanitation facilities in early years.

Table 5.3: Water and Sanitation Inspections by City and Year, Arce, Ceará

Year	**Cities visited**
2001	Fortaleza, Quixada
2002	Aracati, Barbalha, Barreira, Lavras da Mangabeira, Taua, Baturite, Caucaia, Fortaleza, Juazeiro do Norte, Maracanau, Maranguape, Umirim, Acarau, Bela Cruz, Cruz, Forquilha, Santana do Acarau, Crateus
2003	Quixere, Tabuleiro do Norte, Aracoiaba, Mulungu, Pacoti, Palmacia, Caucaia, Fortaleza, Juazeiro do Norte, Apuiares, Baturite, Crateus, General Sampaio, Maracanau, Paramoti, São Gonçalo do Amarante, São Luis do Curu, Acopiara, Baixio, Farias Brito, Independencia, Massape, Oros, Pacajus, Parambu, Piquet Carneiro, Quixada, Russas, Saboeiro, Senador Pompeu, Tururu, Vicosa do Ceará, Flores
2004	Quiterianópolis, Aurora, Tabuleiro do Norte, Monsenhor Tabosa, Novo Oriente, Alto Santo, Tamboril, Milagres, Morrinhos, Paracuru, Barro, Mauriti, Itaira, Caridade, Juazeiro do Norte, Jaibaras, Santa Quiteria, Varzea Alegre, Cedro, Campos Sales, Antonina do Norte, Iraucuba, Iracema, Pereiro, Itapipoca
2004 - Compliance Audits	Senador Pompeu, Piquet Carneiro, Uruburetama, Lavras da Mangabeira, Farias Brito, Baixio, Parambu, Novo Oriente, Quiterianopolis, Paracuru, Massape, Russas, Tabuleiro do Norte, Alto Santo, Oros, Aurora, Barro,

[431] Vasconcellos de Araújo (2005) finds that Agergs's voluntary users are much more likely to be urban and male and are on average older than the state population.

[432] The city of Fortaleza, which contains over one-quarter of Ceará's population, contains more than one generation plant and more than one customer service center.

[433] All data are from the Arce's Annual Reports for the years 2000, 2001, and 2002. Quixada is the tenth most populous city in the state.

[434] These ten cities contain about 40% of the state's population.

	Pacajus, Vicosa do Ceara, Saboeiro, Acopiara, Pentecoste, Monsenhor Tabosa, Milagres, Mauriti, Caridade, Itatira, Juazeiro do Norte, Sobral

Source: Arce, *Relatório Anual*, 2001, 2002, 2003, 2004.

The agency visited sanitation facilities in a number of population centers – including the ten most populous cities – both close to and far from Fortaleza. On the other hand, Arce's transportation regulation never worked to benefit specific cities. The agency did not begin extensive transportation regulation until 2001, when it officially became the ombudsman for transportation services, signed cooperation agreements with other state transportation bodies, and began studying tariff calculations.[435] Arce's transportation regulatory activities to 2004 involved studying projects developed by other state bodies. Specifically, the agency helped design and manage the public bidding process for new intermunicipal transport concessions, issued in 2003.[436] Contemporaneous agency resolutions laid out the standards to be met by winning concessionaires, but the state transport body Dert continued direct inspections.[437] Though Arce may have had extensive contact with concessionaires and officials from cities in its early years, none of its activities directly benefited any city in ways that would make city officials value the agency's work.

5.3.4.2. Evidence on mayors' concerns

Mayors' concern with certain policies rather than others is found in the chart below, tallied from Agergs's public meetings (*audências públicas*). Public meeting transcripts are available from 2007 to 2010. For each meeting, I tallied the background of each speaker or attendee mentioned, as well as the nature of the meeting. I exclude a count of agency officials, as they attended every meeting. Though the tally might exclude persons that attended, but did not speak and were not mentioned, I believe this potential quantity to be low, given the verbosity of Brazilian politicians and agency directors' interest in recognizing prominent audience members' attendance on the record.[438] At present, only transcripts from 2007 to the present are available. Totals are given below and a full list is in the appendix.

Table 5.4: Attendees by Position at Agergs Public Audiences, 2007-2010

Public Service	Federal or state official	Mayor or city council member	Civil Society Rep	Concessionaire Rep
Transport	35	55	22	38
Highways	6	0	11	16
Sanitation[439]	3	4	3	2
Institutional[440]	19	0	0	0

[435] Arce *Relatório Anual 2001*, p. 18. Though the agency signed an agreement to regulate traffic at the Pecém port, the absence of future mentions and fact that ports are under federal, not state, jurisdiction suggest that activities were limited.
[436] Arce *Relatório Anual 2004*, p. 33; *Relatório Anual 2003*, p. 32.
[437] Arce *Resoluções* 41/2003, 45/2004, and 56/2004; Dert was the (since-reformed) state Department of Buildings, Highways, and Transports.
[438] For example, at public hearing 004/2007, Counselor-President Alcides Saldanha "thank[ed] all for [their] attendance, highlighting the presence of Sr. Vicente Ferrari, mayor of São José do Norte," who did not speak (Agergs. *Ata da Audência Pública 004/2007*, www.agergs.rs.gov.br, p. 2).
[439] A high proportion of sanitation public hearings have no transcript record of attendees or speakers.
[440] Institutional hearings featured the agency reporting its annual budget and expenditures.

TOTAL	63	59	36	56

Source: Agergs website, *Audiências Públicas,* www.agergs.rs.gov.br

The data support the above argument that transportation regulation tends to merit mayors' attention only in cases where a small handful of cities are involved (in transportation between two adjacent or extremely close cities).[441] Most mayors attending hearings on transportation (forty of fifty-five) were interested in ferry services that connected their small city to an adjacent small city. Long-distance highways, which touch multiple cities, do not interest mayors enough to lead them to attend public hearings.[442] Interestingly, this contradicts some mayors' initial opposition to highways, as expressed in a hearing at the Rio Grande do Sul state assembly in 1998. In a hearing before the Constitution and Justice Commission three mayors, from Viamão, Charqueadas, and São Jerônimo, the last representing the state Federation of Rio Grande do Sul Municipalities (FAMURS), all spoke against toll highways as detrimental to their local economies.[443]

Unfortunately, a similar list of public hearings is not available for Ceará.

Mayors and city council members' greater concern with energy and sanitation can be demonstrated with two pieces of evidence. First, both agencies held public consultations with Aneel on energy concessionaires' performance and tariffs. Attendance at these consultations is listed below, divided as in the chart above.[444]

Table 5.5: Arce Public Consultation Attendance

	Organized civil society member	**Municipal official**	**Consumer or user**	**State official**
Consulta Pública 03/2006 (attendees) RE: Coelce	8		41	2
Consulta Pública 003/2006 (submitted comments) RE: Coelce	15	1	14	1
Consulta Pública 001/2007 RE: Coelce	8	2	11	
Consulta Pública 001/2008 RE: Coelce	5	2	9	1

[441] All ferry concessions are between adjacent cities, and the cities of Butiá and Minas do Leão covered in Audiência 2008/3 are adjacent. Local elected officials in attendance came only from those two cities served by transport operators.

[442] Most meetings were held in Porto Alegre at Agergs headquarters. Some hearings on ferries were held in affected cities, at local officials' request.

[443] State Assembly of Rio Grande do Sul. 1998. "CCJ analiza a cobrança de pedágio," May 8. http://www.al.rs.gov.br/diario/diarios_anteriores/980508/ccj.htm. Last accessed March 29, 2013.

[444] *Consulta pública* data is only available for some years in Ceará. Numbers are taken from meeting transcripts that record speakers and, in 2006, rosters of attendees and individuals contributing comments by mail and email.

Source: Arce and Aneel websites, www.arce.ce.gov.br and www.aneel.gov.br

The data suggest that civil society group members have prominent interests in energy regulation, while municipal and state authorities almost always sent a representative. The data, however, is incomplete. I consider this evidence only partially supportive of the hypothesis.

Finally, the national sanitation law passed in 2007 changed agency staffers' interactions with mayors. Agencies began negotiations with mayors in order to become the "regulatory entity" overseeing sanitation concessions required in the law. No mayor in either state created a municipal sanitation committee, and many signed agreements with the state agency. In addition, both agencies have held seminars in cooperation with the statewide municipality umbrella group.[445] By the end of the period under study, mayors in both states formally recognized the state regulatory agency's role in improving sanitation services.[446]

Having evaluated mayors' primary concerns, I turn to their opinions and role in politics.

5.3.4.3. Local elected officials' opinions on agency performance

City government interest groups' work with agencies is a good proxy for mayors' esteem for agency work. The state of Rio Grande do Sul developed a state plan for sanitation in 2003 but lack of cooperation from the state umbrella organization for mayors (FAMURS) and the state water company Corsan led to no efforts to regulate sanitation until 2007 (Interview RS6). In the case of Ceará, Arce's initial work exposing fraudulent reported by the water company Cagece upset the water company directors at a time when the water company was attempting to renew expiring municipal concessions. In the first half of 2003, Cagece submitted contracts with minimal quality standards provisions to cities with requests for their approval; Arce responded by sending out an alternative contract which it distributed to all cities. The statewide Association of Cearense Municipalities (APRECE), a *municipalista* group formed of mayors, sent a message to all cities instructing its members not to sign the weaker Cagece version. Though almost one hundred cities did end up signing the Cagece version, most cities followed their umbrella organization's advice and are now directly regulated by Arce.[447] Arce also responded to Cagece's strategy by establishing permanent regulatory contracts in the first and third most populous cities in the state, Fortaleza and Juazeiro do Norte (Interview CE5).[448] APRECE's opinion speaks to its early high esteem of Arce's work. Unfortunately, no comprehensive survey data on mayors' opinions exists.

5.3.4.4. Local elected officials key to gubernatorial careers

Governors in both state cases would have relied on electoral support during their term for future races. Governors Britto, Dutra, Rigotto, and Crusius all ran for re-election in Rio Grande do Sul (and all failed to win a second term). In Ceará, Tasso Jereissati was re-elected as

[445] See for example "Novas regras de saneamento apresentadas," *Diário da Manhã* (Passo Fundo, RS), 16 December 2010; "Sobral sedia Oficina sobre Planos Municipais de Saneamento Básico," *Boletim Municipal*, Sobral, CE, 25 March 2010, Ano II, No. 290; Aprece. "Acontece em Baturité mais uma oficina sobre Plano Municipal de Saneamento*,"* press release, 3 December 2009, at www.aprece.org.br.

[446] Agergs by the end of 2010 had signed agreements with 208 of 497 cities in Rio Grande do Sul (Agergs website, *Saneamento – Relação dos Municípios Conveniados com Agergs – atualizado em junho/2003*). Arce as of June 2012 had signed agreements with 51 of 184 cities, though this count excludes many cities in which Arce was already active (José Luiz Lins dos Santos, "Regulação e Planos de Saneamento," *A Engenharia e a Cidade* [conference], Teresina, PI, 1 June 2012). No 2010 data is presently available.

[447] Interview CE5; Galvão Júnior et al. 2004; ARCE *Relatório Anual* 2004, 29-31.

[448] The second-most populous city, Caucaia, continued to receive Arce inspections.

governor in 1998 and then elected senator from the state in 2002. Lúcio Alcântara was elected governor in 2002 but failed in his re-election attempt in 2006; his successor Cid Gomes was elected first in 2006 and re-elected in 2010. We might test whether cities directly affected by agency work in electoral years gave more of their vote to the incumbent governor, but any finding would be eclipsed by noise in the data; an unknown array of factors most likely influence vote choice in Brazil.

Having covered the development of agency reputations, I turn to the use of this reputation for leverage in winning increased additional resources and responsibilities.

5.3.5. Leverage in Winning Additional Tasks

In this section I demonstrate that agencies relied on good relations with political principals to win new resources and responsibilities. In contrast to the mezzo-level managers described in Carpenter (2001:19-25), Arce and Agergs directors and staff lacked the resources and freedom within a policy space to engage in truly entrepreneurial activities. To expand legal and resource constraints on their activities, agency directors had to lobby statewide elected officials – primarily the state executive – for new legislation or the release of additional funds. Below, I first sketch the contacts that agency directors had with state executive officials, and describe successful and unsuccessful attempts to win resources and powers for each agency in turn. I trace these successes and failures back to the agency's reputation. I conclude the section with a discussion of both agencies' implementation of the 2007 federal sanitation law, a key point of comparison in that both agencies sought to extend their powers under the same new national institution.

5.3.5.1. Winning new resources and responsibilities: AGERGS

Agergs constantly depended on the state government for its operating budget, and at various points sought to correct known flaws in its creation law and organization by lobbying for new legislation. It faced significant obstacles in both cases. As described above, state funds collected in Rio Grande do Sul, including the regulatory fees that concessionaires pay Agergs, are collected in a central fund (*caixa única*) before disbursement. Each year, the agency publicly presented its use of funds (*prestação de contas*) and requested additional funds for the next year (Interviews RS2, RS3). At the beginning of each new governor's term, the president met with the governor to explain Agergs's mission and functions (Interview RS2). This task is not impossible; most governors come from moderate parties well-versed in and supportive of regulatory activities (Interviews RS1, RS3, RS4).[449] As also noted above, the agency must lobby the state Public Prosecutor to fine users and concessionaires found to be in statutory violation; this contact and persuasion can be slowed by the Public Prosecutor's limited resources and own priorities (Interview RS4). The agency also has well-known shortcomings that require legislative revision. Its inability to fine violators, its dependence on the *caixa única*, the lack of any recent public examination for new staff, the lack of a salary adjustment for present staff, and the need for staff to get gubernatorial permission to travel outside the state on agency business all could only be addressed by changes in state laws (Interviews RS2, RS3, RS4, RS11). All of these problems except the first involve resource limits. No *concurso público* for additional staff was held from 1999-2010.[450] Furthermore, the agency's role in transportation regulation overlaps with the state Autonomous Highways Department (DAER or Daer). Bus

[449] Three of the four governors in office from 1997 to 2010 were from the centrist PMDB or the center-right PSDB of neoliberal reformist President Cardoso. The exception is Governor Olívio Dutra of the left-wing PT (1999-2002).
[450] A *concurso* planned for 2006 was never held.

concessionaires, for example, report interacting much more frequently with Daer than with Agergs; road inspections and bus inspections are still largely Daer's responsibility (Interview RS14). In short, Agergs's powers in at least one policy area are limited by bureaucratic conflict with legacy state bodies. Legislation might end this overlap and expand the agency's authority.

Agergs's attempts to expand its responsibilities and win additional funds were largely unsuccessful in the period studied. First, it never won additional funds to bring in additional *concursado* staffers or increase staff member salaries. This shortcoming was disappointing because almost all other state workers in Rio Grande do Sul received salary adjustments over the same time period (Interview RS2). The agency, as of 2009, suffered staffing shortages, as turnover was high and new top-level staffers could only enter upon the governor's approval (ibid.). The governor has been unwilling to quickly appoint new top-level staffers in order to conserve personnel costs (Interviews RS1, RS2, RS12). Salaries were only increased by legislation passed in December 2011, and a new public examination was only held in March 2013, both after the period under study.[451] Second, proposed legislation allowing Agergs to directly fine violators was only sent to the state assembly by Governor Yeda Crusius in October 2010, shortly after she lost her campaign for re-election; it never passed.[452] Agergs had sent similar proposed legislation to both Governor Crusius (2007-2010) and Governor Rigotto (2003-2006) before her.[453] Third, Agergs and Daer's responsibilities continue to overlap, with Daer assuming most direct regulatory functions. The state auditing agency as late as 2009 recommended that Daer and Agergs's roles be clarified and separated, as the overlap complicated and hindered regulation (cited in Spilki 2012:29). Fourth, after 2001 the agency never received all of the funds to which it had a claim. The governor withheld funds every year, as shown in the table below.[454]

Table 5.6: Agergs Budgets

Year	Agergs Annual Spending	Annual Surplus	Annual Surplus/Spending (percent)
2002	5,327,376	936,324	17.6
2003	5,912,578	1,647,512	27.9
2004	7,277,469	2,357,086	32.4
2005	6,711,492	4,544,638	67.7
2006	5,981,722	5,544,148	92.7
2007	6,143,605	6,852,939	111.5
2008	7,188,985	6,579,414	91.5

[451] Agergs. 2011. "Aprovação de Projeto de Lei reflete reconhecimento ao trabalho da Agência," December 22. http://www.agergs.rs.gov.br/site/noticias_detalhe.php?idNoticia=7361&titulo=_aprovacao_de_projeto_de_lei_reflete_reconhecimento_ao_trabalho_da_agencia. Last accessed Feb. 11, 2013; Agergs. 2013. "Inscrições do concurso para Agergs são prorrogadas até 07/02," Jan. 1. http://www.agergs.rs.gov.br/site/noticias_detalhe.php?idNoticia=7542&titulo=_inscri%E7%F5es_do_concurso_para_agergs_s%E3o_prorrogadas_at%E9_07/02. Last accessed Feb. 11, 2013.

[452] Portal do Estado do Rio Grande do Sul. "Autorizado projeto de lei que disciplina sanções da Agergs," October 11, 2010.

[453] Quintana, Marco. 2012. "Schumacher critica falta de poder de sanção da Agergs para punir," *Jornal da Comércio* (Porto Alegre), May 11. http://jcrs.uol.com.br/site/noticia.php?codn=107814. Last accessed Feb 11, 2013.

[454] Until 2001 the agency depended on state treasury fund its activities.

2009	8,475,631	5,460,397	64.4
2010	9,488,117	3,453,909	36.4

Source: Agergs Annual Reports, various years. Figures in nominal Brazilian reais.

The above amounts have accumulated into a fund held for Agergs at the state *caixa única* from which the agency has never been able to make withdrawals. Finally, agency directors won very minor victories. Recently, staffers won the right to leave the state on agency business without explicit permission from the governor.[455]

Governors relied on outside opinions to decide how to allocate funds and responsibilities. First, governors did not come to office with fully-formed opinions about the agency. Both Rigotto and Crusius became governor immediately after serving as federal deputies for multiple terms and never as mayors; though they ran statewide campaigns, they likely never encountered or addressed issues of state-level regulation.[456] Dutra had previously been mayor of Porto Alegre from 1989 to 1992, and came to the governor's office with strong beliefs with regards to privatization and regulation. As the agency had just begun its work, his beliefs about the agency were independent of its reputation.[457] Governors at later stages only learned about the agency's work while in office. Second, governors were bound by tight fiscal constraints from extending resources to any state body (Alston et al. 2008). The Fiscal Responsibility Law of 1999 limited states' abilities to engage in deficit financing, while continuing to require debt repayments. Following Alston et al.'s (2008) argument, governors would have prioritized giving extra resources only to those "left over" activities they found valuable in winning future office. For that reason, to win additional funds and powers Agergs had to develop a reputation for usefulness or political value.

I develop a final, approximate measure of Agergs's reputation in 2010 by surveying media mentions of the agency. Though media coverage plays an unknown role in the governor's assessment of the agency, it helps or hinders the agency in framing its appeals and in exercising its authority. To construct a measure, I collect all mentions of Agergs in *Zero Hora*, the largest newspaper in Rio Grande do Sul and sixth-largest in the country by circulation.[458] I supplement this collection with a Google Alert for all media mentions of Agergs, collected weekly; these sources are limited to those headquartered in Rio Grande do Sul.[459] Duplicates were not counted. I scored as "positive" any mention of the agency disclosing concessionaire malfeasance or error, or giving technical reasons for addressing consumer or concessionaire complaints. "Neutral" articles are those in which the agency's activities are mentioned without any value judgment or the agency is mentioned in passing. "Negative" articles highlight problems with services and

[455] Interview RS2; Gubernatorial Decree 44,861/2007.
[456] Crusius unsuccessfully ran for Porto Alegre mayor in 1992.
[457] Initial agency directors at Agergs included some of Dutra's historic political rivals and enemies (namely G. Socias Villela), which may have played a role in his decision to end the agency (Interviews RS1, RS5).
[458] Data taken from Associação Nacional de Jornais, the national newspaper trade association, at http://www.anj.org.br/a-industria-jornalistica/jornais-no-brasil/maiores-jornais-do-brasil. *Zero Hora* is owned by RBS Media, the Globo Network distributor in the state. I do not consider the association with Globo problematic, as the incumbent governor in 2010 was from the PSDB and the newspaper had little overt hostility toward concessions in the period under study.
[459] For example, I exclude mentions of the agency in media sources in other states. I managed to collect mentions in *Jornal do Comércio* (Porto Alegre), *Jornal Agora* (Rio Grande), *Gazeta do Sul* (Santa Cruz do Sul), *Correio do Povo* (Porto Alegre), and *Pioneiro* (Caxias do Sul, also RBS-owned).

agency inactivity to date, or agency errors. For the year 2010, I tallied three positive articles, seven negative articles, and twenty-nine neutral articles. This score is significantly more negative than the score assessed for Arce below. Media coverage of Agergs was relatively more negative than media coverage of Arce.

5.3.5.2. Winning new resources and responsibilities: Arce

Arce depended less on the state for financial resources, but agency directors successfully lobbied the state government for changes in responsibilities and authority. Its progressively wider activities in transportation regulation are the best example of this. Arce began work before the state had defined responsibilities in transport, and managed to negotiate a role with the 2001 law.[460] Conflict with the legacy state transport body DETRAN led to a new law in 2007 that clarified responsibilities.[461] Arce directors also gained authority by formal institutional means other than legislation. In the area of piped gas, the directors met with Governor Lúcio Alcântara early in his term to secure a regulatory role in the scheduled concessions contract revision for Cégas. [462] This provision gave the agency concrete oversight and tariff-setting roles. As discussed previously, Arce staff also negotiated roles for the agency in city sanitation contracts and in cooperation agreements with Cagece and the state Secretary of Infrastructure.[463]

Arce directors also appealed for funds. Initially, salaries were low and the agency suffered from mild turnover and difficulty in recruiting specialists; agency directors successfully appealed to Governor Alcântara for higher salaries and a second public examination to add staff in 2006.[464] By July 2010, the agency had secured funds and permission for a third public examination and additional staff.[465] The agency secured a third concurso in July 2010 for additional staff. Until Governor Cid Gomes's more centralized administration, agency directors also had to make requests to the state Financial Management Commission (COGEF) for investments in physical plant or materials; despite the obstacle, Arce does not lack for resources (Interviews CE1, CE10).

Arce's reputation for competency and electoral usefulness won it additional responsibilities and resources. The agency reviews its annual activities in a report to the governor, and proposes its budget for the following year; as the agency is self-financing, the budget was never denied (Interviews CE1, CE10). The agency is sufficiently well-respected nationally and advises other state agencies on how to develop sanitation regulation (Interviews CE3, CE5).[466] The agency has resolved extensive problems in Cagece's water quality, and

[460] Article 63 of Lei 13,904/2001 gives Arce a role as indirect transport regulator.
[461] Lei Estadual 14,024 of 17 December 2007.
[462] Interview CE3; State Government of Ceará, *Primeiro Termo Aditivo ao Contrato de Concessão para Exploração … de Gás Canalizado*, First Clause, Section 1.1 (2004).
[463] Lei Municipal 2,761/2003, Juazeiro do Norte.
[464] Interview CE3; Lei Estadual 13,743/2006. The agency also created internal career paths and salary ladders such that eight internal staff have reached the statewide salary ceiling for public employees (by experience and education/training) (Interviews CE4, CE5). In Ceará, no public employee may earn a salary higher than that of the governor.
[465] Lei Estadual 14,394/2009. For idiosyncratic reasons, the examination was not held until August 26, 2012 (Arce. 2013. "Sai resultado da prova de títulos para concurso da Arce" http://www.arce.ce.gov.br/index.php/sala-de-imprensa/noticias/43489-sai-resultado-da-prova-de-titulos-para-concurso-da-arce. Last accessed March 31, 2013.
[466] Arce has joined with other federal bodies and universities to publish several guidebooks to various aspects of water and sanitation regulation. See, e.g., Galvão Júnior et al., eds., *Regulação – Procedimentos de fiscalização em sistema de abastecimento de água*. Fortaleza: ARCE and Expressão Gráfica, 2006; and Galvão Júnior and Ferreira Ximenes, eds. *Regulação: Normatização da prestação de serviços de água e esgoto*. Fortaleza and Brasília: ARCE

consumer complaints about Cagece have fallen precipitously (Arce *Relatório Anual 2010*: 55, 61). When regular transportation concession operators wanted illegal clandestine lines closed, they came to Arce to complain rather than to Dert, and Arce's actions led the governor to re-concession lines and put illegal lines out of business (Interview CE10).[467] These distinct episodes illustrate the influence of Arce's reputation.

Finally, I measure state media coverage of Arce in 2010 as a proxy of the agency's reputation. As above, media coverage may influence politicians' beliefs in unknown ways, and may help agencies frame their appeals to political principals. I collected all mentions of Arce in the second-largest newspaper by circulation in Ceará, *O Povo*, and supplemented these articles with a Google Alert for all mentions of Arce, collected weekly. I did not conduct a comprehensive search of the largest-circulation newspaper, *Diário do Nordeste*, because its ownership includes the wife of Senator Jereissati, political opponent of the incumbent governor in 2010; the Google Alert did catch some articles from that paper.[468] Positive, neutral, and negative articles are scored as before. I found eleven positive articles, 2 negative articles, and twenty-nine articles. Media coverage of Arce in Ceará is far more positive than it is for Agergs. Titles and descriptions of both articles are found in the appendix.

Having laid out the mechanisms, I turn to measures of the outcome variables.

5.3.6. Measures of the Dependent Variable

Below, I use both data collected from a multi-state survey and interview data to measure the level of responsibilities and resources that each agency has.

5.3.6.1. Agergs

Agergs in 2010 remained an agency of low finances and limited authority.

Agergs's director-general in a December 2010 online survey reported that the agency lacks sufficient resources and police power. All answers were given on a seven point scale. He noted that all but two directors finished out their mandate, indicating stability within the agency and a lack of gubernatorial intervention.[469] However, the respondent disagreed with the idea that salaries and opportunities at the agency were sufficient to keep functionaries there. Though he agreed that the agency never relies on outside funds, and agreed that the agency receives all funds due to it and has no problem collecting fees, his budget number of R$13 million suggested that these responses pertained to the total collection of Agergs's funds.[470] The agency director reported a staff of 64, 78% of which entered via public examination.[471] While the agency works in five policy areas, but continues to only have police power in regulating water transport and rural electricity cooperatives.[472]

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and ABAR, 2008.

[467] Arce helped plan and design the bidding process. Regular transport operators are licensed firms that publish regular schedules and fares, operate larger buses and fleets, and are part of the formal economy. Clandestine operators frequently operate without published fares and schedules, avoid legal registration, and are usually part of the informal economy.

[468] The Sistema Verdes Mares media group is owned by Grupo Edson Queiroz. I also found articles in *Tribunal do Ceará, Direito CE,*

[469] Recall that director stability in office was enforced by Agergs's own win at the Supreme Federal Court (STF).

[470] See the chart above. In 2010, Agergs was only able to spend R$9.5 million of its revenue.

[471] When high-scoring individuals who have entered the agency leave, their position is offered to the next lower candidate. This candidate may accept or decline the position.

[472] These two areas were selected by the survey respondent, but there is no indication of a legal change in police power since 1997. In all other cases, the agency continues to have to refer police actions to the state Public Prosecutor or Aneel in the case of electrical energy.

Interview evidence paints a more nuanced picture of the agency. Current staffers complained in September and October 2009 and on a follow-up in June 2010 that salaries were low, having not been adjusted since the 1990s, and that turnover was high as a result.[473] Governors continued to withhold funds from the agency.[474] Concessionaires complain about the requirement that they pay Agergs, arguing that it has "zero influence."[475] Highway concessionaires consider the agency well-structured and notes that it has sufficient qualified staff, but argued that it is too weak to discipline violators (Interview RS13).

Agergs began work in sanitation. In fall 2009, the agency produced a list of municipalities that had signed agreements with the state agency to regulate sanitation concessions. By the end of 2010, however, oversight had not begun; the agency lacked staff. The agency had instead held a series of public hearings at cities across the state to explain the new sanitation law to mayors.[476]

In sum, the agency remained limited on resources and moderately active across policy areas, but without adequate enforcement powers.

5.3.6.2. Arce

Arce in 2010 was well-financed and active.

An assistant to Arce's president reported in January 2011 that the agency had adequate resources with police power and activity in all areas available to it.[477] According to the responses given, all forty of the agency's staff members entered the agency via a public examination, and there are almost always sufficient salaries and resources to keep them in the agency.[478] Responses indicate that the agency almost never depends on outside funds for its work, never has problems collecting regulatory fees from concessionaires, and always receives all the fees and revenue it is due. The last *concurso* was held in 2006, but the respondent notes that another *concurso* had already been approved in 2010 (but would not take place until 2012). The agency's budget of $11.5 million was all spent. The respondent notes that Arce exercises police power in the areas of piped gas, bus transport, and sanitation, leaving out its joint exercise of authority with Aneel in the area of electricity.

A chart of annual budget expenses for Arce follows.

Table 5.7: Arce Budgets

Year	ARCE expenses (nominal Brazilian reais)	Year	ARCE expenses (nominal Brazilian reais)
1999	972,962	2005	5,634,456
2000	1,708,555	2006	7,157,675
2001	3,872,930	2007	7,097,504
2002	3,778,049	2008	Not available
2003	4,106,586	2009	8,478,975

[473] Interviews RS2, RS3, RS4, RS16.
[474] Interviews RS1, RS2, RS3, RS4.
[475] Bus concessionaires, Interview RS14.
[476] This activity was promoted by the statewide cities organization FAMURS; Agergs. *Relatório Anual* 2010, p. 16-17.
[477] Survey questions were mailed in late November 2010 and a follow-up email was sent in December 2010. The data was reported to the researcher on January 13, 2011. The delay is unexplained.
[478] Arce has a unique structure in which they contract out on-the-ground inspections to staffing firms, supervised by middle-level and upper-level staffers from the agency itself.

2004	5,256,343	2010	11,510,784

Source: ARCE annual reports, various years

The figures above indicate a secular increase in the agency's budget every year, with two exceptions. Agency expenses effectively plateaued between electoral years and the first term of new governors, in 2002 (with Lucio Alcântara) and 2006 (with Cid Gomes). I cannot explain whether access to resources or a deliberate attempt by agency staff to spend less is responsible. In either case, agency directors managed to secure increasing resources from the governor throughout the period under study. In addition, Arce now spends more per state resident than does Agergs.

Interview materials and documents support the above assessment. Arce spent R$11.5 million in 2010, more than Agergs did in a more populous and developed state.[479] Eight staff members have terminal degrees in their field and earn the maximum allowed for their position (Interview CE5).[480] The agency has slight problems in retaining attorneys, but otherwise has no problem in staff turnover (Interview CE1). The agency sponsors a book series on sanitation regulation and staff members from that sector regularly are hired to consult in other states; the state also serves as a model for how to design transportation concessions, and for agency functioning in general.[481] In sum, Arce scores high on the two dimensions of the outcome variable.

In conclusion, early aggressive work in electorally-valuable sectors allowed Arce to develop and leverage a reputation for excellence and usefulness into increased resources and responsibilities. In Rio Grande do Sul, by contrast, early contentious and tardy work in less-valuable sectors meant that Agergs struggled to develop a positive reputation. As a result, it had little leverage in petitioning the state executive for greater powers or for the funding it was due.

In the next chapter, I test my hypotheses across many state agencies in Brazil.

[479] Arce *Relatório Anual* 2011, p. 130-132; Arce *Relatório Anual 2010*, p. 121.

[480] By law, public sector salaries in Ceará cannot exceed that of the governor.

[481] In conducting interviews, I met the director of the newly-created agency in Piauí, who was visiting Fortaleza to learn best practices, May 5, 2010. Arce staff have also traveled to other states to provide guidance on sanitation regulation (see, e.g., "Agersa promove curso," *Folha de Espírito Santo*, 19 April 2010. www.folhadoes.com/site/pagina_interna.asp?nID=5065&tp=3; "Participação da população é fundamental no Planejamento Municipal de Saneamento," *Pantanal News* (MS), 18 Nov. 2010. www.pantanalnews.com.br/contents.php?CID=63563.

APPENDIX

Table 5.8: Attendees by Position at Agergs Public Audiences, 2007-2010

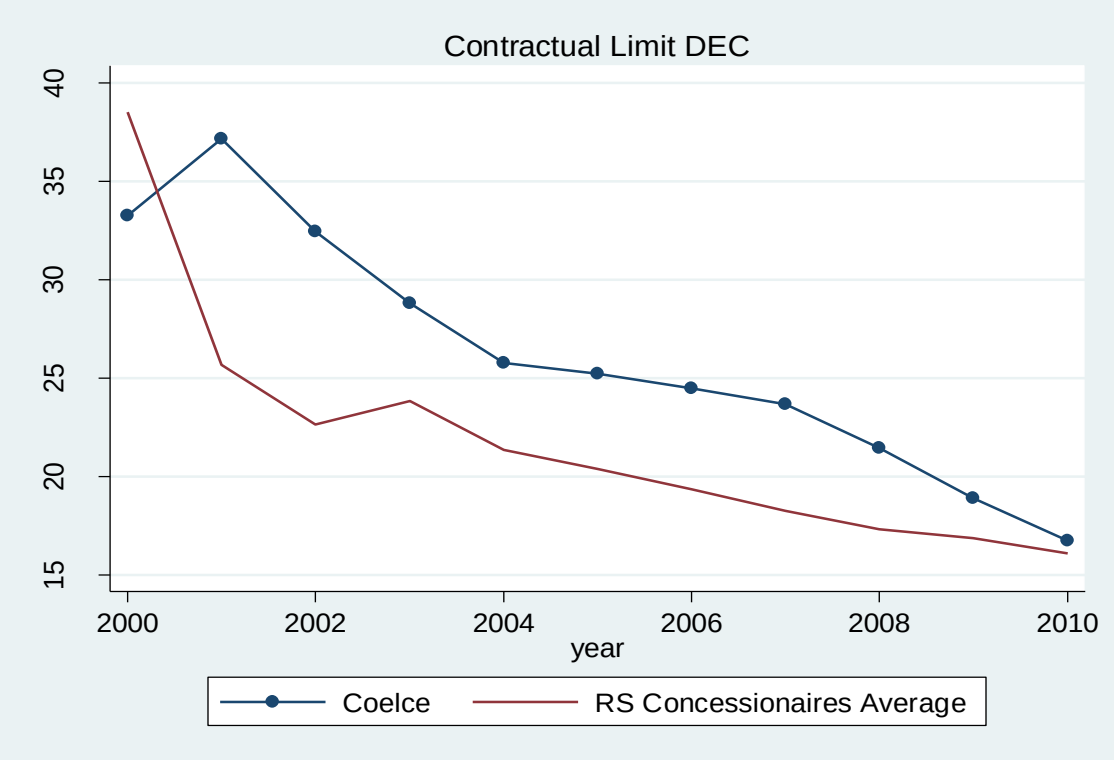
Year/ Number	Meeting purpose	Federal or state official	Mayor or city council member	Civil Society Rep	Concessionaire Rep
2007/1	Taquari-Gen. Câmara ferry	1			1
2007/2	Triunfo- S. Jerônimo ferry	1			
2007/3	Porto Alegre metro area bus transport	1		1	1
2007/4	Rio Grande- S. José do Norte ferry	1	5		2
2007/5[482]	Rio Grande- S. José do Norte ferry	1	6	1	4
2007/6	Triunfo- S. Jerônimo ferry		1	1	2
2007/7	Long-distance bus lines	2		1	1
2007/8	Agency annual report	9			
2008/1	Pelotas and Caixas do Sul metro areas bus transport	No hearing transcript.			
2008/2	Sanitation tariff adjustment	No hearing transcript			
2008/3[483]	BR 290 highway between Butiá and Minas do Leão [note: cities adjacent]	3	6	3	1
2008/4	Porto Alegre metro area bus transport	No hearing transcript.			
2008/5	Taquari- Gen. Câmara ferry	2		1	1
2008/6	Long-distance bus lines	3		2	2
2008/7	Sanitation regulation	1		1	1
2008/8	Coastal north bus lines	1		1	1
2008/9	Southern bus lines				2
2008/10	None.				
2008/11	Agency annual report	5			
2008/12	Highway tolls	3		9	13

[482] Meeting held in São José do Norte, 4 October 2007.
[483] Meeting held in Butiá, 18 June 2008.

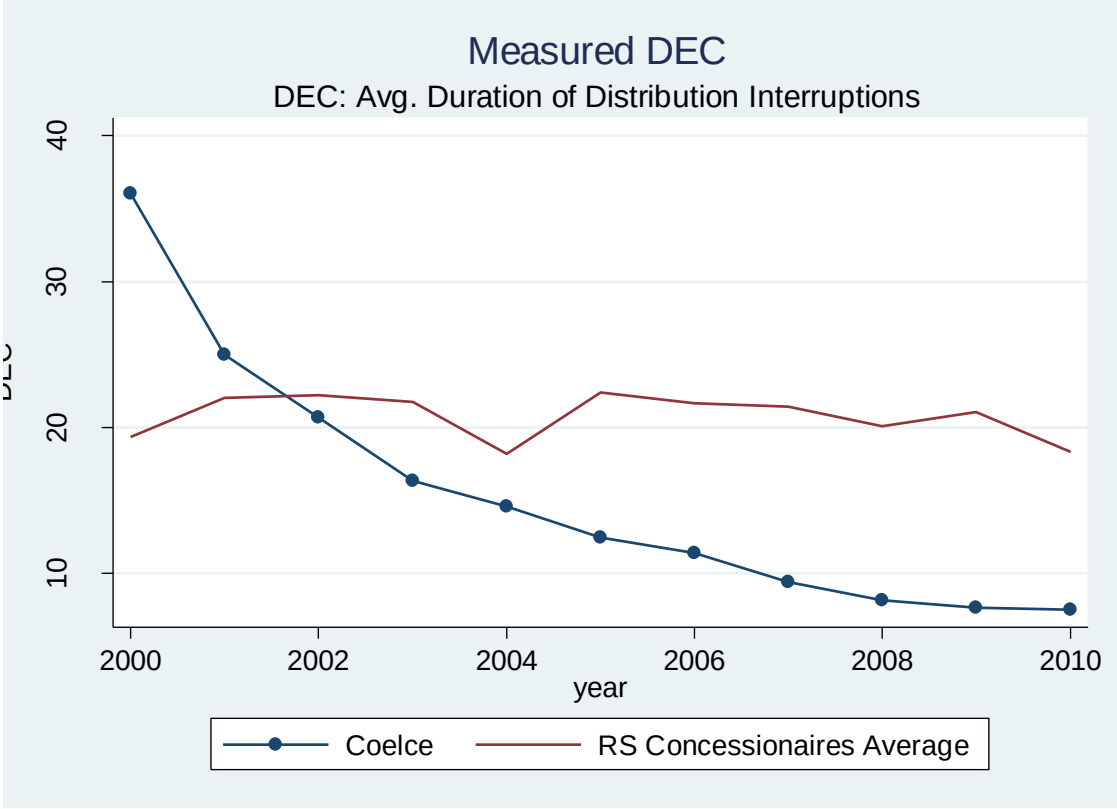
	(various)				
2009/1	Rio Grande- S. José do Norte ferry	3	6	2	2
2009/2	Sanitation tariffs	No hearing transcript.			
2009/3	Triunfo- S. Jerônimo ferry	1	6		1
2009/4	Porto Alegre bus lines	3	6	3	1
2009/5	Long-distance bus lines	1		1	1
2009/6	Triunfo- S. Jerônimo ferry		2		
2009/7	Taquari-Gen. Câmara ferry		3		2
2009/8	Northern bus lines	2	1	1	1
2009/9	Gramado highway tolls	1		1	1
2010/1	Triunfo- S. Jerônimo ferry	1	1		2
2010/2	Southern bus lines		3	1	1
2010/3	Northeast bus lines	1			1
2010/4	Sanitation tariffs	2	4	2	1
2010/5	Long-distance bus lines	2		1	1
2010/6	Triunfo- S. Jerônimo ferry	2	4		1
2010/7	Porto Alegre metro area bus transport	No hearing transcript			
2010/8	Triunfo- S. Jerônimo ferry	No hearing transcript			
2010/9	Rio Grande- S. José do Norte ferry	No hearing transcript			
2010/10	Rio Grande- S. José do Norte ferry	No hearing transcript			
2010/11	Southern bus lines	1			1
2010/12	Taquari-Gen. Câmara ferry		1	1	2
2010/13	Coastal north bus lines	1		1	1
2010/14	Northeast bus lines	1			1
2010/15	Gramado highway tolls	2		1	2
2010/16	Agency Annual Report	7			

Source: Agergs website, *Audiências Públicas,* www.agergs.rs.gov.br

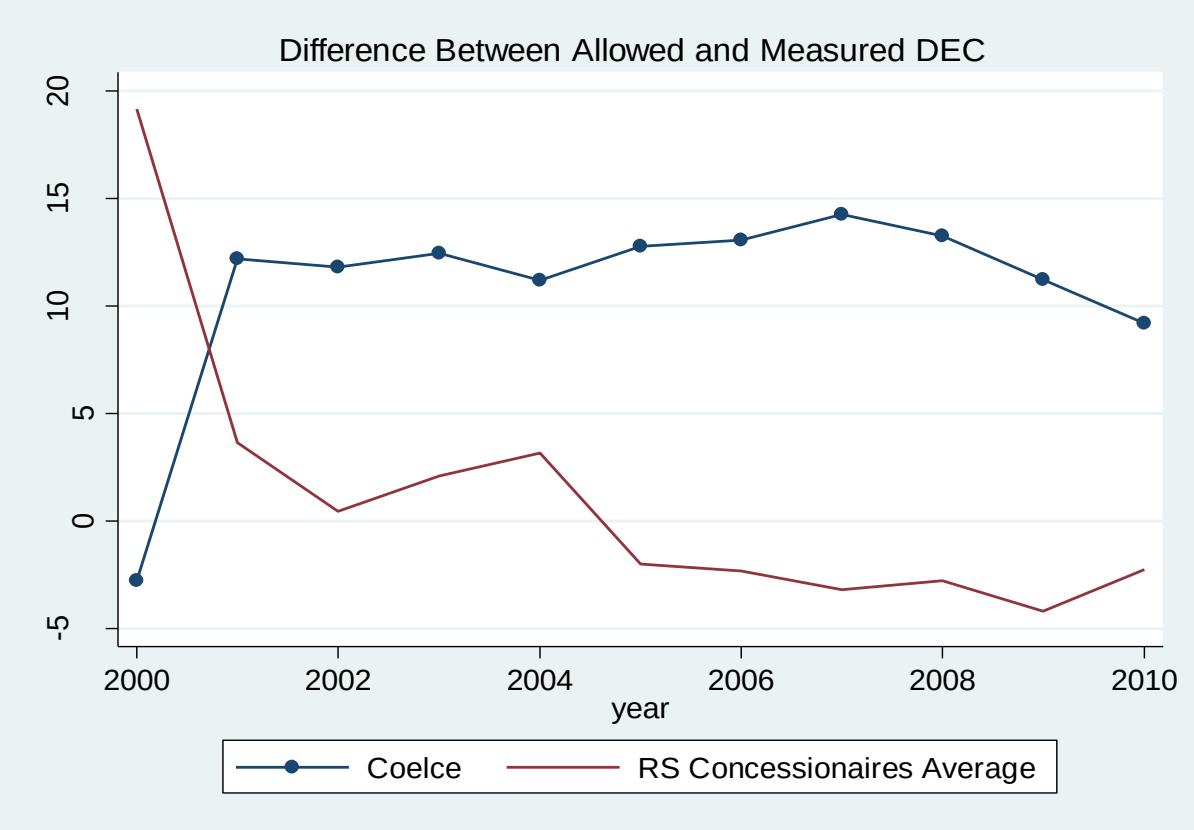
Figures 5.1: Average Duration of Distribution Interruptions in Electrical Energy (DEC) for Coelce in Ceará and Three Largest Distributors in Rio Grande do Sul



Source: Aneel website, www.aneel.gov.br.

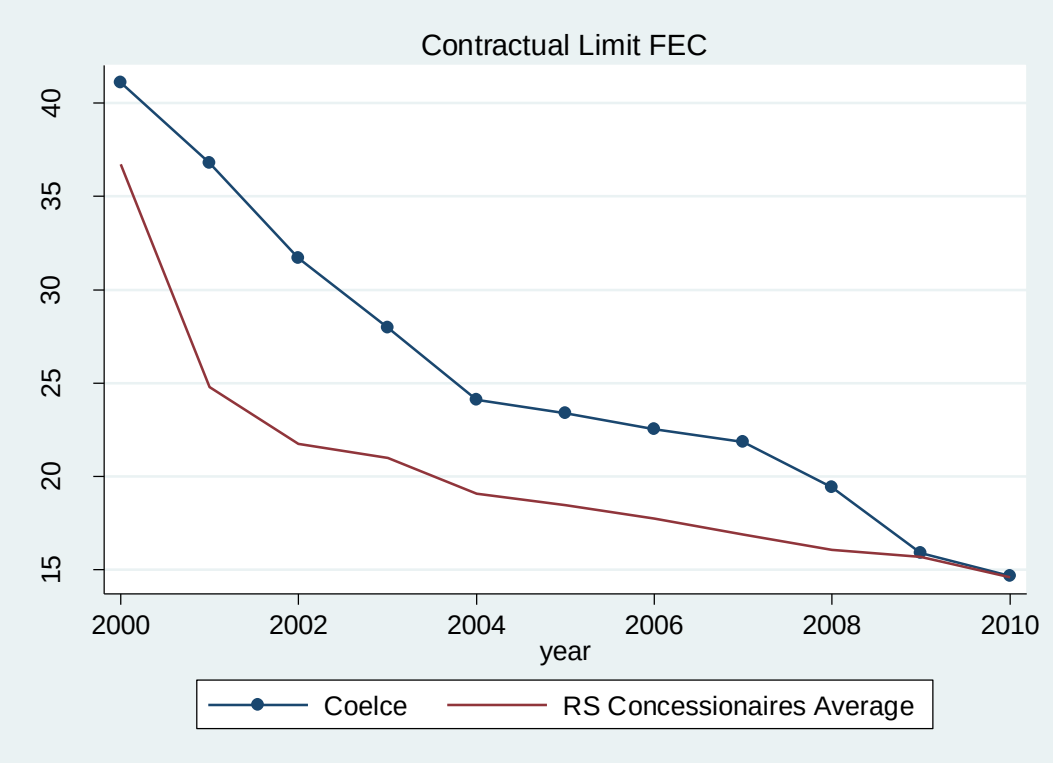


Source: Aneel website, www.aneel.gov.br.

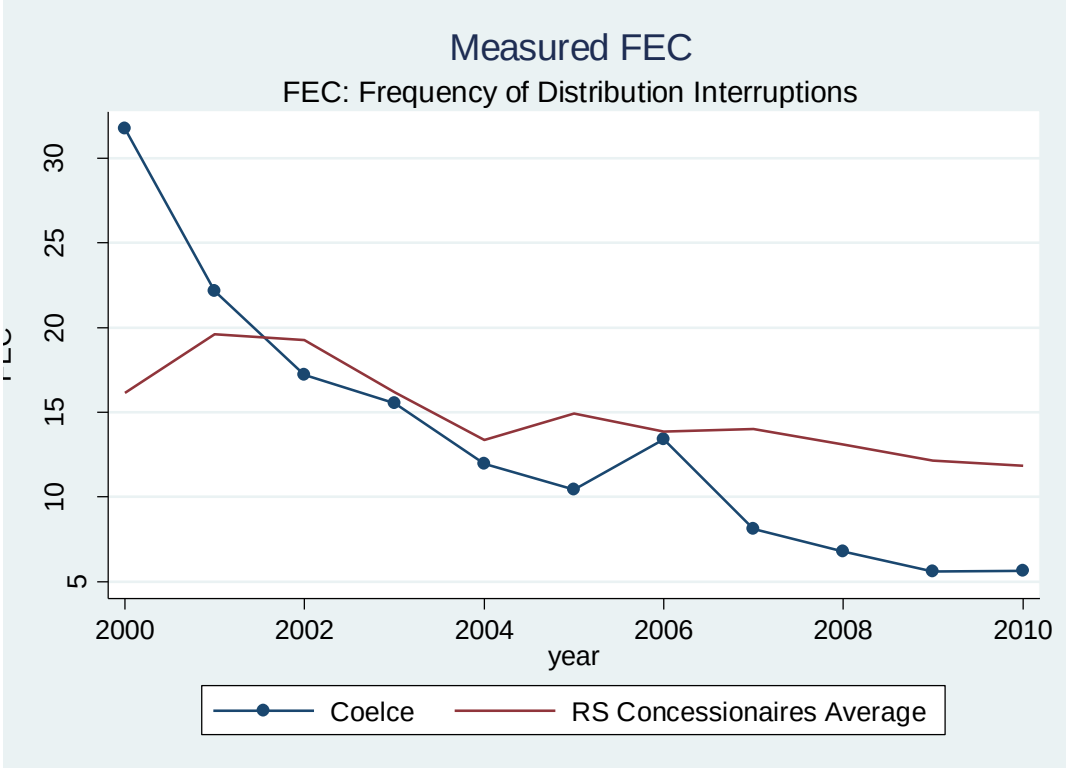


Source: Aneel website, www.aneel.gov.br

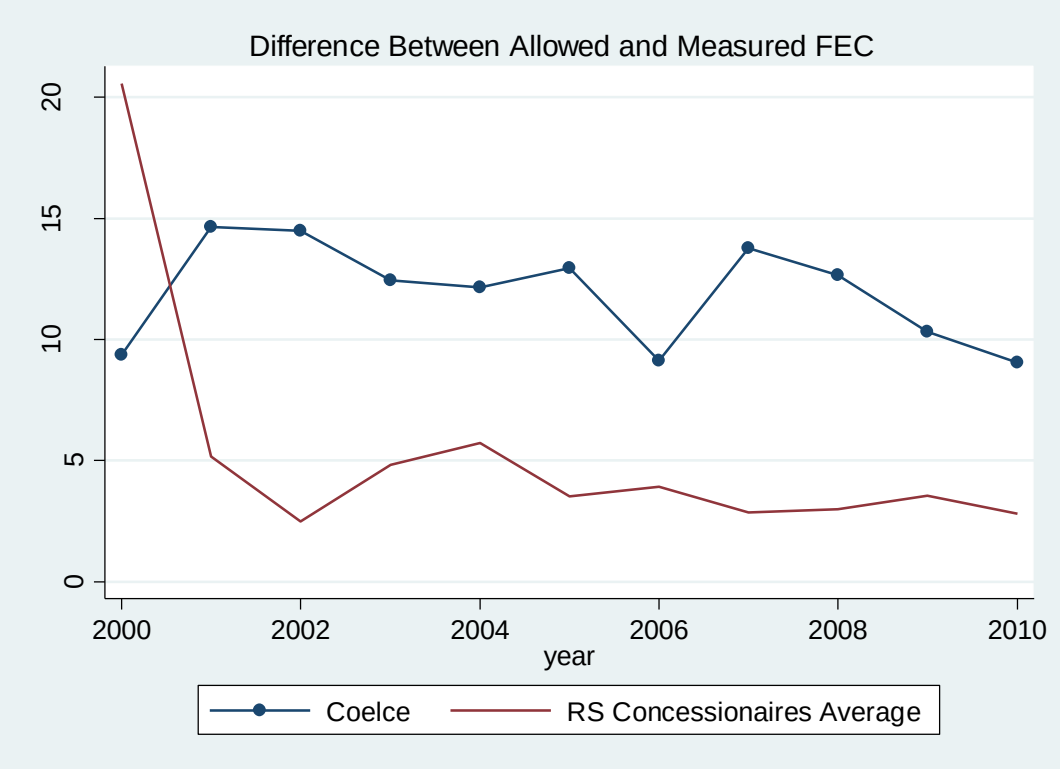
Figures 5.2: Average Frequency of Distribution Interruptions in Electrical Energy (FEC) for Coelce in Ceará and Three Largest Distributors in Rio Grande do Sul



Source: Aneel website, www.aneel.gov.br.



Source: Aneel website



Source: Aneel website, www.aneel.gov.br.

Chapter 6: Medium-N Analysis Across Brazilian States

In this chapter I examine evidence in support of my argument across multiple state agencies in Brazil. The working of the proposed mechanisms, in theory and for the cases of Ceará and Rio Grande do Sul, can be found in previous chapters. Because regulatory agencies were developed in twenty heterogeneous states, I employ a medium-N approach of examining descriptive statistics and bivariate relationships that might reinforce or undermine observable implications that follow from the theory. I employ primarily a subset of cases - those agencies created before or in 2002 - for the most extensive analysis. Agencies in this subset began in similar contexts with similar legal mandates, and also had sufficient time to develop their resources and level of activity by 2010. The remaining agencies are less mature, and we should not expect them to have the same probability of arriving at high performance outcomes by the end of the period. They are included for some comparisons.

The chapter proceeds as follows. First, I present my argument and provide conceptualization and measurement for the outcomes and key causal variable in all cases. I test my cases for evidence of the intermediate variables that comprise the hypothesized mechanism. I test for bivariate relationships between my causal variable and my outcome indicators in the third section, and provide brief case studies for agencies with missing survey data. I finish with a discussion of competing explanations and a conclusion.

6.1. The Argument

6.1.1. Theory

Agencies initially active and effective in the areas of water and sanitation, natural gas, and electrical energy, in that descending order, are most likely to increase their resources and level of activity. Agencies that devoted the majority of their initial work to intercity transportation and highway concessions, or that produced no changes in the three prior areas, were less able to develop a reputation for usefulness and gain leverage in lobbying for additional resources and responsibilities. Work in the former set of policy areas (gas, energy, and sanitation) had greater payoffs for the mayors and federal bureaucrats that are central to governors' future electoral prospects, while the latter set of policy areas produce very few benefits for potentially pro-regulation constituents important to the governor. As agencies are largely unknown in Brazil and cannot build networks with significant civil society groups, the reputation of the agency is most importantly imbedded in the opinions and impressions of mayors, who can turn out votes for allied politicians, and federal bureaucrats and politicians, who can release additional federal funds to fiscally-limited states.

We should expect a strong correlation between the division of initial activities and the resulting level of resources and activity the agency enjoys at the end of the period under study.[484] Agencies with significant initial work in sanitation, piped natural gas, and electrical energy regulation should command more resources and be active in a broader array of regulatory activities in the present day than should agencies that focused their initial work in transportation and highway concessions, or those that passively regulated sanitation, piped natural gas, and energy. I explore this correlation below, with various measures for both the key causal variables and the outcome variables.

The connection between the main causal variables and the outcome, however, is complex. Initial work in the three aforementioned areas is proposed to have satisfied or mollified

[484] Ending the study and conducting measures in 2010 does introduce censoring issues, which are addressed below.

municipal mayors and federal bureaucrats. Mayors and bureaucrats both might then develop a favorable impression of the agency, and may communicate this opinion to the governor. In Carpenter's (2010:33) terms, these two actors are the main "audience" representatives on which a governor depends, and the agency's reputation is developed according to the opinions that they hold. The agency also performs its activities in view of diverse other audiences, but the opinions held by these audience members are of far less concern to the governor. The other audience members can do far less to help the governors in future elections.

Agencies can credibly demonstrate their worth to the governor, who controls both resources and potential vetoes key to agency development, only by leveraging the opinion of mayors and federal bureaucrats. In game theoretic language, agency directors attempt to signal their worth and intentions to the governor. The signals they send, however, are interpreted as cheap talk by the receiving executive and his staff, as the governor receives multiple signals about bureau need and value from many actors, and bureaucrats have a strong incentive to misrepresent their worth and need for funds. On the other hand, the governor trusts signals on the relative worth of projects and initiatives sent by mayors, because mayors help turn out votes for governors.[485] Governors wish to win mayors' support, and thus value their opinions and seek to satisfy their demands.[486] Successful agencies are therefore those that develop significant reputations among mayors. Given the centralization of tax collecton and finance in Brazil, federal politicians and federal bureaucrats have a number of resources that they can pass on, at their discretion, to state governments and state bureaucratic bodies. In the specific fields of regulation, federal regulatory agencies may - through agreements - delegate resources or tasks, or share information with state regulatory bodies. Federal bureaucrats may also release funds to other state projects. State agencies able to demonstrate their competency to federal bureaucrats contribute to the state's reputation as the location of a professional bureaucracy capable of successfully using federal funds. As the allocation of federal funds for state activities might take competency into consideration to a limited but unknown extent, however, I make this part of the mechanism secondary in the theory.

I turn to the case universe in which this theory will be explored.

6.1.2. Case Selection

I test my explanation across three sets of cases. All cases are drawn from the universe of state agencies in Brazil, selected as roughly homogeneous units operating within a framework comprising similar formal institutions. Of all the agencies created - as detailed in the previous chapter on delegation - some never came to be implemented and took few to no actions, and thus there is little to study.[487] The first set of cases comprises agencies created between 1997 and 2002. These agencies were created contemporaneously with state privatization programs and have operated for a time sufficient to potentially acquire additional resources and tasks.[488] The

[485] On the link between mayors and higher-level politicians, see Ames (1994), Bezerra (1999), López (2004), and Avelino, Barone, and Biderman (2012).

[486] Governors have other ways of winning mayoral loyalty, but in Brazil's candidate-centric elections, such loyalty is never guaranteed.

[487] These cases include ARCO in Santa Catarina (created in 2000), ARSEP-MA in Maranhão (2002), ARSEMG in Minas Gerais (1998), ASTINS in Tocantins (2000), ASES in Sergipe (1998), ARSAP in Amapá (2001), AGRESPI in Piauí (2010), and AGESP in Espírito Santo (1998). While contemporary news accounts depict bureaucrats designing and preparing these agencies, none of them made any concrete decisions, conducted any inspections, or levied any penalties.

[488] With the election of President Lula da Silva in 2003, the federal efforts encouraging states to develop state-level

second set of agencies comprises agencies whose predecessors were created during the initial period covered in the first set (both in 1997) but who currently operate as two separate agencies in each of the two economically largest states, São Paulo and Rio de Janeiro.[489] I discuss them in-depth in the next chapter, but use data from them for various ends.[490] These agencies fall in the second group, in that they have origins contemporaneous to the first set of cases but have legal mandates that differ from the multisector bodies in the first group. In the third group are agencies created from 2003 to 2010; these agencies frequently had more restrictive mandates and narrower purposes, and have had less time in which to develop a reputation and thereby expand their activities and capacities.[491] The cases are grouped by the chart below, with the state and year they were created.[492]

Table 6.1: Agency Generations and Creation Dates

Set 1	Set 2	Set 3
Agergs - RS (1997) Arce – CE (1997) Arcon – PA (1997) Agerba – BA (1998) Ager – MT (1999) Arsep – RN (1999) Agr – GO (1999) Arsam – AM (1999) Arpe – PE (2000) Arsal – AL (2001) Agepan – MS (2002) Ageel / Arpb – PB (2001; 2005)[493]	Cspe /Arsesp – SP (1997; 2007) Artesp – SP (2002) Arsep – RJ (1997-2005) Agenersa – RJ (2005) Agetransp – RJ (2005)	Ageac – AC (2003)[494] Adasa – DF (2004) Aspe – ES (2004) Agesc – SC (2005) Atr – TO (2007) Arsae – MG (2009) Arsi – ES (2009) Agesan – SC (2009)

multisector agencies operating independently of the executive branch briefly ended.

[489] In São Paulo, an energy and gas "commission" was established in 1997 and reorganized as an agency in 2007 with additional responsibilities for water and sanitation. An *ad hoc* transportation Commission created by State Decree 43,011 of April 3, 1998, was transformed into a full functioning transportation and highways agency by Lei Complementar 914 of January 14, 2002 (see http://www.artesp.sp.gov.br/sobre-artesp-historico). In both cases, there is continuity along sectoral and organizational lines, and thus we can measure operations started in 2002 (Artesp) and 1998 (Arsesp) for present agencies. In Rio de Janeiro, by contrast, a single multisector agency created in 1997 was split into two parts by Laws 4,555 and 4,556 of 2005: an energy, gas, and sanitation body and a transportation and highways body. (Interviewees provided various reasons for the split, from greater ease in managing multiple concessions in more narrowly-focused agencies, to the prospect of more public service jobs in a second agency. Unlike the agencies in São Paulo, the Rio de Janeiro agencies are products of institutional discontinuity, and heirs to different institutional "heritages."

[490] In the main theory, agency directors chose to focus their agencies in particular policy areas. As agencies in São Paulo and Rio de Janeiro divide between electorally valuable and less-valuable sectors, leaders had no discretion over agency direction and thus the theory should be modified.

[491] After 2002, the federal government provided fewer resources and ideological guidance for the creation of new agencies.

[492] State postal code (two-letter) abbreviations are found with a map of Brazilian states in the Data Appendix at the end of this chapter.

[493] State law 7843 (2005) in Paraíba renamed the Paraíba regulatory agency and expanded its mandate to include other policy areas; its prior work in energy regulation under an agreement with Aneel continued.

Source: Agency and State Government Websites

In other terms, sets 1 and 3 differ in the likelihood that we should see evidence supportive of the hypothesis; the first set comprises "most likely cases" and the last set comprises "least likely cases" (both drawn from the exhaustive case universe). The second set provides different opportunities to test the hypotheses, insofar as these agencies are divided between policy areas hypothesized to offer more and less opportunity for agencies to build mayoral and federal allies.

6.1.3. Method

The number of cases under study is classified as medium-N, for which social scientists have developed very few set procedures. An in-depth study of each agency is beyond the reach of the present study, given that many agencies are poorly-documented and tracing agency histories would require interviews with involved participants in every state, some quite removed from their agency tenure or unreachable. Regression or matching analysis should be used with caution, given the low number of cases and the heterogeneity of cases across the above-defined sets.[495] To test the hypotheses, I draw out the empirical implications of the theory and use a combination of short causal-process observations to trace the process by which cases progressed from their initial scores on supposed key causal variables to final outcomes and see whether these paths conform to, or appear similar to, the hypothesized mechanisms.

6.2. Key Causal Variable

My measure of the causal variable *initial agency orientation* should capture both the agency's policy focus and the propensity of its work to cause substantive changes for affected municipalities (or areas in general). [496]

Agencies' work in each policy areas provides specific payoffs to local politicians. I argue in the theory chapter that sanitation is the most electorally-valuable sector, followed by natural gas and electrical energy. Energy is widely available in Brazil, or can be stolen by low-income residents, while the delivery of water (and removal of sewage) and natural gas by pipe require

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[494] Ageac will be dropped from most analyses. Though its director responded to the survey, it has two staff numbers and there is no indication that it performed any tasks before 2010. On its lack of operations, see, *inter alia*, "Mudanças na Ageac são aprovadas," *Agência Aleac*, 28 Nov. 2007, www.aleac.net/noticia/2007/11/mudancas-na-ageac-sao-aprovadas, accessed August 5, 2012; "MPE quer melhores condiçoes para funcionamento de transportes coletivos intermunicipais," *O Rio Branco.Net*, 13 June 2011, oriobranco.net/acre/15114-mpe-quer-melhores-condicoes-para-funcionamento-de-transportes-coletivos-intermunicipais; Montezuma Cruz, "Transporte Interestadual: Guajará-Mirim e Rio Branco perdem o único ônibus," *Gente de Opinião/Agência Amazonia*, 25 December 2008, www.gentedeopiniao.com.br/lerconteudo.php?news=39849.

[495] Seawright (2005) demonstrates that QCA tools require making assumptions equally as strict as those required for regression analysis. I decline to use such methods at this point.

[496] In earlier versions of this chapter, I used only count data of recorded agency decisions to measure agency focus. I collected all publicly-available agency decisions (resolutions or judgments) and classified them by policy area (water and sanitation, piped natural gas, electrical energy, intermunicipal transportation, highways, or general institutional matters). This method has been used previously by Kim (2008), Carpenter (2004) and Moe (1985), among other authors. This measure greatly reduced the number of cases under study, given data availability. The measures were biased and limited by the fact that agencies make different numbers of resolutions available for research (even after repeated requests). Agency staff may also place differing weights on resolutions as a tool of agency rulemaking or agency activity; an agency may choose to release many resolutions in policy area X while devoting most of its staff to field surveys and inspections in policy area Y. I dropped this measure because published decisions mainly covered standard-setting and tariff adjustments, and revealed little about oversight, inspections, and police power.

company investments in infrastructure and are less widely available in Brazil.[497] On the other hand, because intercity transportation and highways are not the exclusive province of one town, they are less electorally-valuable to mayors.

Agency activities divide between rule-setting powers and the exercise of police power.[498] While contemporary news accounts or governor memoirs are unavailable, we can posit the following breakdown for agency activities. Agencies setting rules, their first function, might have some impact. First, defining quality standards might lead to tangible improvements, especially where such standards are new. The possibility of sanctions for non-compliance might be sufficient to affect changes. Second, tariff adjustments might reduce concessionaire or user uncertainty about revenue and costs. Upward tariff adjustments might also upset users. Agencies employing police power might also affect concrete changes for users. As a third category, the agency might inspect and oversee concessionaire activities.[499] Oversight might place limits on potentially abusive concessionaire activities, and might create noticeable behavioral change. I distinguish this category from standard-setting by the requirement that imposing limits directly reduces concessionaire welfare. In a last category, the agency might issue a fine or sanction. Though the fine might be appealed or nullified, it signals to users (and politicians) that the agency actively protects user interests, or that the agency strives to provide real constraints on concessionaires. By contrast, the absence of fines for long-standing abusive practices might signal agency capture or indifference.

My measure thus incorporates policy areas and activities within these areas for the agency's first four years.[500] In the areas of energy, natural gas, and sanitation, I score each agency +0.25 for each task in standard setting, price-setting, imposing limits on concessionaires, and sanctions or fines. These scores are then multiplied by the proportional number of years following the gubernatorial proclamation approving the agency's structure and rules that each task was undertaken (out of a maximum of four years).[501] I make an exception for the area of electrical energy distribution, in which state agencies were unable to set tariffs or quality standards. In each case, agencies are scored for the year they began inspections (usually under a cooperative agreement with Aneel) with a score of one, and an additional time-weighted 0.5 for instances in which their inspections resulted in fines for the concessionaire. [502] These calculations are summarized in the table below.

Table 6.2: Independent variable inputs and calculation

	Sanitation /	Piped Natural	Energy	Intercity	Highways

[497] Energy regulation is the main area of cooperation between state agency staff and federal bureaucrats and is thus valued by federal bureaucrats. However, as this work required federal pre-approval after 1998, and the pace of work is set by the transfer of available funds and the energy matrix in the state, the original causal process involving federal bureaucrats is endogenous to those bureaucrats' own decisions. I exclude it from the model at the moment.

[498] Measures of agency activities for the independent variable differ from measures in the outcomes due to different foci. For the independent variable, I am interested in activities that create change; for the dependent variable, I am interested in the whole scope of agency roles and functions.

[499] The term in Portuguese, mentioned elsewhere, is *fiscalização*. It has no direct English equivalent.

[500] I will restrict the sample to agencies from set one and Adasa – DF.

[501] I do not total years, but score each agency according to when such tasks were <u>first</u> performed. In doing so, I assume that activities continue and rules endure. I have no evidence contradicting this assumption.

[502] I decline to add additional weight to sanitation and gas over energy, as the theory and existing literature says very little about their relative importance. In a previous scoring schema, any weight for gas activities in the range (2/3, 1) and any weight for sanitation activities in (1, 4/3) preserved the case ordering.

	Water	Gas	Distribution	Transportation	
Possible activities (0.25 each)	Inspections Standard-setting Tariffs Sanctions	Inspections Standard-setting Tariffs Sanctions	Inspections (worth 1) Sanctions (worth 0.5)	Inspections Standard-setting Tariffs Sanctions	Inspections Standard-setting Tariffs Sanctions
Each activity weighted by number of years that the agency performed such activity (1 year = 0.25, 2 years = 0.5, 3 years = 0.75, 4 years = 1)					
Sum created for each policy area in which agency is active					
Scores added across all policy areas in which the agency was active to produce <u>Additive Independent Variable Score</u>					

This measurement schema has more strengths than weaknesses. My focus on both agency activities and decisions allows me to incorporate the highest amount of data. I preserve cross-case comparability, and could easily apply the measures to out-of-sample multisector agency cases. All active first generation agencies are included. In the end, however, these measures are proxies for, and not actual measures of, *agency fervor* in producing notable results for local politicians. For example, I record that both Agergs and Arce fined an energy concessionaire, but do not make distinctions for the difference: Agergs fined a small hydroelectric producer about two thousand dollars for outages while Arce fined the state's largest distributor three million dollars for multiple problems.[503] In short, the measure still fails to capture plenty of details, a problem only remediable with more in-depth case study.[504]

Numbers for this key causal variable - *initial agency orientation* - are given below. The possible range is between zero and 3.5, with greater scores denoting more early work in sanitation, gas, and energy.

Table 6.3: Independent Variable Measures: Initial Agency Orientation

Independent Variable Measures: Initial Agency Orientation	
Agency – State (Years)	**Additive measure**
Arce – CE (July 1998-2001)	1.5625
Adasa – DF (Feb. 2006-2009)	0.625
Aspe – ES (Sept. 2004-2007)	0.1875
Agr – GO (June 2002-2005)	0.625
Agepan – MS (Mar. 2002-2005)	1.0
Ager – MT (May 2000-2003)	0.75
Arpe – PE (April 2000-2003)	0.5
Arsep – RJ/Agenersa (Feb 1998-2001)[505]	1.5
Agergs – RS (Nov. 1998-2001)	1.4375
Arsep – RN (Dec. 1999-2002)	1

[503] Agergs Resolution 70/2000 on UNHEPAL; Janary Júnior. 2000. "Coelce é multada em R$ 6,9 milhões" *Gazeta Mercantil*. April 4, on Coelce. Values are contemporary US dollar equivalents.

[504] Future versions of the project will expand the number of in-depth case studies.

[505] It's logical that Agenersa would inherit the work in gas and sanitation done by Arsep-RJ, while Agetransp inherited the work in transportation. I leave Agetransp scores out, as its IV score is zero. I cover both agencies briefly in the next chapter.

Arpb – PB (Nov. 2002-2005)	1
Arsesp – SP (Feb. 1999-2002)	2.3125
Arsal – AL (Jan. 2002-2005)	1
Arsam – AM (July 2000-2003)	1.25
Agerba – BA (Aug 1998 – 2001)	0.5
Arcon – PA (Nov 1998 – 2001)	1
Agesc – SC (Dec. 2005 – 2008)	0.3125

I turn to the intermediate processes by which agency directors used the initial work coded above to develop and leverage a reputation. Below, I relate these measures to measures of intermediate parts of the mechanism and to measures of outcome variables.

6.3. Intermediate variables: disassembling the mechanism

6.3.1. Budget increases

The theory first predicts that agencies oriented toward concrete work in electorally-valuable sectors should expand their activities and budgets while others stagnate. Repeated interactions with mayors and appeals to governors should lead to further victories in securing more funds. I use reported annual budgets as a most-suitable measure for both activities and resources. Though agencies do expand their activities, comparing an increase in fines, decisions, or inspections, for example, across agencies is largely infeasible and potentially misleading.[506] Budget numbers, and especially their year-to-year changes, are comparable and measure, to unknowable degrees, both the amount of resources an agency receives and its scope of activity.[507] We can state this argument as a hypothesis.

H1: *Agencies with initial work focused on sanitation, natural gas, and energy should see a greater budgetary increase over time than will agencies whose initial work focused more on intermunicipal transportation and highways.*

I measure budgets using two data sources. First, a few agencies published annual reports with budget data. I measure the amount actually spent, which is often lower than the amount budgeted or expected. We should expect greater average year-to-year increases among agencies focused on sanitation, piped natural gas, and energy than among agencies focused mainly on intermunicipal transportation, highways, and energy. We might also expect greater overall change in the same manner. To test these hypotheses, I pair the causal variable with budget figures. I average the annual change in budgeted funds for all years for which data is available from each agency, excluding shifts from outlying initial years in which the agency moves from a very small initial budget to a full year of funds.[508] I also employ annual funds delegated by Aneel to state agencies from 2005 to 2010 for every agency in a delegation agreement for that period.[509] State agency staffers plan their energy regulation activities for the year with a proposed budget, then present this plan to Aneel representatives for modification and approval.[510] Aneel budgets an amount to be sent to each state agency and spent only on planned activities, but frequently fails to send the full amount because the national executive branch withholds funds

[506] More decisions do not necessarily indicate a more active agency.
[507] Budget numbers might indicate changes in activities insofar as more active firms request more funds.
[508] Initial budgets usually were set for a partial year of operations. My measure is taken from the first full year of activity.
[509] This time period is chosen for data-availability purposes.
[510] Aneel. 2005. *Cadernos Temáticos Aneel – Descentralização de Atividades*, p. 14-15.

from Aneel.[511] Though Aneel budgets only for activities in electrical energy inspections, the amounts they transfer to the agencies might measure both agency activity and the reputation of the agency among federal bureaucrats (unfortunately neither item can be directly measured).[512] The measure of Aneel transfers also helps test whether regulatory work in some policy areas – in this case, sanitation and gas – helps agencies develop a reputation for capacity in other areas. The two measures and their relation to the key causal variables are explored in the tables below.

Table 6.4: Independent Variable and Budget Changes

Agency (State - Years)	**Score – Agency orientation variable**	**Average annual budget change**
Artesp (SP – 2005-2010)	0	0.234
Agesc (SC – 2007-2009)[513]	0.3125	0.506
Adasa (DF – 2005-2009)	0.625	0.398
Agepan (MS – 2003-2009)	1	0.102
Arsam (AM – 2004-2010)	1.25	0.327
Agergs (RS – 2002-2010)	1.4375	0.082
Arce (CE – 1999-2010)	1.5625	0.315
Arsesp (SP – 2008-2010)	2.3125	0.354

The data do not strongly support the hypothesis that initial agency focus on sanitation, natural gas, and energy leads to greater gains in budget, responsibilities, or both. The four agencies scoring lowest on the independent variable average 31% annual changes in their budget, while the top four agencies average annual increases of 27%. However, the contrasts are uneven. The years given for Adasa (DF) and Agesc (SC) are within the same initial four years in which an orientation is thought to develop. Excluding those two cases, the lower three agencies (by causal variable score) average 22% while the top three agencies score 25%. Caution should be exercised when drawing conclusions from measures taken from different years, and thus I look further.

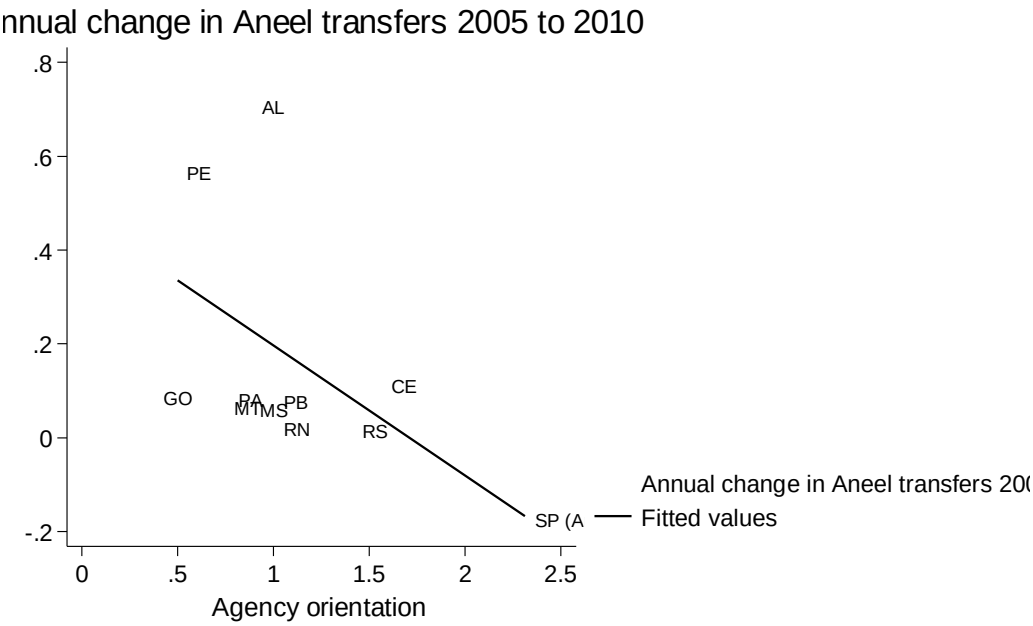
Below I examine average changes in Aneel funds.

Figure 6.1: Annual changes in Aneel transfers (2005-2010)

[511] See, e.g., Daniel Rittner. 2007. "Contingenciamento de recursos da Aneel foi recorde em 2006, diz estudo," *Valor Econômica*, 14 February 2007. On the process of contingenciamento, see Pereira and Orellana 2009.

[512] The first item – activity – is an outcome while the second – reputation – is part of the mechanism. I cannot determine the extent to which each is captured in the measure.

[513] Agesc (SC) might be excluded from the analysis because its age is considered insufficient for the development of a reputation. It did, however, have annual reports with budget numbers, which are reported here for greater transparency.



Source: Aneel annual reports, 2005-2010

The data do not support the hypothesis that greater focus on sanitation and natural gas might lead an agency to win greater resources from federal bureaucrats. Any conclusion should come with appropriate cautions regarding small, truncated sample sizes.[514] Any significance test with such small samples should be met with skepticism. I conclude that the role of initial work in providing agencies with greater intermediate funds is uncertain.

6.3.2. Laws

I argue that governors should assign greater responsibilities and funds to carry out those responsibilities to electorally valuable agencies. We should expect to see this development through the issuance of new laws and decrees. I measure greater delegation through a count of the number of laws passed after agency creation that granted more powers and more funds (or new sources of funds) to the agency. I exclude laws that mention the agency but do not grant new powers, funds, or staff, and those that placed the agency in a different position in the state

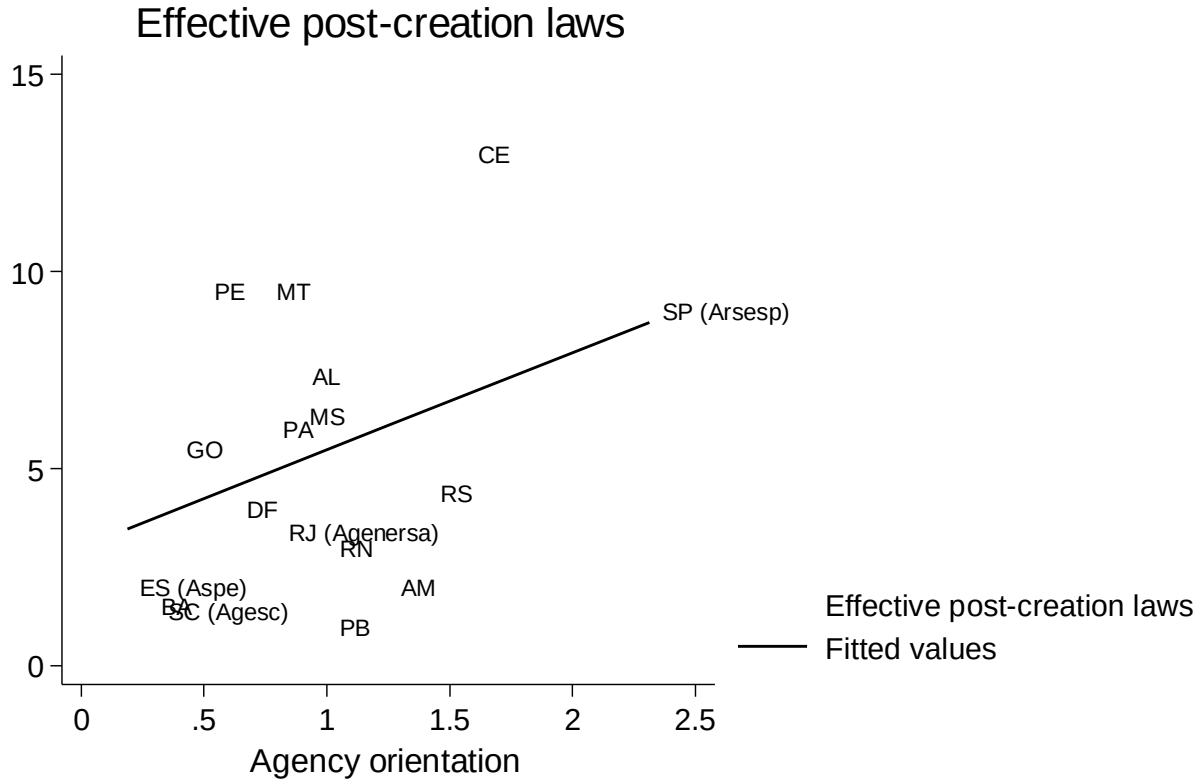
[514] The agencies Aspe (PE) and Arsal (AL) stand apart from the general pattern. As noted in the previous case study chapter, Arce's relationship with Aneel has historically been contentious, which might explain its slower growth in funds. Arpe and Aneel also engaged in numerous conflicts from 2005 on, culminating in 2007 in Aneel declining to renew the delegation agreement with Arpe until Arpe staff took additional training classes in São Paulo (see, *inter alia*, Renato Lima, "Arpe punida pela Aneel por postura independente," *Jornal do Commércio* (Recife), 29 June 2007) . Arpe and Aneel settled and renewed their agreement several months later ("Após acordo com ANEEL, ARPE volta a fiscalizar energia em PE," *Jornal do Commércio* (Recife), 12 March 2008). Finally, the negative change in São Paulo may be attributed to the high fixed costs of establishing an agency. São Paulo is the only state with both an agreement with Aneel and more than two large private energy concessionaires. CSPE, the original agency in São Paulo, was the first to oversee small energy generators, a task that has come only recently to other state agencies. The São Paulo agency initially set (and forced compliance with) standards much more strict than the national average (Interview SP7). This intensive initial work might explain declining annual transfers from 2005 to 2010.

bureaucracy, or that only restated the agency's mission.[515] I state this as a hypothesis:

H2: *Agencies that initially focused on sanitation and water, piped natural gas, and electrical energy should receive more legal delegations of additional resources and tasks in the form of laws and decrees than will agencies that did not focus in those areas.*

To test this hypothesis, I array the additive scores on *initial agency focus* and array them in line with the tally of post-creation laws per state.[516] The table of scores is found in the data appendix. I distinguish between total post-creation laws that mention the agency, and laws that either add resources or add responsibilities for the agency. Only the tally of "important" laws is used. I then graphically illustrate the relationship.[517]

Figure 6.2



Source: Agency and state government websites; author coding.

The coefficient estimate on the number of laws created after creation is not statistically significant. However, this measure might be obscured by the fact that agencies are of varying

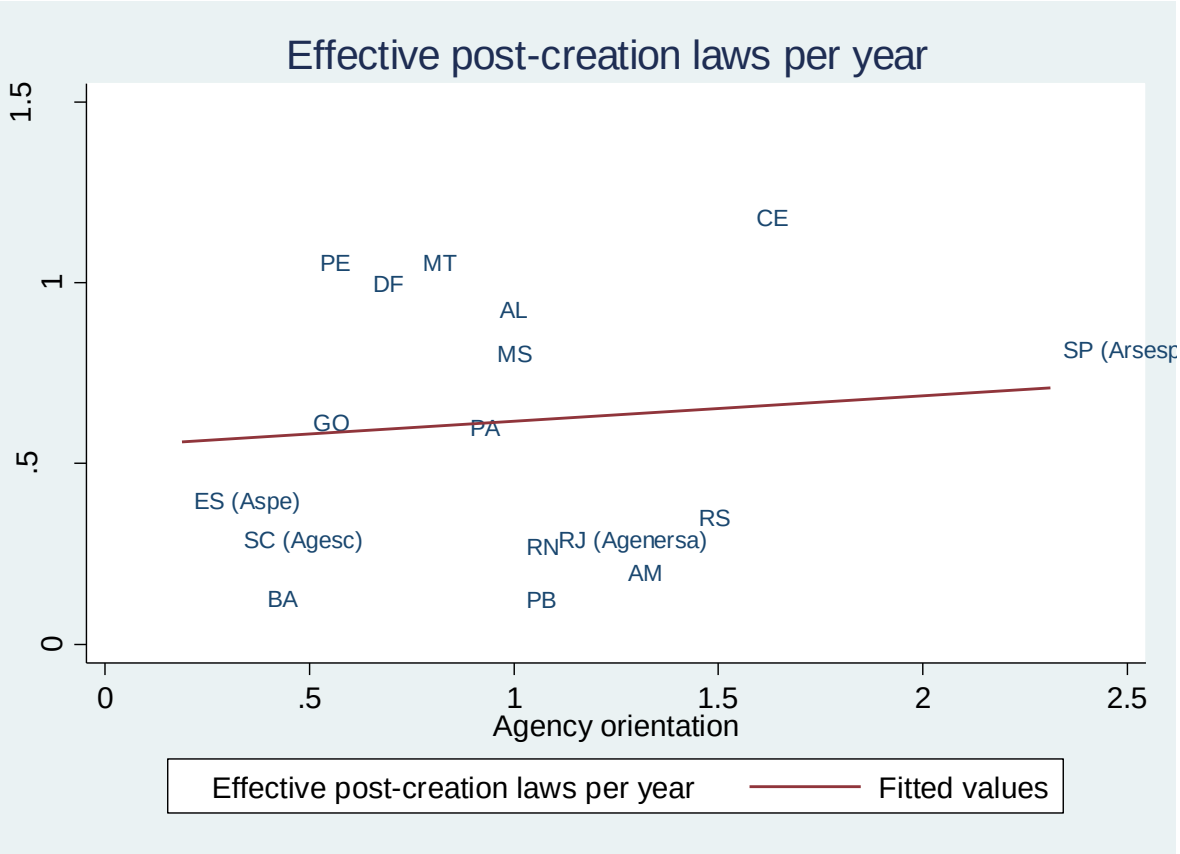
[515] I list these laws by number, date, and summary in a spreadsheet on my website. It is unlikely that I would have not found any laws because state laws passed concerning agency matters. I cannot imagine a law that covers agency powers and does not explicitly name the agency or its acronym.

[516] Given Adasa's status as a single-sector agency regulating a single public concessionaire, and its status as the newest agency (created in 2005), I drop it from this analysis.

[517] The unstandardized regression coefficient for the relationship between the additive independent variable and the total number of laws is 2.47 with a standard error of 1.64.

ages. It is possible that agencies that last longer see more laws passed adding to their responsibilities. For that reason, I graph the number of "important" post-creation laws *per year* against the additive independent variable below.

Figure 6.3



Source: State government and Agency websites

The relationship between initial agency orientation and post-creation laws per year is not statistically siginficant, and no positive association is visible.[518] This evidence fails to support the hypothesized mechanism, suggesting that a raw count would better be replaced by in-depth exploration of the laws' contents. Such an investigation is forthcoming.

6.3.3. Mayoral interests

> *Temos nascentes de águas cristalinas, minerais de todos os tipos. Mas não temos um quilômetro de esgoto. A empresa responsável é a Cedae, mas o povo reclama `é do prefeito.' Portanto, eu quero me livrar da Cedae.* [Author's translation: We have crystal clear springs, minerals of all types. But we don't have one kilometer of sewer [line]. The company responsible is [Rio de Janeiro water company] Cedae, but the people complain `it's the mayor['s responsibility.]' So I want to get rid of Cedae.]

[518] Unstandardized beta is 0.07 with a standard error of 0.18.

– Cezar de Almeida (PDT), mayor of Cachoeiras de Macacu, RJ, at a public meeting, in Luciano Rodrigues, "Inglesa quer disputar files do saneamento," *Jornal do Commércio do Rio de Janeiro*, 6 July 1999

I next examine the role of mayors. I rely on prior scholars' findings that mayors are key to governors' future electoral prospects. To this point, however, the relationship of mayors to regulatory agencies has been asserted and theorized rather than demonstrated. Below, I show that mayors have greater interests in the policy areas of sanitation, natural gas, and electrical energy than they do in intercity transportation and highways. In lieu of a survey of mayors themselves, I identify issues raised by their peak interest associations. Brazilian mayors and vereadores are organized into statewide interest associations, frequently titled associations or federations.[519] These organizations, among other functions, organize training sessions and seminars for potential, entering, and incumbent mayors and city council members. I collected all public meeting programs available on the internet, and classified how many times any of the five areas subject to state regulation was addressed. Generalist meetings were chosen and more particular meetings excluded, which actually weights the evidence against the hypothesis below, as most specialized meetings concerned topics on sustainable development, the environment, and sanitation itself.[520]

H3: *City officials will be more concerned with sanitation and natural gas than they are with intermunicipal transportation and highway concessions.*

Programming from only a handful of state interest groups is available, so my non-random convenience sample includes meetings held after the 2010 endpoint of my study to allow for a broader range of observations. I record mentions of any of the five policy areas identified in my study, using agendas and programs from meeting and association websites. The full table can be found in the data appendix; below I summarize per-state mentions.

Table 6.5: Total mentions of policy area in mayors' conference agendas

State (Sample Years)	Sanitation	Gas	Energy	Transport	Highways
CE (2011)	1				
MG (2009, 2010)	2	1			
MT (2007, 2008, 2009, 2010, 2011)	3		2		
RJ (2011)	1				
RS (2010, 2011, 2012)	1			1	
SC (2008, 2009, 2010, 2011, 2012)	4			1	
SP (2011, 2012)	2		2		
National (2011)	1		1		

[519] The peak organizations advocate for greater municipalization, which, in brief, is a movement for greater resources to address the wide array of responsibilities thrust upon city governors by the 1988 Constitution. The groups formed to lobby for greater resources and help.

[520] The 2007 national sanitation law, as previously discussed, requires cities to have plans for water, sewage, and solid waste disposal improvements. Few mayors know how to design such plans, and so statewide bodies hold training workshops.

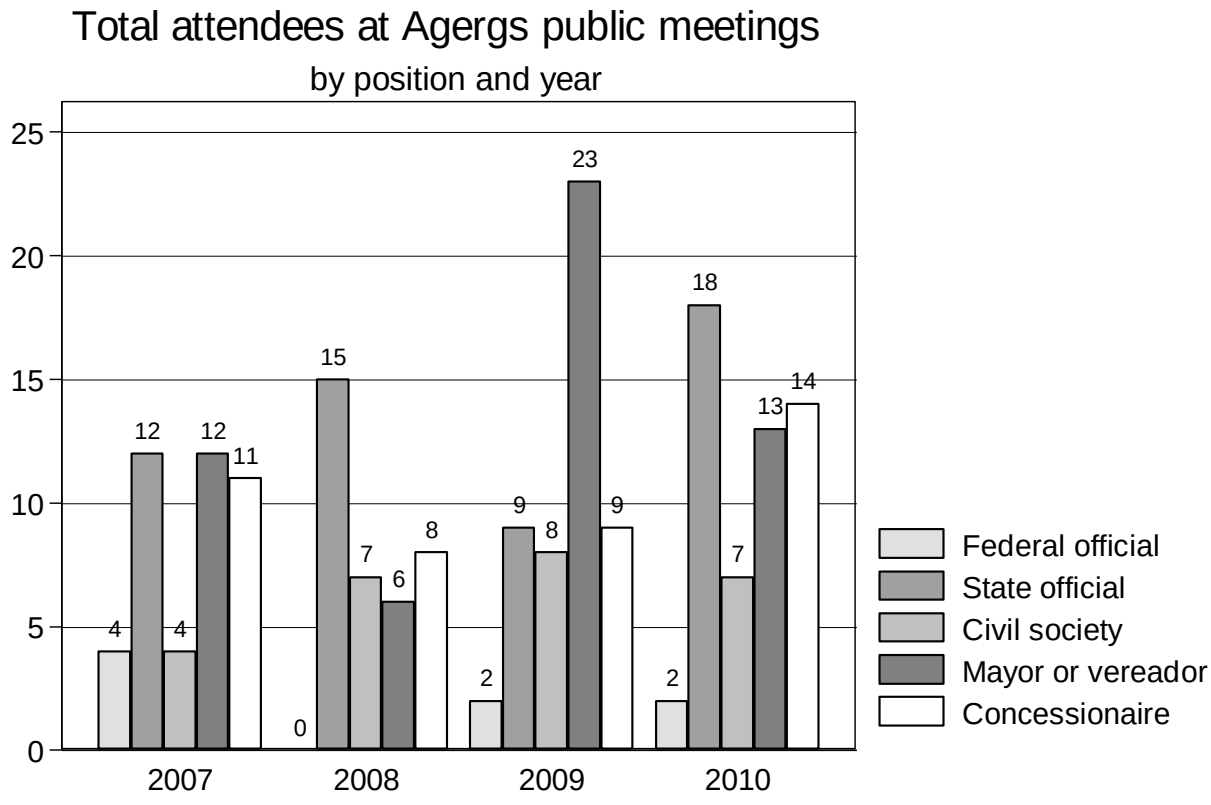
TOTAL	**16**	**1**	**5**	**2**	**0**

Source: Municipal association websites, various.

The above tallies, taken from an exhaustive online convenience sample, support the hypothesis that mayors are more concerned about sanitation, gas, and energy than they are about intercity transportation. list is neither comprehensive nor representative, but it does provide evidence that mayors pay attention to the policy areas I highlight.

I also gathered evidence that mayors are able to evaluate the regulatory agency's tasks. While I cannot record every contact or discussion between mayors and governors in which they discuss regulatory topics, public meeting records provide very strong evidence that mayors monitor and engage with agency work. Representatives from the agency and the mayor's office interacted frequently. A tally of non-agency staff speaking at Agergs (Rio Grande do Sul) meetings is below, available since 2007.[521] The raw count data can be found in the data appendix. Arsam (Amazonas) also recorded mayors or their representatives in attendance at every meeting in 2010 and 2011 of CERCON, the State Council on Regulation and Control of Public Services.[522]

Figure 6.4



[521] To date, Agergs provides the only comprehensive tally of public hearing attendees in their meeting transcripts.
[522] See http://www.arsam.am.gov.br/novo/?q=AtasConselho. Last accessed July 4, 2012.

The data in the graph demonstrate that multiple city government staff members (54 of 184 mentioned) attended Agergs's public hearings and were at a minimum aware of the agency's role.

In summary, mayors are both aware of agency activities, and interested in the policy areas deemed valuable in the theory.

6.4. Relationship to the Outcomes

Finally, I investigate possible relationships between the key causal variable and outcome indicators.

6.4.1. Hypotheses

I begin with the overall assertion of the theory: agencies that begin work in sanitation, energy, and piped natural gas regulation were able to acquire greater responsibilities and greater resources than were those who began most of their work in intermunicipal transportation and highway regulation. We can recast this as straightforward hypotheses in the same language, and evaluate the data for all sets of cases.

H4: *Agencies initially more assertive in the areas of sanitation and water, piped natural gas, and energy distribution have more* ***resources*** *at the end of the period under study than do agencies who passively regulated the above areas or where initially more focused on intermunicipal transportation and highways.*

H5: *Agencies initially more assertive in the areas of sanitation and water, piped natural gas, and energy distribution have a higher* ***level of activity*** *in the end than do agencies that passively regulated the above areas or were initially more focused on intermunicipal transportation and highways.*

These hypotheses suggest path-dependence from an initial set of decisions, as do most theories of reputation.

6.4.2. Conceptualizing the Outcome

The two measures of agency robustness considered in the project are the agency's **level of resources** and its **level of activity**. Both measures are instrumental in developing agency autonomy, a primary concern for scholars of bureacratic politics, and, as discussed in the theoretical chapter, are both components of and antecedent to the latter concept. In the case studies of the previous chapter, I developed more complex and nuanced measures of both outcomes. In the present chapter, I standardize my measure of both outcomes for cross-case comparisons. Both measures are taken for the year 2010, the last year of governors' terms and the first year in which major state sanitation agencies began their operations.[523] I conducted an original multistate survey by mail and follow-up email in December 2010, with responses collected on a researcher-created website until May 2011.[524] Respondents occupied senior roles (director or senior departmental staff) in their respective agency when they completed survey forms. Of the twenty-four requests sent, respondents from twenty agencies complied, for a

[523] Measuring outcomes in any single year does artificially limit the scope of any study, insofar as outcomes might change radically shortly before or after the end of the study. This problem occurs in almost every piece of social science, however, and I feel that my endpoint is theoretically justifiable. As multiple interviewees in Brazil emphasized, turnover in gubernatorial terms brings large changes in state politics. The new federal sanitation law (Lei 11.445/2007, Article 58) required sanitation regulation be operational by January 1, 2011 (later modified to December 2014 by Decree 7,217 of June 21, 2010), which radically shifts the national institutions that order state agency practices.

[524] All respondents were in office in December 2010, and remained in office during the time period in which they responded to the survey. All respondents were promised anonymity, but their responses and a codebook will be made publicly available.

response rate of eighty-three percent. Measures of the level of activity are taken from both the original multistate survey and from agency documents and media materials both in print and on the internet. I collected additional evidence through over 130 in-person semi-structured interviews in ten Brazilian states from August 2009 to August 2010.

6.4.3. Definitions

Clear operationalization of these two outcomes requires theory. I argue that the essence of **regulatory activity**, as carried out by agencies, comprises two main tasks. Regulators make rules and they enforce compliance with the rules they make.[525] Rulemaking and rule enforcement can be classified as social regulation (standards and practices) and economic regulation (prices), though the division is not entirely clear. Rulemaking includes investigating and soliciting concessionaire and user information and opinions in order to make the most informed standards and price judgments possible. Agency staff and directors may then publish rules.[526] Rule enforcement requires both information collection and policy power. Agencies need to inspect concessionaire property, ensure that correct tariffs are assessed of users, and hear user opinions. They also need to act to correct and deter rule violations, whether through fines and penalties or by ending concessions. This police power is of course conditioned by the judicial institutions in which agencies operate; slow judicial appeals or high evasion undermine any body's ability to enforce rules.[527]

Implicit in the above description of what an agency should ideally do is the idea that it be *able* to carry out such actions. To this end I measure **agency resources**, an element of bureaucratic capacity. Resources comprise a) the training and expertise that staff contribute and receive, b) the finances available to agency staff, and c) the number of staff. These elements are listed in descending order of importance to the agency's ability to act and overcome the informational asymmetries that lie at the heart of regulatory tasks, to make rules and detect and punish rule violations. Expertise is most critical. Without expertise, agencies that are well-staffed and well-funded may not be able to evaluate complex concessionaire proposals.[528] I argue that funding is less important than expertise, and staff numbers are the least important inputs. Expertise is also the least noisy measure of resources, given our inability to accurately assess the "proper" amount of funding and staff levels for agencies in cross-case analysis. The amount of agency resources, however, strictly increases with additional expertise. Expertise might also be properly given greater weight as an indicator of agency resources because expertise is the hardest to acquire. In Brazil, as Geddes (1994) and other authors note, in the absence of meritocracy, staff and funds are easily used to turn state bodies into *cabides de emprego*, or sources of public employment for political loyalists.[529] By contrast, filling agency

[525] My use of the term *rules* here includes tariffs, tariff calculations and adjustments, quality standards, investment requirements, disclosure requirements, and many other decisions.

[526] We should not expect to see these rulemaking actions every year, given that rules may endure over time or be codified in concession contracts and addenda.

[527] Levy and Spiller (1994) make this point extensively.

[528] Expertise is employed in two main locations in which regulatory agencies collect and process information: by solicitation and in field visits. In the former location, agencies receive solicited concessionaire reports or requests for tariff changes or new concessions in their office. In the field, teams of regulators survey concessionaire property, physical installations, or vehicles. Expertise is far more important than staff numbers for in-office evaluations, while both staff numbers and expertise are equally valuable in field inspections. Multiple interviewees reported that field inspections are conducted at random [*à montagem*] to reduce staffing needs while ensuring concessionaire compliance (Interviews RS3, MS1, AL1).

[529] *Cabides de emprego* is a commonly-used slang term that translates as a "jobs coat hanger," or a place to hang up

positions with *concursado* staff is politically costly to the governor insofar as it removes those positions from the pools of jobs for political allies.[530]

6.4.4. Indicators: Agency Resources

First, I measure the level of **resources** that agencies enjoy. I take three indicators for the outcome from the survey conducted in December 2010. I measure a) **staff qualifications** (as a proxy for expertise), b) the **funding** for activities, and c) the **number of staff**.[531] First, as an indicator for staff expertise, I use respondents' answer to the question on what percentage of staffers were *concursado*, or had entered by means of a rigorous public examination (*concurso* in Portuguese).[532] The empirical range is from 0 to 100.[533] Second, for the amount of funding, I score agencies on their responses to the following survey questions, from one to seven with higher scores indicating greater resources.

1) Agree or disagree: "The salaries and opportunities for staffers are sufficient to make them stay in the agency."

2) Please evaluate the following sentence: "The agency receives all the regulatory fees due to it."[534]

The first question addresses the issue of staff turnover in Brazilian state public administration. Qualified professionals are free to take further *concursos* and leave any public job for a higher-paying position (interview RS2). Agencies with adequate funds and salaries are better able to retain staff. The second question measures whether the agency is fully funded. In my fieldwork I found that many regulatory fees were not directly collected by the agency, but instead by a different state body, and were sometimes withheld by the governor or by state secretaries. These two indicators are used as indicators of **financial resources**.[535] Finally, respondents were asked for the number of personnel at the agency. This measure is problematic, insofar as I am unable to calculate the appropriate staff size for any agency. Agencies may have extra staff because politicians fill their ranks with allies or add additional staff for patronage purposes. Extra staff

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political lieutenants with a public salary until they are needed in the next electoral cycle.

[530] *Concursado* staffers are those who enter the public body by scoring highest on an open technical examination; they have job security and can only be fired for just cause. Governors must issue separate decrees to hold the public examination and to allow top exam performers to assume their posts.

[531] Many agency staff members participated in training workshops and programs, but it is not possible to compare the efficacy of such activities or compare the degree of on-the-job training across cases (see, e.g., the courses listed in Agergs (RS) *Relatório Anual* 2003:16-19).

[532] Ideally, one might wish to sort agency budgets by the revenue of regulated firms, but such numbers are largely unavailable for transportation firms. Budget numbers were also collected for 2009 because the 2010 year had not ended at the time the survey was administered, and thus 2010 numbers would not have been available.

[533] I dropped an additional indicator for the number of staff that included answers to a survey question on whether directors serve their full terms. High leadership turnover should disrupt both agency morale and activities, prompting more qualified employees to leave (Meyer 1979:100-105). High leadership turnover might also indicate political interference in agency activities, though we have no way to measure whether such interference aids or undermines the agency. Unfortunately, the measure was uninformative, as eighty percent of resopndents reported that directors "always" finished their terms, and two of the agencies not answering "always" were less than two years old.

[534] Portuguese: 1) "Concorda ou discorda: 'Os salários e oportunidades para funcionários são suficientes para fazê-los permanecer na agência.'" and 2) "Por favor classifica a seguinte frase: 'A agência recebe toda a taxa regulatória devida a ela.'"

[535] Each indicator ranges from one to seven, with greater scores indicating greater resources. Indirect measures of resources are used to avoid the predicted upward bias in staff responses as to whether the agency had significant resources; bureaucrats most likely always want more assets.

may drain agency resources and hinder its actions. The questionnaire also failed to distinguish among permanent, temporary, and subcontracted staffers. For these reasons, I place less weight on personnel as a measure of staff resources.[536] The four indicators are used as scores for the outcome *level of resources*.

My calculations for the outcome level of resources are given in the table following the discussion immediately below.

6.4.5. Indicators: Agency Level of Activity

Second, I return to the **level of activity** for each agency along two dimensions. First, I measure the **breadth of agency activity** across the five state regulation policy areas: electrical energy distribution, water and sanitation, piped natural gas, intermunicipal transportation, and highways. While most policy areas are either regulated or not, and thus receive scores of zero or one, intermunicipal transportation concessions are more varied. For example, in Rio de Janeiro the transportation agency regulates urban trains and ferries, but not intercity bus transportation. In states with multiple modes of transportation, I score the proportion of areas regulated, from zero to one.[537] Not all states, however, have highway or operational natural gas concessions, so I accordingly give the range of the agency as the percent of total areas in which activity is legally and practically possible in 2010. Some agencies also have limited legal mandates, and thus I measure their breadth of activity as a proportion of the *mandated policy area responsibilities* in which they act.[538] This number becomes the measure of breadth, normalized to range from zero to one.

For all policy areas in which the agency acts, I consider the **depth of its activity**. In each of the policy areas in which it acts, what degree of responsibilities does the agency assume? As above, to measure depth I return to the agency's core functions of setting rules and enforcing rules. Rulemaking can be disaggregated into economic regulation (tariff setting and adjustments) and social regulation (standard-setting). Enforcement comprises monitoring (inspections) and police power (penalties and fines for violations). These four tasks receive an equal fractional score such that all activities in a policy area add up to one: a) standard-setting, b) tariff adjustment, c) inspections, and d) police power.

I generate my measures as follows. First, I measure standard-setting by agency and media records of decisions and proclamations. One mention in 2010 is sufficient to receive the full score for standard-setting.[539] For indicators on inspections, I rely on annual reports, agency documents, and local news reports about inspections from 2010. For standard-setting and price adjustments, I rely on agency documents and contemporary news documents. For all indicators, one mention (per policy area) is sufficient for a score of one rather than zero. The same

[536] There is an obvious outlier in the responses to the question on the number of staff. The agency AGR in Goiás responded that it had 368 people on staff. The mean response is 78 and the next lowest number is 150. I surmise that their interpretation of the question is different, and thus I highlight it as an exception in some analyses.

[537] For example, the transportation regulator in São Paulo oversees highway and bus concessions in the state but does not regulate commuter rail lines. It scores 0.67 on the breadth of its transportation regulation.

[538] Empirically, Adasa in the Federal District is only legally able to regulate water and sanitation. Arsesp in São Paulo and Agenersa in Rio de Janeiro can only regulate energy, gas, and sanitation. Artesp in São Paulo and Agetransp in Rio de Janeiro can only regulate transportation and highways. All other agencies can (by law) cover all five policy areas.

[539] Single mentions are used throughout due to limited data availability and the caution that agencies that issue more resolutions or levy more fees are not necessarily more active. Case studies in other parts of this project add more depth.

procedure applies for tariff adjustments, recalculations, or increases. A record of fines and penalties indirectly measure the exercise of police power. No direct measure of the exercise of police power exists, and legislation and decrees outlining penalties and fines should not be equated with their use. That the most-advanced concessionaires in the richest states of São Paulo and Rio de Janeiro suffer penalties should reduce our uncertainty as to whether indicators of police power might be censored because fully-compliant concessionaires are never punished.[540] I collect contemporary news articles and agency, government, and concessionaire documents to measure whether fines or penalties were assessed in 2008-2010. Only one fine or penalty mention per area is sufficient to score one for police power in each policy area for an agency.[541] Finally, the proportion of activities within each actively-regulated policy area is totaled for a score between zero and one.

The potential activities and indicators of depth are found in the table below. The entries list all possible scores for agency activities within any policy area. Scores for transportation are averaged across all possible modes. As before, however, I attach equal weight to most indicators.

The exception is the clear distinction between indirect inspections, in which the agency passively receives information from a source, and direct inspections, in which agency teams collect information directly from concessionaires in the field.

[540] The censoring issue is not completely eliminated. That almost all concessionaires are flawed and thus subject to penalties actually reinforces this measure, in that the failure to fine might be associated with fewer activities or a lower ability to overcome informational asymmetries and detect violations, rather than with concessionaires with sterling records.

[541] This multi-year collection is necessary to avoid further censoring. Fines may not be issued every year, even by active agencies.

Table 6.6: Measured Elements of the Outcome Agency Activity Depth

Policy Area	**Rulemaking**		**Rule enforcement**		**Police power**
Sanitation	Standards	Tariffs	Inspections[542]		Fines
Electrical energy			Inspections - Distribution (Score of 1)	Inspections - Generation (Score of 1)	Fines
Natural gas	Standards	Tariffs	Indirect Inspections Only (Score of 0.5)	Direct Inspections (Score of I)	Fines
Transport **- Bus**	Standards	Tariffs	Indirect Inspections Only (Score of 0.5)	Direct Inspections (Score of 1)	Fines
I. Ferry					
II. Rail					
Highways	Standards	Tariffs	Inspections		Fines

The agency has a total potential **depth** score of zero to one in all possible policy areas. I sum the proportion of activities within each policy area regulated, and then average across all active areas to produce a cross-policy-area average depth score between zero and one.[543]

The two outcome components strike a balance between comparability and accurately capturing the underlying concepts of active regulation and well-funded bureaucratic bodies. The scope of activities covers the main functions of state agencies.[544] The above quantification does leave out information about each agency, but helps us align the agencies relative to each other.

The scores for the outcomes on all cases with survey responses are displayed below. As noted above, some staff directors from active agencies declined to respond to the survey, even after multiple follow-up contacts. Those cases are treated separately below.

[542] "Inspections" is my translation of *fiscalização*, which comprises what might be termed "inspections," "oversight," and "monitoring," but has no direct English equivalent.

[543] Scores of zero in either case would indicate a non-functioning agency. Raw tables will be made available on the author's website.

[544] The policy areas covered exclude some minor areas that particular agencies cover (e.g., gymnasiums and sports fields in Goiás, lottery machines in Pernambuco, water resources in the Federal District), but these areas do not comprise large tasks for most agencies.

Table 6.7: Outcome Variable Measures

Concept		Expertise:	Financial resources:	Financial resources:	Staff resources:	Activity Breadth	Activity Depth
Measure		*Percent of Staff Concursado*	*Salaries Adequate**	*Agency receives all fees**	*Number of staff members*	Breadth Index	Depth Index
Possible score range		0 to 100	1 to 7	1 to 7	Open response	0 to 1	0 to 1
Agency	**State**						
Ageac	AC	0	3	1	2	0.25	0.4
Arsal	AL	0	2	4	110	0.75	0.70
Arsam	AM	0	5	5	68	0.5	0.7
Arce	CE	100	6	7	40	1	0.89
Adasa	DF	50	4	7	150	1	1
Aspe	ES	0	3	7	19	0.5	0.42
Arsi	ES	0	4	7	14	1	0.625
Agr	GO	7	2	2	368	1	0.64
Arsae	MG	0	1	3	45	1	0.5
Agepan	MS	84	4	1	77	0.75	0.66
Ager	MT	67	3	3	140	0.75	0.9
Arpb	PB	0	7	2	48	0.25	1
Arpe	PE	0	4	7	83	0.75	0.89
Arsep	RJ	10	3.5	7	82.5	0.83	0.86
Arsep	RN	26	1	1	26	0.5	0.29
Agergs	RS	78	2	6	64	0.8	0.66
Agesan	SC	13	4	5	15	1	0.5
Agesc	SC	31	4	7	40	0.6	0.425
Atr	TO	23	NR	4	59	0.75	0.55
AVERAGE		**24.95**	**3.47**	**4.65**	**76.65**	**0.74**	**0.67**

* For ease of interpretation, the two response categories on financial resources have been flipped (subtracted from eight) so that higher scores indicate greater resources.

6.4.6. Correlational tests

First, the unstandardized bivariate regression coefficients below give a sense of how the

independent and dependent variable indicators relate to one another. All relationships are predicted to be positive by the hypotheses.[545]

Table 6.8: Linear Correlations

	Percent *Concursado*	**Adequate Salaries**	**Receives all Fees**	**Staff Numbers**	**Breadth of activity**	**Depth of activity**
Agency focus *beta* estimate	31.37	0.70	-0.38	-34.11	0.05	0.19
Stand. error	22.55	1.07	1.64	57.89	0.15	0.15

* Significant at alpha = 0.10; ** Significant at alpha = 0.05

The additive measure of *initial agency focus* is only weakly associated with all outcome variables. Most relationships are not statistically significant.[546] The estimated coefficients are the predicted difference in the outcomes between an agency that does nothing in valuable sectors and an agency that does all the work it is legally allowed to do in valuable sectors.

I investigate these relationships graphically below.

[Graphs 6.1-6 approximately here]

The scatterplots below reveal mixed results. There are positive relationships between initial agency orientations and indicators of staff salaries and career structures. Relationships between initial agency orientation and the remaining indicators are consistent with no pattern. All correlations are slightly less or unchanged with the addition or subtraction of any potential outlier or influential point. In sum, the relationship is either hard to detect or absent in the larger data.

6.4.7. Additional Case Studies

The scatterplots leave out several important cases. First, staff directors from Arcon in Pará and Agerba in Bahia failed to respond to the survey. Both agencies are from the first set of cases, created in 1997 or 1998, and both began their work extensively in transportation and energy alone. Both agencies continue to lack resources and work at only a limited breath and depth in activities, which supports the theory. Second, staff from the two agencies in São Paulo failed to respond to the survey. Those agencies will be discussed in the following chapter.[547] I examine the first two cases below with brief case studies, using primary sources and material from interviews I conducted in each state in 2009 and 2010. Evidence from the cases supports the hypotheses.

The State Agency for Regulation and Control of Public Services in the State of Pará (ARCON or ARCON-PA) developed initial work in energy and transportation, and its focus in 2010 remains restricted to these two areas. It enjoys a moderate amount of resources and a

[545] Following Achen (1977), I use unstandardized bivariate regression coefficients in place of correlation coefficients.

[546] Recall that staff numbers was the noisiest measure and contains a significant outlier; dropping the outlier AGR in Goiás produces a coefficient estimate of 0.46, with a standard error of 27.99. The estimate is then positive but not significant.

[547] Briefly, the energy, gas, and water regulator Arsesp expanded its activites into sanitation in 2007, and remains active and well-funded, but its position in São Paulo should qualify the support it might lend to the hypotheses.

moderate scope of authority. The agency was created mainly to oversee the state energy company Celpa at the latter's privatization on July 9, 1998.[548] Governor Almir Gabriel of President Cardoso's center-right PSDB wrote and signed the creation law.[549] Arcon received authority over transporation and gas shortly afterward, but could not assume authority over gas as the latter concession is still inoperative.[550] Its initial work covered both energy distribution and generation regulation in Pará, and oversight of both land-based (bus) and water-based (ferry) transportation.[551] Its first *concurso* in 2002 brought in mid-level staff, but salaries remain low and turnover is high; there has not been a subsequent *concurso*. Low-level inspectors in both energy and transportation have one-year contracts and also leave the agency with high frequency.[552] A 2006 law provides for additional appointed personnel to work alongside existing staff, which has filled the agency with redundant, untrained short-term staff.[553] The agency has been successful in maintaining its limited role in two areas, and less successful in expanding its authority or increasing its funding.[554] With regard to resources, the agency collects all of the regulatory fees due to it by mainline transportation operators, and funds for energy regulation from its delegation agreement with Aneel, but these sums are small.[555] Fines for transportation violations go to fund the agency, but success in collecting these fines is low.[556] By law, the agency should receive royalties from the production of energy in the state (Pará is a net exporter of electricity), but these funds have always remained with the governor's office.[557] With regard to authority, there is evidence that the agency's police power is limited and its scope constrained. The newly-created technical group on sanitation only completed studies and failed to engage in active regulation in 2010.[558] Though regular transportation lines and terminals are inspected, concessions have not been re-drafted despite years of work, and the agency has not succeeded in reducing irregular, illegal [*clandestino*] transportation.[559] The energy distribution concessionaire Celpa has also failed to improve and was (in 2012) bankrupt, at risk of losing its contract for years of failing to meet standards.[560] In sum, Arcon's moderate beginning efforts in energy and

[548] Interview PA7; Arcon was created by Law 6,099 of December 30, 1997, before Celpa's transfer the following July.
[549] Gabriel shared a party with contemporaneous agency-creating governors in multiple other states.
[550] Interview PA7, PA1. The state gas firm Gás do Pará has been incorporated but is not connected to any piped supply.
[551] The first director, electrical engineer Vilmos da Silva Grunvald, had worked on the Celpa privatization and had been party to the reform of the Brazilian energy sector as a representative of the Northern region to the Ministry of Mines of Energy working groups that collaborated with Coopers & Lybrrand to produce the report mentioned in the background chapter. Original staffers at the agency came from Celpa, the state transportation secretariat, and various other state bodies (Interview PA7). Authority over ferry terminals and ferryboats is shared with the federal Ports Captaincy.
[552] Interviews PA5, PA6.
[553] Interview PA5.
[554] In the area of energy, Arcon staffers working under the delegation agreement with Aneel have expanded their work to monitor isolated networks and generation facilities (see Aneel convenio 013/2008).
[555] Interview PA1, PA4.
[556] Interview PA1.
[557] Interview PA6.
[558] Interview PA1.
[559] Interview PA1, PA5, PA6.
[560] See, e.g., "Sem aporte na Celpa, Aneel tende a cassar concessão," *Veja*, 28 March 2012; Anna Flávia Rochas, "Shareholders back Celpa recovery plan, await regulator's OK," *Reuters Focus*, September 2, 2012. I acknowledge that Celpa's poor quality cannot be directly attributed to Arcon's oversight. However, Arcon's inability to compel

transportation regulation led to its moderate, limited outcomes.

In Bahia, the Bahian State Agency for Regulation of Energy, Transport, and Communications Utilities (Agerba) devoted limited initial effort to gas, energy, and sanitation regulation and has seen both its resources and activity further limited. First, the agency was one of the first created in the country. Governor César Borges created Agerba to monitor the state energy firm Coelba *after* the latter's privatization.[561] The agency was flawed by initial design. First, contrary to many recommendations, directors were not given fixed terms, and frontline agency staff all work on two-year contracts, renewable only once.[562] As a result, turnover was high from the beginning and institutional knowledge low. Aneel signed an agreement to delegate oversight responsibilities to Agerba on June 2, 2000. The agency began work in transportation in 1998 and energy inspections in 1999, and only later in approving gas tariffs for the concessionaire Bahiagás.[563] Its work in gas regulation was notably passive and inefficient.[564] A 2010 study noted that the agency devoted 90% of its resources (in 2009) to transportation at the expense of its natural gas work (Villalba et al. 2010:40). As a result of its limited activity, the agency was unable to win additional resources and responsibility or resist encroachment. Agerba never had a *concurso* to bring in permanent staff, and never won an opportunity to reform its initial flaws.[565] In September 2009, Aneel revoked Agerba's delegation contract for poor performance and for failing to resist political influence in decisionmaking. Discussions to add responsibility for sanitation never won the agency those responsibilities, which were eventually passed to another newly-created entity.[566] Recently, scandals led to four different directors leading the agency from 2007 to 2010, with one indicted for accepting kickbacks and three in total leaving in disgrace.[567] Agerba's oversight of ferry concessions in metropolitan Salvador has also been a target of media criticism.[568] In general, the agency remains under-resourced and limited in its tasks.

The above case studies provide supportive evidence for the hypotheses linking the key causal variable to the outcomes.

6.4.8. Competing Explanation: Effects of Other Regulatory Activities

Here I address the criticism that the effect I find is not due to the sector-specific activities of an agency, but to other activities that the agency pursues. First, agencies that are active in

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improvements can be held at a minimum partially responsible.

[561] Coelba was sold on July 31, 1997, and Agerba was created by Law 7,314 of May 19, 1998.

[562] Interview BA3, BA5.

[563] Resolution 13 of October 20, 2005 approved gas tariffs, cited in Villalba et al. 2010:39-40.

[564] Interview BA6, Villalba et al. 2010:39-41.

[565] Interview BA3.

[566] Interview BA4. The state executive in Bahia created a separate sanitation regulator named Coresab in 2008; it was still in development in 2010 and its responsibilities were passed to a new stand-alone water and sanitation agency named Agersa in 2012 (Lei Estadual 11,172, Dec. 1, 2008; Lei Estadual 12,602, April 3, 2012; Interview BA5).

[567] Camalibe de Freitas Cajazeira (2003-2007) was later under investigation for taking bribes, but no charges were filed ("Agerba e TWB têm contas investigadas pelo TCE" *Bahia Notícias*, 12 April 2010). Antonio Lomanto Netto (January 2007-Sept 2009) was arrested in 2009 for taking R$400,000 in bribes in exchange for letting illegal concessions proceed ("Ministério Público pede a Agerba que cancele contratos irregulares," *Correio da Bahia*, 25 November 2009). Aristides Amorim de Cerqueira (September 2009-March 2010) and Renato José de Andrade Neto (March 2010-February 2011) did not serve full terms after public demands for their removal.

[568] See, for example, "Lenise Andrade, `A TWB denigre a imagem do governo Wagner,'" *Jornal da Mídia*, 19 July 2010; Flávio Costa and Marcelo Brandão, "Agerba afirma que TWB alugou barcas sem ter autorização," *A Tarde*, 12 January 2010.

energy, natural gas, and sanitation regulation may also be active in transportation and highway regulation, and their work in the last two areas may be producing the results I find. Second, the overall level of agency activity may produce results similar to mine. I test both versions of this argument as separate hypotheses.

H6: *Agencies initially more active in transportation and highway regulation may score higher on outcome measures of* ***resources*** *and* ***level of activity****.*

H7: *Agencies that are initially more active overall (in all policy areas) may score higher on outcome measures of* ***resources*** *and* ***level of activity****.*

I recode the data to test the first hypothesis. To the coding of the original independent variable, I add a similar score for inspections, standards-setting, tariffs, and sections for the areas of transportation and highways. I weight each score by the proportion of the first four years in which activities were performed. I assign a value of one to activities in transportation and highways, and a score of zero to all activities in energy, piped gas, and sanitation. The score is then divided by two (in states with dedicated state highways, Rio Grande do Sul, São Paulo, and Rio de Janeiro) and by one in all other states except the Federal District. The resulting score is my measure of a given agency's work in transportation and highway regulation. A table of scores for each case is given in the data appendix.

I then regress my outcome indicators on this new variable. The estimated coefficients are below.

Table 6.9

Estimated coefficient for linear relationship between orientation toward transportation and highways and:		**Standard error**
Percent *concursado*	13.73	16.29
Staff numbers	11.36	39.84
Receives all fees due	0.12	1.15
Salaries are adequate	-1.02	0.69
Breadth of activity	0.15	0.10
Depth of activity	-0.03	0.10

* Significant at alpha = 0.1

In this version of the project I omit most of the scatterplots, which contribute little. Though the results are also not significant, they contribute little to undermining the original causal mechanism. Work in transportation and highway regulation does not change the outcomes.

To test the hypothesis that greater activity overall contributes to my outcomes, I score the variable much like before, but assign a value of one to every policy area. The empirical range remains between zero and one, with greater scores representing more work across feasible and legally-mandated sectors.[569] Activities within each sector are each scored as before, with the exception of energy, and weighted by the number of years in which the agency was active. I normalize each measure to be between zero and one, with the understanding that no agency scoring zero will appear in the data. My scores for each case are found in the data appendix

I regress my outcome indicators onto these independent variable measures and produce the following unstandardized regression coefficients.

[569] I normalize the measure by dividing only by the sectors allowed. I thus divide by three for the multiple states where the gas firm is not yet operational and no highways have been made into private concessions.

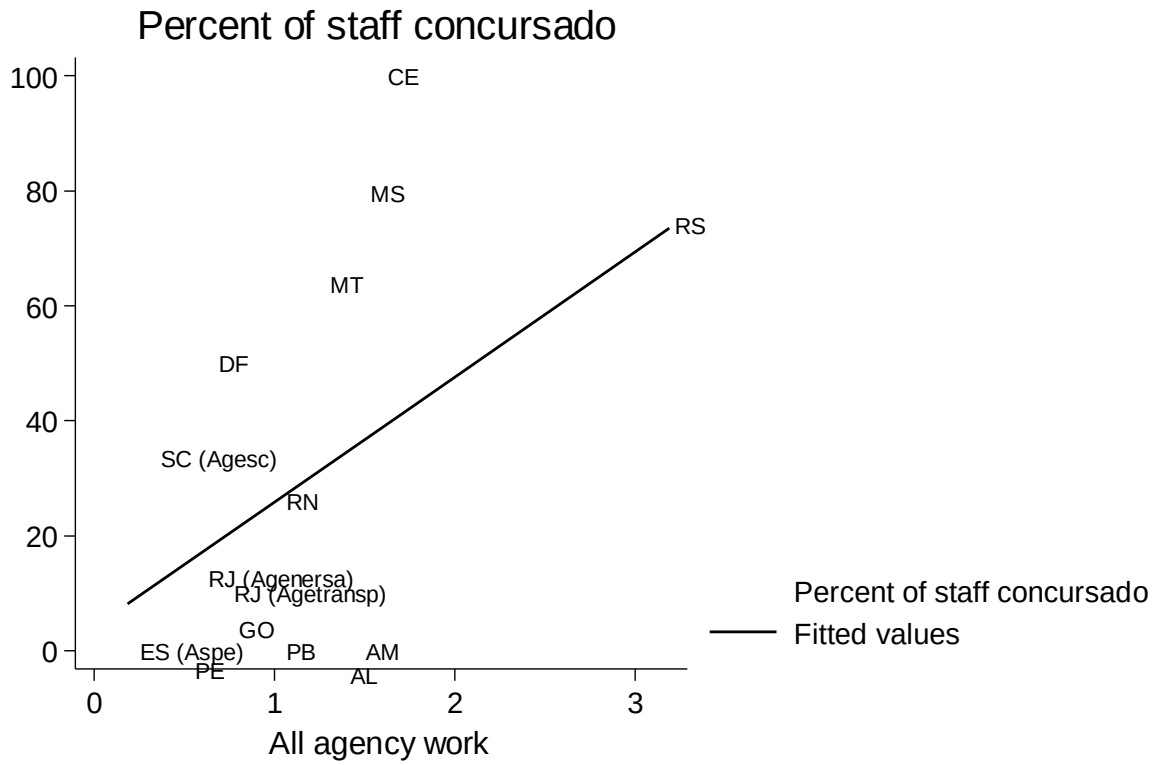
Table 6.10

Estimated coefficient for linear relationship between overall activity and:		**Standard error**
Percent concursado	21.76*	12.10
Staff numbers	-1.49	32.29
Receives all fees due	-0.31	0.93
Salaries adequate	-0.36	0.60
Breadth of activity	0.08	0.08
Depth of activity	0.04	0.08

* Significant at alpha = 0.1

As before, the inclusion of all activities does not bear a significant relationship to any outcome aside from that between an agency's overall early work and the number of *concursado* staff. However, as illustrated in the scatterplot below, the result could perhaps be driven by the influential observation for Agergs in Rio Grande do Sul. Removing Agergs from the regression produces a non-significant positive coefficient. Overall, neither alternative hypothesis provides a compelling alternative to my original argument, which stands.

Figure 6.5



6.5. Competing Explanations

I provide additional support for the hypotheses tested above by ruling out broader competing explanations. I focus on confounding factors. In the following section, I examine evidence for hypotheses that the initial design and leadership of the agency affects later agency development, that the ideology or party of governors in power matters, and that civil society actors play roles in agency development. All hypotheses are drawn from previous work on bureaucratic design and control.

6.5.1. Ideology and Political Competition

I first test whether the ideology of the governor matters for agency outcomes. More pro-privatization governors might be pre-disposed to reward agencies with greater responsibilities and greater tasks, as a means of protecting pro-market policies. On the other hand, populist or left-wing governors might wish agencies to be more active in monitoring and fining private concessionaires, in defense of consumers. On May 20, 2004, the national PT government moved to strengthen national regulatory agencies with Lei 10,871, reversing their prior opposition to autonomous agencies. In Murillo's words, the prospect of replacement by populist, left-leaning candidates might lead incumbents to enforce more "market-controlling" institutions, even after creation (2009:9). In sum, logical arguments point us in two contradictory directions, so I conduct a two-tailed test for governor ideology.

Governor turnover may also matter. As agencies build relationships with mayors who in turn must educate governors, high turnover may retard agency progress in securing funds and more responsibilities, especially at the onset of each new gubernatorial term. I thus develop two hypotheses, the first null in order to account for rival explanations.

H9: *Agencies that operate in states governed by left-wing governors will have different scores on their level of resources and level of activity than will agencies governed by centrist and right-wing governors.*

H10: *Agencies in states with high gubernatorial turnover will have lower scores on the level of resources and level of activities than will states in which gubernatorial turnover is lower.*

I employ two measures of ideology to test the first hypothesis. I borrow the left, center, and right labels developed in Krause et al. (2010), which relies on expert surveys, as well as measures based on votes in the Chamber of Deputies developed by Power and Zucco (2009). As not all agencies have existed as long as others, I must make an average measure. I measure all gubernatorial terms, including that of the executive who created the agency, since the agency's inception to the end of 2010. For various reasons, I do not include governors who served partial terms, but only those that began the mandate.[570] Left-wing governors (or left of middle according to Power and Zucco (2009)) score 1, and centrist and right-wing governors score zero. I then divide by the total number of terms to produce an average score between zero and one, with greater scores indicating longer governance by left-wing governors. This score should be qualified by the recognition that most Brazilian parties are ideologically incoherent, and that state-level politics often vary from national politics. I believe that the measure is still valid because the most ideologically-consistent parties are found on the left, and thus a dichotomous measure should capture real leftist parties. The results are in a table of correlations below.

Table 6.11: Leftist Parties

Estimated coefficient for linear relationship between the

[570] Interrupted gubernatorial terms occur for idiosyncratic reasons, and governors are usually replaced by ideologically-similar vice-governors, making additional measures superfluous.

proportion of leftist parties and:	
Percent concursado	-3.00
Staff numbers	-59.52
Receives all fees due	-1.36
Salaries adequate	1.53
Breadth of activity	-0.24
Depth of activity	-0.16

N = 21; source: Tribunal Superior Eleitoral, www.tse.jus.br.

The findings are weak, even with the exclusion of influential observations in Goiás and Acre. A greater proportion of left-wing governors in power over the agency's lifespan is associated with fewer resources and a lesser breadth of activity. However, none of the estimated coefficients are statistically significant at a 90% confidence level. This finding fails to undermine the main result of the project; agencies in left-wing administrations simply faced greater obstacles in securing funds and new tasks. Party ideology is a potential intermediate variable, as in the case studies of Ceará and Rio Grande do Sul. Leftist, populist governors did attempt to shut down agency functions. However, multiple agencies were able to win greater gains from left-wing governors too.

I measure party turnover by dividing one by the unique parties to have held office during the agency's lifetime. This number is taken from the number of state elections that follow an agency creation law, given the differing agency ages, and ranges between .25 and 1. Greater scores indicate lower turnover, so we might term this variable *gubernatorial party stability*. This measure is similar to the method employed by Melo, Pereira, and Werneck (2010) on regulatory agency creation.

The results are below, for the outcomes of resources and activity.

Table 6.12: Gubernatorial Party Stability

Estimated coefficient for linear relationship between gubernatorial party stability and:	
Percent concursado	40.24
Staff numbers	20.34
Receives all fees due	-7.67*
Salaries adequate	-0.20
Breadth of activity	-0.24
Depth of activity	-0.25

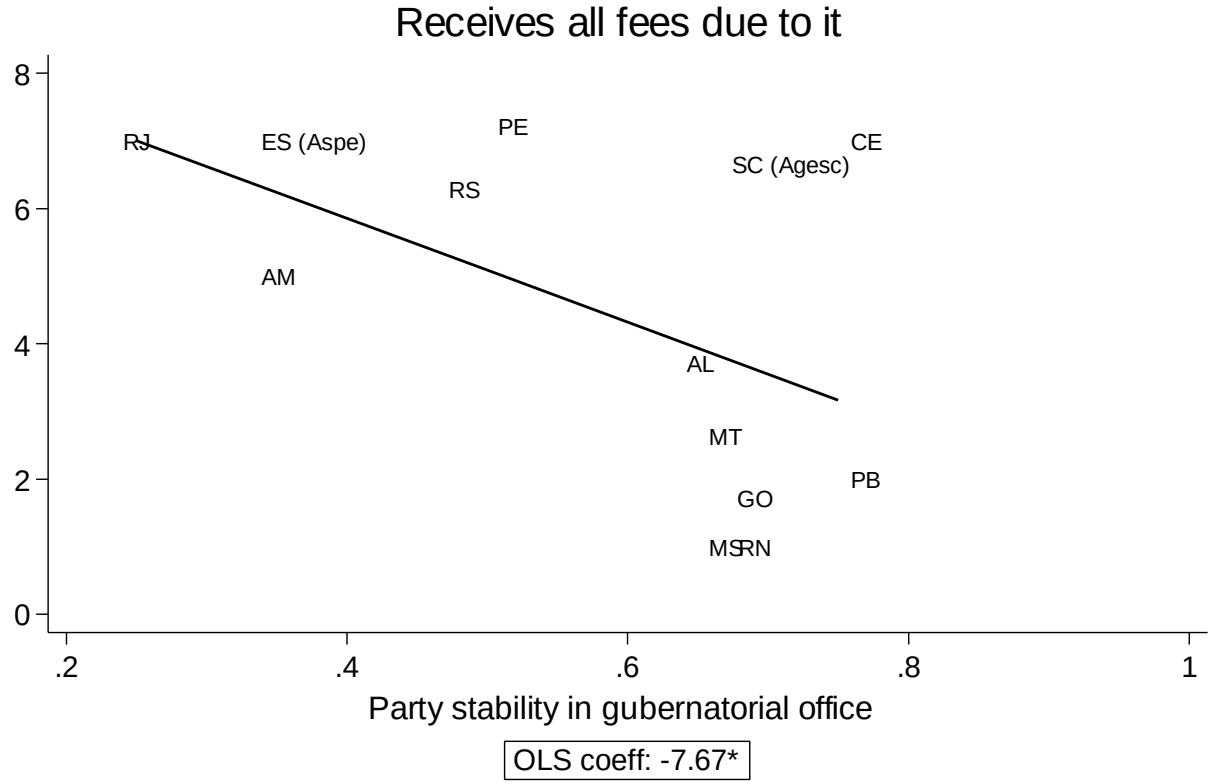
* Significant at alpha = 0.1; n = 21; source: Tribunal Superior Eleitoral, www.tse.jus.br

The results are again very weak. Staff resources are unaffected by political turnover.[571] There is a strong negative relationship between gubernatorial stability and the denial of funds due to the agency. The longer a single party stays in office, the more likely it is that agencies do not receive all the funds they are owed. This finding can be interpreted in two ways. First, we might argue that the finding undermines the mechanism. We would expect greater continuity in office by a single set of co-partisans to allow the agency a greater opportunity to develop a reputation for

[571] This first result fails to support arguments following Geddes (1991, 1994) that explain state professionalization by political competition.

competency. Second, we might argue that greater stability in office allows governors and their assistants to capture more resources from the state bureaucracy. The first explanation is the greatest challenge to my proposed mechanism, but it overlooks the crucial point that agencies may also develop reputations for *poor* performance or value. The second explanation does not directly challenge my mechanism, but instead poses an additional challenge for regulatory directors to overcome. The relationship is illustrated below.

Figure 6.6



The graph supports my response to the first interpretation. All of the agencies below the line score in the middle or lower empirical end on the independent variable. Though their governors might have been better able to replace themselves with co-partisans in office, the agencies themselves were not able to develop reputations for valuable regulation. Finally, the remaining relationships are all indistinguishable from a null relationship. I conclude that political competition has very little effect on my outcomes.

6.5.2. Initial design

Initial agency design does vary slightly among agencies. Bureaucrats in more stable positions or with a greater number of peers may have more leverage in negotiations with the executive, thus making them better able to procure additional resources and responsibilities. The most notable distinction among agencies lies in their leadership, where decision-making is either collegial and shared among multiple directors, or unified in a single executive office (Baylis 1989; Goodsell 1981; Preston and `t Hart 1999). This difference in structure might be hypothesized to affect how agency directors relate to politicians and therefore win additional resources and responsibilities.[572] As the organization theory literature provides no single answer on the hypothesized direction of the relationship, I test only the null hypothesis.

H8: *Whether agencies have a collegial or presidential leadership structure should not*

[572] The focus on agency leaders as key actors employing the agency's reputation for greater funds and greater responsibility is explained in the theory chapter.

have any effect on either the agency's resources or its activity level.
I separate the agencies into collegial and presidential organizations using publicly-available organization charts, and compare dependent variable scores among sets. The results are reproduced below.

Table 6.13: Leadership Structure

	Presidential Leadership Agencies	**Collegial Leadership Agencies**	**p-value for two-sided difference of means**
Agencies	Ageac (AC) Arsam (AM) Arsep (RN) Aspe (ES) Atr (TO) Arpb (PB) Arpe (PE) Agesc (SC) Agepan (MS)	Arsae (MG) Arsal (AL) Agr (GO) Arsi (ES) Agenersa (RJ) Agetransp (RJ) Agergs (RS) Adasa (DF) Ager (MT) Arce (CE)	
DV: percent *concursado*	Average: 20.5	Average:40.25	0.2653
DV: receives all fees	4.25	5.375	0.3607
DV: salaries adequate	4	3.375	0.4677
DV: number of staff	52.5	129.6	0.0584*
DV: breadth of activity	0.575	0.871	0.0024***
DV: depth of activity	0.616	0.812	0.0737*

* denotes singificant at alpha of 0.1; *** denotes significant at alpha of 0.01
Source: Agency creation laws and following laws

The results indicate that presidential agencies have a lesser breadth of activity than do agencies led by collegial members, and that it is possible that agencies led by a single president have more staff and are more involved in the areas they regulate than are agencies headed by multiple directors. There are reasons to doubt the validity of these explanations, however. First, the relationship may be spurious, insofar as agencies with narrow mandates – which appear in the data with a lower number of legally allowed policy areas – may be designed to have a single leader to reduce staff numbers. Input from various policy area experts may be unnecessary. Second, the large outlier of Agr from Goiás in the staff numbers should lead us to discard that finding; the finding is not significant if Agr is dropped. The finding with respect to the depth of activity, however, remains a subject for further study, which should examine whether the difference in activity levels is due to collegial decision-making alone, however, as most collegial agencies are in larger states.

6.5.3. Initial leadership

The background of incoming directors has little effects on outcomes. In the data appendix I array the background and qualifications for the first appointed directors of each agency. There is much heterogeneity, and no pattern that might explain the variation in outcomes. Almost all agencies were initially led by a director or president that had been active in a state-owned firm

before its privatization, or were involved in the privatization process (*desestatização*).

Most initial directors had technical backgrounds, but political control was not entirely absent. In Brazil, technical advisors and bureaucrats often are attached to a patron who stands for elections. Once elected, the patron will rely on loyal members of his personal network to run the state apparatus competently.[573] Though they may be technically-qualified, they win their positions through personal ties.[574] However, the extent to which any of the directors listed operate under a sponsorship cannot be easily determined. I therefore simply caution against assuming the complete absent of political influence in appointments.

6.5.4. Civil society explanations

Finally, authors in the American and Western European traditions find that bureaucratic bodies are strongest where they have plenty of allies in civil society, a theory we can test here. In the argument, civil society actors are able to condition their support for legislators or the executive – either financial or electoral – on the politicians' support for bureaucratic bodies' activities (Carpenter 2001: 27-33; Becker 1983: 388-394; Atkinson and Coleman 1989). More possible allies should improve the agency's odds of winning leverage. In general, we might also expect a modernization effect; authors such as Huntington (1968) and Putnam (1993) have argued that more organizationally dense societies produce more professional bureaucracies.[575] Finally, more organized actors might increase the probability that some groups are aware of the agency and inclined to provide it information and resources in hopes of reciprocal benefits. This argument is closely tied to a broader literature on state autonomy and state capacity emerging as products of state-society networks and interactions (Hall 1983; Nordlinger 1981; Katzenstein 1978). I design a simple hypothesis.

H11: *Agencies that act in states with more dense civil societies should be* ***more active*** *and command* ***more resources*** *than are agencies in states with fewer civil society actors.*

We can test this hypothesis using a dataset of registered nonprofit and nongovernmental organizations developed by the IBGE and measured in 2002 and 2005.[576] I divide the agency by 2000 population numbers to create a comparable measure of the number of groups per million citizens in each state. These numbers are then paired with the outcome indicators of activities and resources.

Table 6.14: Effects of civil society density

Estimated coefficients for a linear relationship between civil society groups per million residents and:	
Percent concursado	0.01
Staff numbers	-0.02
Receives all fees due	0.00
Salaries adequate	0.00
Breadth of activity	0.00

[573] Interviews RJ2, RJ8, AL2.

[574] Often, qualified bureaucrats are *concursado* in an original position that provides a steady salary and guaranteed retirement. Among my interviewees were state attorneys, career Petrobrás workers, and economists from state finance secretariats.

[575] As mentioned previously, measures of state professionalism are still unavailable. I plan to return to Brazil to start a project on that soon, and am in the process of collecting notices of *concursos* across state sectors and levels of government.

[576] The IBGE is the Brazilian Institute for Geography and Statistics, the state demography agency.

Depth of activity	0.00

Source: IBGE (2008).

None of my outcome indicators are significantly associated with my measure of civil society in the predicted direction. This non-finding persists despite the inclusion of cases from poor states in the less-developed North and Northeast and from rich states in the well-developed South.

6.6. Concluding Remarks

In this chapter I have laid out the evidence for a connection between my key causal variable, *initial agency orientation,* and indicators for the mechanism and outcomes. Though I have found positive relationships, these relationships have not been statistically significant as linear relationships. Across Brazilian state cases, in general, agencies initiating more work in sanitation, natural gas, and energy win more resources. The evidence that they expand their activities is not as strong.

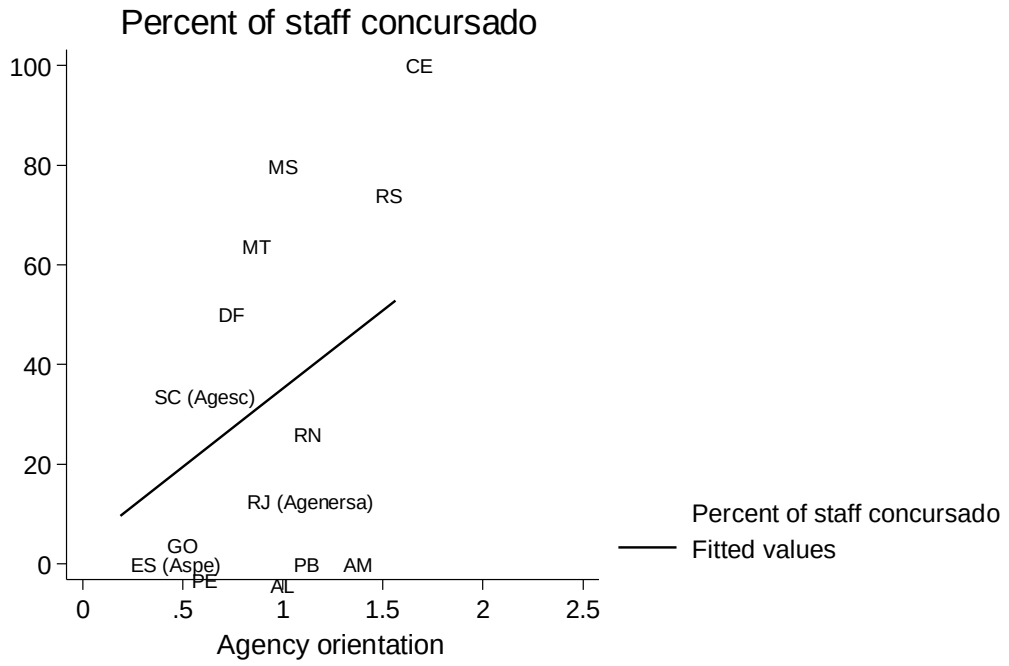
The nature of the relationships leads me in several directions. First, this chapter serves as a first try at comparing a rather elusive variable: the *results* in concessionaire behavior and public services that result from agency activity in a given policy area. My indicator captures the extent of work an agency performs in a given policy area, as an amount of time and scope of activities thought to contribute to change. This measure does capture the agency's intended work, but perhaps fails to cover its outputs. Second, the selected parts of the mechanism might be further disaggregated. The number of laws may not be a good indicator of the degree of new powers and resources granted to the agency. Budget numbers are missing and incomplete. Finally, the accrual of greater powers and resources is a process that may not show up in the indicators. New powers and additional funds may be granted or new activities begun without explicit notation in law. The agency may begin additional inspections or inspections in additional areas (for example, both industrial and residential gas connections), but such developments would not show up in the indicators.

To address these problems, I will employ more of the case study knowledge I collected in future drafts. Doing so will allow me to disaggregate agency activities and move beyond limited indicators, as well as incorporate more data on agency leader and political principal decision-making. I will lose some cross-case comparability in hopes of a more comprehensive causal explanation linking decisions to outcomes on a per-case basis.

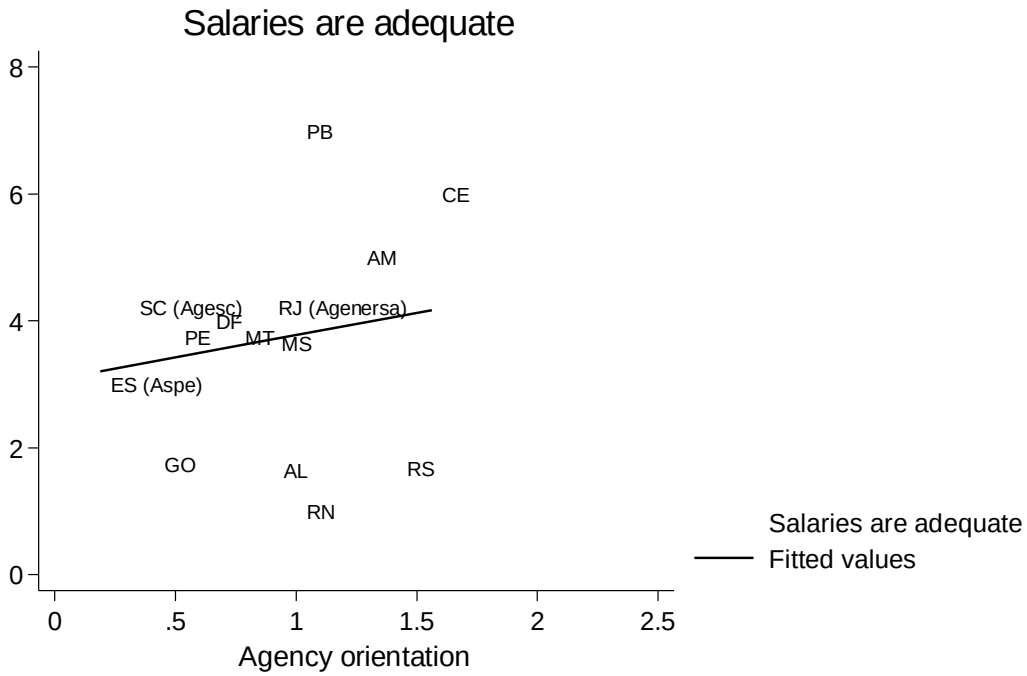
In the next chapter I use primary media accounts and secondary literature sources to test an electoral theory of agency robustness for other regulatory agencies in Mexico, Argentina, and Brazil.

Graphs

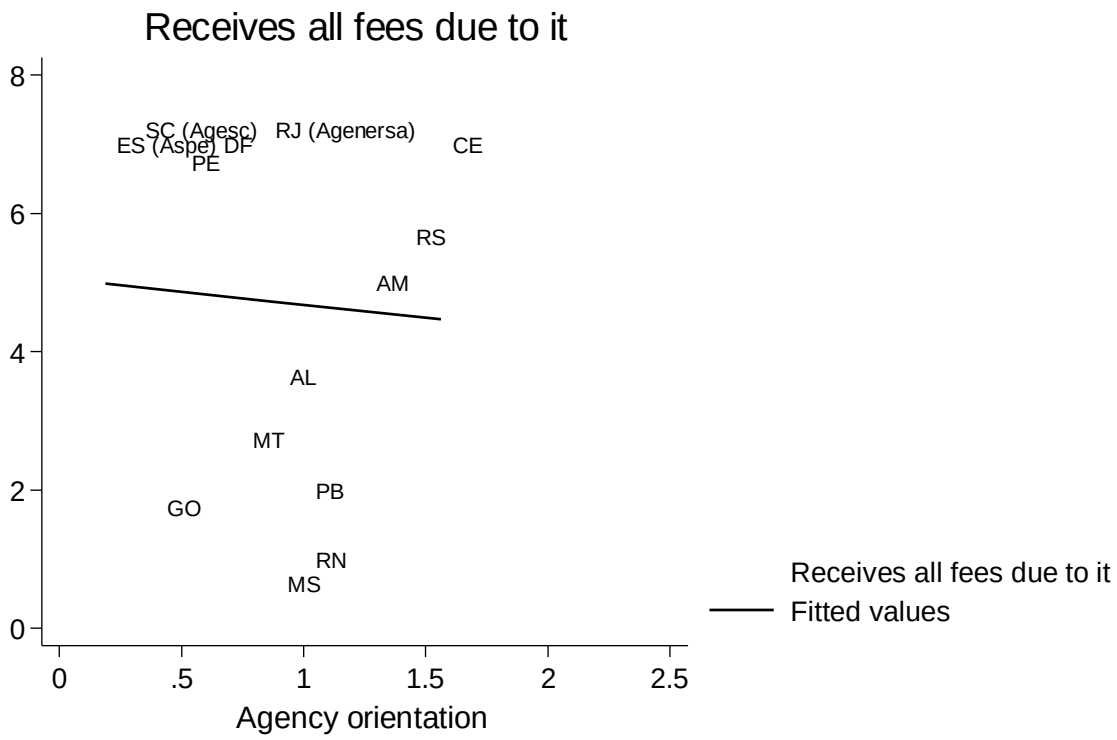
Graph 6.1



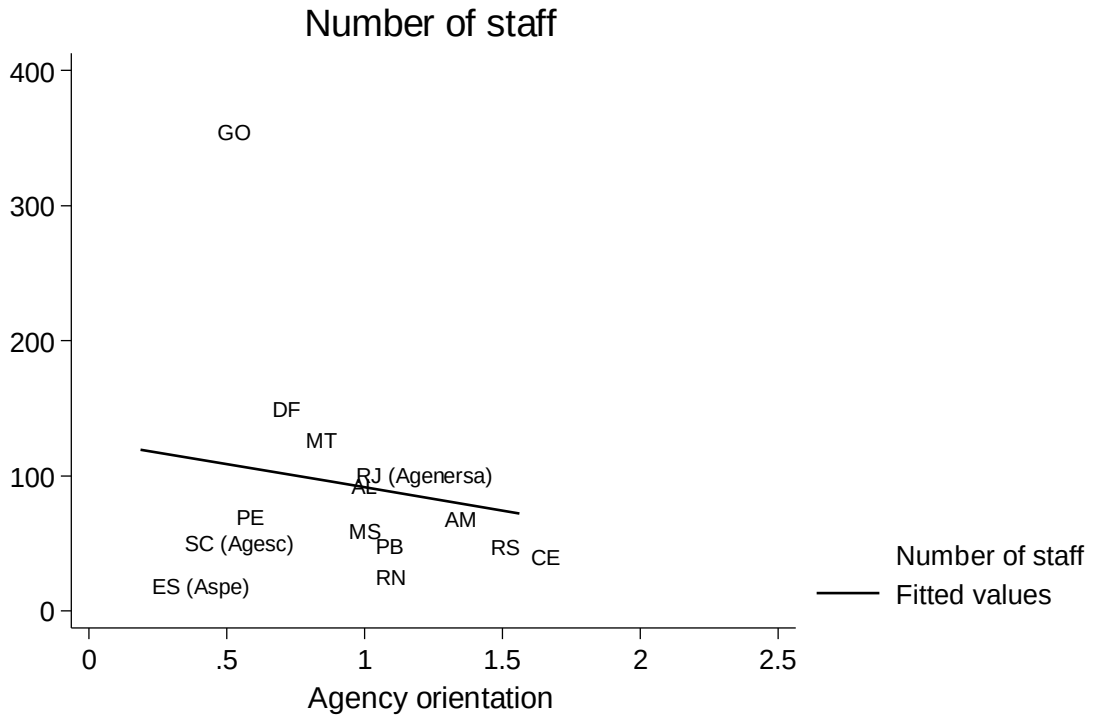
Graph 6.2



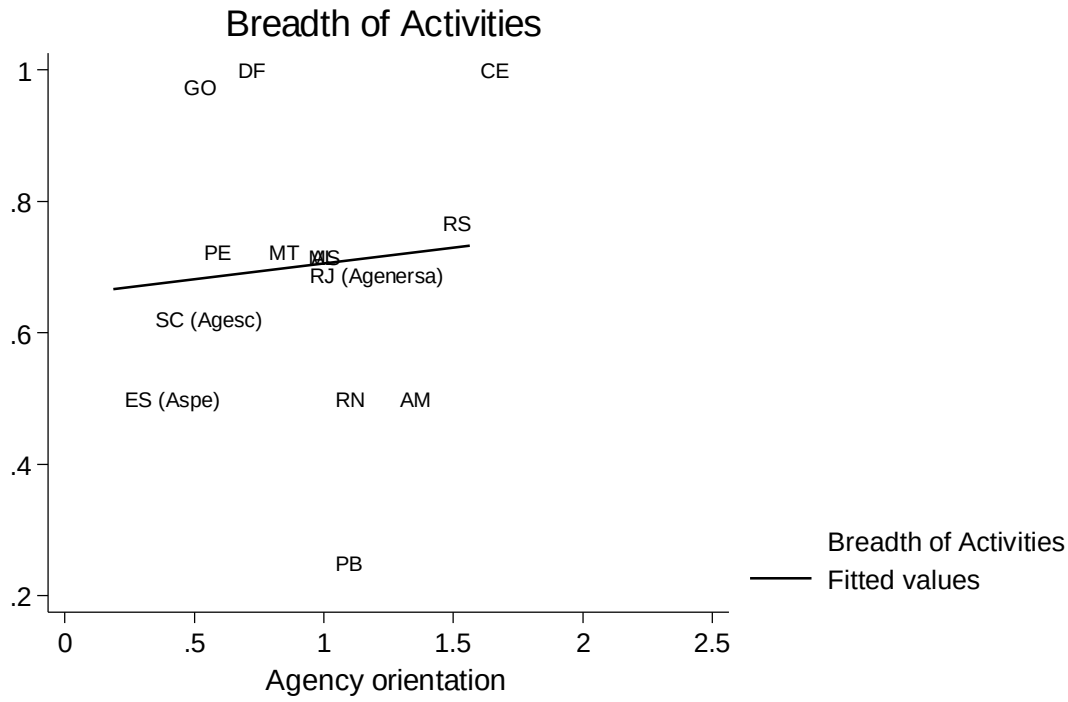
Graph 6.3



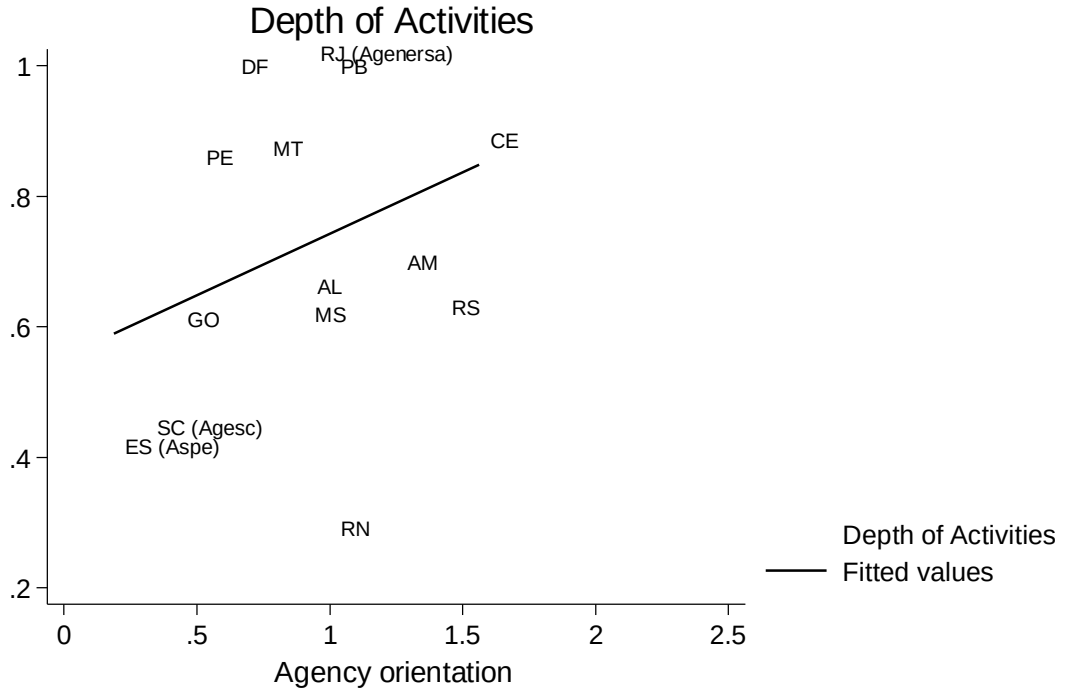
Graph 6.4



Graph 6.5



Graph 6.6



Data Appendix

Figure 6.7

Table 6.15: Alternative Measures of the Independent Variable

Independent Variable Measure: Orientation Toward Transport and Highways	
Agency – State (Years)	**Additive measure**
Arce – CE (1998-2001)	0
Adasa – DF (2006-2009)	0
Aspe – ES (2006-2009)	0
Agr – GO (2002-2005)	0.4375
Agepan – MS (2003-2006)	0.625
Ager – MT (2002-2005)	0.5
Arpe – PE (2002-2005)	0
Agergs – RS (1998-2001)	1.75
Arsep – RN (1999-2002)	0
Arpb – PB (2002-2005)	0
Arsesp – SP (1999-2002)	0
Arsal – AL (2002-2005)	0.5
Arsam – AM (2000-2003)	0.1875

Table 6.16: Alternative Measures of the Independent Variable

Independent Variable Measure: Overall Agency Activity	
Agency – State (Years)	**Additive measure**
Arce – CE (1998-2001)	1.5625
Adasa – DF (2006-2009)	0.625
Aspe – ES (2006-2009)	0.1875
Agr – GO (2002-2005)	1.0625
Agepan – MS (2003-2006)	1.625
Ager – MT (2002-2005)	1.25
Arpe – PE (2002-2005)	0.5
Agergs – RS (1998-2001)	3.1875
Arsep – RN (1999-2002)	1
Arpb – PB (2002-2005)	1
Arsesp – SP (1999-2002)	2.3125
Arsal – AL (2002-2005)	1.5
Arsam – AM (2000-2003)	1.4375

Table 6.17: Average annual increases in Aneel transfers, 2005-2010

Agency – State (Date of Aneel Delegation)	**Additive independent variable**	Average annual increase in Aneel funds (2005-2010)
Aspe – ES (never)	0.1875	--
Arsep – RN (15 Dec. 1999)	1	0.020
Arpe – PE (16 Apr. 2002)	0.5	0.597
Arcon – PA (2 Dec. 1998)	1	0.082
Ager – MT (2 July 2001)	0.75	0.097
Agepan – MS (7 June 2002)	1	0.104
Arpb – PB (27 June 2002)	1	0.077
Agr – GO (16 May 2002)	0.625	0.119
Agergs – RS (2 Dec. 1998)	1.4375	0.056
Arsal – AL (17 Apr. 2002)	1	0.749
Arce – CE (19 Aug. 1999)	1.5625	0.110
CSPE/Asesp – SP (15 Apr. 1998)	2.3125	-0.175

Source: Aneel Annual Reports, 2005-2010

Table 6.18: Post-Creation Laws by State Agency

Important Laws affecting Agency Resources and Powers	Agency (State)	Total Laws Mentioning the Agency
1	Ageac (AC)	1
	Ageel/Arpb (PB)	
	Atr (TO)	2
	Agesc (SC)	
2	Agerba (BA)	2
	Artesp	3
	Aspe (ES)	
	Arsam (AM)	4
3	Arsep (RN)	3
	Agenersa (RJ)	11
4	Adasa (DF)	4
5	Agetransp (RJ)	5
	Agergs (RS)	7
6	Agr (GO)	6
7	Agepan (MS)	7
8	Arsal (AL)	13
9	CSPE/Arsesp (SP)	9
10	Arpe (PE)	10
	Ager (MT)	
13	Arce (CE)	13

Source: Author's compilation, state websites. See tally at end.

Table 6.19: Agendas for State Mayoral Associations, 2007-2012

State	Date	Association	Meeting Title	Policy areas discussed
CE	Feb. 16-18, 2011	APRECE – Associação dos Municípios do Estado de Ceará	I Marcha Municipalista do Ceará	Sanitation, Solid Wastes (sanitation; ARCE presentation), Water Resources
ES	Nov. 21-22, 2012	AMUNES – Associação dos Municípios do Estado do Espírito Santo	7 Gestão das Cidades	Sanitation
ES	Nov. 24-25, 2012	AMUNES	5 Gestão das Cidades	Sanitation, others?
MG	May 4-7, 2010	AMM – Associação Mineira de Municípios	27 Congresso Mineiro de Municipios	Solid Wastes (sanitation), Gas Stations (natural gas)
MG	May 4-6, 2009	AMM	26 Congresso Mineiro de Municípios	Sewage Treatment (sanitation), Auctions and Contracts (all)
MT	August 29-31, 2011	AMM – Mato Grosso Association of Municipalities	III Workshop de Secretários de Agricultura, Meio Ambiente [Environment] e Turismo	Solid wastes (sanitaiton)
MT	May 31 – June 2, 2010	AMM	III Encontro Municípios em Foco [Cities in Focus Meeting]	Water management
MT	November 5-6, 2009	AMM	VI Encontro de Prefeitos de Mato Grosso [6th Mato Grosso Mayors Meeting]	
MT	August 3-5, 2009	AMM	I Workshop de Secretários de Agricultura, Meio Ambiente [Environment] e Turismo	Luz Para Todos (energy)
MT	November 12-14, 2008	AMM	Encontro dos Gestores Públicos	Luz Para Todos (energy)

			Municipais de Mato Grosso [Mato Grosso Public City Managers Meeting	Urban Development (sanitation)
MT	August 15-16, 2007	AMM	IV Encontro Estadual de Prefeitos Mato-grossenses [4th Meeting of MT Mayors]	
MT	June 12-14, 2007	AMM	III Congresso Mato-grossense de Direito Municipal (3rd MT Congress on Municipal Law)	Concessions and privatizations (all)
RJ	August 10-11, 2011	AEMERJ – Associação Estadual de Municípios - RJ	2 Congresso Fluminense de Municípios	Sanitation,
RS	June 29-30, 2010	FAMURS – Federation of Municipalities of Rio Grande do Sul	30° Congresso de Municipios do Rio Grande do Sul	
RS	June 23-24, 2012	FAMURS	32 Congresso de Municipios do Rio Grande do Sul	Solid Wastes (sanitation), Transportation
SC	April 19-20, 2012	FECAM – Federação Catarinense de Municípios	X Congresso Catarinense de Municípios	
SC	July 25-26, 2011	FECAM	IX Congresso Catarinense de Municipios	Sanitation, School Transport
SC	Nov. 30 – Dec. 2, 2010	FECAM	VIII Congresso Catarinense de Municípios	Sanitation agency (ARIS)
SC	Nov 30. – Dec. 1, 2009	FECAM	VII Congresso Catarinense de Municípios	Water Resources, Sanitation
SC	Dec. 1-3, 2008	FECAM	VI Congresso Catarinense de	Sanitation

			Municipios e ExpoFECAM	
SP	June 25-27, 2012	COMAM – Consórcio de Municípios da Alta Mogiana	4 Congresso de Municípios	Public Ilumination (energy), Sanitation, Solid Wastes (sanitation)
SP	May 30 – June 1, 2011	AMA – Associação dos Municípios da Araraquarense	V Congresso dos Municípios do Noroeste Paulista	Sanitation, Energy
Natl	October 17-18, 2011	FNP – Frente Nacional de Prefeitos	60 Reunião Geral da Frente Nacional de Prefeitos	Solid wastes (sanitation), Sustainable energy (energy)

Table 6.20: Attendees (Non-agency staff) speaking at *Audências Públicas* held by Agergs in Rio Grande do Sul, 2007-2010, by background

Year	Audencia Publica – Agergs [no.]	Federal official	State official	Mayor or vereador	Civil society	Concessionaire
2007	1	1				1
2007	2	1				
2007	3		1		1	1
2007	4	1		5		2
2007	5	1		6	1	4
2007	6			1	1	2
2007	7		2		1	1
2007	8		9			
2008	3		3	6	3	1
2008	5		2		1	1
2008	6		3			1
2008	7		1		2	2
2008	8		1		1	1
2008	9					2
2008	11		5			
2009	1	1	2	5	2	2
2009	3	1		6		1
2009	4		3	6	3	1
2009	5		1		1	1
2009	6			2		
2009	7			3		2
2009	8		2	1	1	1
2009	9		1		1	1

2010	1	1		1		2
2010	2			3	1	1
2010	3		1			1
2010	4		2	4	2	1
2010	5		2		1	1
2010	6	1	1	4		1
2010	11		1			1
2010	12			1	1	2
2010	13		1		1	1
2010	14		1			1
2010	15		2		1	2
2010	16		7			

Table 6.21: Initial agency directors

Agency - State	Names	Background – Prior Position
Arsam – AM	Diretor-Presidente José Aparecido dos Santos	Lawyer, former CEAM director
Arcon – PA	Diretor Geral Vilmos da Silva Grunvald	Engineer, president of Celpa from 1991 to 1994, involved in Desestatização
CSPE/Arsesp – SP	Comissário-Geral Luiz Sérgio Assad	Statistician and former director at CPFL (energy), involved in Desestatização
	Comissário Comercial e de Tarifas Zevi Kann	Electrical engineer, involved in gas desestatização
	Comissário Técnico e de Concessões Marcos Roberto Gouvêa	Electrical Engineering Professor from Universidade de São Paulo
Agerba - BA	Diretor Executivo José Luiz Lima de Oliveira	Civil engineer, former Coelba director and state Supervisor of Water Resources
Ager - MT	Presidente Adair da Silva Leite	Attorney, former administrative director at Cemat
Agepan - MS	Diretor Presidente Anízio Pereira Tiago	President of Sanesul (2000-2001)
	Diretora de Administração e Planejamento Nilza Pegararo	Public administrator, Former director at Sanesul
	Diretor de Regulação Econômica Marcelo Luiz Bomfim do Amaral	Economist, former head of Sindicato Rural de Campo Grande
Agr – GO	Presidente Wanderlino Teixeira de Carvalho	Attorney and Geological Engineer, worked at Sec of Planning
Adasa - DF	Diretor-Presidente David José de Matos	Electrical engineer, staff at Eletronorte

Arsal - AL	Diretor Presidente Álvaro Otávio Vieira Machado	Agronomist, former Adjunct Secretary of Water Resources
Arpe - PE	Diretor-Presidente Romeo Boto Dantas	Chemical engineering professor at UFPE, consultant to refineries
Arce - CE	Conselheiro Diretor Hugo Brito de Machado	Retired federal judge, attorney
	Conselheiro Jurandir Picanço Júnior	Electrical engineer, former director at Coelce, active in Desestatização
	Conselheiro José Bonifácio Sousa Filho	Electrical engineer, former director at Coelce, active in Desestatização
Asep – RJ	Conselheiro-Presidente Héquel da Cunha Osório	Attorney, active in Desestatização
	Conselheiro Sérgio Mannheimer	State attorney, active in Desestatização
	Conselheiro Henrique Dittmar Filho	Economist, active in Desestatização
	Conselheiro Sérgio Burrowes Raposo	Economist, superintendent-director of AMCHAM Brasil
	Conselheiro Sérgio Ruy Barbosa Guerra Martins	Public administrator, staffer in State Assembly
Agergs - RS	Conselheiro-Presidente Guilherme Socias Villela	Politician (PMDB), author of 1994 concessions law
	Conselheira Maria de Lourdes Reyna Coelho	Attorney, consumer rights activist
	Conselheiro Gilberto José Capeletto	Electrical engineer, former director at CEEE, active in desestatização
	Conselheiro Dagoberto Lima Godoy	Attorney, former head of FIERGS
	Conselheiro Odilon Abreu	State attorney and prosecutor, director of CEEE
	Conselheiro Romildo Bolzán	Politician (PDT), former mayor of Osório and TCE member
Arsep - RN	Diretor-Presidente Mario Rocha de Medeiros	Engineer

Source: Agency documents, news accounts, interviews.

Chapter 7: Applications of the Theory

In this chapter I consider applications of the theory developed for this project for cases outside of multisector state agencies in Brazil. Multisector agency leaders in Brazilian states, examined in previous chapters, have discretion to channel resources to particular policy areas and not to others. By contrast, leaders of single-sector or limited-sector agencies have little or no discretion. To test the theory beyond multi-sector agencies, I argue first that state agencies working only in valuable sectors in Brazil (energy, gas, and sanitation) still gained more leverage to push for resources and powers than did agencies restricted to non-valuable sectors (transportation and highways). I demonstrate this relationship with case studies of the paired agencies in São Paulo and Rio de Janeiro. Beyond Brazil, I broaden my theory by re-examining the activities that might be electorally valuable for political principals. In Latin America's other two large federations, Mexico and Argentina, mayors play less important roles in future elections for state or provincial governors. I seek other explanations for which work and policy areas might win subnational regulatory agency staff the support and assistance of political principals.

My original theory can be made more general to apply to cases outside Brazilian states. In short, I argue that a) work in specific policy areas produces higher returns for actors key to the future careers of subnational political principals and b) agency directors can leverage these returns into additional resources and responsibilities. Capable, active agencies are built on electorally valuable work. For added generality, given the unisectoral bodies present in Argentine provinces, Mexican states, and other regions, I investigate both the *nature* of regulatory work and the specific *policy area* as candidate key causal variables. For many cases, however, the actors key to political principals' future electoral prospects may be voters themselves, or clientelist bosses that supply groups of voters and votes.[577] I continue my focus on subnational cases in order to take advantage of maximum comparability among cases.

The chapter covers the remaining Brazilian state cases before outlining developments and electoral politics in Argentina and in Mexico, finally developing testable hypotheses for the cases presented. I first provide some additional work on sectoral agencies in Brazil's two economically largest states. I then provide brief overviews of the development of regulatory institutions for public services in Argentine provinces and Mexican states. I discuss elections and party systems in both countries, and from this derive preliminary hypotheses. Support for the hypotheses would lend credence to my theory.

7.1. Sector-specific agencies in São Paulo and Rio de Janeiro

Regulatory agencies in São Paulo and Rio de Janeiro differed from those created in other states in important respects. While every other state created a multisector agency in which directors had discretion to allocate resources among areas, governors in São Paulo created a transportation agency, Artesp, in 2002, and an energy and gas agency, CSPE, in 1998.[578] CSPE was reformed as Arsesp in 2007. The original multisector agency in Rio de Janeiro, originally created in 1997, was split along similar sectoral lines in 2005 into Agenersa, handling gas, energy, and sanitation, and Agetransp, handling transportation and highways. The resulting agencies inherited the concession contracts previously managed by the multisectoral agency Arsep-RJ. Though directors in all four state agencies had flexibility in how to dedicate their

[577] Various authors note that brokers bring voters to events (rallies, parades, protests) for reasons other than to vote.
[578] Despite its title as the Energy Public Services Commission, CSPE operated like a regulatory agency in all important aspects.

resources, the transportation agencies could not regulate electorally-valuable areas, and the energy and sanitation agencies had no option to devote resources to transportation.

The theory can be modified for these cases by noting that agencies performing electorally-valuable work for mayors are more likely to see increases in resources and responsibilities than are agencies restricted to work in non-electorally valuable areas. Only director discretion is removed. We can state this simple hypothesis below

H1: *Agencies working in sanitation, gas, and energy will be more likely than transportation agencies to expand their resources and responsibilities.*

I test this hypothesis with four case studies, using multiple sources. I conducted interviews with agency staff in São Paulo and Rio de Janeiro from August 2009 to August 2010. I supplement my interview data with news articles and agency documents.

7.1.1. Arsesp - SP

The São Paulo State Sanitation and Energy Regulatory Agency (ARSESP) began initial work (as CSPE, the Energy Public Services Commission) in gas and energy regulation, and later expanded its scope to include sanitation regulation. It became a well-funded body and a national model for regulatory agencies in Brazil.

The agency's early work was wide-ranging and thorough. The state government created CSPE to handle energy and gas privatization and maintain quality after privatization in 1998; it signed a delegation agreement with Aneel on April 15, 1998, the first agency to do so.[579] To address early staff shortages, the agency hired USP and UNICAMP academics to consult on economic regulation and rule-setting.[580] CSPE's early oversight work included not only distributors, as in other states, but also small generating facilities.[581] Uniquely among state agencies, CSPE earned ISO 9002 certification in energy quality and benchmarking regulation, and published a book documenting the state's rural electrification cooperatives, in 2000.[582] CSPE staff worked to register or shutdown small energy producers, which was unprecedented.[583] Its work on rural electrification cooperatives aimed to regularize such concessions in selected cities.[584] Its oversight of energy concessionaires resulted in fines and limitations.[585] The state government of São Paulo later placed an oversight role for gas concessions for CSPE in November 1998, before the April 1999 privatization of three separate gas concessions.[586] The agency managed and set standards for gas concession auctions, including most prominently

[579] Interview SP4; Complementary Law 833, October 17, 1997, created CSPE.
[580] Interview SP7. The University of São Paulo (USP) and University of Campinas (UNICAMP) are among Brazil and Latin America's top universities.
[581] The state has more large private energy distributors (Elektro, Eletropaulo, CPFL properties, EDP Bandeirante, Grupo Rede properties) than any Brazilian state.
[582] CSPE. *Relatório Anual 2000*. p. 7, 8.
[583] Interview SP7.
[584] The agency worked to regularize cooperatives in Paraibuna, Itariri, Mogi Mirim, São José da Bela Vista, Mairínque, Itaí, Itapecerica da Serra, Mogi das Cruzes, Manduri, Novo Horizonte, Osvaldo Bruz, Palmital, Promissão, São José do Rio Preto, Tupã, Porto Ferreira, and Ibiúna (CSPE. *Relatório Anual 2000*. p. 19). The agency also inspected 81 small hydroelectric projects and 135 small thermoelectric plants in 2000 (ibid, 20.)
[585] Eduardo Cucolo, "Energia – Multa aplicada a Vale Paranapanema é confirmada pela Aneel," *Folha de São Paulo*, 21 January 2002; Renée Pereira, "Aneel manda Eletropaulo sustar cobranças," *O Estado de São Paulo*, 12 June 2002; Renée Pereira, "Elektro explica à comissão diferença no cálculo do ICMS," *O Estado de São Paulo*, 10 January 2003; Irany Tereza and Nicola Pamplona, "AES Tietê tentou reduzir capital para remeter dinheiro para matriz," *O Estado de São Paulo*, 16 March 2003.
[586] Interview SP4.

investment requirements for brownfield concessions.[587] Agency staff set separate tariffs for concessions outside the capital to incentivize investment, and rejected concessionaires' requests to maintain special tariff exceptions for individual users.[588] The agency first adjusted gas tariffs in March 2000 and continues to do so.[589] A first *concurso* was run in 2000, but salaries were not adjusted for inflation. Salaries eroded slightly and technical expertise was limited by a small amount of turnover.[590]

The agency's notable successes in energy and gas regulation, however, gave it leverage to win additional responsibilities and resources. In 2007 the agency won the ability to add responsibility for sanitation regulation with Complementary Law 1025 (Dec. 7, 2007) transforming CSPE into ARSESP. These new responsibilities were not won only because of partisan continuity in the governors' office, but resulted from direct negotiations between agency directors and the state executive branch.[591] The new law also allowed for additional resources, and the agency held a *concurso* in July 2009.[592] Eighty-six new staffers, with above-average educational backgrounds, entered to bring the agency total to 192 employees.[593] The agency now experiences low turnover and in 2010 won the ability to contract regulatory specialists to automate and further develop advanced regulatory oversight systems.[594] The agency has expanded sanitation oversight, signing an agreement with the capital city and inspecting sanitation in 186 visits in over 53 cities in 2010.[595] In an exercise of its police power, the agency recently *lowered* gas tariffs for two concessionaires for failing to comply with contractual investment obligations, a decision that survived a legal appeal.[596] The agency's expertise is shared with multiple other state agencies, especially for new projects in sanitation.[597] Its funding rose from 9.65 million *reais* in 1999 to 55.1 million *reais* in 2010.[598] In sum, ARSESP's active work in gas and energy won it additional resources and responsibilities.

7.1.2. Artesp – SP

Artesp's work in highway and bus regulation resulted in little change to its responsibilities and resources. Artesp assumed regulatory responsibilities for a conflictual,

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[587] Mauro Arbex. 2000. "Quatro grupos disputam a Gás Sul," *Gazeta Mercantil*, 25 April 2000.
[588] Interview SP7. Rates were instead set by user category and level of consumption.
[589] Interview SP7.
[590] Interview SP7.
[591] The center-right PSDB has controlled the governor's office in São Paulo since 1994. In interviews, however, agency staff drew attention to José Serra's (2006-2010) benign neglect of the agency, given Serra's greater interest in health and education issues, and stated that he needed to be "re-educated" on its role. By contrast, his predecessor and successor Geraldo Alckmin directed the state privatization program as Mario Covas's vice-governor. Interviews SP6SP6, SP7.
[592] "Arsesp encerra inscrições para concurso nesta sexta-feira," *Jornal Cidade* (Rio Claro, SP), 27 May 2009.
[593] Arsesp *Relatório Anual 2010*, p. 87-88.
[594] Specifically, Arsesp will soon be able to collect regulatory data in real-time to monitor concessionaires for rule violations and make more fine-tuned decisions on tariffs (Interview SP5SP6).
[595] Arsesp *Relatório Anual 2010*, p. 10, 16-17.
[596] Interview SP7; "Tarifas de gás canalizado da Comgás sofrem reduções," ARSESP Press Release, 29 May 2009; Renée Pereira, "Conta de gás vai cair até 46,45% no interior de São Paulo," *Estado de São Paulo*, 1 June 2010; "Arsesp comunica redução nas tarifas de gás canalizado da Comgás,," ARSESP Press Release, 10 December 2010. Gas tariffs had previously been lowered due to changes in gas prices and transportation costs (Clara Barufi, "Preços terão queda de até 6% em São Paulo," *Gazeta Mercantil*, 30 January 2004. A6.; Renée Pereira and Renato Cruz, "Gás natural fica mais barato em SP," *O Estado de São Paulo*, 20 April 2004).
[597] Interview SP5, SP6. Arsesp *Relatório Anual 2010*, p. 79.
[598] CSPE *Relatório Anual 1999*, p. 44; ARSESP *Relatório Anual 2010*, 89.

unpopular policy area. Governors declined to give the agency additional responsibilities and only held a *concurso* to add their own staff after the end of the study period.

Artesp managed highly unpopular highway concessions, and did little to control price increases. Private highway concessions began in 1997, with concessionaires making improvements to roads, closing off alternative byways, and installing eighty toll plazas throughout the state; from 1994 to January 2002, the toll for cargo carriers increased 380%.[599] The highways were scenes of protests by users, mainly centered on high tolls; concessionaires complained and went to the courts when the state tried to freeze tariffs in response.[600] When the state moved to negotiate a lower tariff, in exchange for creating bi-directional toll plazas on some highways, for example, groups representing users complained that the deal permitted the agency to waive a fine it could have levied on the concessionaire.[601] These disputes continued, and users continued their opposition to the highways. Surveys found that the number of users who felt the tolls too high varied from 80% (December 2001) to 70% (June 2002) to 84% (December 2003).[602] Artesp played little role in limiting tolls; its economic regulation comprised checking that tariff adjustments were properly calculated, and auditing company financial records.[603] It levied no judgments on the appropriate price level, which was largely determined by formulae set in concession contracts. Most agency decision-making concerned approving eminent domain requests by concessionaires to expand highways.[604] Artesp could fine concessionaires for underinvestment, as it did in October 2004.[605] The agency's work in intermunicipal transport concerned approving tariffs and schedules, but the work produced few results. An NGO found that the bus schedules approved by the agency required buses to exceed speed limits, and tariff adjustments exceeded inflation.[606] The state Public Prosecutor (*Ministério Público*) independently opened an investigation into the speeding buses.[607] The agency did little to distinguish itself in either area.

Highways and intermunicipal buses in São Paulo connect a number of cities to others. As in other states, multiple cities are served by the highways, and no highway lies entirely within one city. Buses also connect various cities; buses within the capital city and its adjacent suburbs are managed by SPTrans and Campinas buses are managed by EMDEC.[608] As in other states, mayors have difficulty claiming credit for improvements in bus conditions.

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[599] Roberto Cosso, "Pedágio privado estraga rodovia pública," *Folha de São Paulo*, 29 May 2002.
[600] Renato Acciarto, "Pedágio da Castelo – mais um protesto dos usuários," *Gazeta Mercantil*, 13 June 2002, 1; "Empresas criticam congelamento de tarifa," *Folha de São Paulo*, 2 July 2002.
[601] "Alckmin reduz em até 50% pedágio da Castello por 18 meses," *Folha de São Paulo*, 25 July 2002; "Moradores contestam desconto na Castelo," *O Estado de São Paulo*, 1 August 2002.
[602] "Transporte: Bate recorde rejeição a valor de pedágio em rodovia gerida pela iniciativa privada," *Folha de São Paulo*, 29 January 2004. On the other hand, Artesp's own polls found higher user satisfaction with toll roads over multiple years (ARTESP *Relatório Anual 2005*. 56).
[603] See, for example, ARTESP *Relatório Anual 2005*, p. 32-39.
[604] See all agency *portarias* on areas taken for *utilidade pública* at artesp.sp.gov.br; ARTESP *Relatório Anual 2005,* 25.
[605] "Marginais da Castelo provocaram disputa e polêmica," *O Estado de São Paulo*, 27 October 2004.
[606] José Maria Tomazela. "Ônibus a 120 por hora. E atrasados," *Estado de São Paulo*, 20 February 2006; Alencar Izidoro, "Tarifa de ônibus rodoviário deve subir 13% em SP até fim do mês," *Folha de São Paulo,* 18 November 2006.
[607] José Maria Tomazela, "Promotoria investiga excesso de velocidade de ônibus," *O Estado de São Paulo*, 11 May 2006.
[608] SPTrans and EMDEC are public firms owned by the cities of São Paulo and Campinas, respectively.

Artesp's limited work in transportation resulted in little expansion of its authority. Most notably, the agency only assumed responsibility for one more policy area; in September 2003, Decree 48,073 gave the agency authority over intermunicipal student transportation.[609] The agency also clearly missed opportunities to expand its reach. In 2006, interim governor Cláudio Lembo (PFL) proposed the creation of an agency "like Artesp" to regulate the capital city subway and urban commuter trains.[610] The agency was not considered for such acitivities, and remains without such authority. The agency's resources also increased slightly, with important exceptions. The agency's budget went from 74.8 million *reais* in 2005 to 224.4 million *reais* in 2010.[611] Despite this increase, the agency only received gubernatorial approval to conduct a public service examination in 2010.[612] Temporary and appointed staff manned the agency until then. An agency request to subcontract inspections generated accusations of corruption.[613] More importantly, subcontracting to a third party suggests a lack of adequate resources. This low level of resources was reflected in a controversy over the agency subcontracting for legal defense services; the agency resolved the matter by agreeing to share legal defense resources with the state transport body DER.[614] In sum, though the agency's budget grew, its resources and powers expanded only incrementally.

7.1.3. Agenersa – RJ

In Rio de Janeiro, the water and sanitation agency Agenersa inherited gas and sanitation regulation begun by the multisector agency Asep-RJ. Asep-RJ, created in 1997, regulated all private concessions in the state, including the capital city metro, urban commuter trains and ferries, toll highways, gas concessionaires, and sanitation companies. The agency signed an agreement with Aneel in 1998 to assume inspection duties for the two electrical energy firms in the state.[615] On June 6, 2005, Laws 4555 and 4556 divided Asep-RJ's tasks between two newly created agencies in transportation and water and energy. I thus analyze the agency's reputation according to its inheritance of Asep-RJ's work in energy and sanitation.

The multisector Asep-RJ did little to distinguish itself in energy and sanitation regulation. First, the agency was briefly closed and re-opened in 1999. Governor Anthony Garotinho, elected in 1998, had vowed while campaigning to eliminate the agency and renegotiate private

[609] Because the agency began work in 2003, it might be difficult to attribute these new responsibilities to a reputation the agency had developed.
[610] José Ernesto Credendio, "Futura agência vai regular reajuste do metrô de SP," *Folha de São Paulo*, 30 November 2006. Lembo was governor only in 2006
[611] ARTESP, *Relatório Anual 2005*, 69 and *Relatório Anual 2010*, 70. As before, an increase in receipts is largely tied to an increase in revenue for concessionaires, as agency funds come from a set fractional percentage of those revenues.
[612] Lei Complementar 1125 of July 1, 2010 created permanent career structures for Artesp workers and allowed for a *concurso* that was finally held in 2013.
[613] The agency issued a request for bids [*edital*] for the highest quality services for an inspections firm headquartered in the city of São Paulo, rather than the usual request for the lowest-cost services meeting criteria based in any city of the state (Roberto Cosso, "Agência `terceriza' fiscalização de estradas," *Folha de São Paulo*, 20 November 2002). The winning firm had former state transportation secretary Michael Paul Zeitlin as a manager ("Maior pagamento será de R$6,1 milhões," *Folha de São Paulo*, 20 November 2002). The agency defended the legality and propriety of the contract by noting that the subcontractor was not to conduct inspections, only to collect information, but the state audit agency (*Tribunal de Contas do Estado*) later revoked the contract and asked that the bidding process restart (Roberto Cosso, "TCE quer mudar edital de licitação de agência," *Folha de São Paulo*, 13 February 2003).
[614] "DER cede estrutura para Artesp," *Folha de São Paulo*, 10 July 2003.
[615] Aneel. 1998. *Relatório de Gestão 1998*, 30.

concessions, and followed through by dismissing agency staff in early 1999.[616] For unknown reasons, Garotinho reversed his decision, re-opened the agency, and appointed new directors in November 1999.[617] The agency's work in electricity regulation ended in 2001 when Aneel unilaterally terminated the cooperation agreement; Asep-RJ had never developed a structure for inspections and an ombudsman, and the federal agency never transferred any funds to it.[618] Its work in sanitation and natural gas did cover all private operators, but thereby excluded large parts of the state. The gas concessionaires CEG and Riogás (later CEG-Rio) operated in the capital city and in some other cities, but their services were confined to middle-class and upper-class housing units and industrial units.[619] The agency monitored two separate water concessions, Águas de Juturnaíba covering three cities and Prolagos serving five cities.[620] The population of all eight cities totals just 560,080 people, or 3.5 percent of the state's population.[621] Though their work in both areas was adequate, the regulatory product was limited. Heavily populated cities covered by the state CESB Cedae remained beyond Asep-RJ's authority.[622] Asep-RJ in its first years mainly approved tariffs and oversaw the contractual build-out obligations set in concession contracts.[623] Large investments in sanitation expanded both water coverage and sewage coverage in the Lakes Region, while the CEG contracts contained few measures on expansion or quality.[624] The agency later added service quality standards for gas at the five-year revision of the CEG contracts.[625] In sum, the agency oversaw modest improvements but made little effort to affect service delivery in a significant number of municipalities.

Agenersa inherited Asep-RJ's original work. The agency was already moderately well-equipped. Asep-RJ had held a public service exam in 2002 for 33 positions; work had also been

[616] "Garotinho diz que exploração do jogo do bicho será licitada por áreas do estado," *O Globo*, 31 December 1998, 17: "Governo começa a extinguir a sua agência reguladora," *O Globo*, 19 February 1999, 14. Interviewees who served as initial directors noted that there was no enthusiasm for continuing in the agency after it was stripped of staff (Interview RJ1, RJ8). Their decision contrasted with the decision of Agergs members to fight Governor Dutra's dismissal of their agency in Rio Grande do Sul.

[617] Eliane Velloso, "Agência do Rio estuda revisão tarifária," *Gazeta Mercantil*, 5 November 1999. Interviewees disagreed on whether Garotinho saw value in having an agency, saw a chance to create *cargos de confiança*, or was compelled to re-open the agency to win further international loan funds (Interviews RJ2, RJ3, RJ5).

[618] Maurício Corrêa and Cláudio Renato, "Rompido acordo com agência do Rio," *Gazeta Mercantil*, 26 January 2001.

[619] At the end of 2010, CEG and CEG-Rio combined reached 747,269 households, 10,477 commercial establishments, 330 industrial firms, two gas-powered energy plants, and 431 vehicle fuel stations; it reaches seventeen states (CEG Fenosa Brasil. *Informe Anual 2010*, 20). The same year, Rio de Janeiro had 5,125,026 occupied households (IBGE, Census 2010). In 2012, Rio de Janeiro had 1,054,988 businesses (IBPT. 2012. *Empresômetro – censo de Empresas e Etidades [sic] públicas e privadas Brasileiras*,4).

[620] Água de Juturnaíba serves Araruama, Saquarema, and Silva Jardim. Prolagos serves Armação dos Búzios, Arraial do Cabo, Cabo Frio, Iguaba Grande, and São Pedro da Aldeia. All cities are located in the Lakes Region east of the capital.

[621] IBGE *Censo Demográfico 2010*. Other private water concessions (e.g., in Niteroi or Novo Friburgo) were not regulated by Asep-RJ or Agenersa.

[622] Though Asep-RJ had been partially designed to handle Cedae's privatization, such a process was cancelled by Garotinho.

[623] Later regulatory work determined that Águas de Juturnaíba tariffs from 1998 to 2004 were too high because they illegally passed on firm taxes (Agenersa. 2012. *Relatório das Atividades, 2005-2011*, 21).

[624] Agenersa. 2012. *Relatório das Atividades, 2005-2011*, 19. The bulk of sewage expansion occurred in 2003; Interview RJ3.

[625] Interview RJ2.

contracted to local universities for training and the development of standards.[626] Most employees went to Agenersa, which had adequate staff according to a former director.[627] Agenersa, however, rarely levies fines and has not added any new powers.[628] The agency makes public hearings available over the web, which is unique in Brazil, and its high revenues from the profitable gas concession help fund the separate transportation agency via revenue sharing.[629] In sum, the agency grew in resources only modestly, and in authority only minimally.

7.1.4. Agetransp – RJ

The transportation regulator Agetransp inherited much more conflictual policy areas from Asep-RJ. Asep-RJ regulated two state highways, the urban capital city metro, and urban trains and ferries bringing passengers into the capital city. All concessions had previously been state-owned, and privatized by Governor Alencar. The highway tolls were novel in the state, and both users and businesses located at the end of the route objected to their conversion from free highways.[630] The train concessions improved, but the existing overused, overfilled physical plant was unable to adjust quickly.[631] The ferry concession was poorly managed, often leaving commuters and sometimes boats stranded.[632] Asep-RJ's work in each area mainly comprised approving tariff adjustments and investigating problems *post hoc*. During agency disruptions, concessionaires proceeded with normal tariffs increases that were never retroactively re-adjusted.[633] In sum, the agency very passively regulated problematic transportation concessions.

Agetransp continued to only modestly regulate problematic concessions. Only twenty-eight fines were issued against transportation concessionaires (ferry, train, and metro) from 1998 to 2010, and only 8% of the fines levied have been collected.[634] Transportation concessionaires continued to experience accidents and problems apace after the creation of Agetransp, with little sanction from the agency.[635]

As a result of its passivity in the face of controversy, the agency developed a reputation

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[626] "ASEP – A Agência Reguladora de Serviços Públicos Concedidos do Estado," *O Globo*, 13 January 2002, 2; Interview RJ2 and RJ6.
[627] Interview RJ6.
[628] Interview RJ6.
[629] See Rio de Janeiro State Decree 37,930 of July 7, 1995; Agenersa, *Relatório de Gestão do Exercício Financeiro de 2010*, sections 4.1 and 4.2.
[630] Interview RJ8; "Pedágio/Protestos." *Jornal do Brasil*, 30 July 1997; "Associação vai tentar suspender pedágio outra vez," *O Globo*, 26 August 1997, 14.
[631] Accidents on the commuter trains were frequent even years after privatization. See, e.g., "Ferrovia privatizada no RJ tem 3 desastres," *Folha de São Paulo*, 5 November 1998; Murilo Fiuza de Melo and Clarissa Thomé, "Choque de trens mata 4 e fere 24 no Rio," *O Estado de São Paulo*, 13 January 1999; Clarissa Thomé, "Choque de trens fere 58 pessoas no Rio," *O Estado de São Paulo*, 11 January 2000.
[632] See, e.g., "Pane no radar deixa barca com 240 passageiros à deriva por duas horas," *O Globo*, 31 July 1999, 14; "Barca Rio-Paquetá fica à deriva por uma hora e meia," *O Globo*, 5 April 2000, 18; "À deriva na Baía de Guanabara," *Jornal do Brasil*, 8 July 2003. The phrase "à deriva" translates as "adrift."
[633] "Ministério Público abre inquérito para apurar falta de conselheiros na Asep," *O Globo*, 13 May 2003, 16.
[634] Marcelo Dias, "Agetransp aplica só 28 multas contra empresas de transporte desde 1998," *Extra* (RJ), 22 May 2011.
[635] "Salve-se-quem-puder na baía," *O Globo*, 27 March 2007; "Privatização não resolveu problemas nas linhas," *O Estado de São Paulo*, 31 August 2007; "Transporte: MP do Rio pede vistoria em malha ferroviária," *Gazeta Mercantil*, 13 September 2007; "Barcas: técnicos não explicam queda de rampa," *O Globo*, 19 May 2009, 10. An Agetransp director admits that the ferry concessionaire has done little to improve in Herval Barros de Souza, "Crise de confiança," *O Globo*, 15 December 2011, 7.

as a hive of patronage and incompetence.[636] The agency has never held a *concurso*, borrows temporary workers from other state departments and on temporary contracts, and has little physical presence in the state.[637] Most significantly, the agency has added no additional responsibilities since its creation. It remains unable to regulate inter-city bus concessions, and has taken no initiative in turning quasi-illegal public services into competitive concessions.[638] Though Agetransp remains well-funded thanks to its share of regulatory fees collected for profitable gas concessions, it remains low in terms of resources available to overcome informational asymmetries and has grown not at all in its level of activity.

In sum, agencies regulating energy, gas and sanitation have added responsibilities and resources to a greater extent than their state counterparts in transportation regulation. All four cases provide support for the hypothesis developed above. In addition, the contrast between the more active agencies in São Paulo and less active agencies regulating the same sectors in Rio de Janeiro draws attention to the fact that leverage comes from work that modifies concessionaire behavior. More active agencies won more resources and a greater expansion in their areas of activity.

7.2. Modifying the Theory for Argentine and Mexican Cases: Foundations

The theory developed for Brazilian state agencies cannot be applied as easily outside of Brazil. I consider the cases of regulatory agencies developed at the subnational level in Latin America's two slightly smaller federations. In Argentine provinces and Mexican states, we might expect to see similar causal mechanisms at work in developing robust agencies. Argentine politics are dominated by the governor and party boss at the provincial level, but a) party organizations are much stronger than in Brazil and b) governors also dominate municipal governments.[639] In Mexico, strong party organizations, clear ideological divisions among parties, and electoral rules forbidding immediate re-election mean that political careers are largely managed by parties. In both cases, mayors can claim credit to unknown ends, and mayors are by no means the default actors collecting and delivering votes for governors. I outline these features below.

7.2.1. Argentina

Governors dominate provincial politics in Argentina. First, they are able to offer an immense number of public jobs to political loyalists, often at competitive salaries for little work. Neoliberal reforms in the 1990s did little to thin the provincial public sector; instead, governors were able to postpone cuts to provincial payrolls in exchange for directing their national deputies to vote for reforms (Gibson and Calvo 2000). Second, governors can set and reform electoral rules to favor their re-election prospects or the electoral prospects of their allies. Governors and

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[636] Marcelo de Freitas (PSOL) called the agency a *cabide de emprego* on the floor of the State Assembly on December 14, 2011. The agency directorships are divided among political parties without regard to technical qualifications (Interview RJ11). The state auditing agency recently criticized Agetransp for poor inspections, for lack of transparency, and for improperly allowing concessionaires to avoid penalties for accidents ("Tribunal de Contas critica fiscalização da Agetransp nas Barcas do Rio," *G1- Globo.com*, 4 July 2013. http://g1.globo.com/rio-de-janeiro/noticia/2013/07/tribunal-de-contas-critica-fiscalizacao-da-agetransp-nas-barcas-do-rio.html).

[637] "Defensoria Pública entra em ação contra Agetransp," *Extra* (RJ), 24 May 2011.

[638] Specifically, the agency remains unable to turn Transtur ferry services from a "permission" to a concession. By contrast, agencies in Mato Grosso, Ceará, and other states were able to design concession competitions for transport lines.

[639] As multiple scholars studying Argentine politics note, the provincial party boss and governor are frequently the same person.

their allies can change both rules and election timing (Calvo and Micozzi 2005). Third, closed-list PR rules for national and provincial legislative elections place immense power in the hands of those who control candidate nominations, whether governors, provincial party leaders, or their close associates (Jones et al. 2002; De Luca et al. 2002). Political careers are also oriented back to the provincial level, which raises the need for ambitious Argentine politicians to satisfy party leaders in their home provinces (ibid.). Finally, municipalities are largely creations of the province itself. In contrast to Brazilian cities, which have dedicated fiscal transfers from the federal government enumerated in the federal constitution, Argentine city governments depend on the provinces to pass on funds. Provincial governments are intermediates for the flow of resources from the federal government, which collects most taxes, to municipal governments. Provincial governments can also `intervene' in city governments that become problematic, replacing incumbents (Lodola 2010:93, 94).

Argentine governors use large networks of publicly-funded political loyalists to win future elections. Germán Lodola illustrates the resulting contrasting between Brazilian and Argentine subnational governments:

> Where state governors concentrate access to federal transfers [as in Argentina], enjoy ample discretion over the use of such funds, they have strong incentives to overspend public expenditures on patronage allocations. By contrast, [in Brazil] where state governors share access to federal transfers with other political actors located at different levels of government (in particular, municipal mayors and congressional legislators), enjoy limited political leverage over the transferred funds, and do not control the prospects of political careers, they have major incentives to invest public outlays on pork-barrel goods (2010:26)

In sum, one cannot assume that governors care about the opinions of mayors or that mayors care about claiming credit for public infrastructure projects, as is the case in Brazil, in Argentina. I instead develop hypotheses sensitive to these modifications.

Clientelist brokers do play large roles in Argentine elections. The exact extent is not known, though Brusco et al. (2004) show that a significant range of citizens have contact with so-called *punteros*, middlemen who disperse public or private funds to voters in exchange for their support and participation in politics.[640] The Peronists (from various factions of the *Partido Justicialista*) traditionally hold advantages in maintaining links to and control over *punteros*, relative to their historic opponents in the Radical Party (*Unión Cívica Radical*).[641] *Punteros* in turn serve as intermediaries addressing the everyday needs of their clients.[642]

7.2.2. Mexico

Mexican governors are central players in strong hierarchical party organizations. Governors are positioned to play central roles in political careers in Mexico. Joy Langston explains:

> Mexico's directly elected state executives control several types of resources that

[640] An active debate concerns whether *punteros* act to deliver turnout by supportive or to decrease opposition turnout (see, e.g., Stokes 2005; Nichter 2008; Gans-Morse, Mazzuca, and Nichter 2012.
[641] Calvo and Murillo 2004.
[642] Auyero 2011:ch. 3.

> make them critical actors in politicians' careers. Governors wield influence over candidate selection not only for federal deputies elected from SMDs, but also for mayors, local deputies, and their own successors. Second, governors often spend hefty sums of money to support co-partisans in local and federal electoral campaigns. Finally, Mexican governors control access to thousands of jobs in state government and the local party affiliate, allowing them to provide political posts for vulnerable copartisan deputies leaving the Chamber after serving a single [three-year] term (2010:240).

Mayors thus depend on governors for career advancement, and governors do not need local elected officials for immediate re-election.[643] Local taxes are low, and governors depend heavily on transfers from the central government. These transfers are mostly codified and do not depend on annual bargains struck between governors and federal politicians. Further, Mexican parties are relatively cohesive and ideologically differentiated, including over issues related to the role of the state (Moreno 2004). However, state parties have become increasingly autonomous in their policy preferences (Cantú and Desposato 2012). For that reason, governors do not secure automatic approval for their agenda in state legislatures. Opposition legislatures have frustrated the agendas of governors in numerous states (Hernández-Rodríguez 2003). Politicians might also be guided by policy repetoires related to their partisan and professional backgrounds (Snyder 2001:10-11).

The extent to which governors rely on clientelism for future election varies by state. Díaz-Cayeros et al. (2009) identify cases in which programmatic, non-discretionary pro-poor transfers succeeded in winning votes for the conservative PAN more than did clientelist or targeted discretionary transfers. Recent scholarship, however, indicates that Mexican voters are developing mass partisan attitudes in spite of lingering large persuasion effects (Greene 2011). Television advertising is thought to play an increasing larger role in campaigns and in voter choice (ibid.).

I use this scholarship on subnational politics in Mexico and Argentina to develop a theory and testable hypotheses below. Before that section, howover, I introduce the regulatory regimes that emerged in both countries.

7.2.3. Regulatory Agencies in Argentina and Mexico

Argentine provinces divested state properties in response to federal demands, and created regulatory regimes and bodies before, after, or during reform processes. In the 1990s, President Carlos Menem privatized multiple federal state-owned firms and established regulatory agencies to manage new private concessionaires. Provincial governors overwhelmingly followed his lead, privatizing companies of water and energy and creating either sector-specific or multisector independent regulatory entities. Azpiazu *et al.* (2008) explains that the process at the provincial level was, "with scarce exceptions, no different from the national" (113). Regulatory agencies were created either before or after regulatory institutions had been created and properties sold off, and only in Chubut were agencies created in the absence of regulation (ibid., 113-115).[644] Argentine provinces thus have a variety of regulatory bodies, both multisector and sector-

[643] Like almost all elected officials in Mexico, governors cannot be immediately re-elected to their post.
[644] Azpiazu (2008:114-115) also notes cases where privatization processes and regulatory agency creation terminated for various reasons.

specific, with varying levels of authority over both public and private concessionaires.[645] I detail the existing agencies in a table in the appendix.

In Mexico, transfers of responsibility for public services to the local level led to the development of state commissions. Reforms in 1983 transferred construction and operation of urban hydraulic systems to state governments with the requirement that the systems then be passed onto municipalities (Pineda 2008:127).[646] President Salinas issued a presidential decree on January 16, 1989 creating the National Water Commission (Conagua) to strengthen and increase participation in water management, ensure that user fees were directed to company investments, approve tariffs, and work toward operator self-sufficiency (ibid., 128). State water agencies were created in succession, from 1990 (Veracruz) to 2006 (Baja Califórnia). Their roles include regulation, technical assistance, and, in some cases, direct management of water resources.[647] Commissions therefore are not regulatory agencies. Energy commissions followed a similar path. The national Comisión Reguladora de Energía was created by presidential decree on October 4, 1993 to enforce the Electrical Energy Public Service Law passed the previous year. State energy commissions followed, but are fewer in number than are water commissions. Energy commissions also promote energy conservation and renewable energy sources, which makes them hard to classify as regulatory agencies.[648] The full list of state water and energy commissions in Mexico is listed in a table in the appendix.

In the next section I consider how we might use the theory developed above to explain variation in these bodies.

7.3. Explaining Variation in Subnational Public Service Bodies: Theory and Hypotheses

My theory explains agency robustness as the product of leverage gained by efficacious electorally-valuable work. To develop a theory of robustness for subnational bodies in Argentina and Mexico, I discuss the conditions that might define and produce electorally-valuable work.

Electorally-valuable work can be connected to politicians' base of support. Clientelist networks are thought to be central to Argentine campaigns, run by brokers and public employment opportunities. For this reason, politicians might favor filling agency positions with patronage appointees rather than professional staff. Designing the agency to be insulated from political principals according to the international model might also limit principals' ability to overstaff the agency. Opposition to the dominant Peronist Party, and to clientelist appeals, is largely educated and urban. In Mexico, parties of the right and left, the PAN and PRD, respectively, are historically more ideological and more interested in technocratic governance than is the party of the center, the PRI. The PAN traditionally has a middle-class and upper-class base, while the PRI's core remains largely southern, rural, and poor, and the PRD is strongest among urban middle classes. The extent to which clientelist strategies are employed in both countries, versus more programmatic appeals, is unknown.

Electoral bases interact with other factors. Work by scholars such as Murillo (2009),

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[645] Some public concessionaires were formerly private until the property was *resestatizada*, or reclaimed by the provincial or municipal government.

[646] States could assume responsibility when necessary, if cities were incapable of operating companies (Pineda 2008:127).

[647] For example, the Water and Sanitation Comission in Baja Califórnia manages the water canal that supplies Colorado River water to Rosarito and Tijuana.

[648] See, for example, "Misión y Visión" for CENER, the energy commission in Quintana Roo, at cener.qroo.gob.mx/misionvision.php, which discusses both topics.

Herrera (2010), and Snyder (2001) relates politicians' interests to the level of political competition, politicians' policy repertoire, and politicians'their electoral base (whether poor or middle/upper class). First, Party leaders and elected officials should be sensitive to these concerns from their core voters. Middle and upper-class voters should be better informed about agency activities, and more capable of mobilizing against or shifting their behavior due to price and quality shifts. As discussed in the case of Voluntary Users in Rio Grande do Sul, better-informed users are also less likely to credit elected officials for service improvements mandated by bureaucrats. By contrast, lower class voters are less able to mobilize or shift their behavior due to price and quality shifts. However, the leverage that regulatory and quasi-regulatory bodies have in winning greater authority and resources is a function both of issue salience and political competition. Elected officials might be more attentive to poor quality services, services in which quality has declined recently, or services which a large proportion of the population lacks. I expect such policy issues to be more salient. In competitive districts, incumbents should be more sensitive to voter complaints, and thus more willing to spend resources to ameliorate these concerns.[649] Some public services are also shared responsibilities between levels of government, which limits local politicians' ability to claim credit for improvements.

Based on the above, I develop the following hypotheses.

H1*: Water commissions and agencies should be more able to gain leverage and expand their authority and resources than energy commissions and agencies*. States in Mexico have much more well-defined oversight role in water and sanitation than they do in energy; energy is still largely a federal responsibility. Electrification is currently 97.9% in Mexico and 97% in Argentina, while water access is at 90.8% and 89% and access to sewage is approximately 87.3% and 45% in Mexico and Argentina, respectively.[650] Efficacious work in water should win greater leverage than should efficacious work in energy oversight.

H2: *Subnational bodies in electorally competitive states or provinces should win more additional authority and resources than should bodies in less competitive districts*. Incumbents facing credible opponents should be more sensitive to user complaints, and more interested in active regulation that addresses these complaints.[651] As Giraudy (2013) notes, levels of political competition vary widely across Argentine provinces and Mexican states.

H3: *Incumbents with poor voter bases should be more willing to expand the authority and resources of water bodies than those of energy bodies.* Poor consumers can often pirate energy, or pay social tariffs for energy and water. They are more likely to *lack* connections to water, which cannot be pirated as easily.

H4: *Multisector agencies in Argentina that work more extensively in water than in energy should gain greater resources and authority than their counterparts.*[652] This hypothesis borrows from the original theory on initial agency orientation with regard to multisector bodies. The logic from the above hypotheses remains the same.

7.4. Conclusion

[649] Note that this political competition explanation differs from those put forward by de Figueiredo Jr. (2002) and Geddes (1994), in which political competition leads incumbents to want to lock in policies or prevent opposition successors from using fungible assets to gain an advantage.

[650] On energy, see CFE 2012:5 and International Energy Agency, *2012 World Energy Outlook*. The state with the lowest level of electrification, Guerrero, has a rate of 94%. On water, see Conagua (2011:102) and Arienza, *Agua: Panorama General en la Argentina* (2012:29).

[651] I found no evidence for this particular hypothesis in my survey of Brazilian states.

[652] The provinces of Catamarca, Córdoba, Formosa, La Rioja, Salta, Jujuy, and Chubut have multisector agencies.

In this chapter I have explored applications of my original theory, developed for multisector state-level agencies in Brazil. Exporting the theory for other cases requires altering assumptions about the central role of mayors, weak and under-institutionalized parties in Brazil, the fungibility of resources across policy areas, and the factors that make work in some policy area or another more electorally valuable to incumbents. At this point, empirically testing these hypotheses would require a scholar conduct extensive fieldwork in Mexico and Argentina. However, the hypotheses developed in this chapter make progress toward an interesting pairing of sectoral agencies and their potential transformation into robust bodies.

APPENDIX

Table 7.1: Provincial Agencies in Argentina

Province	**Agency**
Buenos Aires	OCABA
Buenos Aires	OCEBA - Organismo de Control de Energia Electrica de la Prov. De Buenos Aires
Catamarca	ENRE (multisector)
Chubut	OMRESP (multisector)
Ciudad Autónoma de Buenos Aires	ERAS
Ciudad Autónoma de Buenos Aires	Ente Unico Regulador de los Servicios Publicos de la Ciudad Autónoma
Córdoba	ERSeP (multisector)
Corrientes	AOSC
Corrientes	DPEC - Direccion Provincial de Energia de Corrientes
Entre Rios	EPRE
Formosa	EROSP - Ente Regulador de Obras y Servicios Publicos de Formosa (multisector)
Jujuy	SUSEPU - Superintendencia de Servicios Publicos y Otras Concessiones (multisector)
La Pampa	APA
La Pampa	APE - Administracion Provincial de Energia de La Pampa
La Rioja	EUCOP - Ente Unico de Control de Privatizaciones (multisector)
Mendoza	EPAS
Mendoza	EPRE
Misiones	ERPAC (multisector)
Neuquén	EPEN - Ente Provincial de Energia del Neuquen
Río Negro	DPA
Río Negro	EPRE
Salta	ENRESP (multisector)
San Juan	EPRE
San Luís	Comision Reguladora de Energia Electrica
Santa Fé	ENRESS - Ente Regulador de Servicios Sanitários
Santa Fé	EPE - Empresa Provincial de la Energia de Santa Fé
Santiago del Estero	ERSAC
Santiago del Estero	ENRESE - Ente Regulador de la Energia Eletrica de Santiago del Estero
Tucumán	ERSACT
Tucumán	EPRET - Ente Provincial Regulador de Energia de Tucuman

Source: Agency websites, ENRE website, Azpiazu et al. 2008.

Table 7.2: Water and sanitation bodies in Mexico

State	Name and Acronym	Webpage
Aguascalientes	Instituto del Agua del Estado de Aguascalientes (INAGUA)	http://www.aguascalientes.gob.mx/inagua/
Baja California	Comision Estatal del Agua de Baja California	http://www.cea.gob.mx/
Baja California Sur	Comision Estatal del Agua de Baja California Sur	www.bcs.gob.mx
Campeche	Comision Estatal del Agua Potable y Alcantarillado del Estado de Campeche	http://www.transparencia.campeche.gob.mx/index.php/organismos-descentralizados/comision-de-agua-potable-y-alcantarillado-del-estado-de-campeche
Chiapas	Instituto Estatal del Agua de Chiapas	http://www.institutodelagua.chiapas.gob.mx
Chihuahua	Junta Central de Agua y Saneamiento de Chihuahua	www.chihuahua.gob.mx/jcas/
Coahuila	Comisión Estatal de Agua y Saneamiento de Coahuila	http://www.ceascoahuila.gob.mx/
Colima	Comisión Estatal del Agua de Colima	http://www.ceac.col.gob.mx/
Durango	Comisión de Agua del Estado de Durango	http://caed.durango.gob.mx/es/
Guanajuato	Comisión Estatal de Agua de Guanajuato	http://www.guanajuato.gob.mx/ceag/
Guerrero	Comisión Estatal de Agua, Alcantarillado y Saneamiento del Estado de Guerrero	http://guerrero.gob.mx/dependencias/sector-paraestatal/comision-de-agua-potable-alcantarillado-y-saneamiento-del-estado-de-guerrero/
Hidalgo	Comisión Estatal de Agua y Alcantarillado del Estado de Hidalgo	http://www.ceaa-hidalgo.gob.mx
Jalisco	Comisión Estatal del Agua de Jalisco	http://www.ceajalisco.gob.mx/
Estado de México	Comisión del Agua del Estado de México	www.edomex.gob.mx/caem
Michoacán	Comisión Estatal del Agua y Gestión de Cuencas	**No web page**

Morelos	Comisión Estatal de Agua y Medio Ambiente de Morelos	http://ceamamorelos.gob.mx/CEA2/index.html
Nayarit	Comisión Estatal de Agua de Nayarit	http://www.cea.nayarit.gob.mx
Nuevo León	Instituto del Agua del Estado de Nuevo León	http://www.nl.gob.mx
Oaxaca	Comisión Estatal del Agua de Oaxaca	http://www.cea.oaxaca.gob.mx/
Puebla	Comisión Estatal de Agua y Saneamiento de Puebla	www.ceaspue.puebla.gob.mx/
Querétaro	Comisión Estatal de Aguas de Queretaro	http://www.ceaqueretaro.gob.mx/
Quintana Roo	Comisión de Agua Potable y Alcantarillado de Quintana Roo	http://capa.gob.mx/capa/
San Luis Potosí	Comisión Estatal de Agua y Saneamiento de San Luis Potosi	http://www.ceaslp.gob.mx/
Sinaloa	Comisión Estatal de Agua Potable y Alcantarillado de Sinaloa	http://laipsinaloa.gob.mx/index.php?option=com_sobi2&catid=16&Itemid=11
Sonora	Comisión Estatal de Agua y Saneamiento de Sonora	http://www.ceasonora.gob.mx/index.html
Tabasco	Comisión Estatal de Agua y Saneamiento de Tabasco	http://ceas.tabasco.gob.mx/
Tamaulipas	Comision Estatal del Agua de Tamaulipas	ceat.tamaulipas.gob.mx
Tlaxcala	Comisión Estatal de Agua de Tlaxcala	http://www.ceat.gob.mx
Veracruz	Comisión del Agua del Estado de Veracruz	http://www.caev.gob.mx/
Yucatán	Junta de Agua Potable y Alcantarillado de Yucatan	http://www.japay.yucatan.gob.mx/
Zacatecas	Comisión Estatal de Agua Potable y Alcantarillado de Zacatecas	http://ntrzacatecas.com/temas/ceapa/

Source: www.agua.org.mx

Table 7.3: Energy (and other) Commissions in Mexico

Nuevo León	Agencia para la Racionalizacion y Modernizacion del Sistema de Transporte Publico de Nuevo Leon

Quintana Roo	Comision de Energia del Estado de Quintana Roo
Sonora	Comision de Energia del Estado de Sonora
Baja Califórnia	Comision Estatal de Energia de Baja California
Hidalgo	Comision Estatal de Fomento y Ahorro de Energia
Guerrero	Comision Tecnica de Transporte y Vialidad en el Estado de Guerrero

Source: Commission websites.

Chapter 8: Conclusion

This work brings together insights about electoral incentives and the nature of inter-branch relations in Latin America's largest federation to explain the development of bureaucratic capacity and bureaucratic autonomy. Throughout this project I have argued that Brazilian state agencies that began work focused on electrical energy distribution, piped natural gas distribution, and water and sanitation were later able to win greater resources and authority than agencies that did not focus on those sectors. I attributed this difference to the ability of important subnational elected officials to claim credit for improvements in these sectors only. Here I recap the argument and evidence presented and the implications of my argument for practical and scholarly work on developing world bureaucracies and the new regulatory state in the South.

To preface the most substantial sections on post-creation development, I also developed and tested an instrumental argument on state agency creation. I argued that governors create agencies to address the dilemma of both concessionaire anxiety and consumer anxieties surrounding neoliberal reforms. My instrumental argument contrasts with currently dominant approaches that emphasize diffusion through sectoral and informational channels.

My argument on agency robustness is based on three key assumptions. First, I assume that governors and local officials care about re-election, and will claim credit for public service improvements to bolster their campaign. Second, I assume that politicians can more credibly claim credit for improvements in geographically-bounded services than they are in claiming credit for services that are only partially delivered in their bailiwick. I believe these assumptions are well-reasoned. The existing literature on federalism and electoral campaigns in Brazil also supports my third assumption that governors care about the opinions and judgment of subnational officials helpful in electoral campaigns.

In a final chapter, I modified the argument for other Latin American federations, hypothesizing that work in electorally valuable sectors might lead Argentine regulatory agencies and Mexican public service commissions to gain more leverage and thus greater resources. In drawing up these hypotheses, I first considered sector-specific regulatory institutions in Rio de Janeiro and São Paulo states. I discussed how political institutions both formal and informal differ from those found in Brazilian states, and what implications these institutional changes might have on regulatory body development.

8.1. Evidence

I explored evidence for this argument from two primary sources. First, I used a paired comparison of the regulatory agency Agergs in Rio Grande do Sul and the agency Arce in Ceará. The latter was initially much more assertive and thorough in energy and sanitation regulation than was the former. Agergs instead devoted much of its early work to conflicts surrounding new private highway concessionaires and transportation. The case evidence provided supportive evidence for multiple parts of the causal mechanism. The agency undertaking electorally valuable work (Arce) built a reputation for valuable work, while the agency working mainly in transportation and highways (Agergs) became embroiled in conflict. Arce was able to leverage its reputation for greater resources and additional authority in transportation and energy regulation, while Agergs faces significant resource constraints and has only belatedly expanded its activities by beginning sanitation regulation. All parts of the mechanism are well-supported with two minor exceptions. I will need to dig further to find empirical evidence supporting the suppositions that a) mayors care more about geographically-delimited services and b) governors gathered information about bureaucratic quality from their interactions with mayors.

Second, I used indicators of initial agency orientation, whether toward electorally-valuable sectors or not, and correlated those with indicators of intermediate parts of the causal mechanism and indirect measures of the outcome. This evidence was equivocal. Initial agency orientation was positively correlated, as expected, with a greater number of laws expanding agency powers. greater annual increases in agency budgets, and various indicators for the outcomes of regulatory authority and capacity were positively correlated with initial agency orientation. These correlations were not, however, statistically significant at traditional type-I error levels. I attribute this statistical insignificance to my blunt measures and will seek more nuanced measures in future work.

Additional case studies supplemented the cross-state analysis, comparing multisector agencies in Pará and Bahia, and sector-specific agencies in São Paulo and Rio de Janeiro. The case studies provide further evidence for a positive relationship between initial sectoral orientation and the development of agency capacity.

8.2. Contributions to the Literature

This project is my first step in a broader research agenda on the development of bureaucratic bodies and the regulatory state in developing countries. I follow pioneering work by Levy and Spiller (1994, 1996), McAllister *et al.* (2010), and Mueller (2010) that explains the quality of regulatory institutions in environmental and telecommunications oversight. In these works, bureaucratic bodies are strengthened by complementary judicial enforcement mechanisms and allied actors. I instead focus on the internal development of the body charged with the regulatory mandate, , bracketing the better-studied issues of external vetoes and autonomy. Instead, I pursue questions concerning how regulators become capable and active as independent units. Robust oversight to address pressing issues such as access to clean water and sewage systems, environmental conservation, and equitable economic development will require capable regulators, not their prosecutorial substitutes (as in McAllister *et al.* (2010) and Mueller (2010)) or judicial institutions alone. I also contribute to a longer tradition of scholars studying the development of state capacity after Nordlinger (1981). In my model, bureaucratic leaders use their leverage with political principals to win additional funds, professional staff, and policy responsibilities. Ideological or partisan beliefs or political competition do not lead executives to strengthen regulatory agencies because, as multiple authors have noted, the executive usually has much more electorally-useful outlets for their resources. I argue that state development in developing countries therefore requires an electoral root; the executive (or legislature) must gain some future electoral advantage if he or she is to invest state resources in building a higher quality bureaucratic apparatus. I build on these core assumptions and advance a theory specific for multisector regulatory bodies. Future work will extend the theory to countries with different sets of political institutions and to policy areas with less clear electoral benefits.[653]

My work also advances our understanding of regulation in Brazil. Early literature on the topic largely concerns the formal design of agencies and the fit of these formal institutions with best practices thought to be conducive to autonomy. Given the novelty of independent bureaucratic bodies in Brazil and the contemporaneous shift away from state-led development, these studies serve an important role.[654] On the other hand, many agencies designed to be active and autonomous are neither in practice. My theory explains variation despite similar formal

[653] For example, environmental conservation goals are often in conflict with economic development goals favored by local voters and campaign contributors.

[654] The most thorough study in this vein is Correa *et al.* (2008).

design.

Given the above considerations for scholars of bureaucracy, what lessons follow for practitioners, the regulators and bureaucrats themselves?

8.3. Lessons for Practitioners

The primary implication of this study for practitioners is that work in particular policy areas provides higher payoffs for elected officials than does work in other areas. Bureaucratic leaders seeking greater resources need not work only in these areas, but might instead highlight particular projects and performance in their interactions with political principals. This advice has limited applicability, however, for regulators that are constrained by their legal mandate to particular tasks or sectors.

More broadly, productive work helps agencies develop reputations for competency, and this reputation can comprise beliefs held by actors other than civil society actors or direct political principals. Where regulatory institutions are novel and civil society networks underdeveloped, agency leaders seeking to expand their resources and authority must demonstrate their value to officials important to their political principals. This result moves away from earlier literature that suggests agencies form must relationships with non-state clients and activist groups in order to thrive.[655]

These implications might provide insight into the most prominent regulatory development in contemporary Brazil. As noted throughout the project, new federal laws require the expansion of a network of regulatory entities for water and sanitation in all Brazilian cities. These new laws aim to expand and improve water and sanitation facilities according to negotiated plans and schedules unique to each of Brazil's 5500 cities, as overseen by a regulatory agency. Given the informational and technical advantages that water and sanitation companies have over municipal governments, which are often low-capacity, high-capacity regulatory agencies capable of correctly measuring outputs and punishing non-compliance are essential. My future work will examine these critical developments.

8.4. Future Research

My study raises several important questions, the answers to which would improve both this project and our understanding of developing world regulatory bodies and Latin American politics. First, the relationship between governors and other subnational elected officials in Brazil is still unclear. To what extent do governors form judgments and make policy decisions based on their interactions with mayors and city council members? I can break this question apart further. How do governors employ their resources among allied mayors and unaligned or opposition mayors that might be persuaded to provide future support? Why? How do governors gather information about local needs? What is the advantage for a gubernatorial candidate of having an allied, but not co-partisan, mayor in a given city? Second, my research raises questions on the relationship between bureaucratic autonomy and bureaucratic capacity. In developing my theory, I argued that a minimal amount of capacity is a prior requisite for autonomy. Yet few works have explored how bureaucratic agencies build or maintain capacity.[656] This gap might be attributed to scholars of bureaucratic autonomy largely focusing on developed country bureaucracies initially endowed with professional staff. Studies of bureaucratic autonomy in the developing world should pay more attention to the question of agency capacity. Third, my work leaves

[655] As noted in the case study chapter, Agergs in Rio Grande do Sul followed this advice in creating the Voluntary Users program. The Voluntary Users program was proposed by initial director Guilherme Villela (Interview RS4).
[656] Huber and McCarty (2004) provide a notable theoretical contribution on this topic.

unresolved the question of whether initial formal design shapes bureaucratic leaders' propensity to successfully expand their agencies' resources and authority. Studies of collegial leadership contrasted with presidential leadership, for example, do not exist for developing country bureaucracies. This study draws attention to these new questions and research directions, as well as developing a largely modular theory for post-creation bureaucratic development.

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Author Interviews: Subjects

AL1 – Directors at Arsal [anonymous], Maceió, AL, February 24, 2010

AL2 – Former Director at Arsal, Maceió, AL, March 1, 2010

AL3 – Director at Algás, Maceió, March 1, 2010

AL4 – Director at Procon-AL, Maceió, AL, March 2, 2010

AL5 – State Attorney and PSDB Advisor, Maceió, AL, March 4, 2010

BA1 – Former State Secretary and current Conselheiro at TCE-BA, Salvador, BA, March 9, 2010

BA2 – Federal Deputy (DEM-BA), Salvador, BA, March 15, 2010

BA3 – Director at Agerba [anonymous], Salvador, BA, March 17, 2010.

BA4 – Former State Secretary of Finance [*Fazenda*], Salvador, BA, March 23, 2010.

BA5 – Former executive staff member, Agerba, Salvador, BA, May 19, 2010

BA6 – Commercial Director, Bahiagás, Salvador, BA, May 21, 2010.

CE1 – Director at Arce, Fortaleza, CE, May 5, 2010

CE2 – Former State Secretary of Finance, Fortaleza, CE, May 5, 2010

CE3 – Former Arce Director, Fortaleza, CE, May 5, 2010

CE4 – Director at Arce, Fortaleza, May 7, 2010

CE5 – Staff member [anonymous] at Arce, Fortaleza, CE, May 8 and 14, 2010.

CE6 – Former Vice Governor of Ceará and former State Secretary, May 10, 2010

CE7 – Former Federal Deputy (PSDB-CE) and former State Secretary of Urban Development, May 10, 2010

CE8 – Former Director at Arce, Fortaleza, CE, May 11, 2010

CE9 – Former Director at Arce, Fortaleza, CE, May 11, 2010

CE10 – Staff member [anonymous] at Arce, Fortaleza, CE, May 12, 2010

DF1 – Former Director at Adasa-DF, Brasília, DF, May 24, 2010

DF2 – Director at Adasa-DF, Brasília, DF, May 25, 2010

DF3 – Former Director at Aneel, Brasília, DF, May 25, 2010.

MA1 – Former State Secretary of Finance and Planning, current Under Secretary, São Luís, MA,

April 20, 2010

MA2 – Former Governor of Maranhão, São Luís, MA, April 22, 2010.

MA3 – State Under Secretary for Finance, São Luís, MA, April 26, 2010

MA4 – Staff member at State Secretariat of Planning, São Luís, MA, April 26, 2010

MA5 – Former State Secretaries to Gov. Lago, São Luís, MA, April 27, 2010

MA6 – Staff member [anonymous] at state water company Caema, São Luís, MA, April 28, 2010

MA7 – Former State Secretary of Industry and Commerce, São Luís, MA, April 29, 2010

MS1 – [anonymous] at Agepan, Campo Grande, MS, October 15, 2009

MS2 – Former Director of Agepan, Campo Grande, MS, October 16, 2009.

MS3 – State Deputy (PT), Campo Grande, MS, October 19, 2009

MS4 – Former State Public Works Secretary, Campo Grande, MS, October 19, 2009

MS5 – Staffer at Agepan [anonymous], Campo Grande, MS, October 20, 2009

MS6 – Director at Agepan, Campo Grande, MS, October 20, 2009

MS7 – Director at Agepan, Campo Grande, MS, October 20, 2009

MS8 – Director at Agepan, Campo Grande, MS, October 21, 2009

MS9 – Former Director at Agepan, Campo Grande, MS, October 22, 2009

MT1 – Director at Ager-MT, Cuiabá, MT, October 26, 2009

MT2 – Former Director at Ager-MT, Cuiabá, MT, October 26, 2009

MT3 – Director at Ager-MT, Cuiabá, MT, October 26, 2009

MT4 – [anonymous] at Ager-MT, Cuiabá, MT, October 27, 2009

MT5 – Former World Bank liaison for Brazil, Cuiabá, MT, October 27, 2009

MT6 – Staff [anonymous] at Ager-MT, Cuiabá, October 28, 2009

MT7 – Former Director at Ager-MT, Cuiabá, MT, October 30, 2009

MT8 – Former Staffer at State Finance Secretariat, Cuiabá, MT, November 3, 2009

MT9 – Staff [anonymous] at State Finance Secretariat, Cuiabá, MT, November 4, 2009

MT10 – Professor of State Administration, UNIC, Cuiabá, MT, November 5, 2009

MT11 – [anonymous] at Ager-MT, Cuiabá, MT, May 31, 2010.

MT12 – Director at SETROMAT, Cuiabá, MT, June 1, 2010.

PA1 – Arcon staff members [anonymous], Belém, PA, April 8, 2010.

PA2 – Former State Secretary of Transportation, Belém, PA, April 13, 2010

PA3 – Former State Secretary of Public Works and of Transport, Belém, PA, April 14, 2010.

PA4 – Former State Planning Secretary, Belém, PA, April 15, 2010

PA5 – Director at Arcon, Belém, PA, April 16, 2010.

PA6 – Director at Arcon, Belém, PA, April 16, 2010.

PA7 – Former Director of Arcon, Belém, PA, April 19, 2010.

PR1 – Former State Secretary of Transportation, Curitiba, PR, November 16, 2009.

PR2 – Former staffer in State Planning Secretariat, Curitiba, PR, November 17, 2009

PR3 – Former Chief of Staff [Sec. do Governo], Curitiba, PR, November 17, 2009

PR4 – Director at Sanepar, Curitiba, PR, November 19, 2009

PR5 – Former State Secretary of Planning and of Transport, Curitiba, PR, November 20, 2009 [recorded first]

PR6 – Former State Under Secretary of Planning, Curitiba, PR, November 19, 2009

PR7 – State Secretary of Transportation, Curitiba, PR, November 30, 2009

PR8 – Former State Secretary of Finance and of Planning, Curitiba, PR, December 1, 2009

PR9 – Former staffer at State Planning Secretariat, Curitiba, PR, December 2, 2009

PR10 – Director at ABCR-PR/SC, Curitiba, PR, December 3, 2009

PR11 – Director at ABRH and Water Resources Consultant, December 3, 2009

PR12 – [anonymous] at COPEL, December 3, 2009

RJ1 – State Attorney for Rio de Janeiro, Rio de Janeiro, RJ, September 14, 2009

RJ2 – Former Director at Arsep-RJ [anonymous], Rio de Janeiro, RJ, September 14, 2009.

RJ3 – Former Director at Arsep-RJ, Rio de Janeiro, RJ, September 15, 2009

RJ4 – State Attorney for Rio de Janeiro, involved in privatizations, Rio de Janeiro, RJ, October 7, 2009

RJ5 – Former staffer at Arsep-RJ, Rio de Janeiro, October 8, 2009

RJ6 – [anonymous] at Agenersa, Rio de Janeiro, RJ, November 11, 2009

RJ7 – Former Director at Arsep-RJ, Rio de Janeiro, RJ, November 12, 2009.

RJ8 – Former Director at Arsep-RJ, Rio de Janeiro, December 9, 2009

RJ9 – Former State Secretary of Energy, Rio de Janeiro, December 14, 2009

RJ10 – Director at CEG and CEG-Rio gas company, Rio de Janeiro, RJ, December 21, 2009.

RJ11 – State Deputy (PSDB-RJ) and former Vice Governor, Rio de Janeiro, RJ, December 23, 2009

RJ12 – Former State Secretary of Transportation, Rio de Janeiro, RJ, August 3, 2010

RS1 – Former Agergs Staff Attorney and Director, Porto Alegre, RS, September 22 and October 1, 2009.

RS2 – [anonymous] at Agergs, Porto Alegre, RS, September 23, 2009.

RS3 – Director at Agergs, Porto Alegre, RS, September 23, 2009.

RS4 – Director at Agergs, Porto Alegre, RS, September 23, 2009

RS5 – State Attorney for Rio Grande do Sul, former staff at Secretariat of Planning, Porto Alegre, RS, September 28, 2009.

RS6 – [anonymous] at Agergs, Porto Alegre, RS, September 29, 2009.

RS7 – Staff [PT] at State Assembly, Porto Alegre, RS, September 29, 2009

RS8 – Attorney for Highway Concessionaires, Porto Alegre, RS, September 29, 2009

RS9 – Former State Planning Secretary, Porto Alegre, RS, October 1, 2009

RS10 – State Attorney for Rio Grande do Sul, former staff at Secretariat of Planning, Porto Alegre, RS, October 1, 2009

RS11 – Former Director at Agergs and CEEE, Porto Alegre, RS, October 2, 2009

RS12 – Former Director of Agergs, Porto Alegre, RS, June 14, 2010.

RS13 – Director at ABCR-RS, Porto Alegre, RS, June 15, 2010

RS14 – Directors of RTI and former ANTT Director, Porto Alegre, RS, June 16, 2010.

RS15 – Former State Secretary of Finance, Porto Alegre, RS, June 17, 2010

RS16 – Former Director at Agergs, Porto Alegre, RS, June 19, 2010

RS17 – Former Governor of Rio Grande do Sul, São Paulo, SP, July 19, 2010

SP1 – Former State Secretary of Planning, São Paulo, SP, July 1, 2010.

SP2 – Former State Secretary [anonymous], São Paulo, SP, July 6, 2010

SP3 – Former Executive Secretary at Finance Ministry, São Paulo, SP, July 6, 2010.

SP4 – Former Director of CSPE, Campinas, SP, July 7, 2010.

SP5 – Director of ARSESP, São Paulo, SP, July 8, 2010.

SP6 – Director at ARSESP and Former Director at Agerba, São Paulo, SP, July 14, 2010.

SP7 – Director at ARSESP, São Paulo, SP, July 14, 2010.

Websites for state agencies:

agerba.ba.gov.br, coresab.ba.gov.br, arsal.al.gov.br, arce.ce.gov.br, arpb.pb.gov.br, arsep.rn.gov.br, arsam.am.gov.br, arcon.pa.gov.br, arpe.pe.gov.br, aspe.es.gov.br, agenersa.rj.gov.br, agetransp.rj.gov.br, cspe.sp.gov.br, artesp.sp.gov.br, agesc.sc.gov.br, agesan.sc.gov.br, agergs.rs.gov.br, ager.mt.gov.br, agepan.ms.gov.br, adasa.df.gov.br, agr.go.gov.br, atr.to.gov.br