Complicating neoliberalization and decentralization: the non-linear experience of Colombian water supply, 1909-2012

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This article presents key elements in the evolution of water supply regulation in Colombia over the twentieth century. This is novel in that it contradicts widely accepted and seemingly universal trends in water supply development. By putting apparently recent phenomena into a longer historical trajectory, we are able to nuance the idea of a unidirectional transition from centralized to decentralized governance, as well as the evolution of policies associated with neoliberalization. We find that regulatory development began at the municipal scale in the 1920s, only to be centralized mid-century. By the same token, policies typically associated with neoliberalization – such as corporatization, full cost recovery, and volumetric metering – began in the 1910s and 1920s and not under neoliberalism in the 1980s. The work is based on a database compiled by the authors. The database comprises municipal, departmental and state regulatory interventions from 1909 to 2012.

Keywords: public utilities; regulation; water supply; Colombia; decentralization; neoliberalization

Introduction

This article presents the history of water utility regulation in Colombia from 1909 to 2012. In so doing, it offers an analysis of the historical development of water supply in a state characterized by “fragility of the rule of law” (LeGrand, 2013, p. 543), weak fiscal authority and limited territorial control (Gutiérrez Sanín, Acevedo Guerrero, & Viatela, 2007). This is of interest because most studies of the development of water and other utility services over the twentieth century have focused on high-income countries. These studies testify to well-known trends: private development of water supply in the mid-to-late nineteenth century and the municipalization (or nationalization) of these private services around the turn of the twentieth century, followed by centralized authority, large-scale water supply development, and increasing service coverage, reaching universality by mid-century (Goubert, 1986; Melosi, 2000; Ruiz-Villaverde, García-Rubio, & González-Gómez, 2010).

Then, in the 1970s, state leadership came under question. The decentralization and neoliberalization of utility services gained ground (Graham & Marvin, 2001). As a critique of state leadership, neoliberalism typically promotes market-led regulation, the application of business management principles to public-sector governance, fiscal austerity, and the reduced involvement of government in regulation and service delivery (Larner, 2000; Peck, 2008). For the environment, neoliberalism advances “a political economic approach that posits markets as the ultimate tool for achieving optimal use and
allocation of scarce resources” (Mansfield, 2004, p. 565). For water supply, in particular, it was argued that service delivery would be best achieved through the application of commercial management principles (such as full cost recovery), the creation of markets for water allocation, and the privatization or corporatization of utility services (Bakker, 2004; Furlong, 2010).

On the surface, the evolution of water supply in Colombia appears to follow these same patterns. However, the Colombian case destabilizes these trends in two key ways. First, it places decentralization in a longer historical trajectory, contradicting the idea of a unidirectional transition from centralized to decentralized governance. Rather than a transition from highly centralized services to one of decentralized management, one sees decentralized authority in the first half of the twentieth century, followed by efforts to centralize mid-century that only became successful in the 1990s, just when administrative decentralization was deployed. This shows decentralization to be iterative rather than unidirectional, and to be a hybrid process following differing trajectories across scales.

Briefly, in Colombia, municipalities (not the central government) drove utility regulation throughout the first half of the twentieth century. It was this decentralized regulatory development that formed the basis for the national laws, regulatory mechanisms and agencies that evolved from the 1940s onward. Yet, the capacity of many of the agencies charged with enforcing national laws remained weak until the 1990s. It was only then that one could speak of an effective centralization of water regulation through the action of strong national agencies. Simultaneously, administrative decentralization took place through the devolution of authority to municipalities. This new authority, however, was rapidly withdrawn from smaller localities, semi-‘recentralizing’ it to departments and regional bodies.

Second, this work places policies that are typically associated with neoliberalization into a longer historical trajectory, demonstrating the need to take a more nuanced view of ongoing reforms. In Colombia, the corporatization of public utilities, full cost recovery, volumetric metering and cross-subsidy began in the 1910s and 1920s, not the 1970s and 1980s. They developed almost simultaneously with municipalization. This is interesting because such policies (save cross-subsidy) are typically associated with the rise of neoliberalization (Ernst, 1994; Herrera & Post, 2014). The Colombian case suggests that these ideas have deeper historical antecedents. They go back to the beginning of the twentieth century in a context where local corruption, rapid urbanization and extreme income inequality were and remain major barriers to service quality and access.

This article proceeds in five sections. First, the methodology is presented. Next, the regulatory history of water supply in Colombia is divided and discussed in four periods. In Period 1, 1909–1935, Colombia’s major cities took the lead on regulatory development, with minimal federal intervention. In Period 2, 1936–1984, the federal government began to adopt the urban legislation, seeking to apply it across the country through the creation of national regulatory agencies. In Period 3, 1985–2002, regulatory centralization increased as administrative decentralization was implemented, and a new balance favouring commercial over social goals emerged. Period 4, 2003–2012, is notable for an effort to rebalance commercial and social goals in response to the widespread contestation of neoliberal reforms.

Methodology

The findings discussed below are derived from a legislative database that was compiled between 2011 and 2013. It includes the laws, decrees, resolutions, and rulings of the
Constitutional Court related to public utilities at the national scale from 1909 to 2012. Since water supply is delivered at the local scale, the database also includes the regulations of the cities of Bogotá, Medellín, Cali and Barranquilla and their respective departments, Cundinamarca (Bogotá), Antioquia (Medellín), Valle (Cali) and Atlántico (Barranquilla), over the same period. These are Colombia’s four largest cities and together include nearly 30% of its population.

The database was compiled using the following archival sources. For the national regulations, we relied on the state’s official journal, which contains the laws, decrees and national resolutions of Colombia and the archives of the Constitutional Court. For the departmental regulations, we reviewed the ordinances issued by the departmental assemblies of Cundinamarca, Antioquia, Valle and Atlántico. For the municipal regulations, the data are taken from the accords issued by the respective city councils. The database includes 391 national regulations; 78 documents issued by Colombia’s highest national planning authority, the National Council for Economic and Social Policy (CONPES); and 611 municipal accords and departmental ordinances (see Acevedo Guerrero, Arias Castaño, & Furlong, 2014). A list of the laws, accords and ordinances referred to in this article is presented in the appendix.

We are unable to cover the breadth of these data in the present article. Rather than analyzing all of the issues that arise from the database, we focus on decentralization and neoliberalization. Other researchers may be interested in the database for issues of rural water supply, environmental regulation, public health, the regulation of the water–energy nexus, and efforts to compensate rural communities for urban water consumption.

**Period 1: municipal leadership, 1909–1935**

Before 1909, small private companies administered urban water supply, with limited levels of water treatment and service coverage. As the cities started to grow, these private services became increasingly inadequate (EAAB, 2003a; Livardo Ospina, 1966). This led governments to take control of the services, as in countries all over the world (Budds & McGranahan, 2003). In contrast to experiences in many western countries, however, in Colombia this period is characterized by limited federal intervention in water supply. Regulatory development was led primarily by Bogotá and Medellín, Colombia’s two largest cities. Many of the reforms that would be characterized as neoliberal today were developed to enable service extension in a context of local corruption and limited access to financing.

At the turn of the twentieth century, Colombia was largely rural. Of a total population of approximately 4 million in 1900, its two largest cities, Bogotá and Medellín, could claim only about 121,000 and 70,000 inhabitants, respectively, and water and sanitation were very limited (Bushnell, 2010; Henderson, 2001). Over the course of the next decades, however, coffee exports grew steadily, legislation favouring manufacturing led to urbanization, and by the early 1930s the main cities had improved their water supply coverage (Stiener & Vallejo, 2010). By the end of this period, 28% of the population would be urban (Safford & Palacios, 2002, p. 301). Urbanization would continue rapidly over the decades that followed.

**The municipalization of water supply**

The process of municipalization began in Bogotá in 1910. A federal law to create a national framework for municipalization followed in 1913. Law 4 of 1913 gave municipal councils the authority to “create boards for the administration of certain types of public services” and...
made municipalities responsible for their management. In reality, this new authority was limited, as most municipalities lacked the resources to purchase the existing private utilities. In Bogotá, lacking the necessary funds, the city sought federal allocations, which were approved through Law 86 of 1912 and Law 97 of 1913. As these funds were insufficient, a loan was requested from a national bank, the Banco Hipotecario de Colombia.

Recognizing the problem of limited local resources, Law 65 of 1928 divided the responsibility for funding water service extension between federal and municipal governments. The federal government was charged with financing 50% of the cost of service extension in small towns, and up to 50% in cities. Municipalities remained responsible for the management of the service and the remainder of the financing. The major cities were also given new powers to raise funds. In Bogotá, Law 72 of 1926 empowered the city council to create new taxes and fees to increase water treatment and distribution capacity. In particular, the council acquired the authority to establish water tariffs and surcharges for non-payment.

In practice, however, funds remained limited. This played an important role in the early corporatization of Colombian utilities. Government loans were inadequate and ill designed for funding major infrastructure improvements, forcing utilities to seek loans from private banks throughout the first part of the twentieth century (Ellis, 1953). In Medellín and Bogotá, infrastructure extension was financed primarily via loans from international and domestic banks, as well as federal government bonds. This, combined with limited federal regulation, gave significant power to banks to steer local water policy. In Colombia’s largest cities, emphasis was placed on shielding the new utilities from local government corruption by making them autonomous through corporatization.

**Corporatization and utility ‘autonomy’**

Debates about the creation of autonomous water utilities to avoid the ‘ politicization of water supply’ are typically associated with neoliberalization. In the 1980s and 1990s, advocates promoted private-sector management, operation and even ownership of utilities (Bakker, 2003; Budds & McGranahan, 2003). More recently, the corporatization of public utilities has been widely promoted to enable ‘business-like management’, commercial efficiency and distance from government (Cruz, Marques, Marra, & Pozzi, 2014; Hoorens, Verdier, & Marinez, 2004; Smith, 2004).

In Colombia, however, discourses of ‘utility autonomy’ are not recent. They date back a century, beginning with municipalization. In Medellín, immediately following Law 4 of 1913, the city council issued Accord 12 of 1913, which created the independent Municipal Water and Sewer Company and its Autonomous Management Board. Accord 45 of 1914 gave the board authority over “all matters relating to the supply and distribution of piped water in the city”, and Accord 158 of 1918 made the board responsible for the management of all water and sewerage works in Medellín.

In Bogotá, a similar process began in response to limited service improvement following municipalization and the utility’s dependence on private banks. In 1929, under increasing financial stress, Bogotá turned to three national banks for loans. The Banco Hipotecario de Colombia, the Banco de Bogotá, and the Banco de Colombia tied the loans to the co-management of the utility and bank control of its board. The contract, approved through Accord 15 of 1929, stated that the management board would have five members, three appointed by the banks and one each by the mayor and council. The board, elected on two-year mandates, would choose the general manager and have full autonomy to organize, administer, expand and improve the ‘business’. The board established water
tariffs by agreement with the mayor and approval of the council. As new loans were obtained in 1937, 1946 and 1955, this arrangement was repeatedly renewed,² lasting for 39 years until all the loans were paid in 1968.

**Combining commercial and social principles**

In Colombia’s largest cities, the newly corporatized utilities developed local accords that promoted both commercial and social goals. Metered billing and consumption-based tariffs were key instruments in efforts to increase utility revenue and extend infrastructure to unconnected neighbourhoods. While measures like metering can be regressive, serving to exclude low-income users (Loftus, 2006; Morgan, 2008), this is not always and everywhere the case and is not predetermined by the technology itself (Coutard, 2008; Furlong, 2011; Jaglin, 2008).

In Bogotá and Medellín, meters were first introduced to enable service extension. Access to piped water was largely restricted to high-income neighbourhoods and to the institutional, commercial and industrial sector (Cardenío, 2007; Gaitán, 1938). Extending services depended on curbing the consumption of these groups and on increasing utility revenue, in a country with very low levels of taxation (Henderson, 2001). In Bogotá, Accord 25 of 1929 argued that metering was necessary to curb the high consumption of connected users that made it impossible to extend services due to insufficient treatment capacity and low rates of payment. Even the mayor was not spared. In 1931, the utility suspended his service for non-payment (EAAB, 2003a).

Accord 25 of 1929 included other elements that would be considered neoliberal today. It gave the utility the authority to reduce wages and lay off workers, to eliminate exemptions from payment previously enjoyed by government agencies and certain households (like the mayor’s), and to introduce mandatory water metering. Yet, the law also established differential rates, with a lower rate for ‘subsistence’ consumption and a higher rate for any additional (‘sumptuous’) consumption.

Later that year, through Accord 48 of 1929, a preliminary system of cross-subsidy was implemented. Using property value assessments, those in higher value categories as well as the institutional, commercial and industrial sector paid rates above the full cost of services, subsidizing households with lower assessments (which were exempt from metering). The utility began another meter installation programme in 1938 and sought tariff increases through Accord 8 of 1939. According to the utility, these policies enabled the necessary increases in revenue to qualify for the loans needed to support infrastructure extension (EAAB, 2003b).

Following Bogotá’s example, Medellín developed programmes for metering, full cost recovery and cross-subsidy in the 1950s and 1960s. In Medellín, cross-subsidy had been under discussion since 1937. It was implemented in the late 1950s following the integration of the city’s utilities into a single multi-utility corporation in 1955. Again, the stated motivation was service extension to unconnected residents (EPM, 1958, 1965). Public Utilities of Medellín (EPM) instituted differential tariffs that included expansion costs (e.g. Resolutions 1484 of 1959 and 2222 of 1960). Cross-subsidy was eventually legislated at the federal level and applied to all public services across Colombia. This is discussed in the next section.

**Period 2: federal intervention, 1936–1985**

Period 2 is characterized by greater federal involvement in public service provision. Beginning with constitutional reforms of 1936, the state began to assume more authority...
over tariffs and utility performance. Building on these changes, new federal regulatory agencies were created, which gave the state the authority to intervene directly in service extension. In many ways, the central government sought to apply the policies developed in Bogotá to the whole of Colombia. In practice, however, improvements remained limited to the large cities.

Over the course of this period, Colombia became a country of cities. The urban population increased from 39.5% in 1951 to 67.2% in 1985. This coincided with rapid improvements in infant mortality, life expectancy, literacy, and access to a range of services (Safford & Palacios, 2002). Water coverage tripled, from 28.8% of households having running water in 1951 to 69.7% in 1985 (Palacios, 2001, p. 300). Yet, poverty and the inadequacy of services in rural areas changed little (Safford & Palacios, 2002).

Economic growth in the cities was driven by a policy of import-substitution industrialization, which was followed until 1967 (Stiener & Vallejo, 2010). The decline of Colombian manufacturing in the 1970s hit many cities hard, particularly Medellín (Roldán, 2003). The 1980s were characterized by a policy of export promotion, focused on manufactured consumables and processed coffee, which resisted import liberalization as Colombia had done throughout the twentieth century (Stiener & Vallejo, 2010).

**Constitutional reform**

The constitutional reform of 1936 established new roles for the federal government with respect to utility services. In particular, these focused on “the setting, implementation, and oversight of tariffs and the regulation of the entities in charge of service provision” (Legislative Act 1, 1936). To fulfil these functions, several new laws were established. Law 65 of 1936 set aside 1% of federal receipts for the improvement of water treatment and distribution capacity, created an additional fund for service extension using contributions from the departmental and national governments, and made the Ministry of Public Works responsible for overseeing the water sector. Law 109 of 1936 made tariffs subject to federal approval, to prevent utility companies from charging excessive fees in contravention to “society’s collective well-being”. Utilities had to submit financial reports and data such as the number of connections; the utilities in cities of more than 10,000 inhabitants also had to submit a certificate of water quality from an independent laboratory (Decree 1606 of 1937).

**State-regulated utility autonomy**

Although utilities in Bogotá and Medellín were established as ‘autonomous’, many considered their level of independence from local government inadequate. In 1954, representatives of Antioquia’s business community, led by the vice president of the National Business Association (ANDI), successfully lobbied the National Congress for the passage of Legislative Act 5 of 1954 (López Díez, Aristizábal Gil, Arias Jaramillo, & Tobón Giraldo, 1998). This act made it constitutionally possible to create autonomous entities – via municipal corporations – for the management of public services, describing them as “public facilities endowed with independent legal status for the provision of one or more particular services”. A year later, Decree 1816 of 1955 further stipulated that these “should be apolitical entities, directed with rigorous and technical criteria of management efficiency”.

EPM was the first such entity created after the reform. Medellín’s city council issued Accord 58 of 1955 establishing EPM as an “independent entity responsible for the administration of electricity, water, sewerage and telephone services” and defining it as
“an apolitical entity, with rigorous standards of administrative efficiency, based on business management principles”, with the objective of “guaranteeing citizens reliable and affordable public services in perpetuity”. This focus on the “apolitical” character of EPM was further emphasized in EPM’s own statutes (Accord 375 of 1955).

Bogota’s water and sewer utility was also quickly reformed. The Water and Sewer Company of Bogotá (EAAB) was created through Accord 105 of 1955. In 1961, Cali followed suit. Through Accord 50 of 1961, EMCALI (Municipal Enterprises of Cali) was created. It was given the authority to engage in financial transactions, to obtain external or internal credit, to have “its own assets and to be independent to manage and expand public services”.

New regulatory agencies

At the same time as utility independence was being strengthened at the municipal scale, the state began to attempt to centralize its regulation and oversight. Through Decree 503 of 1940, the Municipal Development Institute was created within the Ministry of Finance to manage and allocate federal resources for service extension. With Decree 289 of 1950, the institute was restructured and renamed the Institute of Municipal Promotion (INSFOPAL). INSFOPAL shared the same functions as its predecessor (Decree 837 of 1952), but it had greater independence and a stronger mandate, and was directly involved in building infrastructure. It was also used to help check local corruption by requiring municipalities to purchase construction materials directly from INSFOPAL and to submit an annual construction plan (Decrees 2658 of 1953 and 1404 of 1955). Failure to submit a plan, or a delay in the execution of works, gave INSFOPAL the authority to intervene and assume the associated tasks (Decree 3699 of 1954).

In the 1960s, the federal government increased funding for infrastructure extension through INSFOPAL. In 1962, congress authorized a federal investment of 350 million pesos (USD 778 million in 2014 dollars) through Law 9 of 1962. However, municipalities also bore an important share of the responsibility for infrastructure funding. They had to provide INSFOPAL with the necessary land and workers, and reimburse a percentage of the total cost (depending on the size and revenue of the municipality).

Whereas utility tariffs were approved by local council in the first period, in Period 2 this responsibility was transferred to two federal regulatory agencies: INSFOPAL and the Superintendency of Economic Regulation (SRE). The SRE was established in 1960 to ensure adequate funding of water supply extension (Decree 1653 of 1960) through the regulation of utility tariffs, ensuring cost recovery (Resolution 001 of 1961).

Resolution 001 of 1961 formed the basis for the national cross-subsidy system that came into law in 1968. This resolution made it mandatory for utility rates to be tiered according to income. As in Bogotá and Medellín, the cross-subsidy system was based on property value assessments. In December 1968, Colombia’s constitution was amended through Legislative Act 1 of 1968, leading to the creation of a new federal utility tariff regulator, the National Tariffs Board (JNT) through Decree 3069 of 1968. The JNT assumed the responsibilities of the SRE, with a mandate to ensure cost recovery while “accounting for the financial capacity of the different social sectors”.

Pursuing social goals: cross-subsidy and public health

Property-value-based cross-subsidy, developed in Bogotá in Period 1, was extended across Colombia in Period 2. Decree 3069 of 1968 reinforced the JNT’s mandate and required
that municipalities be divided into tiers based on property value assessments for the purposes of cross-subsidy. Municipalities could determine the number and geography of the tiers, subject to JNT approval. Medellín, for example, used an eight-tier system until 1972, when it applied to the JNT to reduce the number of tiers to six and to increase the level of cross-subsidy by keeping the same prices for the lowest tiers and increasing tariffs for the highest tiers (EPM, 1972).

By the late 1970s, the property value assessment system was being questioned. Property value assessments were often outdated, such that older, wealthier neighbourhoods might have a lower assessment than lower-income areas with more recent assessments. In 1983, protests mobilized across the country against the use of property values to define the tiers (Toro B., 1992). In response, the federal government issued Law 14 of 1983 banning the use of property values and requiring “authorities to transform the tariff structure”. Beginning with electricity in 1984, the JNT set stricter requirements for the tiers, unifying the system across the country. A methodology for defining tiers based on socio-economic criteria was defined in Decree 394 of 1987.

Later, Decree 970 of 1991 established a six-tier system in which the tiers are defined using a combination of socio-economic characteristics for each neighbourhood, including data on housing quality, the availability of public services including transportation, the condition of nearby infrastructure, recreational facilities and parks, access to nature, and proximity to businesses and commerce. The National Department of Statistics (DANE) established the weight of each of the factors used to define the tiers in each municipality. The processes are public, and residents have the right to challenge their assigned tiers.

In addition to cross-subsidy, water tariffs became tied to improvements in public health and environmental quality. In the early 1950s, the central government began regulating water quality in the context of emerging cross-subsidy. The Ministry of Public Health became responsible for ensuring that water utilities follow standardized water purification processes through Decree 1183 of 1953. In the National Health Code (Decree 1371 of 1953), municipalities were required to obtain a license from the Ministry of Public Health prior to the construction, installation or extension of water infrastructure. The code stipulated the procedures to be applied in water treatment, and required water utilities to keep records of consumption data, levels of chlorination, and results of bacteriological analysis. These powers gave the Ministry of Public Health a role in approving proposed rate increases. In Medellín, for example, the ministry approved the connection fee associated with Resolution 1484 of 1959 mentioned above.

**Period 3: commercial goals take precedence, neoliberalization 1985–2002**

Period 3 is characterized by reforms that emphasized commercial over social goals. Key examples include restrictions on cross-subsidy and the promotion of private-sector participation. Unlike in many other Latin American countries, this neoliberalization was not imposed through ‘structural adjustment’ in response to a domestic ‘debt crisis’; it was gradual (Gilbert, 1990; Gutiérrez Sanín, 2011). At the same time, urbanization continued apace; the population living in cities increased from 66% to 73% between 1985 and 2002. Similarly, water coverage increased from approximately 78% to 82% between 1993 and 2005 (Bushnell & Hudson, 2010).

While neoliberalization was incremental at first, it did follow many of the same policies. For utility services, responsibility was increasingly decentralized to municipalities, while regulation was increasingly centralized.
referred to by some as ‘regulatory capitalism’ – was common around the world (Braithwaite, 2008; Jordana & Levi-Faur, 2005). Yet, in Colombia, it did not follow a period of deregulation, as is typical of neoliberalization (Larner, 2000; Peck & Tickell, 2002). The centralization of utility regulation that began in the 1950s only increased in scope and effectiveness.

Another notable difference is that decentralization did not coincide with the introduction of corporatization. Elsewhere in Latin America, decentralization was implemented in tandem with reforms to assure the autonomy of water utilities from local governments (Herrera, 2014; Herrera & Post, 2014). In Colombia, as shown above, reforms to ensure utility ‘autonomy’ date back to the 1910s and 1920s.

**Decentralization and commercialization**

In Colombia, decentralization is typified by the creation of Regional Planning Councils (CORPES), the popular election of mayors, and the promotion of public participation. The CORPES were established under Law 76 of 1985, along with the five regions they represented (Atlantic Coast, Amazon, Orinoco, West Colombia and East-Central Colombia). They were charged with formulating development plans in cooperation with the new regions. Mayors were first elected following Legislative Act 01 of 1986, prior to which mayors were appointed by the governor of the department, who was appointed by the president of the republic. That same year, Law 11 of 1986 made community participation mandatory in the “management of local affairs” and created a place for user representation on utility boards.

For water supply and other utility services, the process of decentralization actually began in 1975. That year, the Sanitary Works Companies (EMPOS) were created at the local scale to assume the functions of INSFOPAL (see above) with respect to the extension of water and sewer infrastructure (Decree 2804 of 1975). A decade later, with Decree 77 of 1987, INSFOPAL’s remaining functions were decentralized to the municipalities and it was dissolved.

In 1994, both neoliberalization and centralized regulatory authority were consolidated through Law 142 of 1994, which was made possible by the 1991 constitutional reform. The 1991 constitution opened the door to private-sector participation by making public services subject to “free market competition” based on the principle of “economic freedom”. Law 60 of 1993 authorized municipalities to privatize water supply. Law 142 of 1994 further required cities wishing to retain public ownership to justify their choice. Where public ownership could be ‘justified’, service providers were required to be organized as corporations, be they wholly public, mixed ownership (with a maximum of 50% public ownership), or fully private. The largest cities resisted the pressure to privatized, but were further corporatized (EAAB, 2003c; Ríos, 2008; Vélez Álvarez, 2013). As of 2012, 10 of Colombia’s 20 largest cities continue to own their local water corporation.

Subsequent reforms, tied to Law 142 of 1994, sought to reinforce the public’s role in decentralized utility management. Law 134 of 1994 gave civil society groups the ability to constitute citizen monitoring boards to oversee utilities. Decree 1429 of 1995 introduced Committees for the Development and Social Control of Public Utilities, which were to be organized by and made up of users. In practice, their establishment has been tentative even in the biggest cities, and there is no mechanism for the representation of unconnected residents.
Centralized enforcement of commercialization

Law 142 of 1994 consolidated centralized regulatory authority, while encouraging decentralized management, through the creation of two new regulatory agencies. First, the Commission for the Regulation of Water and Basic Sanitation (CRA) replaced the JNT. The CRA is responsible for defining and ensuring efficiency, evaluating performance and approving tariffs. Second, the Superintendency of Household Public Services (SSPD) was created to ensure utility compliance with all other regulation. In cases of non-compliance, the SSPD has the authority to intervene and assume the management of the utility, as well as to liquidate it and sell the shares.

Law 142 of 1994 also set limits on the level of cross-subsidy between socio-economic tiers. Article 99 stipulates that subsidies cannot exceed the value of subsistence consumption, which was defined as 20 m3 per household per month in CRA Resolution 04 of 1994. The article also restricts cross-subsidy to the portion of the tariff allocated to funding service extension. Law 505 of 1999 gave utilities six months to apply the new restrictions, and gave the SSPD the authority to sanction utilities for non-compliance. Law 632 of 2000 subsequently extended the deadline to 31 December 2005.

Law 142 of 1994 also stipulated that no person or entity could be exempt from payment for services and gave the SSPD the power to revoke a utility’s right to provide services if it did not charge the full costs to every user. Requirements for rate collection and service cuts for nonpayment had already been established through Decree 951 of 1989. Yet, in Medellin, it was not until Law 142 of 1994 that disconnection became a major issue (Furlong, 2013). These measures met with significant resistance from citizens. The regulatory database registers 26 legal actions against the restrictions on cross-subsidies, each arguing that the right to water supersedes economic efficiency.

Period 4: moderating the reforms, 2003–2012

Period 4 is characterized by regulatory efforts to consolidate the complex system of water pricing, utility organization and water quality enforcement that developed over the previous periods. After the emphasis on commercial over social goals that characterized Period 3, regulation sought a return (in some measure) to the prior emphasis on social goals. Restrictions on cross-subsidy were relaxed, and new measures were implemented to improve access. In addition, the administrative decentralization characteristic of Period 3 was reversed in the case of small municipalities. In the meantime, Colombia continued to urbanize, with urbanization expected to reach 76% in 2014, and 35% of the population concentrated in the four largest cities (Bushnell & Hudson, 2010). Water coverage also grew, reaching 87.4% in 2012 (CRA, 2013).

Recentralizing administrative authority for small municipalities

In 2006, the Deputy Ministry of Water and Sanitation was established (Decree 3137 of 2006). Its roles were to enforce policies directed at increasing coverage, to promote the development of scientific research on water and sanitation, and to develop guidelines for infrastructure projects and the business-like management of utilities. It introduced two new programmes, the Programme for the Improvement of Informal Settlements and the Municipal Sanitation Programme, through Law 1151 of 2007. This law also introduced departmental water plans (PDAs). The PDAs were primarily directed at tackling the problems of small municipalities by shifting authority from these municipalities to
regional entities through plans developed by the departments, in cooperation with municipalities and national regulatory bodies (Bonilla, 2014).

Administrative authority was also recentralized away from municipalities that failed to comply with the legislation developed in Period 2. Decree 513 of 2010, for example, gave the departments the authority to assume the management of local utilities decertified by the SSPD.

**Rebalancing social and commercial goals**

In 2003, the restrictions placed on cross-subsidy under Law 142 of 1994 were softened to allow greater support for low-income users (Law 812 of 2003). The restrictions were further reduced through Law 1450 of 2011. While Law 142 of 1994 stipulated that subsidies for users with the lowest income could not exceed 50% of basic subsistence consumption, Laws 812 of 2003 and 1450 of 2011 raised the maximum subsidy to 70% for the lowest income tier.

These and other changes are directly related to the work of advocacy groups. Coalitions for disconnected residents won the right to a lifeline amount of water as well as a prohibition of water and electricity disconnection in homes with minors. These victories were achieved through a series of decisions of the Constitutional Court. In particular, Decision T-410 of 2003 affirmed that drinking water is a fundamental right without which people’s survival is threatened. Decision C-150 of 2003 made water and electricity disconnection illegal in homes with minors and seniors. Decision T-270 of 2007 paved the way for a lifeline amount of water. The court stated: “The human right to water entitles everyone to a sufficient amount of potable and affordable water for personal and domestic use. An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related diseases and to meet consumer needs”.

These arguments were brought together in Decision T-546 of 2009, which established water supply as essential to ensure the fundamental rights of life, equality, dignity and health, requiring the state to provide citizens with a lifeline amount of water free of charge.

In response, the city of Medellín included a lifeline amount of water (called the *minimo vital*) in its 2008 development plan. Effective 2009, it covers the first 2.5 m$^3$ per month per person for households in Tiers 1 and 2. It has also been implemented in Bogotá, where it covers the first 6 m$^3$ per month per person for households in Tiers 1 and 2 (Decree 64 of 2012). In other big cities, such as Cali and Bucaramanga, city councils are currently considering a programme equivalent to that of Bogotá.

**Conclusion**

This database gathers the regulations concerning utility services, focusing on water supply, issued in Colombia from 1909 to 2012. This regulatory history sheds light on a number of issues that are of interest in the analysis of current trends in water supply. In so doing, it offers a broader understanding of twentieth-century water supply development, beyond the well-known trajectories of high-income countries.

In the early part of the twentieth century, regulatory development was driven by the largest cities. This regulation was later adopted at the national scale, tentatively in the 1940s and more comprehensively beginning in the 1960s. Generally, these agencies followed the policies developed in the major cities, seeking to apply them across Colombia. In practice, this often helped reinforce progress in the major cities, without enabling improvements more broadly. With the constitutional reform of 1991 and Law...
142 of 1994, however, real centralization of utility regulation started to occur – just as administrative decentralization was initiated.

The policies developed in urban centres like Bogotá and Medellín over the first half of the twentieth century, and later adopted nationally, include corporatization, efforts to shield utilities from local government ‘politics’, metering and full cost recovery. Since the 1910s and 1920s these cities have pursued policies that are generally associated with neoliberalism beginning in the 1970s and 1980s. Yet, while commercial in nature, the policies were implemented primarily to enable service extension and cross-subsidy. Moreover, while Colombia did develop new regulations that can be characterized as neoliberal in the last two decades of the twentieth century, this regulation has longer historical antecedents, was not preceded by ‘deregulation’, and was tempered in the early part of the twenty-first century.

Colombia’s experience also has much to offer policy makers. First, Colombia’s 85-year history in developing first a municipal and then a nation-wide system of cross-subsidy should be of interest to other countries struggling to provide accessible services across income groups. The case demonstrates that cross-subsidy and full cost recovery are not incompatible as is often argued by promoters of utility commercialization (e.g. Komives, Foster, & Halpern, 2005). In fact, in Colombia, full cost recovery and volumetric metering – making the rich pay more in the context of a state with restrained fiscal capacity – were among the few means of subsidizing and thus improving service access for the poor. This is further demonstrated by attempts to limit cross-subsidy in the name of full cost recovery with Law 142 of 1994. In under 10 years, these restrictions had to be rolled back to allow greater levels of cross-subsidy and a lifeline amount of water.

Second, the Colombian case demonstrates the need for flexibility in the development of regulatory reform, and openness in its interpretation. The historical perspective provided here demonstrates that any legislative reform can only be understood within its evolving social context. It shows regulatory development to be a process of experimentation and contestation, involving innovation and reversal, as opposed to definitive and predictable change. Moreover, it can follow developments in municipalities, as opposed to being led by the central government. Consequently, a variety of local interests play a role in how utilities ultimately operate. These include financiers and business elites, but also community groups. In Colombia, all of these have acted to promote utility autonomy and to enhance (or resist) regulations that ensure social protection.

Disclosure statement
No potential conflict of interest was reported by the authors.

Notes
4. Unified information system for utilities (SIU): http://reportes.sui.gov.co/

References
EPM (Empresas Públicas de Medellín). (1972). Solicitud presentada por las Empresas Públicas de Medellín para modificar las tarifas de acueducto y alcantarillado en la ciudad de Medellín [Request by Empresas Públicas de Medellín to modify the rates of water and sewage in the city of Medellín]. Medellín: EPM.


Appendix 1

**Legislative documents**

- Law 86 of 1912. Congreso de la República.
- Law 97 of 1913. Congreso de la República. Which gives special attributions to certain city councils.
- Law 72 of 1926. Congreso de la República. On attributions to the municipality of Bogotá.
- Legislative Act 1 of 1936. Congreso de la República.
- Legislative Act 1 of 1946. Congreso de la República.
- Legislative Act 5 of 1954. Congreso de la República.
- Law 9 of 1962. Congreso de la República. By which authorizations are conferred to the national government to hold foreign credit operations.
- Legislative Act 1 of 1968. Congreso de la República. By which the Constitution of Colombia is reformed.
- Law 14 of 1983. Congreso de la República. By which local tax administrations are strengthened.
- Law 142 of 1994. Congreso de la República. By which the system of public services is established.

(Continued)

Executive decrees

• Decree 1606 of 1937. Presidencia de la República. By which Law 65/1936 is regulated.
• Decree 503 of 1940. Presidencia de la República. By which the Municipal Development Fund was created.
• Decree 289 of 1950. Presidencia de la República. By which the Municipal Development Institute was created.
• Decree 837 of 1952. Presidencia de la República. Which reorganizes the Municipal Development Institute.
• Decree 1183 of 1953. Presidencia de la República. On technical control of water supply.
• Decree 2658 of 1953. Presidencia de la República.
• Decree 3699 of 1954. Presidencia de la República.
• Decree 1404 of 1955. Presidencia de la República.
• Decree 1816 of 1955. Presidencia de la República.
• Decree 1653 of 1960. Presidencia de la República. By which the Superintendency of Economic Regulation is created and its functions are set.
• Decree 3069 of 1968. Presidencia de la República. By which the National Board of Public Utility Tariffs is created.
• Decree 2804 of 1975. Presidencia de la República. Which reorganizes INSFOPAL.
• Decree 77 of 1987. Presidencia de la República. By which the decentralization statute is issued.
• Decree 394 of 1987. Presidencia de la República. Which establishes a national water and sanitation tariff structure.
• Decree 951 of 1989. Presidencia de la República. By which the general regulations for water supply and sanitation are established.
• Decree 3137 of 2006. Presidencia de la República.
• Decree 513 of 2010. Presidencia de la República.
• Decree 64 of 2012. Alcaldía de Bogotá. By which decree 485/2011 is modified and a free lifeline water supply is defined for Tiers 1 and 2.

Accords: City Council of Bogotá

• Accord 15 of 1914. Concejo Municipal de Bogotá.
• Accord 57 of 1924. Concejo Municipal de Bogotá. By which management of public utilities is organized.
• Accord 15 of 1929. Concejo Municipal de Bogotá. By which a contract (with the banks of Bogotá, Colombia and Hipotecario de Colombia to co-manage the tram company and water utility) was approved.
• Accord 48 of 1929. Concejo Municipal de Bogotá. By which Accord 25, on water tariffs, is modified.
• Accord 14 of 1937. Concejo Municipal de Bogotá.
• Accord 8 of 1939. Concejo Municipal de Bogotá. By which water tariffs are modified.

Accords: City Council of Medellín

• Accord 127 of 1913. Concejo Municipal de Medellín. By Which the municipal water utility is created.
• Accord 45 of 1914. Concejo Municipal de Medellín.
• Accord 158 of 1918. Concejo Municipal de Medellín.
• Accord 586 of 1954. Concejo Municipal de Medellín.

(Continued)
Accords: City Council of Cali

Resolutions
- Resolution 1484 of 1959. Ministry of Public Health. By which decree issued by the Board of Directors of the Public Enterprises of Medellín on April 8 of 1959 is approved.
- Resolution 001 of 1961. Superintendency of Economic Regulation. By which general rules for setting tariffs and regulations for water supply and sewage services are set.
- Resolution 04 of 1994. Comisión Reguladora de Agua. By which the highest levels of subsistence consumption of water are set.

Other

Note. All documents listed in this table are in Spanish; English versions are given here for some titles.