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## **BOGOTÁ: THE COLLAPSE OF A POLITICAL MACHINE**

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### **Abstract**

In Bogotá the 1991 reforms obstructed a market for votes. Clientelism lost its effectiveness; citizens developed a vote of opinion and the city showed an outstanding performance in the provision of public goods and social services. This story is illustrated with a novel panel data at the neighborhood voting precinct level from 1988 to 2003. An interesting episode exposes the changing class preferences of Bogotá citizens for each of its mayors. However, the main result is the structural break caused by the reforms. Prior to 1991, the areas with the most exposure to clientelism generated a greater percentage of votes for traditional parties and obtained a greater coverage of social services; since 1991, both relationships are no longer true. A political machine collapses.

**Keywords:** political institutions, institutional change, elections, clientelism, vote buying, public policies, Bogotá.

**JEL Classification:** D72, D73, E62, H11, H72.

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# **BOGOTÁ: EL COLAPSO DE UNA MAQUINARIA POLÍTICA**

## **Resumen**

En Bogotá las reformas de 1991 obstruyeron un mercado de compra y venta de votos. El clientelismo perdió efectividad, los ciudadanos desarrollaron un voto de opinión y la ciudad demostró un desempeño sobresaliente en la provisión de bienes y servicios públicos. Esta historia se ilustra mediante un novedoso panel con datos a nivel del barrio y del puesto de votación desde 1988 hasta 2003. Un episodio interesante expone las preferencias de clase de los bogotanos por cada uno de sus alcaldes. Sin embargo, el resultado principal es el quiebre estructural ocasionado por las reformas. Antes de 1991, las zonas más expuestas al clientelismo generaban un mayor porcentaje de votos por los partidos tradicionales y obtenían una mayor cobertura en servicios públicos; después de 1991, ambas relaciones dejan de ser ciertas. Una maquinaria clientelista colapsa.

**Palabras clave:** instituciones políticas, cambio institucional, elecciones, clientelismo, compra y venta de votos, políticas públicas, Bogotá.

**Clasificación JEL:** D72, D73, E62, H11, H72.

## I. Introduction

“Although ideology played a part in the two traditional parties, the Liberal and Conservative parties, at election time the votes were mobilized by the *local boss*. He did this essentially by building a *political machine* that would reward him with votes at election time in return for favors rendered throughout the years. The boss’s network of political debts is created by *helping people get jobs*, sometimes in the private but mostly *in the public sector*, by getting scholarships for the children of members of his support group, *and by having the state build infrastructure or extend public services to the municipality or urban neighborhood where the clientele is being built up.*” (Urrutia, M. 1991, PP. 387. Author’s emphasis).

By the end of the last decade, several cities in the world, such as Mexico, Tanzania or New Delhi, turned their eyes towards the Eastern Andes. Unexpectedly, Bogotá was turning into a scene of great projects of infrastructure and unprecedented civic experiments. Something new was happening in the Colombian capital. Twenty years ago it was difficult to foresee that a disorganized metropolis would be later transformed into the contemporaneous Bogotá. Maybe for this reason visitors who were exposed to both facets of the city seem surprised. A German reporter, for example, uses the following words to refer to the city of the 80’s:

“My Bogotá was a city of permanent gray clouds, where the fetid smell of gases emitted by the thousands of buses and by the tons of garbage piled on the streets and the asphyxiating dust of the poverty stricken areas robbed you of air”.

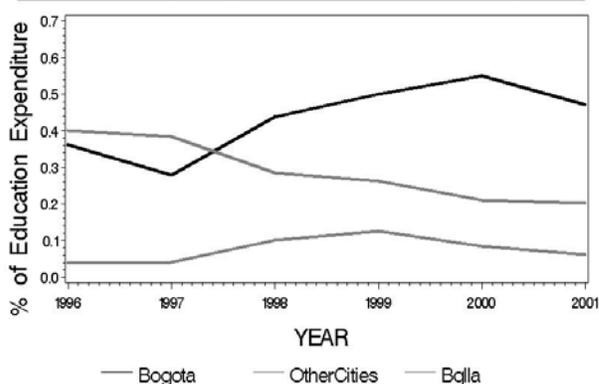
Two decades later his words are different:

“Thanks to a series of human miracles, the Colombian capital has not only become one of the safest capitals in Latin America but also one of the region’s most important cultural centers and a kind and harmonic place to live” (El Tiempo, May 20, 2006. Author’s translation).

Similar cases happen every day. However, the average citizen also felt the change. In 1985, for example, only 25% of Bogotá citizens believed the city to be a good place to live but 15 years later, 67% thought the same way. (Torres, 2003).

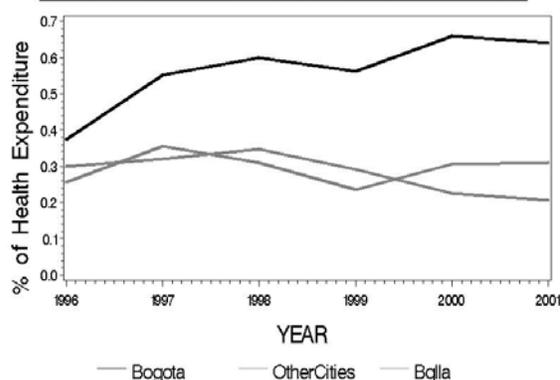
Bogotá showed a break in history. One of the clearest manifestations was a notable progress in the provision of public goods and social services<sup>1</sup>. Graphs 1 through 4 illustrate part of this progress. Graphs 1 and 2 show the percentage of expenditure in education and health, which surpasses that required by the Constitution. Both graphs show that between 1996 and 2001, Bogotá experiments an increase in these percentages and that the gap between Bogotá and the other Colombian cities increases as well. Graph 3 shows the average rate of aqueduct, sewage, electricity and gas coverage for Bogotá and the other main cities. The average rate of coverage increases for both cases, although the percentage for the capital increases more rapidly. Finally, graph 4 shows the rate of homicides for Bogotá and for the rest of the country. Between 1991 and 2002 the homicide rate for the country falls in 12%, and the homicide rate for the capital falls in 46%.

Graph 1: Excess Spending on Education as a % of Total Expenditure



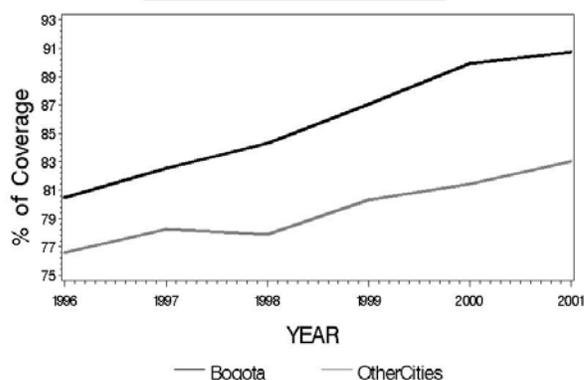
Source of Data: Sánchez and Robinson (2006).

Graph 2: Excess Spending on Health as % of Total Expenditure



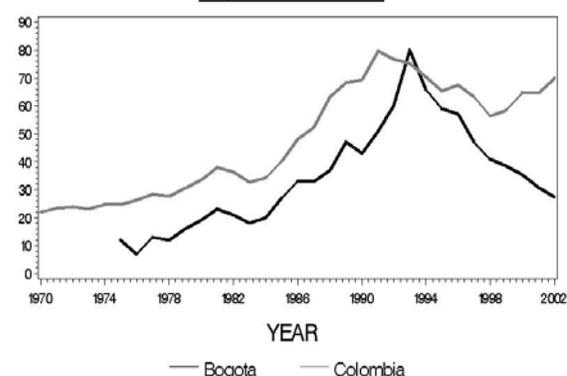
Source of Data: Sánchez and Robinson (2006).

Graph 3: Coverage of Public Services



Source of Data: Gaviria, Galvis and Villamil (2004).

Graph 4: Homicide Rate



Source of Data: Sánchez and Robinson (2006).

<sup>1</sup> This document makes a distinction between social services and public goods. In Colombia, the main social services are water, sewage, telephone and electricity, among others. The term 'public good' is used to make reference to a global public good at the Bogotá level, meaning, a non-rival and nonexclusive good (security or 'citizen culture'). The term 'social service' is used to make emphasis on club type goods, non-rival but exclusive.

How are the changes experienced in Bogotá explained? This document maintains that the improvement in the provision of public goods and social services has its origin in a political change consolidated by the constitution of 1991. The Bogotá where garbage was piled on the streets was also a city where political favors, money and jobs were exchanged.

However, the Colombian Constitution of 1991 tried to break the clientelistic linkages between voters and candidates. In this sense, competition between parties was promoted, discretionary resources in the hands of politicians were limited and –maybe most importantly- a secret electoral ballot was introduced and distributed by an independent electoral entity and not by the parties (“El Tarjetón”). Several authors (Gutiérrez (1995), García (2001), Hernández (2004)) consider that, at least in the capital, the reforms marked a turning point from a vote of exchange to a vote of opinion.

The development of this vote of opinion is consistent with a complementary hypothesis: the weakening of clientelistic linkages and the appearance of programmatic linkages. On the other hand, clientelism has been associated to the discretionary provision of private and club goods in detriment of the provision of public goods (Chubb, 1981, 1982; Lizzeri & Perisco, 2001; Wantchekon, 2003; Diaz-Cayeros et al., 2006; Kitschelt, H. & Wilkinson, 2006). Therefore, if reforms really weakened clientelistic linkages, it would be possible to predict an increase in the provision of public goods and a separation between the supply of goods traditionally used for clientelism (social services) and electoral results. Did this happen in Bogotá?

The present document intends to find an affirmative answer to this question. Basically, it intends to prove that the 1991 reforms consolidated a vote of opinion, limited the effectiveness of political machines and generated the necessary institutional framework to increase the provision of public goods and social services.

The battle horse used to confirm these hypotheses is a balanced panel with the voting precincts existing in 1988 for the period 1988-2003. To build this panel the voting precincts existing in 1988 are placed on a map of Bogotá and the votes obtained by each candidate to the Mayor’s Office and to the Council are related to the socio-economic characteristics of the neighboring areas. These data, together with some econometric techniques (ordinary least-squares, differences-in-differences, data panel and instrumental variables), are used to shed some light over the origin of the surprising changes that occurred in Bogotá.

The main result of this work is found upon measuring the degree of “clientelistic exposure” as the percentage of public employees around the voting precincts: Prior to the reforms, the traditional parties obtained a greater percentage of votes in the areas most exposed to clientelism and these areas obtained a greater coverage of social services. After the reforms, both relations break down.

The document’s contribution is twofold. At a local level, it presents the political preferences of Bogotá’s social classes and defends the argument of the loss of effectiveness of clientelism in the local debate over the effect of reforms in the capital’s political practices. At a more general level, it allows the confirmation of some corollaries of clientelism (the relation of the latter with wealth, unemployment and education) and identifies institutional engineering factors that may reduce its prevalence.

The document is organized as follows. Section II reviews the literature on clientelism and introduces the case for Bogotá. Section III develops the hypothesis and highlights the importance of the secret ballot (“El Tarjetón”). Section IV presents the data. Section V exposes the econometric models and results. Section VI concludes.

## **II. Literature Review: Clientelism, Machines and Reforms**

*Welcome my son, welcome to the Machine (Pink Floyd).*

In Thailand, lottery tickets are sold where the payments are contingent to the outcome of the elections. If certain candidates are elected, a 5 baht ticket is converted into a price of 1000 baht (Callahan & McCargo, 1996). In southern Italy, the Christian Democratic Party provides a left shoe prior to the elections and a right shoe only if the results obtained are favorable (Chubb, 1982). In Buenos Aires, the Peronista Party intermediaries or “gatekeepers” are the mandatory interfaces between a problem-solving network and the citizens; only gatekeepers know the day in which food will be distributed and only gatekeepers possess the credentials without which people will not have access to food (Auyero, 2000). In Bogotá, an intermediate patron of the Liberal Party, “[...] was known for keeping his promises: if he had promised to pave the street, he would only pave the portion in front of the house owned by he who had supported him” (Gutiérrez, 1998, PP. 75. Author’s translation).

These examples fit into what has been called clientelism. In all of them political support is given in exchange for direct transfers or continuous access to a flow of goods and services (Kitschelt & Wilkinson, 2006). In order for political support to turn into votes at least two conditions must be met. Vote buyers must tie the voter's expected utility to the patron's electoral success (Robinson & Verdier, 2003; Brusco, Nazareno & Stokes, 2002) and they must be capable of monitoring the voter's behavior at the ballot box (Robinson & Baland, 2005; Schedler, 2004).

In the first case, the voter's behavior becomes predictable through incentive compatibility constraints: a lottery ticket, a left shoe or a job in the public sector. In the second case, the voter's behaviors are monitored in order to pay the promised favors and make the threats credible, in order to know which street to pave and which credential to deny.

In both circumstances, incentive constraints and monitoring, there is a generation of credibility in both sides: the voter believes that the politician will keep his promises and the politician believes that the voter will keep his. But this credibility can also depend on the iteration and expectations generated by past encounters ("in return for favors rendered throughout the years", "he was known for keeping his promises"). When the exchange of votes relies exclusively in the latter unstable equilibriums are generated, any defection may bring down the market.

The previous discussion leads to the conclusion that the goods exchanged through clientelistic linkages have specific properties. Some authors mention that the transfers must be selective (Lizzerri & Perisco, 2001), excludable (Kitschelt & Wilkinson, 2006; Diaz-Cayeros, Estevez & Magaloni, 2006) and reversible (Robinson & Verdier, 2003). The candidate chooses who receives the transfer (selection), who does not receive it (exclusion) and who loses it (reversibility).

By not being excludable or selective, public goods cannot be exchanged through clientelistic exchange. For this reason, in those areas where clientelistic linkages prevail, private transfers or discretionary transfers of club type goods (the street) are favored in detriment of the provision of public goods (Chubb, 1981, 1982; Diaz-Cayeros et al., 2006; Wantchekon, 2003).

Now, for the patron, the cost of creating clientelistic linkages falls on the construction of organizational exchange hierarchies (Kitschelt & Wilkinson, 2006). Patrons must go through intermediaries in order to obtain their clients' votes (hereinafter referred to as Patron-Intermediate Patron-client, P-IP-C, connections) (see for example Papadopoulos and Vaner, 1989 or Cacliagi and Jun Ichi, 2001). The inconvenience of this pyramidal organization is that it suffers and reproduces agency problems as its size increases (excessive appropriation of resources and failure to keep promises). Consequently, parties must arrange a monitoring and incentive structure that allows them to overcome these problems, take advantage of preexistent social networks and obtain votes: the political machine.

These machines have been analyzed in the literature through interviews and case studies. The figure that emerges is one in which the big patrons or parties look for trustworthy men at a local level (intermediate patrons) in order to obtain the votes of a determined geographic area. This strategy is not fortuitous. A local intermediary has access to the social networks of his district, constitutes an effective channel for the distribution of favors<sup>2</sup> and may use prior trust relations in order to lay the foundations of his promises<sup>3</sup>. In Taiwan, for example, intermediaries are known as "pillars" (tiau-a-ka). The Nationalist Kuomintang Party recruits them according to their area of residence and according to the circles of trust of which they make part (Wang & Kurzman, 2003). In Thailand, the "Huakhanaen" are charismatic people of elevated social status, the local schoolteacher or town leader (Calahan & McCargo, 1996). In the Japanese megalopolis, intermediaries are organized in local support groups (Koenkai) that provide all types of favors, from jobs to 'The Godfather' type donations (distribution of money packages at weddings and funerals) (Cacliagi & Jun Ichi, 2001). In southern Italy, the mediator is the church abbot or a middle class public employee who mobilizes votes from his neighbors and family members (Chubb, 1981). A similar thing happens in Argentina and Colombia. In these two countries, intermediaries are usually local leaders who obtain, from the state, a job in the public sector (Auyero, 2000; Archer, 1990; Leal 1989). The intermediate patrons' objective is clear, raise blocks of votes for superior levels in the pyramid; give votes to the main patron.

In Colombia, studies on clientelism share at least two of the following three characteristics: they define clientelism as an endemic phenomenon to Colombian politics, they identify

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<sup>2</sup> In Bogotá, given that intermediaries were neighborhood leaders who had socially ascended due to clientelism, the main payment for the client was an expectation of social ascent (Gutiérrez, 1998).

<sup>3</sup> In smaller groups trust is greater as the possibility to act in a non-cooperative way and pass unnoticed is less (Ridley, 1998).

traditional parties as the main users of the vote buying and selling machine and they consider that clientelism has changed in its form but continues to be an alternative for vote gathering (the two first characteristics are found in the works of Martz (1997), Archer (1990), Leal (1989), Robinson (2005), Urrutia (1991), Escobar (2002), Fernández (2005), Romero (2006); the three are found in Gutiérrez (1998), García (2001), Dávila and Delgado (2002), Hernández (2004)).

Robinson (2005) points out that Colombia has been classified (by Carey and Shugart, 1995) as the nation with the most clientelistic institutions in Latin America and argues that this is due to the permanence in power of the traditional parties (restricted democracy). Conservatives and liberals have had the time and resources necessary to build elaborated organizational hierarchies for the monitoring and the distribution of favors. Other authors (Gutiérrez, 1998; Dávila & Delgado, 2002; García, 2001) agree with the importance of vote buying for traditional parties but make emphasis on the mutations of clientelism or on what is called by Dávila and Delgado as the two and a half stages of clientelism: traditional clientelism (up to mid-1950's), modern clientelism (1955-1991) and market clientelism (as of 1991).

The first stage refers to the links between the natural leaders of the traditional parties, the landowners and their workers. This phase of clientelism may be described by means of the vote-buying model developed by Robinson and Baland (2005). In synthesis, the natural leaders formed coalitions with the local landowners who sold their workers' votes in exchange for political benefits.

The second stage of clientelism in Colombia corresponds to the pyramidal structure described above (the machine) and was in force since the National Front<sup>4</sup> (Martz, 1997; Archer, 1990). During this stage the political machine would have been fed by the broadening of the State and the emergence of politicians specialized in handling the State's resources (Escobar, 2002). This type of clientelism was also in force in Bogotá, and maybe in other cities in the country, prior to the democratic reforms of 1991.

The last stage (half stage) corresponds to what the local literature calls the market clientelism and its origin is associated with the reforms' disarticulating effect. The market

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<sup>4</sup> The national front is a period (1958-1974) in which, by means of an agreement between conservatives and liberals, both parties alternated the presidency and equally shared the burocratic quotas.

clientelism would be characterized by multiple local networks in continuous competition, meager links between big patrons and local leaders (intermediaries) and intermittent links between the latter and the voters. The great machine with P-IP-C type linkages would have broken into pieces and its parts would form a chaotic competitive fringe of small IP-C type electoral networks. This is what Gutiérrez (1998) calls the “fractalization” of clientelism, the explosion of the machine in small local machines comparable to the first. This is what this document calls, the Collapse of a Political Machine.

It is precisely in Bogotá where market clientelism has been mostly talked about. This may be explained due to the existence of differences in the electoral preferences and tendencies in Bogotá with regards to the rest of the country (Otálora, 2002). These differences generate different replies to the reforms. At a national level, a recent work (Romero, 2006) tries to measure the effect of reforms over the clientelistic assignment of jobs in the education sector but does not find a significant change after 1991. Likewise, Escobar (2002) documents how, in the department of Sucre, clientelism frustrates institutional changes and not the other way around. The inertia of clientelism would attempt against the voters’ civic values: “People believe that selling their votes is a right they have” (interview with a peasant leader in Escobar, PP. 20). However, in Bogotá things seem different: “In the first place we must point out that with the victory of independents it was possible to displace the influence of clientelistic networks over the district’s public decisions [...]”(Hernández, PP.25 ,2004. Author’s translation).

The Constitution of 1991 may explain the rise of market clientelism. The Letter promoted the entry of all types of parties and created spaces for participation at a local level. Both factors should generate new ways of making politics and, from a voter’s point of view, options to withdraw from clientelism (García, 2001; Dávila and Delgado, 2002). To end clientelism more direct mechanisms were contemplated. Discretionary resources in hands of politicians were limited and raw monitoring techniques were attacked. On the one hand, “auxilios” were prohibited (‘pork barrel funds’) and public employment was universalized; on the other hand, an electoral ballot was introduced and distributed by the electoral organization and not by the parties (“El Tarjetón”).

With the Constitution and with the Estatuto Orgánico de Bogotá<sup>5</sup>, the capital's management became independent from the rest of the country and a firewall was placed between the executive branch and the legislative branch. Prior to 1991, there existed a co-administration regime between the Council and the Mayor's Office. The former had inherence in the execution of projects and in the district's budget and its members made part of the administrative boards of the district companies (amongst them, social services companies). But in 1991, the faculties of the Council were restricted and the power in the hands of the mayor was increased. In turn, the mayor acquired autonomy to prepare the Development Plan, to appoint his government staff and to create and implement urban and district policies (Hernández, 2004).

The first popular election for mayor in Bogotá took place in 1988. From this date and up to 1992 candidates belonging to the traditional parties occupied the Mayor's Office. One of them, Juan Martín Caicedo (1990-1992), was subject to a criminal process for granting parliamentary aids when these had just been prohibited. However, three years after the reforms, these attest a blow against clientelism and unravel what has been called "the antipolitics revolution" (Gutiérrez, 1995). In 1994, for the first time in the history of Bogotá, a candidate independent from traditional parties -Antanas Mockus- arrives at the Mayor's Office. Since then, citizens seem to have developed a vote of opinion (Gutiérrez (1995), García (2001), Hernández (2004)) and have elected independent candidates<sup>6</sup> whose proposals originate in programmatic platforms.

The vote of opinion and the arrival of the independent mayors coincide with an increase in the provision of public goods and with the universalization of the offer of social services. The district currently has a collection per inhabitant greater to that of any other city in the country, shows expenditures in education and health over the constitutional mandate and levels of security that increase through the years. In the early 90's, companies in charge of providing social services were broke. Today, the public services coverage is almost total. How are these changes explained?

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<sup>5</sup> Provisional article 41 of the Constitution of 91 established the Organic Statute of Bogotá, which materialized on July 21, 1993 (decree law 1421). It was in charge of the city's administrative political division and deepened some aspects set forth in the constitution such as the prohibition of "auxilios" (aids) granted to councilmen.

<sup>6</sup> In strict terms, Peñalosa, the mayor elected after Mockus, is liberal but he sought to move away from the parties and present himself as an independent candidate closer to Mockus's precepts (antipolitics and civil culture) than to traditional parties.

As was seen, certain authors argue that the reforms are the cause of the metamorphosis of modern clientelism into market clientelism. Hernández (2004) and Gutiérrez (1995) add that, in Bogotá, the reforms marked a turning point from the exchange vote to the vote of opinion. If, as is also argued by these authors, market clientelism translates into greater risks and uncertainties for patrons and into exit options for clients, then, although mutable, political machines should have lost their capacity to generate votes. This is consistent with the programmatic candidacies and with the increase in the provision of public goods and social services. However, there is still no empirical evidence to verify this story. This document seeks to fill the void and highlight aspects in the history of Bogotá that are useful for the study of clientelism.

In this respect, two comments in the exhaustive review of clientelism carried out by Kitschelt and Wilkinson (2006) call attention. The first highlights the lack of documents that explain in what context and how the different forms of clientelism appear and disappear. The second one is summarized in the following paragraph:

“Empirical chapters of our study almost invariably find that institutions have little independent explanatory power to account for cross-sectional variance among linkage mechanisms or their change over time.” (Kitschelt & Wilkinson, 2006, PP. 18).

This document shows that a good place to analyze the change in the forms of clientelism may be Bogotá. It also shows that the experience of Bogotá constitutes an unpublished chapter on the effects of institutional reforms over the types of linkages between voters and candidates.

### **III. Hypothesis.**

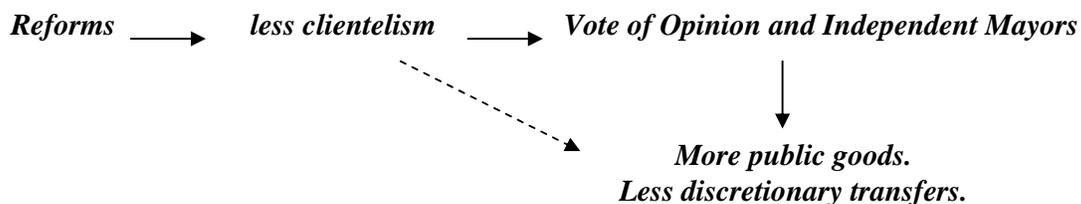
It has been seen that the 1991 reforms introduced changes to end clientelism. It has also been seen that the traditional parties are identified as the main users of the political machine. The 1994 election of Antanas Mockus, candidate without any connection to traditional parties, is a symptom that the clientelist machine ceased to work correctly. Additionally, from a theoretical perspective, clientelism is associated with an undersupply of public goods and with the supply of collective goods in a discretionary manner; but it was precisely in the first

half of the 90's that Bogotá began to demonstrate an outstanding performance in the provision of these goods.

These elements, jointly taken, lead to the formulation of a series of hypotheses. The election of the first independent mayor of Bogotá and the increase in the provision of public goods and services are explained by the collapse of a political machine and by the transit from an exchange vote to a vote of opinion. After the 1991 reforms, vote buying lost effectiveness as a mechanism to reach the Mayor's Office. With a machine that did not function properly, traditional parties lost control over their clientele and limited the use of State resources for discretionary transfers.

Gutiérrez (1998), García (2001) and Hernández (2004) argue that in the early 90's, there was a change from a system of pyramidal articulation which included mayors, councilmen, intermediaries and clients to a group of electoral networks organized around local leaders with a limited capability at the time of mobilizing resources. These networks or electoral micro-companies are in constant competition and do not possess ties to big patrons and to "big resources". Thus, the electoral networks constitute less effective structures for clientelism. The rupture of the great pyramid and the rise of the electoral micro-companies, is what this document calls the Collapse of a Political Machine.

In a schematic way, the hypothesis exposed may be represented as follows,



The reforms decreased the vote buying as they unstabilized the links between intermediary patrons and clients (IP-C linkages) and broke the unions between great patrons and intermediate patrons (P-IP linkages). The introduction of the secret ballot impeded the monitoring of voters and the entry of all types of parties increased competition and the cost of the votes (unstable IP-C ties). This difficulty to generate votes, the prohibition of "auxilios", the universalization of public employment and the end of the co-administration of the district broke promises in the highest part of the pyramid, turning into the cannonball that would destroy it (fractured P-IP ties).

In theory, less clientelism limits discretionary transfers and increases the resources available to offer public goods. But, at the same time, less clientelism propelled the transit from exchange votes to votes of opinion and the arrival of independent mayors who offered public goods instead of discretionary transfers. This option was favored by the Organic Statute of Bogotá, which increased the harmlessness of the Council in the preparation of the district budget.

Three factors have been identified in the Constitution of 1991 that may explain the weakening of clientelism. These are competition amongst parties, the reduction of resources in the hands of politicians and the introduction of the secret ballot. As will be seen later the methodology used does not allow establishing which is the dominant effect. However, if a guilty party had to be chosen, it would be “El Tarjetón”.

Understanding this is not trivial if the ballot prior to the reforms (a piece of paper distributed by the parties called “La Papeleta”) is considered as a simple monitoring mechanism. Indeed, the intermediate patrons gave their clients one of these ballots and verified the client’s behavior at the voting tables. In principle, after the 1991 reforms, the secret ballot would impede this type of monitoring. This, however, is not completely true. The secrecy of the Ballot may be violated in multiple ways; one of the simplest ways being using carbon paper to keep a record of the voter’s behavior (for a recount of the methods used to violate the secrecy of an official ballot see Schaffer. & Schedler (2006)).

But there exists an additional factor, in addition to the easy monitoring, which explains the relative advantage of clientelism in Colombia when using electoral “Papeletas” such as those used prior to the 1991 reforms. Given that the “Papeletas” were distributed by the parties, only parties that had access to the electoral machine in order to get them to the voters had real chances of winning. This is described in succinct terms by Pizarro (2002):

“In the past, votes were designed, prepared and distributed by each of the parties or political fractions. This meant that only those who had access to the electoral machine which would allow them to access all voting tables in a city, a municipality or a department would have real options. The minority parties had, therefore, a huge logistical weakness: for example, a leftist party in Antioquia that only counted with militants and sympathizers to cover 20% of the electoral tables, would see its electoral possibilities seriously compromised beforehand

even if it had enormous political sympathies in its favor. Its sympathizers would simply be unable to go to the voting tables, as they would not have the corresponding voting ballot” (PP. 14-15. Author’s translation).

But it has been seen that traditional parties were those that disposed of great machinery, machines that were at the same time specialized in the distribution of favors. The introduction of “El tarjeton” must have limited the relative advantage of these machines and hindered –at least temporarily- the monitoring of voters. In short, these circumstances would have reduced the effectiveness of clientelism.

#### **IV. Data**

Given that this document builds a new database, this section describes in detail the construction of the database and its main variables. The latter are defined in table 1 below. Columns (3) and (4) indicate for what years the variables are available when the observation is over the Influence Area or the Locality. The Influence Area corresponds to circles with two or four kilometers in diameter around each of the voting precincts. The locality corresponds to the administrative division of the city into 20 areas of which 19 were used given that one of them, Sumapaz, is completely rural.

The support for the methodology is a balanced panel with the voting precincts existing in 1988 for each election of mayors and councilmen in Bogotá between 1988 and 2003 (the elections of mayors and councilmen are simultaneous). The steps for the construction of the panel data are as follows:

1. The 1993 census divides the map of Bogotá into 621 areas called “censal sectors”. With the 1993 census the socio-economic variables at a censal sector level were calculated. These variables are: the percentage of people over 18 (25, 30) with primary education (secondary, university), the unemployment rate, the percentage of women, the percentage of public employees and the rates of coverage of sewage, aqueduct, electricity and telephone. The 1993 census was provided by the National Administrative Department of Statistics (DANE).
2. The stratum variable was obtained from Stratification, at the Administrative Department for District Planning.

3. The number of votes obtained for each candidate to the Mayor's Office and to the Council at a voting precinct level was acquired at the National Civil Status Registry. The candidates were divided into two categories: traditional (conservative and liberal) and independent. Any party with the term "Conservative" or "Liberal" was catalogued as traditional and the rest of the parties were classified as independent.

<b>Table 1: Main Variables</b>			
<b>Variable</b>	<b>Description</b>	<b>Availability</b>	
		<b>Influence Areas</b>	<b>Locality</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
$V_{cit}$	Preferences for the party or candidate $c$ . Percentage of votes in the precinct* $i$ , in the year $t$ , for the candidate or party $c$ .	1988, 1990, 1992, 1994, 1997, 2000, 2003	1988, 1990, 1992, 1994, 1997, 2000, 2003
$PC_i$	Clientelistic potential. Measure of exposure to clientelism. Public Employees per one hundred inhabitants.	1993	1993, 2003
$S_{it}$	Sum of sewage, aqueduct, electricity and telephone coverage.	1986, 1993	1986, 1993, 2003
$ve_{cit}$	Voting in Excess. Participation of the votes coming from precinct $i$ in the total of votes obtained by candidate or party $c$ , over the historical potential of voting in unit $i$ .	1988, 1990, 1992, 1994, 1997, 2000, 2003	1988, 1990, 1992, 1994, 1997, 2000, 2003
<b>Stratum</b>	Socioeconomic stratum of the population. Measure of wealth, which increases as the material conditions of housing and the quality of social services increase.	1993, 1997, 2003	1993, 1997, 2003
<b>Primary</b>	Percentage of people over 18 with primary education.	1993	1993
<b>Secondary</b>	Percentage of people over 25 with secondary education.	1993	1993
<b>University</b>	Percentage of people over 30 with university education.	1993	1993
<b>Unemployment</b>	Percentage of unemployed people.	1993	1993

\*Precinct is the neighborhood level voting location.

4. The voting precincts existing in 1988 were placed in the map of Bogotá. On the other hand, the information of the 1993 census and of stratification was assigned to each censal sector.

5. Circles with two or four kilometers in diameter were created around each voting precinct (influence areas). These influence areas were used to assign each voting precinct the 1993 census variables and the stratification variables. Each voting precinct was assigned the weighted average of the censal sectors that falls within its influence area. The basic assumption behind this step is that people vote near their place of residence. The results shown use the influence areas of two kilometers.

6. The 1985 census and the 2003 quality of life survey were used to obtain other measurements in time of the coverage of public services. Another measurement of public employees for 2003 was also obtained. Unfortunately, these variables are only representative at a locality level.

There were 336 voting precincts in 1988. Excluding the precincts located in Corferias<sup>7</sup> and the precincts located in the locality of Sumapaz, the number is reduced to 327 of which it was possible to locate 322. The period of study covers seven mayor elections: Andrés Pastrana in 1988, Juan Martín Caicedo in 1990, Jaime Castro in 1992, Antanas Mockus in 1994, Enrique Peñalosa in 1997, Antanas Mockus in 2000 and Luis Garzón in 2003. The conservative-liberal-liberal-independent-liberal-independent-independent sequence resumes the mayors' parties<sup>8</sup>. Table A1 of the Appendix shows the main candidates to the Mayor's Office, their parties and the percentage of votes obtained in each election from 1988 to 2003.

It is important to note that the traditional candidates tend to hide their political platform after being defeated in 1994 (Gutiérrez, 2001). Ever since, it is not easy to distinguish the party of those who register as independent in order to separate themselves from the loss of legitimacy of the traditional parties. This is particularly notorious for the year 2000 in which the traditional parties practically disappear from the Registry listings. To mitigate this problem the majority of results shown restrict the sample to the period 1988 -1994.

## **V. Results.**

### **A. The Preferences of Bogotá Citizens: A Vote of Opinion?**

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<sup>7</sup>The people that do not register in time in any of the voting precincts at a 'neighborhood' level vote in Corferias (the Corferias votes represent approximately 15% of the votes in Bogotá for a given year).

<sup>8</sup> Antanas Mockus retired from the mayor's office in 1997 to present himself as a candidate to the presidency for the period 1998-2002 and was replaced by Paul Bromberg.

This part of the document takes advantage of the novel characteristic of the panel data to present the preferences and patterns of voting of Bogotá citizens according to the economic stratum of the neighborhood voting precinct. These statistics are presented in tables 2 and 3 and in graphs 5 to 11. Two studies have made similar analysis. Gutiérrez (1995) uses similar data to that used here (voting per precinct and stratum) but is limited to the period 1992-1994. A study conducted by the 'Institute for the Development of Democracy Luis Carlos Galán' (2001) uses data for the period 1988-1997 but does so at a locality level. The main advantage for using the voting precinct as observation instead of the locality is basically the great heterogeneity of the second. In certain localities, for example, stratum 1 voting precincts coexist with stratum 6 voting precincts.

Two different concepts are used to analyze the voting of Bogotá citizens. *Preferences* measure the inclination of the voting precinct towards a party or candidate and are defined as follows,

$$v_{cit} = \frac{V_{cit}}{\sum_c V_{cit}} \times 100,$$

Where  $V_{cit}$  are the votes obtained by the candidate (or party)  $c$  in the precinct  $i$  in the year  $t$ .

*Preferences* show the participation of the candidate  $c$  in the votes of one voting precinct but this measurement does not provide information on which voting precincts the candidates obtain the majority of their votes. Column (2) of table 2 shows that, for all elections, the winning candidate received the majority of his votes in middle class areas. This is so because 56% of the voting precincts are found in strata 3 and 4 areas. However, among all precincts, those that generate the majority of votes on average for the winning candidate are located in the highest strata (table 2, column (3)).

To control for these tendencies and in order to see which precincts show a break in their voting patterns, the definition of *Voting in Excess* is used, which is explained below. First, the historic potential of voting at a precinct is defined as the rate between the total votes generated by this table between 1988 and 2003 over the sum of all the votes,

$$P_i = \frac{\sum_t \sum_c V_{cit}}{\sum_t \sum_c \sum_i V_{cit}},$$

**Table 2: Mayors, Voting per Stratum: 1988-2003**

Year	Stratum	Precincts	% of total votes per stratum	% of total votes per stratum and precinct	Preferences for liberals	Preferences for conservatives	Preferences for independents	Preferences for the winner	Voting in Excess for the winner
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1988	1	6	1.01	0.17	25.80	27.85	46.35	27.85	67.93
	2	69	19.06	0.28	25.92	32.00	42.08	32.00	82.54
	3	180	54.40	0.30	25.58	34.32	40.10	34.32	97.72
	4	48	15.96	0.33	24.75	39.43	35.82	39.43	112.19
	5	12	5.69	0.47	23.66	41.10	35.24	41.10	119.80
	6	5	3.52	0.70	24.63	44.32	31.05	44.32	132.20
1990	1	6	1.15	0.19	59.93	26.85	13.22	59.93	88.84
	2	69	19.98	0.29	59.67	26.21	14.12	59.67	88.08
	3	180	53.39	0.30	65.27	21.72	13.00	65.27	100.75
	4	48	15.89	0.33	68.54	23.25	8.21	68.54	105.92
	5	12	5.73	0.48	70.81	24.28	4.92	70.81	110.64
	6	5	3.49	0.70	70.09	26.73	3.17	70.09	109.94
1992	1	6	1.00	0.17	53.86	16.45	29.69	53.86	71.83
	2	69	18.24	0.26	59.77	18.20	22.03	59.77	86.34
	3	180	50.99	0.28	62.34	19.81	17.85	62.34	98.80
	4	48	18.04	0.38	62.13	26.52	11.35	62.13	115.90
	5	12	7.02	0.59	58.07	35.75	6.17	58.07	117.53
	6	5	4.34	0.87	51.16	45.23	3.61	51.16	111.54
1994	1	10	2.28	0.23	40.45	4.91	54.64	54.64	68.66
	2	77	18.94	0.25	33.19	4.12	62.69	62.69	82.08
	3	167	50.54	0.30	26.72	2.75	70.53	70.53	109.91
	4	44	16.12	0.37	30.48	2.35	67.18	67.18	112.48
	5	15	8.06	0.54	43.83	1.59	54.58	54.58	87.51
	6	6	3.67	0.61	54.64	1.67	43.69	43.69	67.62
1997	1	10	2.66	0.27	39.18	58.14	2.68	25.05	48.46
	2	77	20.95	0.27	48.37	48.22	3.41	32.70	59.57
	3	167	49.33	0.30	62.61	33.04	4.36	49.87	95.28
	4	44	14.64	0.33	75.63	19.81	4.57	65.80	125.34
	5	15	7.95	0.53	87.04	10.05	2.91	79.57	157.47
	6	6	4.10	0.68	90.07	7.86	2.08	83.58	170.43
2000	1	11	3.03	0.28	53.23	6.58	40.19	19.20	45.50
	2	75	24.12	0.32	44.72	6.05	49.22	29.00	68.95
	3	170	49.71	0.29	34.54	4.08	61.38	45.54	100.06
	4	48	14.76	0.31	28.75	2.07	69.18	58.62	121.15
	5	11	5.12	0.47	23.13	1.04	75.83	69.86	139.69
	6	5	2.91	0.58	21.93	0.75	77.32	72.49	133.89
2003	1	11	3.14	0.29	5.85	0.44	93.71	55.82	133.30
	2	75	25.51	0.34	4.50	0.39	95.11	58.82	142.09
	3	170	48.39	0.28	3.29	0.39	96.32	51.32	105.83
	4	48	14.20	0.30	2.62	0.41	96.96	35.14	65.89
	5	11	5.27	0.48	2.08	0.35	97.57	19.20	37.82
	6	5	3.12	0.62	1.82	0.57	97.61	14.22	26.78

Note: Columns 2, 3, 7 and 8 refer to the votes obtained by the winning candidate. Explanations in the text.

Then, the *Voting in Excess* of the precinct  $i$  for the candidate  $c$  in the year  $t$  is defined as:

$$ve_{cit} = \frac{V_{cit}}{P_i \times \sum_i V_{cit}} = \frac{g_{cit}}{P_i},$$

Where  $g_{cit}$  is the participation of the votes generated in the precinct  $i$  for candidate (or party)  $c$  in the total of the votes obtained by the candidate (or party)  $c$ . For example, in 2003, Luis Eduardo Garzón won the Mayor's Office and the lower strata showed a voting in excess of 133% in his favor (Table 2, Column 8). This figure is calculated as follows: during the whole period (1982-2003), the average stratum 1 precinct generates 0.25% of the total votes in the capital (historic potential); but, in 2003, a precinct with these characteristics generated 0.34% of Garzón's votes. In other words, the average stratum 1 precinct voted (33%) over its historic potential in favor of this candidate.

Independent V.: $g_{cit}$	1988		1990		1992		1994	
	(1)		(2)		(3)		(4)	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.
<b>intercept</b>	-0.070	0.012	-0.040	0.009	-0.038	0.009	-0.036	0.010
<b>middle class dummy</b>	0.060	0.011	0.035	0.008	0.041	0.008	0.083	0.019
<b>upper class dummy</b>	0.151	0.022	0.082	0.018	0.118	0.017	-0.043	0.009
<b>voting potential</b>	1.062	0.025	1.034	0.020	1.008	0.020	0.951	0.023
<b>R2</b>	0.868		0.908		0.908		0.855	
<b>N</b>	322		322		322		322	
Independent V.: $g_{cit}$	1997		2000		2003		Voting Potential per Class	
	(5)		(6)		(7)		(8)	
	b	s.e.	b	s.e.	b	s.e.	class	range
<b>intercept</b>	-0.154	0.015	-0.126	0.013	0.159	0.014	<b>lower</b>	[0.04, 0.80]
<b>middle class dummy</b>	0.119	0.014	0.276	0.012	-0.131	0.013	<b>middle</b>	[0.06, 1.26]
<b>upper class dummy</b>	0.410	0.028	0.113	0.027	-0.430	0.090	<b>upper</b>	[0.17, 1.64]
<b>voting potential</b>	1.159	0.034	1.114	0.030	0.842	0.032		
<b>R2</b>	0.856		0.857		0.715			
<b>N</b>	322		322		322			

Note:  $g_{cit}$  is the participation of the votes generated at precinct  $i$  for candidate  $c$  in the total of votes obtained by candidate  $c$ . Column 8 reports the range per stratum of the voting potential.

Graphs 5 to 11 show the *Preferences* of Bogotá citizens for each of the winning candidates according to the economic stratum of the voting precinct. On the other hand, table 3 shows the results for seven regressions (one for each mayor's election) of the form,

$$\mathcal{G}_{winner,it} = \alpha_0 + \alpha_1 d_m + \alpha_2 d_u + \alpha_3 P_i + \theta_{it} \quad (1)$$

Where  $\mathcal{G}_{cit}$  ( $c = winner$  in this case) and  $P_i$  have the meanings specified above,  $\theta_{it}$  is the term of error and  $d_z$ , ( $z = l, m, u$ ), are dummy variables for the lower, middle, and upper classes (the variable not included in order to avoid multicollinearity is  $d_l$ ).

To interpret model (1) see, for example, column (4) of table 3. Call the average precinct M and any precinct PP. The interpretation of  $\alpha_3$  is the following: If the historical potential of the voting precinct PP is 1% over the historic potential of precinct M, this precinct represents for the winner in 1994 (Mockus) 0.951% more votes than precinct M. This does not mean that no voting precinct voted over its historical potential. In fact, under a certain margin of error, all middle class precincts generated for Mockus a percentage of votes greater to that predicted using the historic potential of voting of said precincts. To see this note that,

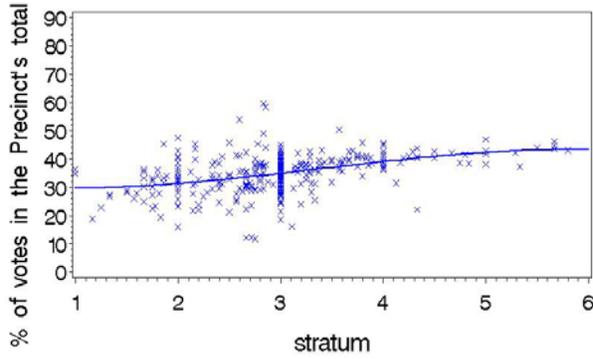
$$\alpha_1 d_m + \alpha_3 P_i > P_i \rightarrow \frac{\alpha_1 d_m}{1 - \alpha_3} > P_i$$

$$\frac{\alpha_1 d_m}{1 - \alpha_3} = \frac{0.083}{1 - 0.951} = 1.7$$

The maximum value of the voting potential for all precincts is 1.64 (Table 3, Column 8). Therefore, all middle class precincts voted in excess for Mockus (again, under certain margin of error given by  $\theta_{it}$ ).

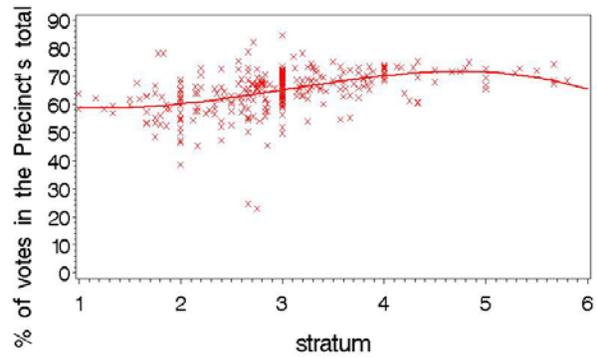
These stylized facts provide evidence in favor of the existence of a vote of opinion for the mayors of Bogotá. In 1994 the middle classes privileged a speech which emphasized on legality and civic culture and that anticipated a rise in taxes. In 2003, the lower classes supported a leftist speech. As will be seen later on, there exists evidence that this vote of opinion gains strength after the 1991 reforms.

Graph 5 : What Precincts Prefer Pastrana: 1988?



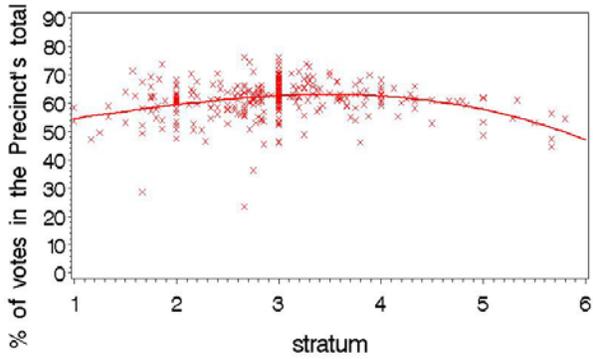
Regression line adjusted with cubic specification

Graph 6 : What Precincts Prefer Caicedo: 1990?



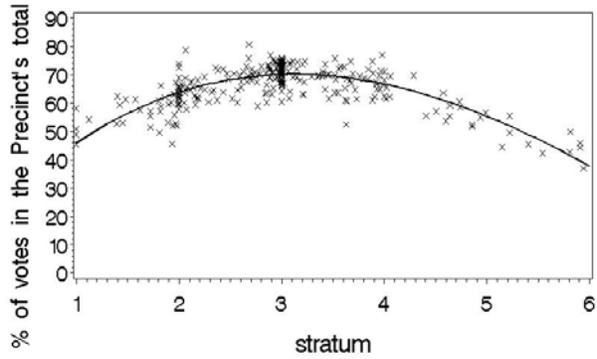
Stratum is the average stratum around the precinct i

Graph 7 : What Precincts Prefer Castro: 1992?



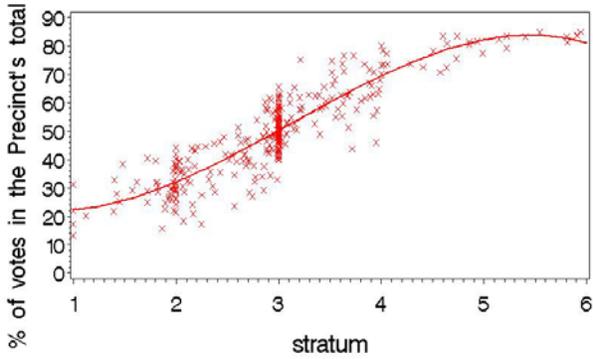
Regression line adjusted with cubic specification

Graph 8 : What Precincts Prefer Mockus: 1994?



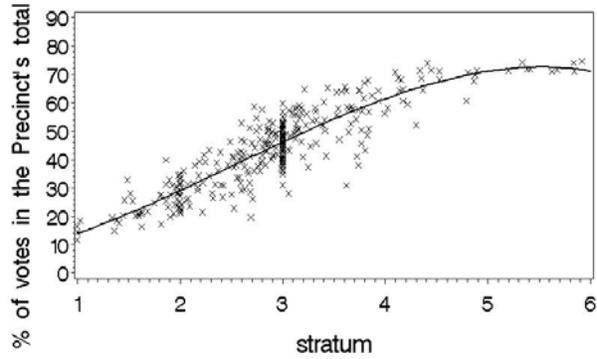
Stratum is the average stratum around the precinct i

Graph 9 : What Precincts Prefer Peñalosa: 1997?



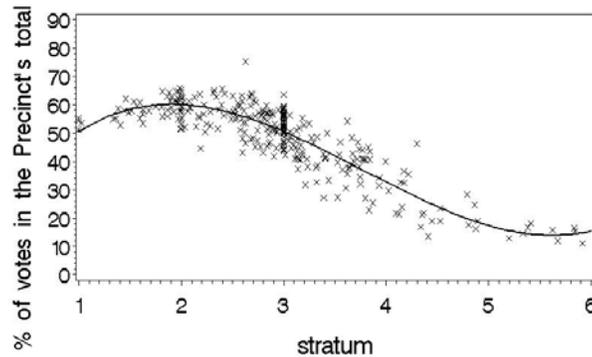
Regression line adjusted with cubic specification

Graph 10 : What Precincts Prefer Mockus: 2000?



Stratum is the average stratum around the precinct i

Graph 11 : What Precincts Prefer Garzón: 2003?



Regression line adjusted with cubic specification

A question that cannot be left aside is that regarding Mockus's two candidacies. In 1994 Mockus represented the preferences of the middle class but in 2000 he represented the preferences of the upper class. Apparently, this is due to the fact that Mockus's first triumph changed the nature of the political competition. The following mayor, Enrique Peñalosa, followed in his footsteps and presented a program based on civic culture, public space and efficient management. Additionally, in his first candidacy, Mockus defeated two traditional candidates but, six years later, his main competitors were all independent.

Maybe the upper classes voted for Mockus in 2000 due to a *continuity* factor: the proximity between Mockus and Peñalosa's proposals (note the similarity between graphs 9 and 10). In addition, maybe the upper classes voted for Mockus because he had the *First Mover Advantage*: the other candidates to the mayor's office opted to become followers, this being; they presented themselves as independents with Mockus-type proposals. The election of Mockus in 1994 revealed that there were new ways of making politics.

## **B. The Collapse of a Political Machine**

"[...] lets offer people land lots so they vote for us and there is no problem and you begin to gain power, lets give the people land lots [...]"<sup>9</sup> (Gutiérrez, PP.75, 1998. Author's translation).

"Why was the opposition to favors so radical? Imagine a mother facing the dilemma of whether or not to give her vote in exchange for the right to education or in exchange for access to a plate of food. Seeing yourself obligated to sacrifice one liberty to obtain one right is clearly an outrage against citizen dignity." (Mockus, 2004, PP.8. Author's translation).

The purpose of this section is to present evidence in favor of the argument that reforms reduced clientelism effectiveness. The evidence presented represents this document's main finding.

If traditional parties were the main users of the machine for the buying of votes they should obtain more votes in the areas most exposed to clientelism before the 1991 reforms. But if it is also true that the machine was besieged by the reforms, the positive relationship between votes and clientelistic exposure should have been broken after the same.

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<sup>9</sup> Evelio is Rafael Forero Fetcua's assistant, an intermediate patron of the liberal party who mobilizes votes in the neighborhoods of "La Meca", in Bogotá. Evelio proposes this option to Rafael to win votes. The option was effectively used.

The empirical strategy consists of finding a measure of exposure to clientelistic linkages and then examining the effect of the reforms over the votes obtained by the “machine parties” according to the degree of exposure. The measure of exposure chosen is the number of public employees who live within the influence area of precinct table  $i$  (public employees per one hundred inhabitants).

Several ideas support the choosing of this measure. In the first place, making clientelism is easier in places where the government is present. This is particularly true for modern clientelism where the collective patron (the machine) is articulated to the state in order to function (Papadopoulos & Vaner, 1989).

In second place, the places with the greatest number of public employees have a high probability of having raised market for votes in the past. In fact, employment in the public sector has been highlighted as the “common currency of clientelism” (Clapham, 1983; Martz, 1997; Wantchekon, 2003). For the Colombian case Fernández (2005) shows how, since the 19<sup>th</sup> century, burocracy in Bogotá employed the elite. In the second half of the 20<sup>th</sup> century, public employment also covered intermediaries of modern clientelism. Leal (1989) documents an increase of 220% in the State’s payroll between the end of the 70’s and the end of the 80’s. Archer (1990), based on Hartlyn’s figures (1988), reports an increase of 246% for the same time and adds that, of these, only 10% was governed by civil service rules. Several authors (Archer (1990), Urrutia (1991) and Martz (1997)) highlight the importance of these jobs to feed the Colombian political machines.

In the third place, as was mentioned in the literature review, in Colombia intermediaries generally build clientele around their places of residence and relate to the great patrons through jobs in the public sector. This justifies the fact that the measure of exposure takes into account the place of residence of public employees.

As a first approximation to the problem, the measure of exposure is used (hereinafter referred to as “Clientelistic Potential”) to define a control group and a treatment group. The control group is constituted by the precincts with a percentage of public employees below the median (alternatively, below the 25 percentile) and the treatment group by the precinct with a percentage of public employees over the median (alternatively, over the 75 percentile). With these definitions it is possible to estimate a regression of differences-in-differences to evaluate the effect of the reforms over the votes obtained by the traditional parties in the treated areas (areas with high clientelistic potential).

In formal terms, the following regression is estimated,

$$v_{traditional, it} = b_0 + b_1 \cdot treatment + b_2 \cdot d_{t>1991} + b_3 \cdot d_{t>1991} \cdot treatment + \varepsilon_{it} \quad (2)$$

Where  $v_{traditionals,it}$  are the *Preferences* for the traditional parties in precinct  $i$ , in the year  $t$  and  $\varepsilon_{it}$  is the term of error,  $d_{t>1991}$  and *treatment* are dummy variables which take a value of one for the years after the reforms and for those voting precincts which make up the treatment group, respectively.

Table 4 shows the results of model (2) for 1988-1994 (period1) and 1988-2003 (period2). Restricting the sample to the first period is preferred, because, as was mentioned above, the traditional parties' loss of legitimacy made them hide their political precedence. In any case, other models for the 1988-2003 period will be run below for completeness.

		Period1: 1988-1994			Period2: 1988-2003		
		Treatment Group	Control Group	Difference	Treatment Group	Control Group	Difference
<b>Panel I</b>	pre-reform	75.1	73.0	<b>2.1</b>	75.1	73.0	<b>2.1</b>
	post-reform	58.2	58.1	<b>0.0</b>	50.2	52.5	<b>-2.3</b>
	<b>difference</b>	<b>-17.0</b>	<b>-14.9</b>	<b>-2.0</b>	<b>-25.0</b>	<b>-20.6</b>	<b>-4.4</b>
<b>Panel II</b>	pre-reform	75.1	72.4	<b>2.8</b>	75.1	72.3	<b>2.8</b>
	post-reform	58.2	58.3	<b>-0.1</b>	50.0	53.7	<b>-3.7</b>
	<b>difference</b>	<b>-16.9</b>	<b>-14.1</b>	<b>-2.8</b>	<b>-25.1</b>	<b>-18.6</b>	<b>-6.6</b>

Note 1: The information is obtained from a regression of differences-in-differences. See text.

Note 2: The dependent variable is the participation of the votes for the traditional parties in the total of votes of precinct  $i$ . Pre-reform refers to the elections prior to 1991; post-reform refers to the elections after 1991. In panel I the treatment (control) group are the precincts with a clientelistic potential over (under) the median. In panel II the control group are the precincts with a clientelistic potential over the 75 percentile; the treatment group are the precincts with a clientelistic potential under the 25 percentile. The period of analysis is 1988-1994.

The results of model (2) are the following. Prior to the reforms, the precincts in the treatment group voted 2.1% more for traditional parties than the control group precincts but after the reforms this difference disappears (Table 4, Period1, Panel I). The total effect of the reforms consists in eliminating the relative advantage that the traditional parties had in the areas with more public employees. Upon increasing the treatment's intensity (Table 4, Period1, Panel II), the effect of the reforms is even greater (-2.8 vs. -2.0). The machines operated more effectively in the areas with more public employees but it was also in the areas more exposed to clientelism where the fracture caused by the reforms was the greatest (-2.8<-2.0).

Something similar occurs upon observing the right side of table 4 (Period2). Prior to 1991, traditional parties obtained more votes in the treatment group than in the control group. It is also true that, as the gap in the degree of exposure between groups widens, a greater pre-reform

difference (2.8 vs. 2.1) and a greater total effect (-6.6 vs. -4.4) is observed. However, the estimation for the whole period indicates that, in the post-reform period, traditional parties began to systematically obtain fewer votes in the areas with the most clientelistic exposure. This may be explained because some candidates registered as independent were in fact wolves dressed in sheep's clothing. However, some results that will be presented ahead allow arguing that there is no significant post-reform difference in the percentage of votes obtained in the areas exposed and the areas not exposed to clientelism.

To control for some unobserved factors and to take into account the effect of the treatment's intensity over the percentage of votes obtained by the traditional parties, the following panel data model is estimated,

$$v_{\text{traditionals},it} = d_t + \rho \cdot CP_i \cdot d_{t < 1991} + b \cdot CP_i + X_i' d_{t < 1991} + X_i + \eta_i + \varepsilon_{it} \quad (3)$$

Where  $v_{cit}$ ,  $c = \text{traditionals}$ , are again the *Preferences* of voting precinct  $i$  in the year  $t$  for traditional parties,  $CP$  is the measure for clientelistic potential and  $X$  is a vector of other covariates (stratum, education, unemployment, etc.).  $d_t$  are time effects and  $\eta_i$  are unit (voting precinct) effects,  $d_{t < 1991}$  is a dummy variable which takes the value of one for the period prior to the reforms and  $\varepsilon_{it}$  is the error term.

The main parameter of interest of model (3) is  $\rho$ . An interesting result would be finding  $\hat{\rho} > 0$ . This would indicate that the reforms reduced the percentage of votes that traditional parties obtained in the precincts with greatest clientelistic potential. It is also expected that  $\hat{\rho} + \hat{b}$  be positive and that  $\hat{b}$  is statistically equal to zero. If  $\hat{\rho} + \hat{b} > 0$ , then it is possible to state that, prior to the reforms, there was a positive relation between the clientelistic potential of the voting precincts and the percentage of votes obtained by the traditional parties in said precinct. Additionally, if  $\hat{b} = 0$ , it is possible to state that, after the reforms, the positive relation between clientelistic potential and votes ceases to be true.

Given that from one election to the other there are generalized changes in the preferences for traditional parties, model (3) includes categorical variables for each election year ( $d_t$ ). In order to take into account the effect of other omitted variables, model (3) may be estimated through fixed effects or random effects at a voting precinct level. However, the majority of variables at the right hand side do not vary over time (see table 1). Therefore there are at least three possibilities. Estimate the model through fixed effects and only include the variables interacted with  $d_{t < 1991}$  (*option 1*). Estimate (3) with interacted variables and in levels through random effects (*option*

2). Or, lastly, use fixed effects and maintain interacted variables and in levels with a two stage procedure as proposed by Plümper and Troeger (2005) (option 3).

Option 2 is chosen for three reasons. In the first place, because when estimating a specification such as the proposed in option 1, the Hausman test favors the use of random effects when the only regressor included is the clientelistic potential interacted with  $d_{t < 1991}$ . Secondly, because it is intended to make the regressions comparable and have the variables without interaction as a point of reference. In the third place, because the interest of the model is not estimating the magnitude of each fixed effect at a voting precinct level. Before continuing, it is necessary to take into account that when including controls to the estimations (vector  $X$ ) it is possible that the use of random effects ceases to be valid as the controls may be correlated with the term of error. In this sense, the main specification is that which only includes the interacted clientelistic potential and in levels, with fixed effects for each election year and random effects at a voting precinct level.

The results of model (3) are shown in table 5. The first thing to call attention is that, for any specification, in the areas with greater clientelistic potential, the traditional candidates obtained more votes prior to the reforms than after the same ( $\hat{\rho} > 0$ ). Columns (1), (2) and (3) estimate the model for the complete period (1988-2003), regressions (4), (5) and (6) estimate the model for the restricted period (1988-1994). In both cases the regressions by ordinary least squares overestimate the value of  $\hat{\rho}$  and underestimate the value of  $\hat{b}$ . This may be explained by the generalized fall in votes for the traditional parties after 1991 or by other omitted variables.

Table 5: Clientelistic Potential and Votes for Traditional Parties Before and After the Reforms

Dependent Variable: % of votes for traditional parties in the precinct i.	Mayor MCO 1988-2003		Mayor MCO 1988-2003		Mayor Random Effects 1988-2003		Mayor MCO 1988-1994		Mayor MCO 1988-1994		Mayor Random Effects 1988-1994		Mayor Random Effects 1988-1994	
	(1)		(2)		(3)		(4)		(5)		(6)		(7)	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
t1990			27.60	0.50	27.58	0.48			27.60	0.54	27.58	0.42	27.58	0.42
t1992			28.25	0.88	28.24	0.84			24.86	1.07	24.85	0.83	24.29	1.37
t1994			-20.82	0.88	-20.82	0.84			-24.20	1.07	-24.21	0.83	-24.77	1.37
t1997			41.57	0.88	41.55	0.84								
t2000			-14.14	0.88	-14.16	0.84								
t2003			-50.53	0.88	-50.54	0.84								
CP	-5.68	1.28	-2.32	0.31	-2.32	0.36	-4.22	1.24	0.40	0.52	0.40	0.62	-3.42	0.81
Secondary													0.18	0.03
University														
Stratum														
Unemployment														
t<1991*CP	16.33	1.05	4.73	0.58	4.74	0.56	11.25	0.87	2.02	0.74	2.02	0.58	2.31	0.81
t<1991*Second.													-0.01	0.03
t<1991*Univ.														
t<1991*Stratum														
t<1991*Unemp.														
F* Ho: $\hat{\rho} + \hat{b} = 0$	[0.00]		[0.00]		[0.00]		[0.00]		[0.00]		[0.00]		[0.17]	
R2	0.09		0.96		0.96		0.11		0.91		0.94		0.94	
N	2254		2254		2254		1288		1288		1288		1288	
Dependent Variable: % of votes for traditional parties in the precinct i.	Mayor Random Effects 1988 -1994		Mayor Random Effects 1988 -1994		Mayor Random Effects 1988-1994		Mayor Random Effects 1988-1994		Council Random Effects 1988-1994		Mayor MCO Falsification Exercise 1992-2003		Mayor MCO Falsification Exercise 1992-1994	
	(8)		(9)		(10)		(11)		(12)		(13)		(14)	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
t1990	27.58	0.42	27.58	0.39	27.58	0.42	27.58	0.38	9.44	0.46				
t1992	25.16	0.83	23.55	1.09	34.29	3.28	34.93	4.88	-13.96	0.91				
t1994	-23.89	0.83	-25.51	1.09	-14.77	3.28	-14.18	4.87	-4.27	0.91				
CP	-4.73	0.69	-2.51	0.78	-0.97	0.60	-5.00	0.98	-0.26	0.66	-2.37	1.70	0.40	1.97
Secondary														
University	0.239	0.02					0.26	0.05						
Stratum			3.35	0.45			-0.98	0.81						
Unemployment					-4.39	0.53	-1.08	0.92						
t<1991*CP	3.85	0.73	3.06	0.63	2.51	0.60	4.38	0.72	1.44	0.62				
t<1991*Second.														
t<1991*Univ.	-0.09	0.02					-0.16	0.04						
t<1991*Stratum			-0.87	0.38			2.01	0.73						
t<1991*Unemp.					1.57	0.53	0.86	0.68						
F* Ho: $\hat{\rho} + \hat{b} = 0$	[0.21]		[0.47]		[0.01]		[0.52]		[0.07]					
R2	0.94		0.95		0.94		0.95		0.72		0.00		0.00	
N	1288		1288		1288		1288		1288		1598		644	

Note: CP is clientelistic potential. The columns with the title Mayor (Council) refer to the votes obtained by the traditional candidates to the Mayor's Office (Council). s.e. is the standard error and b is the estimated parameter. When random effects are included, the estimation method of Fuller and Battese (1974) is used.

\* Corresponds to an F test under the null hypothesis  $\hat{\rho} + \hat{b} = 0$ . P-value in brackets.

These problems of omission are taken into account by including random effects at a voting precinct level and effects by unit of time. Regression (3), for example, shows that, prior to the reforms, the voting precincts with the greatest clientelistic potential voted in greater measure for traditional candidates ( $\hat{\rho} + \hat{b} = 2.41$ ) but that, after the reforms, the opposite occurs ( $\hat{b} = -2.32$ ).

Regression (6) of table 5 confirms the results of the differences-in-differences model (Table 4, Period1). In the post-reform period, there is no significant relation between clientelistic potential and votes for the traditional parties. However, prior to the reforms this relation was positive and significant ( $\hat{\rho} = 2.02$ ). In the database, the table with the least clientelistic potential is “La Libertad” (!), in the locality of “Bosa” ( $cp = 0.15$ ) and the table with the greatest clientelistic potential is “Altos de San Isidro”, in the locality of “Engativá” ( $pc = 4.4$ ). If all the characteristics of these two precincts are kept constant –except the clientelistic potential- regression (6) allows to state that, in the second precinct, traditional candidates to the mayor’s office obtained between 6.12% and 11.5% more votes than in the first. In reality, in 1988 traditional candidates to the mayor’s office obtained 44.6% of votes of “La Libertad” and 71.6% of votes of “Altos de San Isidro”. In 1990 the figure is 83% and 90%, in the same order.

Prior to the reforms, the areas with the greatest clientelistic potential supported the traditional candidates to the Mayor’s Office. But as is shown by column (12) of table 5, the same is true for the candidates to the Council. This result tempers the affirmation according to which, today in Bogotá, there coexists dirty politics or of plebeians—that of the Council which would continue to use clientelistic linkages- and clean politics or of the elite –that of the Mayor’s Office which would have generated programmatic linkages- (Hernández, 2004, Otálora.2002). In terms of effectiveness, if it is true that the break was greater for candidates to the Mayor’s Office, clientelism lost effectiveness as a mechanism to capture votes both for candidates to the Council and for candidates to the Mayor’s Office.

The main difference between columns (3) and (6) of table 5 has to do with the effect of clientelistic potential for the post-reform period. The first regression predicts a ‘Rebound’ effect (see also: table 4, period2): after the reforms the areas with greatest clientelistic potential vote less for traditional parties; but the second predicts the break of any relationship between clientelistic potential and votes. Columns (13) and (14) favor the last statement

through a falsification exercise by regressing the votes obtained by traditional parties against the clientelistic potential for each period (broad and restricted sample, respectively) but using post-reform data only. After 91, the percentage of public jobs around the voting precinct has no relation with the percentage of votes obtained by the traditional parties in said precinct. By construction, the same is true for independent candidates to the Mayor's Office.

Literature on clientelism has made emphasis on the determinants of clientelistic linkages. A great part of the studies coincide in that clientelism is "Isomorphic to underdevelopment" (Medina and Stokes, 2006). For Kitschelt and Wilkinson (2006), this is explained because people with little education have greater difficulty in calculating costs and benefits and therefore cannot estimate the long-term benefit of programmatic policies. For Lyne (2006), it is an opportunity cost problem: the reserve price to give up a vote is less for poorer people. Other studies (Auyero, 2000; Brusco et al., 2002), show that clientelism is correlated with high rates of unemployment. This may be explained because, at higher levels of unemployment, the patrons' offers (and the expectation of a job in the public sector) become more attractive. In Brusco et al. (2002), for example, 45% of 1920 people interviewed in Argentina, assured approaching the party if the head of household lost his job.

The data allows confirming some of the hypotheses proposed in the previous paragraph. This is true so long it is admitted that the exogenous change caused by the reforms of 1991 limited clientelistic practices. If in addition to the clientelistic potential, the percentage of people over 30 with university education (or secondary), the stratum or the unemployment rate is separately included, the expected sign is obtained for each of these variables. Prior to the reforms, traditional parties that presumably were involved in vote buying, obtained less votes in the areas with more education (Table 5, columns 7 and 8) and with a greater level of wealth (Table 5, column 9) and more votes in the areas with more unemployment (Table 5, column 10). However, when all the regressors are included at the same time (Table 5, column 11), this last variable ceases to be significant and it may be concluded that traditional parties obtained less votes in places with a greater level of education and more votes in the wealthier areas. Probably, both the stratum and unemployment were previously capturing the effect of education (at a higher stratum, more education and with more education, lower rates of unemployment). Kitschelt and Wilkinson's (2006) hypothesis on the easiness of doing clientelism in the least educated areas finds empirical support in Bogotá.

The relation between votes obtained by traditional parties and clientelist potential seems to go against the theory which argues that clientelism is a phenomenon linked to underdevelopment or, more specifically, to poverty. Public employees generally are middle class white collars. However, this is not idiosyncratic to the Colombian case. Lyne (2006) remembers that in Brazil of the mid-20<sup>th</sup> century the government agencies had to register their employees in bloc to go voting. Similarly, in Palermo, Southern Italy, a great part of clients were also white-collar employees who entered the state's payroll thanks to recommendation letters from influential patrons<sup>10</sup> (Chubb, 1981). For Mexico, Magaloni et al. (2006) show that clientelism is more prevalent at intermediate levels of development. For the Colombian case, Leal (1989) states that "The greater part of bureaucracy with clientelistic taste comes from the new middle classes that emerged with the capitalist organization."(PP. 8. Author' translation).

The reader who has carefully observed table (5) will note that when additional controls are included it is not possible to affirm that  $\hat{\rho} + \hat{b}$  is different than zero. Although it was mentioned above that the specification with additional controls may be problematic it is important to point out what the implication of this result are. Does this destroy the hypothesis on the loss of effectiveness of clientelism? Probably not. Diaz-Cayeros et. al (2006) develop a model in which candidates reduce their risk by diversifying their offers. In certain areas, candidates offer programmatic policies but in others they lean on discretionary (clientelistic) transfers. If it is true that  $\hat{\rho} + \hat{b} = 0$  and  $\hat{\rho} > 0$  as is the case for columns (7), (8), (9) and (11), then, in the period prior to the reforms, the traditional parties did not obtain a greater (or lesser) percentage of votes in the areas with more public employees. Possibly the candidates diversified their offers and therefore obtained a similar percentage of votes in the areas where they followed programmatic policies and where they followed clientelistic policies. However, the interesting thing in this case is that there is a structural break after 1991: with a greater clientelistic potential in the voting precinct, the fall in the percentage of votes obtained by traditional parties is greater. This would indicate that, in these areas, traditional parties faced difficulties to change clientelistic practices for programmatic practices. Maybe traditional candidates broke promises in the areas where clientelism was carried out or maybe they had little credibility with regards to independent candidates. Wantchekon (2003), for example, shows that, in Benín, incumbent candidates have greater

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<sup>10</sup> The weight of the recommendation letter –which used to be delivered prior to the elections-, depended on the influence of the patron, which in turn depended on the votes he obtained at the ballot box. This is an additional way of tying the expected utility of the voter to the patron's luck.

credibility when offering clientelistic transfers than the opposition candidates. However, when offering public goods, the opposition has a relative advantage as they can highlight the revealed lack of capability of the incumbents to supply public goods. Although these hypotheses may be valid, the results of columns (7), (8), (9) and (11) are considered with skepticism.

#### **D. Social Services, Votes for the Traditional Parties and Clientelism**

*“-Send me the bill- he said.*

*-¿To you or to the municipality?*

*The mayor didn't look at him. He closed the door and said, through the metallic net.*

*-It's the same thing.”*

(Gabriel García Márquez, “Un Día de Estos”. Author's Translation).

Urrutia (PP. 380, 1991) mentions that one of the main government services used to do clientelism are social services (electricity, water and telephone). Eslava (2006) and Eslava and Drazen (2005) find that in Colombia, prior to the elections, the proportion of expenditure assigned to infrastructure goods such as electricity, water and communications increases. As well as Lizzeri and Perisco (2001), these authors highlight the importance of the selective character of these types of goods but also highlight their visibility.

Lulle (2004) argues that, in Bogotá, the Communal Action Boards -civil organizations at a neighborhood level- take advantage of the visibility of this investment in infrastructure to obtain political support. These organizations, which have been reiteratively catalogued as vote buyers (Otálora, 2002; García; Gutiérrez, 1998), channeled the citizen's demands for social services in exchange for votes.

This part of the document investigates the effect of clientelistic practices on public services coverage at a neighborhood level (around the voting precinct) and at a locality level. It would be ideal to have investment variables in hand to compare them to the result variables (the coverage). However, it was not possible to obtain the former for the period under study.

The social services coverage variables were obtained for 1993 at a censal sector level (*sample 1*) and for 1985, 1993 ad 2003 at a locality level (*sample 2*) (table 1). Note that one of the coverage measures corresponds to the year 1993. This measure is assigned to the

year 1991, meaning, to the period prior to the reforms. This is not problematic as Castro, the first mayor elected after 1991, takes office in 1992 and a year is not considered enough time to change the distribution of the capital's social services coverage.

The exercises to be carried out are the following. First we take advantage of the number of observations in *sample 1* to determine if the areas that voted in greater measure for traditional parties in 1988 and 1990 had greater coverage of social services prior to the reforms. Then, *sample 2* is used to observe the changes in the political determinants of social services coverage through time, before and after the reforms.

For the period prior to the reforms, the following model is estimated,

$$\zeta_{it} = \alpha + \delta \bar{v}_{traditionals,i} + u_{it} \quad (4)$$

Where  $\zeta_{it}$  is the coverage of social services (sewage, aqueduct, telephone, electricity or the sum of all four) around the precinct  $i$ ,  $\alpha$  is the intercept,  $u_{it}$  is the term of error and  $\bar{v}_{traditionals,i}$  is the percentage of votes obtained by the traditional candidates in 1988 and 1990 in the voting precinct  $i$ .

The parameter of interest is  $\delta$  but to adequately estimate it,  $\bar{v}_{traditionals,i}$  should be exogenous. As it is probable that this is not true the votes obtained by the traditional parties are instrumented through the following regression,

$$\bar{v}_{traditionals,i} = \gamma + \phi CP_i + \omega_{it} \quad (5)$$

Where  $CP$  is the measure of clientelist potential that has been used,  $\gamma$  is the intercept and  $\omega_{it}$  is the term of error that must cleanse the unwanted variation in  $\bar{v}_{traditionals,i}$ .  $CP$  is considered a good instrument because the majority of public employees around the precinct  $i$  was already there in 1988. In fact, by the mid 80's the growth in public employment had already reached its limits (Martz, 1997). For this reason, it is not expected that the jobs provided by the traditional parties in 1988 and 1990 will considerably affect the percentage of public employees around the voting precinct.

Table 6 resumes the results of this model. Panel A shows the estimation using instrumental variables. It had been previously exposed that traditional candidates received more votes in the precincts with greater clientelistic potential before 1991. This is confirmed in Panel A, Column 1. Upon using this relation as an instrument we find that the areas that in 1988 and 1990 voted more for these candidates obtained a greater coverage of social services (column 2).

This is true for sewage, electricity and telephone coverage (Panel I, Columns 4, 5 and 6) but is not true for aqueduct coverage (Panel I, Column 3). For the first three the effect is significant and its magnitude is considerable; the estimation of instrumental variables indicates that in an area with 1000 households, for example, an increase of 1% in the votes in favor of the traditional candidates implied 14 more houses with electricity and 32 more houses with sewage.

**Table 6: Votes for the Traditional Parties and Coverage of Social Services: 1988-1990**

Panel A: Instrumental Variables												
Dependent Variable	First Stage		Second Stage									
	$\bar{v}_{traditional}$		SS		Aqueduct		Sewage		Electricity		Telephone	
	(1)		(2)		(3)		(4)		(5)		(6)	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
intercept	71.36	0.75										
$E[\bar{v}_{traditional} / CP]$			5.4	0.5	0.74	0.13	3.22	0.3	1.43	0.12	5.63	0.58
CP	2.16	0.63										
F Relevance*	[0.00]											
Panel B: Ordinary Least Squares												
Dependent Variable			SS		Aqueduct		Sewage		Electricity		Telephone	
			(1)		(2)		(3)		(4)		(5)	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
intercept			260.5	9.41	96.55	2.23	77.54	5.73	86.38	2.395	41.58	10.55
$\bar{v}_{traditional}$			0.31	0.11	0.02	0.02	0.18	0.07	0.112	0.027	0.5	0.11
T Weak Exogeneity**			[0.07]		[0.45]		[0.12]		[0.01]		[0.04]	
R2			0.03		0.00		0.02		0.05		0.05	
Panel C: Reduced Form												
Dependent Variable			SS		Aqueduct		Sewage		Electricity		Telephone	
			(1)		(2)		(3)		(4)		(5)	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
Intercept			273.6	1.45	96.69	0.38	84.48	0.88	92.42	0.40	70.42	1.69
CP			11.64	1.07	1.60	0.28	6.95	0.66	3.09	0.27	12.14	1.25
R2			0.27		0.09		0.26		0.29		0.23	
N			322									

Nota: Variables are in level. CP is clientelistic potential defined as the number of public employees per 100 inhabitants. SS is the sum of the aqueduct, sewage, electricity and telephone coverages.  $\bar{v}_{traditional}$  is the percentage of votes in precinct i obtained by the traditional candidates in 1988 and 1990.

\*Corresponds to the Stock and Watson test. Under the null hypothesis the instrument is not relevant. P-value is reported in brackets.

\*\*Corresponds to the Stock and Watson test. Under the null hypothesis the instrument is not relevant. P-value is reported in brackets.

The estimators by ordinary least squares (Table 6, Panel B) are also significant but have a smaller magnitude. This attenuation bias may have its origin in the reverse causality. Maybe the areas with less coverage are more prone to developing clientelistic ties and vote more for traditional candidates that generate expectations of a better quality of life (more coverage)<sup>11</sup>. This is consistent with the theory that relates underdevelopment and clientelism. Another possibility is that, in the OLS estimations, the votes for traditional parties are capturing the

<sup>11</sup> However, it is also possible that the areas with more coverage are more prone to clientelism because of the past tradition of political machines providing more coverage.

level of education of the population or the rate of unemployment which would also reduce the magnitude of the estimator given that, as it has been seen, prior to the reforms, the areas with greater unemployment voted more and the areas with greater levels of education voted less for the traditional parties.

Panel C of table 6 estimates the reduced version of the model. The estimation is useful given that it is most probable that the traditional parties have compensated their main followers with jobs in the public sector. This is not problematic if, as was mentioned before, the majority of public employees around table  $i$  was already there before 1988. But if this is not fulfilled, the reduced version of the model has the advantage of not replicating problems of reverse causality (it is not evident to think in an effect that goes from coverage to the number of public employees).

In the majority of cases (Table 6, Panel A, B and C) the sign of  $\delta$  is as expected and is significant. This is evidence that, prior to the reforms, a greater percentage of votes for the traditional parties implied a greater coverage of public services. But if this is true, and if clientelism was reduced after 1991, it should also be true that there is no relation between clientelist potential and the coverage of public services after the reforms. In fact, when politicians were part of the management boards of social services companies, it was in their interest to undersupply social services. With supply being less than demand, politicians were able to offer social services to obtain votes. However, after 1994, programmatic mayors privatized social services companies and turned them into profit maximizing firms that increased coverage and crowded out clientelism.

A first fact that allows maintaining that social services provision was separated from electoral results has to do with the increase in coverage experimented by Bogotá in the 90's. The capital is recognized worldwide for its progress in this area. Today access to social services is almost total. This fact, together with that found in the previous section, points towards a break in the relation between electoral results and coverage. Even so the variance that still exists at the level of the locality (*sample 2*) was used to estimate the following model,

$$\zeta_{jt} = d_t + \phi_1 \cdot CP_{jt} \cdot d_{t < 1991} + \phi_2 \cdot CP_{jt} + w_{jt} \quad (6)$$

Where  $\zeta$  is the coverage in locality  $j$ , at time  $t$ ,  $d_t$  are the fixed effects per unit of time,  $CP$  is the measure of clientelistic potential and  $w$  is the term of error. This model is comparable to the reduced form model of table 6 (Panel C). Note that an instrumental variables regression is not chosen due to the number of observations in *sample 2*.

Table E shows that  $\phi_1$  is positive and significant and that  $\phi_2$  is close to zero and non-significant. Even at the locality level, the places with greatest clientelistic potential have greater coverage of public services prior to the reforms. However, as occurs with the relation between clientelistic potential and the votes for traditional parties, this relation breaks after the reforms.

Dependent Variable	SS		Aqueduct		Sewage		Electricity	
	(1)		(2)		(3)		(4)	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.
<b>Intercept</b>	242.63	6.67	81.21	2.45	75.21	3.11	86.21	1.51
<b>t1991</b>	20.37	3.52	10.42	1.29	3.69	1.64	6.26	0.80
<b>t2003</b>	54.65	9.49	17.52	3.49	22.81	4.43	13.31	2.15
<b>t&lt;=1991*CP</b>	17.80	5.69	4.98	2.09	9.92	2.65	2.89	1.29
<b>CP</b>	0.74	2.20	0.25	0.81	0.39	1.03	0.10	0.50
<b>R2</b>	0.67		0.68		0.58		0.76	
<b>N</b>	57							
Notes: SS is the sum of the aqueduct, sewage and electricity coverages. CP is the locality's Clientelistic Potential (public employees per one hundred inhabitants). When locality fixed effects are included the results do not change (the estimations are not included to save space).								

## V. Conclusion

This document focuses on a political change to explain the changes experienced by Bogotá in the early 90's. It is argued that the political change caused the weakening of clientelism and the collapse of a political machine, which integrated big patrons on one side and voters on the other.

The main conclusion of the document is that in Bogotá, the areas most exposed to clientelism used to vote for traditional parties and received, in exchange, greater access to

social services. The 1991 reforms – which limited the discretionary resources in the hands of politicians, promoted competition between parties and introduced a secret electoral ballot – ended the effectiveness of clientelism and installed firewalls between electoral results and the provision of public goods and social services.

One corner of this document provides empirical evidence on the relation between the decrease in clientelism and the provision of local public goods or club type goods (electricity, aqueduct, sewage). However, the document is supported on theoretical premises to deduce the effect over the provision of global public goods (security, education, health). An interesting exercise could be to empirically prove the theoretical postulation that models the provision of this type of goods as a negative function of clientelism. It would also be interesting to compare the case for Bogotá with other urban areas in the country. Maybe this would allow unraveling the relative importance of institutional and idiosyncratic factors, which broke down the machine.

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## Appendix

	1988			1990			1992		
	Candidate	Party	% Votes	Candidate	Party	% Votes	Candidate	Party	% Votes
<b>Winner</b>	Pastrana	Conservador	35.45	Caicedo	Liberal	65.67	Castro	Liberal	61.34
<b>Second Place</b>	Caicedo	Liberal	25.52	Vallejo	Conservador	23.01	Jaramillo	Conservador	21.29
<b>Third Place</b>	Ossa	Liberal	23.17	<i>Pizarro</i>	<i>M-19</i>	<i>7.68</i>	<i>Lucio</i>	<i>M-19</i>	<i>5.45</i>
	1994			1997			2000		
	Candidate	Party	% Votes	Candidate	Party	% Votes	Candidate	Party	% Votes
<b>Winner</b>	<i>Mockus</i>	<i>Indep.</i>	<i>66.26</i>	Peñalosa	Liberal	52.53	<i>Mockus</i>	<i>Visionario</i>	<i>45.75</i>
<b>Second Place</b>	Peñalosa	Liberal	31.01	Moreno	Conservador	31.14	<i>Castellanos</i>	<i>Cristiano</i>	<i>11.02</i>
<b>Third Place</b>	Moreno	Conservador	2.73	Gaán	Liberal	0.50	<i>Páez</i>	<i>P. comunit.</i>	<i>0.09</i>
	2003								
	Candidate	Party	% Votes						
<b>Winner</b>	<i>Garzón</i>	<i>Polo Dem.</i>	<i>47.58</i>						
<b>Second Place</b>	<i>Lozano</i>	<i>Col. Siempre</i>	<i>42.57</i>						
<b>Third Place</b>	<i>Mejía</i>	<i>Firmes Bta.</i>	<i>2.83</i>						

Note: The table shows the percentage of votes obtained by the winning candidate, the second place candidate and the third place candidate in the precincts of the panel. The candidates in italics are the candidates who appear in the books of the "National Civil Status Registry" as independent (Not Conservative, nor Liberal). The rest are traditional candidates. Peñalosa registered as liberal but campaigned as an independent.