

# Social Development Policy, Expenditures and Electoral Incentives in Mexico

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## **Abstract<sup>1</sup>**

In the past decade social development policy in Mexico has experienced substantial changes. Explicit rules for distribution, decentralization and the dissemination of information on programs' norms, outcomes and impacts have taken place during this time. Have these changes had any effect on the politics of distribution of government resources? In this paper I review some of the modifications that took place in social development policy design and accountability at the Mexican federal government during the past ten years and then I test for different hypothesis on political strategies on public expenditures' distribution. In the programs analyzed here I find that political variables have had limited influence on the distribution of resources of federal programs at the municipal level between the years 1999 and 2005 and that programs differences in this respect may depend on program characteristics, specifically rules of allocation.

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## Introduction

There are a number of ways in which politics and social policy interact in a democracy. One is policy design, that is, the rules by which resources are distributed, a process that is embedded in the political system and gets determined by political institutions and power structures (Hubber, Mustillo and Stephens 2004). Another is the implementation of social programs; for example the role played by street level bureaucrats that can affect political action and participation of recipients (Soss 1999, De la O 2006). One more refers to accountability, its practice and mechanisms but especially its effects on the incentives of elected politicians to diminish the narrow use social policy for electoral purposes.

During the past decade Mexico has experienced important changes in the policy and politics of its federal social development programs. These comprise some significant innovations in policy design in the Mexican context, like decentralization, the inclusion of formulas for distribution, the inclusion of means testing and targeting mechanisms to select beneficiaries, the estimation of an official poverty measurement, mandatory evaluation of federal social programs, etc. Changes in policy accountability in this area have also been taking place, like the dissemination of public information on program operation rules, their budgets and their outcomes. I argue that these new institutions are closing the previous information gaps about distribution of resources that may have permitted the rampant political use of the federal budget by the federal Executive in the past.

In the second section of this paper I assess some of the reasons why politicians in a democracy are inclined to use pro poor policy or social development programs with a short term intention to win at the polls, and why in the presence of informational asymmetries they may be able to do so. The third section reviews the changes in the Mexican federal government's pro poor social policy starting in the Salinas federal administration (1988-1994) to Fox's administration (2000-2006). In the fourth section I described the data used in this study and the methods employed to test for political influence in the distribution of federal program's expenditures at the municipal level for three different social development programs in a time of fierce electoral competition. Section five explains some of the basic results of this analysis and the last section shows some concluding remarks and paths for possible future research.

The issue of the political use of government resources is of particular interest today in the young democracies in Latin America. After the initial stage of transition, the newly popular elected governments of the region have begun to face the effects of electoral competition on public institutions, like the allocation mechanisms of government resources. Furthermore, pressing popular demands to use government spending efficaciously to ameliorate the effects of widespread poverty and inequality represents a challenge in the study of how politics and policy interact. Giving answers to the question of how the distribution mechanisms of social welfare programs can give political advantage to parties in power is an important issue that comes up in the study of the creation of an adequate institutional framework for policy making in the region.

### **Democracy, Political Incentives and Accountability**

In a democracy politicians use policy to win votes. But mechanisms for effective citizen contestation and accountability serve to put a break on policy being only a vote generating mechanism. When the political institutions for contestation and accountability are lacking and poverty is widespread, social policy runs the risk of being used by elected politicians for purposes other than improving the well being of those in greater need. Clientelism, patronage and the misuse of public resources may follow.

Given its recent transition to democracy, some institutions of electoral and policy accountability in Mexico are just beginning to appear. An interesting question then is whether these mechanisms are likely to have an effect on shielding social programs from the temptations of using public spending with an electoral logic at the expense of diminishing their effect on wellbeing for the poor population.

Social development programs may be especially effective as a vote generating mechanism for incumbents in countries with high incidence of poverty because a vote is likely to be bought for a lower amount from the poor than from the rich. Assuming decreasing marginal utility of income, it is true that more votes can be obtained from the poor with less money than votes from the rich, which may intrinsically imply political inequality. Unequal treatment may be a crucial ethical concern in terms of social justice, but it also raises issues of efficiency and effectiveness in various ways.

First, economic inequality may be exacerbated if government spends small amounts in poor voters and bigger amounts for rich voters, and economic inequality may negatively affect growth. Second, timing outlays with elections and thus creating expenditure cycles may subtract effectiveness from programs. Third, if incumbents are able to target only the poor that are inclined to vote for their party, public resources are less likely to reach the poorest.

There are two ways to increase benefits from existing social programs before elections, one is by augmenting goods and services for incorporated households, another is by incorporating more households into the programs. Increasing resources near elections may imply reductions or restrictions at other times. When this reduction takes place either benefits will be decreased or some families will no longer receive any benefits after elections are over, or both. If we assume that a steady flow of benefits is necessary to ameliorate the structural causes of poverty, then having electoral peaks will work against the effectiveness of programs.

Incumbents may also try to target specific areas where the vote rate of return is thought to be higher. There may be at least three forms by which informational asymmetries can explain the existence of a political bias in poverty alleviation programs. First, in order to obey the mandate of distribution according to poverty levels, a ranking among competing beneficiaries needs to be made. This implies having clear, specific and consensual criteria of how poverty will be measured and that the information of this measurement for potential beneficiaries is available and public. If this is not the case it

gives room for government officials to bias distribution to areas where the vote rate of return for their party is higher at the cost of not helping the poorest.

Second, another source of information asymmetry that allows political bias is the capacity for implementing the program in the areas where the beneficiaries at the top of the list reside. A government may argue that the poorest reside in areas where no possibility of implementing a program is available and thus find justification to target areas that are less poor, but more inclined to vote for the incumbent party.

Third, political bias can also be possible if the rules of the programs are approved in general terms by Congress but decisions on beneficiaries' selection and spending calendars are delegated to agencies which are controlled by the Executive, and no formal accountability mechanisms for these decisions exist.

In all cases the intentional bias can be carried out because the mechanisms for policy accountability are weak or insufficient to monitor the compliance of government to established rules for allocation. Or, in other words, the established forms of accountability are not enough to close the information gaps between citizens and elected officials in charge of social development policy.

Several theories have been offered for the explanation of the distribution of government benefits; these theories include the political business cycle models (Nordhaus 1975, Tufte 1978, Rogoff 1990, Blais and Nadeau 1992, Alesina, Roubini and Cohen 1997), distributive politics (Cox and McCubbins 1986, Bickers and Stein 1996, Levitt and Snyder 1997, Fleck 1999), bureaucratic interests (Niskanen 1968, Wintrobe 1997, Moe 1997) and state or local government political influence (Rich 1989, Khemani 2003, Gibson 2004). Research on the subject has pointed out the following factors as determinants on the distribution of resources by national governments: electoral calendars, partisan distribution, the relative power of the bureaucracy and the influence of local or state politics at the national level. However few studies have either jointly analyzed these different determinants of distribution, or acknowledged the importance of program characteristics or policy design and their influence on the extent of political manipulation.

Scholars of Latin American policy and politics have emphasized the political uses and abuses of public spending in most of the countries composing the region, arguing a high content of clientelism by authoritarian regimes. Studies on the subject examine either the relationship between electoral determinants and macroeconomic variables, such as public sector expenditures, per capita gross domestic product and fiscal deficits across or within countries (Schuknecht 1996, Ames 1987, Pacek and Tadcliff 1995, Magaloni 2000), or examine the political determinants or clientelistic nature of some programs (Schady 2000, Molinar and Weldon 1994, Brusco, Nazareno and Stokes 2002). These studies do not generally compare programs in the same or different sectors and few jointly test the different hypothesis of political manipulation.

Especially for the case of Mexico, recent studies have emphasized the political or clientelistic use of social policy, particularly in the period of the Salinas administration (1988-1994) with the National Solidarity Program (Cornelius, Craig and Fox 1994, Bruhn

1996, Dion 2000), or the subtle use of targeting with political purpose of the Zedillo Administration main poverty alleviation program, PROGRESA (Rocha 2002). However, the existing literature is generally mute with respect to the relationship between policy design and accountability and political manipulation.

The following section reviews some of the main characteristics of social development policy in Mexico from the Salinas administration in the late 1980's to the Fox administration ending in 2006. The purpose is to illustrate the changes that have taken place in terms of policy design and formal accountability mechanisms, to then tests for political influence in the federal government's distribution.

### **Social development policy in Mexico**

On the year 2000 a one party rule ended in Mexico. In the elections of that year for the first time the *Partido Revolucionario Institucional* (PRI) lost the presidency after holding power for more than 70 years. This unprecedented event encouraged high expectations on the future of Mexican policy and politics. For decades elections were a façade of the PRI to maintain the power held by force, patronage or clientelism. The results of the national election of 2000 gave hope that true competition among political parties would motivate elected officials to do better policy to gain the favor of their constituents. These expectations are rooted on the notion that holding regular free and fair elections would rapidly translate in increasing forms of social and citizen participation and in turn this involvement would motivate more egalitarian policy.

The role of credible, transparent elections cannot be underestimated in a democracy, but other political features are a *sine qua non* for effective and meaningful policy making. The rule of law and mechanisms for policy accountability and citizen participation are among those institutional requirements. In this respect there has been some progress in Mexico, but building an effective institutional framework has resulted harder than anticipated.

In Mexico, according to official figures nearly half of the population is considered poor<sup>2</sup>. In such circumstances social policy becomes a crucial factor for economic growth and development. Increasing the population's capacities, with effective social policies, is a necessary condition for economic development and the enhancement of citizen participation in political life and policy making. But it has been documented that in the recent past social policy has been used in Mexico as an instrument to gain political support, in detriment of improving opportunities for the poor.

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<sup>2</sup> Consejo Nacional de Evaluación de la Política de Desarrollo Social, Comunicado 001/2006. October 2006. available at <http://www.coneval.gob.mx/pdf/Comunicado%20001%202006%20Oct%2001.pdf>. These figures on poverty are estimated by a methodology established by an expert committee to measure poverty composed of academics of different institutions in 2002.

The Salinas administration (1988-1994) faced an intense political crisis in its outset, due to several factors: the rising strength of the opposition, a deteriorated economy, a shift to a free trade economic model that had adversely affected powerful groups, and the internal struggles in the ruling party, between the technocrats and the old ruling elite. It was clear that no further economic reform could materialize with the absence of an alliance with important sectors of the population. Some of the first actions of the Salinas government were the reforms in the electoral legislation, privatizations of state own enterprises and banks, plus the launching of a social policy strategy, called PRONASOL (*Programa Nacional de Solidaridad*). This new policy contemplated a targeting approach, justified under the argument that social expenditure had not had the expected results and that a more thorough approach to combat poverty was necessary.

The official objective of PRONASOL was to “regain the capacity of policy as a legitimate instrument of governance, so that social demands could be prioritized, socially and geographically, located by representatives capable of closing the gaps between the supply of public goods and the legitimate demands of society in order to establish a compromise of co-management of public supply”<sup>3</sup>.

PRONASOL was officially established by presidential decree on December 1988. After being absent for nearly an entire administration, poverty became again the center of the presidential discourse. It was the first time that a Mexican administration recognized unambiguously that poverty reduction was crucial for the development of Mexico. The federal government recognized that 41 million people lived in poverty, of which 17 million were extreme poor. No official method of poverty measurement was made explicit.

PRONASOL was implemented rapidly. This speed has been explained by the fact that much of the institutional background needed was already constructed by previous administrations, such as the state/federation agreements, the regional development efforts, the networks built by two previous policy strategies: PIDER and COPLAMAR, and the administrative and budget rules for regional development. From the 13 programs that initially constituted the PRONASOL strategy, 11 already existed in previous administrations. The strategy grew rapidly and by the end of 1992, more than 40 programs were included (Barajas 2002). Item 26 of the federal budget became a crucial part of the program and the majority of resources for poverty alleviation were operated through it. Legislation allowed for huge presidential discretion in the distribution.

In PRONASOL, a figure called solidarity committees (*comités de solidaridad*) played an essential role, by establishing the link between local communities and the federal executive, articulating demands for the allocation of resources spent in social infrastructure. Through these committees demands were evaluated and resources allocated. According to official figures, from 1989 to November 1994, more than 340 thousand committees were

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<sup>3</sup> Taken from Secretaría de Desarrollo Social, *El Programa Nacional de Solidaridad en la modernización nacional*, mimeo, México, SPP, 1992, p.11, my own translation.

formed at the local level with the active participation of nearly 2 million people in 433 municipalities<sup>4</sup>. A stated objective of the program was to target the poorest municipalities in the country. Even though there were official efforts to list all the infrastructure works made with PRONASOL, there is no systematic evaluation of its impacts on poverty reduction or on specific indicators of well being that the program might have achieved.

By the end of the Salinas administration, the political environment had deteriorated considerably due greatly to two events in 1994, i.e., the uprising in Chiapas by the Zapatistas Army of National Liberation and the assassination of the PRI's presidential candidate five months prior to the federal elections of that year. Furthermore there was an avalanche of criticisms of PRONASOL, pointing towards its clientelistic objectives. These criticisms had a big political impact.

According to many analysts, PRONASOL represents an intensification of clientelism (Ward 1993, Dresser 1994). Several studies have given elements to advance on the initial assessments of the clientelistic nature of PRONASOL, but most have been based on case studies or limited data (Molinar and Weldon 1994, Bruhn 1996).

The Salinas administration can be described as one with a shift in focus of social policy from generalized subsidies to the development of programs for poverty alleviation with especial emphasis on the development instruments for targeting benefits. Social policy in the early 1990's had important changes in Mexico: a renewed interest by government and its entrance in the national political agenda, especially of poverty alleviation policy; more influence in the decision making process by civil society organizations (Warman 1994). Since then poverty alleviation policy became a key issue in public discourse in Mexican politics.

The Zedillo administration (1994-2000) continued the use of targeting instruments but made important changes with respect to the distributional aspects in the area of poverty reduction. These changes appeared to have the potential to decrease clientelistic practices, as new and more transparent formulas based mechanisms for distribution and beneficiary selection were established.

From its beginning the Zedillo administration stopped all mention of PRONASOL (even the name of *Solidaridad* was wiped out of many of the documents describing the programs that incorporated it<sup>5</sup>), and then a slow process to dismantle it began. However many of its programs remained in operation though with reduced budgets and personnel. Given the need to develop more precise mechanisms for targeting and means testing, it took

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<sup>4</sup> "La organización social en el Programa de Solidaridad", Gaceta de Solidaridad, Órgano de Información del Programa Nacional de Solidaridad, año V, núm.111, 15 de noviembre de 1994.

<sup>5</sup> Examples are the FONAES, which instead of National Fund for Solidarity Enterprises was called National Fund for Social Enterprises, the INDESOL that was formally National **Solidarity** Institute, was called National Social Development Institute.

the Zedillo administration three years to announce its new poverty program, PROGRESA (*Programa de Educación, Salud y Alimentación*).

In addition to the launching of PROGRESA another crucial change in the Zedillo administration with regards to social development policy that differentiated it from that of his predecessor was the decentralization of the government funds for education, health and social infrastructure programs. The fund for social infrastructure was the main component of the PRONASOL strategy. Having been accused of clientelistic and an instrument of presidential power and discretion, President Zedillo focused on dismantling the political enclave. Decentralization began partially by 1996 and it was completed by 1998 with the reforms to the Fiscal Coordination Law and the creation of a new budgetary item (*ramo 33*<sup>6</sup>). The decentralization process of the Social Infrastructure Fund appeared to have set the basis for the elimination of rampant presidential discretion in the allocation of resources<sup>7</sup>.

The administration of Vicente Fox (2000-2006) continued the PROGRESA program, but some changes were introduced. The program is now called OPORTUNIDADES and benefits and coverage were increased, plus many of the households that were incorporated after 2001 reside in bigger and more urbanized localities<sup>8</sup>.

Fox's administration social development policy was supposed to be based on an integrated approach, a strategy called "CONTIGO", which was supported on four main components, where all federal agencies were formally grouped: 1) increase in human capacities; 2) creation for income generation opportunities; 3) Assets accumulation; 4) social protection provision. The strategy relies of the coordination of all federal, state and local agencies in charge of programs related to any of the components to generate synergies and avoid administrative inefficiencies. The positive side of the strategy was to make explicit a framework that could disentangle related but separate causes of poverty and possible policy strategies to confront the problem (Banco Mundial 2004). The downside is that CONTIGO seemed to be more of a political slogan than a real coordination effort among federal agencies and departments in charge of a wide variety of social programs.

It is unclear whether the CONTIGO strategy has had any impact on administrative efficiency, but it is true that key formal developments related to social policy transparency

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<sup>6</sup> The *ramo 33* includes other funds for social programs, such as education and health.

<sup>7</sup> The actual formula is established in article 34 of the Fiscal Coordination Law. The formula is based on a Global Poverty Index based on household information on the following variables: household income per capita, household educational level, physical household space, availability of in-house sewerage and electricity.

<sup>8</sup> Presidencia de la República, Segundo Informe de Gobierno, 2002. Capítulo I, 1.3 "Superación de la Pobreza".



and accountability have taken place since the late 1990s, albeit slow in progress in some areas. I will briefly mention some of these below.

In 1998 for the first time the federal budget bill required all federal programs with direct subsidies or transfers to the population to make public their operation rules. The rules have to include clear criteria for beneficiary's selection and a description of the goods and services provided, as well as responsibilities for recipients and government. In 2000 the operation rules for 135 programs (mostly for social provision) were published in the official government's gazette (SHCP 2000). This was an important step in the formal institutions for accountability of government policy.

In 2001 the Department for Social Development promoted and constituted a committee of independent experts in order to come up with an official poverty measurement. The general methodology was established by 2002 and poverty is officially measured in Mexico since that year using an income approach and the data from National Surveys on Household Income and Expenditures (ENIGH). Three thresholds for poverty measurement were established: the first one for nutrition, the second one based on human capital development (health and education) and the third one on household assets, such as housing (CTMP, 2002).

On January 2004, the General Law for Social Development was published. One of its main objectives is to create a National Social Development System to design, monitor and evaluate social policy and programs. This National System calls for the collaboration and contributions of federal government (from all agencies involved in social policy areas in the Executive and Legislative branches), state and municipal governments and civil society organizations. Most of the Commissions and Councils created or incorporated by this Law, (e.g., National Social Development Committee, Intersecretary Committee for Social Development, Social Consulting Council, National Council for Evaluation of Social Policy, etc.) are chaired by the head of the Department of Social Development.

It is perhaps too early to assess if this new law will impact social policy design, monitoring and evaluation. But there are at least two areas where transparency and accountability have moved forward in the Mexican social policy process. First, the external evaluation system of social programs started by SEDESOL, and formalized with the creation of the National Council for the Evaluation for Social Policy (CONEVAL) in 2006. Evaluations for a variety of programs have been conducted since 2000 by organizations from the private sector and academia. According to the Department of Public Service (Secretaría de la Función Pública) in 2004 and 2005, from over 100 programs with direct subsidies and transfers, more than 60% presented external program's evaluations to Congress<sup>9</sup>.

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<sup>9</sup> Information from *the Secretaría de la Función Pública* provided to the author through an explicit request to IFAI. Provided electronically in file: FP Control Eval Ext 2004.xls and FP Control IEval Ext 2005.xls

The availability and quality of these studies will determine if they can be considered as effective mechanisms to improve policy design and influence budget allocation. But I believe these exercises by themselves can help to create the expectation among political actors that the Executive has to regularly inform representatives and the public of its actions, outcomes and possible impacts of the policy implemented.

Another step forward in accountability is evident in the projects partly financed by the Department of Social Development during 2006 on the study, inspection and protection of the political use of social programs in the federal election. There are at least two studies in this respect. The first one was proposed by the members of the Social Consulting Council and developed by a group of academic and nongovernmental institutions (Monitoreo de Programas Sociales en Contextos Electorales, 2006)<sup>10</sup>. The second one was a project by the United Nations Development Program in Mexico (Diagnóstico sobre la Vulnerabilidad Político-Electoral de los Programas Sociales Federales, 2006). The making of these studies showed an interesting opening on the federal government to audit its political behavior.

No one doubts that there are still many challenges and obstacles to surmount for an effective social policy in Mexico. But recent developments call for the question whether the new institutions put in place have served as a break on the political incentives or motivations of those holding power to use social programs as vote generating mechanisms in their favor. In this paper I am particularly interested in testing for a political effect on the public social expenditure distribution during the first non PRI federal administration, especially for the types of programs that have been accused in the recent past of being partisan instruments of the federal government.

In this paper I test for the influence of political electoral variables on public expenditure distribution on three programs: the fund for municipal social infrastructure (FISM), the conditional cash transfer program OPORTUNIDADES and the milk supply program run by LICONSA. The selection of these programs responds partly due to the availability of data at the municipal level, but the analysis of these programs in particular represents some advantages in terms of their similarities and differences. All three programs exhibit different allocation rules. FISM is a formula based distribution; OPORTUNIDADES is a means tested program targeted to households that considers for selection a measurement of development (*índice de marginación*) estimated by the National Council of Population (CONAPO) plus household surveys at the locality level (ENCASEH and ENCASURB), LICONSA selection of beneficiary communities relies on the *índice de marginación* as well and on the availability of infrastructure and demand. Two of these programs (OPORTUNIDADES and LICONSA) are centralized federal programs and decisions on allocation are made within the executive agencies of the federal government.

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<sup>10</sup> The Institutions taking part in this study were: Berumen, CIESAS, El Colegio de México, Fundar and Probabilística.

FISM is federal decentralized programs and state governments make the distribution at the municipal level according to fixed formulas and availability of data. The three programs existed before 2000.

### **Data and Methods**

Observations on the 2,436 Mexican municipalities for a number of years, depending on the program, were used to construct the panel data set used in this paper. The last year of observation was 2005. The data on expenditures was provided by the Department of Social Development. Demographic and socioeconomic indicators and a measure of development used by the Mexican government (*índice de marginación*) came from Mexican National Population Council (CONAPO). Political variables, mainly votes by political party in the federal, state and municipal elections were obtained from IFE, FUNDAR, CIDAC, CIDE and the State Electoral Institutes. Table 1 shows some descriptive stats.

In this paper I analyze the data in two ways. First I calculate the coefficient of variation which yields information about the variability in the distribution of the programs taking into consideration a time and cross section perspective. Second I estimate the parameters of a regression model that considers the distribution of resources at the municipal level as a function of political electoral variables and controlling for level of development at the municipal level.

### ***Coefficients of variation***

When studying the possibilities of discretionary use of resources it is convenient to use a measure of variation in the expenditures of programs across units and time. Programs over which officials may have an opportunity to exercise a nontrivial degree of influence, or for which approvals for allocation can be processed quickly, and for which the potential beneficiaries are present in every community are those that may exhibit “high variation”, that is, the subject of important changes in distribution patterns from one year to the next, or from one geographical unit to another (Levitt and Snyder 1997, Bickers and Stein 1996)

A useful measure for variation in programs is that proposed by Levitt and Snyder (1997) who have categorized programs according to their coefficient of variation<sup>11</sup>, based on district averages. In this paper I estimate the coefficient of variation in two ways, first by year based on municipal averages and second, by municipality based on period averages.

The coefficient of variation by year would reflect how units, in this case municipalities differ in their allocation. A high coefficient of variation in a year would imply that resources are unevenly distributed among units, which may reflect the differences in socioeconomic and demographic conditions. Commonly, substantial

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<sup>11</sup> The coefficient of variation is defined as the standard deviation divided by the mean. A program that allocated the same resources (*per capita*) to each district would have a coefficient of variation of 0.

changes in adjacent years for an established program that considers socioeconomic variables as the basis for distribution would not be expected. This is so because it is unlikely to substantially affect social and economic variables in a year. Thus the yearly coefficient of variation by program will be high if resources are unevenly distributed, but if no external influence is present then it should be relatively stable in contiguous years.

The coefficient of variation within units during the whole period of observation would indicate the magnitude the changes within the unit of observation during the chosen period. A high coefficient of variation would imply that allocation decisions could radically change within units. Thus the stability of the coefficient of variation by year and within municipality across time should serve as an indication of the potential for external influences.

### ***Basic Model***

To test for influence of political electoral variables on expenditure distribution at the municipal level we estimate the parameters of linear equation model with the dependent variable being per capita expenditure and the explanatory variables a set of political characteristics, controlling for socioeconomic differences using the *índice de marginación*.

The basic model is of the form:

$$y_{it} = \beta_1 X_{1it} + \beta_2 X_{2it} + c_i + u_{it}$$

Where  $y_{it}$  stands for expenditure of a program allocated in municipality  $i$  in the year  $t$ ;  $c_i$  is the state unobserved effect in municipality  $i$  and  $u_{it}$  is the error term;  $X_1$  is the value of the municipal *índice de marginación* for the year 2000 and  $X_2$  is a vector of political variables that may include:

- Political party concurrence between the municipal or state government and the federal Executive
- The ENP Laakso-Taageperta Index at the municipal level<sup>12</sup> to measure degree of party competition at the municipal level.
- Presence of municipal election
- Presence of state election

The variables on the presence of elections are obvious exogenous variables but political party concurrence and degree of competitiveness may depend on municipal level expenditures, thus the estimation of the model by Ordinary Least Squares (OLS) would report biased and inconsistent estimators. Therefore in order to correct for the effects of

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<sup>12</sup>  $ENP = \frac{1}{\sum_{i=1}^n p_i^2}$  where  $p$  is the proportion of votes for each party.

endogeneity on the coefficients I use Fixed Effects Two Stage Least Squares (FEIV) to estimate the equation (Semykina and Woolridge 2005), using as instrumental variables a set of fiscal municipal variables. Results will be discussed in the next section.

It is worth noting that other studies have estimated models to test the existence of political influence in distribution of social welfare programs at the state level (Molinar y Weldon 1994, Díaz Cayeros 2004, Dion 2002, Rocha 2001). The contribution of this paper is that it uses a panel data set at the municipal level and tests for influence of political variables in three social welfare programs using a set of hypothesis about federal government strategy for distribution. These strategies are: 1) loyal voter support (if federal government benefits municipal governments of the same party as the President); 2) swing vote (if municipalities with highest degree of electoral competition are supported more than others); 3) electoral cycles (if federal government gives more resources to municipalities in election years, whether local or state elections); and 4) state government influence in distribution at the municipal level (if federal government gives more to municipalities in states that have the same party as the President).

### **Basic Results**

From the three programs analyzed here FISM is the biggest program in terms of its per capita resources at the municipal level (376 pesos), OPORTUNIDADES is in the second place (283 pesos) and the Subsidized Milk Program (LICONSA) has the smallest per capita allocation (21 pesos)<sup>13</sup>. Average per capita allocation is positively correlated with the *índice de marginación* for FISM and OPORTUNIDADES, not so for LICONSA. PRD governed municipalities get on average more per capita expenditures from FISM and OPORTUNIDADES. On average PRD municipalities have a lower degree of social development, as seen by the value of the index. Municipalities governed by the PAN are on average less marginalized than those governed by the PRD or the PRI.

The variation on allocation compared to yearly averages at the municipal level (figure 1) is relatively stable for FISM, as expected. OPORTUNIDADES shows higher variability which may be explained by the process of expansion on the program which went from over two million household benefited in 2001 to nearly five million households in 2005. LICONSA is the least stable of the programs here. These results support the idea that formula based programs with benefits going to recipients in every geographical unit (in this case municipal governments) have less discretionary management. OPORTUNIDADES variability may be explained by its expansion. It would be interesting to see if the incorporation of localities into the program responded to any political logic. Data on families incorporated in the program on a yearly basis at the locality level would be needed to perform such an analysis.

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<sup>13</sup> Estimated in 2002 pesos.

Worth noting is the increase in variability in 2002 for the three programs. A plausible explanation for this result may be found in the first year using updated census data which may have modified basic information on demographic and socioeconomic indicators at the municipal level for allocation decisions.

Within municipalities across time FISM shows the smallest variability in allocation, as expected and OPORTUNIDADES the largest (see figure 2). This latter result is also related to the pattern of household incorporation to the program. A better measure of variability to assess external influence on the allocation decisions in the case of OPORTUNIDADES would be to measure it at the locality level. Unfortunately this information was not available for analysis.

Table 5 synthesizes the results obtained with the estimation of the models for each of the programs analyzed here (see Tables 2, 3 and 4). It appears that LICONSA might be the program with the greatest political influence in the distribution of its resources. The evidence here shows that LICONSA expenditures are greater where loyal supporters are present and that there might be an electoral year effect. Expenditures are not affected by the existence of party concurrence in state and federal governments.

OPORTUNIDADES expenditures at the municipal level appear not to be affected by a strategy to support municipalities that have governments from the same party as the federal Executive or municipalities with high electoral competition. The data shows a negative effect on municipal elections which might reflect the “blindaje electoral” campaigns by SEDESOL, because one of its components is to delay incorporation of families during election years. The model shows a positive significant effect on the variable of party concurrence in the state and federal governments, which might give room to believe that state governments of the same party as the President may influence the decisions of allocations.

FISM resources seem not to be influenced by electoral competition at the municipal level, by the concurrence of party at the federal level or by municipal elections. There is some evidence of a positive cyclical state election effect and when the municipality belongs to a state with the same political party in government.

### **Concluding Remarks**

Mexico is yet at an early stage in the consolidation of its democratic institutions. Nonetheless during the past decade important developments have taken place in Mexico with regards to policy making in social development programs, especially with respect to design and accountability. This is not to say that the country will overcome poverty and inequality in a short period of time, or that clientelism is absent from the political electoral arena. But this paper shows evidence that the new institutional arrangements have served to limit the federal Executive’s discretion in the allocation of government’s expenditures in the first PAN federal administration. The mechanisms by which discretion is abridged have to do with closing the informational gaps between the federal government’s bureaucracy and other political actors that keep a close watch on the federal government’s behavior.

Social development programs still represent a small amount of total government social expenditure. Other social programs, like those from the Department of Education or Health have far bigger budgets for programs that directly affect households' wellbeing, yet these have not been studied under the light of politically influenced distribution in the way it is here or since the first studies of clientelism in PRONASOL began in the mid 1990's. Much work remains to be done in the research of how electoral politics affect social policy making and distribution in Mexico.

Finally, the influence of local and state political actors is becoming decisive in Mexican politics, yet local policy making in social development is in greatly understudied. The political uses of resources and clientelistic practices of state and municipal programs, today with more resources than ever before, in a time with increasing electoral competition, is also a vast field of study in this subject.

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**Table 1 Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Year</b>	17052	2002	2.00	1999	2005
<b>Population**</b>	17006	38277.38	112286.40	108	1.79e+06
<b>Indice de Marginación</b>	17002	.001	.9902	-2.36	3.39
<b>FISM</b>	16396	6694609	1.1e+08	4139.74	2.20e+08
<b>FISM * per capita</b>	16389	376.05	648.42	0.04	28769.71
<b>LICONSA*</b>	7308	1320656	2.0E+07	0	8.0E+08
<b>LICONSA* per capita</b>	7308	21.09	52.63	0	2267.13
<b>PROG/OPORT *</b>	14616	5079272	8254335	0	1.0E+08
<b>PROG/OPORT per capita *</b>	14561	283.16	310.44	0	15800.29
<b>Indice de Marginación MPAN</b>	2392	-0.4520	0.9509	-2.36	3.39
<b>Indice de Marginación MPRD</b>	2014	-0.0403	0.9840	-2.07	3.07
<b>Indice de Marginación MPRI</b>	8412	-0.0590	0.9548	-2.18	3.39
<b>FISM * per cápita MPAN</b>	2368	358.50	779.88	.04	9865.52
<b>FISM * per cápita MPRI</b>	8313	352.09	619.44	.06	28769.71
<b>FISM * per cápita MPRD</b>	1969	403.60	808.90	0.45	11716.36
<b>PROG/OPORT* per capita MPAN</b>	2123	213.00	285.45	0	6031.62
<b>PROG/OPORT* per capita MPRD</b>	1738	283.07	364.34	0	12231.48
<b>PROG/OPORT* per capita MPRI</b>	7059	256.37	322.10	0	15800.29
<b>LICONSA* per capita MPAN</b>	1197	21.31	51.76	0	952.15
<b>LICONSA* per capita MPRD</b>	949	22.25	57.20	0	1634.05
<b>LICONSA* per capita MPRI</b>	2973	22.85	64.85	0	2667.13

\*en pesos constantes del 2002

CONAPO population projections were used.

**Table 2 FISM**

Dependent Variable	(1)	(2)	(3)	(4)
<b>FAIS per cápita</b>				
	148.134**	146.736**	146.360**	146.843**
<i>Indice de Marginación</i>	(7.400)	(7.214)	(7.298)	(7.369)
<b>Same Party</b>				
<b>Government</b>	12.857			
<b>(Municipal-Federal)</b>	(15.319)		-	-
<b>Party Competition</b>		20.047	25.124	27.339
<b>Municipality</b>		(43.158)	(39.788)	(39.898)
<b>Electoral Year in Municipality</b>		-6.593		
		(10.784)	-	-
<b>Electoral Year in State</b>			44.666**	44.903*
	-	-	(22.913)	(23.298)
<b>Same Party</b>				
<b>Government</b>				62.135**
<b>(State-Federal)</b>	-	-		(8.867)-
<b>N</b>	16,406	16,406	16,406	16,406
<b>R<sup>2</sup></b>	.1704	.1702	.1714	.1717

\* p < .10; \*\* p < .05

Method of estimation was Fixed Effects 2SLS. Instruments include: % of rural population; and municipal finance variables.

Party competition at municipality is measured by the ENP index of Laakso-Taagepera

**Table 3 OPORTUNIDADES**

Dependent Variable <b>OPORTUNIDADES</b> <b>per cápita</b>	(1)	(2)	(3)	(4)
	138.888**	138.622**	138.646**	138.891**
<i>Indice de Marginación</i>	(2.813)	(2.866)	(2.855)	(2.816)
<b>Same Party</b>				
<b>Government</b>	3.193			
<b>(Municipal.Federal)</b>	(5.428)			
<b>Municipal Party</b>		-6.259	-8.545	-8.567
<b>Competition</b>		(12.084)	(11.467)	(11.245)
<b>Electoral Year in</b>		-13.726**		
<b>Municipality</b>		(3.803)		
<b>Electoral Year in</b>			2.328	1.704
<b>State</b>			(9.636)	(8.974)
<b>Same Party</b>				
<b>Government</b>				56.372**
<b>(State-Federal)</b>				(6.405)
<b>N</b>	14,556	14,556	14,556	14,556
<b>R<sup>2</sup></b>	0.3644	0.3648	0.3663	0.3685

\* p < .10; \*\* p < .05

Method of estimation was Fixed Effects 2SLS. Instruments include: % of rural population; and municipal finance variables.

Municipal party competition is measured by the ENP index of Laakso-Taagepera

**Table 4 LICONSA**

Dependent Variable				
<b>LICONSA per cápita</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>
	-6.116**	-6.141**	-6.118**	-6.078**
<i>Indice de Marginación</i>	(1.243)	(1.247)	(1.244)	(1.240)
<b>Same Party Government (Municipal-Federal)</b>	7.507*			
	(3.442)			
<b>Municipal Party Competition</b>		-5.794	-5.689	-5.567
		(3.739)	(3.569)	(3.245)
<b>Electoral Year in Municipality</b>		-2.518**		
		(0.995)		
<b>Electoral Year in State</b>			12.298*	11.704*
			(7.168)	(5.974)
<b>Same Party Government (State-Federal)</b>				8.148
				(6.681)
<b>N</b>	7,277	7,277	7,277	7,277
<b>R<sup>2</sup></b>	.1139	.1143	.1152	.1187

\* p < .10; \*\* p < .05

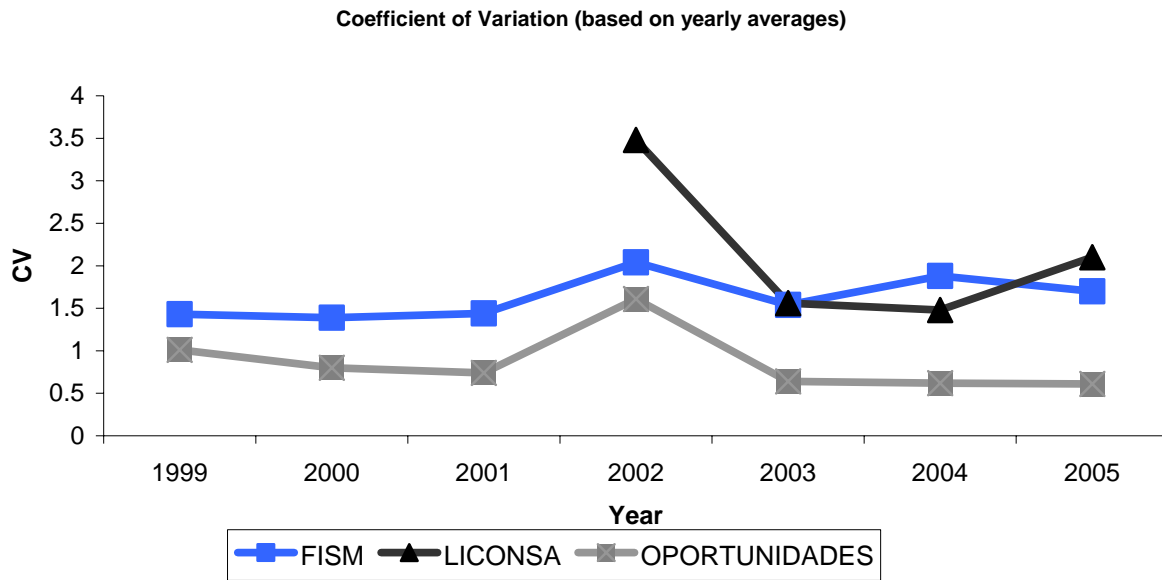
Method of estimation was Fixed Effects 2SLS. Instruments include: % of rural population; and municipal finance variables.

Municipal party competition is measured by the ENP index of Laakso-Taagepera

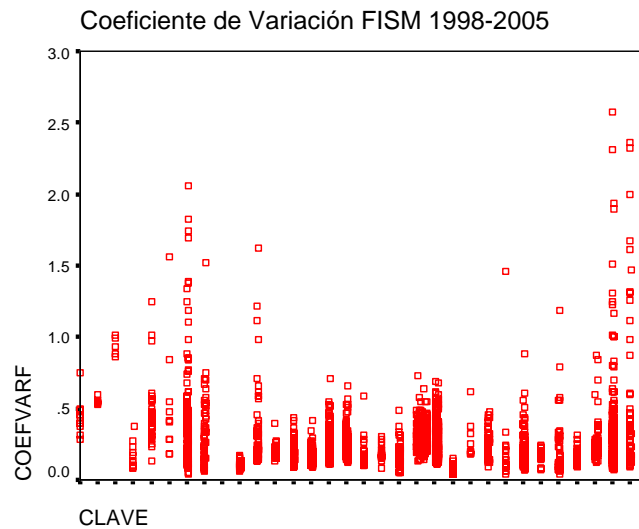
**Table 5 Synthesis of General Results**

<b>Political Strategy</b>	<b>Program</b>		
	<b>FISM</b>	<b>OPORTUNIDADES</b>	<b>LICONSA</b>
<b>Loyal voter support</b>  Test for: Municipalities with governments from the same political party as the President receive more resources.	No	No	Yes
<b>Swing vote</b>  Municipalities with higher degree of electoral competition at the Municipal level receive more resources.	No	No	No
<b>Political Cycles</b>  Positive Influence of Electoral Years			
Municipal	No	No	No
State	Yes	No	Yes
<b>State governments influence</b>  Municipalities in states with governments from the same party as the President receive more resources.	Yes	Yes	No

**Figure 1**

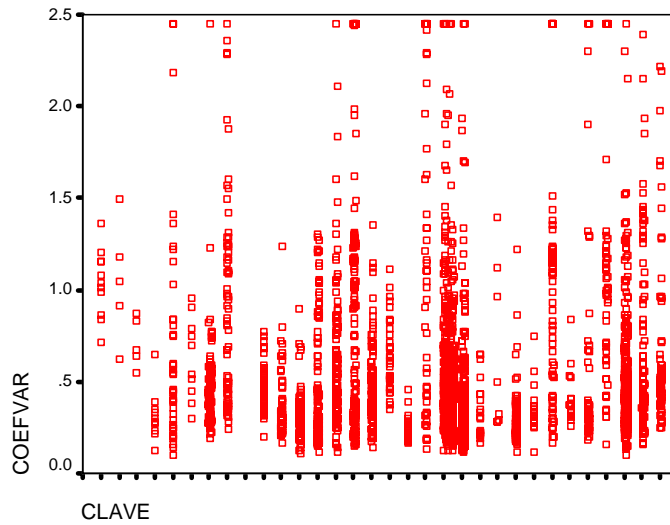


**Figure 2**

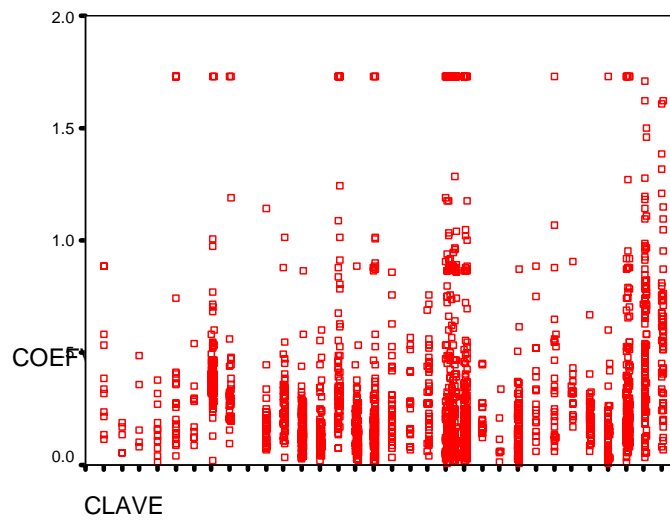




Coefficiente de Variación PROGRESA/OPORTUNIDADES 1999-2004



Coefficiente de Variación LICONSA 2002-2005



Coefficiente de Variación PROGRESA/OPORTUNIDADES 1999-2005

