**“Accountability institutions and Political Bias in Federal Social Programs in Mexico, 2000-2006[1]**

Gabriela Pérez Yarahuán
Universidad Iberoamericana
gabriela.perez@uia.mx

ABSTRACT

In the context of Mexico's democratic transition, and for more than a decade now, accountability institutions have been created that affect social policy. These institutions include the publication of programs' operation rules, decentralization of resources to state and municipal authorities and program evaluation requirements for federal social programs. This paper describes the characteristics of these accountability mechanisms for social development policy and tests for the presence of political bias in the resource distribution of three federal social development programs using a panel data set at the municipal level in the period 2001-2006, a time when these new mechanisms for accountability were mostly in operation. Preliminary results show that the political variables included in the model seem to have limited but significant influence for two of the three programs, those for which the rules for distribution were more explicit or the evaluation mechanisms more rigorous.

[ Draft]

[1] A previous version of this paper was presented in MWPSA 2007.

## *1. Introduction*

By the end of the 1980's and early 1990's like never before social development policy became a key point the Mexican government's policy agenda. The National Solidarity Program (PRONASOL) was launched with the expectation of providing goods and services to increase the well being of the population in greater need and poverty. But shortly after, and even before the end of the federal administration, accusations filled the scene, characterizing the program as a clientelistic political strategy of the Presidency of this centralized authoritarian country.

In little more than a decade and in the context of the country's democratic transition, Mexico experienced important institutional reforms that affect the design and implementation of its social development policy. These changes include, but are not limited to: a) the decentralization of a significant percentage of resources to state and local governments for social programs expenditures, b) the utilization of formulas for distribution or means testing and targeting mechanisms for some programs, c) an official poverty measurement, d) the creation of several committees and institutions that allow for civil society's voice, and e) the public evaluation of programs' operation and results.

These modifications to the previous social development policy *modus operandi* are not necessarily articulated with an integrated vision of a new social policy model, but what many of them have in common is that they have apparently responded to political pressures and claims for transparency, accountability and social participation in policy decision making. The establishment of these new rules on government behavior and the current state of Mexican politics and policy motivates a variety of research questions. This paper describes and analyses the characteristics of these new scheme of accountability mechanisms for social development policy and tests for the presence of a political bias in three federal social development programs in the federal administration of 2000-2006, when these new mechanisms for accountability were mostly in operation.

In the second section of this paper I state the arguments of why political manipulation of government resources, especially those directed for the poor, are an attractive venture for politicians in power, the consequences for policy efficiency of these biases, and the reasons why informational asymmetries between government and its principals permit such behavior. Then I present a preliminary explanation of why government may have incentive to willingly offer its principals (legislators and citizens) tools to control and monitor public officials actions.

The third section summarizes the emergence of accountability properties in the Mexican institutional structure of government that affected social policy between the late 1990's and 2006. These properties include having rules for distribution of government resources, such is the case of the PROGRESA/OPORTUNIDADES program, the Fund for Social Infrastructure (previously the main component of PRONASOL) and the requirement that all programs that managed direct transfers or subsidies have operation rules. The accountability institutions also include the adoption of an official poverty measurement and the legal requirement for program evaluation.

The fourth section presents a preliminary analysis of data on resources allocated at the municipal level for three federal social development programs in the period 2001-2006 and tests for the presence of political criteria in their distribution, using as background some of the most utilized theory and propositions in this subject. In general terms the results show that the political variables included in the model seem to have positive but limited influence for two of the three programs, those for which the rules for distribution were more explicit or the evaluation mechanisms more rigorous. The fifth contains some concluding remarks.

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 and how the recent accountability mechanism put in place may put a break on this behavior is an important issue that comes up in the study of the creation of an adequate institutional framework for policy making in the region.

## 2. *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 development policy runs the risk of being used by elected politicians not for improving the well being of those in greater need but as a means to gain or keep their political power. Clientelism, patronage and the misuse of public resources may follow.

Social development or pro poor programs may be especially effective as a vote generating mechanism for incumbents because the price of a vote is likely to be lower for the poor than for the rich. Assuming decreasing marginal utility of income, more votes can be obtained from the poor with less money than votes from the rich, which intrinsically implies political inequality. Unequal treatment in the provision of good and services is a crucial ethical concern in terms of social justice, and 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, especially if this unequal distribution implies less capacity building for the poor. Second, timing outlays with elections may subtract effectiveness from 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 success of programs. Third, if incumbents target specific areas where the vote rate of return is thought to be higher, public resources may not reach the poorest; a consequence is that programs' potential impact will be diminished because those who can benefit the most from basic goods and services will be left out.

How can this bias in distribution, in time or among competing geographical units, be possible in a democracy? There may be at least three forms by which informational asymmetries can explain the existence of a political bias distribution in government expenditures directed to the poor. 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 at the smallest geographical unit 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, government organizations have greater capacity to acquire periodic and systematic information regarding the characteristics of the areas where programs are to be implemented. Sometimes the existence of precise services or infrastructure is required before programs can be implemented, for example a school or clinic in the case of OPORTUNIDADES in Mexico so families can comply with the conditions for the cash transfer, or the existence of a minimum of communications infrastructure for the School Enciclomedia Program. Officials can slow or accelerate incorporation of beneficiaries or implementation of programs based on this information.

Third, political bias can also be possible if the rules of the programs are not transparent or are imprecise or ambiguous on who and why they seek to benefit or if spending calendars are delegated to agencies controlled by the Executive

In all cases the intentional bias can be carried out when the tools for policy accountability are absent, weak or insufficient to eliminate the information asymmetries between principal and agents, i.e., between citizens and elected officials, or between the government's bureaucracy in charge of implementing the programs and the legislature, representing the citizens.

If an accountability mechanism is a map from the outcomes of actions of public officials to sanctions by citizens (Prezworski, Stokes and Manin 1999), we can think on a minimum set of elements of this map composed of the institutions that generate information regarding 1) what is to be distributed, 2) who gets what resources and under what conditions and 3) what are the results of the resources distributed in terms of benefits and impacts. Building an institutional structure that adequately fulfills the elements of this map is no easy task for any organization, and even more so in the complexity of government structures. This requires a vast amount of effort, time and resources, coordination and communication skills and leadership within government. Accountability mechanisms then have potential to limit the discretionary bias that gives political advantage to incumbents by providing information on the established rules for distribution, evidence on the results of this distribution and of the outcomes and impacts generated by it.

But why would the elected officials or a government's bureaucracy willingly generate institutions for accountability where there were none before? In a Presidential system public officials in charge of programs or policies have a huge informational advantage over citizens and the legislature, regarding government's resources, capacities, results and targets. This information provides them access to possible forms of manipulation of resources, like those described above, and thus political benefits, so why would the Executive be willing to propose and enact accountability mechanisms for its actions? Ferejohn (1999) has argued that a political competitive environment can induce officials to provide tools for control and monitoring of government's actions and personal because there is a link between the provision for increased agent's observability and an increase in government authority. Ferejohn's model implies that by complying with norms of transparency and mechanisms of accountability governments gain legitimacy that can translate in increases in government resources or support for policies.

An alternate explanation would be that governments facing a high degree of competition respond by providing partial accountability, i.e., processes that provide limited or incomplete information, or that lack enforcement mechanisms. As long as public officials can shield the information that provides them with some political advantage, they will be willing to accept transparency in some areas. Related to this there is issue of the independence of the institutions that generate policy accountability. If the institutions for accountability are within the Executive, the process may run the risk of compromising the completeness of the information provided.

Some of the formal institutions for electoral and policy accountability in Mexico linked to social programs began to appear by the end of the 1990's and this tendency increased in the PAN federal administrations. In the next section I briefly describe the emergence of some of these institutions, their characteristics, potential and limitations.

### *3. The emergence of social policy accountability institutions in Mexico*

By the end of the Salinas administration in Mexico (1988-1994), the political environment in the country had deteriorated considerably. Two events in 1994 triggered the discontent, 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 federal elections. In that year there was also an avalanche of criticisms of the most important social development policy strategy of the federal government, the National Solidarity Program (PRONASOL), pointing towards its clientelistic practices and biased political distribution. These criticisms had a big political impact.

According to political analysts and scholars, PRONASOL represented 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 (Molinar and Weldon 1994, Bruhn 1996, Bejar et al. 1993, Kaufman and Trejo 1997, Díaz Cayeros, et al. 2007).

The Zedillo administration (1994-2000) made important changes with respect to the distributional aspects in the area of poverty reduction that included the launching of a new means tested conditional cash transfer nationwide program, the decentralization of federal funds to state and municipalities and the requirement to publish operation rules by all programs with direct subsidies or transfers to the population.

These changes appeared to have the potential to decrease the distributive politics components of expenditures, as new and more transparent formulas based mechanisms for distribution and beneficiary selection were established.

From it's 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[2]), and then a slow process to dismantle it began. However many of its programs remained in operation though with reduced budgets and personnel.

In August 1997 a new social development program was launched. The Program for Education, Health and Nutrition (PROGRESA), which was one of the first nationwide conditional cash, transfer programs implemented in Latin America. The program was designed to deliver cash transfers to the female heads of poor rural households with the objective of promoting investments on children's education, health and nutrition. Particular care was given to make explicit the nonpartisan nature of the program by establishing clear and fixed criteria for eligibility, based on a geographical and household measure of poverty. Additionally the program had from its beginnings a randomized experiment strategy for the evaluation of its impacts. The information generated by PROGRESA has prompted a wide variety of studies and evaluations of

[2] 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.

its different components. The external evaluations of the program have been widely discussed by scholars and show in general positive results.

In addition to the launching of PROGRESA and its evaluation 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 policy. 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, it appeared that President Zedillo focused his energy 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[3]). 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[4].

By 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 policy) were published in the official government's gazette (SHCP 2000). This was an important step in the formal institutions for accountability of government policy.

[3] The *ramo 33* includes other funds for social programs, such as education and health.

[4] 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. Article 35 contains and alternative formula that has mostly been used by states.

The administration of Vicente Fox (2000-2006) continued with reforms related to accountability institutions. First, the PROGRESA program was kept as an important program within the government's social policy, 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[5].

Government continued to finance the external evaluations of OPORTUNIDADES and its positive results prompted to promote evaluations for all federal social programs. The budget bill of 2001 established (chapter VI, article 70) that all programs with published operation rules must be evaluated yearly by academic or research institutions. Table 1 shows the number of evaluations that were delivered to Congress between 2002 and 2006. Between 50 and 77 percent of programs are reported to have complied with this requirement. According to the budget bill the objective of these evaluations was to analyze operation rule compliance, economic and social benefits and cost effectiveness of programs in order to take this information into account in the budget discussions for the following fiscal year. However, no explicit mechanisms for their inclusion in the discussions were established.

Table 1 here

Between 2002 and 2006, these external evaluations had no uniform methodological guidelines. These show a wide variety of methods and analytical perspectives. Some entail qualitative and quantitative data collection, others rely on information provided by administrative records and interviews to program officers and beneficiaries. Little analysis and systematization has been made of the information contained in those studies, particularly with respect to the utilization of the evaluations in terms of the actions the federal government could take to increase

[5] Presidencia de la República, Segundo Informe de Gobierno, 2002. Capítulo I, 1.3 "Superación de la Pobreza".

performance and impact of these programs or to change parameters of distribution. In this period, the effect of the external evaluations studies on the budget process and on the performance enhancement of programs is unclear.

Analyzing the evaluations of two of the programs that will be examined in this paper (LICONSA and OPORTUNIDADES) I find that the recommendations made by evaluators are seldom reflected in changes in the programs' operation rules. The explanations for this outcome must be researched further, but some possible candidates are, evaluations of federal programs are conceived only as studies that generate information on processes or impacts but not as mechanisms that translate these outcomes into feasible improvements (Weiss 1992). The other explanation is that, even if formal accountability exists, as a property of institutional structures there is a low degree of responsiveness, or a low interaction within such institutional structures.

Another important change in social policy was the creation of an official poverty measurement. In 2000 the Department for Social Development promoted and constituted a committee of independent experts in order to come up with an official poverty line. The general methodology was established by 2001 and poverty is officially measured in Mexico since that year using the data from National Surveys on Household Income and Expenditures (ENIGH). The poverty line is statistically representative at the national level (and for urban and rural localities) and is based on income and it established three thresholds based on levels of income (Cortés 2003).

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 is to have the collaboration and contributions of federal government (from all agencies involved in social policy areas in the Executive and Congress), 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 Evaluation of Social Policy Council, etc.) are chaired by the head of the Department of Social Development.

The publication of this law was evidence that transparency and accountability had moved forward in the Mexican social policy making process, at least as a formal property of the institutional structures. First, the external evaluation system of social programs started by SEDESOL for the case of PROGRESA and formalized with the creation of the National Council of Evaluation for Social Policy (CONEVAL), constituted in 2006. Second, the formalization of an official poverty measurement, with the added component of a multidimensionality and its statistical representativeness at the state level. Third, the creation of spaces in which civil organizations, private sector and academia could interact with government. Fourth, the inclusion of Congress representatives and state and municipal governments in a National Commission in which issues affecting local and state governments social policies could be debated.

The question is how these accountability institutions have performed. There are multiple dimensions on the analysis of their performance –social participation, program's socioeconomic impacts, corruption–, but this paper centers on the political distribution of resources given the previous studies that pointed to the political bias component as a prevailing characteristic in Mexico's social development policy.

In the next section I analyze the data of three social development programs, I have chosen to include these programs because the variability in their rules of allocation of resources might shed light on the explanation of how different institutions that pretend to enhance accountability interact with the political incentives to bias distribution.

### *4. Measuring the political bias in a time of increased government accountability*

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 Cohen1997), 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, Dìaz Cayeros et al. 2007). 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, 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, Díaz Cayeros 2007). However, the existing literature is generally mute with respect to the relationship between policy design and accountability and political manipulation.

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 Subsidy Program (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 and types of goods provided. FISM is a formula based distribution that considers socioeconomic variables and availability of local infrastructure and it gives resources to state and local governments to provide or facilitate the construction of local infrastructure in the form of public goods; OPORTUNIDADES is a means tested program at the household level that provides cash transfers directly to the caretaker in the family; LICONSA is a milk subsidy program targeted to households in poverty.  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. FISM consists on a fund of federal resources that once allocated to government states, the process of distribution to municipalities relies on state authorities, given a formula and guidelines. The three programs existed before 2000.

### *4.1. Data*

Yearly observations for 2,436 municipalities in Mexico were used to construct the panel data set used in this paper. The period covered here is 2001 to 2006, the first opposition government. The data on expenditures was provided by the Ministry of Social Development (SEDESOL). Demographic and socioeconomic indicators and a measure of development (*índice de marginación*) came form 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.

### *4.2. Methods*

#### *4.2.1. Coefficients of variation*

Imprinting intentional political biases to the allocation of resources implies having some degree of discretional use of resources. This discretion may be reflected in the 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 expenditures' behavior is that proposed by Levitt and Snyder (1997) who have categorized programs according to the ratio of the standard deviation to the mean 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. However, substantial changes in adjacent years for an established program that considers socioeconomic variables as the basis for distribution would not be expected. 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 its magnitude within municipality across time should serve as an indication of the potential for external influences on allocation.

### *4.2.2. Model Specification*

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 as per capita expenditure at the municipal level and the explanatory variables a set of political characteristics, controlling for socioeconomic differences using the development measure mentioned above (*índice de marginación)*.

The basic model is of the form:

$$y_{ijt} = \beta_1 X_{1ijt} + \beta_2 X_{2ijt} + c_j + u_{ijt}$$

Where $y_{ijt}$ is the amount of per capita resources distributed in municipality i in state j at time t, $c_j$ is the state unobserved effect and $u_{ijt}$ is the error term; $X_1$ is the value of the municipal development index and $X_2$ is a vector of political variables that include:

- The ENP Laakso-Taageperta Index at the municipal level[6]to measure degree of party competition at the municipal level.
- Indicator variables for same party in federal and municipal governments for at least two consecutive terms.
- Indicator variables for same party in federal and state governments
- Presence of municipal election
- Presence of state election
- Party affiliation of municipal government

[6] $ENP = \frac{1}{\sum_{i=1}^{n} p_i^2}$ where p is the proportion of votes for each party.

The choice of this set of variables responds to the objective to operationalize some of the types of manipulation, or political biases that the existing literature has pointed towards. The model tries to capture the variables affecting the decision process of allocation of resources by politicians.

The variables on the presence of elections are obvious exogenous variables but political party concurrence and degree of competitiveness may depend on expenditures in the previous period, that is some of the $X_{ijt}$ are dependent on $Y_{ijt-1}$, which is correlated with $Y_{ijt}$ thus the estimation of the model by OLS would report biased and inconsistent estimators. Therefore in order to correct for the effects of endogeneity on the estimated coefficients I use Fixed Effects Two Stage Least Squares to estimate the equation (Semykina and Woolridge 2005). Results will be discussed in the next section.

It is worth noting that other studies have estimated, with different types of specifications and data, the degree political influence in distribution of social welfare programs at the state level (Molinar y Weldon 1994, Dion 2002, Rocha 2001, Díaz Cayeros 2007). 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. The strategies tested are, controlling for degree of development: 1) Core support (municipal governments of the same party as the President benefit more from federal government resources); 2) Swing vote (municipalities with high electoral competition benefit more from federal government resources); 3) electoral cycles (municipalities in election years whether local or state elections benefit more form federal government resources); 4) political influence of state governments in the distribution (municipalities in states that have a governor of the same party as the President benefit more from federal government resources).

### *4.2.3. Analysis of FISM*

Another way to estimate how well rules are being kept in the case of the FISM is estimate the amount of the resources the states ought to receive according to the established formula in the Fiscal Coordination Law (FCL) and compare this figure with that reported by the states' authorities. If there is no discretion used then a high correlation coefficient among these two should be observed. The formula the majority of states use is the following:

$$\%D_i = (0.25 * I_i) + (0.25 * Ed_i) + (0.25 * D_i) + (0.25 * El_i)$$

Where:

$\%D_i$ = Percentage of resources of the total Fund destined to municipality i.

$I_i$ = Income: Municipality i's share of the total number of people in its state that earn less than 2 times the minimum wage.

$Ed_i$ = Municipality i's share of the total number of illiterate population in its state

$D_i$ = Municipality i's share of the total number of people in its state that do not have inhouse sewerage.

$El_i$ = Municipality i's share of the total number of people in its state that do not have in house electricity.

The coefficient of correlation between the estimated and reported resources allocated to municipalities by states will give us a measure of state compliance to the established rules.

*4.3. Results*

*4.3.1. Variation in allocation*

Figure 1 shows the graph on the estimated coefficient of variation based on yearly averages for all three programs. The variation on allocation compared to yearly averages at the municipal level is relatively stable for FISM, as expected given its formula based distribution. OPORTUNIDADES shows higher variability which may be explained by the process of expansion on the program which went form 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) may have less discretionary management in the amount of resources allocated to the geographical units analyzed. OPORTUNIDADES variability may be explained by its expansion. LICONSA high variability is concordant with its distribution rules that allow a fair amount of discretion on which projects to approve.

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.

Figure 1 here

Within municipalities across time, FISM shows the smallest average 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 cash transfer 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.

Figure 2 here

### *4.3.2. Influence of Political Variables*

Tables 3, 4 and 5 contain the estimated models for each of the programs. Table 6 is a summary of results. FISM resources seem not to be influenced by electoral competition at the municipal level, by the concurrence of party between municipal and federal or by the presence of municipal elections. However the estimation shows a positive cyclical state election effect and a positive effect on of state governments on distribution at the municipal level. 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 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.

Table 6 here

LICONSA appears as the program with the greatest political influence in the distribution of its resources. Worth noting is the negative sign on the coefficient of the variable of the development index. The evidence here shows that LICONSA expenditures are greater where the municipal government is of the same party as the President, also that the intensity of party competition has a positive significant effect and that there might be an electoral year effect for municipal and state elections.

### *4.3.3. Analysis of FISM*

Table 7 reports the coefficient of correlation between the estimated formula with census data and the amounts reported by the states. The first row shows the national total average and the rest of the table, for each state in the whole period of study.

In the mayority of cases the correlation coefficient is very close to 1 indicating a high concordance between the reported amounts and the formula estimation. However, there are some years that diverge substantially for some states, (Querétaro, Quintana Roo, San Luis Potosí, Sinaloa, Sonora, Tabasco, Tlaxcala, Veracruz, Yucatán and Zacatecas) and some states independent of the year (Hidalgo and Estado de México). Further resarch is necessary to establish the reasons for this outcome, one possible explanation has to do with the the availability of information and the changes in sources of information with the 2000 census.

Table 7 here

## ***5. Concluding Remarks***

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 and universal suffrage 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 but other political features are a *sine qua non* for adequate policy making in a democracy. 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. 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.

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 Compliance with Evaluation Requirement 2002 - 2006**

| | **2002** | **2003** | **2004** | **2005** | **2006** |
|---|---|---|---|---|---|
| Programs with Operation Rules * | 76 | 88 | 98 | 122 | 117 |
| External Evaluations that were delivered to the Federal Comptroller (SFP) | 59 | 56 | 49 | 77 | 85 |
| % | 77 | 63 | 50 | 63 | 72 |

Source: Secretaría de la Función Pública and CONEVAL

**Table 2 Descriptive Statistics**

| **Variable** | **Obs** | **Mean** | **Std. Dev.** | **Min** | **Max** |
|---|---|---|---|---|---|
| Development Index | 17002 | .001 | .9902 | -2.36 | 3.39 |
| FISM | 16396 | 6694609 | 1.1e+08 | 4139.74 | 2.20e+08 |
| FISM * *per capita* | 16389 | 376.05 | 648.42 | 0.04 | 28769.71 |
| LICONSA* | 14616 | 1320656 | 2.0E+07 | 0 | 8.0E+08 |
| LICONSA* *per capita* | 14531 | 21.09 | 52.63 | 0 | 2267.13 |
| PROG/OPORT * | 14616 | 5079272 | 8254335 | 0 | 1.0E+08 |
| PROG/OPORT *per capita* * | 14561 | 283.16 | 310.44 | 0 | 15800.29 |

**Table 3**

| Dependent Variable: FISM per capita | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Development Index | 148.134** (7.400) | 146.736** (7.214) | 146.360** (7.298) | 146.843** (7.369) |
| Electoral Competition Municipality | 13.660 (43.514) | 20.047 (43.158) | 25.124 (39.788) | 27.339 (39.898) |
| Municipal Electoral Year | -6.345 (10.966) | -6.593 (10.784) | - | - |
| State Electoral Year | - | - | 44.666** (22.913) | 44.903* (23.298) |
| Same Party Government (Municipality - State) | - | 2.857 (11.319) | - | - |
| Same Party Government (Federal – State) | - | - | 62.135** (8.867) | - |
| Electoral Competition in Municipality * Municipal Electoral Year | -61.725 (55.852) | -69.392 (55.655) | - | - |
| Electoral Competition in Municipality * State Electoral Year | - | - | -29.152 (59.476) | -59.964 (59.477) |
| PAN Municipal | 6.417 (16.299) | - | - | - |
| PRD Municipal | 22.383 (17.356) | - | - | - |
| PAN State | - | - | - | 159.274** (41.549) |
| PRD State | - | - | - | 101.816** (28.457) |
| No. de Observaciones | 16,406 | 16,411 | 16,406 | 16,406 |
| $R^2$ | .1704 | .1702 | .1714 | .1717 |

Dependent variable is amount per capita (constant 2002 pesos) for each program

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

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

**Table 4**

| **Dependent Variable: OPORTUNIDADES per capita** | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
|---|---|---|---|---|---|
| Development Index | 138.909** (2.794) | 138.622** (2.866) | 138.505** (2.854) | 138.646** (2.855) | 138.891** (2.816) |
| Electoral Competition Municipality | 6.259 (12.084) | 8.545 (11.467) | - | - | - |
| Municipal Electoral Year | -1.458 (3.792) | -1.726 (3.803) | - | - | - |
| State Electoral Year | - | - | -1.704 (8.974) | -2.328 (9.636) | -4.789 (5.630) |
| Same Party Government (Municipality - State) | 3.193 (5.428) | - | - | - | - |
| Same Party Government (Federal – State) | - | - | - | 56.372** (6.405) | 43.709** (3.639) |
| Electoral Competitin in Municipality * Municipal Electoral Year | 7.402 (17.897) | 7.738 (17.881) | - | - | - |
| Electoral Competitin in Municipality * State Electoral Year | - | - | - | - | 5.577 (15.712-) - |
| PAN Municipal | - | -6.084 (6.096) | - | - | - |
| PRD Municipal | - | 5.272 (8.033) | - | - | - |
| PAN State | - | - | 33.308** (8.419) | - | - |
| PRD State | - | - | 6.639 (12.536) | - | - |
| No. de Observaciones | 14,555 | 14,550 | 14,550 | 14,550 | 14,550 |
| $R^2$ | .3648 | .3648 | .3663 | .3678 | .3685 |

Dependent variable is amount per capita (constant 2002 pesos) for each program
* p< .10; ** p < .05
Method of estimation was Fixed Effects 2SLS. Instruments include: % of rural population and municipal finance variables.

**Table 5**

| **Dependent Variable: LICONSA per capita** | **(1)** | **(2)** | **(3)** | **(4)** | **(5)** |
|---|---|---|---|---|---|
| Development Index | -6.141** (1.247) | -6.111** (1.266) | -6.118** (.758) | -6.087** (1.244) | -6.078** (1.240) |
| Electoral Competition Municipality | 15.794** (3.739) | 15.689** (3.569) | - | - | - |
| Municipal Electoral Year | -2.518 (5.995) | -2.490 (5,983) | - | - | - |
| State Electoral Year | - | - | 5.298** (1.168) | 5.156* (2.062) | 5.849* (2.052) |
| Same Party Government (Municipality - State) | -1.092 (1.338) | - | - | - | - |
| Same Party Government (Federal – State) | - | - | - | 7.501* (3.442) | 9.458** (3.016) |
| Electoral Competitin in Municipality * Municipal Electoral Year | 17.191** (6.282) | 17.246** (6.142) | - | - | - |
| Electoral Competitin in Municipality * State Electoral Year | - | - | - | - | 8.148 (6.681) |
| PAN Municipal | - | -.941 (1.864) | - | - | - |
| PRD Municipal | - | .112 (1.942) | - | - | - |
| PAN State | - | - | -9.448* (4.463) | - | - |
| PRD State | - | - | -10.741* (6.363) | - | - |
| No. de Observaciones | 13,482 | 13,482 | 13,482 | 13,482 | 13,482 |
| $R^2$ | .1143 | .1137 | .1153 | .1146 | .1148 |

Dependent variable is amount per capita (constant 2002 pesos) for each program
* p< .10; ** p < .05
Method of estimation was Fixed Effects 2SLS. Instruments include: % of rural population and municipal finance variables.

**Table 6 Summary**

| | Program | | |
|---|---|---|---|
| **Political Strategy** | **FISM** | **OPORTUNIDADES** | **LICONSA** |
| **Loyal voter support**<br><br>Municipalities with governments from the same political party as the President receive more resources. | No | No | Yes |
| **Electoral Competition**<br><br>Municipalities with higher degree of electoral competition at the Municipal level receive more resources. | No | No | Yes |
| **Political Cycles**<br><br>Positive Influence of Electoral Years | | | |
| Municipal | No | No | No |
| State | Yes | No | Yes |
| **State governments influence**<br><br>Municipalities in states with governments from the same party as the President receive more resources. | Yes | Yes | No |

# Table 7 Correlations FISM reported-FISM calculated by formula

| State | Correlation Coefficnets | | | | | | |
|---|---|---|---|---|---|---|---|
| National | 0.9717 | 0.9205 | 0.7634 | 0.7514 | 0.741 | 0.9205 | 0.9205 |
| | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** |
| Aguascalientes | * | * | * | * | * | * | * |
| Baja California | 0.9998 | 0.9998 | 0.9912 | 0.991 | 0.9912 | 0.9998 | 0.9998 |
| Baja California Sur | 0.999 | 0.999 | 0.9898 | 0.9898 | 0.9898 | 0.999 | 0.999 |
| Campeche | 0.9809 | 0.9765 | 0.9886 | 0.9886 | 0.9886 | 0.9765 | 0.9765 |
| Coahuila de Zaragoza | * | * | * | * | * | * | * |
| Colima | * | * | * | * | * | * | * |
| Chiapas | 0.991 | 0.991 | 0.9415 | 0.9464 | 0.9498 | 0.9789 | 0.9789 |
| Chihuahua | 0.9948 | 0.9989 | 0.9869 | 0.9869 | 0.9869 | 0.9989 | 0.9989 |
| **Durango** | 0.9982 | 0.9982 | 0.9896 | 0.9896 | 0.9896 | 0.9982 | 0.9982 |
| Gua*juato | * | * | * | * | * | * | * |
| Guerrero | 0.9927 | 0.9927 | 0.9914 | 0.9777 | 0.9775 | 0.9927 | 0.9927 |
| **Hidalgo** | 0.6474 | 0.6295 | 0.7352 | 0.7425 | 0.7393 | 0.6295 | 0.6295 |
| Jalisco | 0.9902 | 0.9899 | 0.9905 | 0.9903 | 0.9903 | 0.9901 | 0.9901 |
| **México** | 0.861 | 0.861 | 0.8763 | 0.8753 | 0.8731 | 0.861 | 0.861 |
| Michoacán de Ocampo | * | * | * | * | * | * | * |
| Morelos | 0.9807 | 0.9807 | 0.9815 | 0.9336 | 0.9815 | 0.9807 | 0.9807 |
| *yarit | 0.9933 | 0.9933 | 0.9721 | 0.9542 | 0.9537 | 0.9933 | 0.9929 |
| Nuevo León | 0.9965 | 0.9965 | 0.993 | 0.993 | 0.993 | 0.9965 | 0.9965 |
| Oaxaca | 0.9965 | 0.9968 | 0.9805 | 0.98 | 0.9805 | 0.9968 | 0.9966 |
| Puebla | 0.9965 | 0.9965 | 0.9401 | 0.9463 | 0.9509 | 0.9965 | 0.9965 |
| **Querétaro de Arteaga** | 0.9985 | 0.997 | -0.1516 | -0.1516 | -0.1516 | 0.9985 | 0.9985 |
| **Quinta* Roo** | 0.9977 | 0.9977 | -0.2368 | -0.2368 | -0.2368 | 0.9977 | 0.9977 |
| **San Luis Potosí** | 0.9985 | 0.9985 | -0.0856 | -0.0868 | -0.0874 | 0.9985 | 0.9985 |
| **Si*loa** | 0.9986 | 0.9986 | -0.1934 | -0.1934 | -0.2724 | 0.9986 | 0.9986 |
| **Sonora** | 0.9965 | 0.9965 | 0.1917 | 0.1917 | 0.1773 | 0.9965 | 0.9965 |
| **Tabasco** | 0.9884 | 0.9884 | -0.0329 | -0.0329 | -0.0329 | 0.9884 | 0.9884 |
| Tamaulipas | * | * | * | * | * | * | * |
| **Tlaxcala** | 0.9988 | 0.9988 | 0.1174 | 0.1174 | 0.1174 | 0.9988 | 0.9988 |
| **Veracruz de Ig*cio de la Llave** | 0.9942 | 0.9946 | 0.0704 | 0.0704 | 0.068 | 0.9946 | 0.9925 |
| **Yucatán** | 0.9993 | 0.9993 | -0.0557 | -0.0549 | -0.0549 | 0.9993 | 0.9993 |
| **Zacatecas** | 0.9985 | 0.9985 | -0.0865 | -0.0865 | -0.0865 | 0.9968 | 0.9969 |

Note: The table represents the coefficient of correlation between the estimated resources by the formula established in the Fiscal Coordition Law (FCL) and those reported by the states.
* These states do not apply the alternative formula that the FCL permits

**Figure 1**

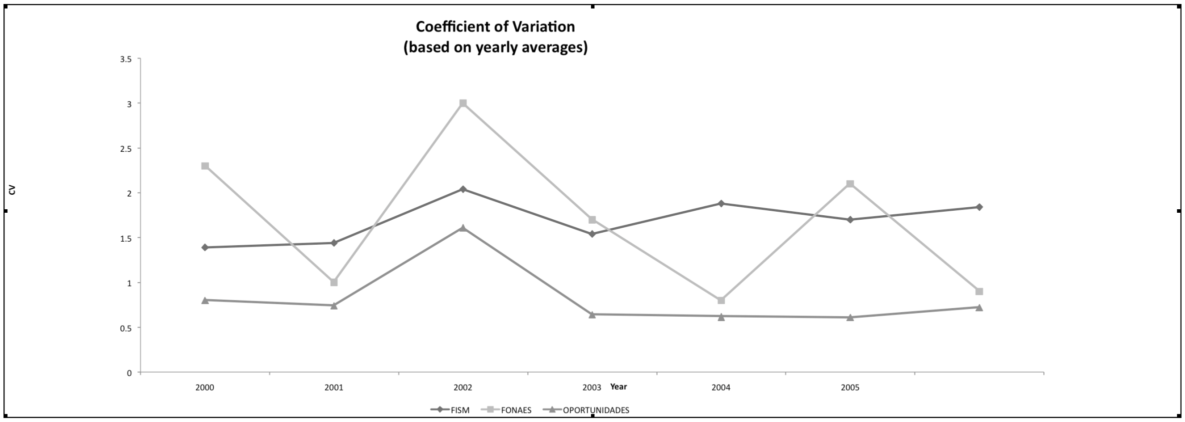
Coefficient of Variation
(based on yearly averages)
CV
3.5
3
2.5
2
1.5
1
0.5
0
2000
2001
2002
2003
Year
2004
2005
FISM
FONAES
OPORTUNIDADES

**Figure 2**

**Variation Coefficient**

**2001-2006**