Monetary Incentives and Organizational Change in
Mexican Higher Education

BY

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THESIS

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To my wife Mayra, the love of my life and my perfect balance, for embarking with me in this adventure and always making it work. And to Renata and Ivanna, our treasures and permanent motivation. Thanks for allowing this to happen.

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<td>Fund of Investment for Higher Education Institutions with Evaluation from ANUIES</td>
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<td>PROMEP</td>
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SUMMARY

This dissertation explores and explains the organizational responses of Mexican public state universities to an ambitious incentive-based policy created by the federal government in 2001: the *Integral Program for Institutional Strengthening (PIFI)*. While some work has been developed aiming at understanding the response processes of higher education organizations to monetary incentives, more research is needed to better understand how universities make sense of environmental jolts, and on the types of responses they enact to get legitimacy and continuous support from their environments, while trying to maintain their autonomy. This work is particularly important for Mexican higher education policy because the use of federal grants and programs, as monetary incentives to promote organizational change and “academic quality” improvement, has been increasing since 2001 without a clear picture of their impacts.

Drawing upon literature on organizational-environmental relationships and on the policy logic of incentives, the external institutional as well as the internal organizational factors that shaped university responses were analyzed. Resource-dependence and neo-institutional theory, as complementary approaches to understand organizational dynamics and outcomes, were used as lenses to explore and explain the response processes.

In a sample of three public universities in Mexico, with different organizational characteristics and governance arrangements, in-depth interviews, document review, and observations were conducted. Findings revealed that while some organizational responses were “real,” improving administrative processes and structures and promoting transparency and accountability, core academic practices and interactions for the most part remained untouched. The implementation of most of the reforms promoted by the PIFI Program, especially those that aimed at improving academic practices, was symbolic and superficial, not penetrating the classroom.
SUMMARY (Continued)

In search for legitimacy and continuous support from the federal government, universities became isomorphic with each other and with their task environment, reducing organizational differentiation and limiting innovation. Contrary to the policy’s official intent, which was to promote participatory and collaborative strategic planning exercises, the organizational responses led to the further empowerment of central administrators and of the “pifiologists” as response specialists, diminishing the influence and academic authority of faculty members and of collective decision-making structures.

The research findings have both theoretical and policy implications on the use of incentives as tools to steer higher education systems. Especially important is to address the underlying assumptions of these policy instruments in the design, implementation, and evaluation stages, and to anticipate perverse organizational responses to minimize their impacts. Moreover, this research shows that the alignment of accountability measures with the construct of “academic quality” is determinant if incentive programs are to positively impact classroom practices.
CHAPTER 1
INTRODUCTION

This dissertation is a qualitative exploratory and explanatory case study about three public state universities in Mexico. On the one hand, I wanted to explore the organizational responses of public state universities to monetary incentives, and I believed the existing literature was incomplete regarding such impacts, especially in the case of Mexican higher education. On the other hand, it is explanatory because my search was guided by theoretical perspectives in the literature on organizational-environmental relations and on the policy logics of incentives. Such perspectives served as guides to focus my search and helped in analyzing the data and rendering an explanation of the organizational responses observed.

The main purpose of this research was to explore, compare, and explain the organizational changes that three public state universities enacted as a response to the Integral Program for Institutional Strengthening (PIFI), an ambitious incentive-based policy created in 2001 with the broad aim of improving the academic quality of public universities in Mexico. Addressing the issue of monetary incentives as triggers for change is relevant because the growth of these instruments in Mexican higher education has been remarkable. In 1991 the only existing grant was the Fund for Improvement of Higher Education (FOMES), while in 2009 there were 18 grants and programs. Moreover, in 2000 these grants and programs represented around 8% of the total federal ordinary budget for public state universities, while in 2009 they reached roughly 30% of this budget. In this context, the most comprehensive and ambitious incentive-based policy in higher education has been the PIFI Program, which links other grants

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1 Throughout the text, I will use the word “State” to refer to the national government, and “state” to refer to local governments.
and represents an “umbrella policy” for the improvement of academic quality and for strengthening the organizational capacities of public universities.

In Mexico, the increase in the use of monetary incentives to promote change in higher education has not been accompanied by the development of much academic inquiry on their impacts on organizational structures and practices. Therefore, I argue that the federal government is investing significant amounts of public money on grants and programs without having a clear picture of how higher education organizations have responded to such incentives, especially on the issue of academic quality. For instance, the amount of public money distributed through grants and programs for public higher education institutions reached roughly $1 billion USD in 2009, more than seven times the amount invested in 2000.

This issue represents a problem because the number of grants and programs is increasing, under the assumption that they are effective tools in promoting organizational change. The rapid expansion of monetary incentives suggests that the prevailing perception among policy makers at the federal government is that they work; that they are effective tools in improving the performance of public universities. I argue that such perceptions need to be better supported with empirical evidence and academic inquiry. Otherwise, we run the risk of faithfully believing in the effectiveness of monetary incentives without paying much attention to their actual organizational impacts, their underlying assumptions, weaknesses, and unintended consequences. This is especially relevant in the case of the PIFI Program, because federal policy makers have claimed that the program has been highly successful in improving the academic quality of public universities (Secretariat of Public Education, 2010). However, such claims are mostly based on the official quantitative indicators developed by the

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2 To convert Mexican Pesos into U.S. Dollars I used the official currency exchange rate of the Bank of Mexico as of May 9, 2011.
government, not on the analysis of actual organizational processes and responses within participant universities.

Before getting into the details of the research conducted, I will briefly review the relevant literature on monetary incentives as policy tools for change in higher education around the world, with the aim of providing the context for the present study and its results.

The Use of Incentives to Promote Change in Higher Education

A dominant theme of higher education in the 21st century is that of financial distress. A cause of higher education’s austerity is the increasing scarcity of public revenue, a function, in turn, of competition from several other social needs, such as health, infrastructure, maintenance of public order, and safety nets for the poor, among other needs (Barr, 2003). To Barr, in political terms, tax funding leads to under-resourcing because higher education will always lose out to competition and more popular political claims. Also, an important factor of this austerity is the inability of governments to increase their tax base and to reform their revenue systems (Johnstone, 1998; 2006).

Another factor behind growing public sector austerity is the dissatisfaction in many countries with the rigidities and inefficiencies of the public sector in general, especially in the cases of perceived lack of quality, relevance, and accountability in the services provided (Johnstone, 1998). In higher education, a source of dissatisfaction is the perceived lack of correlation between traditional incremental funding schemes and the academic performance of public colleges and universities. According to Morduchowicz and Duro (2007), one of the main reasons for this lack of correlation is that there is nothing inherent in incremental budget models that lead to better performance on the part of educational organizations. Thus,
Morduchowicz and Duro argue that the existence of incentives, especially monetary-based, can make a difference.

Although financial rigidity and the perceived inefficiencies of public higher education are commonplace, there seems to be agreement among policy makers that public funding will remain dominant for most higher education systems, but not as the unique source since it must be complemented by private resources (Barr, 1993; Ferrer, 2006; Johnstone, 1998). In nations with comparatively sophisticated higher education systems, governments are adopting new economic and managerial strategies to assess and compare college and university performance (Alexander, 2000). Government reporting and funding mechanisms of higher education are in the midst of a major transformation from complete input-based systems to the adaptation of more competitive outcomes-based approaches (Layzell, 1998; Schmidtlein, 1999). According to Ferrer (2006), “those responsible for financing higher education ought to develop innovative and flexible mechanisms to distribute resources, given that new higher education structures call for new financing schemes” (p. xxix).

Within this context, developed countries as well as some developing nations in the world have pursued reforms to make their higher education financing systems more rational and “performance-oriented,” moving away, at least partially, from traditional and incrementally negotiated budget schemes. Under the umbrella of performance-based budgets, several countries have created a range of financial incentives in order to improve their higher education systems and other areas of public policy. These incentives take the form of block grants, contracts, formulas, or some mix of them. The rationale behind these tools is that among the
range of instruments available to government, regulation through economic incentives is the most appropriate to promote change without affecting the autonomy of universities (García de Fanelli, 2007).

In a survey of 11 countries\(^3\) that are members of the Organization for Economic Co-operation and Development (OECD), Jongbloed and Vossensteyn (2001) found that all of them used some sort of performance-based approach involving monetary incentives in higher education, either for teaching or for research activities, mixed with the traditional incremental systems still dominant in most countries. Salmi and Hauptman (2006) also found that several countries in Europe are using monetary incentives to steer their higher education systems. For instance, since 1989 France has distributed around half of its higher education budget through performance contracts with durations of four years. Finland has established incentives through contracts that define general objectives for the system and particular goals for each participating university. Also, in England there is an incentive system in which universities get resources according to the number of students that graduate each year.

In 1997, in Cataluña, Spain, the Department of Universities and Research, along with the University of Cataluña, formalized a new financing system based on economic incentives tied to a four-year program-contract, where specific goals for change and academic improvement are set for this university in exchange for continuous resources (Salmi & Hauptman, 2006). One of the core characteristics of program-contracts is that they promote a cultural change in the relationship between government and universities due to the continuous negotiations, agreements, and commitments that are involved among the relevant actors (Baron & Roca, 2006).

\(^3\) Australia, Belgium, Denmark, France, Germany, Japan, the Netherlands, New Zealand, Sweden, United Kingdom, and the United States.
Monetary incentives are also popular tools to promote change in U.S. higher education, where Salmi and Hauptman (2006) found that several states are using such instruments. For instance, Colorado developed a monetary incentive scheme in which universities receive funds for each graduate student that they enroll. In Virginia, the state government developed contracts to distribute resources according to the level of autonomy that universities want to keep; the more control from the state the more resources the universities get. In South Carolina, a considerable percentage of its higher education budget is distributed according to performance indicators. Nevertheless, the experience in this state has been considered a failure since too many indicators, rules and norms were developed, and the system has become highly confusing and inefficient (Salmi & Hauptman, 2006).

In addition, surveys show that several other U.S. states are interested in, or already adopting, some sort of method of allocating funds involving monetary incentives tied to performance indicators (Burke & Serban, 1998; Salmi & Hauptman, 2006). In sum, Carnevale, Johnson, and Edwards (1998) comment on what it seems to be a general consensus on the subject:

Will performance-based funding, as it is commonly called, be another of those attempted innovations that spark initial enthusiasm and then fade away? Or will it take root and become a standard way that many states apportion at least part of their higher education budgets? Given the growing demands that colleges do a better job of accounting for how they spend tax dollars, we’d bet on the latter. (p. B6)

Looking back to the origins of these tools in higher education, it is likely that the first major incentive to promote academic change was the Fund for the Improvement of
Postsecondary Education (FIPSE), developed in the U.S. in 1972. The general aim of FIPSE was broad: to support innovation and improvement in higher education organizations. According to the National Center for Public Policy and Higher Education (2002), the projects financed by this grant ranged from expanding educational opportunity to improving instructional programs, from increasing student choice to developing and implementing new kinds of evaluation systems. The kinds of educational organizations that received funding ranged from new, unaccredited colleges to comprehensive research universities.

There seems to be a renewed appetite for education reform using monetary incentives in the U.S. In 2009, the U.S. Department of Education divided cash into several programs involving incentives, including $650 million for the Investing in Innovation Fund that will award grants not only to school districts but to private groups that run schools (“Reviving America’s schools,” 2009). But perhaps the most ambitious monetary incentive to promote change in U.S. K12 education is the $4.4 billion Race to the Top initiative, which will reward states’ performance in four areas: (a) supporting internationally benchmarked standards and tests, (b) streamlining the collection of pupil data and using it to improve teaching, (c) encouraging states to use performance measures to determine training, pay, and promotion; and (d) supporting efforts to help struggling schools (“Reviving America’s schools”, 2009). It may be too soon to evaluate the impacts of this policy, but the stakes are high, as is the money involved.

In the developing world, the use of monetary incentives to promote change in higher education is also growing rapidly. Argentina, Bolivia, Chile, Ghana, Mexico, Mozambique, Sri Lanka and South Africa are some of the countries that have established incentives tied to performance indicators, in the form of competitive grants developed by central governments.
(Salmi & Hauptman, 2006). In Argentina, for example, as part of the financial reform since the 1990’s, the Secretariat of University Policy has been progressively adjusting the traditional block-grant budget in favor of new allocating mechanisms based on performance criteria. As a result, in 1997, 13% of the total higher education budget in this country was distributed through the new incentive-based scheme (Experton, 1998).

In Chile, in 1998, the Federal Government and the World Bank promoted the creation of an ambitious policy: the Program for Quality and Equity Improvement in Higher Education (MECESUP) (Chilean Department of Education, 2008). This program was designed to improve academic quality and equity through focused grants. The program finances actions in quality improvement, infrastructure and voluntary evaluation through a competitive grant. From 1998 to 2005, this grant has financed roughly 400 university projects with an average of 550,000 USD per project. However, since 2005 Chilean authorities have implemented some changes to this program, due to the acknowledgement that it has not had enough impact on issues such as the improvement of university’s management. Also, authorities have reported difficulties with the measurement of impacts and the overseeing of actions (Chilean Department of Education, 2008).

The case of Mexican higher education is another instance of how the use of financial incentives is taking hold as an alternative to the traditional-incremental financing scheme. In 1991, as part of the national higher education reform process, the Fund for the Improvement of Higher Education (FOMES) was created by the Undersecretariat of Higher Education and Research (later transformed into the Undersecretariat of Higher Education). The resources of FOMES are distributed on the basis of specific proposals, which are supposed to promote the improvement of academic infrastructure and performance. It might be argued that this grant
“inaugurated” the era of monetary incentives in Mexican higher education, because after FOMES the use of these instruments has increased significantly. As discussed earlier, in 1991 there was only one grant while in 2009 there were 18 grants and programs aiming to steer the system in the direction desired by the federal government, many of them under the umbrella of PIFI.

Monetary incentives as a tool for organizational change are not exclusive to the education sector. There have been several initiatives in non-education areas as policy makers increasingly view monetary rewards as attractive alternatives to regulatory approaches in achieving policy objectives (Church & Heumann, 1989). Health care may be the area in which market-like incentive mechanisms have the firmest foothold. For example, Medicare’s scheme of Diagnostic Related Groups establishes fixed fees for various illnesses in order to contain hospital costs, thereby creating financial incentives for hospitals to reduce the length of patient hospitalization and the use of costly procedures (Church & Heumann, 1989).

Environmental policy is another area in which the use of monetary incentives to achieve policy goals has been widely used. For instance, incentive programs to reduce the discharge of pollutants have been popular. Some of these programs offered monetary rewards to firms who do not disobey relevant pollution regulations, as opposed to relying on tough regulations (Schelling, 1983). There are also incentive-based schemes in nursing homes for the elderly and even in criminal justice policy. The state of California designed a program to encourage localities to move convicted defendants out of the state-funded prisons through payments to localities for each convicted felon placed on probation (Church & Heumann, 1989). Along the same lines, the City of New York implemented the Speedy Disposition Program (SDP), which provided monetary incentives to New York City’s District Attorneys’ Offices to focus attention
on their oldest felony cases, to relieve pressure on the city’s overcrowded pretrial detention facilities (Church & Heumann, 1989).

In sum, in a number of industrialized and industrializing countries the use of economic incentives has become an important tool of government to get people and organizations to do things they might not otherwise do (Schneider & Ingram, 1990). The Organization for Economic Cooperation and Development (OECD), calculates that the use of economic incentives, as grants and subsidies, varies between 20% and 35% of the Gross National Product (GNP) in countries like Germany, Belgium, The Netherlands, France, and Denmark (Leeuw, 1998). In The Netherlands, such subsidy and grant expenditures rose from 4.8 billion guilders in 1970 to 42 billion in 1993 (Leeuw, 1998).

The Problem, Purpose and Overview of the Study

As discussed above, monetary incentives are being used increasingly as policy instruments for change in higher education. Much of the enthusiasm for these marked-oriented tools is based on three postulates: one normative, one economic, and the other empirical. The normative postulate assumes the “moral superiority of voluntary compliance” (Church & Heumann, 1989, p. 642). In the words of perhaps the best-known proponent of using monetary incentives in the public sector, Charles Schultze (1977), market-based incentive strategies “minimize the need for coercion as a means of organizing society” (p.17). However, the validity of the normative postulate is questioned on the grounds of political philosophy. Antipathy for governmental regulation and the coercive means that inevitably accompany it represents a very popular but not universally accepted political position. Thus, the “voluntary” aspect of incentive plans, perhaps their critical and distinctive element, is disputed by some
observers. For instance, Brigham and Brown (1980) argue that the withdrawal of previously awarded incentives looks a great deal like a punishment.

Concern also centers on the perception that incentive-based strategies are more manipulative, covert, and possibly more dangerous than explicit government laws and mandatory guidelines (Neiman, 1980). Some scholars in Mexico argue that the performance-based grants and programs are indeed manipulative, and could be delimiting university autonomy (see Gil, 2010; Kent, 2005). The general argument goes that since participating universities have to follow the guidelines established by federal government in order to get resources, the principle of university self-determination is violated. Gil (2010) observes that federal grants and programs “call into question university autonomy not by the influence of values and ideas, but by the most incoherent of the influences: money” (p. 432).

According to the economic postulate, incentives work under the assumption that individuals and organizations are utility maximizers and will not be positively motivated to take policy-relevant action unless they are influenced or encouraged by the manipulation of money or other tangible payoffs (Schneider & Ingram, 1990). The underlying assumption is that individuals respond to positive incentives and most will choose higher valued alternatives. For instance, economic development policy uses tax credits or waivers, grants, relaxation of standards or requirements, and so forth to induce organizations to move in particular policy directions (Schneider & Ingram, 1990).

This economic rationale works under the assumption of scarcity. The scarcer the desired good is, the more effective the lever will be in affecting behavior. Thus, unless a commodity, a status, or an activity is relatively rare, it provides no inducement (Clark & Wilson, 1961). The assumption of scarcity poses interesting political questions since the
“owner” of resources, in most cases government, can manipulate both variables: the scarcity and the incentive. The economic postulate implies that in order to promote change the owner of resources can deliberatively induce scarcity, and then create the incentive to satisfy the need and to impact behavioral change in the desired direction. If such is the perception, target organizations might as well attempt to decouple their responses in order to give the appearance of compliance, without really changing their core practices. This would be a negative scenario since symbolic adoption, deception, and bad faith could be at play on both sides (government and target organizations) to the detriment of goal commitment and real change. As Edwards (1980) pointed out, the more well-disposed implementors are toward a policy, the more likely they are to act in the formulators’ interests.

Finally, a more pragmatic approach is proposed by the empirical postulate, which claims that incentives, regardless of their underlying assumptions, are just more effective than regulation in attaining the ends of public policy (Church & Heumann, 1989). It seems that the current dominant postulate is precisely the empirical, since it is supposed to be subject to tests to determine its efficacy in achieving policy goals. However, the problem with this pragmatic view seems to be the relative scarcity of studies that test the efficacy of incentives in attaining the desired aims. In Mexican higher education, the use of incentives has been rapidly expanding because they represent a departure from authoritative and rigid policies in favor of more “democratic” and “flexible” ones. However, there are still doubts regarding their efficacy in achieving the desired policy outcomes, such as improving “academic quality.”

In sum, the broad lesson from this introductory discussion is that the underlying logics of incentives matter. As Church and Heumann (1989) argued, policy makers “have to be very cautious since the assumptions underlying incentive schemes are not always considered in the
rush to use them to implement various objectives of public policy” (p. 642). Failure to take such underlying assumptions into consideration may generate distortions such as goal displacement\(^4\) and organizational cheating (Bohte & Meier, 2000). Church and Heumann (1989) warned that, in such scenarios, the cure may be worse than the disease.

Within this context, I argue that in Mexican higher education incentive-based policies have been implemented without paying much attention to their underlying logics, especially regarding the organizational capacities of target organizations and the establishment of relevant and meaningful policy outcomes. Perhaps for such reasons, it has been acknowledged that public universities have sometimes developed strategies to “escape” the limitations that incentives schemes establish and have “accommodated” the environmental demands without substantively changing their traditional academic practices (see Tuirán & Muñoz, 2010). As Kent (2005) observed, monetary incentives have not been enough to significantly improve the academic profession, the strategic planning capacity of universities, and the adequate academic development of students.

I claim that although monetary incentives appear more effective in promoting academic change than the traditional politically-negotiated financing scheme in Mexican public higher education, more evidence is needed as to whether and how these tools have impacted target universities. As Stanley commented in the preface of an Australian report on higher education performance-based incentive systems:

\(^4\) Goal displacement occurs when organizations, under great pressure to achieve results, lose sight of final policy outcomes as they strive to maximize their performance ratings (Blau & Meyer, 1971). Pressure to produce desired outputs could lead to organizational cheating, in which agencies purposely engage in behaviors that improve performance at the expense of working towards the achievement of more desirable policy outcomes (Bohte & Meier, 2000; Lynn, 1996).
One disappointing outcome is that, despite the apparent interest in performance-based funding, the authors have been unable to uncover much in the way of evaluation studies on the effects and efficiency of such funding systems. Perhaps researchers in the field of higher education will take note and endeavor to carry out some evaluative studies (Anderson, Johnson & Milligan, 1996, p. v).

Given the popularity of monetary incentives as tools for organizational change and the lack of empirical evidence on impacts, I believe there is a need to conduct more academic scholarship on the subject. Governments are spending significant amounts of money on these policy tools without enough evidence of their impacts on universities’ structures, practices, and culture. Therefore, we need to know more about how incentives actually work when facing the complexities of higher education organizations, about what factors impede or facilitate their successful implementation, and about how incentives might impact core academic processes, such as teaching and learning practices.5

In such context, I conducted this exploratory and explanatory case study on how three Mexican public state universities responded to the PIFI Program, an ambitious incentive-based policy that aimed at “strengthening” universities and improving their “academic quality.” I aimed to get a better understanding of how this program impacted the organizational structures and practices of the target universities and of how such responses may be explained in light of the relevant literature. As March (1981) argued, “Organizations are continually changing,

5 Throughout the text, when I refer to “core academic processes” I mean, for the most part, the sort of practices and interactions that take place inside the classroom, between students and professors and among students. For instance, “core practices” mean the role of professors in the teaching and learning process (e.g. as “guides” or as the sole “authorities”), the role of students (e.g. as active learners or as passive recipients of “knowledge”), and the general classroom interactions (e.g. debates and discussions, questioning assumptions, the use of technology in instruction, etc.).
routinely, easily, and responsively, but change within them cannot ordinarily be arbitrarily controlled. Organizations rarely do exactly what they are told to do” (p. 563). Organizations change in response to their environments, but they rarely change in ways that fulfill the intentions of a particular group or a particular policy (Attewell & Gerstein, 1979). The PIFI Program is a comprehensive policy that aims at steering public universities in particular policy directions. This research sheds some light as to what directions the universities actually moved to in response to this program and to whether such responses were aligned with the policy makers’ intent.

This research is an in-depth qualitative study that uses exploratory and explanatory elements. I wanted to explore the organizational responses of three public state universities to the PIFI Program, because existing literature is incomplete regarding such impacts in the case of Mexican higher education. On the other hand, it is explanatory because my search was guided by theoretical developments in the literature on organizational-environmental relations and on the policy logic of incentives. Such lenses focused my search and helped in analyzing the data and rendering an explanation of the organizational behavior observed.

Based on my research problem, a case study design was suited for the present inquiry. There are many useful definitions of a case study. According to Stake (1995), a case study is the inquiry of the particularity of a single case, or multiple cases, based on a comprehensive understanding obtained by extensive descriptions and analysis of that instance taken as a whole and in its context. Case studies are one of the preferred methods to understand organizational phenomena in higher education, since universities are perhaps some of the most complex of organizations. Case study research is not population sampling research. As Stake points out “We do not study a case primarily to understand other cases, our first obligation is to
understand this one case” (p. 4). However, as Stake (1997) himself recognizes, “By learning the intricate complexity of one case, sometimes you find that what is true of that one case is true about other cases, sociologist call it the micro-macro problem” (p. 402).

I decided to use a case study research design because this strategy is preferred in examining contemporary events and when the relevant behaviors are not under the control of the researcher. Such conditions occur when the unit of analysis of an inquiry is the contemporary organization (Yin, 2009). Also, case study is an appropriate approach because the questions that guided my research focused on what, how and why organizational changes took place in the three universities studied. Specifically, I attempted to explore and “tell the story” of what the organizational responses were to the program, how those responses developed, and why universities responded in such ways. Case studies rely on many of the same techniques as a history, but they add two sources of evidence not usually included in a historian’s repertoire: direct observation and systematic interviewing. Moreover, an important strength of case studies is the ability to deal with a full variety of evidence, such as documents, artifacts, interviews, and observations (Yin, 2009).

Having said that, the research questions and sub-questions that guided this inquiry were the following:

*Research Question 1.* How have public state universities responded to the monetary incentives developed by the federal government in the PIFI Program? What specific organizational responses have they enacted when participating in this program?

a) Have universities created new organizational structures or positions? What structures and positions have they created?
b) Have universities created new laws or rules? What laws and rules have they created?

c) Have universities developed new strategic goals? What strategic goals have they developed?

d) Have universities changed their official discourses? How have they changed such discourses?

e) Have universities developed other responses and/or unanticipated changes? What other responses and/or unanticipated changes have they developed?

Research Question 2. To what extent are those responses symbolic, decoupled from core academic practices and performance, or real, with the potential to positively impact academic quality?

Research Question 3. Do organizational responses represent institutional isomorphism or institutional differentiation among the universities in the sample?

Research Question 4. Why have public state universities reacted in the ways they did to the financial incentives? According to the theoretical perspectives and empirical evidence, what factors might explain specific organizational responses?

It is important to note that social science researchers have to be very cautious in talking about causality. As Van den Bosch and Cantillon (2008) observed, given the technical complexities in addressing the “impact” of social policies, on many occasions it is highly difficult to distinguish between causality and association. Universities are highly complex organizations in which many factors, external and internal, account for their behavior. In this
research I did not attempt to uncover direct causal links between incentive-policies and organizational changes. Rather, this study is about associations between government policies and organizational responses. As Elmore (1979) argued, “When drawing conclusions from their data, case [study] writers are characteristically and honestly cautious” (p. 601).

This case study aimed at exploring and explaining how and why universities responded to an environment in which institutional logics changed. By altering the traditional financing strategy from solely relying on incremental and politically negotiated budgets to the development of incentive-based programs tied to performance, the federal government sent a different signal to public universities. Universities made sense of such signals and responded in particular ways. Describing and explaining such response processes were the goals of this research.

The analytical approach that I used throughout this study is known as backward mapping (Elmore, 1979). Forward mapping is the strategy that comes readily to mind when one thinks about how a policymaker might try to affect the implementation process. It begins at the top of the process, with policy formation and a clear statement of the policy’s intent, and then proceeds through a sequence of increasingly more specific to define what is expected of implementors at each level. In other words, forward mapping as an analytic strategy is top-down. Conversely, Elmore (1979) argues that the logic of backward mapping is that the process begins at the last possible stage, the point at which administrative actions intersect private choices. It begins not with a statement of intent, but with at statement of the specific behaviors at the lowest level of the implementation process that generates the need for a policy. Only after the behavior is described does this analysis presume to state an objective. Hence, the analytical logic of backward mapping is bottom-up.
Following this logic, backward mapping as a research strategy means that the researcher does not assume to know what to expect a priori, thus, research questions are presented but not hypothesis. In a backward mapping strategy, the researcher uses theoretical lenses, based on the available literature, then goes to the level of implementation to explore, conduct interviews, observe and review documents. After thoroughly exploring and describing the organizational phenomena the researcher uses the proposed theoretical lenses, or maybe different ones, in order to render an explanation of the behaviors observed.

Applying forward and backward mapping to the same problem gives much different results. The analytic solution offered by forward mapping stresses factors that tend to centralize control and that are easily manipulated by policy makers (Elmore, 1979). Thus, forward mapping assumes that the policymaker somehow has control over the organizational phenomena that it attempts to influence. To the contrary, backward mapping acknowledges the complexities of implementing policy in social settings. As Elmore (1979) observes:

The analytic solution offered by backward mapping stresses the dispersal of control and concentrates on factors that can only be indirectly influenced by policy makers: the knowledge and problem-solving ability of lower-level administrators, the incentive structures that operate on the subjects of policy, the bargaining relationships among political actors at various levels of the implementation process, and the strategic use of funds to affect discretionary choices. (p. 605)

It is relevant to mention that my primary position in this research is as an independent investigator. However, I acknowledge that as I conducted the data collection process at the three universities in the sample I was also a policy advisor at the Undersecretariat of Higher
Education of the Mexican federal government. Therefore, when I conducted the interviews and performed the data analysis I paid close attention to “socially desirable” responses on the part of respondents. Being perceived as a “government envoy” might produce the incentive to emphasize positive stories about the grants. For such reasons, I took preventive steps to avoid such scenario, such as identifying a heterogeneous sample of interview subjects with different perspectives on the grants and emphasizing –verbally and in written form– that the research was an independent academic study, not an official policy evaluation. Having said that, I believe that I succeeded in avoiding the social desirability bias, because most of the responses I got were rich in the details about the perceived positive as well as the negative aspects of the PIFI Program and the federal grants. Moreover, some responses were not precisely “politically correct,” which gave me confidence in the trustworthiness of my data.

This dissertation is composed by nine chapters, including this introduction. In Chapter 2, I describe the policy logic of monetary incentives in detail to get a better understanding of the mechanisms that are at play when using these policy tools. Chapter 3 addresses the use of monetary incentives in Mexican higher education since the 1990’s and introduces the PIFI Program as the incentive-based policy under study. In Chapter 4, I review the literature on organizational-environmental relations as the theoretical perspectives, or lenses, which guided my exploration. Chapter 5 describes the methodology that I used to conduct the research and to analyze the data. In Chapters 6, 7, and 8, I present the main findings of the research, divided into themes across universities. Finally, Chapter 9 addresses the discussion on findings as well as the implications and further research directions that might derive from this study.
CHAPTER 2
THE LOGIC OF MONETARY INCENTIVE POLICIES

The purpose of this chapter is to situate monetary incentives within the broad literature of public policy tools. Also, it describes the underlying mechanisms and assumptions of incentive-based policies in diverse organizational settings. This discussion is relevant in order to better understand how these policy “levers” are supposed to work, as well as to shed some light as to why sometimes these tools might not accomplish the attempted goals.

The general argument of the chapter is straightforward: monetary incentives as policy tools exist in order to attempt to get people and organizations to do things they otherwise would not do, because they do not know how, and/or because they do not want to. Incentives, as opposed to regulation, mandates, or other coercive tools, work under the basic premise of voluntary compliance on the part of individuals and organizations. Hence, incentives are policy levers that attempt to create the motivation and the capacity to lead people and organizations in a desired direction, minimizing coercion.

The Policy Logic of Incentives

Individuals, as well as organizations, respond to incentives. Viewed from the perspective of homo economicus, all human behavior is ultimately grounded in incentives of one sort or another (see Olson, 1971). My specific concern in this research is with the use of performance-based financial inducements as policy tools to encourage organizations to achieve desired results. As discussed earlier, much of the enthusiasm for these marked-based tools is based on three postulates: one normative, one economic, and the other empirical. The normative postulate might be praised as the “moral superiority of voluntary compliance”
(Church & Heumann, 1989). To the economic postulate, incentives work under the assumption that individuals and organizations are utility maximizers and will not be positively motivated to take policy-relevant action unless they are influenced or encouraged by the manipulation of money or other tangible payoffs (Schneider & Ingram, 1990). On the other hand, the empirical postulate poses that incentives are just more effective than regulation in attaining the ends of public policy (Church & Heumann, 1989).

In any case, incentives stand opposite of regulatory, rule-imposing mechanisms to induce certain behavior. Regulation is based on mandatory compliance, based on promulgated rules that forbid or require a particular form of behavior, and punishments are imposed upon failure to obey the rules. On the other hand, incentives are often chosen when authority is lacking or when it is politically unfeasible for imposition of a regulatory strategy, when specification of minimum levels of performance is considered insufficient to obtain the desired result, or when voluntary compliance is especially valued (Church & Heumann, 1989).

The choice of policy tools reflects the political culture of a society (Wildavsky, 1987). Wildavsky argues that authoritarian cultures are associated with hierarchical and sanction-oriented tools. On the other hand, individualistic cultures are more incentive-driven, and egalitarian cultures are associated with capacity building or symbolic tools. However, to Schneider and Ingram (1990), tools may also create their own cultures, thereby increasing the probability of their own effectiveness. For example, societies that rely on symbolic and hortatory tools might produce citizens who respond mainly to symbolic appeals. Societies that rely on incentives may create the need for an ever-increasing scale of inducements and sanctions, as individuals and organizations are less and less willing to take policy-preferred actions simply because their beliefs in the basic norms of citizenship.
A basic assumption underlying incentives is that they attempt to get people and organizations to do things they might not otherwise do, and do so voluntarily (Schneider & Ingram, 1990). For incentives to have their intended impact on society a large number of people in different situations must make decisions and take actions in concert with policy objectives. Incentive-based policies include mechanisms that rely on tangible payoffs, positive or negative, to induce compliance or encourage utilization. To Schneider and Ingram (1990), incentive tools assume individuals to be utility maximizers that will not be positively motivated to take policy-relevant action unless they are influenced, encouraged, or coerced by manipulation of money, liberty, life, or other tangible payoffs. Moreover, incentives work on the assumption of resource scarcity. Unless a commodity, a status, or an activity is relatively rare, it provides no inducement for anyone (Clark & Wilson, 1961). Hence, the scarcer the resource is for the organization (in this case money), the more inducement for change it should have.

As policy tools for change, incentives are usually aimed at affecting one or both of two critical elements: the motivation and the capacity of the target individuals or organizations (Church & Heumann, 1989). Those whose change of behavior is sought must be induced to further the policy goal (the motivational element) and they must also posses the expertise and material resources to do so (the capacity element). If an incentive is aimed only at motivating the organization to change, but does not pay attention to its organizational capacity (information, technology; know how; etc.), the policy could fail regardless of the motivation induced.

According to Church and Heumann (1989), this motivational/capacity dichotomy highlights the implicit assumptions that are generally made about the effective use of incentives for the achievement of policy ends: (a) the existence of capacity; (b) the avoidance of goal
displacement; and (c) the efficacy of monetary motivations (p. 644). The first assumption of any incentive strategy is that the necessary resources and know-how to achieve the desired goals are possessed by the target organization. That is, that the organization has the ability to change in the way the policy aims. Also, all incentive strategies are supposed to carry an implicit assumption that undesirable consequences can be avoided. Therefore, incentive strategies depend heavily for their effectiveness on relatively clear performance measures and indicators (Church & Heumann, 1989). Yet, substantial difficulties can arise when measuring performance in public sector entities, because “output” is generally much more abstract, subjective and controversial than in private for-profit organizations where the “bottom line” is more concrete. The third assumption is that the monetary amounts of incentives are enough to effectively motivate people to change their behavior in the desired direction. In other words, rewards, positive or negative, that are perceived “cheap” do not represent significant motivators to change.

To Schneider and Ingram (1990), the behavioral assumptions of incentive-based policy tools are analogous to policy games, in which policy provisions serve as an experimenter offering certain positive or negative payoffs to individuals, the groups to which they belong, or to the larger collectivity. Incentive-based policy tools manipulate the tangible benefits, costs, and probabilities that policy designers assume are relevant to the situation. In contrast with tools to build capacity, incentives assume individuals or organizations have the opportunity to make choices, recognize the opportunity, and have adequate information (information symmetry) and decision-making skills to select from among the alternatives those that are in their best interests (Schneider & Ingram, 1990).
At the policy level, monetary incentives act as conditional transfers of funds by government to another party for the purpose of influencing that party’s behavior (Leeuw, 1998). To Wolfson (1990), subsidies try to affect behavior through income and substitution effects; “The income effect describes how people react to the alleviation of the budget constraint as affected by the resulting increase in income available for private use. The substitution effect describes how people react to changes in relative prices” (p. 2). Therefore, subsidies intend to act as a financial incentive prompting the recipient to undertake activities which will achieve the goals of the subsidy provider, in this case government. To this end, the transfer is subject to certain conditions formulated by the provider and related to specific activities to be undertaken (Leeuw, 1998).

The rationale behind monetary incentives in higher education policy is that, without directly intervening in the decision-making processes of autonomous universities, policy makers can promote changes in the way universities function desirably in order to improve the academic quality, relevance and accountability. According to this logic, economic stimuli are capable of transforming organizational practices, improving teaching and research practices, and improving financial equity among higher education institutions (Garcia de Fanelli, 2007). Smylie’s (1994) model for school restructuring posits that in order to impact educational practices a policy tool has to positively develop three types of organizational mechanisms: (a) controls, (b) incentives, and (c) learning opportunities. In this model, classroom academic practices may be positively impacted when a policy for organizational change effectively alters the mechanisms for professional control, when it creates the adequate internal incentives for teachers and professors, and when provides opportunities to learn for the diverse actors in the educational setting.
Among the different instruments available to governments to steer higher education policy (e.g. mandates and direct regulation), the use of monetary incentives is supposed to be one of the preferred strategies to promote change, minimizing political conflict over the notion of university autonomy. This seems to be true in Mexico and Latin America, where university autonomy is a strong and politically sensitive principle (Levy, 1980). In the region, monetary incentives, as “remote control” policy tools, are supposed to act as effective government signals to bring about change, reducing political friction and resistance on the part of public universities (Garcia de Fanelli, 2007).

On the Notions of University Autonomy and Monetary Incentives

As implied above, the increasing use of monetary incentives in public higher education seems to be linked to the concept of university autonomy. Fielden (2008) observes that around the world the extent of autonomy that institutions are allowed by the State is often a mixture of inherited rights, tradition, legislative intent, and societal culture. To Fielden, this notion is usually built up over time through a variety of legislative processes, ministerial decisions, and ad hoc regulations. In this sense, autonomy is rarely a finely crafted structure to a rational design. Autonomy is also culture specific and the rights and controls that are taken for granted in one country can be unthinkable in another.

In Mexico, the influence of the federal government in shaping higher education policies was set to a minimum from the 1960’s to the early 1980’s, triggered by the approval of the Organic Law of the National University in 1945, by which government recognized university autonomy and granted generous financing in exchange of legitimacy and depolitization of academic life (Ordorika, 2003). According to Kent (1996), from 1970 to 1982 the federal
government was active in financing the whole system but passive in regulating it, in a period known as the “massification” of higher education, in which the concept of university autonomy reached its peak of influence. On this issue, Castaños-Lomnitz (1997) argues that “In Mexico autonomy was designed to decouple higher education from shortsighted political objectives. But the hope was that public universities would anticipate national needs and not lag behind” (p. 378).

Globally, there are two convergent trends regarding university autonomy and the involvement of government in higher education policy. In the first trend, as the demand for higher education continues to grow and governments acknowledge their role in promoting economic development, it becomes increasingly important to ensure that higher education systems are developed and managed in more efficient and flexible ways (Fielden, 2008). As a result, the old model of total control from a central ministry of education is proving unsustainable in the long term, and it is being replaced throughout the world by other more decentralized models that rely on sophisticated forms of monitoring and performance review (Fielden, 2008). Neave and Van Vught (1994) describe a continuum at one end of which is “State control” where the centre seeks to directly control its universities, and at the other end is the “State supervising model” where it monitors and regulates universities through diverse funding and evaluation mechanism. Evidence shows that more control-oriented countries are moving toward the supervisory model in all aspects of their relationships with their universities (Fielden, 2008).

In the second trend, autonomy has been diminishing in countries where universities have enjoyed high degrees of self-rule (such as in Mexico), in a process accomplished through the use of diverse and sophisticated incentive-based financing and management tools (Fielden,
2008). On this issue, Bleiklie and Kogan (2007) point out that the university might be considered either “republic of scholars” or a “stakeholder organization.” In the former, institutional autonomy means that the university and its leaders make independent and isolated decisions without being fully responsive to society and governmental needs. In the latter, autonomy is considered a basis for strategic decision making by leaders who are assumed to see it as their primary task to satisfy the interests of diverse stakeholders. To some scholars, the last two decades have undoubtedly been characterized by a move from the “republic of scholars” model to the “stakeholder organization” ideal, from the isolated Ivory Tower to the socially responsible and accountable university (see Clark, 1998; Etzkowitz & Leydesdorff, 1997; Neave, 1998). In fact, Zumeta (2001) points out that in the United States the recent wave of performance funding mandates, which link public resources to demonstrated outcomes of colleges and universities, is one more manifestation of continued governmental efforts to ensure the accountability of public campuses, de facto reducing university autonomy.

An implication of these trends is that for the past two decades governments and universities have been rapidly redefining the notions of autonomy and control, pushing back from the “total control” or “total autonomy” models, and moving towards a model of “decentralized steering” that aims at balancing autonomy and accountability. In theory, the basic principle behind university autonomy is that institutions operate better if they are in control of their own destiny, where they have incentives to change if they can directly benefit from their actions (Fielden, 2008). However, one of the biggest questions facing policy makers is how to balance the autonomy needed by public universities with the accountability required by the public and government (McLendon, 2003). Especially in those cases where there is a
perception that universities are not competent enough to exercise their powers effectively and hence the need to develop policy tools to align their goals with those of governments (Fielden, 2008).

University autonomy is a dynamic concept. Achieving the appropriate balance between State oversight and the independence of public colleges and universities represents an issue marked by persistent tension and change (Hutchens, 2007). Achieving the ideal of balanced autonomy may mean that universities are granted the freedoms they need to fulfill their missions, but also that diverse policy mechanisms are implemented in order to guarantee that they respond to the needs of society and government. This is surely easier to define than to actually accomplish. There are many examples of how countries are attempting to achieve this balance. For instance, English universities did enjoy considerable autonomy until about 1980 and have since experienced stronger government regulation and oversight; Swedish universities, on the other hand, experienced a move towards more autonomy and less direct regulation (Kogan, Bauer, Bleiklie, & Henkel, 2006). In Mexico, the system is moving towards reducing the decision-making discretion of public universities and increasing the influence of government, especially through the development of evaluation and incentive policies.

The policy tools that define the institutional arrangements between government and public organizations are shaped to a considerable extent by national governance structures through legislation, funding models, evaluation systems, accreditation and controls (Bleiklie & Kogan, 2007). Regardless of the specific tools used in a given country and the way they are implemented, the important issue here is that monetary incentives are understood as key levers in public sector management, as market-oriented mechanisms that attempt to direct a particular form of responses within public sector agencies (Ferlie, Ashburner, Fitzgerald, & Pettigrew,
The use of incentive-based tools represents a change in the resource environment that intends to establish a “quasi market,” mainly through the implementation of performance criteria and methods of public funding in which resources are allocated on the basis of contracting and competitive bidding (Gewirtz, Ball, & Bowe, 1995). In higher education, policy appears to draw on the assumption that financial rewards are more valuable means to promote change in organizational and individual behavior than hard managerialist command and control measures (Johnson, 2002), especially when dealing with autonomous universities.

**Issues with Incentive-Based Policies**

Monetary incentives are characterized by a number of problems. As a policy instrument, subsidies may lack clarity and coherence, with no systematic provision being made for comparing costs and benefits, while the conditions attached to subsidies vary widely and are not clearly formulated (Leeuw, 1998). Moreover, Leeuw (1998) argues that on many occasions the financial administration of funds on the part of target organizations is inefficient, the procedures for monitoring compliance with the policy goals are inadequate, and often no adequate picture of the efficiency and effectiveness of monetary incentives is available. To Haider (1989), “there are difficulties regarding the enforcement of grant conditions and requirements, as well as the often rather vague and elusive goals and objectives of grants” (p.114). Sometimes monetary incentives are cost-ineffective since the targets may already have decided to behave in the desired way, in which case the grant was unnecessary and redundant (Hood, 1983). For instance, Hood (1983) argues that on many occasions governments use monetary incentives to get people to do things they may already be predisposed to do, such as improving their houses.
Moreover, it should be acknowledged that the use of subsidies as political instruments has also contributed to the lack of knowledge in this area. According to Jasinowski (1973):

It appears that politically one need only to support a program that “seems” to benefit the special group seeking aid. The political incentives are to keep the arguments for the assistance vague and simple, making many references to the national interest, few references to careful economic analysis, and preferably not even referring to the assistance as a subsidy. Most political leaders are not interested in analyzing a particular subsidy to determine if it works because they view the subsidy as a political tool that is useful to keep constituencies happy (p. 3).

Another difficulty with monetary incentives as tools to promote change is the use of subjective performance measures. Levin (2003) argues that when monetary incentives are designed through contracts between a principal and an agent (e.g. government and organizations) the use of subjective performance measures is problematic. To Levin, the reason is that a successful contract “must simultaneously give the agent an incentive to perform and the principal an incentive to assess performance honestly” (p.837). However, in organizations, incentives are often based on difficult to verify aspects of performance, such as teamwork, leadership, or initiative. The same may be argued in the case of higher education, where performance measures usually revolve around notions such as “academic quality,” “organizational culture” and “institutional strengthening.” Such notions, when not properly operationalized are rather vague and elusive to assess.

Given the uncertainties attached to the effects of monetary incentives, it is important that the implementation of these tools proceed with careful attention to the objectives they are to
serve. This goal-directedness involves compiling information on the way in which the incentive in question is intended to help achieve the objectives, on alternative options, on the costs of the subsidy, and on the form which implementation and monitoring are to take place (Leeuw, 1998). Leeuw argues that it is important that the goals of the subsidy are set out in operational terms, because only formulating criteria for evaluation in this way is it possible to assess whether the goals have been achieved. Researchers have also found that inadequate attention is usually devoted to analyze the organizational capacities of target organizations in order to forecast and resolve potential problems ex ante, which can lead to failure (see Heij & Vranken, 1987). Garcia de Fanelli (2005) argues that incentives might fail because policy makers do not always take into account the complexities of higher education systems, thus, the intended goals are affected as incentives get through the ‘black box’ of university organization.

Universities are complex organizations since they have multiple goals and missions. They are highly specialized entities, oriented to the generation and transmission of expert knowledge in highly diverse academic and professional fields (Clark, 1987). As Weick (1976) pointed out, universities are loosely-coupled systems in the sense that they have multiple internal systems weakly linked to each other. Moreover, they are part of a social system in which dynamics are determined by internal, external, as well as political and economic factors in permanent tension with each other (Brunner, 1985). Internally, the university is an arena of active struggle for institutional control (Muñoz, 1989). Problems associated with university governance are necessarily the origin of almost every campus conflict, many of which involve the distribution of power (Wolff, 1970; Becker, 1970). The decision-making processes of universities are affected by the influence of multiple actors, internal and external.
For instance, higher education institutions are affected by academic communities, academic and non-academic unions, professional associations, the pressures of society to get broader access, and even by the political parties (Clark, 1983).

This complexity complicates the implementation of monetary incentives in two ways. First, these policy tools seek to align government goals and desired outcomes with those of the universities. To the extent that the latter are not well defined and clear, or that they result from a combination of multiple stakeholders’ views, it is highly difficult to design incentive contracts to promote change in a predetermined direction (Garcia de Fanelli, 2007). Second, the power imbalances within higher education institutions represent relevant obstacles for change. To Garcia de Fanelli (2007), since structural changes in organizations usually result in winners and losers, incentive mechanisms have to take into account all the players in order to compensate for the potential losers in an organizational change strategy.

Yet, to other scholars it is naïve to think that a single policy tool, such as a grant or program, is enough to produce structural change in a complex organization. For instance, Ibarra (2002) argues that universities might give an image of change externally, without substantially altering their internal functioning. This happens mainly because policies establish performance measures in terms of quantitative indicators, hence, universities have to demonstrate, if only symbolically, that they are achieving the established objective. Moreover, Ibarra claims that one can observe a wide arrange of discourse and symbolic mechanisms, documents and evaluation reports to portray the image of change, while decoupling from the real day to day activities. In sum, the broad lesson is that in order to maximize the likelihood of success, policy makers have to understand the complexities of target organizations and try to anticipate
potential problems and unintended consequences. To promote that, the design of incentive tools have to incorporate provisions aimed at minimizing such potential problems, such as developing clear and measurable goals aligned with the broad intended outcomes.

**Impacts of Monetary Incentives on Organizational Change**

Literature on monetary incentives is relatively abundant on description and prescription, but falls short on the evaluation of impacts. On this issue, Leeuw (1998) points out that the “lack of empirical knowledge with regard to the management, goals, costs, and effects of subsidies is problematic” (p. 81). According to Leeuw, lack of evidence makes it almost impossible to know to what extent (and which types of) subsidies are confronted with particular difficulties. Also, it makes it difficult to determine the positive impacts of incentives on organizational change. Therefore, justifying the subsidy gets complicated. This lack of empirical knowledge can have immediate consequences in the political arena since budgetary problems can cause the reduction or abandonment of these incentives, even if they have had a positive impact.

Regarding the specific case of monetary incentives aimed at impacting organizational change in universities, empirical evidence is also scarce. Among the studies conducted on this subject, the majority focus on measuring the impact of incentives on *quantitative* indicators (e.g. improvement in the academic credentials of professors) rather than on more *qualitative* structural changes. Although, in general, there is a lack of systematic empirical inquiry on the subject, there are some studies that present interesting leads and findings regarding the impact of monetary incentives on higher education organizations. For instance, Chevallier (1998) found that the use of program-contracts in France had three positive impacts: (a) it improved
the relationships between government and higher education institutions, (b) it strengthened the institutional capacity of universities, and (c) it improved the capacity of universities to produce and disseminate information. Regarding institutional capacity, Chevallier argues that incentives changed the organizational culture of universities, making them more quality and equity conscious.

Frémont (2004) found that program-contracts in France have also increased the power and influence of university presidents, because they have more resources to distribute internally. In addition, since the projects subject to receive money from grants have to be discussed and agreed upon internally, university presidents have an incentive to gain more power and control over such processes. Along the same lines, but in a study of organizational reform in Chicago’s public schools, Smylie, Crowson, Chou, and Levin (1994) found that when facing new requirements and pressures from the environment, school principals tended to seek more power and control over their institutions in order to maintain institutional order and stability. This apparent similarity in higher education and K12 regarding responses to environmental pressures should be taken with caution, but it is certainly an issue to take into account and explore empirically.

Garcia de Fanelli (2006) found that the implementation of program-contracts in Cataluña led to a better collaboration, transparency and teamwork between universities and the local government. Vilalta (2001) claims that the use of program-contracts resulted in better accountability, reinforced strategic planning and evaluation activities on the part of the Catalan universities. In addition, Vilalta points out that these monetary incentives strengthened the power and influence of university presidents, because they reinforced the logic of programs within their academic units (rewarding and punishing behavior, the “carrot and the stick”).
Garcia de Fanelli (2007) found that the incentives implemented in Argentina through the Fund for the Improvement of Academic Quality (FOMEC) positively impacted the time professors dedicated to both teaching and research activities. However, she also found that some research groups, in order to qualify for funds, were integrating members that were not truly committed to the research activity. In a different study, Garcia de Fanelli (2005) found that the distribution of funds usually benefited those groups with already better tools and quality, reinforcing the Mateo effect.6

In her study of the FOMEC grant in Argentina, Garcia de Fanelli (2007) concluded that higher education institutions, when deciding how to use the grant funds internally, usually decided on those goals lacking internal conflict and opposition, such as developing new infrastructure and improving the academic credentials of professors (i.e. through the award of scholarships for graduate studies). University executives usually neglected more structural changes and focused on “hardware” improvement. For this reason, Garcia de Fanelli recommends that in order for universities to take full advantage of the funding opportunities, they have to first develop the organizational and governance capacities to better face the demands of the environment and succeed in their change efforts.

Grediaga, Rodríguez, and Padilla (2004) argue that in Mexican higher education, after ten years of implementation, the grants aimed at improving academic quality have not improved the organizational capacities of public universities, and neither have they positively

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6 It refers to the evangelical notion of giving more to those that already have. Merton (1977) uses this notion to argue that the accumulation of acknowledgements to scientific contributions goes to those academics of already considerable reputation, denying such acknowledgment and prize to those yet lacking prestige.
impacted their academic auto-regulation\textsuperscript{7}. To Reed (2002), this happens because universities are trapped in a new bureaucratic logic of generating and distributing data on academic indicators for the federal government, to the detriment of academic self-regulation. Along the same lines, Ibarra (2002) points out that instead of contributing to improve academic practices, the Program for the Improvement of Professors (PROMEP)\textsuperscript{8} has promoted that fast-track and low-quality graduate programs flourish within the system, developing a culture of “credentialism” and impression management. In fact, there is little evidence that professors who have reached the PROMEP-profile\textsuperscript{9} category perform better academic practices than non-PROMEP professors. As Mayrowetz (2009) points out, policy researchers should put more attention to how educators interpret and make sense of a given policy as autonomous individuals with agency, to guarantee that such policies impact actual practice, especially at the school and classroom levels.

On the positive side, Kent, De Vries, Didou, and Ramirez (1998) claim that the introduction of monetary incentives as additional sources of revenue in Mexican higher education, mainly through the Fund for the Improvement of Higher Education (FOMES), has resulted in a progressive adoption of evaluative practices, positively impacting the organizational culture of public universities. According to these authors, as a response to the

\textsuperscript{7} In this study, the concept of “academic auto-regulation” is defined as the capacity of higher education organizations to internally assess their academic processes and results, without depending solely on the indicators developed by the federal government as external accountability measures.

\textsuperscript{8} The PROMEP is a federal program created in 1996 to improve the academic credentials of full-time professors in public universities, mainly through the award of scholarships to pursue graduate studies (masters and doctorates).

\textsuperscript{9} The PROMEP-Profile category is awarded to those full-time professors who hold a doctorate (or at least a master’s degree) and perform teaching, research, tutorships and “academic leadership” activities within the university.
incentives universities have improved their strategic management capabilities, their generation of information and indicators, as well as reinforced their financial and accounting practices. Sometimes these capabilities developed through the creation of new organizational structures, such as departments in charge of evaluation and planning. Nevertheless, while acknowledging the importance of monetary incentives in Mexico, Kent and colleagues argue that one of the main problems of these programs is the lack of evaluation of impacts. Usually, the policy focuses on the evaluation of the proposals presented by the universities, neglecting the assessment of their actual implementation and outcomes. In that sense, “what policy makers are evaluating is basically the universities’ capacity to develop and present sound proposals, not the ability and motivation to actually implement them” (Kent, De Vries, Didou, & Ramirez, 1998, p.136). Interestingly, after eleven years of such a claim, Kent (2009) argues that it is still not known whether incentives have resulted in better organizational capacities and improved academic performance in Mexican public universities.

In sum, empirical evidence on the impact of monetary incentives is scarce and inconclusive, especially in the case of Mexican higher education. Based on the studies reviewed, there are some hints as to how universities have responded to the implementation of incentive-based policies. However, more empirical evidence is needed to draw a clearer picture of what happens to these policy tools when they face the complexities of universities. Also, we need more scholarship to better explain organizational responses in the light of the relevant literature. Those were the aims of this research.
CHAPTER 3
MONETARY INCENTIVES IN MEXICAN HIGHER EDUCATION AND THE INTEGRAL PROGRAM FOR INSTITUTIONAL STRENGTHENING

Recapping the Problem

As discussed earlier, this dissertation is an in-depth exploratory and explanatory case study that compares the organizational responses of three Mexican public universities to the Integral Program for Institutional Strengthening (PIFI), an ambitious and comprehensive incentive-based policy aimed at “strengthening” universities and increasing their academic quality. The sample is composed by three public state universities of different sizes, governance structures, and amounts of academic consolidation. These universities are located in different geographical locations in Mexico, in the northern, central, and southern regions.

My interest in the issue of monetary incentives and organizational change in higher education emerged because the growth of these policy tools to steer Mexican public universities has been systematic, but there is a need for more evidence on their actual impacts. In 1991 the only grant was FOMES, by 2009 there were around 18 grants and incentive programs. In 2000, such grants and programs represented 8% of the total federal budget for public state universities. By 2009 they reached around 30% of the budget (see Figure 1).

10 I decided to keep my sample anonymous to protect the identity of the research subjects, given the politically sensitive nature of responses during the interview process.

11 I refer to “academic consolidation” as the advancement of the universities on the official indicators developed by the federal government.

12 Stratifying my sample by geographical location is relevant since social, cultural, and economic trends may vary within the country, especially regarding the general perception that the north is “rich” and the south is “poor.”
This increase in the use of monetary incentives to promote change deserves more systematic inquiry to explore and explain their impacts on organizational structures and practices. The Mexican federal government is investing a great deal of public money in grants and incentive programs, but evidence on such impacts is scarce and inconclusive. In 2009, the amount of money distributed through grants and incentive programs to public higher education institutions reached roughly *one billion* USD; such investments justify the need for greater understanding of how these tools have performed. The increasing use of grants and incentive programs in higher education should not be based on faith, but on empirical evidence about their effectiveness in achieving the desired aims.

![Figure 1. Grants and incentive programs versus the regular budget of public state universities (2000-2009). Source. Calculated with data from the Undersecretariat of Higher Education (2011c). Note. The “ordinary” budget is the regular incremental amount that universities receive each year, mainly for current expenditures such as wages and salaries.](image-url)
Before introducing the PIFI Program as the incentive-based policy, it is important to briefly describe the Mexican higher education system to better understand the context in which grants emerged as policy alternatives and “remote control” tools to steer the system in the desired direction by the federal government.

The Context of Mexican Higher Education and the Creation of the Fund for the Improvement of Higher Education (FOMES)

The Mexican higher education system is composed of 34 public state universities, seven federal universities, approximately 500 smaller public higher education institutions (e.g. Institutes of Technology and Polytechnic Universities), and approximately 1,500 private colleges and universities. All public state universities receive funding from both the federal and state governments, with percentages usually based on historical political arrangements (see Figure 2). Federal universities, located in Mexico City, only receive funding from the federal government. Local governments seldom influence the policymaking process of the universities located in their states, although Mendoza (2009) argues that the participation of other relevant actors is increasing as the federal government loses its position as the “monopoly of policy.” The vast majority of public state universities are granted “autonomy” by the law, guaranteed by the federal constitution. This autonomy gives these universities the capacity to determine their academic programs, the internal allocation of resources, as well as their organization and governance structures (Payan, 1996). In this sense, to Payan (1996), the Secretariat of Public Education (SEP) is in charge of the university system, but without infringing such constitutional autonomy.
Between 1929 and 1982, the economic environment in which the Mexican university system evolved was characterized by the active protection and guidance of government (Lorey, 1993). During those years, the Mexican economy was closed and inward-looking (mainly through a strategy of imports substitution) and the vast majority of university graduates were employed by the public sector, which dominated the national economy. During the 1970’s the system started to expand in terms of enrollment and the number of higher education institutions. According to Kent (1993), two general types of policies were responsible for the
The shifts in the structure and dynamics of the system were more a reaction to social and economic forces than of rational design by policy makers (Kent, 1996). Between 1970 and 1982, the Mexican government played an active role in funding the expansion of higher education, but a passive role in regulating it. The fact that unregulated expansion followed the pressures of social and political demands for access and increased funding, rather than the goals of academic excellence or technological development, can be explained by the prevalence of a system culture heavily permeated with a social welfare ideology, which defined public education as a free and academically non-selective public service (Kent, 1996).

The theme of university reform started with the economic crisis of the early 1980’s. In 1983, a chronic economic depression was unleashed by the government’s inability to meet its debt obligations. During most of the decade of the 1980’s the economy was hit by negative growth rates, hyperinflation, and high rates of unemployment and capital outflows (Cárdenas, 1996). In higher education, public funds were kept at a constant level by federal government, thus, inflation diminished their real value. Investments in infrastructure and research were dramatically reduced, professors’ salaries lost almost 40 percent of their real earning power, and many scientists left the country in search for better opportunities (Lorey, 1993). Basically, the government stance towards higher education during the 1980’s was one of benign neglect (Fuentes, 1991). Other than reductions in public financing, no important or specific policy proposals in higher education emerged during those years (Kent, 1993).
At this point, public universities began an unprecedented process of self-analysis and criticism, with major public institutions releasing documents such as “The Strengths and Weaknesses of the UNAM” and “Towards the University Reform of the University of Guadalajara” (Lorey, 1993). In 1986, the National Association of Universities and Higher Education Institutions13 (ANUIES) introduced its ideas of necessary reforms in an “Integral Plan for the Development of Higher Education” (ANUIES, 1986). Nevertheless, it was during the presidency of Carlos Salinas de Gortari (1988-1994) that the rhetoric of neoliberal modernization and market-oriented reforms in education took shape (Navarro, 1998). Specifically, in higher education these reforms materialized with the creation, in 1991, of the first incentive-based grant, the FOMES. With this new policy instrument the old tradition of granting block subsidies to public institutions based on individual political negotiations between university presidents and the federal government was partially displaced, in favor of monetary incentives linked to performance indicators. This traditional and politically-based block-grant mechanism for allocating resources, however, was not abandoned entirely, but was set to minimum growth (Kent, 1996).

The system innovations at that time were mainly directed towards the allocation of focused grants as monetary incentives to promote “organizational modernization” and the investment in academic infrastructure (Kent, 1996). Also, other taboos were broken: differentiated salary scales and individual productivity grants were introduced for professors and researchers, going against long established union pressure in favor of uniform pay (Kent, 1996).

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13 The National Association of Universities and Higher Education Institutions (ANUIES) is a non-governmental organization that groups 154 public and private universities, with the goal of improving higher education in Mexico (ANUIES, 2010). Since its creation in 1950, ANUIES has been a relevant actor in the Mexican higher education arena. This association has consolidated its strength and prestige as a think-tank, a policy player, and a lobbying group (Mendoza, 2007). In fact, the association was gradually considered by successive federal administrations as a semi-governmental planning and consulting entity (Kent, 1993).
Moreover, universities were persuaded to increase their own income from student fees and the sale of contracts (most public institutions did not succeed in this aspect of reform). Entrance examinations were introduced in most public universities, and national standardized tests were developed for graduates in most professions (Kent, 1996). Overall, during the 1990’s the crucial task for higher education in Mexico, and in Latin America generally, was neither accelerating expansion nor the automatic increase in public funding, but improving the quality and efficacy of the system. As de Moura and Levy (2000) observed, there was growing public awareness that modernization and integration into the global economy depended greatly on higher education.

As discussed earlier, the first focused grant in Mexican higher education was the Fund for the Improvement of Higher Education (FOMES), created in 1991. This grant resulted from negotiation processes between the Secretariat of Public Education (SEP) and the National Association of Universities and Higher Education Institutions (ANUIES) (Mendoza, 2009). The FOMES grant was created as a monetary incentive to improve the infrastructure and the academic quality of higher education institutions (Secretariat of Public Education, 2001a; 2006a), and as an instrument to overcome the financial trouble of most universities due to the economic crisis of the 1980’s, in which universities’ budgets stagnated (Acosta, 2000). Back in the 90’s, the resources of FOMES were distributed on the basis of specific proposals presented by public state universities, which were linked to their institutional development plans (Secretariat of Public Education, 2001a). The evaluation of such proposals was conducted by external academic committees appointed by SEP, who determined the viability and importance of the projects presented.
The creation of FOMES was sort of a “rupture” with the past in terms of the relationship between federal government and public higher education institutions. This grant represented the first rationally designed instrument to link the distribution of resources with the performance of universities. In other words, FOMES inaugurated the era of the “evaluative government,” in sharp contrast with the era of “benign neglect” of the past. This grant was the first of several policies and instruments aligned with the same logic: competition among public universities for resources on the basis of proposals subject to external evaluation. This policy logic took firmer hold in 2001, with the creation of the Integral Program of Institutional Strengthening (PIFI). PIFI is a comprehensive “umbrella policy” that links other grants and programs aiming at “quality improvement and institutional strengthening,” mainly through the distribution of resources to modernize technological infrastructure, to improve the credentials of professors, and to promote the strategic and collaborative planning ethos, among other specific initiatives (Secretariat of Public Education, 2006a). During the first half of the 1990’s the resources of FOMES significantly increased, which contributed to the growing enthusiasm and participation of public universities in this grant (Kent, De Vries, Didou, & Ramirez, 1999; Mendoza, 2009; Secretariat of Public Education, 2001a).

For public universities FOMES represented an important opportunity to overcome financial difficulties due to the economic crisis of the early 1980’s (Secretariat of Public Education, 2006a). To Kent (2009), it offered university presidents a controlled mechanism to obtain resources, a mechanism that did not involve complex internal and external political negotiations, but provided some sort of financial certainty. With FOMES, university executives experienced, for the first time, the advantages of strategic planning and management, unknown concepts in the universities before this grant (Kent, 2009). However, to some observers, in a
few years this grant also led to the expansion of top administrative offices in public universities, altering the internal power balances within these institutions (see Acosta, 2000; Kent, De Vries, Didou, & Ramirez, 1998).

In short, FOMES had an important instrumental and political impact on the system. It represented a sharp policy lever, cheap and surgical in its application, which effectively modified the rules of the game between the federal government and public universities, in a moment characterized by policy paralysis and economic crisis in the higher education system. It might be argued that the government’s decisions made during the first half of the 1990’s reinvigorated the higher education policy process and set the stage for future incentive-based programs linked to performance measures. FOMES created the possibility of new agreements and negotiations between the federal government and public universities. The political efficacy of this policy instrument in sending new signals was an example of the new government capacities to indirectly steer the system through monetary incentives (Mendoza, 2002).

The Integral Program for Institutional Strengthening (PIFI)

Starting with FOMES, the federal government has increased the use of monetary incentives to steer the higher education system. Since 1991, diverse grants and incentive programs have been created to tackle a variety of problems. For instance, there were grants aiming at specific issues, such as helping public universities get out of debt, promoting reforms on the universities’ pension systems, and building new classrooms and facilities. There were also grants and programs with broader and more complex goals, such as “improving higher education quality,” or “promoting organizational change” and “institutional strengthening.” The most sophisticated and comprehensive instrument designed by government to impact higher
education policy has been the Integral Program for Institutional Strengthening (hereafter the “PIFI Program”). Created in 2001, this policy linked diverse grants and programs in one process, which established that public universities, in order to get access to additional resources, had to develop strategic plans along with performance indicators (Kent, 2005). In a way, PIFI is the national “umbrella policy” that aimed at improving the academic quality of public universities through the notion of “strategic planning.”

The strategic planning “doctrine” was first established in the National Program of Education of the federal government in the presidential period of 2001-2006. This National Program might be considered the founder of PIFI, as it established that “The federal government will promote that public higher education institutions develop integral programs for institutional strengthening [PIFI’s], which allow them to reach superior levels of development and consolidation” (Secretariat of Public Education, 2001c, p. 204). Moreover, according to this document, “In their integral programs, public universities must establish indicators and goals to 2003 and 2006 for each of their academic units and for the university as a whole, which allow for the evaluation of results” (Secretariat of Public Education, 2001c, p. 204). The policy logic of PIFI and its message were straightforward: if public universities wanted resources from national grants they needed to start taking strategic planning seriously.

With PIFI, as a program “to strengthen the strategic planning capacities of public higher education institutions and to improve the quality of their academic programs” (Secretariat of Public Education, 2003, p. 3), the federal government pushed universities to develop strategic plans (university-wide and for each of the schools within the university). In these strategic plans, universities had to establish their mission, vision and objectives for the short and mid terms, and update them regularly in close alignment with the official goals of government. One
important element of this program is the notion of “participatory planning.” With PIFI, the government not only demanded that universities develop strategic plans, but that they do so collaboratively, involving different actors at the three levels of the organization, such as the university as a whole, the school, and the academic program in a participatory and comprehensive effort (Secretariat of Public Education, 2003).

It is important to note that before PIFI, public universities participated in grants in disperse and unsystematic ways (mostly in FOMES and PROMEP14). Usually, proposals presented by universities during one year were totally disconnected from those presented in the following, and they did not really have oversight by the government. In colloquial terms, PIFI aimed at “putting the house in order” by developing a detailed blueprint and timeline of the goals and strategies that government wanted universities to accomplish, in exchange for additional resources. Each year the Secretariat of Public Education (SEP) produced a “PIFI Guide,” as a comprehensive blueprint that universities had to follow in order to participate in the program. Such guides established the particular emphases of PIFI in a given year, along with specific instructions regarding the development and presentation of proposals. For instance, in the guide for 2003 (“PIFI 3.0”), regarded by government and universities as the

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14 PROMEP is the Program for the Improvement of Professors. This program was created in 1996 by the Secretariat of Public Education (SEP) in collaboration with the Council of Science and Technology (CONACYT) and the National Association of Universities and Higher Education Institutions (ANUIES). The goals of PROMEP are “improving the academic credentials and preparation of full time professors (PTC’s), and promoting the development and consolidation of research teams” (Secretariat of Public Education, 2006b). The policy problem that gave birth to PROMEP was that back in 1996 out of the 18,093 full time professors in public state universities, only 8% had a doctorate degree; 32% had a master’s degree and the remaining only had a bachelor’s degree.
first comprehensive guide of the program\textsuperscript{15}, the federal government provided the following directions to participant universities (Secretariat of Public Education, 2003):

a. The development of the PIFI 3.0 must be based on the results obtained in the prior planning processes, PIFI 2001 and 2002.

b. The PIFI 3.0 must focus its attention on a process of participatory strategic planning at the three levels of the university: institutional, school, and academic program.

c. Objectives, goals and strategies must be reviewed and updated to guarantee the accomplishment of the vision established for 2006. At the same time, the official academic indicators must be analyzed and numerical goals and commitments established for the years 2003, 2004, 2005 and 2006 at both the institutional and school levels.

d. The PIFI 3.0 ought to include proposals carefully scheduled whose objectives and strategies must lead to the achievement of the vision 2006. Also, the implementation of such proposals must contribute to improve the quality of academic programs and management practices, and to close academic quality gaps among schools within the institution. All of these have to be accomplished in the timelines established in the proposals.

\textsuperscript{15} PIFI guides were developed in 2001 and 2002, but such guides were considered as part of the “transition period” between the logic of the old grants and the new strategic planning emphasis of PIFI; therefore, they were not as ambitious as the ones developed since 2003. In that sense, the PIFI guide of 2003, also known as “PIFI 3.0,” represented the real breakthrough of the program (Secretariat of Public Education, 2003).
Formally, to accomplish its goals the PIFI Program is formed by two grants: the new version of the Fund for the Improvement of Higher Education (FOMES) and the Fund of Investment for Higher Education Institutions with Evaluation from ANUIES (FIUPEA). Procedurally, these two grants provide the money to participant universities for the implementation of their PIFI Proposals.\footnote{This situation changed in 2010, when the Secretariat of Public Education (SEP) eliminated those two grants and simplified the administrative process. By eliminating FOMES and FIUPEA, the PIFI Program is now in charge of distributing resources directly to participant universities.} Nevertheless, as umbrella policy, the PIFI Program also set the parameters for participating in other grants and programs that are aligned with the same logic, such as the PROMEP Program and the Fund for the Development of Infrastructure (FAM). In addition, PIFI de facto incorporated in its logic other newer grants that were created by Congress since 2006, such as the Fund for Academic Consolidation and the “Formula CUPIA.\footnote{The grant known as Formula CUPIA is distributed through a mathematical algorithm developed by the Undersecretariat of Higher Education and the National Association of Universities and Higher Education Institutions (ANUIES). This formula takes into account the numbers of public universities in their official academic indicators. In this sense, the more universities advance in their quantitative measures the more resources they get from this grant.}” PIFI represents the umbrella policy for these other grants because they aim to achieve the same quantitative indicators promoted by this program since 2001. In other words, the “PIFI logic” has permeated the whole public higher education system with its strategic planning doctrine and its emphasis on achieving the official indicators as measures of academic quality.

Since 2001, the year PIFI was born, all 34 public state universities actively participated in it (including the three universities part of this study). Later on, other higher education institutions were incorporated into the PIFI logic. For instance, by 2006, 109 public higher education institutions participated in PIFI, including some federal universities, the Institutes of
Technology, and the Polytechnic Universities (Secretariat of Public Education, 2006a). In 2010, SEP reported that 136 public higher education institutions participated in the program, representing more than half of the total enrollment in Mexican higher education (Secretariat of Public Education, 2010). In terms of money, the flow of resources that the federal government has distributed through the PIFI Program has been constant, so participant universities have had a relatively stable source of additional revenue to accomplish the goals established in their proposals (see Figure 3). From 2001 to 2010, SEP reports that the PIFI Program provided public universities with roughly one billion USD to implement their proposals (Secretariat of Public Education, 2010).

Figure 3. Flow of federal resources distributed through the PIFI Program to public state universities (2001-2008) (including the FOMES and FIUPEA grants) (thousand pesos). Source. Calculated with data from the Undersecretariat of Higher Education (2011c).
Official Impacts of the PIFI Program

According to official evaluations conducted by the Secretariat of Public Education (SEP), the PIFI Program has had a positive impact on the participant universities. In a program evaluation conducted in 2006, the SEP found that PIFI provided fresh resources for universities to implement a variety of projects aiming at improving their academic quality. For instance, from 2001 to 2006 this program supported 1,849 projects to improve the quality of academic programs, 806 projects aiming at developing of faculty members and research teams, 206 projects for curricular reform (to incorporate student-centered approaches), 207 projects to incorporate curricular flexibility in existing academic programs, 85 projects to implement new technologies (ICT’s), 286 projects to implement academic tutorship programs, and 340 projects with the goal of reforming laws and norms and improving management practices within universities (Secretariat of Public Education, 2006a). In 2010, the SEP reported that PIFI had supported 14,464 individual projects, which contributed to the advancement of most public universities on their academic quality indicators (Secretariat of Public Education, 2010).

Moreover, the SEP reported that the PIFI Program has significantly contributed “to improve the academic quality of public universities” and “to enhance their social standing and prestige due to their increased quality and transparency” (Secretariat of Public Education, 2010, p. 4). In an evaluation performed in 2010, SEP presented detailed data on the advancement of public state universities in the academic indicators, which have improved systematically since the PIFI Program was created (see Table I). This evaluation concluded by stating that:

The PIFI Program has been the most important strategy implemented by the federal government since 2001 to improve the academic quality of public higher education. It
has promoted a culture for strategic planning and for external evaluation, which has positively impacted the indicators of public higher education institutions and their overall academic quality (Secretariat of Public Education, 2010, p. 49)

Table I

*Advancement in the Official Indicators of Public State Universities*

<table>
<thead>
<tr>
<th>Academic Indicator</th>
<th>Value in 2002</th>
<th>Value in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of full-time faculty members with graduate degrees (masters or doctorates).</td>
<td>14,151</td>
<td>26,039</td>
</tr>
<tr>
<td>Number of full-time faculty members that belong to the national system of researchers (SNI).</td>
<td>1,778</td>
<td>4,668</td>
</tr>
<tr>
<td>Number of full-time faculty members with &quot;good academic profile.&quot;</td>
<td>5,556</td>
<td>13,512</td>
</tr>
<tr>
<td>Number of top quality research teams.</td>
<td>34</td>
<td>398</td>
</tr>
<tr>
<td>Number of academic programs of top academic quality (Level 1, as evaluated by independent agencies, “CIEES”).</td>
<td>412</td>
<td>1,406</td>
</tr>
<tr>
<td>Number of accredited programs by external agencies (“COPAES”).</td>
<td>123</td>
<td>866</td>
</tr>
<tr>
<td>Number of academic programs considered as having good quality by SEP.</td>
<td>458</td>
<td>1,562</td>
</tr>
</tbody>
</table>

The problem with the evidence presented by the SEP is that it only addresses the impacts of PIFI on a set of official *quantitative* indicators, but it does not incorporate *qualitative* evidence on the impacts of the program on structures and practices within public universities. Therefore, we still need to know more about the actual organizational responses that public universities enacted in association with the PIFI Program, and about how such responses might have impacted academic practices and interactions. Quantitative indicators can only tell part of the story, but we still need to delve into the universities and explore their responses to an ambitious program such as PIFI. As Gil (2010) argues, government grants and incentive programs might have in fact quantitatively improved the academic credentials of professors, but there is no evidence that such credentials translate into better teachers and researchers. In that sense, I argue that PIFI might have led universities to improve their numbers, but we do not really know what such numbers mean in the context of actual organizational structures and practices. Consequently, by conducting this study I aimed to tell part of the story that is not incorporated in the quantitative evidence collected by the federal government.
Organizations change in response to their environments, but they rarely change in a way that fulfills the intentions of a particular group or policy (Attewell & Gerstein, 1979). Organizations may advance their goals and strategies adopting different strategies. As March (1981) argued, organizations are continually changing but not according to a specific blueprint. The implementation of the PIFI Program represented an important environmental disturbance for public universities. By promoting the doctrine of strategic and participatory planning, and by introducing quantitative indicators as measures for “academic quality,” the federal government altered the signals and the logics of its relationship with public universities.

This study is about how universities responded to the PIFI Program as an environmental jolt. Therefore, theoretical developments on how organizations interact with their environments were highly relevant in conducting this research. In colloquial terms, these theoretical propositions acted as “keys” to better make sense of the complexities of organizational dynamics, and were highly relevant for understanding the behaviors observed in the universities studied. In the following pages I will review some of the most relevant developments in this body of literature, which paved the way for this research endeavor.

**Organizations and their Environments**

The organizational environment is conceptualized as a system of entities that lies outside the boundaries of the organization. It influences organizational outcomes by imposing constrains and demanding adaptation at the price of survival (Hatch, 1997). The organization,
for its part, faces uncertainty about what the environment demands while it experiences dependence on the multiple and various elements that comprise the environment (e.g. social, cultural, legal, political, economic, technological and physical influences). To Hatch (1997), it is this dependence and uncertainty that explain organizational structures and actions. The environment, in its broader sense, is comprised by other organizations that interact with each other in a “dance” to get power and influence and to manage interdependence. Paraphrasing Schelling (1978), organizations in a structured field respond to an environment that mainly consists of other organizations responding to their environments as well.

Within an open-systems perspective, organizational systems tend toward a state of dynamic equilibrium with their environments, through the continuous exchange of materials, data and energy (Scott, 1998). Both the organization and its environment can affect this process of exchange and transformation, suggesting the interdependence and the importance of their interactive effects (Hrebiniak & Joyce, 1985). A similar view is expressed in studies on power, in which the underlying dependencies or relative vulnerabilities of organization and environment interact to create tensions and produce both organizational and environmental change (see Pfeffer, 1981, for discussion).

Usually, the notion of “environment” tends to be a residual one, which refers to “everything else” outside the organization (Scott, 1998). However, this broad conceptualization lacks analytical power. Therefore, to examine causal connections and associations Scott (1958) claimed it is necessary to develop some working conceptions of environments themselves. For such reason, in this study I adopt the concept of task environment crafted by Dill (1958), to denote such parts of the environment that are potentially relevant to goal setting and goal attainment. To Thompson (1967), the composition of the task environment of an organization is
determined upon whom the organization is dependent. The organization may find that there is only one possible source of a particular kind of support needed, whereas for another there may be many alternatives, thus, the capacity of the environment to provide the needed support may be concentrated or dispersed.

Thompson (1967) argued that the task environments of complex organizations turn out to be multifaceted or pluralistic, composed of several or many potentially relevant actors. In the case of Mexican public state universities, the task environment is mainly composed of the federal government, the national Congress, state governments and local legislatures, since these entities provide universities with the resources needed for survival. Of these actors, the most influential in the last two decades has been the federal government, because it has actively sought to influence policy through monetary incentives tied to performance indicators. As discussed earlier, the relationship between an organization and its task environment is essentially one of exchange, and unless the organization is judged by those in contact with it as offering something desirable, it will not receive the inputs necessary for survival.

Environments, as well as organizations, are not static. They change and evolve. To Emery and Trist (1965), the environmental contexts in which organizations exist are themselves changing, at an increasing rate, and toward increasing complexity. Terreberry (1968) concurs by pointing out that organizations are open systems evolving from less to more complex states, and since the environments of organizations are mainly other organizations, it follows that environments or organizations are also becoming more complex. In evolving, task environments also impose constraints. To Thomson (1967), “the capacities of supporting organizations and the absence of feasible alternatives may fix absolute limits to the support which may be available to an organization at a given time” (p. 30). This seems to be the case in
Mexican public universities. Although there are many potential sources of financial support within the task environment, the heavy reliance on fiscal resources makes public state universities highly dependent on government since it provides, on average, approximately 80% of their budgets (Undersecretariat of Higher Education (2011c)).

Regarding fiscal resources, the federal government is by far the main stakeholder of public state universities since it provides approximately 70% of their public budgets (Undersecretariat of Higher Education (2011c). Also, it is the level of government that has developed comprehensive incentive-based policies (grants and programs) in order to promote change in the system. In contrast, state governments and local legislatures continue distributing resources to universities mainly based on the traditional incremental model, favoring political bargaining over performance measures. For such reasons, I argue that the implementation of new financing strategies, such as the PIFI Program, represents a highly relevant environmental change for public state universities, to which they had to respond in order to get legitimacy and continuous support.

On environmental dependences, Thompson (1967) argued that “under norms of rationality, organizations seek to minimize the power of task environment elements over them by maintaining alternatives” (p. 32). For public universities this would mean, for instance, seeking alternative sources of funding through tuition fees, as one of the most stable sources of revenue (Barr, 2003). However, in Mexican public state universities the percentage of resources from private sources continues to be low, around 17% of their total budgets (Undersecretariat of Higher Education, 2011b). In other words, public universities seem to be comfortable depending a great deal on fiscal resources for survival, and resisting the idea of developing alternative sources of revenue from the market.
One of the core insights that literature on organizations in interaction with their environments has developed is that organizational change is a function of both internal as well as external factors. In their classic studies, Selznick (1948) and Perrow (1961) described how organizational goals, structures and processes developed in response to the interplay of interests among internal and external constituents of organizations, and the changing social environments in which organizations are located. Internal factors mediate and shape the responses of organizations. For instance, Meyer (1982) claims that organizational ideologies act as “filters” that shape responses to environmental pressures, identifying them as dilemmas, opportunities, or aberrations. Also, the size and perceived power of an organization shape the type of response it enacts to a given environmental jolt. As Hrebiniak and Joyce (1985) pointed out, powerful organizations have greater choice when responding to environmental pressures. In short, environments do matter, as do matter the internal political processes, power balances, and ideologies within organizations. As Scott (1998) has stated:

We learn from the open system perspective that organizations are not fortresses, impervious to the buffering of the blessing of their environments. On the other hand, we learn from the rational and natural system perspectives that organizations are not wind tunnels, completely open and responsive to every perturbation of their context. Organizations construct and reconstruct boundaries across which they relate to the outside world. (p. 121)

Within the literature of organizations in interaction with their environments, two main theoretical perspectives provided analytical lenses to conduct the present research. These lenses guided the exploration and the search to find plausible explanations of the behaviors observed
at the universities in the sample. These perspectives are resource-dependence and neo-institutional theory. Both of these lenses offer related explanations of how and why organizations respond to environmental pressures (DiMaggio & Powell, 1983; Oliver, 1991; Pfeffer & Salancik, 1978). These perspectives were highly relevant for the study because the main theme of this research is analyzing the organizational responses of universities to environmental “carrots,” represented by the PIFI Program. This program provided fresh resources that universities needed, but that were conditioned on the accomplishment of policy goals established by the federal government.

Although these two theoretical perspectives complement each other (Oliver, 1991), in the tradition of the “old” institutional theory resource-dependence emphasizes strategic adaptation in the face of external influences and acknowledges managers’ exercise of choices within the context of constraints (Greening & Gray, 1994). In contrast, the neo-institutional theory focuses on the role of external values and broad social rules in highly constraining organizational choices, in a sort of “iron cage” from which managers cannot escape when responding to environmental demands (DiMaggio & Powell, 1983; 1991). In other words, resource-dependence advocates individual agency and intentionality, while neo-institutionalism focuses on structure and the dominance and continuity of the environment (Hirsch & Lounsbury, 1997). As Hirsch and Lounsbury observe, one perspective celebrates the uniqueness of local organizational institutions (resource-dependence), whereas the other tends to talk about how homogeneous organizations become in response to macro-institutional structures. In the section that follows I describe the main elements of these two complementary theoretical perspectives.
Resource-Dependence Theory

The central argument of resource-dependence theory is that an analysis of interorganizational relations within the network of the organization can help managers to understand the power/dependence relationships that exist between their organization and other network actors. Such knowledge allows managers to anticipate likely sources of influence from the environment and suggests ways in which the organization can offset some of this influence by creating counter-dependence (Hatch, 1997). The resource dependence perspective, therefore, focuses on strategic actions undertaken by organizations to manage interdependencies with other organizations in their environments. To Hatch (1997), this model takes a political approach to managerial motives focusing on trade-offs between autonomy and survival.

As central developers of this perspective, Pfeffer and Salancik (1978) argued that in order to understand the behavior of an organization one must understand the context of such behavior, that is, the ecology of the organization. According to these authors, organizations continuously struggle for scarce resources and legitimacy, which often come from other organizations, from society, and from government. Aldrich (1999) argued that government regulation and support are critical to resource-dependent organizations, especially in situations of scarcity. Virtually all of the formulations of power and exchange relations among organizations build on the conception of power developed by Emerson (1962). Emerson emphasized that one actor’s power over another is rooted in the latter’s dependence on resources controlled by the former; therefore, “the power of A over B is equal to, and based upon, the dependence of B upon A” (p. 33). Consequently, the greatest rewards within a coalition are given to the less dependent member of it (see Gibbons, 1992). This notion is especially relevant in observing the overwhelming dependence of Mexican public state
universities on government subsidies (80% to 95%). These universities have not been able, or willing, to significantly diversify their sources of revenue. Therefore, they should be highly responsive to a change in the task environment. At the end of the day, they have little room to maneuver.

It might be argued that in Mexico instead of developing alternative sources of revenue to reduce dependence from government, such as Thompson (1967) would have predicted, public universities have developed strategies to gain power over the task environment. For instance, they have coalesced within the National Association of Universities and Higher Education Institutions (ANUIES), which acts as a prestigious think tank but also as a powerful lobbying group (Mendoza, 2007), in order to improve their bargaining position vis-à-vis government. Indeed, according to official data from the Undersecretariat of Higher Education (2011c), during four budget negotiations (2007-2010), ANUIES achieved around 10% additional resources by lobbying at the federal Congress, a substantial amount of fresh resources for affiliated universities.

According to the resource-dependence theory, organizational effectiveness is an external standard applied to the output or activities of an organization (Pfeffer & Salancik, 1978). Hence, organizational actions have limitations in determining whether the organization is effective, since this is mostly determined by the environment and the organization adapts to external definitions (Pfeffer & Salancik, 1978). This notion is consistent with neo-institutional theory in that scholars have treated variation primarily as external in origin, generated as organizations are forced to respond to, adapt to, or imitate the ebb and flow of normative and regulatory currents in their environment (Aldrich, 1999). A central difference between resource-dependence and neo-institutional frameworks is the role of strategic choices made by
managers. Although neo-institutional theorists have not directly addressed managerial
discretion, resource-dependence theorists have been more explicit, suggesting that managers
make strategic choices within constrains, depending on how they interpret and make sense of
the environment (Hrebeniak & Joyce, 1985; Marcus, 1988; Meyer, 1982). In this sense, it might
be argued that resource-dependence allows for organizational choice and differentiation, while
the neo-institutional approach posits that organizations do not really have choices and they
become homogeneous when facing the same environmental demands.

In the struggle to manage dependences and to obtain vital resources without rendering
autonomy, organizations can develop a variety of responses to environmental pressures. As
discussed earlier, some responses might be considered “real” while others might be “symbolic,”
decoupled from actual day to day practices. For instance, organizations might respond to
environmental pressures by adding new structures, positions and rules, or by creating new
rituals and ceremonies, among other strategic choices.

Oliver (1991) developed a typology of organizational responses to external pressures.
According to this typology, some firms that have formally adopted a policy response to external
pressures may still act to “avoid” such pressures, while others “acquiesce” to them by
substantively implementing formal policies that address environmental demands. Organizations
can “compromise” and balance the multiple demands of constituents, or they can “defy”, attack
or just ignore them. Moreover, they may attempt to “manipulate”, influence and co-opt
influential constituents in order to control and alter the demands. To Scott (1998), the activities
of proactive organizations, those that play active roles in using external demands in order to
advance their own objectives, can range from those that limit interaction (buffering) to those
that invite it (bridging) (see Honig & Hatch, 2004.).
On this issue, a key proposition developed by Thompson (1967) is that “under norms of rationality, organizations seek to seal off their core technologies from environmental influences” (p.19). Organizations seeking to buffer their technical flows from environmental disturbances may pursue a number of strategies. These strategies come in many forms and guises, but they all may be regarded as intra-organizational techniques aimed at reducing uncertainty for the technical core (Scott, 1998). For instance, organizations can buffer themselves from external demands by deciding simply to limit or suspend organizational-environmental interactions. Indeed, March (1994b) argues that ignoring negative feedback from the environment is a common buffering strategy.

Suspending relationships with the task environment seems not to be a strategy even available to Mexican public state universities, since all of them participate in the PIFI Program and other federal grants. These universities depend so heavily on additional resources that not a single one has refused participation in such national programs. On the other hand, federal universities, such as the National Autonomous University of Mexico (UNAM), have in fact decided to buffer from the task environment by not participating in some federal programs. It might be the case that UNAM, being the largest and most influential public university in the country, is in a much better bargaining position vis-à-vis the task environment, so it can get the resources it needs without entering in the performance-based logic of federal programs.

Some the most common buffering strategies are symbolic adoption and decoupling (Scott, 1998). Organizations might respond to environmental requirements by symbolically adopting policies. Researchers have observed that organizations across sectors may adopt external demands symbolically, but not allow those demands to influence core organizational activities (Westphal, Gulati, and Shortell, 1997). For example, universities might align their
stated goals and structures to incorporate external demands and get additional resources from government, without changing their core academic practices. On this issue, Meyer and Rowan (1977) found that school and government agencies can decouple structure from practice, by maintaining a façade of standardized, legitimated, formal structures while actually leaving the core practices untouched (e.g. teaching and learning interactions).

In adopting externally-generated norms and values to gain legitimacy, organizations might decouple their technical core to avoid direct evaluation and hence give the impression of change (Meyer & Rowan, 1977). Meyer and Rowan proposed that while organizations often adopt formal policies, plans, and programs that display conformity to socially desired goals, they may also decouple these structures from actual ongoing practices to buffer internal routines from external uncertainties, enhancing flexibility while still gaining external legitimacy. For instance, educational organizations might appear to address government mandates and community demands, while in practice on-going routines of teaching and administration remain untouched (Meyer & Rowan, 1977).

According to Westphal and Zajac (2001), research on the adoption, diffusion, and institutionalization of formal policies has not addressed whether and why organizations adopting new practices decide to decouple those practices from actual activities. Similarly, little research has sought to explain variation in how multiple organizations respond to a given set of environmental pressures, such as in the case of monetary incentives in Mexican higher education. For instance, there are 34 public state universities subject to the same environmental
pressures (the PIFI Program), but it is not known to what extent these universities have become more or less homogeneous as a response to external demands, or whether they have decoupled their core practices from external disturbances.

Organizations may also buffer the environment by adding structures to their organizational boundaries both to interact with and to avoid external agents in the short term, and to make decisions about whether and how to engage other parts of the organization in such interactions in the long term (see Burns, 1980; Elmore, 1995; Elmore & McLaughlin, 1988). Organizations experience pressure to adapt their structures and behavior to be consistent with the environment in order to ensure their legitimacy, and hence their chances of survival (DiMaggio & Powel, 1983). For instance, universities can appoint commissions for implementing organizational reforms, or even hire outside specialists to develop blueprints for the implementation of new policies. These formal structures and actions provide “unambiguous” demonstrations of compliance with external demands in the short term and, over time, help negotiate broader organizational responses. From this perspective, administrative structures reflect efforts to protect the technical core, to ensure a stable flow of resources, and to manage problems and uncertainties associated with exchange transactions. To Tolbert (1985), increasing dependence on exchange relationships might produce administrative differentiation as organizations create offices and positions to manage those relationships, presumably developing distinct organizational structures based on their internal dynamics and values.

In addition to adopting visible structures and practices to address the pressures from the environment, organizations can buffer by using impression management tactics, especially in order to mask or distract attention from controversial activities (Elsbach & Sutton, 1992).
Organizations may use spokespersons to provide positive interpretations of controversial actions, and to portray structures and actions in ways intended to garner endorsement and support (Pfeffer & Salancik, 1978). Moreover, in order to justify relevant decisions or to cover mistakes, organizations use sophisticated techniques to give the impression of professionalism and rationality. Meyer and Rowan (1977) discussed how institutionalized practices and rituals can be used in the accounts, or “stories,” that managers provide to external constituencies. For instance, Meyer and Rowan observed that using econometric analyses to justify some organizational projects was a norm since such techniques could provide rational accountings if failures occur, as “managers whose plans have failed can demonstrate to investors, stockholders, and superiors that procedures were prudent and decisions were made by rational means” (p. 350).

Along the same lines, Westphal and Zajac (1994) argue that organizational boards often use impression management techniques as symbolic rather than substantive adaptation in response to poor performance. In a study of executive pay, they found that the adoption of long-term incentive plans, as a compensation strategy linked to management performance, frequently represented a symbolic rather than a substantive adaptation to poor results. In effect, boards facing the pressures associated with firm’s poor performance may seek to restore credibility with stakeholders by ceremonially increasing control over management (Elsbach & Sutton, 1992). Regardless of whether organizations actually use the long-term incentive plans, adoption may signal that shareholders’ interests play a role in demining managerial action (Westphal & Zajac (1994). According to Elsbach and Sutton (1992), organizations in search of legitimacy can use enhancements and entitlements as techniques to impress the stakeholders, without necessarily altering the substance. For instance, some Mexican public universities
recently hired an international rating agency (e.g. Standard and Poor’s) to assess their financial situation and to give them a “credit rating.” These ratings, while important in terms of measuring financial health, are not related to issues of academic quality and relevance. Nevertheless, they were used as enhancements to “demonstrate” the general prestige of these universities (unless we believe Standard and Poor’s is also in the business of assessing academic quality).

While buffering strategies are primarily associated with protecting the technical core, bridging processes are oriented toward engaging the environment and developing productive exchange relationships (Scott, 1998). Bridging strategies address, in particular, the power position of an organization vis-à-vis its exchange partners. Scott (1998) argues that bridging may be viewed as a response to increasing organizational interdependence, as this occurs when two or more different kinds of organizations exchange resources. To Pfefér and Salancik (1978), bridging strategies are the typical solution to problems of interdependence and uncertainly, since they involve increasing coordination, which means increasing the mutual control over each other’s activities. Although all bridging strategies share this feature, they are quite varied in the strength and nature of the connection forged. Among the diverse bridging strategies proposed by Scott (1998), contracting and strategic alliances seem to be those that better relate to Mexican public higher education.

Contracting is defined by Thompson (1967) as “the negotiation of an agreement for the exchange of performance in the future” (p. 35). The critical point of contracts is that they represent attempts by organizations to reduce uncertainty by coordinating their future behavior, in limited and specific ways, with other organizations in the environment (Scott, 1998). The Mexican federal government and public state universities engage in this strategy by
establishing agreements that determine their mutual commitments regarding participation in grants and programs, such as PIFI. These agreements establish, on the one hand, the specific projects that universities are committed to implement, and on the other, the amount of resources that they will get from government in a given year. For instance, the rules of operation and the algorithm of the grant distributed through the Formula CUPIA were agreed upon between ANUIES and SEP, and are updated regularly with the acceptance of both parties (Tuirán & Moreno, 2010). These contracting tools might reduce uncertainty in the short term; however, their impact is limited since they do not transcend for more than one fiscal year, so universities do not really know if they will get resources in the future.\footnote{This limitation of grants and programs has been acknowledged by the federal government and university executives. Therefore, in 2010 SEP and ANUIES formed a task force that is working on a legal reform to establish \textit{multiannual} program-contracts, with time horizons of three or four years. The goal is that some grants and programs may transcend a fiscal year, so universities can develop longer-term proposals and have the certainty that they would receive resources to implement them. This type of multiannual program-contracts has been implemented in France and Spain (see Salmi and Hauptman, 2006).}

Finally, strategic alliances or “network forms” involve agreements between two or more organizations to pursue joint objectives through the coordination of activities or sharing of knowledge or resources (Scott, 1998). Perhaps the clearest example of these alliances in Mexican higher education is the existence of the National Association of Universities and Higher Education Institutions (ANUIES). Throughout this network association, public universities strengthen their power and bargaining position vis-à-vis their task environment, mainly Congress and the federal government. Moreover, ANUIES has consolidated as both a powerful think thank that creates and shares knowledge and information, and as a powerful lobbying organization on behalf of public universities (Mendoza, 2007).
Neo-Institutional Theory

The other major theoretical perspective that guided this research is neo-institutional theory. Neo-institutionalists attempt to move beyond mere recognition of the social and cultural foundations of institutions, to describe the processes by which practices and organizations become homogeneous over time (Scott, 1998). Moving closer to economics, this structural perspective also takes a functionalist position toward outcomes and survival, attributing failure more to inefficiency and incompetence than to politics or bad luck (Hirsch & Lounsbury, 1997). Central to the theoretical developments of neo-institutionalism is the notion of isomorphism. Isomorphism as a sociological concept has been discussed for many years, but not specifically developed until relatively recently. Parsons (1956) argued that organizational structures become isomorphic with norms, values, and technical developments institutionalized in society. In addition, Pfeffer and Salancik (1978) argued that isomorphism provided an example of an organization responding to a threatened legitimacy by identifying itself, its methods of operation, and its output with other already legitimate social institutions. To Hawley (1968), isomorphism is a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions.

Population ecologists, such as Hannan and Freeman (1977), argue that isomorphism can result because non-optimal forms are selected out of a population of organizations, or because organizational decision makers learn appropriate responses and adjust their behavior accordingly. Along the same lines, Aldrich (1999) suggested that the major factors that organizations must take into account are other organizations. Therefore, organizations compete not just for resources and customers, but for political power and institutional legitimacy, for social as well as economic fitness, which in turn leads to imitation.
DiMaggio and Powell (1983), in their work on institutional isomorphism and the “iron cage,” laid the foundation for the development of this notion by proposing three analytic mechanisms of isomorphic change: coercive, mimetic and normative isomorphism. Coercive isomorphism stems from political influence and the problem of legitimacy, it results from both formal and informal pressures exerted on organizations by other organizations upon which they are dependent, and by cultural expectations in the society within which organizations function. DiMaggio and Powell observed that in some circumstances organizational change is a direct response to government mandate. For instance, organizations adopt new pollution control technologies to conform to environmental regulations. The fact that organizational changes may be largely ceremonial does not mean they are inconsequential. Once in place, staffs become involved in advocacy for their goals that can alter the power relations within organizations in the long run (DiMaggio & Powell, 1983).

Not all isomorphism derives from coercive authority. It can also arise from mimetic forces. According to DiMaggio and Powell (1983), uncertainty is also a powerful force that encourages imitation. They claim that “when organizational technologies are poorly understood, when goals are ambiguous, or when environment creates symbolic uncertainty, organizations may model themselves on other organizations….especially those that are perceived more legitimate and successful” (p.151-152). For instance, the rapid proliferation of quality circles and quality-of-work-life issues in American firms is, at least in part, an attempt to model Japanese and European successes. These developments have a ritual aspect, as companies adopt these “innovations” to enhance their legitimacy, to demonstrate they are at least trying to improve working conditions (DiMaggio and Powell, 1983).
In educational organizations, Rowan (1982) argued that institutionalized norms, values, and technical lore play an extremely important role in innovation. To Rowan, organizations that have decided to develop new structures “are forced by pressures for conformity to adopt structures that have the support and endorsement of key agencies in the institutional environment” (p.260). Thus, innovating “from scratch” is rare and risky in highly institutionalized environments, such as for educational organizations given the potential punishment that they can incur if failure occurs. Meyer (1981) also found that nations, just as organizations, may succumb to mimetic isomorphic forces. For instance, to Meyer it is easy to predict the organization and bureaucratic development of a newly emerging nation’s administration by observing the administrative and economic organization of peripheral nations (see also Meyer, Ramirez, & Soysal, 1992).

The third source of isomorphic change is normative and stems primarily from professionalization. DiMaggio and Powell (1983) argued that two aspects of professionalization are important sources of isomorphism. One is the resting of formal education and of legitimation in a cognitive base produced by university specialists, and the second is the growth and elaboration of professional networks that span organizations and across which new models diffuse rapidly. On this issue, Babb (2001) noted that the neoliberal paradigm shift in Mexico since the 1980’s, was in part brought about by normative isomorphic pressures exerted on the state not by external actors (i.e. foreign investors or the World Bank), but by a group of Mexican professionals in government, especially U.S.-trained economists. Babb (2001) found that the presence of U.S.-trained economists in the governments of Mexico and other developing countries has been astoundingly strong, especially since the 1980’s. These foreign-trained technocrats, Babb argues, tend to share a common cognitive framework and a set of
guiding assumptions with foreign policy makers and international financiers. They also have social ties with U.S. policy makers and the officials of multilateral organizations. These technocrats have been instrumental in pushing forward liberalizing reforms in a number of developing countries, which suggests normative isomorphic forces at play.

In short, institutional isomorphism was a powerful analytical tool for this study because the three universities in the sample faced similar environmental pressures by participating in an ambitious policy such as the PIFI Program. Therefore, by using this lens I was able to observe whether universities succumbed to isomorphic forces or whether they developed differential responses. Interestingly, in an example of how resource-dependence and neo-institutional theories are indeed complementary, to Meyer and Rowan (1977) institutional isomorphism is a key bridging process in organizational environments. The argument goes that by incorporating broad institutional rules within their own structures, organizations gain legitimacy and continuous support from the environment and at the same time become more homogenous with it and among them (see also DiMaggio & Powell, 1983; 1991). The findings of this study shed some light on this subject.

Within neo-institutional theory, logics and ideologies provide relevant analytical tools to understand the incentive-based policies adopted by Mexican higher education and the organizational responses of universities. Institutional logics are the assumptions, values, beliefs, and rules that create the social reality of individuals (Jackall, 1998). According to Ocasio (1997), institutional logics, or the “rules of the game,” are the “formal and informal principles of action, interaction, and interpretation that guide and constraint decision-makers in accomplishing the firm’s task and in obtaining social status, credits, and rewards in the process.” (p. 196). These “rules” set the structure of incentives and norms about how to
interpret organizational reality, what constitutes appropriate behavior and how to succeed (Ocasio, 1997).

Ideologies also play a role in shaping policy tools as well as the organizational responses they promote. Beyer (1981) argued that ideologies are “relatively coherent sets of beliefs that bind people together and explain their worlds in terms of cause and effect relations” (p.166). To Meyer (1982), ideologies legitimize certain actions, render other actions heretical and create meanings of events that have yet to occur. In this study, I argue that ideologies matter because they might determine whether the demands of the task environment are perceived by universities as dilemmas, opportunities, or plain aberrations. For instance, the fact that public state universities participate in most of the federal incentive-based programs, but national universities have decided not to do so, may reflect divergent ideological sets regarding the “adequate” role of government in financing and steering the higher education system.

Logics and ideologies provide attention frames to make sense of organizational “realities.” Given ambiguity and cognitive limitations on executive decision-making, organizations are limited in their ability to attend to all aspects of their task environments (March & Olsen, 1976). According to March (1994a), time and capabilities for attention are limited, for not everything can be attended to at once. Therefore, theories of decision-making are often better described as theories of attention or search rather than theories of choice, since they are concerned with the way scarce attention is allocated. Among the factors identified as structuring the attention of decision makers are deadlines, initiatives of others, well-defined options, and evidence of prior success or failure (Scott, 1998). Institutional logics and ideologies help determine what issues to attend to in controlling and rewarding behavior (Ocasio, 1997). In other words, logics and ideologies determine the rules of the game that shape
the cognition of social actors (DiMaggio, 1977; Powell & DiMaggio, 1991), and provide the lenses by which organizations interpret their environments.

**Why these Theoretical Lenses are Important**

The theoretical perspectives reviewed in this chapter were highly relevant to address my research problem. As discussed earlier, the task environmental of public state universities in Mexico substantially changed in 2001 with the creation of the PIFI Program. This shift in higher education policy introduced the logic of “strategic and participatory planning” as central tenets of university life, and as requirements to participate in grants and incentive programs and hence to access additional resources. Also, the PIFI Program promoted a set of quantitative indicators as measures of “academic quality,” demanding that universities adopt them as their “bottom lines.” Literature on organizational-environmental relationships teaches us that organizations, when facing changing environmental conditions, have a repertoire of alternatives to respond. These alternatives, on their part, depend on how organizational leaders read and interpret the environment.

In Mexican higher education there is a lack of empirical evidence that provides frameworks to better understand how public universities responded to the new demands of the task environment. In particular, evidence is needed about whether universities, in responding to the PIFI Program, attempted to “buffer” the demands of the federal government, or whether they “embraced” them and aligned their goals and strategies accordingly. Moreover, it is important to know to what extent universities enacted “real” or “symbolic” responses, decoupled from their day to day practices and interactions and whether such responses promoted isomorphism or differentiation in organizational structures.
As discussed earlier, all 34 public state universities decided to participate in the PIFI Program and apparently “embraced” its logic, especially since they have a pressing need for additional resources and have not developed alternative sources to get them.\textsuperscript{19} Having decided to participate in this program, universities could respond to its logic and demands in several ways. By using the theoretical perspectives reviewed in this chapter, I was able to narrow down the scope of the exploration and to interpret the data obtained from documents, interviews, and observations. Also, these lenses were determinant in rendering plausible explanations as to why universities reacted in particular ways to the PIFI Program.

\textsuperscript{19} It is important to note that, on average, 90\% of the ordinary budget of public state universities (excluding federal grants and programs) is already committed for current expenditures (e.g. wages and salaries) (Tuirán, 2009), which helps to explain the need for universities to participate in federal programs and grants to access fresh resources for the development of especial projects.
CHAPTER 5

METHODOLOGY

This dissertation is a qualitative exploratory and explanatory case study on organizational change in higher education. I explored three Mexican public state universities and sought to explain their responses, empirically and theoretically, to an ambitious incentive-based federal policy: the PIFI Program. My research was guided by propositions from theory on organizational-environmental relationships and on the policy logic of incentives. Such theoretical lenses focused my inquiry, framed my data analysis and were used as foundations on which to build an explanation of the organizational behaviors observed. Specifically, this study sought to respond the following questions:

Research Question 1. How have public state universities responded to the monetary incentives developed by the federal government in the PIFI Program? What specific organizational responses have they enacted when participating in this program?

a) Have universities created new organizational structures or positions? What structures and positions have they created?
b) Have universities created new laws or rules? What laws and rules have they created?
c) Have universities developed new strategic goals? What strategic goals have they developed?
d) Have universities changed their official discourses? How have they changed such discourses?
e) Have universities developed other responses and/or unanticipated changes? What other responses and/or unanticipated changes have they developed?

*Research Question 2.* To what extent are those responses symbolic, decoupled from core academic practices and performance, or real, with the potential to positively impact academic quality?

*Research Question 3.* Do organizational responses represent institutional isomorphism or institutional differentiation among the universities in the sample?

*Research Question 4.* Why have public state universities reacted in the ways they did to the financial incentives? According to the theoretical perspectives and empirical evidence, what factors might explain specific organizational responses?

I used a case study approach because my aim was to better understand the complexities of organizational change in higher education. Case studies are explorations of a single or various entities or phenomena (e.g. events, processes, organizations, groups, or individuals) that represent instances “drawn” from a class (Adelman, Jenkins, & Kemmis, 1983). Case studies seek to understand a larger phenomenon through close examination of specific cases; therefore, they focus on the particular (Rossman & Rallis, 1998). Also, case study research strategies are preferred in examining contemporary events, and when the relevant behaviors are *not* under the control of the researcher (Yin, 2009). Such conditions are likely to take place when the *unit of analysis* of an inquiry is the contemporary higher education organization, such as in this dissertation.
Along the same lines, case studies become particularly useful when one needs to understand some particular problem or situation in great depth, and where one can identify cases rich in information, in the sense that a great deal can be learned from few exemplars of the phenomenon in question (Patton, 1987). A very important strength of case studies is the ability to deal with a full variety of evidence, such as documents, artifacts, interviews, and observations. In this sense, the main sources of evidence for this dissertation were documents, open-ended interviews, and direct observations at the three universities that formed the sample.

Universities are highly complex entities. They have multiple goals and missions, and are specialized in the generation and transmission of expert knowledge in highly diverse academic and professional fields (Clark, 1987). Moreover, universities are part of a social system in which dynamics are determined by internal, external, as well as political and economic factors, in permanent tension with each other (Brunner, 1985). For such reasons, case studies are particularly useful for their rich description and heuristic value. By providing details and complexity, case studies illuminate the reader's understanding of the setting or event, thereby extending comprehension of some complex set of events or circumstances (Rossman & Rallis, 1998).

The analytical approach that I used to make sense of the collected data in this research is known as backward mapping. According to Elmore (1979), this logic implies that the process begins at the last possible stage, the point at which administrative actions intersect private choices. It begins not with a statement of intent, but with at statement of the specific behaviors at the lowest level of the implementation process that generates the need of a policy. Backward mapping analysis, Elmore argues, presumes to state a specific objective only after the behavior is fully explored and described. Following this logic, backward mapping, as a research strategy,
means that the researcher does not assume to know what to expect a priori, and hence hypotheses are not presented, but research questions instead. In this logic, the researcher uses theoretical tools and general propositions (derived from the relevant literature) as “lenses” to explore, conduct interviews, observe and review documents at the level of policy implementation. After thoroughly exploring and describing the organizational phenomena, the researcher then uses such lenses to build an explanation of the behaviors observed. As discussed earlier, the theoretical tools that I used in this research come from the body of literature in organizational-environmental relationships and in the policy logic of incentives.

**Theoretical Frame**

The main purpose of this case study was to explore and compare the organizational responses of three public state universities to the PIFI Program. In this dissertation, I tell the “stories” of these universities in terms of what their organizational responses to this incentive-based program were, how these responses took place, and why they reacted in such ways. My general argument is that the task environment of Mexican public state universities changed significantly in 2001, when the PIFI Program was created. As discussed earlier, the creation of PIFI may have been an environmental jolt for public universities because it introduced the logic of “strategic and participatory planning” as a doctrine and mantra, and because it promoted a set of quantitative indicators as measures for “academic quality.” Moreover, since 2001, the resources that the federal government has invested in grants and programs, under the umbrella of PIFI, have increased significantly, so public universities have had plenty of fresh resources to put to use on their campuses.
It is important to note that before PIFI public universities already participated in some grants and programs, mainly FOMES and PROMEP, but in an unarticulated and unsystematic way. Usually, proposals presented during one year were disconnected to those presented in the following, and there was little evaluation and oversight by the government. Moreover, money from FOMES was spent almost exclusively on infrastructure, not on improving academic quality or strengthening the organizational capacities of participant universities (Secretariat of Public Education, 2006a). In such context, my claim is that PIFI and its logic represented an environmental disruption in the system, to which universities had to adapt and respond in order not to be left behind in the quest for additional resources and prestige. The findings of this dissertation shed some light regarding such organizational responses.

Organizations change in response to their environments, but they rarely change in a way that fulfills the intentions of a particular group (Attewell & Gerstein, 1979). Organizations may advance their goals by adopting different strategies, but they rarely do what they are told to do (March, 1981). As discussed in Chapter 4, prior research and theory teach us that, when facing changing environmental conditions, organizations have a repertoire of alternative responses. These alternatives, for their part, depend on many factors, external as well as internal. For instance, responses might depend on broad institutional forces, but also on the perceived power of the organization vis-à-vis the environment.

In this sense, the literature review in Chapter 4 shows that, when managing dependence relationships and facing institutional pressures from the environment, organizations can respond by creating structures and positions, or by developing rules and laws. Also, organizations can create rituals and ceremonies, or they can rely on impression management techniques to gain legitimacy and support. In addition, these and other responses can make
organizations resemble each other and the environment, producing institutional isomorphism, or they can promote structural differentiation among organizations. Moreover, responses can serve as buffers of external influences, protecting core processes (e.g. decoupling and symbolic adoption), or they can represent bridges to “embrace” environmental demands.

In sum, based on theoretical developments provided by literature in organizational-environmental relationships and on the policy logic of incentives, I crafted a set of initial general study propositions, which served as lenses that guided the exploration. Also, these broad propositions laid down the foundations for the analysis and interpretation of research findings. These propositions are stated below with references to literature from which they were derived.

General Study Propositions

a) Both external and internal factors play a role in the organizational responses of universities to the PIFI Program, as an environmental disturbance (e.g. Birnbaum, 1988; Clark, 1983; Hrebinjak & Joyce, 1985; Scott, 1998).

b) Externally, broad institutional values and norms (e.g. DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Powell & DiMaggio, 1991) as well as the underlying assumptions of incentive-base policies will contribute to shape “appropriate” responses (e.g. Church & Heumann, 1989; Newcomer, 1997; Perrin, 1998).

c) Internally, organizational responses will depend on how universities interpret the new environmental signals, which in turn depends on their values and ideologies (e.g. March & Olsen, 1984; Meyer, 1982; Ocasio, 1997). In addition, internal power
d) The universities in the sample might respond to the PIFI Program by adopting different strategies:

i. They can develop new structures, positions and committees, altering the organizational chart (e.g. Burns, 1980; Elmore, 1995; Elmore & McLaughlin, 1988).

ii. They can create new rituals and ceremonies (e.g. Scott, 1998; Meyer & Rowan, 1977).

iii. They can adopt new language by adjusting strategic documents (mission statements, norms, rules, etc.) (e.g. DiMaggio & Powel, 1983; Elmore, 1996; Meyer & Rowan, 1977).

iv. They can develop impression management techniques (e.g. Elsbach & Sutton, 1992; Westphal & Zajac, 1994).

e) Organizational responses might represent efforts to “buffer” universities from environmental influences, or they might be attempts to build “bridges” to embrace the demands from the environment (e.g. Honig & Hatch, 2004; Oliver, 1991; Scott, 1998).
f) Organizational responses can make universities resemble each other and the environment, promoting institutional isomorphism (e.g. Babb, 2001; DiMaggio & Powel, 1983). Also, such responses can differentiate universities from each other and from their environment, promoting structural differentiation (e.g. Tolbert, 1985).

g) The organizational responses of universities to the PIFI Program can alter core academic practices (e.g. Miles, 1993; Smylie, 1994; Smylie & Perry, 1998), or they can leave such practices untouched by decoupling and enacting symbolic responses (e.g. Birnbaum, 1988; Elmore, 1995; Meyer & Rowan, 1977).

It is worth mentioning that this research is not a full test of the efficacy of the PIFI Program, but a study on organizational change as a response to environmental pressures. It is not a full test of efficacy since I did not collect “hard” data on the allegedly ultimate goal of the program: to improve students’ and professors’ academic practices and performance. Nevertheless, based on data collected on the organizational responses of universities I aimed at establishing a theoretical link with the construct of academic quality by using the insights developed by Smylie (1994; see also Smylie & Perry, 1998).

Smylie (1994) posits that three types of organizational restructuring mechanisms may influence core academic practices, such as classroom teaching: (a) controls, (b) incentives, and (c) learning opportunities. Thus, when a policy alters the mechanisms for professional control, when it creates the adequate incentives, and when it provides meaningful opportunities to learn for professors, classroom practices may be positively impacted. By using Smylie’s framework, I theorized on whether the organizational changes that took place at the universities observed
provided evidence of substantial modification in controls, incentives, and opportunities to learn for university professors, which might suggest that core practices were altered. Chapters 6, 7, 8 and 9 will provide evidence and interpretations on this subject.

The Cases

The cases for this study will be formed by three Mexican public state universities that have participated in the PIFI Program since 2001. It is important to note that initially, at the proposal stage, I had presented the universities by their actual names and specific characteristics, only protecting the anonymity of the research subjects within them. However, when I conducted the open-ended interviews I realized, given the politically sensitive nature of some responses across universities, that to better protect informants from potential political retaliation I had to keep the sample anonymous as well. Therefore, in this section I briefly describe the universities by using pseudonyms, and I outline their general characteristics trying to avoid direct identifiers.20 In this sense, my sample was formed by “Northern State University,” “Central State University,” and “Southern State University.”

I selected these universities because they have participated in the PIFI Program and have obtained significant resources from it since 2001. Also, this sample was suitable because the universities vary in key organizational characteristics, such as size, budget, basic governance structures, and perceived levels of autonomy. The sampling strategy that I used is known as maximal variation sampling (Creswell, 2008). Maximal variation is a purposeful

20 It is important to acknowledge that anonymity cannot by guaranteed completely, given the potential indirect identifiers from the general characteristics of universities and the participant’s responses during the interview process. Nevertheless, proper verbal and written warnings were presented to all potential interviewees and, well aware of potential risks and benefits, all candidates agreed to participate in this research.
strategy in which cases are selected on the basis of their differences in given traits. This strategy allows the researcher to present and compare different perspectives and responses to a given independent variable, in this case the participation in the PIFI Program. A heterogeneous sample suited this research because, if I had selected similar organizations, there is a risk that the observed responses were associated with other factors, such as their similar size or governance structure, not necessarily associated with their participation in federal programs. In other words, by selecting universities that differ in key characteristics I attempted to control for potential organizational confounding factors.

**Northern State University.** Northern State is a “large” university located in the northern region of Mexico. It is large both in terms of student enrollment and budget (one of the top five of public universities in the country). Its political influence in the public higher education system is high. This university is formally decentralized and its more than 20 campuses across the region have their own chancellors and boards of government. Notwithstanding this formal decentralization, the political power of the university president is high, as are his decision-making powers to control the university. In terms of academic standing, this university has significantly advanced in most of the official academic indicators and has gotten to the top in some of them, such as in the percentage of “programs of academic quality” (reaching close to 100%). Northern State is considered by insiders to be a “highly autonomous” university vis-à-vis both the state and the federal governments.²¹ This university

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²¹ The perceived “levels of autonomy” were determined by informally commenting the issue with relevant actors at ANUIES and at the universities in the sample, and were based on the relationship that universities have with government, especially at the state level. It is well known among higher education scholars and policy makers in Mexico that some public state universities have autonomy only on paper, since they are de facto controlled by the state governors.
has participated in the PIFI Program since 2001 and has received significant amounts of money to implement its PIFI proposals (approximately 50 million USD from 2001-2009).

Central State University. Central State is a “medium-size” university located in the central region of Mexico. It is medium sized in terms of enrollment and budget (about two thirds those of Northern State), but its political influence in the higher education system is still high (it is in the top ten in terms of size and budget). This university has a “Napoleonic” model of academic organization, with a centralized structure and a powerful university president. Its faculties and schools are led by deans or directors, but they do not have their own boards of government. This university has advanced remarkably in achieving the “right numbers” on the official academic indicators and has also gotten to the top in a few of them, such as in the number of “programs of academic quality” (reaching close to 100%). Central State is also considered a “highly autonomous” university vis-à-vis both the state and the federal governments. This university has participated in the PIFI Program since 2001 and has received significant amounts of money to implement its PIFI proposals (approximately 40 million USD from 2001-2009).

Southern State University. Southern State is a “small” university located in the southern region of the country. It is small both in terms of enrollment and budget (about a quarter of the enrollment of Northern State and a sixth of its budget). Consequently, its political influence in the higher education system is low. It has also a “Napoleonic” model of academic organization, with a centralized structure and a university president as the main political actor.

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22 Throughout the document I refer as “faculties” to the basic academic units of university organization in Mexico and Latin America, in the regional tradition of calling “schools” or “campuses.” When I refer to professors I will call them “faculty members.”
However, this university is de facto decentralized given the geographical distribution of different faculties or campuses, scattered within the state, which makes coordination and effective governance difficult. This university has recently advanced in some of the official indicators, but it still has to catch up with larger and stronger institutions. Southern State is perceived both by outsiders and insiders (such as federal policy makers and professors and administrators within the university) as a “poor” university with a “low degree of autonomy,” especially vis-à-vis the state government, which usually controls most of its internal decisions. Finally, this university has participated in the PIFI Program since 2001 and has received significant amounts of money to implement its PIFI proposals (approximately 15 million USD from 2001-2009). (see Table II for a summary of characteristics).

Table II

Comparisons in Selected Traits of Sampled Universities

<table>
<thead>
<tr>
<th>University in sample</th>
<th>Size &amp; budget</th>
<th>Governance structure</th>
<th>Perceived level of autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern State University</td>
<td>Large</td>
<td>Decentralized, but with a powerful president</td>
<td>High</td>
</tr>
<tr>
<td>Central State University</td>
<td>Mid-size</td>
<td>Centralized</td>
<td>High</td>
</tr>
<tr>
<td>Southern State University</td>
<td>Small</td>
<td>Centralized, but with geographical dispersion of faculties</td>
<td>Low</td>
</tr>
</tbody>
</table>
It is worth noting that at the three universities the percentage of resources that the PIFI program represents vis-à-vis their total ordinary budgets might seem marginal.\textsuperscript{23} For instance, in 2008, the PIFI Program represented around 2.5\% of the total ordinary budgets of the universities in the sample. However, since about 90\% of this budget is already committed to cover \textit{current expenditures} (e.g. wages and salaries), leaving only a marginal sum for \textit{capital expenditures}, the additional resources from federal grants and programs significantly increase their leverage. As observed by Chaffee (1983), since in most universities so much of the regular budget is virtually fixed, especially in the short run, the portion that is free to vary assumes tremendous importance. When we compare the weight of the PIFI Program only to the budget that is free to vary (capital expenditures), it represents about 25\% across the universities in the sample. Therefore, it is assumed that the PIFI Program, at least in terms of the resources it distributes to these universities, has had relevant impacts, which are explored and explained in this research.

\textbf{Data Sources and Collection}

The main sources of data for this research were documents and in-depth interviews. In addition, since most of the document analysis and the interviews took place at the universities in the sample, direct observations were also relevant in the process\textsuperscript{24}. The document review was the first step in the data collection process. Here, the idea was to get as much background and

\textsuperscript{23} The total ordinary budget includes resources from the federal and state governments for \textit{current expenditures} (e.g. wages and salaries), but excludes additional fresh resources from federal grants and programs which are usually applied to \textit{capital and quality expenditures} (e.g. infrastructure, technology, academic travel, scholarships).

\textsuperscript{24} Systematic direct observations took place mostly regarding the technological infrastructure of the universities and their hardware improvements, which administrators were usually eager to show.
understanding as possible in order to identify and refine the themes and lay the foundation for the subsequent interviews. The interview process corroborated and contrasted initial findings, and enhanced the narratives of the study by providing rich-in-detail stories regarding the organizational responses of universities to the PIFI Program. The use of multiple sources of evidence in case studies allows an investigator to address a broader range of historical, attitudinal, and behavioral issues (Yin, 2009). To Yin, one of the most important advantages of using multiple sources of evidence is the development of converging lines of inquiry. Thus, any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on several different sources of information, following a corroboratory mode. This corroboratory mode was the strategy followed in the present research.

Document review provides valuable information in helping researchers understand central phenomena in qualitative studies (Creswell, 2008), and is essential in order to set the background and augment evidence from other sources (Yin, 1994). In this study, documents were key sources of evidence to explore and explain the responses of the universities to the PIFI Program, by following the paper trail that universities left when participating in this program. The types of documents that I reviewed in order to answer the research questions were, for instance, “PIFI proposals,” “PIFI Guides,” official annual reports of universities to government, internal reports and evaluations of universities, evaluations of the PIFI Program by the universities and by the federal government, university president speeches, universities’ norms and laws, organizational charts, rules of operations of the federal government, statistical reports of universities and of the federal government, etc. (see Appendix A for a complete list of documents). In total, I reviewed approximately 150 documents, electronic and in paper, during a six-month period.
The Interview Process

In addition to the document review, I conducted a series of in-depth interviews with key informants at the universities in the sample, to corroborate and contrast data and to gain a first-hand perspective and rich narratives on the organizational responses enacted by the universities. According to Yin (2009), one of the most important sources of case study information is the qualitative interview, as a “guided conversation rather than a structured query” (p. 106). To McCracken (1988), the long qualitative interview is one of the most powerful methods in the qualitative armory, especially in a context of time scarcity and concern for privacy on the part of respondents and organizations. This strategy allows researchers to “capture the data needed for penetrating qualitative analysis without participant observation, unobtrusive observation, or prolonged contact” (p. 11). In-depth interviewing involves asking open-ended questions, listening to and recording the answers, and then following up with additional relevant questions (Patton, 1987).

During this research I formally\(^{25}\) interviewed 39 people during a four-month period, according to the following distribution: Northern State University (11 people), Central State University (12 people), Southern State University (ten people), Secretariat of Public Education (four people), and the National Association of Universities and Higher Education Institutions (ANUIES) (two people). The average duration of each interview was one and a half hours; however, there were several that lasted more than three hours. Most interviews were conducted in one session, but in some instances they had to be divided into two or three sessions due to

\(^{25}\) I emphasize this formal process because, *informally*, I talked to more people about this research (approximately 20 more informal informants) at the universities and the federal government (e.g. fellow researchers and policy makers, university administrator and professors). These ongoing informal conversations were highly important in framing the study and the data analysis.
time constrains on the part of respondents. To accurately register the accounts and narratives provided by respondents, I asked them for permission to use a tape recorder. None of the subjects refused, so I proceeded and tape recorded all 39 formal interviews. When all interviews were completed, I transcribed them into a word processing format to conduct the data analysis (the 39 audio files resulted in 156 pages of data).

**Selection of interview cases.** Key informants are often critical to the success of a case study. Such persons not only provide the case study investigator with insights into a matter, but also can initiate access to corroboratory or contradictory sources of evidence (Yin, 2009). In this research, I selected the initial interview participants at the “level of implementation” (e.g. professors that received money from PIFI and front-line planners in charge of applying the money on their campuses), then I “mapped backwards” to obtain information and compare perspectives at higher levels of the organization (e.g. central administrators and university presidents and vice presidents). My strategy for initially identifying subjects consisted in reviewing the PIFI proposals that the universities developed in order to participate in this program. Such proposals, as part of the requirements from government, must list all the participants in their development. The kinds of potential informants that I identified by reviewing the PIFI proposals were top executives, administrators, planners, and faculty members as well. My criteria for initial selection was to identify those university employees with substantial experience in the PIFI Program, such as planners, executives responsible of the planning directorates, and faculty members in charge of developing proposals within their particular faculties or departments. In this initial selection, I identified and interviewed five or six subjects per university.
After recruiting and interviewing these initial participants, I used a “snowball" technique to identify additional persons who might have relevant information about and experience with the PIFI Program. I specifically asked for potential informants that had heterogeneous perspectives and diverse standpoints on the program. At this point, I paid close attention to those university actors who might have contrasting or opposite views about the federal grants and programs, aiming at getting diverse perspectives on the subject. It is worth mentioning that at the three universities there were “long-timers” and “sages” who provided diverse accounts about the impacts of the PIFI Program, without having self-interests in telling only positive stories. These informants were top administrators, faculty members, planners, and even Senate members who did not belong to the university’s dominant political group. This strategy was very important to get a balanced perspective on my research questions, especially because there was a potential risk of respondents perceiving me as a “government man” or “envoy,” promoting their inclination to give only positive narratives of their universities and of the federal programs (social desirability bias). In general, based on the highly diverse evidence that I collected from the interviews and even the lack of “political correctness” of some responses, I believe that the strategy worked and, for the most part, I received honest responses to my interview questions.

**Informed consent, anonymity and confidentiality.** Public higher education financing and governance are politically sensitive topics in Mexico, mainly due to the notion of university autonomy. Therefore, measures were taken to guarantee the autonomous decision-making and proper consent of the people that participated in this study. To minimize undue influence and

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26 Snowball sampling in qualitative research is a form of purposeful sampling that typically proceeds after a study begins, and occurs when a researcher ask participants to recommend other individuals that might have relevant information for the study (Creswell, 2008).
to protect anonymity, I was the only person who initiated contact and recruited potential participants. Also, when snowballing I did not reveal the identity of the recommender to the potential participant who was recommended. Moreover, I provided a "subject information sheet" to all potential participants, with the details of the study and assurances that participation was completely voluntary and that, if they provided verbal consent to participate, they could withdraw from the research at any time without any negative consequences.

To further protect anonymity and confidentiality, when a potential participant decided to become part of the study, the interview usually took place in a private office at the university or outside it, depending on his/her preference. The important issues here were that participants were not recognized by others as research subjects and that questions and answers were not overheard by third parties. To better register their responses and improve the quality of my data, I asked subjects for permission to audiotape the interviews. None of them refused this request. Once the interviews were completed, I saved the audio files in a personal computer (password protected) and erased the original files from the voice recorder device (to prevent the loss of data). Moreover, all interview audio files and transcripts were coded using pseudonyms. The “master key” linking such pseudonyms to the subjects’ identities was stored in a different computer, also password protected. It is important to note that the interview transcripts, along with the audio files and the master key, will be destroyed after this research has been properly completed and officially reported.

Finally, since direct quotes were used in this research report it was possible that individual opinions and the use of specific phrases, or even speech patterns, could act as indirect identifiers. To minimize such risk, I removed or modified potential identifiers to the point that was possible (e.g. avoiding direct quoting when information might be highly
sensitive and editing style to avoid identification of speech patterns). Nevertheless, acknowledging that in this type of qualitative case studies anonymity and confidentiality cannot be totally achieved, participants were properly warned that some of their responses could be indirectly identified in the report. All participants agreed with the terms of this research (some of them even said that I could quote their names in the report. I disregarded such comments, of course).

The interview guide. To conduct the interviews I used an interview guide or protocol based on the research questions. This guide contained six types of questions: (a) general opening and “warm up” questions, (b) on the use of resources of PIFI, (c) on the program’s implementation and the organizational responses, (d) regarding unintended consequences, (e) on the perceptions of why universities responded in given ways, and (f) additional questions (see Appendix B for the full list of questions). This guide was prepared to make sure that essentially the same information was obtained from a number of people by covering the same material (Patton, 1987). The issues in the guide need not be taken in any particular order and the actual working of questions to elicit responses about those issues is not determined in advance. To Patton (1987), the interview protocol helps make interviewing different people more systematic and comprehensive by delimiting the issues to be discussed in the interview, and allows to make decisions about which information to pursue in greater depth.

The interview protocol approach is typically used in qualitative studies to elicit participants’ worldview and narratives about a topic in a structured way. In this strategy, the researcher develops categories of topics to explore, but remains open to pursuing topics that participants bring up (Rossman & Rallis, 1998). Usually, the researcher identifies a few broad topics (perhaps as framed questions) to help uncover the participants’ meaning or perspective
but otherwise respects how the participant frames and structures responses. In this approach, the balance of the talk is in favor of the participant as “the researcher poses open-ended questions followed by requests for elaboration and the participant responds with long narratives” (p. 124). As Yin (1994) advises, “in some instances, the specific questions also may serve as prompts in asking questions during a case study interview; however, the main purpose of these guide questions is to keep the investigator on track as data collection proceeds” (p. 69).

The protocol was indeed very important during the interviews to provide structure and order to the process, especially to bring respondents back to the topic when they started commenting on other issues not related with the research question (e.g. the history of higher education in Mexico). Also, the protocol was very valuable in keeping track of time and guaranteeing that most questions were properly covered. Nevertheless, as Rossman and Rallis (1998) advised, this instrument was essentially a guide, not a straitjacket. Since each interview was a unique process, I did not necessarily follow the order and the framing of questions as originally established. Instead, as interviews unfolded, I was flexible and made adjustments to adapt to the particular interviewee disposition and personality. Moreover, when I detected that a particular respondent was especially informed about one topic (e.g. the process of crafting PIFI proposals, the handling of resources from grants, or the issue of autonomy), I focused on such issues and tried to have them elaborate by developing follow-up questions.

It is important to mention that before the final guide was used in the interview process, I pilot-tested most of the questions to make sure they conveyed the meanings I intended. For instance, concepts such as “university autonomy,” “academic quality,” “organizational change,” “organizational culture,” among others, may have different meanings to different people. Thus, by informally discussing the questions with fellow researches and policy makers
in the higher education arena I was able to refine the protocol and clarify some questions to maximize the common understanding of key notions.

**Data Analysis Framework**

As discussed earlier, the broad analytical approach that I used in this research is known as backward mapping (Elmore, 1979). Backward mapping means that the researcher does not assume to know what to expect in the field; therefore, hypotheses are not presented, but research questions that guide the exploration. Frequently, in a backward mapping strategy the researcher uses theoretical lenses and goes to the “implementation field” to explore, review documents, conduct interviews, and observe. After thoroughly exploring and describing the organizational phenomena observed, the researcher then uses such lenses, or maybe updated ones, to make sense of the evidence and build plausible explanations.

This strategy is consistent with what Yin (2009) calls reliance on theoretical propositions. Yin argues that in any well-done research the original objectives and design of a case study presumably were based on such propositions or lenses, which in turn reflected a set of research questions, reviews of literature and new insights. The theoretical propositions that guided this inquiry helped to focus attention on certain data and prevented the researcher from “data overload” while in the field. Based on such propositions on organizational-environmental relationships and on the policy logic of incentives, I crafted initial categories of organizational responses that were very useful during the document review process (see Table III).
Table III

Preliminary Categories of Organizational Responses

<table>
<thead>
<tr>
<th>Categories</th>
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<tbody>
<tr>
<td>Creation of new structures, positions, or committees</td>
</tr>
<tr>
<td>Adjustment of normative structure, by creating new rules and laws</td>
</tr>
<tr>
<td>Development of rituals and ceremonies as symbols</td>
</tr>
<tr>
<td>Creation of new strategic documents, such as mission and vision statements</td>
</tr>
<tr>
<td>Changes in the official discourse and language</td>
</tr>
<tr>
<td>Development of impression management techniques</td>
</tr>
<tr>
<td>Unexpected org responses</td>
</tr>
</tbody>
</table>

Being immersed in an extensive review of paper and electronic files at three universities, this preliminary categorization helped to narrow the scope of the analysis, keeping my focus on the core issues and preventing data from being overwhelming. Also, this initial categorization provided the basis for a more refined analysis as the data collection process unfolded. As observed by Creswell (2008), “in qualitative research, the data collection and analysis (and perhaps the report writing) are simultaneous activities” (p. 245).

As the data collection process evolved, and based on the preliminary categories presented above, I refined my analytic framework and crafted more specific themes to organize and make sense of the evidence. In that sense, I developed 13 main themes (see Table IV), which were determinant in organizing the data from the interviews into manageable pieces of key evidence. For instance, in typing and coding of the interviews, I assigned one label to each relevant paragraph or potential quote, with a specific theme.
By organizing the interview transcripts into themes and codes, I was able to relate the evidence from interviews with that from the initial document review, to reinforce some findings and to curb my enthusiasm in others. For instance, evidence from document sources seemed to indicate that universities had indeed enacted deep changes in their normative structures (new rules, laws and statutes). However, evidence from the interview process suggested that most of these changes had been cosmetic and superficial (symbolic compliance). In short, by comparing and contrasting evidence from different sources, and by testing preliminary findings in light of
the theoretical lenses and propositions of this study, I was able to refine my categories further and start building an explanation. As Yin (2009) argues, the gradual building of an explanation is similar to the process of refining a set of ideas, in which an important aspect is to entertain other plausible or rival explanations, based on relevant theoretical insights.

The analytical steps that I took to make sense of the data and explain the case consisted of what Creswell (2008) describes as constant comparison analysis within grounded theory designs. Grounded theory is a systematic procedure of collecting data, identifying categories, connecting these categories, and forming a theory that explains the process (Creswell, 2008). A researcher uses grounded theory when there is a need for an explanation of a process and the existing literature does not sufficiently address the issue at hand, such as in the case of the PIFI Program and organizational change. According to Creswell (2008):

Because a theory is grounded in the data, it provides a better explanation than a theory borrowed off the shelf, because it fits the situation, actually works in practice, is sensitive to individuals in a setting, and may represent all of the complexities actually found in the process (p. 432).

In grounded theory designs, the specific process of slowly developing categories of information is known as constant comparative data analysis. Here, the researcher engages in a process of gathering data, sorting it into categories, collecting additional information, and comparing the new information with the emerging categories. Creswell (2008) points out that constant comparison is an inductive data analysis procedure of “generating and connecting categories by comparing incidents in the data to other incidents, incidents to categories and categories to other categories” (p. 443). In this sense, as discussed earlier, I analyzed my data
by constantly comparing evidence from different sources and within them (documents, interviews and observations), sorting them into categories, generating new categories and refining others as new evidence was uncovered, and so on until broad themes emerged that could provide plausible explanations of the organizational phenomena.

This constant comparative process, led to the development of three consolidated themes that grouped the most relevant findings to answer my research questions. These themes incorporated nine specific categories, according to the specific evidence uncovered in the analytical process (see Table V). This frame served as a general blueprint to present the findings in the study report, as chapters and sections within them. It is important to note that in qualitative case studies the analytical process is ongoing. It starts with the development of initial categories based on prior literature and continues during the data collection process and the writing of the final report. In that sense, as I wrote the report themes and categories were further refined and new findings uncovered. In addition, during this writing process the core findings were constantly linked to the theoretical lenses and propositions that guided this study, which allowed me to make inferences and to build plausible explanations of the behaviors “ungrounded” at the three universities in the sample.

At this point, it is important to mention that all the data collection process was conducted in Spanish (e.g. document review and interviews); however, the formal and informal analytical process (e.g. note taking, interview typing, coding, constant comparison of themes, etc.) was conducted in English in a sort of simultaneous translation and interpretation of findings. This strategy resulted highly efficient because, when it was time to write the final report, I did not have to translate my preliminary analytical work (mostly conducted in Mexico) into English all at once.
Table V

Broad Themes and Categories that Emerged from the Constant Comparison Process

<table>
<thead>
<tr>
<th>Broad theme</th>
<th>Categories</th>
</tr>
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</table>
| Organizational structural responses| a) Strengthening of strategic planning structures and functions  
|                                    | b) Academic model re-organization                     
|                                    | c) Hardware modernization                             |
| Organizational symbols and logics  | a) Symbolic compliance and academic reforms           
|                                    | b) Institutional logics and academic indicators       
|                                    | c) The notion of university autonomy                  |
| Unintended consequences and perverse effects | a) Goal displacement                              
|                                    | b) Instrument flexibility and innovation             
|                                    | c) Power centralization                              |

The Study Report

Initially, I decided to write the report by “telling the story” of each university in the sample individually and then presenting common findings across them. I had proposed that because, having selected a heterogeneous sample, I expected some sort of heterogeneous responses. However, in the data analysis process I realized that most organizational responses to the PIFI Program were highly similar, notwithstanding their different organizational traits (e.g. size, governance structure, geographical location and “autonomy levels”). For such reasons, I decided to adjust the strategy and present the findings across universities instead,
focusing on the particularities of a given university when relevant. In addition, as discussed earlier, I had initially proposed that in writing the final report I would protect the anonymity of the research subjects, not that of the universities themselves. However, due to the politically sensitive nature of some “narratives” given by respondents across universities, and to better protect their anonymity, I decided to keep the cases anonymous as well. Therefore, in the report I used pseudonymous to identify the three universities in the sample.

Having said that, in the three chapters on findings I present the core evidence uncovered in this research, according to the consolidated themes. In Chapter 6, I present the findings on the organizational structural changes that universities enacted in response to the PIFI Program. Chapter 7 addresses the symbolic responses and the shifts in institutional logics associated with this policy. Chapter 8 addresses the unintended and perverse consequences of this federal policy on the universities. Finally, in Chapter 9, I discuss the meaning of such findings along with their implications for theory and policy, and laid down potential directions for further research on the topic of monetary incentives in higher education.

**Study Limitations**

This study has *three* limitations. First, the sample size was small, composed by three public state universities that differ in size, budget and governance structure. The universities in the sample were not selected at random, but using a conceptual justification: their participation in the PIFI Program and their variance in key organizational traits. This is relevant since the higher education system in Mexico is disparate and varied, and has been characterized by the sharp differences within its public universities and between its public and private systems (Levy, 1988). Therefore, I was careful in *not* making straightforward and simplistic
generalizations. Nevertheless, I believe the core findings of this study can be generalized to theory and can have relevant implications for policy as well, not only in Mexico but in other countries that rely on monetary incentives as tools to steer their education systems.

The second limitation is that the study was not designed as a full test of efficacy of the PIFI Program. This study was mainly about organizational change as a response to environmental pressures in higher education. Thus, I did not collect “hard” data on the impact of the program on classroom academic practices and students’ performance. As discussed earlier, the findings on this topic mainly came from the perceptions and informed opinions of respondents at the universities, and from theoretical inferences based on such data and on previous research on incentives systems and academic change.

A third limitation is that the study relied heavily on interview data. Interviews, as verbal reports, are subject to the common problems of bias, poor recall, and poor or inaccurate articulation (Yin, 2009). Moreover, when questions are not well designed and articulated, respondents might be inclined to give politically correct answers, producing a “social desirability bias.” Therefore, to minimize such risk it was very important to pilot-test the interview guide and to make the necessary adjustments before the interview process. Also, it was important to continually compare and contrast data from different sources and within them (documents, interviews and observations), presenting only findings that were consistent and robust across and within sources.
CHAPTER 6

CHANGING THE ORGANIZATION:

THE RISE OF THE PLANNERS, ACADEMIC RE-ORGANIZATION, AND

HARDWARE MODERNIZATION

The Integral Program for Institutional Strengthening (PIFI) has been a powerful tool in promoting organizational changes in the public state universities studied. Since its creation in 2001, this program pushed these universities to adjust some of their structures and functions in order to comply with the demands of the federal government, and provided fresh money for investments in technological infrastructure. These universities have been very pragmatic in responding to environmental demands, mainly to guarantee that resources from federal grants keep flowing. Based on the evidence collected through interviews, documents, and observations, I claim that the universities studied have significantly adjusted the way they do things at the administrative and managerial levels. For instance, they created new offices and managerial positions to enact rapid responses, and they adjusted their academic organization to comply with guidelines. Also, with resources provided by this program, they became more modern organizations in terms of their technological infrastructure.

In this chapter, I describe the organizational responses that the universities in the sample enacted and some of their implications. For analytical purposes the evidence is presented in three categories: (a) strategic planning, (b) academic re-organization, and (c) technological infrastructure.
Strategic Planning and the Consolidation of Planners as Organizational “Quarterbacks”

The PIFI Program consolidated the notion of strategic planning as a central aspect of organizational life, and increased the power and prestige of the planners in the sampled public state universities. The notion of strategic planning is the core element in the theory of action of this program and it is supposed to be directly linked to academic quality, defined as the advancement on the official indicators. According to PIFI’s blueprint, “the continuous improvement of academic quality will be achieved through the implementation of integral and collaborative strategic planning exercises in public state universities” (Secretariat of Public Education, 2010, p.1). As mentioned in previous chapters, in order to get access to resources from the program the Secretariat of Public Education (SEP) requires participant universities to develop and continuously update their programs for institutional strengthening, which in theory should be the blueprints that give institutions strategic direction.27 In such context, to respond rapidly to environmental demands the three universities strengthened their formal planning structures and empowered planners themselves.

It is important to note that the PIFI Program did not create the planning function in public universities, since most of them already had planning offices before the program was born. However, what the program did promote was that planning became a central aspect of university management and permeated at all organizational levels. As mentioned by a top executive in one university, “We already had planning expertise but it was incipient and

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27 In such strategic plans, also known as “PIFIS,” public state universities have to state their missions, visions, and strategic objectives for the next three years and update them regularly. Also, they have to establish specific numerical goals on the official indicators and develop the strategies to reach them. From 2001 to 2008, public state universities had to develop and present their PIFIS every year. Starting in 2009, and following continuous suggestions and complaints from public universities, SEP broadened the strategic planning time-frame and now universities present their PIFIS every two years.
isolated. PIFI took us to another level since it linked resources to the accomplishment of academic indicators, which forced us to do some serious housekeeping in terms of the generation and organization of our data.” Along the same lines, a professor in another university acknowledged: “Before PIFI, planning was a marginal exercise in the institution, some top executives supported it and some others did not. With PIFI, planning became a mandate and a mantra, everybody is doing it now.”

In response to the program, all faculties28 or academic units within the universities in the sample now have their own planning structures, which are in charge of crafting their unit-level strategic plans. As an executive in one university mentioned, “Before PIFI, planning exercises existed in the university but they were highly centralized and only few people participated at the central administration. This program extended the planning notions and practices to the different academic units and schools within the university.” The consolidation of strategic planning structures and practices at the school-level suggests a direct response of universities to the logic of the program. Before PIFI, strategic planning was an elite task mostly developed at the central offices of universities, but the program promoted the extension of planning by requiring universities to present a “PIFI Proposal” for each of the academic units within the institution, along with a general plan for the university as a whole. An executive at one university summarized the increasing importance of planning promoted by the program:

28 As commented earlier, throughout the document I refer as “faculties” to the basic academic units of university organization in Mexico and Latin America, in the regional tradition of calling “schools” or “campuses.” When I refer to professors I will call them “faculty members.”
The administration and bureaucracy has grown significantly with PIFI and the other grants. Now, every campus of the university has its own planning staff devoted to PIFI. It is fair to say that in this university planning coordinators at school-level already existed before this Program, but they did not have any true relevance. However, as extra resources from grants became more important for the university, planners were empowered at all levels.

The centrality of the strategic planning logic strengthened specific structures in the universities, in a process that came in different shapes and intensities depending on their internal dynamics. At two of the universities, the central planning offices were highly visible in the organizational structure, while in the other university it did not formally exist. Nevertheless, at the three universities the planning function became highly powerful in the decision-making processes in association with PIFI. The program promoted that planners strengthened their positions within the organizational hierarchy, formally or informally. In fact, planners became a new “elite group” in the organizations. They became indispensable technocrats in the current resource environment of public state universities.

Northern State University consolidated its planning structure with the creation of a powerful General Directorate for Planning. In the Act that formally created this new office, the university acknowledged that the Directorate “responds to the increasing importance of planning in the resource environment.” Also, the act mentioned that the creation of this office was aligned with the National Program of Education (PRONAES, 2001-2006) as the foundational document for the PIFI Program, with the goal of strengthening the culture of planning and evaluation in all educational endeavors in higher education. Evidence from interviews suggests that the empowerment of this planning office was a direct response to the
logic of the program. As one top executive in this university mentioned, “The importance of PIFI and the grants for this institution led to the strengthening of our planning directorate in the organizational structure. With the creation of this instance the planners were formally empowered.” Moreover, according to a dean of academic affairs:

As a result of PIFI, the university has consolidated its planning structure and given the planners much more power and staff personnel, centrally and at the school-level. We even have an academic program on ‘higher education planning’, which develops the future planners that our university will need!

In the case of Southern State University the planning directorate did not undergo any formal changes in its organizational structure after 2001, but it became more powerful in the decision-making process. The directorate became more powerful because it was strengthened by the creation of a new Planning Law in the university. This new law mandates that “all schools and academic units conduct strategic planning under the coordination and overseeing of the Central Planning Directorate.” Documentary evidence suggests that this new planning law was a response associated with the PIFI Program. In the act that created the new law, Southern State mentioned that: “The General Directorate of Planning acknowledges that planning processes are indispensable for the academic and administrative development of the university…” and that such processes “are aligned with the blueprint of the Integral Program for Institutional Strengthening (PIFI).” With the enactment of this new law, planners further increased their power within the organizational structure. As one professor commented, “The area of planning is so powerful now because, according to the planning law, they are in charge of crafting the organizational structure of the whole university.” Along the same lines, another
executive mentioned that “As a consequence of PIFI and the new planning law, all schools within the university strengthened their own committees for planning and evaluation, and the central planning office became much more powerful.”

Central State University was atypical in its planning structure in that the planning directorate was eliminated from the organizational chart years after PIFI was created. This seems counterintuitive because PIFI was supposed to increase the importance of planning in public universities, not diminish it. According to key informants, what happened at Central State was that the planning directorate disappeared due to internal politics, and not as a response to the program. A senior planner at this university commented, “[the elimination of the planning directorate] was a political maneuver to keep the internal power balances equilibrated in a moment of institutional turmoil.” Regardless of these “internal power balances” that ultimately led to the disappearance of the central planning office, the important issue is that the formal office might have disappeared, but the power and influence of planners actually increased. In other words, at this university the planning executives have been empowered, but not the planning offices. That is, the top planning executives “carry” the planning function with them to the office that they formally occupy, and direct the processes from there. On this issue, a top executive observed that “The power of planners in this university has increased, as in many others. The difference is that we did not empower a specific planning office, we empowered specific people to be in charge of planning.” Along the same lines, a professor acknowledged that “In this university the planning function is associated to particular people. There are two executives that have been in charge of planning since 10 years ago, regardless of the position they occupy in the formal structure; the planning function just moves along with them.”
In short, PIFI encouraged these universities to strengthen their planning directorates and empowered top planners, with the main goal of developing sound proposals that guaranteed the constant flow of federal resources. A senior policymaker at ANUIES commented that “The planning executives, regardless of the formal position they occupy in the structure, have become the ‘quarterbacks’ in public state universities. Universities depend on them to get fresh resources from federal grants.” Moreover, to a top executive in one university, “PIFI empowered the planners because their knowledge and expertise are key elements in the environment. It is common to see that when there is a new university president all positions change, but the chief planner and his team stay there.”

It is important to note that, historically, the academic authority of faculty members has been weak in Mexican public universities and the governance model of these institutions has been authoritarian, president-oriented, and bureaucratic (Ordorika, Martinez, & Ramirez, 2011). In this context, the empowerment of planning executives contributed to reduce the influence of faculty members in the decision-making processes of their universities. If before PIFI faculty members were tangential actors in the decision-making arena, the program contributed to their further disenfranchisement. An example of how faculty members have seen their influence reduced vis-à-vis university administrators is that, as observed by a researcher at one university, “PIFI empowered the planners because now every professor has to be in good standing with them, otherwise they just do not get resources from the program.”

The “pifiologists.” The PIFI Program not only contributed to increase the power and prestige of planners, but also promoted the creation of a new kind of experts within public state universities: the pifiologists. This group of individuals developed expertise in crafting

29 The issue of academic authority will be discussed in detail in Chapter 8.
“successful” PIFI Proposals, as documents that are able to persuade external evaluators and executives of the Secretariat of Public Education (SEP) to give money to universities to implement them. A planning officer, and pifiologist himself, commented that “Pifiologists are good for public universities because they have mastered the rules and the codes of the most important financing instrument we have: the PIFI Program.” Pifiologists have become indispensable technocrats within public state universities. They have become the “wizards” of PIFI and federal grants. To a top executive, “These individuals are very important because they mastered the language and symbols of the federal government, the discourse of the Secretariat of Public Education.” Along the same lines, a professor argued, rather sarcastically, that pifiologists are in fact professionals “with the capacity to ‘see’ the future, to analyze trends and anticipate the policies that will come. Based on such predictions, they align our discourse with that of the federal government.”

These specialists became so important for public state universities that it would be dangerous to get rid of one of them without a proper replacement. A senior pifiologist at an academic unit within a university commented on the issue:

My prestige in “pifiology” augmented significantly when a new school director came and got rid of me in order to take care of the PIFI Program herself. After two years in which they got zero resources from the Program, she called and asked me to be in charge of PIFI again. I developed the next PIFI Proposal and we got four million pesos.

Evidence from interviews suggests that pifiologists are indispensable within schools and academic units because they provide fresh resources in order for professors to travel, organize seminars, and buy equipment. As a researcher at one of the universities stated, “When
our chief pifiologist presented his resignation to the new school dean, my peers and I persuaded him to stay… It is not that we liked the guy very much but if he leaves we run the risk of not getting money from PIFI the following years.” Indeed, according to key informants in the sampled universities, pifiologists are amongst the administrators with more job stability within the organizational structure. School deans come and go and pifiologists usually stay to guarantee that well-crafted PIFI Proposals are presented and resources keep flowing in. On this topic, a researcher at another university stated that “Pifiologists become indispensable in this university. The person in charge of PIFI has been there for ten years. Two university presidents have concluded their terms, most of all other executives are gone, but he and his team are still there.”

Pifiologists were born along with the PIFI Program in 2001. The first pifiologists were not inside planners, but external consultants who had worked at the Secretariat of Public Education (SEP), or at the National Association of Universities and Higher Education Institutions, and offered universities to prepare the PIFI Proposals for a fee. These consultants already had experience with PIFI since some of them were part of the policy design team, which gave them advantage in knowing the “codes” of the program before it was formally implemented. Public state universities were shocked by the new program’s logic and requirements, and they had two options: hiring external consultants to develop the proposals or developing the PIFI internally with the risk of not being successful. The dominant strategy seemed clear and most universities hired consultants to maximize the probabilities of success and in order to start developing internal expertise on the new policy. As one executive commented, “Outside pifiologists were very relevant at the beginnings of the program since they knew the discourse that SEP wanted to hear. They were ‘rock stars,’ paid really well in
order to develop sound proposals and get money for the university.” Along the same lines, to a
senior planner:

Before 2003, most universities hired external consultants in order to develop their PIFI
Proposals. That situation started to change in 2004 after the Undersecretary of Higher
Education warned universities that they should not hire external consultants, but
develop their own internal expertise in strategic planning. Some universities listened
and other did not.

The universities in this study hired their external consultants making them part of their
staff. They were in charge of developing the PIFI proposals, negotiating with the federal
government –especially at SEP-, and indoctrinating local planners. According to informants,
nowadays most of these “original” pifiologists are gone, but their teachings remain.

**Planners as organizational buffers.** The organizational responses of the three public
universities to the PIFI Program were what relevant theory would anticipate. According to that
theory, by adapting to technical environmental pressures, organizations reap rewards for their
effective control and coordination of external requirements and by buffering their core
technologies from disturbances (Alexander & Scott, 1984). Rather than rewarding efficiency
and effectiveness in production, institutional environments encourage conformity to powerful
external rules, myths and structures. Some of those rules and myths may lead organizations to
adopt management structures more for their symbolic value than for their impact on core
practices (Fennel & Alexander, 1987). In the universities studied, planners acted as buffers
because the creation and consolidation of powerful planning structures gave them control of the
new government requirements, without disturbing core academic processes and other
organizational activities. At the same time, by creating powerful planning structures and hiring external pifiologists universities gave the impression of compliance with federal guidelines, and sent important internal signals that the new name of the game was “strategic planning.” Indeed, by creating strong planning offices and naming them “PIFI Center,” “PIFI Office,” or “PIFI House,”30 some universities sent unambiguous signals both to government and to internal organizational actors about the importance of the PIFI Program and its planning mantra.

Buffering is not the blind dismissal of external demands but to strategically decide to engage and respond to such demands in limited ways (Honig & Hatch, 2004). Also, the fact that some organizational changes might be symbolic and ceremonial does not mean they are inconsequential (DiMaggio & Powel, 1983). According to Ritti and Goldner (1979), when a new organizational structure is created, or empowered, staffs become involved in advocacy for their functions that can alter power relations within organizations. The strengthening of planning offices in Mexican public universities did have important organizational impacts, if only at the administrative levels. The PIFI Program and its strategic planning logic pushed universities to “put their houses in order” (as commented by an executive) in terms of data collection, organization and systematization. Also, it promoted the development of more integrated and cohesive universities, by aligning the goals and strategies of individual schools within the same organizational mission. According to a researcher at one institution, “PIFI promoted much more coordination and integration among the different schools within the university; they used to be like islands, somehow independent of the central administration. Now we are better integrated as a university.” Strong planning structures and powerful

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30 In the studied universities there were specific offices with such names and key informants reported that other universities were also creating planning structures named after the federal grants and programs.
executives, advocating for their new functions, were the agents that promoted such organizational order and integration.

Evidence from interviews suggests that the “modernization” of public state universities in terms of strategic planning and management practices was decoupled from core academic practices. With PIFI, the universities of the sample became better managed and more integrated but, according to key informants, academic practices did not change much. In colleges and universities, as loosely coupled institutions (Weick, 1976), management and performance are not closely related; therefore, improvements in management might not yield comparable benefits in organizational achievement (Birnbaum, 1988). To a planning officer at one university, “The problem of PIFI is that it did not permeate beyond the planning and administrative structures of the university.” Moreover, a professor at another university claimed that “Universities learned to adapt to federal requirements without really altering their academic practices. In fact, we complied with all federal demands, but things around here are done pretty the same, nothing has changed much in the classroom.” To an executive at another university, the lack of classroom impacts was due to the logic of the program: “We do not really know what is happening in our classrooms because we only focus on what PIFI asks us to do, and caring about classroom practices is not required by the PIFI guide.”

**Institutional isomorphism.** The organizational responses of the three universities to the PIFI Program promoted institutional isomorphism. Universities reacted in very similar ways to the logic of the policy instrument. Interview-based evidence and documental review of charts and norms suggest that the three universities strengthened their planning offices and empowered the planners as institutional buffers, in charge of complying with environmental demands and representing the “face” of universities in the relationship with the federal
government (SEP). Also, the universities developed their own cadre of pifiologists as response specialists whose main goals were to “crack the codes” of PIFI, learn the discourse and expectations, and put together successful proposals that get money flowing to the universities.

According to Hawley (1968), isomorphism is a constraining process that pushes one unit in a population to resemble other units that face the same set of environmental conditions. Hannan and Freeman (1977) argue that isomorphism can result because non-optimal forms are selected out of a population of organizations or because organizational decision-makers learn appropriate responses and adjust their behavior according to broad institutional forces. Public state universities in Mexico, facing the same environmental demands and uncertainty, considered that the adequate and rational response to PIFI was to strengthen their planning offices and staffs since strategic planning became the new “name of the game.” As discussed above, Northern and Southern State Universities empowered their planning offices arguing that “it was the appropriate response to the current resource environment”, and to be “aligned with the policies of the federal government.”

DiMaggio and Powell (1983) identified three mechanisms through which isomorphic change occurs: coercive, mimetic, and normative. These mechanisms have all played a part in the organizational responses of the three public state universities to the PIFI Program. Coercive isomorphism results from both formal and informal pressures exerted on organizations by other organizations to which they are dependent (DiMaggio & Powell, 1983). The three universities were practically forced by the Secretariat of Public Education (SEP) to develop strong planning bureaucracies in order to comply with the procedural requirements of the program. This program required that universities presented a university-wide PIFI Proposal and individual proposals for each academic unit within the institution each year, along with status reports on
the accomplishment of goals every three months and many other bureaucratic demands.

Considering that each of these proposals was supposed to be developed with the participation of administrators, professors, researchers, and students in “a collaborative strategic planning effort”, the procedural requirements may become overwhelming. As stated by a top planning officer at one university, “Procedural requirements are enormous. We devote five months a year focusing solely on developing our PIFI Proposals. This institution sends twelve boxes full of documents to Mexico City [SEP] every year, which contain all our proposals for review”. It is hard to imagine that universities could systematically comply with such procedural demands without having strong planning structures to carry the burden. Therefore, it might be argued that this organizational adjustment was a direct response to a government mandate.

Mimetic isomorphism arises when the environment is uncertain and when goals are ambiguous, which motivates organizations to model themselves on other organizations (DiMaggio & Powel, 1983). Another isomorphic force in Mexican public universities was imitation. The three universities in the sample have performed formal and informal benchmarking exercises in order to identify best practices and structures among their peers, especially those that are considered successful. As commented by a top executive, “I know that Central State is doing very well in its quality indicators, so in our next assembly at ANUIES I am going to speak with the Planning Director to know what strategies they are developing”. Also, a planning advisor at another university acknowledged that “We conduct benchmarking exercises regularly to review the organizational structures of many public universities to see how they are addressing federal demands.” These benchmarking exercises have led universities
to adopt structures with similar characteristics, with a trend towards specialization. Indeed, the sampled universities had offices and staffs whose main duty was to comply with the procedural requirements of the grants, such as the “PIFI offices” and the “PROMEP\textsuperscript{31} offices”.

Pifiologists were the main source of normative isomorphism in the three observed universities. This mechanism of isomorphic change stems primarily from professionalization, since professions are subject to the same coercive and mimetic forces as are the organizations (DiMaggio & Powell, 1983). According to DiMaggio and Powell, two aspects of professionalization are important sources of isomorphism. One is formal education and the legitimation of a cognitive base produced by universities; the second is “the growth and elaboration of professional networks that span organizations and across which new models diffuse rapidly” (p. 152). Pifiologists in Mexican universities did not necessarily share the same academic background –although PIFI was highly influenced by physicists in its development-, but they did share cognitive models and institutional norms. As noted earlier, the original pifiologists were consultants who had participated in the design of the PIFI Program. They shared views and models on strategic planning and, perhaps most important, they shared perceptions regarding the organizational behavior of public state universities. The PIFI Program was a policy instrument that assumed that universities needed to be controlled, otherwise they would deviate from the model of a “good university”. As acknowledged by a senior policymaker that participated in its design, “PIFI was designed by a group of physicists, therefore, it was a highly standardized and standardizing instrument. This group developed a model of a ‘good university,’ in which quality could be measured quantitatively.”

\textsuperscript{31} The Program for the Improvement of Professors (PROMEP) is a grant created by the Secretariat of Public Education in 1996 in order to improve the academic credentials of faculty members.
Pifiologists were a strong mechanism of normative isomorphism because they disseminated the program’s ideology in the three universities during the first years of implementation. These specialists were hired by the universities in order to develop their PIFI Proposals and to give them advice on how to effectively respond to the instrument. As mentioned by a dean at one university, “We all wanted to have at least one consultant working with us in PIFI because they knew what SEP and the evaluators wanted to hear, and they taught us how to organize the info to be more effective and persuasive.” Within years, some universities learned the “PIFI expertise” and did not need to hire external consultants anymore. On this issue, a planning advisor commented, “One of the most important thinks we learned from PIFI consultants was to develop a “pifian scheme.” This is, to develop strategic planning and quantification in all activities we perform.” One of the most salient impacts of the socialization of this “pifian scheme” was the resemblance of PIFI proposals among universities, which were basically indistinguishable. In the three universities in the sample, the goals and strategies presented in such proposals, along with the discourse and the overall organization, were almost identical. As acknowledged by a researcher at one university, “There is isomorphism in the PIFI Proposals due to the influence of pifiologists, if we read the proposals of different universities they all look the same even though the universities are highly different.”

In sum, outside pifiologists were successful in rapidly disseminating the program’s ideology and logics. They taught universities how comply with the PIFI format effectively, to focus on the federal guidelines and not necessarily on the organizational contexts, to be succinct in the arguments, and to measure and quantify as much as they can. It is important to note that the PIFI guidelines and the overall logic of the program were very structured and
inflexible to begin with, promoting coercive isomorphism, but pifiologists as normative agents made sure university executives stick to the script and did not engage in any creative deviation from the federal policies.

**Academic Organization and the Adoption of “Academic Consortia”**

Another change associated with the PIFI Program was the adoption of an organizational model that aimed at the integration of loosely articulated faculties into “academic consortia” grouped by discipline. Latin American public universities are traditionally organized under the Napoleonic model, in which institutions are centralized and formed by separate faculties corresponding to professional fields, such as law, medicine, engineering, architecture, and commerce (Bernasconi, 2007). All teachers and students therein have a common occupational commitment and identity, providing an important internal source of collegiality and cohesion but, at the same time, isolating the unit from others within the university (Clark, 1983). In this model, students specialize in one field of work with little possibility and incentive to move laterally to other units within the institution. The theory of action of PIFI promoted the integration of these separated and quasi-independent faculties into thematically related “academic consortia” (called “DES” in its Spanish acronym). The official goal of these consortia was to develop scale economies to “optimally use the available human and financial resources of public state universities” (Secretariat of Public Education, 2011, p.10). Such academic consortia can be defined as sort of “colleges” within the university in which faculties and academic programs are grouped into similar disciplines. These structures were originally created by the federal government in 1996 with the Program for the Improvement of Professors (PROMEP); however, they did not take hold until the creation of PIFI in 2001.
The rationale for creating these consortia was not clear since documents or blueprints that explained the policy makers’ intent were not available. However, a plausible explanation is that it was a subtle attempt, a sort of experiment, to make Mexican public state universities resemble the model of the American research university, in which colleges and schools are formed by thematically related academic departments that are more interdependent. As stated by a top executive at one university, “There is no clarity regarding what the federal government wanted to accomplish by creating the academic consortia. There was not a rationale or a comprehensive definition, so each university adopted the model in a different fashion and with different results.” This adoption process has resulted in a Frankenstein-like model since it was hard to distinguish, even for university executives themselves, what their academic organization now was. Such model was not departmental and not Napoleonic, but something in between that universities and policy makers are still in the process of figuring out.

The PIFI Program forced public state universities to adopt the model of academic consortia because they were the basic units of the program. In order to participate in PIFI, universities had to develop and submit an individual PIFI Proposal for each of these entities. The program did not allow institutions to present proposals developed by individual faculties (e.g. medicine or law), but they had to be grouped into related disciplines in order to qualify (e.g. biological sciences or humanities). Also, and more importantly, they had to be developed collaboratively with the participation of all relevant actors within schools and faculties. As stated in the PIFI guide of 2001 (Secretariat of Public Education, 2001b):

PIFI proposals must be the result of a collaborative planning process and be based on a comprehensive diagnostic of the university as a whole and of each of the consortium that form it… The proposals have to incorporate a vision statement for each consortium
and specific goals on the academic indicators, and must explain how the goals of each consortium contribute to the development of the university as a whole. (p. 7)

This radical mandate forced universities to quickly adapt in order not to be left behind. They responded rapidly by symbolically adopting this organizational model, at least on paper and solely for the purposes of submitting their PIFI proposals every year. However, once created, some of these academic consortia actually took hold in the public universities and have started collaborating and sharing resources, where others are just “ghost” structures that come to life only when it is time to present the PIFI proposals. The adoption of this model was asymmetric in the three universities studied, since each of them adapted differently depending on their internal political dynamics and institutional contexts. Nevertheless, the common aspect across universities was that these consortia did not formally exist in laws and norms, but were virtual structures that subsisted in parallel with the traditional individual faculties. In other words, universities’ norms and laws did not incorporate the concept of academic consortia, so these structures existed in a sort of legal vacuum.

Southern State University symbolically adopted these consortia on paper and has been struggling to make them work in practice. This institution grouped its more than 30 separate faculties into nine academic consortia called “departments.” As stated by a top executive, “Our departmentalization is only symbolic, adopted to comply with the PIFI Program’s policies. The academic consortia do not exist in the organic law, nor do they work collaboratively. This university keeps working traditionally, as more than 30 independent faculties.” Along the same lines, a professor acknowledged that “This University is organized in consortia only on paper.
These entities exist only when it is time to prepare our PIFI proposals. However, still in such moments there is bitter conflict because faculty directors do not want to collaborate with peers.”

Documentary evidence and interviews suggest that the lack of integration of the consortia in Southern State was associated with the geographical dispersion of faculties within the state. Therefore, even if there was political will to effectively integrate, this dispersion made it highly difficult for faculties to work together since some of them are hundreds of miles apart. Moreover, historically, this university has had a strong individualistic tradition. In fact, the university was founded by grouping diverse independent schools that already existed within the state. According to key informants, the traditional individualistic culture of faculties was still present nowadays, and hence there were powerful faculty directors that did not want to surrender their power over the coordinators of the academic consortia. A top executive commented on this issue:

PIFI mandated the reduction of the university’s academic structure by requiring its departmentalization. This university reacted pragmatically, by artificially grouping its 28 schools into nine “departments”. The problem is that, historically, our schools have a deep individualistic culture, so there has been escalating conflict among school directors because they do not want to be under the supervision of a consortium coordinator.

The case of Central State University was a bit different. In the beginning of PIFI, this university also adopted the “academic consortia” superficially, but within years some of them took hold and were actually collaborating. The university grouped around 30 independent
faculties and research institutes into eight consortia. As stated by a top executive and senior researcher:

As a result of PIFI, we grouped our faculties into academic consortia just to comply with the policy guidelines. However, in some cases the consortiums are working well and communication and collaboration among different academic programs within similar disciplines have improved. This process has not been completed and there are tensions because some faculty directors oppose the measure, but the trend points towards departmentalization.

Interview-based evidence suggests that whether an academic consortium works well or not depends on the willingness of faculty directors to give up some of their power over the “coordination” of such consortium. In the academic consortia that work relatively well the coordination is rotated among the faculty directors, in this way each director gets a shot at coordinating the whole structure. However, in some other consortia faculty directors just decline to participate and ignore the agreements reached within the structure, so the consortium is not functional. Still in other cases, there is no communication or coordination whatsoever among directors and the academic consortia exists only on paper. A researcher commented on this issue: “In this university some consortia are integrated and work just fine, but in some others the model does not work at all because powerful directors boycott any attempt to integrate.” In any case, Central State is in a process of transforming its academic model of organization, triggered by its participation in the PIFI Program. Yet, it is not yet clear what kind
of model will emerge when the process evolves. As a senior executive observed, “In our university the old Napoleonic model resists to die, and the new model has not yet been born, so we live in a hybrid university.”

Northern State University was atypical in terms of the adoption of academic consortia, mainly because the university already had some sort of integrated model of academic organization in place when PIFI was created. Therefore, the adoption process was not as traumatic as in the other sampled universities since the institution persuaded executives at the Secretariat of Public Education (SEP) to just let it accommodate the consortia within their existing structures. The end result was that the university embedded the academic consortia within its already existing “colleges” or “campuses,” so each campus became a consortium although some of them are not thematically related. A former executive who participated in the negotiations with the federal government commented on the topic: “We negotiated with SEP to get the authorization to have our colleges and campuses considered as individual consortia. This was a process of political negotiation, persuasion and compromise.” At Northern State, academic consortia worked relatively well because the university had already implemented some sort of departmental model before PIFI was created, so PIFI did not have any relevant impact in terms of academic re-organization. In any case, the relevant issue here is that Northern State did not adapt to PIFI but PIFI was adapted by the university instead, in an instance of pragmatism and political maneuvering.

The creation of academic consortia was perhaps one of the policy provisions in the PIFI Program with the potential to significantly alter the academic organization of public state universities. As noted above, the policy intent of creating the consortia was not clear; however, in one of the universities studied the result was that formerly isolated and loosely-coupled
faculties started to integrate, talk to each other, and share human and financial resources. This organizational change was consistent with broader trends in the transformation of universities in Latin America, pointing towards the adoption of academic models similar to American research universities. On this issue, Bernasconi (2007) argued that coupled with immediate requirements for survival in times of fiscal stringency and neoliberal policies promoted by multilateral lending agencies, universities are forced to seek a closer alignment with policies supportive of competitiveness and economic growth. In this context, to Bernasconi, the ideal of the American research university has been an inspiration for university leaders and government officials worldwide. In Mexican public higher education, the perception of key informants suggests that indeed the creators of the PIFI Program were influenced by the ideal of the American research university, in a sort of normative isomorphism (see Babb, 2001). For instance, as observed by a policymaker at the National Association of Universities and Higher Education Institutions (ANUIES) who participated in the creation of PIFI, “Many of the PIFI designers attempted to create American universities in Mexico. They had studied there so they brought their newly learned models here.”

According to Altbach (1998), the dimensions of the American model of interest abroad are, among others, the departmental organization, the system of faculty ranking and promotion, a cadre of professional and highly specialized administrators, curriculum flexibility, the organizational structure that rewards for research and publication, and the elastic balance between autonomy and accountability. Traditionally, the basic unit of organization of Latin American public universities, and most Mexican public state universities, has been the faculty. Clark (1983) argued that faculties have been so self-contained and autonomous that there has

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32 In fact, the Undersecretary of Higher Education in the period from 2001 to 2006, and some of his advisers, pursued graduate studies in American research universities.
been little need to group them physically. Hence, they could scatter across the city, blocks and kilometers apart in a generalized geographical dispersion (p. 42). This extreme autonomy and decentralization is almost invariably considered a problem that needs fixing in Latin America (Bernasconi, 2007). Moreover, Clark (1983) claimed that high autonomy and low interdependence of faculties reflect the weaknesses of institutional bureaucracy in the region, which sharply contrasts with the much stronger administration of the U.S. campuses that aids the integration of departments and faculties. Based on evidence from interviews and on the PIFI guidelines, it seems that this program aimed at fixing these old problems by creating the academic consortia, pushing isolated faculties to collaborate and to be more interdependent within universities. However, according to key informants, and as Clark (1983) would have predicted, faculties within public state universities that had very powerful directors were usually the ones that did not integrate into the consortia, challenging the authority of central bureaucracies.

The impact of this organizational change on academic practices and performance in the classroom, if any, is still an open question that calls for specific studies of the subject. However, evidence from interviews suggests that classroom practices have not been significantly altered in the sampled universities, even though some of them successfully formed consortia (e.g. Central State and Northern State Universities). If such is the case, the sorts of collaboration and interdependence among faculties, and among faculty members, that the consortia were supposed to promote did not translate into improved classroom practices and interactions. The model of academic organization might have changed, but the core academic practices did not.

33 The issue of classroom impacts will be discussed in detail in Chapter 7.
It was also unclear how this process is going to evolve in the system, and what “model” of academic organization is going to emerge since public state universities are adapting in very different ways. As Crozier (1979) argued, organizations continuously change in response to their environments, but they rarely do so in the ways that policy makers originally intended. Indeed, it seems that the process has gotten out of the control of the Secretariat of Public Education (SEP), due to the mutual accommodations and concessions of the relevant actors. On this subject, a federal policymaker observed:

At the beginnings of PIFI the goal was to implement the departmental model of the American university, but there were political resistances and geographical limitations on the part of universities. Therefore, there were pragmatic accommodations on both parts. SEP understood that for some universities it was impossible to adapt to the model, and universities also understood that they had to somehow comply with the federal requirements.

This process of mutual accommodation resulted in a hybrid of Napoleonic and departmental structures with an uncertain future. However, in my perspective, in those public universities where the academic consortia are taking hold the reform processes will likely deepen until fully adopting the model as part of their legal and formal structure, resembling the departmental model of American research universities. In contrast, in those universities where the consortia exist only for the purposes of presenting PIFI proposals, the adoption ritual will end as soon as the PIFI Program is replaced by another policy. This is because, based on evidence from interviews, some top executives were enthusiastic about adopting the
departmental model in the long run (e.g. Central State), while others were a bit cynical about their actual implementation and consolidation (e.g. Southern State).

**Technological Infrastructure and “Hardware” Modernization**

The most visible impact of the PIFI Program on the three universities was the modernization of their academic infrastructure and technology. These universities used the majority of resources from the program to update their laboratories, libraries, and classrooms with hardware and information technologies. It is fair to say that some of the facilities of the three universities in the sample were topnotch, with state-of-the-art technologies that resembled world-class research universities. This finding is relevant because the PIFI Program was supposedly designed to depart from the old logic of the Grant for the Modernization of Higher Education (FOMES), which from 1991 to 2000 focused mostly on hardware update, without aiming at improving “soft” aspects such as academic practices and performance. However, within the PIFI Program universities were still using resources mostly for hardware modernization. The difference was that now they had to develop “participative strategic planning processes” and justify such investments on the grounds of “academic improvement.” The result was that after 10 years, universities were highly equipped and modern organizations in terms of managerial capacities, while their core academic practices remained traditional.

The PIFI Program was created as a second-generation policy in order to group and redirect the existing individual grants (e.g. FOMES, PROMEP, and FIUEPA) to the

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34 Refers to the Program for the Improvement of Professors, created in 1996 to improve the academic credentials of full-time professors at public universities.

35 Refers to the Grant for Public Estate Universities with Evaluation of ANUIES, created in 2001 along with the PIFI Program. As commented earlier, the PIFI Program links the grants FOMES, FIUEPA, and PROMEP, to provide funding to those projects approved within the PIFI Proposals of participant universities.
improvement of academic quality and to trigger changes in how universities were organized and managed. According to the Secretariat of Public Education (SEP) (2001), “Thanks to FOMES, during the period of 1990 to 2000 universities improved their academic infrastructure and the working conditions for professors, researchers, and administrators, which ultimately benefited the students” (p. 3). Within the PIFI Program, in contrast, the new goal of FOMES was “to promote the continuous improvement of academic quality in higher education institutions, according to their missions, visions and strategic plans, in order for them to better respond to the needs of students and the demands of society” (p. 4). In other words, the emphasis of PIFI as a second-generation policy was on the improvement of “software,” but evidence from the interviews and direct observations suggests that the program mostly promoted the further upgrade of “hardware.”

The three universities studied significantly improved their academic infrastructure as a result of their participation in the PIFI Program. These universities created new laboratories, renewed libraries, bought state-of-the-art computers, and equipped their classrooms with projectors, interactive boards and the like. These improvements were, for the most part, financed by the fresh resources provided PIFI Program, mainly because the ordinary budgets of public state universities are mostly used on current expenditures.36 Perhaps the most radical impacts of PIFI in terms of technological infrastructure occurred in Southern State University, because this is a relatively small and poor university. According to a top executive at this university, “PIFI has been very important in order to improve our academic infrastructure.

36 “Current expenditures” refer mostly to the resources used to cover wages, salaries and basic operative needs. In Mexican public universities, around 90% of the ordinary budgets (excluding grants) is used on such current expenditures, so the margin left for “capital expenditures” is reduced (Undersecretariat of Higher Education, 2010). For such reasons, the extra resources provided by federal grants are of high importance for public universities, to invest in infrastructure, technology, and professional development, among other priorities.
Perhaps to other universities this is not that relevant, but to us PIFI has really made a difference in terms of technological modernization.” Along the same lines, a planning advisor acknowledged that “PIFI has had a tremendous impact on academic infrastructure. In 2000 our computers were obsolete, now we are practically up-to-date in terms of ICT’s.” A top academic advisor to the university president at Southern State summarized the impacts of PIFI on this subject:

PIFI has contributed to improve the technological infrastructure of the university. We built laboratories, research cubicles, and equipped libraries. In the past, for instance, professors were just walking in the campus carrying all their books on their shoulders because they did not have any place to leave them, now there are cubicles in which they can work.

Central and Northern State universities were bigger and more academically consolidated organizations; however, the impacts of PIFI on infrastructure were also evident. As stated by a senior executive at Central State, “The most important impact of PIFI was that the university substantially modernized its technological infrastructure. Nowadays, in terms of laboratories and equipment we look like Harvard.” Moreover, in the view of a senior executive and researcher at this university, “One of the most important impacts of PIFI is on technological improvement. We have better equipment than some of the most prestigious private universities in this city, so now increasing amounts of well-off students prefer to study here.” Along the same lines, a top executive at Northern State acknowledged that, “The only radical change that PIFI promoted in this university was in terms of technological infrastructure. We now have better laboratories, better computers, more books, and fully
equipped classrooms; that was a real breakthrough.” In addition, a former school dean at this university stated that, “Before PIFI, professors had to go to the ICT’s lab and ask for a computer and a projector, take the equipment to the classroom and install it themselves, now classrooms are fully equipped, everything is set up and ready to go.”

Indeed, the improvements in technological infrastructure were highly visible in the universities studied. Having visited the three universities, it was noticeable that they had developed new laboratories, modernized their libraries with technology and new books, and fully equipped their classrooms. In a revealing anecdote, a top executive at Central State commented that:

Ten years ago students from a fancy private university just across the street from one of our schools, used to throw eggs to the building and make fun of us because we were poor. But nowadays, our students make fun of them and their deteriorating facilities. So they are the poor ones now!

These general perceptions were supported by statistical evidence from the Undersecretariat of Higher Education (2011a), that indicates that 46% to 58% of the resources from PIFI have been applied to improve the academic infrastructure of the universities in the sample from 2006 to 2010 (see Figure 4). The rest of such money was invested in services (e.g. academic travel and organization of seminars), salaries (e.g. guest professors and speakers), and materials (e.g. paper, pencils, cables) (Secretariat of Public Education, 2010).
Figure 4. Percentage of resources from the PIFI Program invested in technological infrastructure and books per sampled university (2006-2010). Source. Calculated with data from the Undersecretariat of Higher Education (2011a).

The over-equipment of universities. The emphasis that universities, and the PIFI Program itself, placed on the improvement of technological infrastructure led universities to over-equip some of their facilities, diverting valuable resources that could be put to use in some more systemic endeavors, such as genuine academic reforms. According to evidence from interviews in the three universities, there was acknowledgment that universities have sometimes gone too far in improving their facilities, when other investment priorities have lagged behind. For instance, key informants acknowledged that in some schools equipment was never used, either because professors did not have the necessary skills, or because the equipment was not needed in the first place. A former dean of academic affairs at one university observed, “What usually happens is that we have the money but we do not know where to invest it. In such cases, when the university has money but not a real strategy, the easy solution is to buy new infrastructure.” Along the same lines, an academic officer at another
university commented that “The program promoted heavy investments in technological infrastructure, which led to the over-accumulation of ‘academic goods.’ We might need the hardware, but we could also invest in some other academic priorities, such as in hiring new professors with Ph.D.’s.” To a top executive at a different university, “One problem with PIFI is the overspending on technological infrastructure. We got so much money and we were not prepared to spend it efficiently; in some areas we are just over-equipped.” A researcher and pifiologist commented on this issue:

Sometimes we buy computers or projectors but we do not know how to use them, so they end up stored in boxes. For instance, we have bought fancy printers but we soon realized that we did not have enough money to buy toners, or to give them proper maintenance. Also, few years ago our school bought a new interactive blackboard, but we did not use it for two or three years; when we finally decided to put it to use, it did not work because of the humidity of the storage.

There were three main mechanisms at play that contributed to this overspending on capital goods in the sampled universities. One of them was the policy design of the PIFI Program, along with the political pragmatism of university presidents. PIFI provided strong incentives for universities to invest in highly visible goods, such as computers, laboratories, and ICT’s equipment, rather than on genuine reforms. Computers and laboratories are easier to show and demonstrate, to impress the evaluators, the federal officials, and Congress (which ultimately approves the money for PIFI) while genuine reforms usually bring bitter conflict. Therefore, it was more politically convenient for university presidents to modernize the infrastructure than to enact successful reforms. On this topic, a top executive at one university
observed that “We attempted a deep reengineering of the organizational structure, however, since it was not politically feasible we decided to use money from PIFI to buy infrastructure instead, so everybody was happy with that.” In the same logic, it seems that it was politically convenient for the federal government to continue providing money for infrastructure and keep universities happy, than to push for real reforms that would cause conflict in the system.

Since the PIFI Program was framed as a policy that provides money for infrastructure, the dominant strategy was for university executives to see all problems as infrastructure problems, promoting a “hammer and nail” mentality. According to a top researcher and advisor in one university, “To solve most problems universities ask for hardware. It is as if they try to ‘squeeze’ PIFI as much as possible, regardless of the true problems they have. As the saying goes, if your only tool is a hammer every problem looks like a nail.” A researcher in another university described the convenience of investments in infrastructure:

Genuine organizational reforms do not cost money; they cost political capital. So money from PIFI was basically used to improve technological infrastructure. It is easier to “modernize” your university in terms of infrastructure than to do so in organizational functioning. The results are much more visible, so presidents have the incentive to focus on getting money for such investments and not to pursue substantial reforms that might jeopardize their political careers.

When causality and technology are ambiguous, the motivation to have particular solutions adopted is likely to be as powerful as the motivation to have particular problems solved (March, 1981). Therefore, many of the changes observed in the three universities were better predicted by the availability of solutions than by the knowledge of the real problems.
Using the federal money to invest in technological infrastructure was a win-win situation for the relevant actors. On the one hand, university presidents were happy with the PIFI Program because it provided fresh money to “modernize” the institution, which gave them short-term political rewards. As stated by March (1981), “an organization that is modern adopts new things because that is what being modern means” (p. 569). On the other hand, federal officials were happy because the PIFI Program was successfully “modernizing” universities, and hence kept receiving money from Congress. In this situation, pushing for substantial academic and organizational reforms through monetary incentives would introduce an element of political conflict that the actors wanted to avoid at any cost. As stated by a university president, warning federal officials of the dangers of reducing the budget for grants and adjusting the policy model: “If the lion is asleep, do not step on its tail.”

Another mechanism at play in the overspending on infrastructure was the influence of the independent agencies for the evaluation of academic quality. These agencies have induced universities to modernize their facilities and equipment in order to be positively evaluated and accredited. The Committees for the Evaluation of Higher Education (CIEES) and the Council for the Accreditation of Higher Education (COPAES) are independent agencies authorized by the federal government, which evaluate and provide accreditation to the individual academic programs that public and private universities offer. An academic program that is positively evaluated by CIEES, for instance, is recognized as “Level 1,” which means that it is a program of top academic quality (Undersecretariat of Higher Education, 2009). On the other hand, COPAES reviews individual academic programs and provides “accreditation” to those that

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37 This statement happened at a meeting at the National Association of Universities and Higher Education Institutions (ANUIES) in 2009, in which federal officials and university presidents were discussing the budget and policy implications of a series of newspaper reports that claimed grants were not effective in improving academic practices in public state universities.
meet all the necessary conditions to be considered as top quality program (Undersecretariat of Higher Education, 2009). These agencies produce the data for three of the most important academic indicators in Mexican higher education, such as the “academic programs evaluated (‘Level 1’),” “academic programs accredited,” and “academic programs of quality.”

The PIFI Program becomes relevant here because one of its main goals is to contribute to the quality improvement of academic programs, so they can be evaluated and accredited by the official agencies (Secretariat of Public Education, 2001). However, the problem is that the evaluations and accreditations of CIEES and COPAES are biased towards technological infrastructure, instead of aiming at more substantial aspects, such as academic practices or performance. As acknowledged by a researcher and pifiologist at one university, “PIFI has highly impacted infrastructure because that is what CIEES and COPAES evaluate in order to accredit an academic program, and of course we want all our academic programs to be accredited.” Along the same lines, a planner at another university mentioned that “The most important impact of PIFI is on the development of technological infrastructure. With money from PIFI we were able to significantly improve our facilities in order to have our academic programs accredited by the independent agencies.” The pressure to be evaluated positively was so strong that, in a confession of goal displacement and deceiving behavior, a researcher at one university commented that schools that will be evaluated usually “borrow” computers from other schools in order to put them on the premises that are going to be visited by officials from CIEES and COPAES, “just to give a positive impression and get good notes.” When evaluators are gone, computers are returned to their original premises.

Since one of the most important factors to get academic programs evaluated positively and accredited was the improvement of academic infrastructure, it came as no surprise that the
overinvestment on infrastructure in the universities was associated with their rapid advance on these indicators. According statistics from the Secretariat of Public Education, the universities in the sample are reaching a saturation point regarding the “quality” of their academic programs. For instance, by 2010, two of the universities had 100% of their programs regarded as being “academic programs of quality,” while the other institution reached about 80% on this indicator (Secretariat of Public Education, 2010). In short, universities rapidly cracked the code of PIFI and understood that in order to improve their indicators the name of the game was to invest in hardware modernization.

The third aspect provoking the overspending on infrastructure was competition among institutions. Public state universities were constantly looking at each other to keep track of their infrastructure development and the advancement on their academic indicators, with the goal of better impressing federal higher education officials. According to top executives in the three universities, universities are mimicking the perceived success of other universities in terms of their technological infrastructure. As stated by one executive, “PIFI has produced fierce competition among universities on indicators and on academic infrastructure. There is no competition on true academic quality, but a constant benchmarking in terms of seeing which university is developing nicer and better equipped facilities.” As it happened in the U.S. (Frank, 1999), some Mexican public state universities were engaging in an “arms race” in which infrastructure and equipment are becoming proxies for academic quality. Unlike in U.S. higher education, where this race was triggered by academic rankings and competition to attract the best students and their tuition dollars (Frank, 1999), public state universities in Mexico were competing for the attention and praise of federal and state governments, which in turn can translate into better budgets.
Models for imitation may be diffused unintentionally, indirectly through employee transfer or turnover, or explicitly by organizations such as consulting firms or industry trade associations (DiMaggio & Powell, 1983). In the case of Mexican public state universities, competition and imitation have been explicitly promoted by organizations such as ANUIES and the Consortium of Mexican Universities (CUMEX), which continuously organize seminars and conferences to discuss relevant issues in the sector. These events, which take place four or five times a year, are attended by university presidents and top executives, and by government officials and Congressmen. The venues usually rotate among public universities, and hence represent perfect opportunities for institutions to show their improvements on technological infrastructure and indicators. After such meetings, university presidents and executives are full of “fresh” ideas to implement in their own organizations, especially regarding new equipment and facilities.

**Technological infrastructure and academic change.** Improvements in computer infrastructure and technology have the potential to impact academic practices positively because students and professors have better learning conditions and opportunities (Cuban, 2001). However, there was no “hard” evidence that core classroom practices have significantly changed in the three universities studied, and the general perception of key informants was that such practices have not changed much. In that sense, it seems that despite the fact that classrooms were better equipped, professors and students had access to state-of-the-art technologies, and that some universities had world-class facilities, core academic practices remained mostly traditional. To a top academic officer at one university, “In terms of equipment and infrastructure in this university we have a “Concord”, but not pilots to fly it. We have modern and sophisticated classrooms and labs, but our professors are still highly
traditional.” Also, to a researcher at another university, “The main impact of PIFI has been on the improvement of technological infrastructure, however, such infrastructure ends up being unproductive because we have not changed our culture and traditional academic practices.”

Along the same lines, according to a top planner, “Thanks to PIFI we have better inputs, such as infrastructure and academic programs, but PIFI has not touched our core academic processes and academic performance.” A federal policymaker who participated in the creation of PIFI provided an account of the issue:

Universities have changed their discourses and their technological infrastructure, but the question is if they have changed the rules of the game, or if everything remains the same but in a fancy new package. I believe that in most universities changes were cosmetic. Professors are still doing what they did 20 or 30 years ago, and the classroom remains a black box.

Although universities have invested roughly 50% of the resources from PIFI on the improvement of technological infrastructure, none of the universities in the sample had conducted studies on how students and professors have adopted such new technologies in the classroom, if at all. As stated by a dean in one university, “The only things we have are perceptions and opinions, but not empirical evidence on academic practices. Unfortunately, we still live in the myth of ‘teaching freedom’, so getting to the classroom means political trouble.”

Along the same lines, a top executive at another university claimed that “There is no interest in taking a look at what happens in the classroom, all the federal and institutional policies stop at the ‘black box.’ The fact that no comprehensive studies have been conducted on the subject suggests that the issue was not important to university executives and to federal officials. In
fact, of all the requirements, evaluations, reports, and audits that the PIFI Program required, none was related to how new infrastructure and technology impacted classroom instruction. Thus, it seemed that the focus of universities and federal officials was solely on the achievement of quantitative indicators, which are mostly procedural and input-based, dissociated from classroom practices, interactions, and academic performance.

The lack of direct evidence on the impacts of technological infrastructure on classroom practices is not a problem exclusive of Mexican public universities, as noted by Georgina and Olson (2008) in a study on technology in American higher education:

The rush over the last ten years to democratize technology in higher education by pouring vast sums of money into the systematic development of technological infrastructure seems to have surpassed the ability of educational institutions to affect the successful transfer of skill and technological know-how into the traditional classroom.

(p. 1)

Along the same lines, Cuban (2001) claimed that U.S. professors use information technologies widely to communicate, do research, and to prepare their classes. However, when it comes to teaching most professors in colleges and universities are either nonusers or occasional users of computer technology in the classroom. The traditional lecture has remained central to undergraduate instruction and the seminar to graduate programs. To Amacher and Meiners (2004), the problem is that the reward structures of most American universities focus on aspects such as research productivity, research funding, and other entrepreneurial activities, not necessarily on the quality of teaching and on students learning. Therefore, although
institutions are up-to-date in technological infrastructure, instruction remains teacher-centered and textbook-driven, even in most elite institutions (Herrington & Herrington, 2006).

Evidence from the interviews and from the PIFI guidelines suggests that the issue with grants in Mexican public education was that the rewards structure of the incentive policies was based upon success on aspects such as technological infrastructure, professors’ credentials, accredited programs, and institutional certifications. There was no incentive in place to motivate institutions to translate such improvements into better classroom practices and students performance. As Tuirán (2011) argued, the Mexican higher education system needs to focus less on inputs and more on learning processes and results. In order for that to happen, Tuirán claimed that a “second generation indicators”, based on aspects such as students learning and professors’ performance in the classroom, need to be developed to complement the current ones.

Although the perception of key informants suggests that academic practices were not substantially altered with the improvements in technological infrastructure, the hardware modernization of the sampled universities should not be underestimated. These universities were now “wired” and up-to-date in computer technologies, which can have positive impacts on their general learning environments. For instance, in a case study about technological improvements at Stanford University, Cuban (2001) found that as a result of substantial increases in access to information technologies, remarkable changes occurred in how students used computers in dorms, labs, libraries, and elsewhere, which have expanded their opportunities to learn outside formal classroom instruction.

There is little reason to doubt that the technological improvements in the sampled universities have positively impacted their overall academic environments. As stated by a top
executive in one campus, “Improvements in our technological infrastructure have positively impacted the academic environment of the university; students have much more academic resources and are more motivated.” Along the same lines, a researcher in another university argued that “PIFI generates satisfaction in professors, researchers, and students because they have better equipment and opportunities to learn, which contributes to the improvement of the academic environment of the university.” There is room to be optimistic about this aspect of the PIFI Program. However, specific studies on technology and learning environments are needed to empirically determine the impact of infrastructure on aspects such as students’ and professors’ satisfaction, motivation and performance in Mexican universities.
CHAPTER 7
IMPROVING ACADEMIC QUALITY:
CURRICULUM REFORM, INSTITUTIONAL LOGICS, AND ACCOUNTABILITY

The PIFI program triggered reforms aimed at improving academic practices in the three universities studied. These reforms responded directly to the guidelines of the policy instrument and were financed with money provided by the federal government through this program. For instance, in order to comply with the guidelines of the program the three universities enacted some sort of curriculum reform aimed at improving classroom practices. However, evidence from the interviews suggests that these reforms were mostly symbolic, decoupled from day-to-day practices since they were not accompanied by effective mechanisms, or “drivers,” for academic change.

Still, the PIFI Program was a powerful instrument to alter the institutional logics of public state universities. The Program sent new signals to the system, and universities embraced them rapidly and decisively. After PIFI was implemented, the universities rapidly aligned with the new logic of achieving quantitative indicators as unquestionable measures of academic quality, and engaged in a fierce competition for resources and prestige based on such indicators. In other words, PIFI promoted the “academization” and “quantification” of public state universities, reducing the political conflicts over the distribution of resources. Moreover, the policy provisions of this program altered the balance between autonomy and accountability, reducing the former and enhancing the latter. In the past decade, the notions of autonomy and control have been rapidly evolving in search of a “balance” that is acceptable to the relevant actors, and this program has been a key policy tool in this evolution. On this issue, however,
there were emerging tensions since the program was increasingly perceived as a straitjacket that severely constrained the autonomy of universities.

In this chapter, I will present the evidence on these findings and some of their implications for the universities. The chapter is divided in three sections: (a) curriculum reform, (b) institutional logics, and (c) university accountability and autonomy.

**The Bandwagon of Curriculum Reform**

On paper, the ultimate goal of the PIFI Program was to improve the academic quality of public universities. In order to achieve that, one of the top national priorities since 2001 was the enactment of curriculum reforms. For instance, the National Program of Education 2001-2006, the document that gave birth to PIFI, established that the federal government “Will promote a higher education of good quality that is capable of developing the professionals, specialists, and professors that can apply, innovate, and communicate relevant knowledge in diverse academic areas and disciplines” (Secretariat of Public Education, 2001c, p. 203). In order to accomplish this, the program continues: “It is necessary to update the study programs and plans, to have a flexible curriculum, and to guarantee the constant academic improvement of professors” (p. 203). Moreover, the National Program details that “It will promote that academic practices in higher education institutions be centered on the active learning of students and on the development of life-long learning capacities” (p. 203).

Along the same lines, in the blueprint of the PIFI Program the federal government declared that it will support proposals that aim at “The integral improvement of the quality of higher education, with the goal of transforming the actual closed system into an open, flexible, efficient, diversified, and innovative one that better responds to the challenges of the
knowledge society.” To achieve this, the program will support “Key specific actions aimed at improving teaching and learning processes through curriculum reforms” (Secretariat of Public Education, 2001b, pp. 5-6). To comply with the policy mandate and get the federal money, the three universities, as rational actors, jumped in the bandwagon and designed some sort of curriculum reform.

At Southern State University, reports to the federal government claimed that the curriculum reform was based on the review and update of all academic and study programs and the implementation of a comprehensive program for the tutoring of students. Moreover, in its PIFI Proposals of 2001 and 2002, the university expressed that “One of our main concerns is that all the academic programs be subject of a comprehensive curricular renovation, in order to make them more flexible and improve their academic quality.” Also, the university affirmed that it is necessary to “Review and update the academic programs of each and every school in order to adjust teaching and learning strategies, professional orientations, and pedagogical approaches.” In addition, in 2002, Southern State proposed the “Development and implementation of a comprehensive program for tutoring in order to improve the graduation rates and to contribute to the integral development of students.”

After almost ten years, in 2010 Southern State reported to government that it had succeeded in the implementation of such curriculum reform. In diverse documents and reports, the university stated that it had reformed its academic programs, incorporating pedagogical techniques centered on the students and their learning. Along the same lines, such reports argued that the university had reformed its curriculum, making it competence-based and contributing to the formation of autonomous and responsible individuals as life-long learners. Specifically, the university claimed that since 2003 it reformed its more than 40 academic
programs, making them more flexible, modern, and responsive to the professional and social challenges that students will face. Moreover, Southern State claimed that it had fully implemented an Institutional Program for Tutoring, developing several strategies, such as individual, classroom-based, group-based, virtual, and peer-based tutoring. Indeed, according to reports, 90% of professors were trained on effective tutoring methods, and the program reached 75% of all students, focusing on those that are at academic, social, and/or psychological risk.

Along the same lines, according to its PIFI Proposal of 2002, Central State University enacted curriculum reform in order to “Improve our academic model and organization, with the ultimate goal of guaranteeing that our graduates have the knowledge, skills, values, and competences that modern society demands.” To achieve this, the university proposed “The implementation of a flexible curriculum with new pedagogical orientations, more flexible, innovative, and student-centered.” In 2010, this university also claimed that the proposed academic reforms had been “successfully completed.” In a report to the government within the PIFI proposal of 2010, the university affirmed that in the context of the implementation of a new “academic model,” it “Reviewed and updated the whole curriculum, centering the efforts on the development of flexible programs that are competence-based.” In fact, the university asserted that “100% of their academic programs are now competence-based, student-centered, and flexible,” and that “100% of them were evaluated in order to determine their alignment with marked demands.”

The case of Northern State University was no different. This university initiated its curriculum reform in the year 2002, by acknowledging in its PIFI Proposal of that year, that “It is necessary to guarantee that that all our academic programs are pertinent and have academic quality, in order to better respond to the changing environments and societal needs.” To
accomplish these goals, the proposal keeps on, “The University will pursue a comprehensive academic reform to strengthen its academic programs and to innovate in teaching and learning processes.” Along the same lines, Northern State acknowledged that “It needs to develop an integral program for the tutoring of students,” since under the current, fragmented system, only half of the student population gets academic advice from professors, with very different techniques and results. According to this proposal, the new academic model that will emerge from the curriculum reform “Will promote that our students are active learners, creative, participative, analytical and reflective,” and will guarantee that “they develop professional competences that allow them to successfully insert in the job market.”

Unlike the other two universities, Northern State acknowledged that academic reforms are complex processes that take time to mature and consolidate. In a report to government within its PIFI proposal of 2010, the university stated that it is “still in the transition process from a traditional curriculum to one that is competence-based.” In such report, the university asserted that 60% of academic programs are based on academic competences, and roughly 80% of such programs are flexible so students can take courses in different academic units. Although the university claimed that the majority of programs were reformed, it warned that the implementation of competence-based academic programs needs to be systematically evaluated, because such changes imply a shift in the institutional culture, and in the roles of the main actors: students and professors. Regarding the Tutoring Program, in the same document, the university asserted that in the last few years “Academic tutoring has become a central aspect of the teaching and learning process and in the transition to a competence-based curriculum.” However, according to official statistics, in the year 2009 the percentage of students that received tutoring reached 70%, so the university acknowledged that it “still needs to
consolidate the Institutional Tutoring Program in order to reach all students and guarantee uniformity in strategies and approaches within different colleges and schools.”

The symbolic adoption of curriculum reforms. In their reports to the federal government, the three universities claimed that their curriculum reforms were successfully implemented, or that were in the process of rapid implementation. However, as in the case of technological infrastructure, none of the institutions had conducted comprehensive studies on classroom impacts, even though they recognized that such reform processes needed to be “continuously and systematically evaluated.” Nevertheless, based on the qualitative evidence collected and analyzed in this study, I claim that the reforms did not have significant impacts on classroom practices, so their enactment was largely symbolic and discursive. According to the perceptions of most key informants, academic practices within the classroom are similar to those before the reforms were implemented, so nothing had changed substantially since 2001. As Meyer and Rowan (1977) argued, while educational organizations often adopt formal policies, plans, and programs that display conformity to socially desired goals, they may also decouple these formal structures from actual ongoing practices in the organization.

The universities in the sample designed new study programs that were “competence-based” and “student-centered,” up to date with national and international trends. However, these changes in structure were decoupled from core academic practices because appropriate mechanisms, such as effective professional development and performance evaluation, were not there to guarantee effective implementation. Therefore, interview-based evidence suggests that most professors continued with their traditional classroom practices, teacher-centered and textbook-driven, where students listen and passively take notes. In the case of tutoring, professors were required to advise students on academic and professional matters, aiming at
improving their experiences and performance. However, faculty members lacked proper training, conceptualizations, and mechanisms to validate the quality of such interactions. The overall result was that most professors understood “academic tutoring” as any informal and random contact they had with students about any topic, or worse, as a mechanism to provide “psychological therapy.”

At Southern State University, for instance, curriculum reform was highly symbolic and decoupled from genuine academic change. As stated by a top academic officer, “It is common for this institution to say it is going to reform its curriculum, and what we end up doing is just changing the language and discourse of the study programs, but real practices remain the same. That is precisely what happened with our last reform.” Along the same lines, a researcher and top pediologists affirmed that “Regardless of our recent curriculum reform, in the classroom professors keep doing the same as 20 years ago. The names and contents of most courses have changed, but professors still teach the same things and with the same practices.” A top academic officer, who was in charge of the reform process, summarized the problem:

As I have repeatedly said to the commission for curricular reform: it is worthless to have brand new study programs if we do not develop incentives to persuade professors to adopt them effectively, and mechanisms to evaluate their performance. But they just do not listen.

The adoption of tutoring programs at Southern State was also symbolic, without proper mechanisms to guarantee quality and professionalism of such interactions. According to a researcher and top pediologist, “There is a lot of deceiving, what usually happens is that professors talk to students about random things and that counts as academic tutoring and
advising.” Along the same lines, a planning advisor claimed that “The problem is the lack of accountability mechanisms, so professors just chat with students in the hallways, sign the forms and pretend they provided academic tutoring. Or worse, sometimes they just sign the forms without even talking to students.”

The situation at Central State University was similar. Here, evidence from interviews suggests that the curriculum reform was implemented only on paper, and accountability did not reach the classroom. A senior researcher at this university stated that “The curriculum reform that was implemented has not touched the classroom, professors still do whatever they want; there is no real evaluation and accountability on academic practices.” Along the same lines, a top executive acknowledged that “We indeed pursued a curriculum reform; the problem is that it has not permeated the classroom. The classroom is still the black box and the professor is still untouchable.” To a top researcher, the problem was that “We invested lots of money from PIFI on curriculum reform, but it was done only symbolically. Curricular reform should be an ongoing process, not something you do one time in order to give the impression of change.” A planning advisor summarized the issue:

The problem is that there are new programs but no incentives for professors to adopt them. We might have updated our formal curriculum, but most professors still use the same programs and techniques as 20 year ago. The only things that have changed are the computers and some textbooks, but academic practices remain the same.

The academic reforms of Northern State University met the same fate as in the other two universities in the sample: discursive enactment, lack of evidence on classroom impacts, and a general perception of failure. According to a top executive there, “Although we
implemented curriculum reforms, classroom practices are still the same as before PIFI existed. The PIFI Program has modified the way we talk about things, not things themselves. Academic practices in the classroom have not changed at all.” Along the same lines, as a central planner acknowledged, “The main weakness of our curriculum reforms is that they did not permeate the classroom, professors keep teaching as they did 20 years ago.” Regarding tutoring, to a planning executive the problem was that “We have been arguing that tutoring is very important for the success of our academic system. We said that 15 years ago and we keep saying that today, but our tutoring is still worthless.” A top academic officer commented on the problem:

Our program for academic tutoring went really bad. We had to stop it because it ended up being a program for “cheap self-help” and “tropical psychoanalysis”. This perversion happened because the university did not have a clear reform plan, and lacked a clear definition of effective tutoring. So instead of training our professors on effective academic and professional development, with PIFI money they started taking psychology courses on their own. They understood academic advising as motivation and self-help.

Evidence from the interviews at the three institutions suggests that curriculum reforms were decoupled from core academic practices. It seems that university executives were highly pragmatic and did not really care about classroom impacts, but only to show they were doing something to address the federal policies. A top planner at one university observed: “Such academic reforms were symbolic in nature because they responded to recommendations from evaluators within the PIFI Program, so they were designed to superficially comply with specific
demands in order to get money.” Along the same lines, an executive in another institution provided an account of such reform processes:

Universities became highly pragmatic and efficient in superficially complying with demands of the PIFI Program. They might produce more doctorates and develop new curriculums if they need to do so. However, they comply in order to get money, but nothing really changes in the classroom. Academic reforms are mostly “rhetorical illusions.”

Universities reformed their curricula because such changes in structure gave the impression of “academic improvement” to the federal government. According to Elmore (1995), reformers like to change structures because they have high symbolic value: “reforming” structures communicates that organizations are serious about change. However, as in the case of the universities studied, it was not obvious that changes in teaching practice will follow from changes in structure. In addition, Elmore argues that changing some structures and implementing new programs is much easier to accomplish than other candidates for change, such as “getting rid of teachers and administrators and replacing them with others” (p. 24). In the case of the PIFI Program, for instance, it was much easier for the universities to reform their curricula than to reform their laws and norms or to reorganize their governance structures, aspects that were also included in the PIFI guidelines but that universities did not paid much attention to.

In short, these universities were highly pragmatic and rational since the curriculum reforms they enacted had high symbolic value, and were relatively easy to achieve, since they were done mostly on paper. As stated by a top planner at one university, “We usually do what
the Secretariat of Public Education [SEP] tells us to do, without hesitation and just to comply and to keep the money flowing. They want curriculum reform? Ok sure, we deliver and move on to our own priorities.”

**Curriculum reforms as rhetorical illusions.** The claimed curriculum reforms were rhetorical illusions since universities and the federal government believed that the fact of updating study programs and creating programs for tutoring were uncontroversial signals of academic improvement. In reality, such reforms were likely to fail since they were not accompanied by effective accountability mechanisms to guarantee substantial changes in classroom practices. As a researcher in one of the universities acknowledged, “Universities might have changed their academic programs, but they did not change the rules of the game.” Indeed, the main problem with the academic reforms enacted is that they did not change the rules of the game: the relationships, norms, beliefs, knowledge, and skills at the individual and organizational levels (Elmore, 1995; Smylie & Perry, 1998). The reforms failed because, as McLaughlin (1990) argued, policy cannot mandate “what matters,” because “what matters” requires local capacity, will, expertise, resources, support, and discretionary judgment. The PIFI Program might have provided resources, some support, and allowed universities discretionary judgment. However, it did not guarantee that universities had the capacity, the expertise, and, most importantly, the will to successfully implement such reforms and positively impact academic practices.

According to Miles (1993), the impact of reforms on classroom practices depends on their underlying causal mechanisms, their “engines” and “drivers.” Smylie and Perry (1998) pointed out three types of mechanisms that, as engines and drivers, may influence classroom practices, such as controls, incentives, and opportunities to learn. Borrowing some definitions
from the authors, controls are the mechanisms that seek to compel individual action through some external source (Katz & Kahn, 1978); incentives seek to motivate and persuade people to enact specific voluntary actions (Church & Heumann, 1989); and learning opportunities provide the knowledge and the skills that may lead to new and desired behavior (Merriam & Caffarella, 1991).

Accordingly, curriculum reforms did not impact classroom practices, as intended by the federal government, because they were not accompanied by effective controls, incentives, and opportunities to learn at the individual and organizational levels. Universities might have updated their study programs on paper, making them “competence-based” and “student-centered,” but they did not develop effective controls and accountability mechanisms to persuade professors to implement them in the classroom. In practice, the effective implementation of the new curriculum in the classroom was completely voluntary, depending on the individual initiative, motivation, and skills of professors. Perhaps the most relevant evidence that universities were not serious about curriculum reform is that they did not develop any performance evaluation mechanisms to determine whether or not, and to what extent, professors implemented the new study programs in the classroom. As Pressman and Wildavsky (1973) argued, implementation cannot succeed or fail without a goal against which to judge it.

At the three universities it seemed that the goal in itself was the reform of the curricula, not the improvement of classroom practices, so there was no need to evaluate the implementation of such new study programs. This finding is consistent with previous studies on

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38 The National Program of Education (PRONAES 2001-2006), claimed that curriculum reforms would be implemented to “promote that academic practices in higher education institutions be centered on the active learning of students and on the development of life-long learning capacities” (p. 203).
policy implementation in Mexican public universities, which found that the focus of
government is on the evaluation of the proposals presented by universities, neglecting the
overseeing of their actual implementation. As Kent et al. (1998) argued referring to the original
FOMES grant, “what policy makers are evaluating is basically the universities’ capacity to
develop and present projects, not the capacity to implement them” (p.136). The same
phenomenon happened with PIFI, where the focus of authorities was on reviewing that
universities 
*designed* the reforms, not on evaluating their actual implementation and outcomes.
As long as universities presented documentary evidence that programs were updated, there was
no need to know if professors were actually enacting them.

On the other hand, incentives were not altered because reforms were not accompanied
by significant adjustments in the rewards structures for professors. At the three universities, for
instance, the internal policies to reward the productivity of professors did not include
provisions related to the effective use of new study programs, methods, or pedagogical
strategies. Such rewards structures were still mostly based on inputs and procedural aspects,
such as teacher credentials, attendance to conferences, and punctuality. Therefore, professors
did not obtain any direct benefits, such as prestige or additional income, for successfully
enacting the new curriculum. A basic assumption underlying incentives is that they attempt to
get people to do things they might not otherwise do, and do so voluntarily. As argued by
Schneider and Ingram (1990), incentives, as policy tools, include mechanisms that rely on
tangible payoffs, extrinsic or intrinsic, positive or negative, to induce compliance or motivate
utilization. At the sampled universities, however, the “carrots” and the “sticks” were not there
to persuade professors to enact the new curriculum in the classroom.
Finally, systematic and effective opportunities to learn were also absent from the logic of curriculum reform in the universities. These institutions did not develop comprehensive professional development programs to provide faculty members with opportunities to acquire the necessary skills and understandings of the new curriculum, and on the new roles of academic tutors. It is important to note that the PIFI Program provides resources for professors to voluntary attend workshops, seminars, and conferences. However, these opportunities to learn are for the most part individualistic, responding to the motivation and initiative of professor themselves. Elmore and McLaughlin (1988) observed that to carry out educational reforms teachers should acquire conceptual understandings of the reform and need more than traditional self-development opportunities to do so. Also, Smylie and Perry (1998) argued that learning opportunities such as work groups, planning teams, and team teaching as sources of exchange, collegial problem solving, and learning are fundamental aspects for the success of restructuring initiatives.

Evidence from interviews suggests that these collegial professional development opportunities were not present in the implementation of curriculum reforms in the three universities. To the contrary, it seems that professors were left alone to interpret the policies based on their own experiences and perceptions, not on the policy makers and university executives’ intent. The end result was that most professors ignored the reforms and kept doing their traditional classroom and tutoring practices. Or worse, that policy interpretations went wild as in the case of Northern State, where the tutoring program had to be stopped because “tutoring” was interpreted as self-help and psychoanalysis. As Jennings (1996) pointed out in her study on policy implementation in the classroom, policy is largely what practitioners
perceive it to be rather than some external document or legislation. Therefore, implementation is mediated through the individual practitioner’s believes and experiences (p. 15).

**The New Logic: Chasing Quantitative Indicators**

One of the most significant impacts of the PIFI Program on the universities studied was the change it triggered in their institutional logics. Institutional logics are the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality (Friedland & Alford, 1991). They provide the formal and informal rules of action, interaction, and interpretation that guide and constrain decision makers in accomplishing the organization’s task and in obtaining social status, credits, penalties, and rewards in the processes (Ocasio, 1997). The change in logics that the program promoted was simple and elegant: the “academic quality” of public state universities will be determined on the basis of quantitative indicators, and the distribution of extraordinary resources will be based on institutions’ “academic quality.” The new name of the game was to achieve the indicator or perish.

It is worth noting that some of the academic indicators existed before 2001, but they had not been systematized and institutionalized as accountability measures for public universities (Rubio, 2006; Secretariat of Public Education, 2001c). The institutionalization of quantitative indicators started with the National Program of Education for the presidential term 2001-2006, by promoting that “a planning process must include, as essential mechanisms, those relative to the evaluation of results and follow up of improvements that, in a democratic logic, lead to effective accountability to the public” (Secretariat of Public Education, 2001c, p. 77).
Therefore, the program continues, “A National System of Indicators will be developed and implemented in order to assess the evolution of the educational system.”

Within this National Program of Education, PIFI was created to promote that quantitative indicators took hold as the mechanisms to assess the academic quality of public universities and the basis to distribute resources from grants. As stated in such document, “The federal government will promote that public higher education institutions develop integral programs for institutional strengthening [PIFI’s], which allow them to reach superior levels of development and consolidation” (Secretariat of Public Education, 2001c, p. 204). Moreover, according to this document, “in their integral programs, public universities must establish indicators and goals to 2003 and 2006, for each of their academic units and for the university as a whole, which allow for the evaluation of results” (Secretariat of Public Education, 2001c, p. 204). This radical mandate was straightforward: from 2001 on, universities needed to start taking the quantitative indicators seriously; otherwise they would be left behind in the new race for “academic quality.”

In 2001 the National Program for Education mandated that the system be evaluated on the basis of quantitative measures. However, it was in 2002 when the PIFI Program determined the specific types of indicators that universities had to implement. The program established two categories of such measures: “academic capacity” and “academic competitiveness.” According to the program’s blueprint, academic capacity referred to the credentials of individual professors, such as the number of full time professors, professors with graduate degrees, and members of the National System of Researchers. Academic competitiveness referred to the level of quality of the institution as a whole, based on aspect such as the evaluation and
accreditation of academic programs, and the graduate programs registered in the National Council of Science and Technology (Secretariat of Public Education, 2002).

The change that this new emphasis on quantitative indicators promoted in the institutional logics of public universities was dramatic. The mechanisms for universities to obtain social status, credits, penalties, and rewards were drastically altered. The actions, interactions, and interpretations that guided and constrained university decision makers in accomplishing the organization’s goals had a new bottom line: the quantitative measures of academic quality determined by the federal government.

Without exception, the three universities rapidly embraced the indicators as the “new currency” of the system, and aligned their goals with those of the federal government. As stated by a top planner at Southern State University, for instance, “The PIFI has had a huge impact on the university because now all professors and administrators have one common goal: to improve the official academic indicators.” Along the same lines, to an academic officer at this university: “Before PIFI we did not care much about the academic indicators, but after 2001 we started to pay attention to them and to focus on their achievement.” An executive at Northern State University commented that “The most important impact of PIFI is that we aligned with the achievement of academic indicators.” Before PIFI, some academic indicators existed but were not that important for the universities. PIFI made them the currency of the system. In similar fashion, according to an executive at Central State University, “The most important impact of PIFI is that all universities aligned their efforts to the achievement of the academic indicators developed by the Secretariat of Public Education. PIFI created a common objective to which all institutions aim.”
A school dean at Northern State commented about the impact of PIFI on this issue and on the reason why universities rapidly embraced the quantitative measures as their new currency:

The main impact of PIFI is that it has transformed the planning culture in the university in terms of aligning all efforts towards the achievement of academic indicators. We might not agree with the particular indicators, but the “carrot” was very attractive so we had to comply with SEP and adopt them.

The perceptions and opinions of key informants suggest that the adoption of academic indicators as measures of academic quality, and as a basis for the resource distribution of focused grants, went unchallenged at the three universities. It seems that there was no significant debate, resistance, or alternative courses of action proposed by the universities. As acknowledged by some university executives and professors, universities might not agree with some of the indicators, or with the general logic of quantifying the construct of academic quality, but the government “stick” was too powerful. Public state universities passively complied with the new policy mechanism of the federal government. As summarized by a researcher and former federal policymaker:

PIFI was a highly successful instrument because it was completely institutionalized with no resistance whatsoever. It achieved that all public state universities adopted the same quantitative indicators, the same discourse, the same goals and even the same process to achieve them.
**Indicators and the logics of academic quality.** The rapid alignment with the new logic of academic quality led these universities to adjust their discourse and to mimic the discourse of the federal government. Resembling the task environment is one of the most important strategies to gain institutional legitimacy (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). As DiMaggio and Powell (1983) proposed, “the greater the dependence of an organization on another organization, the more similar it will become to that organization in structure, climate, and behavioral focus” (p. 154). Heavily depending on the federal government to survive, these universities rapidly incorporated the official discourse within their own structures to gain legitimacy, and to demonstrate that they are complying with national policies, if only symbolically.

The three universities in the study incorporated the official logic and discourse in their strategic documents and in some of their norms. For instance, institutions adopted the goals, strategies, and concepts established in National Programs of Education, and in the PIFI blueprints. The three institutions began to heavily emphasize the achievement of quantitative goals, and the concepts established by the federal government such as “academic capacity”, “academic competitiveness,” “evaluated programs,” “accredited programs,” “research groups,” etc. In fact, the PIFI Program was all but subtle in promoting the incorporation of new concepts in the strategic documents of participant universities. For instance, in the PIFI guide of 2002, the program recommends institutions to make sure that “The commitment with the improvement of academic quality” be present in the mission statement of the universities (Secretariat of Public Education, 2002, p. 16). In this sense, the federal government was telling universities how to address, define, and achieve the complex construct of “academic quality.”
In response to the program’s requirements, the institutional development plans of the three institutions incorporated the discourse and the logic of the federal government. In Northern State University, the development plan 1998-2010, published before PIFI was implemented, mostly focused on qualitative and general goals, such as the continuous evaluation of study programs, the improvement of the academic credentials of professors, and the incorporation of more researchers to the National System of Researchers (SNI). However, in the new version of such plan, presented in 2005, the logic and discourse drastically changed, and now the institution had new goals, such as having 100% of our academic programs evaluated by external agencies, having 100% of our academic programs accredited by external agencies, and incorporating 15% of our researchers to the National System of Researcher each year.

At the other two universities the case was similar. General and qualitative goals were replaced by quantitative measures and new concepts were adopted in alignment with the federal policies and discourse. At Central State University, for instance, the development plan 2002-2005, created in 2001 while PIFI was in early stages of implementation, did not mention any quantitative goals and indicators, while the plan 2005-2009 was full of references to quantitative measures and the concepts institutionalized by the PIFI Program (e.g. accredited programs, evaluated programs, and programs of academic quality).

At Southern State University, the development plan for the period 2002-2006 presented only general and qualitative goals, while the plan for the period 2007-2010 fully embraced the quantitative logic and the official discourse. For instance, it incorporated notions such as
academic competitiveness, academic capacity, academic consortia, PIFI, and it presented several charts and statistical tables with the evolution of the quantitative indicators promoted by the PIFI Program.

These universities also incorporated the policy logic and discourse in some of their statements and official norms. According to PIFI’s blueprint, the program would promote the normative reform of public state universities, in order to “better support the academic development of the university” (Secretariat of Public Education, 2002, p. 9). However, none of the universities enacted comprehensive reforms to their core norms aimed at impacting academic practices and substantially changing the “rules of the game.” ⁴⁹ Instead, the legal adjustments that universities implemented were mostly directed towards aligning with the official discourse, and promoting the achievement of the official indicators. Such strategic responses represented a sort of goal displacement, in which universities focused on short-term outputs instead of long-term and broader goals, sending new signals that what was important for universities was to chase numbers. As stated by a planner at Northern State:

Some norms in the university changed in order to adapt to the PIFI requirements and discourse, and to the recommendations of the external evaluation agencies [e.g. CIEES and COPAES]. But such modifications are superficial, designed to symbolically comply with specific demands and to facilitate the achievement of specific indicators. Day to day academic practices did not change at all.

⁴⁹ The most important official norms of Public State Universities are the “Organic Law” and the “General Statute,” which laid down the strategic direction and the “rules of the game” for academic and administrative affairs.
Along the same lines, an academic officer at this university acknowledged:

We adjusted some norms in order to stimulate and facilitate the achievement of indicators. For instance, we give money to professors that became PROMEP Profile\textsuperscript{40} through the Stimulus Program for Academics. So, if you are a PROMEP professor you automatically get category seven in such program. We did that to improve our academic indicators and to better compete nationally.

The situations at Central and Southern State were quite similar. For instance, according to an academic officer at Central State University, “The University has adjusted some norms in order to comply with the requirements of PIFI, but such changes were mainly procedural, not substantial. For instance, we adapted our norms in order to emphasize the achievement of academic indicators.” To a researcher at Southern State:

This university adjusted its norms mostly in order to improve the academic indicators. For instance, we modified our norms in order to make easier for students to graduate, and to promote that professors get masters and doctorates. We do not really discuss the construct of academic quality anymore; the important thing is to achieve the indicator.

Evidence from the review of laws and norms was consistent with these perceptions. For instance, at Northern State University, the norm of the Stimulus Program for Academics, that dictates the requirements for professors to get additional income, incorporated in 2006 the concept “PROMEP Profile” as a fast-track way for professors in such category to obtain

\textsuperscript{40} This is a category awarded by the federal government to full-time professors that “equilibrate” and “successfully” perform teaching, tutoring research, and outreach activities within their universities (Secretariat of Public Education, 2006).
economic stimulus. With this change the institution made it highly attractive for professors to achieve such profile, and hence improving the PROMEP indicator. Along the same lines, the Stimulus Program for Academics at Central State University, updated in 2007, established that in order to achieve the higher categories, and hence the higher additional compensations, professors must belong to this official category.

Moreover, at Southern State University, as observed by a key informant, the Law for Graduate Studies and Research was modified in 2006 in order to relax the requirements to obtain a master’s degree. In the previous law of 1997, the most important requirement for graduation was “to develop an individual thesis with the characteristics established by the particular school.” However, in the updated law of 2006 the new requirement was “to develop and individual thesis with the characteristics established by the particular school, or to choose other graduation options established in the internal rules of particular schools.” With this change, the aim was to waive the thesis and promote the graduation by other easier and faster means, in order to improve the indicator. Moreover, in perhaps the most striking example of the normative institutionalization of the “PIFI logic” within universities, the new Planning Law of Southern State, published in 2006, incorporated the vast majority of concepts, and even the same acronyms, promoted by PIFI and the National Development Plan. For instance, this law refers to academic consortia (DES), academic programs (PE), CIEES, COPAES, PIFI, research groups (CAS), among other concepts created and promoted by the federal government.

The fact that some organizational changes might be symbolic and ceremonial does not mean they are inconsequential (DiMaggio & Powel, 1983). While some of these changes were real and not just discursive, evidence from interviews suggests that they did not substantially alter core academic practices. In this sense, such normative adjustments were strategic
responses to give the appearance of compliance, aiming at maximizing the program’s rewards. In a broad sense, the alignment of strategic documents and norms with the new logic of the federal government sent clear signals that what really mattered was contributing to the achievement of academic indicators, not to improve academic practices and outcomes. As a result, professors and administrators were in a quest to pursue master and doctorate degrees, to become members of the National System of Researchers, to be regarded as “good” professors by having the PROMEP profile, and to have all academic programs positively evaluated and accredited. However, there was not much attention paid to what and how professors were teaching and to the performance of students and graduates.

As argued by Ocasio (1997), what decision-makers do depends on what issues they focus their attention on. That in turn, depends on the particular context or situation they find themselves in. The situation in which the executives at the three universities found themselves was clear: achieve the indicator or perish. This emphasis in chasing numbers distracted administrators and professors from focusing on promoting substantial academic practices and learning outcomes. In the current environment, teaching and learning practices did not seem to be that relevant in the frenetic quest to achieve the official performance measures.

This alignment with the official goals was reflected in the isomorphism of the discourse and logics at the universities studied. Before PIFI, these universities had their own styles, concepts, and “tones” in the development of their strategic documents (e.g. annual reports on the state of the university and institutional development plans). They had their own definitions of academic quality and their own priorities for institutional development. After PIFI, such strategic documents became highly homogenous, with unifying language, tones, themes, and priorities. In my perspective, the continuous and healthy academic debate over the construct of
“quality” seems to be over in these public universities. Nowadays, to have academic quality means to excel in the accomplishment of quantitative indicators. Nothing else seems to matter. As evidence from interviews and from the review of strategic documents across universities suggests, responses to the PIFI Program were very similar, homogenizing the priorities, competitive advantages, and “personalities” of these universities. The three of them now have very similar goals, language, and structures, in close alignment with the policies of the federal government.

The increasing isomorphism across public state universities is consistent with neo-institutional postulates. For instance, DiMaggio and Powell (1983) proposed that “the greater the extent to which an organizational field is dependent upon a single (or several similar) source of support for vital resources, the higher the level of isomorphism” (p. 155). The almost exclusive dependence of these universities on the federal government for additional resources, and the historic reluctance of Mexican public universities in general to significantly diversity their sources of income, put them in a weak position and under the same environmental pressures and constrains, and promoted homogeneity in their missions, goals, strategies, and discourses. As a consequence, differentiation and innovation have declined since universities do not have incentives to take risks and innovate. They are in a “comfort zone” in which the blueprint is clear: focus on achieving the indicators and do not get distracted with other things.

**Academic indicators and competition: the new “balance sheet.”** The alignment of public universities with the quantitative indicators established by the federal government promoted a fierce competition for resources and prestige among institutions. Performing well on the official indicators became the first and foremost goal of the universities studied. Before PIFI, quantitative indicators provided valuable information regarding the academic
development and consolidation of individual institutions and of the system as a whole, but they were not definitive measures of quality and success. Within PIFI, such indicators were tied to the distribution of resources from grants, and hence they became the new “bottom line” of the system.

Universities are complex organizations since they have multiple missions, goals, values, and strategies (Brunner, 1985; Clark, 1987). What PIFI promoted was that this natural complexity could be simplified and rationalized by establishing objective measures of academic quality. Birnbaum (1988) claimed that there is no metric in higher education comparable to money in business, and no goal comparable to profits. This is so because of disagreement on goals and because neither goal achievement nor the activities related to their performance can be satisfactorily quantified into an educational “balance sheet.” However, what the PIFI Program promoted and successfully accomplished among public state universities was precisely that the system now has “metrics” comparable to money, and goals comparable to profits. Indeed, it might be argued that these metrics became the educational “balance sheet” of public state universities in Mexico.

Quantitative indicators became the new balance sheet in the three universities studied, and their executives are well aware and attentive to their development and to how other universities were performing. As stated by a top planner at Northern State, “With PIFI, we now know the situation of other universities, since we compete and compare with. Before PIFI, we did not care much about that, now we are very attentive to their performance on such measures.” To an academic executive at Southern State, “With the emphasis on indicators public universities ‘got naked’ and were forced to compete on the grounds of academic results,
not only on political negotiations. The rules changed: if you want more resources, show me your numbers first.” According to a top executive at Central State University:

There is no other choice but to compete. PIFI provoked a fierce and bitter competition among public universities to excel in the indicators in order to get resources. Indeed, the only academic ranking that exists among public state universities is the one that shows the list of institutions that got more resources from PIFI each year. All universities are aware of their relative position in such ranking.

This competition on quantitative measures was evident when analyzing the trends in some of the academic indicators. For instance, in measures such the percentage of academic programs considered by the Secretariat of Public Education (SEP) as having “academic quality,” the three universities have almost reached the top (see Figure 5). Moreover, the fact that two of the universities studied already reached 100% on this indicator is making policy makers and university executives alike asking each other the question: now what? As observed by a top administrator and researcher at Central State University, “We achieved that 100% percent of our programs are officially regarded as having academic quality, does that mean we are Harvard? Of course not, but what are we supposed to do now?”

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41 The study programs regarded by SEP as having “academic quality” represents the sum of those programs positively evaluated by the Committees for the Evaluation of Higher Education (CIEES), plus those that have been accredited by the Council for the Accreditation of Higher Education (COPAES). Both CIEES and COPAES are independent agencies that assess the quality of academic programs in public and private universities. The most important factors in order for an academic program to be “positively evaluated” or “accredited” are that most of its professors have good academic credentials (masters and doctorates), the curricula is up-to-date, and the academic infrastructure is modern (COPAES, 2009).

42 In the aggregated statistics for all 34 public state universities this indicator is also reaching the top, since 80% of all academic programs are regarded by SEP has having “academic quality.”
Figure 5. Percentage of academic programs regarded by SEP as having academic quality by sampled university (2003-2010). Source. Calculated with data from the Secretariat of Public Education (2010).

Another example of this competition for resources from grants and for prestige is the membership to an “elite club” of public state universities: the Consortium in Mexican Universities (CUMEX). This consortium was created in 2005 with the goal of “being at the forefront of quality in the academic programs offered in Mexican higher education and abroad” (CUMEX, 2011). In order to become members of CUMEX, public state universities have to achieve very high marks on the academic indicators promoted by SEP, such as in the percentage of academic programs of academic quality (90%), and the percentage of full-time professors with graduate degrees (80%). When this organization was created only eight out of the 34 public state universities qualified for membership (23%). However, by the year 2011, 23 institutions became members (67%). If this trend continues, by 2014 or 2015 all public state universities would be part of this “elite group.”
It is important to note that the sort of “competition” that the PIFI Program promoted among public state universities was highly structured and restrained, therefore, it did not lead to innovation and differentiation, but to strict compliance and isomorphism. For the most part, sociologists and economists have treated the processes of innovation and differentiation as guided by the “invisible hand” of markets, rather than the quite visible hand of the State (Rhoades, 1990). In Schumpeter’s (1942) view, competition in free markets would lead to innovation and differentiation through a process of continuous creative destruction. In the higher education arena, Birnbaum (1983) observed that state intervention decreases system diversity, making it less likely that new organizational forms evolve in response to environmental pressures and uncertainties. In this sense, paradoxically, although the three universities competed for resources and prestige, the strict regulations of federal government created a context in which universities “competed to comply,” not to innovate, leading to institutional isomorphism.

**The “academization” of universities.** Institutional logics influence the assumptions and values, usually implicit, about how to interpret organizational reality, what constitutes appropriate behavior, and how to succeed (Jackall, 1988; March & Olsen, 1989). The rapid alignment and adoption of the performance logic established by the federal government have further promoted the “academization” of the universities studied. In order to succeed, the new rewards structure in the system pushed these universities to focus most of their attention and energies toward the achievement of academic indicators, reducing the political pressures that had traditionally existed in Mexican higher education financing. Historically, the distribution of resources for public universities has been highly politicized. For many years, public universities had the incentive to grow and accumulate political power in order to get additional resources
(Kent, 1996). What PIFI and the new policy logic promoted is that such political incentives are complemented by academic ones. For instance, if universities wanted more resources, instead of solely focusing on demonstrating “political muscle” and fine-tuning their lobbying capacities, now they had to demonstrate advances in their academic indicators as well.

In that sense, the traditional political discourse had been partially supplemented by an academic one. In the recent past the political discourse was common in public state universities, with notions such as “political mobilization,” “resistance,” “strikes,” “demonstrations,” “political pressure,” etc. Nowadays, the discourse that the universities studied have mastered emphasizes notions such as “academic indicators,” “evaluation,” “accreditation,” “academic quality,” “academic credentials,” etc. Budget politics have not disappeared, and the size and power of a university are still key factors in the resource distribution from grants and from ordinary budgets. But what PIFI promoted was that the academic dimension, measured by the official indicators, also played a role in such political negotiations. As observed by a top executive at Northern State University:

PIFI has promoted the “rationalization” of the resource distribution to public state universities, and reduced the discretionary power of the federal authorities. Before resources from grants were linked to academic indicators, the federal government assigned them mostly based on the political relationships with a given university. With PIFI, objective measures and indicators were developed to determine the distribution of additional resources. Such fundamental change has contributed to the de-politicization of the budget process in higher education.
Along the same lines, an executive at Central State University acknowledged that “PIFI contributed to the de-politicization of the university. When indicators were irrelevant, the strategy to get extra resources was to mobilize the university politically. PIFI promoted the ‘mobilization’ of the university in an academic logic: achieving the indicators.” Moreover, to a top executive at Northern State, “the relationship between SEP and universities improved with PIFI and the grants. For instance, now we do not have demonstrations or strikes like in the past. Now, we have to demonstrate the achievement of high marks in our indicators.” An administrator at Southern State summarized, quite sarcastically, the impact of the new academic logic:

PIFI and the grants have resulted in the “academization” of this university. Nowadays, most professors are worried about improving their credentials, pursuing masters and doctorates. Some professors might pursue doctorates in “culinary arts,” or get them online, by mail, “imaginary,” or whatever, but that does not matter. The important thing is that culture has changed. At least now everybody is talking about improving their credentials, instead of discussing how to shut down the university and go on strike.

These assertions should be taken with caution since the apparent “academization” of public state universities was highly symbolic and discursive. Mexican public universities are still highly politicized institutions. As observed by Kent (2005), “the technocratic discourse did not end with the political nature of Mexican public universities. Political actors within universities have learned the modernizing language and the know-how to navigate in such environments, but they use such skills in order to advance their political careers, not to modernize their universities” (p. 75).
Another issue related to the academic logic of the PIFI Program was that the alignment and adoption of the quantitative indicators led to the “myth” that achieving high marks represents undisputable evidence of academic quality. According to Church and Heumann (1989), the success of policies based on financial incentives depends on having performance measures and indicators that are clear, relatively easy to quantify and compare, and that send unambiguous signals to the actors regarding what is important. In Mexican public higher education, this condition was met since the system has indeed developed a set of unambiguous quantitative indicators for public universities to achieve. The problem in Mexican higher education is not the clarity and measurability of indicators, but their relevance. To be effective, indicators should be developed in a way that even if there is some sort of goal displacement (Blau & Meyer, 1971), systemic academic change can take place. In other words, if indicators are comprehensive and multidimensional they have the potential to improve academic practices when universities focus their attention and energies to achieve them. The current indicators, however, are not comprehensive and meaningful since they are based mostly on inputs, not on academic processes and outcomes.

Academic quality is a complex, multidimensional concept. Jones (1984) argues that, nevertheless, there is a tendency to talk about academic quality as if there were common understanding and agreement about its meaning. The assessment of academic quality in higher education has traditionally been concentrated on what Kuh (1981) has called “context variables,” such as the proportion of faculty with doctorates, the quality of students as defined by scores on entrance exams, the size of the library collection, and the expenditure per student,
and not on “performance outcomes” such as student achievement. The academic indicators in Mexican higher education mainly consider Kuh’s context variables, such as the formal credentials of professors, the technological infrastructure, the library collections, and the number of academic programs evaluated, to mention a few. What happens in the classroom is still a mystery because key aspects, such as the academic practices of professors and the performance of students, are absent from the logic of the PIFI Program.

As observed by an executive at Southern State, “With PIFI, most quantitative indicators have improved here. The problem is that these indicators mainly measure inputs, not academic processes and results. We have professors with better credentials, but we definitely cannot affirm that we have better professors.” The perspective of a top executive in Central State was that “Our main indicator should be what happens in the classroom, everything else is superficial. Current indicators are like the Gross Domestic Product; they provide a broad picture but mask the reality of core academic practices at the classroom level.” A top executive in Northern State University synthesized this issue:

The quantitative indicators developed by the federal government are important because they give prestige to universities and promote competition on objective criteria. The problem is that academic quality has become a cosmetic practice, not a substantial pursuit. The academic quality of a university cannot be assessed only with procedural measures, such as the number of computers, books, or the number of professors with graduate studies.
The notion that the current set of academic indicators is not effective is gaining acceptance within the higher education system, and there are relevant voices calling for the development of a new indicators based on academic processes and outcomes. For instance, the Undersecretariat of Higher Education pushed public state universities to think about a “second generation” of indicators oriented towards substantial outcomes, such as students’ learning and professors’ performance (Tuirán, 2011). Along the same lines, the National Association of Universities and Higher Education Institutions (ANUIES) has acknowledged that the current evaluation system needs to be reviewed and updated to avoid distortions and to provide more information about core academic practices and students’ performance (National Association of Universities and Higher Education Institutions, 2010).

The issue is gaining importance in the policy agenda. However, outcome-oriented indicators would mean opening of the “black box” of academic practices, something that public universities seem to resist. As a senior planner at one institution commented, “Messing with the classroom equals political conflict. The classroom is a black box and a private entity, that is why keep evaluating inputs and administrative processes instead.” Nevertheless, in my view, sooner or later the current indicators will be adjusted because they are rapidly becoming irrelevant. As a researcher at one university observed, “If the quantitative indicators of most public state universities really reflected academic quality, we would already be a developed country.”
University Autonomy and Accountability: The Complex Balance

Another impact of the PIFI Program was that it altered the balance of autonomy and accountability between universities and government. The policy logic and the requirements of the program reduced the capacity of the universities to determine their own goals and processes, which limited their institutional autonomy. If the ultimate goal of monetary incentives is to get organizations to do things they might not otherwise do and do so voluntarily (Schneider & Ingram, 1990), then, after 10 years of implementation the PIFI Program has become a successful controlling and steering mechanism for the government. As discussed earlier, the program contributed to the homogenization of structures, goals, strategies, and discourses, and hence to the reduction the self-determination of the universities in the sample.

The PIFI Program did not inaugurate the era of government influence in public universities through monetary incentives, but it significantly contributed to the strengthening of “remote control” policies. As mentioned earlier, the first focused grant was the Fund for the Improvement of Higher Education (FOMES) created in 1991. Like the PIFI Program, FOMES was a monetary incentive to promote the qualitative change of public universities. However, a sharp difference between FOMES and PIFI is the flexibility of the former. The FOMES grant required universities to present specific proposals as well, but the guideless were highly flexible. This was a monetary incentive with weak accountability measures, a policy with no teeth. The guidelines of the PIFI program, on the other hand, have significantly tightened up the government’s grip on public universities. The pendulum has swung: if FOMES barely had teeth, PIFI barely has flexibility.
According to Berdahl (1959), the problem relating to autonomy vis-à-vis the State is “determining whether legitimate State influence had passed over the almost indefinable boundary into illegitimate State control” (p. 161). University autonomy is a dynamic concept, achieving the appropriate balance between State oversight and the independence of public universities represents an issue marked by persistent tension and change (Hutchens, 2007). In his study of British universities, Berdahl (1959) presented five attributes of university autonomy, which are highly relevant for the purposes of this study. According to Berdahl, the essential conditions of autonomy and academic freedom are related to the capacities of universities to: admit and examine their students, determine their curriculum, appoint their academic staff, control research programs and priorities, and control their educational policies.

In analyzing the influence of the federal government over these attributes, I argue that the PIFI Program did not significantly affect the capacities of the three universities to admit and examine their students, to appoint their academic staff, to determine their curriculum, and to define research priorities. In these latter two aspects, the program might have influenced the curriculum orientations of the institutions, if only symbolically and discursively, and their research priorities by providing incentives to focus on some disciplines; nevertheless, institutions still retained significant control over these attributes.

On the contrary, the program significantly reduced the capacities of the sampled universities to determine their educational policies. In this attribute of autonomy, government has practically taken over as the educational policy master. Through the PIFI Program, government established a “navigation chart,” a detailed blueprint of the direction where the system must go, including the definition of academic quality and the metrics for success. Such navigation chart significantly reduced the autonomy of universities to determine their own
policies, standards, and rewards structures. Even if universities disagree with the indicators and the metrics for academic success, they have to embrace them. Otherwise they run the risk of financial asphyxiation.

The three universities studied resented the influence and the tight control of the federal government over their policies, and the consequent limitation of this aspect of their autonomy. On this issue, a top executive at Southern State University observed:

PIFI interfered with the autonomy of public universities because it is a straitjacket that attempts to control institutions. What the government should do is create grants that support the goals that universities have developed themselves in their institutional plans, and do not attempt to homogenize the public higher education system.

According to a researcher at this university, “With PIFI and the grants our autonomy was reduced even further, we do not decide in our own educational policies and programs, all has to be decided and authorized in Mexico City.” Along the same lines, an executive here observed:

PIFI significantly reduced the autonomy of our institution because now the federal government tells us what to do, and how to do it, so where is our autonomy? The key issue here is that government does not believe in us as a university, they put into question our very capacity to craft our own destiny and to handle our resources honestly.

The situation at Northern State was no different. The capacity of this university to decide its own educational policies was significantly reduced by the PIFI Program, as
acknowledged by a top executive, “What worries me the most is our autonomy. We have lost our capacity for self-determination since our policies are being defined by the federal government; we are rapidly losing our personalities and identities as institutions.” Along the same lines, to a planning executive at this university:

Autonomy does not exist anymore, that is a myth. In practice, universities do not have any autonomy because the federal government tells us where to go and what to do in order to give us money. In the University Senate there are discussions in which many executives say we should not participate in the grants because they are limiting our autonomy, but after a cost-benefit analysis we realize that if we do not participate we could be in financial trouble, so we go along and play the game of PIFI and the grants.

A top planning advisor and researcher at Northern State synthesized the impact of the PIFI Program on autonomy and on the university presidency:

Autonomy is an illusion. The entity that is dictating the policy of public state universities is the federal government, we must be clear on that. Nowadays, it has become irrelevant who the university president is, or if he has any experience in the sector since he will have to strictly follow the policies established by the federal government. Therefore, anyone could be president now, and the strategic direction of the university will remain intact.

At Central State University there was also acknowledgment that autonomy has been reduced. However, the perception here was more pragmatic. It seemed that as long as the university had more money autonomy was not that relevant. On the subject, a top planner
observed, “If grants will reduce my autonomy but augment my budget, let’s go for them. Institutional autonomy without financial independence is nonsense.” Along the same lines, to a senior advisor and researcher, “Autonomy is not much of a worry in this university. In practice, autonomy has been significantly reduced with PIFI but nobody voices the issue anymore. Autonomy is something you defend or you do not have it.” A top executive summarized the accommodation of the university on this subject:

The issue of autonomy has been resolved in this university. There is no conflict anymore since most people accept that autonomy has been reduced, and it is not what it used to be two decades ago. The paradigm change happened in the 90’s with FOMES; PIFI was a second-generation tool to further control universities, by establishing academic policies and indicators that universities had to follow. Universities resisted this imposition at first, but latter on they all bought into, the carrot was just too powerful.

In sum, in the three universities there was a feeling of defeat and resignation regarding autonomy and, for the moment, there were no apparent motivations to discuss the issue openly and formally. Autonomy in Mexican public state universities has been systematically adjusting in order to comply with national policies and evaluation mechanisms (Richardson & Kent, 2002), and it has lost “various degrees of freedom” in the recent past (Acosta, 2010, p. 139). The retrenchment of autonomy is a process that has been evolving slowly but steadily, as commented by a researcher at Northern State:

Autonomy has been significantly reduced in this institution and in all public state universities in the country. PIFI and the grants have been the essential tools to
accomplish this process of redefinition over the years. The reduction of autonomy has been silent but dramatic, with no open discussion or debate. All policies, from the creation of new programs to the establishment of definitions and parameters are being decided at the Secretariat of Public Education.

Birnbaum (1988) argued that as the locus of influence moves from the campus to government, public-sector presidents may find themselves becoming more like middle managers than campus leaders. This situation was happening at the universities studied, where the power of presidents to substantially affect the overall direction of the institution was reduced. As a top executive at Southern State commented, “We might have the capacity to furnish the boat, but not to handle the steering wheel.” Acosta (2010) concurs with this perception, when he claims that university presidents and top executives have become successful managers -as opposed to leaders-, whose main responsibility is the accumulation of money and prestige for the institutions through the achievement of the quantitative indicators and the policies defined by the federal government.

University presidents became middle managers because they acted as efficient implementers of government’s policies, not active designers of their own. If government promoted “curriculum reforms,” “tutoring programs,” or “internationalization,” universities rapidly jumped on the bandwagon and responded accordingly. Even if institutions disagreed with most of the policies, they complied with them anyway. As a top executive at Central State noted:
Universities have learned to pragmatically adapt and implement programs to give the appearance of compliance with the requirements of the feds. For instance, if they want us to create programs with “gender perspective”, for “internationalization”, or “curriculum reforms”, we do so rapidly in order to get money.

The fact that university executives do not necessarily believe in the policies promoted by government seemed to be irrelevant. The important issue is that they seemed to be passively waiting for SEP to establish the policies so they could implement them. Public state universities have become like “echo chambers,” which repeat and amplify what government promotes. During 2011, university executives were talking about “second generation indicators,” mainly because the Undersecretary of Higher Education brought the subject at a national conference of the Consortium of Mexican Universities (CUMEX) early in that year. The three universities are members of this elite group, so after listening to this proposal they were “persuaded” that it was the next big theme in the system. Indeed, evidence from the interviews suggests that they already started to adopt the language of and have been very attentive for further government signals on the “second generation policies.”

The PIFI Program and resource scarcity. One of the most important factors in explaining the success of the PIFI Program in steering the educational policies of the universities was resource scarcity. The economic postulate of incentive policies argues that the scarcer the desired good is, the more effective the lever will be in affecting behavior (Clark & Wilson, 1961). Thus, unless a commodity, a status, or an activity is relatively rare, it provides

44 Key informants in the three sampled universities claimed that it was time to think of a “second generation indicators,” in close alignment with the federal proposal presented at the CUMEX meeting.
no inducement (Clark & Wilson, 1961). In an environment characterized by deep resource scarcity, or misery (as noted by a top executive at one university), the PIFI Program became a powerful policy lever to determine the strategic direction of universities. As observed by Chaffee (1983), since in most universities so much of the regular budget is virtually fixed, especially in the short run, the portion that is free to vary assumes tremendous importance.

As noted earlier, the vast majority of the ordinary budgets of Mexican public state universities (90%) go to fixed or current expenditures (e.g. wages and salaries), leaving only a marginal sum for capital expenditures. In such a situation, the fresh resources that grants provide represent, in theory, a powerful lever for organizational change in the direction desired by the government. Indeed, university presidents may have their own priorities and visions; however, they usually do not have enough resources to implement them. As commented by a top executive at Central State, “There are two parallel planning processes in the university; there is one process with enough resources (PIFI planning) and the other without them (our real planning). In other words, we have money to accomplish the goals of SEP, not our own goals.”

The dependence of the three universities on the PIFI Program becomes clearer by analyzing their budgets. According to official statistics, in the period 2001-2010, the weight of the program relative to capital expenditures was, on average, around 25% at the sampled universities. Therefore, not receiving money from this program in a given year would negatively impact capital investments, such as the development of new programs, infrastructure, and other academic priorities45 (see Figure 6).

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45 According to key informants, the weight of the PIFI Program in some particular schools within the sampled universities reached 50% of their budgets for capital expenditures. However, I did not have access to such data to corroborate the claims.
Figure 6. Financial weight of the PIFI Program relative to the budget for capital expenditures at the three universities in the sample (aggregated 2001-2010) (Pesos). Source. Calculated with data from the Undersecretariat of Higher Education (2011c).

Moreover, if we take into account not only PIFI, but the PROMEP Program, which is part of the same PIFI logic, the dependence of the sampled universities becomes heavier since both programs represents around 30% of their budgets for capital expenditures (see Figure 7). Consequently, universities may have no choice but to surrender part of their autonomy and comply with the policy guidelines of these federal grants, if mostly symbolically and superficially.
According to Emerson (1962), one actor’s power over another is rooted in the latter’s dependence on resources controlled by the former. The dependence of the universities on the PIFI Program, along with the lack of flexibility of the policies, has been a fundamental aspect in the reduction of their autonomy vis-à-vis the resource environment. University executives acknowledged this dependence. However, they seem to be comfortable in such a situation since they have been historically reluctant to diversify their sources of income. For instance, on average, only around 17% of the total budgets of public state universities comes from private sources (e.g. tuition and fees, services, and research contracts), and that figure has been relatively stable over the past ten years (Undersecretariat of Higher Education, 2011b). A top executive at one university narrated this situation in the following terms:
The carrot is very powerful with PIFI, so we’re practically forced to comply with the logic, the discourse, and the policies in order to get resources. A drastic reduction of PIFI money during one year would put huge pressures on the university, since we would not have resources to keep some programs working, and to keep the different groups satisfied by giving them what they want: money to buy infrastructure, to travel, and to publish. That is an example of how much we depend on PIFI. It is dangerous.

**The PIFI Program and the increased accountability of public state universities.**

The reduction of university autonomy has been accompanied by the increase in the accountability of the universities studied. The increased accountability of public universities cannot be solely attributed to the PIFI Program since this has been a broader process in Mexico. Between 2000 and 2010, specific policies were developed to promote transparency and accountability in government, such as the creation of the Federal Law of Transparency, the creation of the Federal Institute of Transparency in 2002, and the constitutional reform published in 2007, which strengthened the accountability requirements for all public agencies.

As part of this trend, the PIFI Program contributed to make the three universities more responsive to the demands of government and more transparent to the general public. For instance, the program pushed universities to better collect, organize, and publish data on their academic indicators and to make financial information publicly available. Indeed, due to the emphasis on accountability universities now compete on the basis of these practices and rankings have been developed by independent agencies. According to the Index of Transparency and Access to Public Information, two of the universities studied were amongst the top five public universities in terms of their accountability and transparency in 2009 (Index
of Transparency, 2009). In sum, along with the logic of quantitative indicators the PIFI Program promoted that the new name of the game is to be “accountable” and “transparent.”

The three universities in this study bought into this logic and have increased their accountability practices associated with the PIFI Program. For instance, as an executive at Central State University commented:

With PIFI, the internal handling and distribution of resources is more transparent, less discretionary. The program has contributed to improve the accountability practices within the university. Especially because, being a federal program with strict guidelines, it is more complicated to keep the distribution of resources in secret as in the past.

Along the same lines, a planning advisor at this university noted:

One of the main impacts of PIFI is that it has increased the accountability of universities. This Program requires institutions to generate information on the use of resources and on the improvement of academic indicators, and mandates that universities publish such info in their web sites. These strict guidelines have permeated in our organizational culture since we are getting used to be more accountable. If we’re not, we just do not get resources in the following year.

At Northern State the situation was similar. There, the program also had a significant impact in how the institution handled resources and information. On this issue, a planner observed:
PIFI has increased the accountability in this institution. All the controls that the Program contains prevent universities from using the resources discretionarily. With PIFI, resources must be used in the items that the proposals established –unless we have authorization from SEP to adjust priorities- otherwise, there would be penalties. In the past, for instance, the university president used the resources from grants for his own institutional -or even personal- priorities.

Moreover, to a former top executive there, with PIFI the university opened its doors to outside pressures because: “PIFI and the grants contributed to the development of a new culture of evaluation and accountability. Before these programs, it was unthinkable for public universities to accept revisions and audits from outside agencies. Now that is a common practice.”

Central State University was no exception. At this university, the PIFI Program played an important role in terms of promoting accountability practices. However, the perception there was a bit more cynical in acknowledging the limitations and perverse impacts of the program on this issue. A top executive there observed:

There is organizational deceiving when a program is “worn out,” and that is what happens with PIFI now. Institutions start creating structures and positions to give the impression of transparency and accountability. For instance, in this university we created the Social Comptroller Office, which I still do not know what it does, but sends appropriate signals to the feds, I guess.
Moreover, another top executive and researcher acknowledged:

The PIFI program has increased our accountability, but only in procedural aspects (academic indicators and administrative requirements). In reality, SEP still needs to know what is really happening in the university regarding academic practices; we do not even know that either! We need to focus more on academic processes and results, because that is the true accountability.

The sort of accountability that the PIFI Program promoted within the sampled universities was mostly procedural and administrative, not academic. Also, universities were more accountable to the federal and state governments, but not to the public or to students and faculty members. Universities had opened their doors to scrutiny in aspects such as their academic indicators, enrollment numbers, and their accounting practices. However, accountability had not reached the core aspects of higher education institutions, such as their teaching and learning practices and outcomes. According to Chaffee (1998), the most procedural and superficial aspects of accountability are those related to aspects such as finances, enrollments, staffing, faculty workloads, and research grants. Substantial accountability, on the other hand, is usually related with issues such as student learning, performance, and faculty productivity.

Substantial accountability was absent in the universities of this study because, as observed in earlier sections, they did not seem to worry about academic practices and outcomes, only about the inputs and administrative procedures that are of interest to the federal government. The classroom was still a black box and the performance of students and professors was not systematically assessed, mainly because there are no indicators related to
such aspects. On this topic, a former federal policymaker noted, “PIFI was not designed to assess and improve academic practices and performance; that is why there are no indicators that reach the classroom.”

According to Keith (1998), to survive and thrive, colleges and universities should be responsive in the eyes of those being served: students, parents, governments, business, and nonprofit organizations. They should be responsive both in terms of the quality of their relationships with the institutions, and the quality of the outcomes of those relationships. However, based on the perceptions and opinions of key informants, it seemed that the focus of the three universities was mostly on responding to the procedural demands of the federal government, not to the needs of the rest of their stakeholders.

**Autonomy and accountability: The latent tension.** The shift in balance towards less autonomy and more accountability was not without tensions within the higher education system. As argued by Hutchens (2007), achieving the appropriate balance between state influence and the autonomy of public colleges and universities is an issue marked by persistent tensions and change. With the PIFI Program, the pendulum might have swung towards less autonomy and more control, but there are voices in both sides of the argument that call for changes.

On the one hand, the universities in this study might have complied with most of the demands of the PIFI Program, but it seems that they were getting tired of the lack of flexibility of federal guidelines. For instance, a top executive at one university observed:
The most troubling issue with PIFI is the retrenching of our autonomy, we are getting tired of that, it has become overwhelming and irrational. We are an autonomous university and we are supposed to have the capacity of self-rule; that is becoming a big myth. For instance, we have had to adjust some of our internal norms to match the federal laws, just as a consequence of the PIFI financial guidelines. We just do not know where this is going to take us in the future.

On the other hand, there were voices in government that argued that universities still needed more control mechanisms in order to guarantee that they act properly and serve society efficiently. On this issue, a federal policymaker working for the PIFI Program argued that:

We still need to do more in order to guarantee the accountability of public state universities. I have to say that if you do not put pressure on universities they just go wild. If you do not tell them how things have to be done –academically and financially– they just do not do them the right way. If you do not show them directions they just get lost, and get lost big time, in terms of opacity and corruption.

Regardless of how the pendulum swings and who ends up strengthening their ideological and political position in the future, the overall lesson is that if universities truly want to increase their autonomy they need to diversify their sources of income. The less dependent one actor is on the resources of another, the better his bargaining position (Emerson, 1962; Pfeffer & Salancik, 1978). By diversifying their sources of income, and incorporating more stakeholders, public state universities would diffuse dependencies, and be in a better position to control their policies and strategic directions.
Moreover, by bringing more actors to the table universities would be more attentive and responsive to the needs of diverse stakeholders, not only to the demands of the federal government. As claimed by Keith (1998), incorporating more relevant actors would make colleges and universities more attentive to outcomes, because the outcomes produced must be relevant to the diverse needs of those who live within and beyond the campus walls. In sum, I argue the universities in the study need to be more attentive to the needs of students, faculty members, businesses, nonprofit organizations, and other relevant actors. However, such a change will hardly take place if universities have only one powerful master, and are consumed by the procedural requirements imposed on them.
CHAPTER 8

UNINTENDED CONSEQUENCES: THE PERVERSITY OF INCENTIVES

The PIFI Program was a powerful instrument that promoted certain types of organizational changes in the studied universities. It promoted new structures, practices, discourses, and logics within them, in alignment with the policy guidelines. Notwithstanding, this program also had diverse unintended impacts on the universities. While the theory of action of the program called for the academic quality improvement of universities, the emphasis on achieving a short list of indicators led universities to focus their attention on chasing numbers, forgetting about the complex construct of academic quality and disregarding core classroom practices and academic performance.

Also, the program’s blueprint sought to make universities more “efficient” and “innovative,” but the requirements and lack of flexibility of the policy promoted their bureaucratization and conformity instead. As evidence from interviews and from statistical records suggest, administrative and planning bureaucracies have significantly grown since 2001 and university executives are innovation and risk-averse, only responding to the specific demands of government, with little time and incentives to be creative in shaping the strategic direction of their universities. Moreover, PIFI aimed at promoting the democratization of university life by devolving some power to faculty members by participating in “collaborative strategic planning exercises.” However, instead of becoming more collaborative and collegial, universities became more centralized and vertical, increasing the power and influence of university presidents, top executives and the pifiologists, further diminishing the academic authority of faculty members. After 10 years of implementation, universities became isomorphic “vertical bureaucracies” rather than diversified “republics of scholars.”
Goal Displacement and Organizational Deceiving

The first and foremost goal of the PIFI Program was to improve the academic quality of public universities, providing students with the tools they need to succeed in the current global environment (Secretariat of Public Education, 2006). However, the “high stakes” of the policy and its heavy emphasis on the quantification of outputs led the three universities to systematic goal displacement and deceiving practices. In a resource environment of scarcity and heavy dependence on a “sole patron,” achieving the right numbers, and hence additional money, became the priority. Therefore, the universities focused all their attention on showing the federal government that they have succeeded in achieving the measures, even if by engaging in deceiving tactics, disregarding core academic practices and interactions. As Kerr (1975) pointed out, the federal government hoped for “A” (academic quality improvement), while rewarding “B” (the chase for procedural indicators, mostly based on inputs).

One of the central problems of organizational analysis is to account for the tendency of some organizations to concentrate upon activities and programs that contribute little to the attainment of their alleged major goals (Warner & Havens, 1968). The most common form of this is goal displacement, in which the major goals claimed by the organizations are neglected in favor of goals associated with building and maintaining the organization (Merton, 1957). According to Bohte and Meier (2000), goal displacement takes place “as agencies focus on generating numbers that please political officials, rather than devoting their energies to

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46 Throughout the text I use the concept “deceiving” to refer to the organizational process of giving or assuming the appearance of doing something by manipulating symbols, impressions, and/or data (see Bohte & Meier, 2000). The actual word used by key informants during the interview process was “simulación” [to simulate]. However, in English, “to simulate” has a different meaning. Therefore, I used “deceiving” because it better catches the concept as used in México.
achieving more meaningful policy outcomes” (p. 174). To Werner and Havens (1968), goal displacement is the “means-ends inversion, the neglect of the claimed goals in favor of the means as ends in themselves” (p. 541).

The pressure to produce desired outputs could lead to deceiving practices, in which organizations *purposely* engage in behaviors that will improve performance ratings at the expense of the achievement of more desirable policy outcomes (Bohte & Meier, 2000). Such practices may be “cutting corners” (Bohte & Meier, 2000), exaggerating, and/or manipulating symbols and data. In the three universities of the study some sort of organizational deceiving, as a goal displacement mechanism, took place as universities did not want to be left behind in the fierce quest for prestige and additional resources.

The three universities deceived by “cutting corners” to enhance their performance ratings, adopting a “more is better” mentality at the expense of the quality of the activities performed. For instance, university executives wanted faculty members to get masters and doctorates regardless of the quality of such programs, and they wanted all academic programs positively evaluated and accredited, even if by impressing the evaluators with borrowed equipment. These sorts of goal displacement and deceiving strategies were systemic at the three universities, where the means replaced the ends. The PIFI Program promoted an obsession among university executives to look good on the indicators, disregarding the core academic practices and performance of students and professors. As a top executive at Northern State University observed:

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47 As discussed earlier, key informants reported that, given the emphasis of the indicators on hardware modernization, one of the strategies to maximize the probabilities to be positively evaluated or accredited by independent agencies was to borrow equipment from other schools and place them temporarily in the premises that evaluators would visit, giving the impression of modernization.
The PIFI Program, along with the administrative indicators it promotes, created a whole system designed to deceive. For instance, in order to achieve the indicators, professors, researchers, and administrators all pretend they are doing stuff; and perhaps they are doing some things, but quality suffers because the focus is on the number not on the day to day practices. Researchers publish, but usually recycle old publications in order to keep getting money; professors have graduate degrees, but in very low quality programs, and so on.

Along the same lines, a researcher at this university noted that cutting corners and deceiving became systemic practices:

The emphasis on professional development led to “credentialism” and goal displacement. If PIFI wants us to have more doctorates, we will just deliver. For instance, there are universities that give you a doctorate in two years, online fast-track programs. That is a perversion and it is what our professors are doing. Academic quality controls have been lost. The thing that matter the most is getting the degree in order to improve the indicator.

At Central State University the situation was similar, where goal displacement and deceiving practices became the norm. A top executive and researcher observed:

There is a lot of deceiving at the university in order to look good on the indicators. For instance, there is a measure on the number of professors that provide tutorships to students. What usually happens is that professors talk to students about random things and that counts as “academic tutoring” and “advising.” The same happens with other
quantitative indicators that are easy to manipulate. For example, in order to have the
PROMEP category we need to publish, and we do so, but if you review the quality of
most publications you would realize that few of them would pass any peer review.
Therefore, on paper we are complying with the requirements of government without
necessarily and overtly lying, but if go to the places where action takes place you could
see that nothing has really changed much in our academic practices.

Regarding the deceiving practices in the evaluation and accreditation processes, a top
executive at Central State commented:

There are huge deceiving practices, especially with the evaluation and accreditation
processes by external agencies (CIEES and COPAES).\textsuperscript{48} Such processes have become a
superficial checklist of academic infrastructure, not a genuine evaluation of academic
programs. In fact, it is quite common to move computers from one school to another, to
equip the premises that evaluators are going to visit; when they are gone the computers
are returned.

Along the same lines, a researcher at Southern State acknowledged that deceiving and
cutting corners permeated the whole evaluation and accreditation process, to make it easier for
universities to achieve the desired marks:

There is a lot of deceiving in the university, especially regarding the evaluations of
external agencies. For instance, a smart evaluator cannot reject your programs over and

\textsuperscript{48} CIEES refer to the Committees for the Evaluation of Higher Education. COPAES refer to the Council for
the Evaluation of Higher Education. Both entities are independent evaluation agencies, authorized by the
federal government to assess the quality of the academic programs of public and private universities.
over, because we are paying him to evaluate. If he negatively evaluates our programs consistently, we would simply hire another evaluator that is more benevolent, and the guy would have no job. So a smart evaluator knows how to play the game, so he would generally be flexible and benevolent. Of course, evaluators realize we are simulating in some aspects of our programs, that is obvious (e.g. the schools have fresh paint when evaluators come every year, and there are brand new computers just out of their boxes), but they just do not pay attention to such “details.”

The rapid evolution of academic quality programs, along with evidence from the interview process, suggests that a “cutting corners culture” permeated the evaluation system. For instance, as showed in the previous chapter, two of the three universities in the sample reached 100% of their academic programs regarded by SEP as “having academic quality”, and the other institution reached 80% on such measure. Moreover, the whole public university system was reaching a saturation point since, on average, 72% of the academic programs of public state universities have been evaluated positively by external agencies (CIEES and COPAES), and 80% of all academic programs are regarded by SEP as having academic quality (Tuirán, 2011). Making an analogy with the financial services industry in the U.S., it seems that the higher education system in Mexico developed an “academic quality bubble,” in which the allegedly independent agencies have a played a key role. Referring to rating agencies in the U.S., Roubini and Mihm (2010) observed:
Relying on the rating agencies [to assess the risk of assets] was much as relying on the fox to guard the henhouse: they had every possible incentive to give a high rating to the securities under review. Doing so earned them a nice fee from the very entities they were evaluating and the promise of future business; giving a realistic assessment, by contrast, could mean losing the commission, along with any future commissions. (p. 66)

The resemblance of corporate finance to Mexican higher education was noticeable. The perceptions and opinions of key informants suggest that evaluation and accreditation agencies (e.g. CIEES and COPAES) also had strong incentives to be “flexible” and give high marks to most academic programs, simply because they are getting paid to do so. However, the problem is that this “race to the top” obscures valuable information to the public regarding the “real” quality levels of academic programs, since practically all of them have “AAA ratings.” As acknowledged by a top executive at Central State, when referring to the rapid convergence of universities on the quality of their programs, “If all students answer all the questions right, there is something wrong with the test. That is happening with PIFI and the indicators since now most academic programs have ‘quality.’ So something must be wrong in the system.” The problem seems to be that universities learned “the game” rapidly. They learned to cut corners and to achieve the desired marks by a sort of teaching to the test. That is, by focusing on what the evaluation agencies ask for and disregarding other aspects such as core classroom practices. According to key informants, the evaluating agencies have played along with this game.

Indeed, in a comprehensive analysis of the evaluation and accreditation practices in Mexican higher education, the National Association of Universities and Higher Education Institutions (ANUIES) (2010) warned about the excessive flexibility and lack of homogeneity and rigor in the standards of some independent evaluation agencies, and about the overlapping
of efforts in evaluation and accreditation processes. According to this association, the high stakes that the PIFI Program introduced to the system “have distorted the accreditation processes and promoted its bureaucratization, commercialization, and in some cases, it has led to deceiving practices” (p. 51). In this analysis, ANUIES points out that it is necessary to guarantee that the current evaluation and accreditation processes generate more information about core academic practices and students’ performance, something that so far has not happened because the focus has been mostly on inputs.

Another example that suggests that cutting corners took place in public universities is the trend in the proportion of professors with doctoral degrees that became members of the National System of Researchers (SNI). Usually, professors with doctoral degrees become members of the SNI, since it provides additional resources for active researchers. However, in past years the proportion of faculty members earning doctoral degrees grew faster than the membership of the National System of Researchers. While in 2002, 52% of professors with doctorate degrees were SNI members in 2010 this proportion was reduced to 45% (see Figure 8). These data suggest that there are increasing numbers of faculty members with doctorate degrees who do not engage in research activities, presumably because they earned fast-track programs just for the sake of the degree. On this topic, a researcher and top executive at one university observed:

There are many professors who have gotten doctorates just for the sake of the degree and to contribute to the achievement of indicators. However, they do not do research because such doctorates are generally low quality and not research oriented. These are “non-productive” doctorates that were generally financed with public money.
Figure 8. Proportion of faculty members with doctorate degrees that are members of the National System of Researchers (SNI) in all Mexican public state universities (2002-2010).


These findings are consistent with previous research that suggests that high-stakes monetary incentives promote systematic goal displacement and deceiving practices in Mexican universities. For instance, Ibarra (2002) pointed out that instead of changing the academic practices of professors, the monetary incentives, especially the PROMEP Program, promoted a trend in which fast-track graduate programs are flourishing within universities, leading to credentialism and to a culture of academic symbolism. On this issue, Acosta (2010) argued that the PIFI Program promoted systematic deceiving practices, the excessive desire of monetary rewards on the part faculty members, and an obsession with performance indicators over actual academic practices. Also, Gil (2010) claimed that government grants and programs may have quantitatively improved the academic credentials of professors, but there is no evidence that such credentials translated into better teachers and researchers. In fact, Gil (2000) claimed that the “quest for doctorates” has been idealized in Mexico, as if having more doctorates would automatically make universities better. On this topic, Acosta (2004) argued that the emphasis
on credentials resulted in professors paying less attention to their students and more to activities that give them “points” they can accumulate, such as attendance at conferences and seminars.

**It pays to exaggerate: The PIFI Program and the “universities of paper.”** Another instance of goal displacement and organizational simulating associated with the PIFI Program was the process of developing grant proposals. As discussed earlier, in order to participate in the program universities have to present “PIFI proposals,” in which they perform assessments of the university and propose specific projects aiming at improving academic quality. The federal government, through the Secretariat of Education (SEP), evaluates such proposals and determines how much money will universities be assigned. In theory, the best and most comprehensive proposals get more resources from the programs’ grants. However, the rewards structure of this policy favored the development of sound proposals *on paper*, but paid less attention to their actual implementation. The result was that the universities of this study created exaggerated rhetorical illusions in their proposals, “universities of paper” that did not resemble the real ones of brick and mortar.

In the PIFI proposals that universities developed from 2001 to 2010, the ambition and grandiloquence in the discourse and language was evident. In such documents, universities talked about the necessity of “reengineering their governance structures,” “enacting deep legal reforms,” “integrally restructuring of roles and responsibilities,” “radically changing academic practices and pedagogical approaches,” and so on. However, the reality was quite different. The universities were indeed changing in some aspects associated with the PIFI Program, but such adjustments were incremental at best, not quite as radical as proposals would suggest. The disconnection between documents and reality, as seem in comparing documentary evidence with the perceptions of informants, suggests that universities deliberately exaggerated and
deceived in order to get money from the grants, not caring much about actual implementation (e.g. the case of curricular reform discussed in Chapter 6).

According to Bohte and Meier (2000), deliberately exaggerating about performance is associated with information asymmetry between institutions and supervisory agencies, since the latter cannot constantly keep track of all institutions’ activities. Administrators may take advantage of these asymmetries by supplying political officials with information that paints the best picture of organizational practices (Downs, 1967). Evidence from interviews suggests that this was happening at the universities, where administrators took advantage of information asymmetries to give the impression of radical change, exaggerating goals and accomplishments in reports and proposals to the federal government. A top executive at Northern State University noted, “When developing the PIFI proposals, we tell SEP what it wants to hear in order to get the money, as simple as that.” To another top executive at this university, “In the discourse, PIFI proposals argue that structural and radical change will take place, but in reality changes are mostly incremental. Universities have learned the game and tell SEP what it wants to hear.” A former top executive commented on this impression management game:

Oh yes, the university exaggerates in PIFI proposals all the time. We have lost understanding about the true meaning of concepts, and we just throw fancy words in the proposals because we have mimetized the discourse of the feds. By the way, “reengineering” is one of our favorite words. The core problem is that we develop proposals not in terms of what we really need as an institution, but to get as much money as we can, systematically deceiving and telling the federal government what it wants to hear.
At Central State University the situation was quite similar. This university also became highly pragmatic in developing exaggerated and deceiving proposals in order to keep the money flowing. A top executive observed, “There is systematic inconsistence between what PIFI proposals say and what really happens in the university. These deceiving practices are due to the fierce competition for resources, we all want to impress SEP because we need the money desperately.” To a planning advisor, “This university worries a great deal about developing sound and pretty proposals, without really implementing any fundamental changes. Such is the duty of pifiologists, to make proposals look good and to avoid getting caught in the deceiving game.” According to a top executive there:

There is a culture of exaggeration in the development of PIFI proposals. This program is so important for public state universities that it has generated a race to the bottom to see which institution writes better discourses on radical organizational reform. Indeed, there is a competition among universities to see which one has a better rhetoric, in order to convince the Secretariat of Public Education (SEP) and the evaluators to give us more money. In the real world, however, we have changed incrementally at best, but there are no true “reengineering processes” around here, that I can assure.

Southern State University also bought into this impression management game, by making sure its PIFI proposals were radical enough to convince the evaluators and federal officials that it deserved the money. A top planner there commented, “PIFI is a race to get resources. That is how universities made sense of the program. We say and do whatever it takes in order to be competitive in this market, even exaggerating and deceiving.” According to a planning advisor in charge of developing proposals, the dominant strategy is to exaggerate
because “If we are honest in our assessment of the university and in our goals, we would risk not getting enough money. The strategy is to be grandiloquent because that is what SEP and evaluators are expecting… we just deliver.” A researcher summarized this phenomenon:

If you read our PIFI proposals you would think that we are in a permanent process of revolution, because we name all minor changes and marginal adjustments “reengineering processes,” and “integral reforms,” just as the federal government does. We have adopted the same language of the PIFI guides and operation rules, which maximizes our probabilities of getting money.

Federal policy makers at the Secretariat of Public Education (SEP) were well aware of this deceiving game in developing proposals, but it seemed the situation was not much of a worry. A policy advisor at the PIFI office observed:

The deliberate exaggeration in the discourse of the PIFI proposals is because universities want resources. That is the reason why they simulate, pure and simple. What usually happens is that universities develop grandiloquent goals and strategies in order to get resources for specific purposes, such as audacious reforms, for instance. But once they get the money, they use it for other things not specified in such proposals. They make all sorts of excuses to justify the sudden change in priorities. One of the most common excuses is that professors did not want to support the proposed reforms, so they end up buying computers instead.

Moreover, another executive at SEP acknowledged that exaggerating and deceiving practices are part of the game of PIFI, mainly because:
What universities worry the most is not about how to improve, but about how to get more money from the federal government. That is why they systematically exaggerate and deceive in their reports and proposals. They turn in their proposals and when they get the money, they use it for other things not originally established in their blueprints. This is a common practice that we tolerate up to a point, as long as universities demonstrate the proper use of resources (e.g., Preventing embezzlement) we do not care much about their exaggerated rhetoric.

**Why universities displaced goals and deceived.** Organizations displace goals and deceive because there are incentive systems in place that reinforce such behaviors (Warner & Havens, 1968). At the three universities in this research, the most relevant mechanisms that motivated systematic goal displacement and simulating practices were the high pressures to succeed and the lack of flexibility of the policy instrument. The enormous pressures that the universities had in order to improve their performance indicators, along with the straitjacket logic of the program, led to some “strategic responses.” As Perrin (1998) observed, when indicators become the goal, it leads to the wrong activities and encourages “creaming” and other means of “making the numbers” without improving actual outcomes.

A perceived performance gap often motivates an organization to change its behavior, and one form of behavior change is the decision to deceive and cheat (Bohte & Meier, 2000; Downs, 1967). In Mexico, a public state university with unacceptable ratings faces a great deal of pressure to improve its performance, both internally and externally. Not achieving the right numbers means not getting enough money from the PIFI Program and other grants (e.g., Formula CUPIA), which may put some programs in jeopardy and create internal tensions that
university presidents want to avoid at any cost. Since in most universities so much of the regular budget is virtually fixed, especially in the short run, the portion that is free to vary assumes tremendous importance (Chaffee, 1983). This was true in the universities studied, where resources from the PIFI Program represented around one third of their capital expenditures. In addition to financial pressures, university presidents had all incentives to improve their academic ratings no matter the costs, because such measures became the “balance sheets” that reflected their own success, or failure, as heads of the universities. Therefore, they did whatever was necessary to improve such ratings and give the impression of success. Firestone and Mayrowetz (2000) argue that symbolic gestures and goal displacement strategies are rational responses when policies are high-stakes, and when failing is not perceived as an option. Indeed, according a top university executive, “The fierce competition for scarce resources and prestige has provoked that universities deviate and deceive, they do whatever it takes in order to get ahead on the performance ratings.”

Focusing on the attainment of performance indicators would still have potential for academic improvement if such indicators were systemic, not just procedural. Systemic indicators are those measures that have the potential to trigger changes in core academic processes, such as classroom teaching. Developing incentive schemes based on students’ performance, academic interactions, or organizational climate would be more meaningful and have more potential to trigger academic change. The problem is that indicators in Mexican higher education are mostly input-based and procedural. Thus, the narrow focus of policy makers and university administrators was on guaranteeing that more professors had masters and doctorates, that classrooms had new computers, and that more academic programs are positively evaluated and accredited by external agencies. However, none of these indicators
takes into account students’ learning or classroom teaching. Newcomer (1997) warned that using a few, easy-to-measure indicators to supposedly reflect the outcomes of complex undertakings can generate distortions. Moreover, Perrin (1998) observed that organizations that focus their measurement systems on traditional short-term, easy-to-measure targets are less effective than those that look at broader, hard-to-measure issues such as behavior and skills. Therefore, to be more effective and mitigate goal displacement and cheating practices, reward systems should incorporate multiple dimensions and time frames. This was not the case with the PIFI Program, since the performance indicators lacked complexity and multidimensionality.

A second factor that motivated goal displacement and organizational deceiving concerns the rule-bound logic of the PIFI Program and its lack of flexibility. According to Downs (1967), efforts to exert control will spawn additional efforts to circumvent it, which in turn generate greater control efforts. The end result of this vicious cycle is a rule-bound organization that it is likely to be even less productive (Bohte & Meier, 2000). The PIFI Program represented a rule-bound policy aimed at controlling universities, allowing little flexibility and discretion in the achievement of goals. This resulted in universities trying to circumvent such control, mainly by deceiving. The overall logic was that since the PIFI guide allowed little flexibility in goals and means, universities chose to exaggerate and deceive by telling the federal government what it wanted to hear in order to get resources. Once universities got the money they adjusted their investment priorities and strategies, generally favoring the purchase of more hardware. As an executive at one university observed:

There are double standards in the university regarding the PIFI Program. The process goes like this: in the proposal stage the university adapts to the requirements of the program guide in order to compete and get the money, if only on paper. But once the
university gets the resources, it changes its priorities and uses the money for other needs (e.g. buying more hardware). Therefore, the original goals of the proposal are usually disregarded. At the end, the policy ends up not meeting its intended mission. This is all due to the rigidity of the program and the guide.

In sum, the policy design of PIFI promoted mechanisms that encouraged goal displacement and deceiving practices as strategic responses. In such a scenario, universities responded as rational actors to maximize their rewards. As argued by Bohte and Meiers (2000), “incentive-based policies can create scenarios that divert the attention of program participants away from achieving program goals, and toward reaping program incentives” (p. 180). The universities in the study were not perverse institutions, but they were acting as utility maximizers in the context and resource environment they faced. A researcher and former federal policymaker commented, “Universities learned the game very rapidly. If there is money on the table just let us know what we need to do and we will deliver.” Indeed, universities delivered quantitative, input-based, and short-term results, even if by deceiving and displacing goals. They were guilty of playing the game with the rules and incentives that the federal government laid down.

The PIFI Program and Innovation: The Straitjacket

According to its policy design, the PIFI Program aimed at “improving the academic quality of higher education institutions, in order to transform the current closed system into one that was open, flexible, efficient, diversified and innovative, that better responded to the challenges of the knowledge society” (Secretariat of Public Education, 2001, p. 5). The program may have promoted some managerial improvements, mainly due to the increased level
of specialization of the new planning bureaucracies. However, as discussed in previous
chapters, PIFI did not promote diversification and innovation in the universities studied. The
lack of flexibility of the program and its emphasis on controlling the policies of universities
resulted in obstacles for innovation. Instead of being actively engaged in determining their own
policies and priorities, the universities were passively waiting for directions from the federal
government, focusing on what government wanted, not on what they thought was appropriate
to their development. In other words, instead of acting as autonomous institutions, the
universities behaved like agencies of the federal government, narrowly focusing on achieving
its goals and policy mandates in exchange for money.

According to Fielden (2008), “if a group of institutions in a university system is given
autonomy to respond to national policy goals as they see fit, there is reasonable chance that
they will chose different ways of reaching the same goal and that some will be more innovative
than others” (p. 18). The issue with the PIFI Program was not that it established general policy
goals (that is supposed to be the goal of all incentive-based policies), but that it allowed little
flexibility for universities to achieve them according to their own contexts, capabilities, and
creativity. The PIFI Program was telling universities what to do, how to do it, and when to do
it. Therefore, the policy guidelines were not general blueprints, but checklists of what
universities can and should do if they wanted resources. As previously observed, the
universities could not deviate from the national indicators, and certainly could not establish
their own. In short, the PIFI Program became a straitjacket in which the only flexibility and
autonomy that universities had was to displace goals and to deceive.

At the three universities analyzed there was frustration and bitterness due to the rule-
bound approach of the program, its lack of flexibility, and the perceived impact on innovation
processes. For instance, a planning advisor at Southern State University commented, “Before PIPI, universities had more flexibility to apply the resources. In such days, we got money from grants and could develop our own goals. Now, the federal government is telling universities what to do and how to do it.” On the subject, a top executive at this university acknowledged that:

PIPI ties the hands of universities since it is like a straitjacket for institutions. For instance, we usually develop our own goals and strategies, and then attempt to get resources from PIPI to achieve them; however, most of the time we cannot do so because our goals do not match those of the program. The problem is that the goals of PIPI are very narrow-minded and bureaucratic, they are developed in the desk of some policymaker in Mexico City. If we want money with have to adopt such goals, even if they go against our own planning and ideology.

Moreover, to a top planner at this university, the problem was that with PIPI “the instrument became the goal. Religiously complying with guidelines is more important than the capacity to innovate…. The program was not created to ‘strengthen’ the universities, that is a myth, but to control them.”

At Northern State University the situation was quite similar. According to a top executive:

PIPI became a straitjacket that limits the freedom, creativity, and innovation within universities. Research and academic pursuit do not have timetables, as PIPI pretends that to be the case. The PIPI Program and other grants want to standardize the academic
process, as if it were possible to create new knowledge every three weeks. Genuine research and good teaching do not have bureaucratic timelines.

To a top planner at this university, the lack of flexibility of the instrument also led to organizational overload, which further prevented innovation processes:

The opportunity costs of all the procedural requirements of PIFI are huge; we should be using such human and organizational resources to more substantive things, such as on genuine strategic planning and innovation. But the lack of flexibility of the program leaves us with little time, or not at all, to really engage in creative planning.”

Central State University was no different. At this university the strict guidelines of the PIFI Program were also perceived as an obstacle to engage in substantive innovation processes. A researcher there commented, “PIFI is like a straitjacket because it punishes creativity. If we propose things that are not included in the guide, we run the risk of not getting money. Therefore, universities cannot exist, or subsist, outside the official policy logic.” Moreover, a top executive in this university observed:

The PIFI Program produced conformity. Given the inflexibility of the instrument, the only goal of universities is to “excel” in the achievement of the indicators established by government. We should be planning for more ambitious goals, such as developing Nobel Prize-level researchers or creating research breakthroughs, but the only thing we worry about is reaching the top of the procedural measures to get more money, that is our “vision.” It is pathetic, because we do not really care about the kind of university
we want to be by 2030, but to “look good” next month at the meeting with the Undersecretary of Higher Education of SEP.

In such a context of conformity, a top planner summarized the dominant strategy for universities when crafting proposals:

If you want to be “happy,” the strategy to get resources is to stick to the guide and keep your head down. Do what the guide is asking for and avoid doing what is not. If you “get creative” with PIFI you are punished by the federal government, because you deviate from the policy norm.

An innovation is a new idea, which may be a recombination of old ideas, a scheme that challenges the present order, a formula, or a unique approach which is perceived as new by the individuals involved (Rogers, 1982; Van de Ven, 1986). Innovation may arise when individuals in an organization see an opportunity that necessitates a new approach (Bourgeois, 1984). However, it may also arise when an external threat or challenge occurs that has not been anticipated (Marcus, 1988). In any case, the process of innovation requires flexibility and autonomy on the part of organizations to adapt to external opportunities and threats. As Marcus (1988) argued, less rule-bound and more autonomous approaches are better to induce innovation since doing precisely, and only, as much as an external body demands usually results in conformity. The policy logic of the PIFI Program had a heavy rule-bounded approach. PIFI told universities to do exactly as the federal government demanded, providing little incentives to engage in substantial innovative behavior.

Innovation also requires some degree of uncertainty. Bromiley and Marcus (1987) argue that, if rules are narrow and circumscribed, and widely shared, they act as defense against
the perception of threat, blunting the impact of external challenges and preventing creative adjustment. At first sight, the PIFI Program seemed to represent an external challenge for universities, bringing uncertainty to the system. However, the detailed blueprints and checklists developed by government for universities to comply with seemed to provide plenty of certainty. Therefore, according to interview-based evidence from the three universities, the PIFI Program was not really an “environmental jolt,” but a new program with the policy manual ready for universities to stick to. The universities in the study did just that, and closely followed the manual in order to get money without worrying much about “getting creative” and innovating. The policy promoted a strong sense of conformity since there was little flexibility and little reward for innovation. It might be argued that these universities developed a tunnel vision in which the most important strategy was to focus on the guide and keep up with their daily activities. As observed earlier, the sort of “creativity” that the program spurred was to engage in organizational deceiving and goal displacement as strategic responses.

Another example that suggests the failure of the PIFI Program to spur innovation was the lack of diversification of income sources. As discussed earlier, the percentage of resources that all 34 public state universities, on average, get from private sources stagnated at around 17% of their budgets over the past six years. The same happened at three universities in the sample, which have not significantly increased their income from market sources since 2006\(^{49}\) (see Figure 9). In such context, it was quite interesting to realize that although universities consolidated planning bureaucracies, mainly oriented towards the development of proposals in order to get money from the federal government, apparently they had not used such

\(^{49}\) I used the period from 2006 to 2011 because reliable data were not available for earlier years.
organizational expertise to get money from other sources, such as private foundations or international organizations.

Figure 9. Trend in the percentage of resources from private sources\(^{50}\) relative to the total budgets of the universities in the sample (2006-2011). Source. Calculated with data from the Undersecretariat of Higher Education (2011b). Note. PSU’s refers to all 34 “Public State Universities” in Mexico.

\(^{50}\) According to the definitions established by Secretariat of Public Education (SEP), resources other than fiscal are called “self generated resources,” and include “services,” “tuition and fees,” “donations,” “exams,” “activities” and “others.” These definitions are established in the “Format 911” of educational statistics, as the main official mechanism to get data from educational organizations. In this “format,” universities self-report data on diverse activities, including finance and enrollment statistics.
of informants suggest that these universities oriented their efforts to obtain as much money as possible, but mainly from the PIFI Program and other federal grants, feeling comfortable having government as their only patron. The rise of the pifiologists reinforced this finding since their main focus was to “tame” the PIFI Program, disregarding other potential sources of income from the market. To West (1989), this phenomenon occurs because governmental funding produces incentives for universities to be inefficient and focus on activities to attract more public funds, creating a vicious cycle of fiscal dependence. In that sense, the universities of this study developed big planning bureaucracies, but not necessarily strong ones. These structures had the capacity and mindset to compete only for federal grants and not from other market sources, mainly because most of their planning work was repetitive and bureaucratic. Here, I am not implying that getting more income from market sources would eliminate environmental dependences, but that such diversification might provide more room for maneuver for universities to manage such dependences, by “balancing” the relative power of stakeholders.

Interview-based evidence suggests that universities indeed developed a strong sense of conformity and certainty by having government as their main donor. As a researcher at Central State University observed:

Universities spend four or five months in putting together a PIFI proposal, with 40 people working full time in the process. If instead they used 10 people during two weeks they could develop a proposal for the private sector, and get much more money. That is irrational and absurd! The reason is that we already know what government wants and we are comfortable with that. We could be getting more money from other
sources, but we have become risk-averse and want to keep the federal government as our only patron.

Along the same lines, a top executive at Southern State acknowledged that the problem was that “Here in Mexico we only wait for government to give us money. We should get resources from the market and from philanthropy. We have the expertise, but we just do not want to move from our comfort zone.” In this context, the PIFI Program seemed contradictory. In theory, it was supposed to introduce market mechanisms in the system by inducing universities to compete for resources. However, according to the perceptions of key informants, an unintended impact of the program was that these universities became more dependent on government to survive in the current environment. This apparent contradiction was explained by a researcher and top executive at Northern State:

We do not really know if public universities are being “privatized” or “statizated” with PIFI and the grants. Many critics on the left argue that grants respond to a logic of privatization, but I believe they respond to a logic of statization instead. This is because universities now have to follow the guidelines of government more than ever, and financially depend on it more than ever. Nowadays, it is government who dictates all the rules, not markets.

For diverse reasons that are beyond the scope of this research, the three universities studied seemed to prefer having just one powerful but predictable patron than having multiple less powerful but unpredictable stakeholders. This lack of diversification cannot be solely attributed to the PIFI Program since there may be other mechanisms at play, such as path-dependency and ideology. Nevertheless, the program contributed to the conformity and risk-
aversion of universities, by providing a comfort zone for getting additional resources without having to worry about going to unchartered territories. In other words, the program promoted a “welfare mentality” within the universities of the study.

Conformity and risk-aversion in financing should come as no surprise in the sampled universities. In many aspects of university life the PIFI Program and its homogenizing logic represented a straitjacket that provided few incentives for innovation and creativity. As observed earlier, innovation requires flexibility, autonomy, and uncertainty in facing environmental pressures (Bromiley & Marcus, 1987; Downs, 1967; Marcus, 1988). The PIFI Program promoted the opposite: little flexibility, lack of autonomy, and high certainty. Simply put, with PIFI, the only thing universities had to worry about was that Congress approved money for the program each year. Everything else was pretty much taken care of. Institutions just had to wait for the guidelines and stick to them when crafting their proposals. The whole participating process represented a template that universities had to fill out, with little room for creativity and innovation.

In short, the PIFI Program posed no real challenge for universities that demanded “thinking outside of the box,” mainly because the higher education system as a whole became highly predictable. There were many examples of such predictability, broadly speaking: only PROMEP professors were considered “good professors,” only members of the National System of Researchers were regarded as “good researchers,” only officially evaluated and accredited programs were considered “good academic programs,” and only proposals that stuck to the PIFI guide were considered “good proposals.” There was no other way around to succeed, and universities had to make sure they followed the script tightly. As observed by a researcher, “Public universities cannot subsist, and exist, outside the guidelines of the federal government
and the PIFI Program.” Within these heavy institutional constrains no one should be surprised that public universities did not innovate, if they did so, they ran the risk of not getting money from the program. Therefore, the dominant strategy was just to “stick to the guide and do not get creative with PIFI.”

One of the reasons why the PIFI Program had little flexibility is the issue of inter-organizational trust. The program’s guidelines and general logic suggest that the Secretariat of Public Education (SEP) did not trust public state universities. It seems that this program was designed to control, not to promote substantial change within public universities. Trust is defined as an individual’s confidence in the good will of others in a given interpersonal or inter-institutional situation, and the belief that others will make efforts consistent with the personal or organizational goals (Ring & Van de Ven, 1994). According to Scheberle (2004), high levels of trust are evident when institutional actors share goals, respect the actions of others, and allow flexibility and autonomy. Mutual trust increases cooperation and induces high-quality inter-institutional relationships and high organizational performance (Lundin, 2007; Smith, Carol, & Ashford, 1995; Thomas, 1992). The policy logic of the PIFI Program suggests that inter-institutional trust was not present in the relationship between the federal government and public state universities. For instance, there was no goal sharing and no goal commitment because government imposed the goals, and there was little flexibility because universities had to do exactly as the policy guidelines said.

This situation promoted a perverse cycle in which the perceptions of lack of trust led to contentiousness, at the expense of meaningful cooperation between the federal government and public universities. As a top executive at Southern State University commented:
The main negative consequence of PIFI is the inflexibility of the instrument. For instance, if we ask for money for the professional development of professors, the Secretariat of Public Education [SEP] forces us to provide the names of the specific seminars that professors will attend, along with the specific dates and times; that is a nonsensical requirement! Most of the times, of course, there is no way we can know that in advance, so we have to lie. The instrument should be more flexible and establish broader and more meaningful goals. The SEP should trust more in our capacity and honesty as institutions.

At the other two universities the situation was similar. A researcher and former top executive in Northern State observed that “The inflexibility of the instrument is due to the lack of confidence of the federal government in us. This is the main problem of the PIFI Program, and it is becoming unbearable for all public state universities.” Along the same lines, to a researcher at this university, “Lack of trust and super-control does not lead to good practices, but to strategies to evade such control, which in turns negatively impacts our productivity.” Moreover, to a top executive at Southern State the situation has become unsustainable because “The federal government and the PIFI team are just inventing new requirements to control public state universities. This has become overwhelming, it is time for more trust and flexibility in the operation of grants.” An executive at this university summarized the situation quite bluntly:

The PIFI Program and most grants are part of a broad logic of distrust on public universities. In a nutshell, the government thinks public universities are corrupt and delinquent. We are the noblest institutions that this country can have, and we have no
respect from the federal government. They even tell us how our mission statements should look like!

While some of these claims may seem exaggerated and aimed at having a carte blanche from government to spend resources with no restriction whatsoever, the important issue here is that universities perceived that the government did not trust them, and acted consequently. Based on interviews with PIFI officials, there was little evidence that federal bureaucrats at SEP trusted public universities, because they perceived that allowing them flexibility will result in institutions “going wild big time” in financial and academic mismanagement (as quoted by an advisor at the PIFI Program). The perceptions of lack of trust led universities to deceive, in attempts to avoid the controls established by government.

The seeds of this contentious relationship were planted since the beginning, by design. As acknowledged by a former federal official who participated in the design of the PIFI Program:

The debates at the Secretariat of Public Education (SEP) when the PIFI Program was created revolved around the degree of flexibility that the instrument would have and the levels of autonomy that universities would be granted. The final verdict was that universities would have no flexibility whatsoever, that they would have to follow the strict rules if they want the money, period.

Edwards (1980) pointed out that the more well-disposed implementers are towards a policy, the more likely they are to act in the formulators’ interests. Also, Perrow (1983) suggests that efforts to centralize authority and control all the actions of implementers may end up “deskilling” those responsible to carry out the policies increasing the chances of error. In the
case of the PIFI Program, the lack of flexibility “deskilled” university executives and planners in terms of innovation and “thinking outside the box of PIFI.” The “PIFI scheme” was so rigid that creativity and innovation did not seem to be relevant skills for “pifiologists,” because government could even punish such behaviors by not assigning money to the proposals presented.  

Using the typology developed by Scheberle (2004), the PIFI Program promoted a relationship between the federal government and the universities characterized by low-trust and high but not meaningful involvement, what Scheberle called “coming apart and contentious relationships.” According to Scheberle, this type of inter-institutional relationship takes place when:

Participants are highly frustrated with what they view as unnecessary attention on the part of other participants to administrative detail, program review, or organizational outputs… actors are involved -but involved in the wrong way. State participants may comply with program requirements on paper, while running the program as they want on the ground. Federal oversees pay attention to their state counterparts… but frequent expressions by participants that they are being micromanaged will be common in relationships in this cell (p. 25).

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51 As noted earlier, pifiologists shared the perception that “thinking outside the box” with PIFI would risk getting money from the federal government, so the “dominant strategy” was to stick to the PIFI guide.

52 According to Scheberle (2004), there are four types of working relationships between federal and local governments: “pulling together and synergistic” (high trust, high involvement), “cooperative but autonomous” (high trust, low involvement), “coming apart with avoidance” (low trust, low involvement), and “coming apart and contentious” (low trust, high involvement).
It might be argued that in Mexican public higher education developing high-trust, high-involvement relationships is a highly complex endeavor given the perceptions of distrust between government and universities. However, a fundamental change in attitudes on both sides is very important in order to acknowledge the complex nature of the problems and to build a shared commitment to solve them. The opinions of key informants at the three universities suggest that this mutual acknowledgment and shared commitment were absent within the logic of the PIFI Program. Universities may have complied with most policies, but did not accept them. On the other hand, the federal government pushed for further control-oriented policies, believing in the success of the program as a steering mechanism. As Downs (1967) argued, efforts to exert control will spawn additional efforts to circumvent control, which in turn generate greater control efforts and so on. In the universities studied, this perverse cycle promoted systematic goal displacement, contempt and conformity.

In my perspective, to break this cycle universities should have much more involvement in the development of goals, strategies, and indicators, and more flexibility and autonomy to achieve them, according to their capacities and regional contexts. The federal government, on the other hand, should keep making universities accountable to the achievement of such goals, but with mid-term and long-term perspectives, avoiding micromanagement processes as it happened with PIFI. As Fielden (2008) observed, “if a group of institutions in a university system is given autonomy to respond to national policy goals as they see fit, there is reasonable chance that they will chose different ways of reaching the same goal and that some will be more innovative than others” (p. 18). Therefore, I argue that the reassessment of the PIFI Program, with the aim of allowing more flexibility for public universities, seems highly relevant to promote innovation and avoid perpetuating the deceiving game. As acknowledged
by a top executive at one university, “PIFI should be more flexible and with a long-term perspective. For instance, in some European countries there are grants and contract-programs with a four-year planning horizon; that is real integral long-term planning, not PIFI planning!”

Power Centralization: The Further Empowerment of the President and University Executives

Another negative consequence of the PIFI Program was that it contributed to the empowerment of university executives, especially the university president, further diminishing the influence and authority of faculty members. This finding ran contrary to the theory of action of the program, since it was supposed to promote decentralization by devolving some power to professors and researchers through “collaborative strategic planning exercises.” According to the program’s blueprints, the PIFI Proposals should be the result of participative strategic planning exercises within the universities, at the institutional-level, school-level, and academic program-level (Secretariat of Public Education, 2003). In theory, this meant that professors and researchers should actively participate in relevant decision-making processes and be more influential in determining the strategic direction of their higher education institutions. However, in practice, even if some individual professors and researchers gained influence –mainly those regarded as pifiologists- the big winners were university presidents and the new political class of “management technocrats” (the university executives closely linked with planning processes). As discussed in Chapter 6, heavy planning bureaucracies were developed within the three universities in the study to respond to the demands of the resource environment, contributing to the “technocratization” of university life and the further reduction of academic authority.
An example of the centralizing trend that the program promoted is the growth of central bureaucracies relative to the growth of academic personnel. Official statistics of the 34 public state universities in Mexico\textsuperscript{53} show that, from 2005 to 2010, academic personnel grew 13%, while administrative personnel at central offices grew 25% (see Table 9). This finding is consistent with recent research conducted by Acosta (2010), who concluded that the expansion of university bureaucracy indicates the influence and importance that administrators have acquired in university life in times of a “management revolution” (p. 142).

Table VI

\textit{Growth in Academic and Administrative Personnel at Mexican Public State Universities}

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<th></th>
<th>2005</th>
<th>2010</th>
<th>% Change</th>
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<tr>
<td>Central executives and administrators</td>
<td>25,670</td>
<td>32,080</td>
<td>25%</td>
</tr>
<tr>
<td>Professors, researchers and academic assistants</td>
<td>68,874</td>
<td>78,069</td>
<td>13%</td>
</tr>
</tbody>
</table>


At the three universities there was evidence that suggested that the PIFI Program contributed to the centralization of power in the hands of the president and his/her planning

\textsuperscript{53} It is important to note that statistics for individual universities were not available, so the data presented on this topic is aggregated.
staffs, reducing the influence of faculty members and government boards. Instead of diffusing
power by spurring participation and democracy, PIFI ended up being a program designed by
“management elites” in the federal government and controlled by “management elites” within
these universities. In Corson (1960) terms, the program contributed to further reduce the
“unique dualism in the organizational structure of universities, where authority is shared
between administrators and faculty members” (p. 43). This program pushed the universities to
become “business-like organizations,” in the sense that administrative executives directed the
primary goal activities, and professionals provided secondary support activities and knowledge
(Birnbaum, 1988). Etzioni (1964) suggested that “although administrative authority is suitable
for the mayor goals and activities in the private businesses, in professional organizations
administrators are in charge of secondary activities; they administer means to the major activity
carried out by professionals” (p. 81). In other words, in professional organizations such as
universities, ideally, administrators and faculty members should both have significant authority
to decide the future of the university. My data suggest that this was not the case and the PIFI
Program played a role in this matter.

Although there were particularities at the three universities, the overall pattern was
similar. The program increased the power of the president and of planning executives, reducing
the relevance of faculty members and government boards in the decision-making processes. At
Southern State University, the program provided substantial power to the president and top
executives. A top executive at this university commented:

The grants have resulted in the empowerment of the central political bureaucracy of the
university, especially the president. With money from PIFI and the grants, the president
has created new organizational structures outside the legal chart of the university. These
are new executive offices which are not included in the formal legal structure of the university and which are not approved by the Board of Government, such as the “Secretariat for Academic Quality.” Such new structures usually serve the interests of the president, bypassing the legal authority of collegial decision-making bodies. This is done by the president and his allies in order to increase their power by controlling the resources from grants.

Along the same lines, to a top planner there the program contributed to the concentration of power in the hands of the president and his political allies:

The PIFI Program has centralized power in the hands of the president, top executives, and some pifiologists. The policy mechanism is quite simple, no matter how “participatory” PIFI is said to be, the ultimate decision-maker is the university president and the chief of planning. Therefore, there are strong incentives to favor friends and allies over political detractors with PIFI money. Plus, power centralization in this university not only happens at the central administration, but also at the school level. With the money they got from PIFI, deans and directors usually replicate the central logic of favoring their friends.

Moreover, a researcher and executive acknowledged that in the struggle over power and resources between administrators and faculty members, the PIFI Program favored the former: “With PIFI and the grants there has been a continuous struggle over the distribution of resources between administrators and academics. PIFI was supposed to favor the academics; however, it ended up giving more power to executives.” A researcher and pifiologist explained the mechanism that contributed to such empowerment:
PIFI has further empowered the president and top planners because now they are the big “donors” within the university. Since the ordinary budget is already compromised for current expenses, fresh money from grants represents a huge source of power to favor some projects -and people- and to punish others.

The situation at Northern State was similar. The role of the PIFI Program in promoting the empowerment of the president and top administrators was also evident. A researcher at this university noted:

As a response to the PIFI Program, the university has created a formal, but parallel government structure that bypasses the traditional government bodies of the university, such as the senate. For instance, PIFI proposals are executive projects that do not have to be approved by collegial or academic government bodies. This has empowered the president and top executives, because they do not need to discuss such proposals in the traditional collegial decision-making process. They are executive orders!

These “parallel government structures” were none other than the planning bureaucracies created to respond to the demands of the federal government (see Chapter 6). These bureaucracies responded to the needs of federal government and were generally controlled by the university president and top executives. As acknowledged by a top planner:

The technical complexity that grants entail is very high, and it is hard to adapt to the traditional decision-making structures of universities, which are heavy and slow. That is the reason for the rise of executives and the technocrats, especially the university
president. This happens not only at the central level, but within the particular campuses and schools in the university. Academic authority has been significantly reduced.

At Northern State University there was also acknowledgment that one of the mechanisms that empowered the president and his planning staffs was control over scarce resources. As discussed earlier, since ordinary budgets were mostly committed for current expenditures, including wages and salaries, controlling the grants provided huge leverage for those in charge. A planner and researcher observed:

There is a zero-sum game with PIFI and the grants. The president and top executives have won, and the faculty members and boards of government have lost in the power distribution. With the logic of PIFI, the university president has raised –again- as the great decision-maker and the main political figure in the university. Money talks, and if the president thinks he is “the one” getting extra resources from grants, then he decides on its internal distribution.

Indeed, within the policy logic of PIFI, university presidents and top administrators acted as if they were the “owners” of the program since they were the ones who authorized it and negotiated with federal authorities. Therefore, when money arrived to the university such political figures determined its internal distribution, usually replicating the logic of the “carrot and stick.” A researcher at this university commented, “Here, there is a capture of PIFI and the grants. The president and top executives are the ‘owners’ of them. This is rational, they do so in order to prevent other antagonistic groups to get resources, and hence power.”

At Central State University the president and executives were further empowered by the PIFI Program and its logic. As in the previous cases, the centralization of power in the hands of
Top administrators responded to a logic of “carrots and sticks” within universities. A top planner observed, “PIFI has empowered the president and top administrators in this university. They control the resources from the grants and decide who gets them and who does not, mainly by controlling the process of crafting the proposals.” Moreover, according to an executive, the program increased the power of presidents mainly because “PIFI became a tool for university presidents to control and steer political ambitions within the institutions.” A researcher elaborated on the importance of the program as a power and legitimacy source:

PIFI is a necessary instrument for university presidents to keep control of their institutions; it gives them both power and legitimacy. For instance, by distributing money from grants they get internal control over diverse groups, so the grants are politically indispensable for them. Also, they gain legitimacy because when internal actors complain about university policies, they can blame the program –and the federal government. Their argument goes like this: Do not blame me. I do not decide on the policies; it is PIFI and the SEP.

Power centralization and participatory planning: How democratic and collaborative the PIFI Program really was. As discussed earlier, the centralization of power in the hands of university presidents and top executives ran contrary to the theory of action of the PIFI Program. “Participatory” and “collaborative” strategic planning were fundamental elements of this policy, mainly because the active involvement of faculty members in the planning processes was supposed to act as an antidote to centralization, promoting Corson’s (1960) unique dualism in the organizational structure of universities, where administrators and faculty members share power and influence. However, central administrators managed to
escape such limitations and tamed the participatory processes within universities. Therefore, the
democratic ethos of program became largely discursive and symbolic. According to data from
the interviews, from 2001 to 2003 the program generated genuine enthusiasm as a tool to
democratize the decision-making process within the sampled universities. But from 2004 to
2010 such enthusiasm evaporated as the program was “captured” by the presidency and its
planning bureaucracies.

Based on evidence provided by informants at the three universities, the capture of the
PIFI Program was possible mainly due to authoritarian and deceiving practices, such as
impression management. The PIFI proposals of the sampled universities still looked highly
collaborative since dozens of professors and researchers appeared on the credits as “highly
involved participants.” However, in reality, the involvement of faculty members in important
decisions was minimal, and hence the “decentralizing and participatory nature” of the program
was transformed into a ritual to legitimize previously taken decisions at the centre. On this
issue, a former executive at Northern State University observed:

In the beginning, the PIFI Program was a collaborative exercise in which many
organizational actors actively participated (e.g. professors, researchers, and even
students). However, latter on the program became the sole responsibility of the planning
units within each campus and the central planning office. This was in order to make the
planning cheaper, faster, and more efficient. The active participation of professors and
researchers has become mostly a legitimizing ritual.

According to a planning advisor at Central State, the enthusiasm with PIFI rapidly
vanished and was replaced by pure pragmatism: “There was initial enthusiasm, but when we
memorized the guide and learned the game it became mechanistic. Plus, it is very expensive to ‘mobilize’ the whole university around PIFI. So we better developed scale economies and deceived a little.” To this key informant, “deceiving a little” meant making the important decisions centrally and then getting “faculty members to validate and legitimize the process.” Elaborating on this impression management process, a top planner at this university acknowledged that:

There are legitimating rituals to give the appearance of democracy and extended participation in the development of PIFI proposals. For instance, top executives require professors and researchers to legitimate such documents, by attending meetings and signing the forms, without having really participated in the decision-making process.

At Southern State the situation was similar, where initial enthusiasm and participation was replaced by impression management strategies. A researcher observed:

PIFI was important at first because it engaged professors and researchers on university-wide issues. Before PIFI, professors did not know about the strategic direction of the university. With PIFI there was much more inclusion, at least at the beginnings of the program… Unfortunately, that was before we lost enthusiasm and started to engage in deceiving practices and impression management.

Moreover, a top executive and researcher at this university elaborated on the issue of impression management and deceiving practices:

When the program was created, the academic community participated in the development of PIFI proposals (e.g. professors, researchers, students, etc). Nowadays,
however, no one wants to participate so the “PIFI kids” are in charge of such work, because nobody wants to do it anymore. It stopped being democratic and started to be a deceiving and legitimizing ritual, where the important decision were already taken by top executives and the president.

Regardless of the specific “causal mechanisms” that may have led professors and researchers to lose interest in the program, the important issue here is that such lack of enthusiasm and active participation was a key factor in promoting the further empowerment of the president and top executives. With little interest on the part of most faculty members, the alleged democratic ethos of the program was lost. Therefore, the PIFI Program became a policy tool designed by the center (federal government) and ran from the center (university presidents and executives).

The empowering mechanisms: How presidents and top executives gained power.

Evidence from interviews suggests that there were two key mechanisms by which university presidents and top executives were further empowered through the PIFI Program. One of them was the general policy logic. This policy demanded rapid responses from universities and such responses required executive-oriented structures. Therefore, universities created heavy bureaucracies and staffs that were capable of rapidly responding to the needs of the federal government, reducing the participation and influence of traditional and slow-moving collective decision-making instances (e.g. university senates and boards of government). Senates and boards of government have been, for the most part, spectators in the executive-oriented process of developing and implementing PIFI proposals. As observed by Acosta (2010), the growth and diversification of federal grants required universities to improve their management and
response capacities to get resources without relying on the traditional collective decision-making structures. To Acosta, “public universities started a silent but persistent task of strengthening their executive structures to better respond to the short-term needs of the federal government, marginalizing the role of faculty members, unions, student bodies, and other collective actors in the decision-making processes” (p. 97).

Paradoxically, the emphasis of the PIFI Program on promoting executive structures and responses might have limited the capacities of universities to make their proposals reality. The argument is that, since the crafting of PIFI proposals was mostly executive-oriented, without the involvement and deliberation of collective –and slow– decision-making instances (e.g. university senate and boards of government), when there was time for implementation university executives suffered to get the support of such collective structures, presumably because they were not taken into account in the first place, at the proposal stage.

The other mechanism that contributed to the accumulation of power on university presidents was the reproduction of the “carrot and stick” logic promoted by the program. The mechanism was simple, university presidents had to authorize and sign all PIFI proposals, so they generally used such power to reward their friends and punish their enemies. If professors, researchers, school deans and other relevant actors wanted to participate and get money from the program, they had to be in “good standing” with the president, top executives, and the pifiologists, otherwise, they were marginalized from this grant. A former federal policymaker that participated in the design of PIFI noted:

The PIFI Program has empowered university presidents by design. This runs opposite to the original stated goals of PIFI, which were to decentralize decision-making and to reduce the personal power of presidents. The “original sin” of PIFI was its policy logic,
which requires that all proposals have to be authorized by the president himself. There is no other way to participate.

The fact that university presidents were the only ones who could authorize proposals significantly increased their power. With such policy provision this policy perpetuated the position of presidents as central political figures within the universities. As discussed earlier, PIFI proposals still had to look collaborative enough in order to be authorized by the Secretariat of Public Education (SEP). However, evidence from interviews at the three universities suggests that presidents, as the ultimate decision-makers, steered the participatory processes and decided who would benefit from the program and who would not.

A genuine decentralized approach to monetary incentives would allow individual schools, and even individual faculty members, to participate in the grants without the authorization and veto power of chief executives. Birnbaum (1988) argues that “the loss of administrative control is related to the presence of external funding and control mechanisms that bypass and weaken institutional administration” (p. 15). The PIFI Program was designed as to prevent the loss of administrative control on the part of presidents, presumably because that was the only way that they would accept the policy. On this issue, a top executive at SEP acknowledged:

It would be unthinkable to really decentralize PIFI and bypass the authority of university presidents. They would resist any attempt to do that, because that would mean reducing their power to control their institutions. If we ever attempted to bypass their central authority they would unravel and eliminate the Program in no time; then, they would directly negotiate with congress to get additional money without any
cumbersome accountability measures. In other words, PIFI exists because it is good for presidents since it promotes their further empowerment.

Given this policy design it came as no surprise that, according to informants, university presidents were the most fervent defendants of PIFI and the grants. A researcher at one university observed, “The actors who defend monetary incentives the most are university presidents. They are supposed to be defending the autonomy of the institutions, but instead they defend PIFI and the grants. That is a contradiction.” This apparent contradiction was pure pragmatism. University presidents defended the current model of PIFI and the grants since “owning” such grants represented a powerful lever for them to control their universities, and to accumulate political capital.

Bypassing the central authority of university presidents by decentralizing the process would pose political risks for them, given the nature of the system. In Mexico, university presidents are generally professional politicians (Acosta, 2010), who seek to continue their careers in public office once they finish their terms at the universities.54 The PIFI Program and the grants could be useful tools to achieve their political agendas. As noted by a policy maker, also a former university president:

The majority of university presidents use their positions as platforms to gain political influence and to strengthen their power bases. The problem is that, generally, presidents are looking for other political positions when they finish their terms; they usually want

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54 In most universities there are fixed terms of four years for university presidents with only one consecutive reelection chance (Lopez-Zarate, Gonzales-Cuevas, Mendoza, & Perez, 2009), or only one term of six years with no reelection. For this reason, university presidents usually use their positions as platforms for their political careers outside the university.
to become senators, congressmen, mayors, or governors. There is nothing that grants and other federal policies can do about that, it escapes our realm of influence. It is just the nature of our political system.

The impact of the PIFI Program on the empowerment of university presidents is consistent with research in other countries. According to Frémont (2004), program-contracts in France increased the power and influence of university presidents, because they have more resources to distribute internally. Also, since the projects subject to receive money from grants have to be discussed and agreed-upon internally, university presidents have an incentive to gain more power and control over such processes. Moreover, Vilalta (2001) found that in Cataluña monetary incentives strengthened the power and influence of university presidents as well, because they replicate the logic of the contract-programs within their academic units (rewarding and punishing behavior).

**The issue of academic authority.** The problem of giving too much power to university presidents and their staffs is that it can undermine the academic authority of faculty members, as well as the role of collegial decision-making structures. Traditionally, universities posses a dualism of control in which two structures exist in parallel: the conventional administrative hierarchy and the structure through which faculty made decisions regarding those aspects of the university over which they had jurisdiction (Corson, 1960). This unique dualism in organizational control allows higher education institutions to pursue ambiguous and contradictory goals and at the same time balance administrative and professional knowledge and authority. As warned by Birnbaum (1988), undermining this healthy balance would create
business-like universities, in which professors and researchers serve the needs of administrators, and not the other way around.

Historically, the governance model of Mexican public universities has been authoritarian, president-oriented, and bureaucratic (Ordorika, Martinez, & Ramirez, 2011). The blueprint of the PIFI Program attempted, at least in theory, to give more power to the academic communities through collaborative and participative planning processes. However, given the specific policy provisions of the program, it was rapidly co-opted by presidents and top executives. Instead of devolving some power to professors and researchers, the program contributed to the further empowerment of top administrators. The new forms of government that emerged as a response to the PIFI Program and other grants are characterized by the marginalization of academic authority and of collegiality in the decision-making processes, promoting the centrality of presidents and “academic technocrats.”

Acosta (2010) claimed that, as a response to federal policies a new cadre of institutional actors has emerged in public universities, what he calls “academic management experts” or the gestocrats. These experts have specialized in “handling the instruments, tools, and necessary networks in order to provide university presidents with the negotiation capacities in order to take advantage of the federal grants and programs” (p. 142). Such “new managerialism” in Mexican higher education may have improved some administrative aspects of university life, such as transparency and accountability practices, but it has further promoted the centrality of presidents and top executives, undermining academic authority of faculty members.

In sum, the PIFI Program failed as a policy to promote more participatory and democratic decision-making processes within the three universities under study. After 10 years of implementation, these universities are still authoritarian and bureaucratic, in which the
central political figure is the university president. Universities may have stronger planning bureaucracies and fast-responding planning teams, but they have not fundamentally changed their governance structures. Ordorika, Martinez, & Ramirez (2011) have observed that “the federal financing and evaluation policies that were supposed to ‘modernize’ and ‘strengthen’ higher education institutions have not touched the governance structures of public universities, which remain centralized, authoritarian, and non-democratic” (p.51). Thus, empowering faculty members, democratizing decision-making processes, and promoting a healthy dualism in organizational control are still “in the works” of Mexican public higher education.
CHAPTER 9
DISCUSSION, IMPLICATIONS, AND DIRECTIONS FOR FUTURE RESEARCH

The present study was guided by four general research questions. In the following pages I will address three of them in short order, summarizing the main findings. I will then follow with a discussion of the factors that explain the responses of the three universities to the PIFI Program, in light of the relevant literature (Research Question 4). The goal is to show how the findings of this study advance our current understanding of organizational-environmental relations and of incentive policies in the context of higher education. Implications for policy will be laid down as well as potential next steps for research.

Summarizing the Answers to the Research Questions

Research Question 1. How have public state universities responded to the monetary incentives developed by federal government in order to improve academic quality? What specific organizational responses have they enacted when participating in the grants?

a) Have universities created new organizational structures or positions? What structures and positions have they created?
b) Have universities created new laws or rules? What laws and rules have they created?
c) Have universities developed new strategic goals? What strategic goals have they developed?
d) Have universities changed their official discourses? How have they changed such discourses?

The universities in this study responded to the PIFI Program by consolidating strong planning bureaucracies as central elements in their decision-making processes. Before PIFI, these universities already had planning offices, but they did not have much power and relevance because “strategic planning” was not a central tenet of organizational life. With this program, strategic planning became a mantra and everybody had to be involved in some form or another. PIFI empowered the planners because the capacity of universities to comply with the policy’s guidelines represented additional revenue from federal grants. After PIFI, strategic planning became “the name of the game” and the planners became indispensable technocrats.

With the strengthening of the planning bureaucracies in the universities, both centrally and at the school-level, a new cadre of response specialists emerged: the pifiologists. The pifiologists were those individuals who specialized in “knowing the ropes” of PIFI, both in terms of its technical requirements and its symbols. These response specialists became indispensable technocrats within universities because they mastered a precious skill in the resource environment: the capacity to tell the Secretariat of Public Education (SEP) what it wanted to hear, and to convince it that universities deserved money from grants. In other words, with the PIFI Program these response specialists became “wizards” who held the keys to additional resources from the federal government.

55 The notion of pifiologists as wizard-like professionals was laid down by informants at two of the universities in the study.
Another response to this program was the implementation of “academic consortia” as an academic model of organization, pushing the three universities of the study towards “departmentalization.” The academic integration into consortia was a direct response to this policy because in order to participate, PIFI required universities to group their independent faculties into “colleges” grouped by academic discipline. The three universities complied but did so in different ways. While in Southern State most consortia were “virtual,” existing only on paper and for the purposes of presenting PIFI proposals, in Central State some consortiums actually took hold and were collaborating, sharing infrastructure and human capital. The case of Northern State was atypical because this university already had a sort of departmental model of organization. The PIFI Program did not promote changes there because the university adapted the consortia to their already existing colleges. At this university PIFI was adapted to the existing context, not the other way around.

Although it was not its primary intent (at least according to the guidelines), the PIFI Program had an enormous impact on the modernization of the academic infrastructure at the three universities, promoting an “arms race” to have the best equipment and facilities. Official statistics show that from 2001 to 2010 around 50% of the resources received by these universities were invested in improving their “hardware” (Undersecretariat of Higher Education, 2011a). This was a relevant finding because the emphasis of the program was on “software” (e.g. improved academic programs, academic credentials, planning expertise, etc.), not on the modernization of infrastructure. Still, the most visible and celebrated impact of this policy was that it provided resources to modernize classrooms, equip laboratories and libraries to make public universities resemble their private “Ivy League” counterparts. A factor that contributed to this arms race was that university executives had incentives to avoid unpopular
reforms, and hence conflict, and frame most of their academic problems as “infrastructure problems.”

In terms of changes in official norms, with the exception of the Planning Law created at Southern State, the universities did not enact new laws in response to the PIFI Program. What the universities did was to adjust some of their already existing norms to incorporate terms and concepts promoted by the PIFI Program, allegedly in order to facilitate the achievement of the official indicators, in a goal displacement “strategic response.” For instance, universities adjusted their academic statutes to generate incentives that led more professors to become part of the “PROMEP Profile” category. Also, in the case of Southern State, an academic norm was adjusted to relax the requirements for graduation and hence improve such indicator. This documentary evidence, along with information from the interviews, suggests that the normative reform approach at the three universities was highly pragmatic. The rule was to avoid making comprehensive changes in the normative structure and make marginal adjustments when that helped advancing on the performance indicators, to get ahead in the race for prestige and resources.

The three universities of the study developed new goals, strategies, and discourses in order to comply with the logic of the program. On this topic, the most relevant change was that universities embraced the official performance indicators as their main measure of success and aligned their strategies and discourses to facilitate their achievement. After the PIFI Program was created in 2001, these universities rapidly adjusted their strategic documents to incorporate the quantitative logic of the indicators, as well as the official discourse emphasizing notions such as “academic quality,” “efficiency,” “competitiveness,” “participatory planning,” “evaluation and accreditation,” and so on. The review of strategic documents such as reports to
government and PIFI Proposals, along with interview-based evidence, suggests that the PIFI Program promoted the adoption of a new academic discourse, but only symbolically since academic practices remained, for the most part, untouched.

The PIFI Program also promoted unanticipated responses. On the positive side, the program led the universities to “put their houses in order” in terms of the generation, organization, and dissemination of information on their academic and administrative duties. In addition, after 10 years of the implementation, the program pushed universities to be more transparent and accountable to the federal government. Moreover, although it was not one of the stated goals of the program, the three universities became more modern in terms of their management capacities, resembling business-like corporations for their rapid responses, new-management jargon, and their “bottom line” quantitative logic (i.e. academic indicators as the ultimate balance sheet).

On the negative side, the PIFI Program promoted systematic goal displacement and deceiving practices, with the goal of giving the impression of change without really changing at the core. Evidence provided by informants suggests that the universities in the study did whatever was necessary to “squeeze” PIFI, by telling the Secretariat of Public Education (SEP) what it wanted to hear, “creaming,” and adopting a more is better mentality without really engaging in substantive efforts to improve academic practices. Indeed, it seems that the official academic indicators have lost their meaning, mainly because the three universities have reached the top in some of them but not much really changed in terms of their academic practices. Moreover, interview-based evidence suggests the program represented an obstacle for innovation, due to its rule-bound logic, lack of flexibility, and the promotion of a welfare mentality on the part of universities. Finally, the general perception of informants suggests that,
contrary to the stated logic of the policy that promoted broad participatory decision-making processes, the three universities became more centralized, presidents further empowered, and academic authority diminished.

*Research Question 2.* To what extent are those responses symbolic, decoupled from core academic practices and performance, or real, with the potential to positively impact academic quality?

The three universities in the study responded in both “real” and “symbolic” ways to the PIFI Program. However, the responses that were real mostly touched administrative and procedural aspects of university life. Such changes, while significantly altering some behaviors, did not penetrate the classroom and did not impact core academic practices. For instance, the strengthening of planning bureaucracies and the adoption of the strategic planning “mantra” led universities to develop better managerial capacities and to become more accountable to the federal government. The problem was that such improvements did not significantly alter the day-to-day teaching and learning practices, which evidence from the interviews suggests remained mostly traditional. Along the same lines, the alignment of universities with the official performance indicators was a real change that significantly altered daily routines. But again, and due to the input-oriented and procedural nature of the indicators, these changes did not reached the core and mainly touched superficial aspects of university life (such as the emphasis of professors on improving their formal academic credentials and the focus of administrators on improving technological infrastructure).

One must be cautious here since none of the universities in the study had conducted specific studies on classroom practices and academic performance. Nevertheless, the perception
of informants, including their anecdotes and experiences, almost uniformly suggested that federal policies did not reach the classroom.\textsuperscript{56} In that sense, universities may now have professors with better formal academic credentials, sophisticated management capacities, and state-of-the-art technologies, but academic practices remained mostly traditional. The elusive black box of classroom practices was out of the reach of the PIFI Program, mainly because of the lack of alignment between the current accountability system and core academic processes.

The PIFI Program also promoted symbolic responses aimed at gaining legitimacy and continuous support, but without really altering day-to-day academic practices. For instance, the three universities pursued a sort of curriculum reform by updating their academic programs according to international pedagogical trends (e.g. “active learning,” “academic competences,” “student-centered approaches,” etc). However, evidence from interviews suggests that it was done mostly on paper, because these universities did not take any relevant actions to promote the actual enactment of such new curricula in the classrooms. In addition, the universities adopted the language, the discourse, and incorporated most of the official goals in their strategic documents, but they did so only symbolically. They rapidly adopted the official discourse of “academic competitiveness and capacity,” “evaluation and accreditation,” “performance indicators,” “efficiency,” “strategic and participatory planning,” etc. Still, according to most respondents, having a new language did not translate into having new and better academic practices.

\textsuperscript{56} The fact that university executives did not seem to care about classroom impacts signals that this was not a priority for the federal government. Indeed, during the interview process and when posing the questions regarding classroom impacts, most respondents seemed surprised and puzzled, as if such impacts were not an important topic when talking about federal policies to improve “academic quality” in public universities.
In sum, it may be argued that the general strategy of the universities in the study with some aspects of the PIFI Program was to *comply* but not really *enact*. In addition, these universities told the Secretariat of Public Education (SEP) what it wanted to hear, but focused on protecting the core from external disturbances. In that way, the observed universities adopted most the policies only symbolically, passively resisting any attempts to substantially change their academic practices. There is a traditional Mexican expression that goes: comply, but do not really implement!\(^{57}\) That was the fate of most of the policies of the PIFI Program that aimed at altering academic practices, such as the curriculum reform.

*Research Question 3.* Do organizational responses represent institutional isomorphism or institutional differentiation among the universities in the sample?

The organizational responses of the sampled universities produced institutional isomorphism at the three universities of this research. Being under similar environmental pressures and complying with an inflexible policy instrument led universities to resemble each other in their structures, goals, and discourses. The three universities developed strong planning bureaucracies as buffers to deal with environmental pressures, they embraced the logic of the official indicators, and they adopted the official discourse of “academic quality” and “participatory planning.” When reading the official documents of these universities (e.g. PIFI Proposals, annual reports, president addresses), it became difficult to distinguish which university they belonged to, due to their similarity in the language and discourse.

The universities became isomorphic mainly because of the influence of three mechanisms: *coercion, imitation,* and *professional norms* (DiMaggio & Powell, 1983).

\(^{57}\) ¡Acátese, pero no se cumpla!
Coercive isomorphism was perhaps the most important mechanism by which these universities ended up resembling each other. The rule-bound and template-like logic of the program provided incentives for universities to avoid attempts to differentiate. Indeed, it seems that one of the goals of the program was to homogenize and standardize public state universities, promoting a model of what it means to be a “good university,” by adopting the official missions, indicators, and discourse. The general logic of PIFI was pure and simple: if you want the money, comply with official policies, if mostly symbolically and superficially.

Although coercion was a determinant of isomorphism, imitation also played a role. The three universities of the study competed for the attention and prestige granted by the federal government. They performed continuous benchmarking exercises to observe what other universities were doing, especially in terms of infrastructure and the creation of new offices (e.g. the “PIFI Office” or the “PIFI Center”), with the aim of better impressing government officials with their hardware improvements and accomplishments. Finally, normative isomorphic forces also played a role in shaping responses. Normative influences were carried on by the group of pifiologists who, as external consultants, initially disseminated the goals, the ideology, and the “appropriate” responses of universities to the PIFI Program. In addition, these pifiologists were responsible for the training and indoctrinating of the internal planning experts, who later became the “wizards” of PIFI.

Research Question 4. Why have public state universities reacted in the ways they did to the financial incentives? According to the theoretical perspectives and empirical evidence, what factors might explain specific organizational responses?
Different factors contributed to explain the organizational responses of the studied universities to the PIFI Program. In the following section I will discuss how three main forces, in constant interplay and tension, played a role in accounting for the ways in which universities responded to this high-stakes monetary incentive. The interplay and tension among the logic of the policy, the broad institutional-environmental forces, and the internal dynamics of universities, all together “tell” a more complete story of university responses. By analyzing these forces and the responses they promoted, the study contributes to our understanding of the complex topic of organizational-environmental relations and suggests lessons and implications for policy.

Underlying Assumptions of Incentive Policies

Goal commitment, flexibility and the moral superiority of voluntary compliance. One of the most important postulates and underlying assumptions of monetary incentives is praised by Church and Heumann (1989) as the “moral superiority of voluntary compliance” (p. 642). To Schultze (1977), market-based incentive strategies “minimize the need for coercion as a means of organizing society” (p.17). In this sense, incentive-based policies are supposed to be better than direct regulation because of the alleged “voluntary nature” of the organizational change they promote. Nevertheless, to other scholars, concern centers on the perception that incentive-based strategies are more manipulative, covert, and possibly more dangerous than explicit government laws and mandatory guidelines (see Neiman, 1980). I do not aim at determining if in the case of Mexican public universities direct regulation may be better than incentive-based policies. What I claim is that the PIFI Program did not materialize the ideal of such “moral superiority of voluntary compliance.” The three universities in this study may have
complied with most policy guidelines, but they did so not because they were persuaded or convinced of their intrinsic benefits. To the contrary, they complied because they needed the money and wanted to “squeeze” PIFI as much as they could without really enacting most of the program’s policies, particularly not those that would bring about change to their core functions and practices. In other words, the sampled universities were not really committed to achieve the intended goals, but only motivated to get the money.

Goal commitment is defined as one’s attachment to or determination to reach a goal, regardless of the goal’s origin (Locke, Latham, & Erez, 1988). At the universities studied, the lack of goal commitment helps to explain why they implemented most policies only superficially, without really changing their day-to-day academic practices. In other words, since universities did not really believe in the goals of the federal government, they usually told the Secretariat of Public Education (SEP) what it wanted to hear just to get the money, but protected their core academic practices from external disturbances. The case of curriculum reform was emblematic. The three universities developed new study programs but did not care much to promote their actual enactment in the classroom, which, based on the perceptions of most informants and the lack of evidence to the contrary, remained highly traditional in terms of academic practices. The use of systematic deceiving strategies was another instance that reflected the lack of commitment of universities to the official goals. Based on the review of PIFI Proposals, universities claimed that they would enact deep and comprehensive reforms, but when the money arrived they mainly enacted cosmetic changes, such as adopting the language and discourse of the federal government and buying new equipment, without really altering core academic practices. This lack of goal commitment was also noticeable during the interview process, where most respondents, being faculty members, top executives,
administrators, or even pifiologists, showed their disdain at the program’s goals, its mechanistic
and quantitative logic, and its lack of flexibility.58

One of the most important determinants of goal commitment is the perceived legitimate
authority of the goal setter (Locke, Latham, & Erez, 1988). Some time ago, Barnard (1938)
proposed that the source of authority does not reside in the superior, but in the acceptance of
such authority by the subordinates. Barnard also argued that one of the most important factors
in promoting commitment is the belief that a specific order or goal is consistent with
organizational objectives and interests. The responses of the three universities in this study
suggest that they did not believe in the legitimate authority of the PIFI Program as a federal
policy, and did not consider its goals and strategies to be consistent with their internal
objectives. The result was a passive resistance on the part of these universities to the program’s
goals. The universities did not actively resist such policies because they needed the money, but
they adopted most of them only superficially and deceitfully.

A relevant lesson here is that no matter how attractive the monetary reward may be,
building inter-institutional legitimacy and trust are likely to be key factors in determining the
success of an incentive-based policy. Building legitimacy and trust are highly ambiguous and
complex tasks, especially in the context of the historic contentious relationships between the
federal government and public universities in Mexico. Nevertheless, not taking these factors
into account reduces the likelihood of goal commitment, and hence the success of monetary
incentives such as the PIFI Program. It may be argued that federal policy makers believed that
money and tight rules would be enough to promote substantive changes in the direction desired

58 It is important to note that some of the respondents, especially top executives, showed their contempt at the
PIFI Program in private, but praised it in public. This issue further suggests the importance of the program in
terms of additional resources, but the lack of commitment to its goals and logic.
by PIFI but, as this study suggests, this was not the case since the three universities showed high degrees of passive resistance to the program’s goals.

Another underlying assumption of incentive policies is their flexibility. By definition, incentive-based policies allow for some sort of flexibility from target organizations, otherwise they would not be regarded incentives but direct regulations. Monetary incentives are supposed to persuade and motivate organizations to pursue some sort of changes, not to directly mandate them. Church and Heumann (1989) argue that incentives stand opposite to regulatory, rule-imposing mechanisms to induce certain behavior. Regulation is based on mandatory compliance, promulgated rules that forbid or require a particular form of behavior, and punishments that are imposed upon failure to obey the rules. To Church and Heumann, incentives are often chosen when authority is lacking for imposition of a regulatory strategy, when specification of minimum levels of performance is considered insufficient to obtain the desired result, or when voluntary compliance is especially valued.

In this sense, the PIFI Program represented a pragmatic, and perhaps dysfunctional, mix of motivational and mandatory elements. In theory, PIFI was a monetary incentive that promoted and valued “voluntary compliance” and hence attempted to “motivate” universities to change. But in practice, most of its policy elements resembled mandatory regulations that allowed little flexibility. As evidence from interviews suggests, the primary motivational element of PIFI was money, not values, ideas or arguments that could persuade universities to engage in substantive change processes. Most of the elements of PIFI were rule-bound. Therefore, if universities wanted to succeed and hence get the money they had to strictly follow the script and the logic of the policy, even if by deceiving and telling the Secretariat of Public Education (SEP) what it wanted to hear. In short, it may be argued that the PIFI Program was
framed as a voluntary incentive, when in reality it was more like a covert regulation (or at least that is how universities made sense of it and hence crafted some of their responses).

As suggested by an informant who participated in the design of PIFI, it is possible that the rule-bound logic and lack of flexibility of the program resulted from the “mental schema” of its founders. As mentioned earlier, PIFI was the brainchild of a group of physicists in top policy making positions, so the quantitative logic, high structure, and “rationality” of this program might have emerged from particular worldviews and professional isomorphic forces. Another plausible explanation is culture. According to Wildawsky (1987), the choice of a policy tool to some extent reflects the political culture of a society. Wildawsky argued that authoritarian cultures are associated with more hierarchical and sanction-oriented policies, individualistic cultures are more incentive-driven, while egalitarian cultures are associated with capacity building or symbolic tools. If this is so, then the inflexible and rule-bounded nature of the PIFI Program to some extent reflected Mexican political culture. According to Hofstede (2001), Mexico and most of Latin America are considered high power-distance societies, a trait that is associated with authoritarian political cultures. In that sense, it may be argued that the PIFI Program, while in theory was an incentive-based tool to motivate voluntary change, in practice represented a regulatory policy tool that demanded compliance. It is worth mentioning that the universities were not forced to participate in PIFI, but given the current resource environment and their lack of alternative sources of revenue, participation in the program was de facto mandatory, otherwise these universities would have been in financial trouble.

The study findings also support the notion that trust, not only matters in terms of goal commitment but also in terms of the degree of flexibility that a policy tool allows target organizations. Evidence from the interviews suggests that the federal policy makers who
designed the PIFI Program did not trust public state universities. They believed that allowing them flexibility would result in universities “going wild big time” in financial and academic mismanagement (as observed by a federal executive in the PIFI office). When inter-institutional trust is not present, attempts to tightly control all activities are in order. In that sense, with the rule-bound logic of the program, federal officials may have prevented universities from “going wild” with money from PIFI (according to their particular perceptions), but they also prevented universities from engaging in innovative and creative behaviors.

Fielden (2008) argued that if a group of institutions in a university system is given autonomy to respond to policy goals according to their own capacities and contexts, there is reasonable chance that they will choose different ways of reaching the same goal and that some will be more innovative than others. The study findings support this claim. The lack of flexibility of the PIFI Program led universities to non-innovative behaviors, to focus on complying with the detailed guidelines of the policy. The message was clear for university executives. Since the program allowed little flexibility and the perception of relevant actors was that creativity and innovation would be punished, the dominant strategy was to focus on the guide, comply, and move on. The universities would not risk getting valuable additional resources by “being creative”59 with PIFI. Too much was at stake.

In sum, the lack of flexibility of the PIFI Program promoted conformity and risk aversion at the three universities studied. In a way, the program seemed to encourage these universities to behave as agencies of the federal government, instead of autonomous organizations with particular goals, priorities, and strategies. In that sense, PIFI did not strengthen universities, but ended up weakening them instead. This program weakened the

59 This was a sarcastic expression of some respondents in referring to the program’s rule-bound logic and its disincentives to engage in creative behaviors, or in “thinking outside the box.”
universities of this study because it made them more dependent on the federal government, mainly the Secretariat of Public Education, both for resources and for policy direction. A lesson here is, again, that building some sort of inter-institutional trust is a key element of incentive-based policies. When incentive policies assume that target organizations, if allowed flexibility, will just deviate and “go wild,” these policies could lead to inefficiencies such as micromanagement and excessive controls, in a vicious cycle of dependence. Therefore, a better approach to incentive policies may be to allow flexibility and verify the accomplishment of broad, longer-term outcomes. In other words, as the expression goes: “trust but verify.” Allowing flexibility and verifying on the accomplishment of meaningful outcomes could promote innovation and differentiation, as organizations respond creatively and differentially to policy instruments.

**Goal displacement and performance indicators.** Another assumption for the success of incentive-based policies is the avoidance or minimization of the perverse effects of goal displacement (Church & Heumann, 1989), which takes place “as agencies focus on generating numbers that please political officials, rather than devoting their energies to achieving more meaningful policy outcomes” (Bohte & Meier, 2000, p. 174). Since the risk of goal displacement is always present when policies are high-stakes (Firestone & Mayrowetz, 2000), to minimize perverse effects it is important that the “numbers” organizations focus on achieving are at least aligned with broad intended outcomes. The findings of this study suggest that this was not the case with the PIFI Program, where the set of performance indicators was decoupled from core academic practices, mostly focusing on procedural aspects.

Church and Heumann (1989) argue that incentive strategies depend heavily for their effectiveness on relatively clear performance measures. This was not a problem in the PIFI
Program since its measures were indeed clear and relatively easy to quantify. The problem that contributed to the perverse effects of goal displacement at the universities in this study was the lack of relevance of such measures. These metrics were mostly input-based, procedural and disconnected from the classroom. This disconnection was evident since, as discussed earlier, the universities were able to reach high marks in most of them without significantly altering classroom practices. These findings support the notion that to minimize the perverse effects of goal displacement, policy makers not only need to develop performance indicators that are clear and easy to measure, but also guarantee that they are relevant and meaningful, aligned with the broad intended outcomes.

One of the broad outcomes intended by the PIFI Program was “to strengthen public higher education institutions so they can increase their academic quality and better respond to the development challenges facing the nation” (Secretariat of Public Education, 2003, p. 3). I contend that program’s indicators were not relevant and meaningful because they lacked alignment with the construct of “academic quality.” They encouraged universities to focus their attention on having more professors with masters and doctorates, up-to-date academic programs, and better technologies, but did not pay much attention to issues such as how professors were performing, what students were learning, and how were they learning it. The lesson is that if policies are to improve “academic quality,” it is of first importance to develop more meaningful performance measures, closer to the black box and centered on core academic practices and interactions.

The findings of this study also support the notion that when talking about performance indicators, simpler is not necessarily better. Newcomer (1997) warned that using a few, easy-to–measure indicators to supposedly reflect the outcomes of complex undertakings can generate
distortions and ultimately lead to failure. Along the same lines, Perrin (1998) observed that organizations that focus their measurement systems on traditional short-term, easy-to-measure targets were less effective than those which look at broader, hard-to-measure issues such as behavior and skills. The performance indicators used by the PIFI Program were indeed easy to measure, but also easy to manipulate. For instance, since one of the most important factors for an academic program to be positively evaluated or accredited by independent agencies was its technological infrastructure, in some cases the universities would “borrow” equipment from other schools to impress the evaluators and get good scores. In that regard, it may be argued that to mitigate the perverse effects of goal displacement, policy makers and organizations should resist the temptation of developing only indicators that are easy-to-measure, and instead, embrace complexity and multidimensionality. In other words, if policy makers focus on what they can easily measure, they may lose sight of what is actually meaningful.

Policy is where technique and politics meet. It may be plausible that the current set of procedural performance indicators were the only politically viable ones when they were developed in the mid 1990’s, due to the resistance of public universities to open the black box. However, I believe that at present, well into the twenty first century, federal policy makers and university officials need to move forward and agree upon a more meaningful set of performance measures, closer to core academic practices and better aligned with the broad outcome of “academic quality.” Performance measures that remain static are most susceptible to goal displacement; therefore, it is recommended that indicators be reviewed and updated constantly (Perrin, 1998). Most of the performance measures in Mexican higher education have been around without significant changes since the 1990’s. Thus, if policy makers are serious
about pursuing higher education that “better responds to the development challenges facing the nation,” updating the indicators and aiming at the black box are crucial tasks.

There are mechanisms to address and minimize the persistent issue of goal displacement. However, in order to do so it is important to really care about goal displacement in the first place. Evidence from interviews suggests that neither the federal government nor the universities in the study paid much attention to this issue. In colloquial terms, systemic goal displacement and deceiving practices were “the elephants in the room” that nobody seemed to notice or care about as long as universities keep advancing in their indicators. As discussed earlier, federal officials and university executives seemed to be aware that goal displacement and deceiving strategies were taking place, but these practices were not much of a worry. It seemed that goal displacement and deceiving represented a win-win situation. The universities focused on reaching the desired marks to keep getting money from the Secretariat of Public Education (SEP), and SEP focused on promoting that the universities were indeed improving their marks to keep getting money from Congress. Nobody seemed to care about how universities were rapidly advancing on the indicators.

One plausible explanation for this win-win situation is that, to some extent, the PIFI Program had also a role as a “political tranquilizer.” As Jasinowski (1973) observed:

It appears that politically one need only to support a program that “seems” to benefit the special group seeking aid. The political incentives are to keep the arguments for the assistance vague and simple, making many references to the national interest, few references to careful economic analysis, and preferably not even referring to the assistance as a subsidy. Most political leaders are not interested in analyzing a particular
subsidy to determine if it works because they view the subsidy as a political tool that is useful to keep constituencies happy. (p.3)

The focus of the federal government and university executives on showing how the quantitative indicators were advancing, without much concern about the actual implementation of some of the reforms promoted by the PIFI Program (e.g. curriculum and normative reforms), suggests that they were both satisfied with a program that “seemed” to be working just fine. If this is so, it may be argued that in political terms PIFI was a highly successful policy because it contributed to keep constituencies happy and to reduce the political friction between government and public universities. If the PIFI Program has indeed played a role as a political tranquilizer, then the relevant actors would not want to push for more substantive academic and organizational changes that might break the current situation of equilibrium. In other words, if everybody seems to be happy and “academic quality” indicators are reaching the sky, why bother in bringing unpopular academic reforms to the policy agenda.

Broad Institutional-Environmental Forces

“The environment” of Mexican public universities. It is important to note that the “resource environment” of public state universities in Mexico is not only the federal government, since the federal Congress and state governments and local legislatures also play a role in the higher education financing process. Indeed, public universities usually negotiate directly with Congress to get additional resources, but the resources they may get in a given year do not compete with the several grants and programs that the federal government regularly offers. Moreover, in a resource environment characterized by fiscal scarcity and heavy dependence on government funds, and where 90% of the ordinary budgets of public
universities are already committed to pay for current expenditures, the influence of the federal government through grants and programs becomes large. Chaffee (1983) observed that, since in most universities the regular budget is virtually fixed, the part that is free to vary assumes tremendous importance. For Mexican public universities, the amount of resources that are “free to vary” usually comes from national programs and grants. This is so because the federal government is the actor that actively seeks to influence policy in public universities through monetary incentives.

In such context, the dependence of public state universities on the federal government has been large, which helps to explain their high responsiveness to programs such as PIFI. Nevertheless, it is worth taking into account that the resource environment in Mexican higher education is not monolithic, and the relationships and interactions that public universities may have with other actors have the potential to alter their bargaining positions vis-à-vis federal authorities. For instance, whether universities have “strong” or “weak” liaisons with their state governments might influence how they interpret and respond to federal grants and programs, especially at the micro political level. The findings of this study, however, suggest that the inter-institutional relationships of the three universities with other environmental actors were not relevant in explaining broad organizational responses. In other words, regardless of their particular bargaining positions the universities did not have much room for maneuver since, for the most part, they responded in similar ways and variations were slight.

Organizational responses. Organizations continuously change in response to their environments, but they rarely change in a way that fulfills the intentions of a particular external group (Attewell & Gerstein, 1979). March (1981) observed that, “Organizations are continually changing, routinely, easily, and responsively, but change within them cannot ordinarily be
arbitrarily controlled. Organizations rarely do exactly what they are told to do” (p. 563). In the struggle to manage dependence and to obtain vital resources without rendering autonomy, organizations can develop a variety of responses to environmental pressures. Organizations may respond to environments in varied and sometimes unexpected ways. Some responses might be regarded as “real” while others might be just “symbolic,” decoupled from actual day-to-day practices. To Oliver (1991), some firms that have formally adopted a policy in response to external pressures may still act to “avoid” those pressures, while others “acquiesce” to institutional pressures by substantively implementing formal policies that address environmental demands. Along the same lines, Scott (1998) pointed out that activities of proactive organizations, those that play active roles in using external demands in order to advance their own objectives, can range from those that limit interaction (buffering) to those that invite it (bridging) (see also Honig & Hatch, 2004).

This study’s findings suggest that the three universities responded to the PIFI Program in both “real” and “symbolic” ways. They created “buffers” but also “bridges.” They “avoided” some policies but “acquiesced” to others. The overall impacts are mixed and complex, as were the organizational dynamics involved. The program promoted significant changes in some aspects of organizational life, such as in administrative procedures and structures. However, such changes, while real, were disconnected from academic practices and mostly impacted procedural aspects. On the other hand, there was also a cadre of symbolic responses aimed at gaining legitimacy and continuous support but also protecting the academic core from external disturbances. Moreover, some responses were real and symbolic at the same time, such as the strengthening of planning bureaucracies as signals of internal expectations and external legitimacy. Although universities did change and may look very different after ten years of the
implementation of the PIFI Program, the perceptions of organizational actors suggest that their core academic practices were not substantially altered and remained mostly traditional. Changes were mostly at the surface, in administrative and procedural aspects of organizational life.

One of the most relevant “real” changes that these universities enacted in responding to the demands of the program was strengthening of their planning structures and functions. The PIFI Program represented a radical change in the resource environment, to which universities rapidly reacted by attempting to reduce uncertainty. The program introduced the concept of “strategic planning” as a central doctrine for university life, a mantra that everybody ought to perform. The emphasis on planning changed the managerial dynamics within the universities studied, by mandating that every process should be properly “planned” according to the guidelines of the PIFI Program. For example, the program promoted that participatory planning exercises be developed at all organizational levels, and that most planning activities be properly registered and reported. The adoption of strategic planning led to the development and empowerment of planning bureaucracies, both at central university and at the school level.

Interviews and documentary analysis, along with observations at the three universities, suggest that the strengthening of planning bureaucracies improved managerial aspects related to administrative accountability, such as enhanced transparency and better coordination and integration of organizational structures, and increased capacities to produce and handle data and information. However, findings also suggest that these improvements did not penetrate core academic practices. Birnbaum (1988) was right when claiming that university management and academic performance are not closely related. Therefore, improvements in management might not yield comparable benefits in organizational achievement. The planning doctrine may have
promoted better management structures and practices, but did not promote better academic processes and outcomes. Interestingly, on paper, the PIFI Program claimed that through “strategic planning” somehow “academic quality” would improve.

In responding to environmental demands, the universities in this study rapidly reacted and developed strong planning bureaucracies for two main reasons: to buffer the core from external disturbances, and to gain external legitimacy and continuous support. The role of planning bureaucracies as buffers supports the notion that, by adapting to technical environmental pressures, organizations reap rewards for their effective control and coordination of external requirements and by buffering their core technologies from disturbances (Alexander & Scott, 1984). Sensing that the federal government would be much more active in shaping policy through the PIFI Program, the universities may have strengthened their planning bureaucracies as “shields” that prevented outsiders from seeing actual internal dynamics. It may be argued that, by establishing strong planning structures as their main liaisons with the federal government, the universities sought that federal policy makers focused on the official reality constructed by the planners, instead of on the actual organizational practices.

Strong planning bureaucracies may have also been created to communicate expectations, both internally and externally. The symbolic role of planning bureaucracies supports Fennels and Alexander’s (1987) argument that, rather than rewarding efficiency and effectiveness in production, institutional environments encourage conformity to powerful rules, myths and structures. Such pressures for conformity may lead organizations to adopt management structures more for their symbolic value than for their impact on core practices. The three universities strengthened their planning structures to send government a signal that they took the PIFI Program seriously. Also, they did so to communicate to internal actors that
strategic planning was the new name of the game. Indeed, universities were audacious in communicating the importance they assigned to the program, by naming some of their planning structures the “PIFI Center” or the “PIFI Office.” Control over symbols is a basis of power, as much as control over resources (Pfeffer, 1981), and rituals and ceremonies can serve as window-dressings for the real political processes and outcomes (March & Olsen, 1984). These notions seemed to be understood and exploited by the universities. By using planning bureaucracies as symbols and rituals, they aimed at gaining legitimacy and continuous support from the resource environment.

Another of the real responses of the universities studied was their alignment with official indicators, which also altered day-to-day practices and interactions. Still, as in the case of planning structures, evidence from interviews suggests that this alignment, while real, did not penetrate core teaching and learning practices. This was mainly because of the nature of the official indicators. As discussed earlier, measures were mostly input-based and procedural, so even if they altered some daily routines, they did so mostly on administrative and superficial aspects. For instance, the emphasis that some indicators placed on infrastructure provided strong incentives to focus on technological improvements, diverting resources from potentially more substantial activities and reforms. Moreover, the frenetic quest to achieve the “right numbers” created some distortions, such as the emphasis of faculty members on improving their academic credentials, as opposed to their academic practices. In short, the PIFI Program was highly successful in changing the goals of the three universities and aligning them with one simple mission: getting to the top on the official indicators, without concern that “getting to the top” on such measures did not translate into better academic practices.
Regarding the “symbolic” side of organizational responses, the three universities seemed to have done whatever was necessary to get the money from the federal government, by giving the impression of change while remaining the same at the core. These universities adopted the language, the discourse, the goals, and most of the policies promoted by the PIFI Program, but they did so mostly superficially, because there was no evidence of change in core academic practices. Examples of this behavior were plenty. First of all, universities created “rhetorical illusions” by presenting bold and ambitious PIFI proposals, full of good intentions but lacking concrete elements and definitions about their actual capacities and will to implement them. This led to having ambitious reforms “on paper,” that were not really implemented in practice, but were successful enough to convince the federal government of committing resources to them.

This issue has important implications for education policy in the United States, where the Race to the Top initiative has a similar logic to the PIFI Program: requiring states to present proposals for reform to get resources from the federal government. If policy provisions are not put in place to promote the actual implementation of “winning” proposals, just as happened with PIFI, the US Department of Education could end up having bold and ambitious reforms “on paper,” but not likely to be put in practice in the states. There are already some warning signs on this issue. According to a recent policy report, the scoring system of the Race to the Top initiative rewards states that present ambitious reform proposals regardless of their actual willingness and capacities to make them reality (New Teacher Project, 2010). As the report observes:

Scoring outcomes give the impression that states with good intentions to improve policies could be viewed on equal footing with states that already exercised the political
courage to change them prior to applying for a grant. In fact, they suggest that offering less detail could actually be an advantage. (p. 10)

Moreover, in another instance of symbolic change, once universities got the money from the program, they “implemented” curriculum reforms by updating all their study programs and aligning them with international trends and concepts, such as “study competences,” “active learning,” and the like. However, once such programs were updated, universities did not enact them in the classroom. Interview-based evidence suggests that most professors, while having new study programs, continued with their traditional classroom practices. In addition, universities rapidly adopted the new language and discourse promoted by the federal government, but without altering actual academic practices. To gain legitimacy and continuous support, the universities incorporated in their official reports, PIFI Proposals, and daily routines concepts such as “academic competitiveness and capacity,” “evaluation and accreditation,” “performance indicators,” “efficiency,” “strategic and participatory planning,” etc. However, having a new language did not translate into having improved core academic practices. Or, paraphrasing a top executive at one university, naming “things” differently does not necessarily change the nature of such “things.”

These findings contribute to better understand the resistance and persistence that organizations show when facing the prospects of change, but at the same time need to convince authorities that they are actually changing. As pointed out by Meyer and Rowan (1977), while organizations often adopt formal policies, plans, and programs that display conformity to socially desired goals, they may also decouple these formal structures from actual ongoing practices, thus, enhancing flexibility while still gaining legitimacy with external constituencies. The three universities in this research did not dismiss or avoid the demands of government,
because that would have precluded them from getting valuable resources. Instead, what universities did was to “acquiesce” to such demands but partially and superficially.

The universities may have acquiesced to the demands of government by pursuing some of the PIFI policies, such as the curriculum reform. But they did so partially, achieving the reform on paper but dismissing their actual enactment in the classroom. The same happened with language and discourse, since universities adopted new concepts but adopt no new practices to support them. Moreover, the universities seemed to have embraced demands superficially because they generally told government (in their PIFI Proposals and reports) that they had achieved ambitious reforms, while changes were mostly cosmetic. The reform of laws and norms was an example. In their PIFI Proposals, the universities claimed that they had “reformed” their legal structure, but what they did was slightly adjusting some of their norms by incorporating the official language and discourse. Along the same lines, the universities claimed that they had “reengineered” their organizational structures, but what they really did was add new planning offices and positions to the existing bureaucracy. In short, the three universities used a flamboyant discourse to present slight organizational adjustments as deep organizational reforms.

Thompson (1967) argued that “under norms of rationality, organizations seek to seal off their core technologies from environmental influences” (p. 19). Also, researchers have observed that organizations across sectors may adopt external demands symbolically but not allow those demands to influence core organizational activities (Westphal, Gulati, & Shortell, 1997). The universities participating in this research showed rational behavior. They seemed to have decoupled structure from practice, maintaining a façade of new academic programs with “appropriate” language, while there was no evidence of change in core academic practices.
Being strategic in addressing the demands of the PIFI Program allowed universities to gain legitimacy, by convincing the federal government that they were indeed changing, even if only at the surface. Still, it is important to emphasize that universities did not dismiss the policy demands, but “embraced” most of them symbolically and superficially.

**Institutional isomorphism.** Although there were some particularities in the organizational responses of the three universities in the study, in general, the PIFI Program promoted a high degree of isomorphism among them. Particularly, the program pushed the three universities to build strong planning bureaucracies both centrally and at the school level, which led the planners to become a new elite in the organizational decision-making process. The program also promoted that these universities adopted the goals established by the federal government, as opposed to their own. PIFI led the universities to focus most of their attention and effort to the achievement of the official indicators, disregarding their own definitions and measures of success. Along the same lines, through the “academic consortia” the program promoted the adoption of the departmental model of organization as the “right one,” not caring much about the particular histories, geographical contexts, or internal dynamics of universities. Moreover, this program led to the adoption of the same language and discourse, contributing to deprive universities of their own personalities, identities, and competitive advantages. In 10 years, the PIFI Program resulted in a highly successful standardizing mechanism for Mexican public state universities, encouraging similar goals and missions, organizational structures, discourses and narratives, and pushing them towards the same model of academic organization.

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60 Examples of these particularities are the differences among universities in the level of implementation of the “academic consortia,” as well as the different structures and positions of the planning bureaucracies in the organizational charts.
In this sense, although universities implemented most reforms symbolically and superficially, they did adopt the whole policy logic of PIFI, especially regarding the academic indicators.

Institutional isomorphism occurs when an organization responds to threatened legitimacy by identifying itself, its methods of operation, and its output with other already legitimate social institutions (Pfeffer & Salancik, 1978). To Hawley (1968), isomorphism is a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions. Facing the challenge of a new program that induced complexity in the resource environment, the three universities attempted to gain legitimacy by identifying themselves with the federal government, adopting its methods of operation, discourse, and goals. This response strategy to gain legitimacy and support reduced the differences among universities, making them resemble each other. DiMaggio and Powell (1983) identified three mechanisms by which isomorphic change occurs: coercive, mimetic, and normative. These three mechanisms have all played a role in the organizational responses of the universities in this study.

Coercive isomorphism was perhaps the most important mechanism that promoted the homogenization of these universities. The lack of flexibility and the rule-bound logic of the program severely constrained the strategic options of university administrators. Therefore, they did not have much room to maneuver in their responses. They either adopted most of the policies, goals, and logic of the federal government, if mostly symbolically, or they did not get money from grants, pure and simple. As Fielden (2008) suggested, providing flexibility and autonomy for universities to respond to national policies has the potential to promote innovation and differentiation. This was not the case in the universities studied, where differentiation and innovation where punished by the policy design. In that sense, as observed
by informants, the PIFI Program became a straitjacket from which universities could not escape.

Although coercion was determinant in explaining the isomorphism of the universities, mimetic and normative forces also played a role in this process. Mimetic isomorphism arises when the environment is uncertain and when goals are ambiguous, which motivates organizations to model themselves on other organizations (DiMaggio & Powel, 1983). A relevant source of isomorphism in the three universities was imitation. Interview-based evidence suggests that universities engaged in a continuous benchmarking process to identify and copy best practices and structures among their peers, pushing towards specialization. Such mimetic processes contribute to explain the prevalence of structures named “PIFI offices” and “PROMEP offices,” with the exclusive role of addressing the demands posed by such programs and grants. Mimetic forces also help explaining the sort of obsession of university executives with the development of new academic infrastructure. According to informants, executives were very attentive to the infrastructure and technological improvements of other universities, in order to copy them and keep up getting ahead in the “arms race” promoted by federal grants.

Normative forces also contributed to the isomorphic processes mainly due to the role of the pifiologists. Normative pressures for isomorphism stem primarily from professionalization, since professions are subject to the same coercive and mimetic forces as are the organizations (DiMaggio & Powell, 1983). The “original” pifiologists were external consultants who had participated in the design of the PIFI Program so they knew the ropes and logic of the new policy. Evidence from interviews suggests that, since the three universities hired external pifiologists at some point, these response specialists contributed to the dissemination of the program’s goals, discourse, and logic during the first years of implementation. Pifiologists,
moving from one university to another, taught them how to respond and maximize the odds of getting money from grants, mainly by showing universities how to craft successful proposals, with the “correct” structure and language. Moreover, such pifiologists trained and indoctrinated the local planners so they could enact and reproduce the “PIFI scheme” throughout the years.

With PIFI, these response specialists became indispensable technocrats. Evidence from the interviews suggests that in the current resource environment these universities would suffer without a cadre of pifiologists addressing the continuous and increasing demands of the federal government. The similarities across universities in the empowerment of the pifiologists are explained by strategic-contingency theory. Salancik & Pfeffer (1977) argued that power is something that accrues to individuals (or departments) that cope with critical organizational problems. To these authors, “Power is used by subunits, indeed, used by all who have it, to enhance their own survival through control of scarce critical resources, through the placement of allies in key positions, and through the definition of organizational problems and policies” (p. 4).

The rise of the pifiologists in the studied universities conforms to these notions. The perceptions of key informants and the data on the growth of central bureaucracies since 2005 (see Table VI) suggest that these response specialists gained power by controlling the scarce resources from PIFI and deciding on its internal distribution, by framing organizational problems and policies (e.g. crafting PIFI proposals), and by promoting the expansion of their planning structures and staffs. On this latter issue, Ginsberg (2011) concurs by claiming that in the U.S. the growth of planning functions has been closely tied to the expansion of college and university administrations, mainly because administrators have incentives to increase their own power bases and spheres of influence. In other words, pifiologists gained power by expanding
their own planning structures, with the assumption and excuse that strategic planning was the new “name of the game.”

**Internal Dynamics and Organizational Responses**

Universities are part of a social system in which processes are determined by external, internal, as well as political and economic factors, in permanent tension with each other (Brunner, 1985). As discussed above, broad institutional-environmental pressures contributed a great deal to the responses of the sampled universities to the PIFI Program. However, in order to have a clearer picture one also needs to consider the role of internal factors in making sense of policies and hence contributing to shape responses. Evidence from interviews suggests that internal dynamics and ideologies played a role in explaining why universities focused on improving their infrastructure instead of pursuing substantive reforms, and in understanding the observed trends towards power centralization. As discussed earlier, most public universities in Mexico share the same governance traits, they are centralized, president-oriented, bureaucratic, and heavily politicized (Acosta, 2010; Kent, 2005; Levy, 1980; Ordorika, Martinez, & Ramirez, 2011). These shared characteristics helped to explain why universities made sense of some aspects of the program the way they did and why they responded in certain ways.

**The infrastructure problem.** Universities are highly complex and ambiguous organizations that have to balance the demands of multiple internal stakeholders (Birnbaum, 1988). Although the PIFI Program aimed at both, promoting substantial academic reforms and modernizing technological infrastructure, universities mostly focused on improving their “hardware,” minimizing the reform-oriented aspect of the policy. As a result, evidence from interviews and direct observations suggest that the three universities of this research had some
sort of over-investment on “academic goods,” but no comprehensive academic reforms were enacted. This hardware accumulation to some extent happened because university presidents wanted to avoid conflict and to maintain internal power balances by keeping internal constituencies happy (e.g. unions, faculty members, faculty directors, students, etc). To avoid politically contentious issues, internal actors made sense of the program mainly as a tool to improve infrastructure, and hence focused on framing their problems as “infrastructure problems.” For instance, some informants observed that the universities would claim they wanted to pursue an “academic reform,” such as the development of tutoring programs. However, when framing their needs in the PIFI proposals, universities would ask for money mainly for computers and other information technologies. Universities did all they could to “squeeze” the program, avoiding substantive reforms and focusing on hardware improvements. Paraphrasing a researcher at one of the universities, real academic reforms do not require hardware, but political will.

These findings support the notion that when substantial academic reforms are difficult and face strong resistances, university executives have incentives to focus on less contentious issues, such as buying new computers and improving facilities. This is consistent with previous studies on the implementation of monetary incentives in higher education. For example, Garcia de Fanelli (2007) found out that universities in Argentina, when deciding how to use the funds, usually chose goals lacking internal conflict and opposition, such as developing new infrastructure and improving the academic credentials of professors. It is important to note,

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61 This expression was crafted by a dean of academic affairs to comment on the excessive modernization of hardware, but the lack of substantive reforms. For instance, according to this informant, universities would use PIFI money to buy new computers every two or three years, even if the “old ones” were in good condition. Moreover, other informants alerted of the systematic purchase of equipment that professors did not even know how to use in the classroom, such as interactive boards that were unused for months or even years.
however, that the policy design also plays an important role in shaping organization responses, promoting or precluding some types of action. In other words, policies provide the “guidance” and the context in which organizations craft their responses. In the case of PIFI, the policy allowed little flexibility and hence limited the response options that universities had. For instance, it did not allow for the hiring of new professors, but emphasized the investment in non-recurrent expenditures (e.g. computers, projectors, books, etc.). Within these constraints, the three universities of the study focused on the infrastructure rather than on the reform aspect of the program.

The political nature of the university presidency in Mexican public universities also helps to explain why the dominant strategy was to invest in technological infrastructure, as opposed to attempt substantial reforms. As Acosta (2010) observes, in most Mexican public universities presidents are professional politicians who seek to continue their careers in public office once they finish their terms. In that sense, federal programs and grants may be useful tools to achieve their political aims. Within the logic of PIFI, university presidents had strong incentives to invest in highly visible goods, such as computers, laboratories, and ICT’s equipment, rather than pursuing unpopular reforms. Continuous hardware improvement is an important tool when the aim is to impress stakeholders in the short-term. In most public state universities, presidents have short office terms which are usually fixed terms of four years with only one consecutive reelection chance (Lopez-Zarate, Gonzalez-Cuevas, Rojas, & Perez, 2009). These short-haul political windows provided all possible incentives for presidents to avoid internal conflict and focus on visible technological improvements. Their future political careers were at stake.

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62 This was the case in two of the universities in the sample. In the other one the presidential term is of six years with no reelection chances.
Power centralization. Internal dynamics also contribute to explain why PIFI ended up further promoting the centralization of power on the university presidents in the universities studied. Historically, the governance model of Mexican public universities has been authoritarian, president-oriented, and bureaucratic (Ordorika, Martinez, & Ramirez, 2011). The blueprint of the PIFI Program attempted, at least in theory, to give more power to the academic communities through collaborative and participative planning processes. However, the policy provisions of PIFI in that direction were weak and contradictory. The program “required” universities to develop participatory planning processes when crafting their proposals, but gave university presidents ultimate power to authorize them. Evidence from interviews suggests that, given the internal centralized traits of these universities, the program was co-opted by presidents and their planning staffs, transforming the participatory ethos of the program into symbolic politics and deceiving practices.⁶³ Therefore, instead of devolving power to faculty members, the program contributed to the further centralization of university life. Again, by not taking into account the internal dynamics of the universities, the PIFI Program was a victim of the Pandora’s Box of organizational politics.

The centralized nature of the three universities in this study led presidents and top executives to regard themselves as the “owners” of the PIFI Program, and hence to decide on who benefits from it and who does not. By internally reproducing the carrot and stick logic of the monetary incentive, executives ended up further empowered by this program. This finding is consistent with evidence on the implementation of monetary incentives in higher education in

⁶³ Informants at the three universities observed that such “participatory” planning processes at some point became an illusion, since PIFI proposals would be developed centrally and then legitimized by the “participation” and signatures of faculty members.
France and Spain, where the empowering mechanisms were very similar as in the present study. For instance, Frémont (2004) found that program-contracts in France increased the power and influence of university presidents because they had more resources to distribute internally, replicating the carrot and stick logic. Along the same lines, Vilalta (2001) found that in Cataluña monetary incentives strengthened the power and influence of university presidents, because they replicated the logic of the contract-programs within their academic units (rewarding and punishing behavior).

The findings of this study suggest that if the intended goal of a monetary incentive is to reduce centralization and spur collaborative and participatory decision-making processes, it is not enough to say so in the policy guidelines and to expect actors to behave accordingly. Instead, policy makers need to incorporate specific provisions that effectively change the rules of the game in the desired direction. Otherwise, the success of a policy will depend on the good will of organizational actors, which usually have incentives to preserve the status quo. A policy provision that could have promoted more decentralization and participatory decision-making would have been to allow school deans, or even faculty members, to develop and authorize their PIFI proposals, instead of having to get the authorization from the presidency. According to informants at the three universities and at Secretariat of Public Education, this possibility would not be politically viable in Mexican public higher education, mainly because university presidents would oppose it in order to protect their power bases and keep tight control of the universities.

The overall lesson of this section is that internal dynamics are important to understand organizational responses and determining the fate of monetary incentives. As observed by Meyer (1982), internal organizational ideologies act as filters that shape responses to
environmental pressures, identifying them as dilemmas, opportunities, or aberrations. Evidence from interviews suggests that the three universities in the study interpreted the PIFI Program as a dilemma and an opportunity. It was so because universities needed the money but were not willing, or not able, to enact substantial changes to their core academic practices. Therefore, their strategy was to focus on things that were not politically contentious, such as the improvement of infrastructure, and to symbolically and superficially adopt the more substantial aspects of the program. In that sense, when policy instruments do not address the issues of internal governance effectively, perversions can occur. Given the governance traits of the universities studied, and the lack of teeth of the PIFI Program to effectively promote decentralization and participatory processes, the program led to the further empowerment of central administrators. In colloquial terms, since federal policy makers did not take care of internal governance dynamics, such dynamics “took care” of the participatory nature of the PIFI program.

Policy Implications

One implication of this study is that if policy makers are serious about promoting a higher education system that “better responds to the development challenges facing the nation” (Secretariat of Public Education, 2003, p.3), incentives and accountability systems should be developed in better alignment with the construct of academic quality. In other words, policy makers need to open the “black box” and develop indicators and rewards systems that actually address teaching and learning practices and performance. The current accountability system in Mexican public state universities, developed approximately 20 years ago, is misaligned with the achievement of substantial academic outcomes. While this system might have been very
important to the modernization of universities during the 1990’s, mostly in terms of infrastructure and the academic credentials of professors, it is now outdated.

As the findings of this study show, the three universities became more “modern” organizations. They developed up-to-date technologies, most of their professors have masters and doctorate degrees, and the majority of their academic programs have been positively evaluated and accredited by external agencies. Still, the general perception of informants was that core academic practices remained mostly traditional, and there was no evidence of improvement in the academic and professional performance of students. In that sense, the PIFI Program and its accountability system lacked elements that effectively aimed at altering classroom practices, so universities were able to comply with the policy without penetrating the black box. If the federal government and public universities are not able to put together new policies that are better aligned with substantial academic processes and outcomes, as Kerr (1975) warned, programs will continue hoping for “A” while rewarding “B.”

Another policy implication of this study is that organizational resistance and persistence are major obstacles in promoting substantial change, and hence efforts should be undertaken in order to address them. The more well-disposed implementers are towards a policy the more likely they are to act in theformulators’ interests (Edwards, 1980). In this research, the three universities were not well-disposed at all to act in the interest of the policy formulators. Therefore, they passively resisted reform efforts by giving the impression of change, without really altering their core practices. Universities did not really believe in most of the policies promoted by the PIFI Program, and hence had no problem in deceiving and symbolically adopting them. The issue of autonomy can contribute to explain this systematic resistance on the part of the universities. As observed by Berdahl (1959), the problem relating to autonomy
vis-à-vis government is “determining whether legitimate State influence had passed over the almost indefinable boundary into illegitimate State control” (p. 161). It is likely that, due to the notion of autonomy, most federal policies that attempt to steer the public higher education system are considered beyond the boundary of “legitimate state influence” and trigger resistance (active and/or passive).

In that sense, in order to reduce resistance in the relationship between public universities and the federal government, it is of first importance to address the issues of inter-institutional trust, cooperation, and goal commitment. Otherwise, it is likely that the fate of other incentive-based policies will be similar to that of the PIFI Program, at least as it has played on at the universities in this study. That is, some administrative improvements and symbolic adoption of policies, but lack of substantive change in core academic practices. Or worse, not taking these issues into account could transform passive resistance into active political turmoil. Trust and collaboration could be enhanced by taking more into account what public universities have to say about academic quality and about accountability systems and indicators. At the end of the day, this is the business universities are supposed to be in.

A third implication of this research is that inflexible policies might be counterproductive when implemented in professional organizations, such as universities. At the “cities of the intellect,” as Kerr (2001) regarded universities, telling highly trained professionals what academic quality means, how to achieve it, and where to invest may lead to distortions, such as deceiving practices, symbolic adoption, resistance and contempt. The study findings imply that perhaps, after around two decades of federal policies pushing for the external control and tight regulation of Mexican public state universities, time has come for more flexibility. The modernizing policies implemented since the early 1990’s have significantly contributed to
improve the formal capacities of public universities as organizations, mainly in terms of infrastructure and the professionalization of academic and administrative staffs. Indeed, in such aspects, most public state universities are “mature” organizations. Therefore, it may be argued that public universities are ready to auto-regulate their academic affairs and stop depending on the federal government to tell them what a “good university” should look like and how it should act. More flexible approaches should establish and measure longer term goals, closely aligned with broad and meaningful outcomes, but provide leeway to universities to achieve them according to their particular circumstances and creativity. If something has been learned from the PIFI Program, it is that bureaucratic regulation is not the way to improve academic quality, and that universities should have much more to say in determining their own policies and strategic directions.

In addition, bureaucratic and rule-bound policies are not the way to genuinely strengthen universities. As this study shows, PIFI contributed more to the weakening of public universities -increasing their dependence on the federal government- than to their organizational strengthening. The universities of this research are more dependent than before on the strategic direction determined by the Secretariat of Public Education and on the federal money from grants. Such aspects can be hardly interpreted as “institutional strengthening.”

Directions for Future Research

This case study explored and explained, in depth, the organizational responses of three public universities to the PIFI Program. An important avenue for future research would be to “go broad” and to compare and contrast some of the findings in a larger sample of universities, using a survey instrument and quantitative analysis techniques (e.g. regression analysis). There
are 34 public state universities in Mexico, all of which participate in PIFI. Using the findings of this study as hypotheses and testing them in the whole system of public state universities would allow for stronger generalizations, or for revisions, that may result in broader theoretical and policy implications for higher education in Mexico and abroad. For instance, issues such as the role of universities’ size and power in shaping responses, the role of internal governance arrangements in defining investment priorities and policy adoption processes, and the impact of the inter-governmental relations among the federal government, state government, and public universities in making sense of the program could be analyzed by using a survey design in a bigger sample, complementing and extending some of the findings of this study.

In addition, the unit of analysis of this investigation was the university as organization, and its approach was comparative. The main focus was to explore and compare broad organizational responses among different universities. To better capture the details and subtleties of organizational responses within universities, further research may have the individual faculty or school as the unit of analysis. By doing that, it would be possible to better understand the response processes within the same university. A research design like this would be much more focused on the internal dynamics and political processes that take place at a university, rather than focusing on broader institutional environmental processes as the present research did. This political approach would promote a better understanding of issues such as why some faculties fully adopted the “academic consortia” while others were unable, or unwilling, to implement them. Also, it would shed light as to whether some schools and faculties were indeed more favored than others with money from the PIFI Program, as top executives internally reproduced the policy logic of “carrots and sticks,” favoring friends and punishing adversaries.
Another issue worth exploring is the response processes of public universities of different types. This research focused on three universities that belonged to the same institutional type. They were all public state universities. These higher education institutions shared basic governance traits and were all autonomous. Not surprisingly, even though the three universities were of different sizes, academic consolidation, and resided in different geographical locations, their response processes were very similar. Developing a research design in which the impact of monetary incentives is explored on a group of different institutions, such as the Institutes of Technology, is highly relevant to analyze organizational responses within a different task environment. Such institutes are also public and participate in a PIFI-like program, but they have a fundamental difference vis-à-vis public state universities: the lack of formal autonomy. In the present research, I believe one of the factors that helped to explain the resistance and contempt of the universities with the PIFI Program was the concept of autonomy. Paraphrasing Berdahl (1959), autonomous public universities in Mexico usually regard government policies as outside the realm of legitimate state influence, crossing the boundary into illegitimate state control. By having a sample of higher education institutions without formal autonomy, it would be possible to test the mediating role of this ideological notion on organizational responses.

Finally, opening the black box and addressing classroom practices is another relevant research to complement some of the findings of the present study. This investigation was not primarily concerned with assessing academic practices, but focused on broad organizational responses to a federal monetary incentive. In that sense, most of the evidence on core academic practices was based on the perceptions of informants, not on performance evaluations or direct observations. Therefore, having the classroom as the unit of analysis and conducting direct
observations could shed light as to whether, and how, federal policies reached into the black box, if at all. To test this issue, a quasi-experimental design could be developed in which the classroom practices of professors that participate in federal programs such as PROMEP (intervention groups), are evaluated vis-à-vis the practices of “normal” professors (control groups). Also, a study could be crafted in which the impact of the new curricula, developed as a response to the PIFI Program, is tested on actual classroom practices. By doing so, researchers and policy makers could be in a better position to claim whether, and how, such new programs impacted daily academic practices and interactions. In sum, and notwithstanding the political and cultural obstacles that may still exist in most Mexican public universities, conducting more research on what is actually happening at the classroom level is of high relevance. If policy makers are serious about improving the academic quality and relevance of higher education systems, opening the black box should be on the agenda.
REFERENCES


Tuirán, R. (2009, October). *Fondos extraordinarios de apoyo a la educación superior* [Federal grants to support higher education]. Conference conducted at the XI Ordinary Assembly of the National Association of Universities and Institutions of Higher Education (ANUIES), Universidad de Tamaulipas, Mexico.


### APPENDIX A

#### LIST OF REVIEWED DOCUMENTS

<table>
<thead>
<tr>
<th>Source</th>
<th>Documents</th>
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<tbody>
<tr>
<td>Northern State University&lt;br&gt;Central State University&lt;br&gt;Southern State University</td>
<td>• PIFI Proposals&lt;br&gt;  o “Institutional” PIFI&lt;br&gt;  o “PROGES” Proposals within PIFI&lt;br&gt;  o “PRODES” Proposals within PIFI&lt;br&gt;• Annual reports on the state of the university&lt;br&gt;• University’s laws, norms and statutes&lt;br&gt;• Strategic plans and missions&lt;br&gt;• Internal evaluations of the PIFI Program, required by the federal government&lt;br&gt;• President’s speeches on their annual addresses on the state of the university&lt;br&gt;• Organizational charts&lt;br&gt;• Progress reports on the implementation of PIFI Proposals&lt;br&gt;• Statistical reports&lt;br&gt;• Institutional development programs (“PDI’s”) (long term plans that universities develop)&lt;br&gt;• Internal reports on the development of projects within the PIFI Program&lt;br&gt;• Internal guidelines for the strategic and participatory planning processes to integrate PIFI Proposals (PIFI blueprints)&lt;br&gt;• Studies on “organizational climate,” required by the federal government</td>
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<tr>
<td>Secretariat of Public Education (SEP) and Undersecretariat of Higher Education (SES)</td>
<td>• “PIFI Guides” and blueprints&lt;br&gt;• Rule of operations of grants and programs&lt;br&gt;• Evaluations of the implementation of the PIFI Program within universities&lt;br&gt;  o “Feedback evaluations”&lt;br&gt;  o “Academic overseeing”&lt;br&gt;  o “Organizational climate”&lt;br&gt;  o “In situ visits”</td>
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## APPENDIX A (Continued)

### LIST OF REVIEWED DOCUMENTS

<table>
<thead>
<tr>
<th>Source</th>
<th>Documents</th>
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| Secretariat of Public Education (SEP) and Undersecretariat of Higher Education (SES) | - Program contracts signed by government officials and university executives in order to access resources from PIFI  
- Statistical reports on the advancement of universities in the academic indicators of PIFI  
- Evaluations of impact of the PIFI Program (2001-2006 and 2007-2010)  
- Statistical reports on the resources distributed to universities and the types of projects supported  
- Evaluations developed by external evaluators on the impacts of PIFI on the universities (“PIFI radiographies”)  
- Presentations and addresses of the Undersecretary of Higher Education on the impact of grants and programs  
- Internal evaluations on the impact of grants and programs in the higher education system |


APPENDIX B

INTERVIEW GUIDE

General opening questions

1. In general, what do you think about the PIFI Program? What can you tell me about this federal policy in the context of the university?

2. How do you think this program has impacted the university since 2001? Are there substantive changes associated with participating in PIFI? If so, please explain.

Use of resources

3. The PIFI Program has provided the university with fresh resources to put to use in specific projects. How has the university used such resources since 2001? What are the main investments that the organization has developed with this money?

Programmatic implementation, results and organizational change

4. To access additional money from grants the university has to develop PIFI proposals, consisting of diverse projects with specific goals and strategies. How are these proposals developed? Who participates and how?

5. What structural changes are associated with the implementation of such PIFI proposals in the university since 2001? Specifically:

   a) Has the university modified its organizational chart? (e.g. added new offices and positions)
   b) Has the university changed its basic documents? (Mission, Vision and Strategic Plans)
   c) Has the university modified its legal structure? (e.g. new laws and norms)

6. How do you think that participating in the PIFI Program has impacted the organizational culture of the university? For instance:

   a) Logics and values
   b) Language and discourse
   c) Strategic and participatory planning
   d) Transparency and accountability
7. The alleged ultimate goal of the PIFI Program is to improve the “academic quality” of the participant universities. How do you think this program has affected the academic practices of students and professors? For instance:

    a) Teaching and learning processes and interactions in the classroom  
    b) Students’ academic performance  
    c) Professor’ academic performance

Unintended consequences

8. Can you identify unintended consequences, positive or negative, associated with participating in the PIFI Program? If so, please explain. Why do you think it all happened that way?

9. Why do you think the university changed its structures and practices in such ways? Did the university use other institutions as “models” for change?

10. To what extent were there external pressures to adopt specific organizational structures and practices? Were there pressures from federal government embedded in the policy logic of PIFI? Please explain.

11. How do you think this university compares to other universities that also participate in the PIFI program in terms of organizational structures? Do you think that the enacted responses to the program have made this university similar, or different, from other universities that also participate in it?

Additional questions

12. How has the PIFI Program affected the notion of university autonomy and the governance relationships between the university and government?

13. According to your experience, do you think that a specific sector, or some sectors, of the university have been especially benefited by participating in the PIFI program? (e.g. higher-level administrators, lower-level administrators, professors, students, etc.) If such is the case, please explain how and why.
APPENDIX C

RECRUITMENT SCRIPT

Protocol # 2011-0147

Hello Mr. or Mrs. __________

My name is Carlos Ivan Moreno. I am a Doctoral Candidate at the College of Education of the University of Illinois-Chicago. The reason I contact you is because I am conducting a research study -which is my dissertation in order to obtain the Ph.D. in Policy Studies in Urban Education- and I am recruiting research subjects to participate in the interviews for this study.

The main purpose of this investigation is to explore, compare, and explain the organizational changes that public state universities have developed as a response to the implementation of focused grants aimed at improving academic quality, especially after the creation of the Integral Program for Institutional Strengthening (PIFI) in 2001. The sample for this study consists of three public state universities that have participated in such grants.

In order to obtain the necessary data to answer my research questions, I need to interview subjects who have first-hand knowledge and experience about the grants, and that have participated in the development of the Integral Programs for Institutional Strengthening (PIFI’s) within this university. I believe you meet such criteria; therefore, your participation would be very important for the success of this project.

The interviews would be open-ended and would last approximately one hour. In order to better register your answers, I would use a digital tape recorder during the interview. The risk that this research involves is minimal, not greater than the risk involved in expressing opinions and views in regular day-to-day interactions within the university. Also, I will take the necessary measures in order to maximize anonymity and confidentiality of participants. (e.g. I will use pseudonyms in the research final report, and I will destroy the interview transcripts and digital audio tapes once the study is finished and reported).

Before deciding whether or not to accept participating in this investigation, I will give you an Information Sheet in which I explain the details of the study, its methods, as well as its potential risks and benefits. Your potential participation is completely voluntary, so you have the option to decline this invitation without any consequence. Also, if you decide to participate, you can withdraw from the study at any time.

Thank you very much.
APPENDIX D

“SNOWBALL” RECRUITMENT SCRIPT

 Protocol # 2011-0147

Dear Mr. or Mrs.____________

Thanks a lot for your participation in this research. I am sure your responses and comments will be very valuable in order to better understand the impact of the focused grants on public state universities.

Before we finish the interview, I would like to ask if you know some other people at this university that might have relevant knowledge and experience regarding the implementation of focus grants. I am asking the interview subjects to recommend other people as part of the sampling strategy known as “snowballing,” in which participants recommend other potential subjects. If you think of someone please let me know so I can initiate contact with such person.

Thank you very much.
APPENDIX E

IRB PROTOCOL APPROVAL

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office for the Protection of Research Subjects (OPRS)
The Office of the Vice Chancellor for Research (MC 627)
203 Administrative Office Building
1733 West Polk Street
Chicago, Illinois 60612-7227

Approval Notice
Initial Review (Response To Modifications)

May 31, 2011

Carlos Ivan Moreno
Policy Studies
709 N. Glenmore
Lockport, IL 60441
Phone: (312) 413-2409 / Fax: (815) 838-5820

RE: Protocol # 2011-0147
"Monetary Incentives and Organizational Change in Mexican Public Universities: A Case Study on the Focused Grants"

Dear Mr. Moreno:

Your Initial Review application (Response To Modifications) was reviewed and approved by the Expedited review process on May 25, 2011. You may now begin your research.

Please note the following information about your approved research protocol:

Approved Subject Enrollment #: 30
Additional Determinations for Research Involving Minors: These determinations have not been made for this study since it has not been approved for enrollment of minors.
Performance Sites: UIC

Sponsor: None

Research Protocol:

   a) Monetary Incentives and Organizational Change in Mexican Public State Universities: Case Study on the Focused Grants

Recruitment Materials:

   a) Recruitment Script (English); Version 2; 05/04/2011
   b) Recruitment Script (Spanish); Version 2; 05/04/2011
   c) Snowball Recruitment Script (English); Version 2; 05/04/2011
   d) Snowball Recruitment Script (Spanish); Version 2; 05/04/2011

Phone: 312-996-1711            http://www.uic.edu/depts/ovcr/oprs/            FAX: 312-413-2929
APPENDIX E (Continued)

IRB PROTOCOL APPROVAL

Informed Consents:

a) Subject Information Sheet (English); Version 2; 05/04/2011
b) Subject Information Sheet (Spanish); Version 2; 05/04/2011
c) A waiver of informed consent has been granted under 45 CFR 46.116(d) for "snowball" recruitment (minimal risk, participating subjects will be asked to recommend and provide contact information for others who may be eligible to participate in the research)
d) A waiver of documentation of informed consent has been granted under 45 CFR 46.117 for this research (minimal risk, subjects are not usually asked to provide formal consent for research regarding their professional opinions in Mexico, subjects will receive an information sheet that contains all of the elements of consent)

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific categories:

(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis).
(6) Collection of data from voice, video, digital, or image recordings made for research purposes.
(7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the Review History of this submission:

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<td>Response To Modifications</td>
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Please remember to:

→ Use your research protocol number (2011-0147) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the enclosure, "UIC Investigator Responsibilities, Protection of Human Research Subjects"

Please note that the UIC IRB has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact OPRS at (312) 996-1711 or me at (312) 996-2014. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.
APPENDIX E (Continued)

IRB PROTOCOL APPROVAL

Sincerely,

Sandra Costello
Assistant Director, IRB # 2
Office for the Protection of Research Subjects

Enclosures:

1. UIC Investigator Responsibilities, Protection of Human Research Subjects
2. Informed Consent Documents:
   a) Subject Information Sheet (English); Version 2; 05/04/2011
   b) Subject Information Sheet (Spanish); Version 2; 05/04/2011
3. Recruiting Materials:
   a) Recruitment Script (English); Version 2; 05/04/2011
   b) Recruitment Script (Spanish); Version 2; 05/04/2011
   c) Snowball Recruitment Script (English); Version 2; 05/04/2011
   d) Snowball Recruitment Script (Spanish); Version 2; 05/04/2011

cc: Mark Smylie, Policy Studies, M/C 147
APPENDIX E (Continued)

IRB PROTOCOL APPROVAL

May 8, 2012

Carlos Ivan Moreno, M.A.
Policy Studies
709 N. Glenomore
Lockport, IL 60441
Phone: (312) 413-2409 / Fax: (815) 838-5820

RE: Protocol # 2011-0147
"Monetary Incentives and Organizational Change in Mexican Public Universities: A Case Study on the Focused Grants"

Dear Mr. Moreno:

Your Continuing Review was reviewed and approved by the Expedited review process on May 3, 2012. You may now continue your research.

Please note the following information about your approved research protocol:

Protocol Approval Period: May 24, 2012 - May 23, 2013
Approved Subject Enrollment #: 30 (data analysis only of 30 subjects)
Additional Determinations for Research Involving Minors: These determinations have not been made for this study since it has not been approved for enrollment of minors.
Performance Sites: UIC
Sponsor: None
Research Protocol(s):

  a) Monetary Incentives and Organizational Change in Mexican Public State Universities: Case Study on the Focused Grants

Recruitment Material(s):

  a) None – limited to data analysis

Informed Consent(s):

  a) None – limited to data analysis

Your research meets the criteria for expedited review as defined in 45 CFR 46.110(b)(1) under the following specific categories:

(5) Research involving materials (data, documents, records, or specimens) that have been

Phone: 312-996-1711 http://www.uic.edu/depts/ovcr/oprs/ FAX: 312-413-2929
APPENDIX E (Continued)

IRB PROTOCOL APPROVAL

collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).
(6) Collection of data from voice, video, digital, or image recordings made for research purposes,
(7) Research on individual or group characteristics or behavior (including but not limited to
research on perception, cognition, motivation, identity, language, communication, cultural beliefs
or practices and social behavior) or research employing survey, interview, oral history, focus
group, program evaluation, human factors evaluation, or quality assurance methodologies.

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Please remember to:

➔ Use your research protocol number (2011-0147) on any documents or correspondence with
the IRB concerning your research protocol.

➔ Review and comply with all requirements on the enclosure,
"UIC Investigator Responsibilities, Protection of Human Research Subjects"

Please note that the UIC IRB has the prerogative and authority to ask further questions,
seek additional information, require further modifications, or monitor the conduct of your
research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be
amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help,
please contact OPRS at (312) 996-1711 or me at (312) 413-1835. Please send any correspondence
about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Kathleen Loviscek, M.S.
IRB Coordinator, IRB # 2
Office for the Protection of Research Subjects

Enclosure(s):

1. UIC Investigator Responsibilities, Protection of Human Research Subjects

cc:    Kimberly Lawless, College of Educations, M/C 147
       Mark A. Smylie (faculty sponsor), Policy Studies, M/C 147
APPENDIX E (Continued)

IRB PROTOCOL APPROVAL

The names of the universities that served as research sites for this study are redacted from the IRB approval letters. In the process of voluntary consent, subjects were assured that their institutions would not be identified.

Carlos Ivan Moreno
VITAE

CARLOS IVAN MORENO

EDUCATION


M.A., Public Administration, University of New Mexico, School of Public Administration, Albuquerque, New Mexico, 2002.

B.A., Finance, University of Guadalajara, Campus of Economics and Administrative Sciences (CUCEA), Guadalajara, Mexico, 1999.

TEACHING EXPERIENCE

Associate Professor. University of Guadalajara, Department of Public Policy, Campus of Economics and Administrative Sciences (CUCEA), 2011-

Visiting Professor. Latin American School of Social Sciences (FLACSO), Mexico City, Mexico, 2008-

OTHER RELEVANT ACADEMIC EXPERIENCE


PROFESSIONAL EXPERIENCE

Educational Consultant. International Institute for Educational Planning (IIPE-UNESCO), Buenos Aires, Argentina, 2011-


Chief of Staff, Committee on Education, National Congress (LX Legislatura), Mexico City, 2007-2009.
RECENT PUBLICATIONS


HONORS

“Ferrell Heady Award.” Best Master’s Thesis, University of New Mexico, School of Public Administration, Albuquerque, New Mexico, 2002.

Graduation with honors *Pi Alpha Alpha*. M.A. in Public Administration, University of New Mexico, School of Public Administration, Albuquerque, New Mexico, 2002.

Graduate fellowship. University of Guadalajara, Campus of Economics and Administrative Sciences (CUCEA), Guadalajara, Mexico, 2002.

Graduate fellowship. University of Guadalajara, Campus of Economics and Administrative Sciences (CUCEA), Guadalajara, Mexico, 2000.

Graduation with honors. B.A. in Finance, University of Guadalajara, Campus of Economics and Administrative Sciences (CUCEA), Guadalajara, Mexico, 1999.

PROFESSIONAL MEMBERSHIPS

Special Committee for Higher Education Finance. National Association of Universities and Institutions of Higher Education (ANUIES), Mexico City.

American Educational Research Association (AERA).