

A Comparative Analysis of School-Based Management In Central America (*)

(Draft Version for Comments – *Por Favor No Citar*)

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Abstract

This paper provides a comparative analysis of school-based management reforms in four Central American countries (EDUCO in El Salvador, PRONADE in Guatemala, PROHECO in Honduras and *Centros Autonomos* in Nicaragua). It starts by providing a characterization of the models and then reviews how they have expanded community participation and empowerment and school decision-making autonomy. It then continues by analyzing the impact of community and school empowerment on the teaching-learning process, including measures of teacher effort; and assesses the impact of the models on several educational outcomes, relating this impact with the teaching-learning environment and community empowerment. Finally, the paper attempts to explain the impact of the reforms by discussing how variations in reform design, country contexts and actors' assets can explain differences and similarities in result.

The key conclusion of the paper is that school-based management models have generally led to greater community empowerment and teacher effort, resulting in: (a) a better use of the existing limited capacity of teachers and schools¹; (b) higher coverage in rural areas; (c) somewhat better student flows; and (d) learning outcomes at least as high as in traditional schools (while community-managed schools are generally established in the poorest and most isolated rural areas²). Nonetheless, the models rank poorly in terms of teacher education and experience, adoption of active/innovative teaching methodologies and substantive and supportive teacher involvement in the schools. Reform design and implementation context are crucial determinant of these and other results.

A second set of key conclusions of the report is that the impact of community-based schooling on student flows and learning outcomes could be greatly enhanced by a set of specific actions, which largely aim at setting up the conditions for pedagogical improvement, improved management and empowerment at the local level, and sustainability of the models. Two possible suggested directions for pedagogical improvement include expanding community empowerment, by involving parents in pedagogical decisions and providing them with enhanced support and information to be able to do this effectively; or enhancing teachers' empowerment, by giving them higher pedagogical autonomy and support, and attracting more skilled teachers through a better alignment of teachers' benefits and professional development opportunities with those of the traditional system. Improving management and empowerment at the local level requires improving parental support, disseminating information on school performance to all education actors, improving transfer formulae, training directors, and strengthening institutional capacity of coordinating units. Finally, ensuring sustainability requires the urgent implementation of strategies to include teachers and teacher's unions in the reform process, by disseminating information on the reform, negotiating more favorable employment conditions for teachers in the non-traditional sector, or granting higher teacher pedagogical autonomy. It should also be gradually envisaged to substitute the coordinating units by departments or offices that are fully part of the structure of the ministries of education.

¹ More so in El Salvador, Honduras and Guatemala than in Nicaragua.

² Again, this is less true for Nicaragua.

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A Comparative Analysis of School-Based Management In Central America

Introduction

This chapter analyzes and compares the impact of education decentralization reforms in El Salvador, Guatemala, Honduras and Nicaragua. Decentralization is the process of re-assigning responsibility and corresponding decision-making authority for specific functions from higher to lower levels of government and organizational units.³ In the context of education reforms, decentralized functions frequently include policy-making, revenue generation, curriculum design, school administration, and teacher management. Typically decision-making authority for these types of functions is decentralized either to regional or municipal government offices or to schools themselves.

Decentralization reforms take many forms and correspondingly, have many objectives. In Central America a primary objective of these reforms has been to improve the efficiency and effectiveness of education by increasing school autonomy and community participation and the autonomy and capacity of local and regional education offices and stakeholders. Decentralization through municipalization has also taken place in some moments of time, for instance in Nicaragua, but has never reached the breadth and depth that decentralization to the school level has, with the consequence that municipalities are generally only a minor player in education delivery in Central America⁴. Internationally, a large amount of research exists that analyzes the impact of decentralization reforms which shift certain decision-making powers to the school level (also called school-based management reforms, or SBM) on education outcomes⁵. Of the Central American reforms more research has been conducted on the Nicaraguan and Salvadoran reforms, and less on those of Honduras and Guatemala, as their adoption and implementation is more recent. Research is substantially more limited on how the reforms have expanded community participation and empowerment and on to what extent and in what ways schools exercise meaningful autonomy. Finally, very few studies compare empowerment and education outcomes across these four countries.

This chapter will be organized in five main parts: section I presents, very succinctly, the analytic framework that has guided this chapter; section II discusses and compares the design of the SBM models in the four countries under investigation; section III analyzes the impacts the reforms have had on both empowerment and education results; section IV discusses how variations in reform design, country contexts and actors' assets can explain differences and similarities in result; and section V provides recommendations on how to

³ Paqueo and Lammert (2000).

⁴ In some countries such as Honduras, however, municipalities play a noticeable "informal" role in education delivery by financing some infrastructure and, at times, even teachers.

⁵ Although little of this large amount of research is systematic or definitive. Generally speaking, the reader will need to keep in mind, throughout this chapter, that it is often difficult to associate reforms with outcomes, even if the most sophisticated technical tools are available. In this sense, all results need to be interpreted with caution.

improve the impact of the SBM on empowerment and quality of education and guarantee the sustainability of the reforms.

I. Conceptual Framework

The conceptual framework draws on the World Bank's recent work on empowerment and accountability as well as on principal-agent literature in order to assess the effects of decentralization reforms on empowerment and education results. In summary, the framework argues that:

1. Decentralization reforms have a positive influence on the efficiency⁶ and effectiveness⁷ of education service delivery largely because decentralization: (a) enables the service provider (in this case the school) to make use of information about local preferences (asymmetric information argument), and (b) increases the opportunities for the service receiver (in this case the community) to hold the service provider accountable (accountability argument), which, in turn, can improve teaching and learning;
2. The ability of the school to make use of its knowledge about local preferences and of the community to hold school staff accountable depends on the extent to which the reforms have led to both community⁸ and school empowerment⁹;
3. School and community empowerment will not be enough to ensure the fulfillment of some national objectives, such as higher coverage or national targets in learning achievement, due to the "positive externality" argument¹⁰. Equity concerns and local institutional weakness may also not be fully addressed, as risks of capture by local elites.

⁶ We can define efficiency in two different ways, as technical (productive) efficiency or social (allocative) efficiency. Technical efficiency is about producing a higher output for similar costs or the same output for lower costs; social efficiency is about choices that reflect more closely consumers' preferences.

⁷ Effectiveness (although not necessarily a very precise concept) is more about impact on outputs and outcomes, such as the coverage of the services, their quality (measured for instance by learning achievement), their impact on poverty reduction and social development, the equity of delivery, etc.

⁸ Community empowerment refers to parents' ability to have a stronger voice vis-à-vis school staff, for instance by giving parents the power to hire and fire teachers or to have a say in teaching methods. Strengthening accountability to local communities, through community empowerment, is particularly important because, borrowing from the principal-agent literature, the agent, or school, once given decision-making autonomy will often have the temptation to use it opportunistically. This means that the school might put its own interests before the achievement of the national objective for which decentralization was undertaken in the first place (i.e. improving student learning), thereby taking advantage of the fact that the principal (in this case the ministry of education) will typically not observe the *true* effort and ability of the agent (*moral hazard* issue). In this setting, the community can act as a second principal (or *client*) and help solve the incentive issue. This approach is also shared by the recent World Development Report (The World Bank, 2004), which highlights the key role of the accountability relationship between the clients (in this case the community) and the providers (in this case the school staff), defined as *client power*, in having decentralization working in practice.

⁹ School empowerment (also referred to as school *autonomy*) involves strengthening the school's decision-making power (vis-à-vis the education authorities), for example on pedagogical or administrative matters.

¹⁰ In other words, education has broad societal benefits (on growth, social development, etc) that are not fully captured by private benefits. As such, without national intervention, education delivery might reach a socially sub-optimal equilibrium level.

In this context, the government will need to find mechanisms which lead the agent (i.e. the school) to pursue its national interests. This will require an effective accountability relationship between the policy maker and the organizational provider – i.e. the school. The recent WDR¹¹, which also highlights the importance of the accountability relationships between policymakers and organizational providers, refers to this accountability relationship as the *compact*;

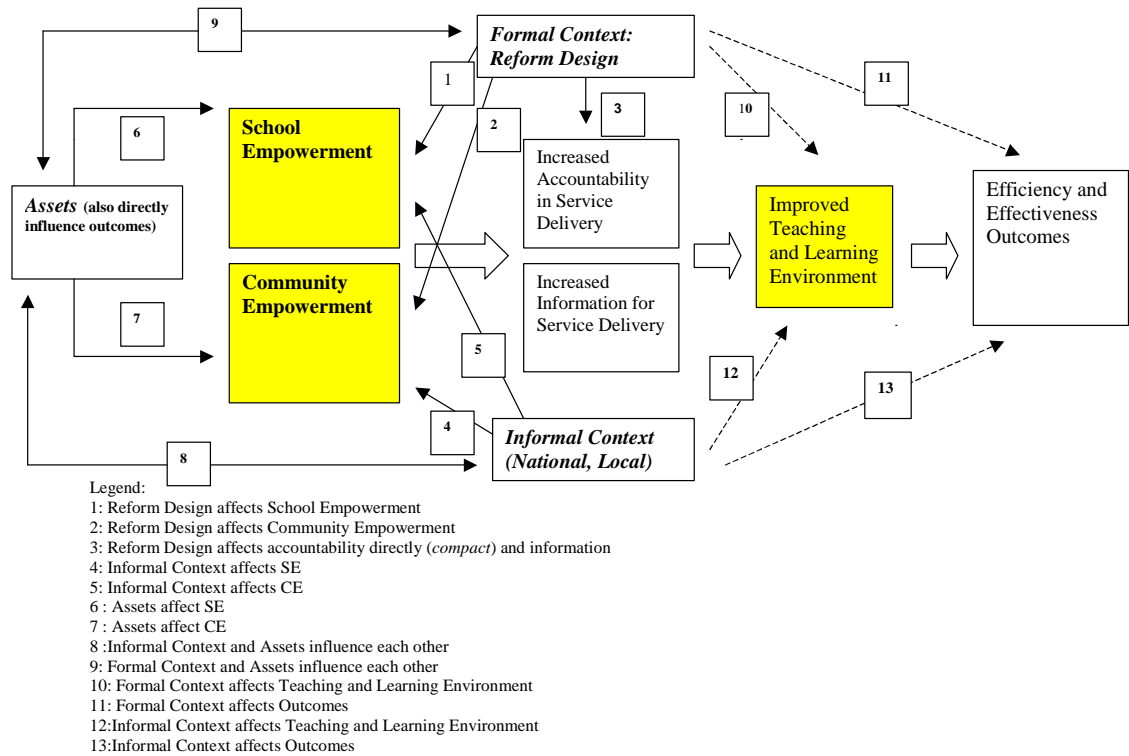
4. Finally, the degree to which schools and communities become empowered and the effectiveness of the accountability relationship between policymakers and education providers is influenced by both the: (a) assets of actors and communities, which include skills, and information as well as organizational, psychological, human, financial and material assets, and (b) the context in which the school and community exist. In fact, as we will see, assets and context also have a direct impact on the teaching and learning environment as well as on students' education outcomes. On the formal side, the context includes the specific reform design (*de jure* provisions regarding the operation of the program, most notably the functions and responsibilities decentralized to the school¹²). On the informal side, the context consists of a range of socio-political factors that determine whether the reform, once adopted, can be sustained, and to what extent it is implemented according to the *de jure* provisions.¹³ Context and assets are interrelated. The framework is graphically presented in Figure 5.1. The chapter will have a focus on the impact of assets and reform design on empowerment and education results.

¹¹ The World Bank (2004e).

¹² Reform design is important for community and school empowerment. For instance, the extent to which parents become empowered vis-à-vis school staff is influenced, among other things, by the types of rights and responsibilities that are devolved to them or the degree to which the reform makes provisions for relevant parental capacity building. Similarly, school empowerment vis-à-vis the education authorities will be enhanced by a clear-cut decentralization of administrative functions, including extensive teacher management responsibilities and special training programs for school directors.

¹³ How the decentralization reform works in practice or *de facto* is influenced by a series of socio-political factors. Factors that have a bearing on school empowerment, for example, may include the relation between the government and the teachers' unions, the efficiency of the administration, and informal spaces for autonomous decision-making. In turn, factors that may influence the extent of community empowerment include a community's tradition of social mobilization, the extent of social division between parents and teachers, and the implementation and operation of policies, such as standardized evaluation and social auditing systems, which ensure the availability of information about educational outcomes at the national and local levels.

Figure 5. 1: Conceptual Framework



II. Comparing Education Decentralization Reforms in Central America

A. HISTORY AND OVERVIEW OF DECENTRALIZATION REFORMS IN CENTRAL AMERICA

This sub-section provides an overview of each of the four countries’ education decentralization reforms, discussing the historic background and rationale that led to the adoption of the reform, and describing reform features such as institutional arrangements and the criteria communities have to fulfill to participate in the programs. Sub-section B compares specific aspects of the reform designs in more depth. These include the nature and extent of community participation, the frequency and formula for financial transfers, and teacher salaries and benefits.

Overall, the community-based school management programs implemented in Central America have been aimed at increasing enrollment, strengthening community participation, and improving efficiency. A less frequently cited objective has been the improvement of education quality through increased responsiveness to local needs and interests. In three cases—EDUCO (El Salvador), PRONADE (Guatemala), and PROHECO (Honduras)—the main objective has been to increase enrollment in isolated rural areas affected by conflict, poverty or natural disasters. The School Autonomy

Program in Nicaragua aims instead to give voice to parents and civil society on educational issues and, in this way, increase operational efficiency.¹⁴

a) The Case of El Salvador

El Salvador was the first among the four Central American countries under investigation to decentralize when, in 1991, the government officially launched its school-based management program, known by its Spanish acronym EDUCO (*Educación con Participación de la Comunidad* - Education with Community Participation). Prior to the establishment of the program, it was clear that the country's basic education sector faced a number of serious challenges, such as low enrollment, high dropout and repetition rates, inefficient management, and low fiscal allocations for primary education.¹⁵ In part this was due to the civil war that had ravaged the country in the preceding decade. At the same time, lack of access to public schools during the civil war had led many rural communities to organize their own schools -- staffed, financed and administered by the community members themselves. The Ministry of Education regarded community participation as key to expanding access, and, under the EDUCO initiative, decided to institutionalize these, already existing, community-run schools and open up similar ones throughout the country.

The EDUCO initiative makes provisions for decentralizing some of the responsibilities of the Ministry of Education (MINED) to the regional and the school level, and for the participation of community members in school management. Both aspects create *de jure* spaces for school autonomy and community empowerment. The organizational structure underlying the EDUCO initiative is as follows:¹⁶

- **MINED** enters into a contractual partnership with community education associations, known by the acronym ACE (*Asociación Comunal para la Educación*), so that these ACEs become responsible for education delivery to a given community on the ministry's behalf.¹⁷ The MOE remains responsible for transferring funds to the ACEs, establishing guidelines for the distribution of funds, producing teaching and learning materials, supporting the organization, legalization and training of the ACEs, and supervising schools.
- **EDUCO's coordinating unit**, which reports directly to the MoE, provides the following: policy and technical design; promoting, supervising and evaluating implementation; coordinating with MOE with regards to training for school staff and supervisors; and providing training and technical support to the regional offices.

¹⁴Arcia and Belli (1999).

¹⁵ Edge (2000).

¹⁶ Since its inception, the organizational and implementation structure of the EDUCO program have changed. The two most important changes are that the system of the supervisors has been replaced with that of the so-called *técnicos de enlace* and that the ACEs have been assigned greater decision-making powers, including the hiring of the *técnicos de enlace* and of administrative assistants who are responsible for organizing and monitoring the school councils. These changes will be discussed in more detail in subsection II.B.

¹⁷ This section draws on Edge (2000), and Meza and Guzman (2003).

- **EDUCO regional offices** have recently been phased out¹⁸. Their original mandate was to provide immediate technical and administrative assistance to the schools, including the provision of supervision, training, curriculum development and programs for school improvement.
- **District supervisors, replaced by Technical Liaisons** (*tecnicos de enlace*), serve as the link between the regional and central EDUCO offices and the EDUCO schools. They are responsible for promoting community participation through the following activities: administrative and technical support to the ACEs, technical assistance to teachers, dissemination of information about EDUCO and MINED, assistance with the creation of schools for parents, and liaison between ACEs and MINED.
- **ACEs** are school-level legal entities whose membership is drawn from the local community. They are responsible for administering the funds transferred to them by MINED, selecting, hiring and monitoring teachers, building and maintaining schools, and mobilizing the rest of the community in support of the school.

EDUCO schools are exclusively established in rural areas and provide for pre-school and basic education (grades 1-9). Communities qualify for the EDUCO initiative if there are at least 28 students per grade in the community and no other education services are available.¹⁹

b) The Case of Guatemala

Guatemala's school-based management reform is the National Community-Managed Program for Educational Development (*Programa Nacional de Autogestión para el Desarrollo Educativo*, PRONADE). PRONADE, like EDUCO, is a SBM program that seeks to increase access in poor, rural, isolated areas, and foster community participation in school administration. Initially piloted in the early 1990s, the program's expansion was linked to the 1996 Peace Accords, which were signed at the end of almost forty years of civil war. Stipulated in the Peace Accords was the demand that the government decentralize its education system and that all children complete at least the third grade. In an effort to fulfill these objectives, the MINED and the Commission for Education Reform focused on the PRONADE experience as an effective education delivery system. They did so for three reasons: (1) pilot programs, under implementation since 1992, appeared to be successful, though a formal evaluation was lacking; (2) the MINED believed that community involvement was essential to rapidly increase access to education, and (3) PRONADE's objectives – decentralization, community participation, and indigenous and linguistic diversity – were in line with the Peace Accords and the overall strategic direction of the government.²⁰

PRONADE decentralizes important functions to community school councils, the COEDUCAs (*Comités Educativos*), *de jure* giving the school a greater degree of decision-making autonomy in its relation with the education authorities and enabling

¹⁸ To streamline the structure of the Ministry of Education.

¹⁹ Cuellar Marchelli (2001).

²⁰ Valerio and Rojas (2004).

parents to have a stronger voice in their relation with school staff. Functions and responsibilities are divided among the different organizational layers as follows:²¹

- **PRONADE's implementation unit**, headquartered in the capital, is responsible for planning, directing and evaluating the program's administrative and operational activities, including determining the geographical areas the program covers, hiring and supervising the ISEs (see below), and signing the legal covenant with the COEDUCAs.

- The 21 **departmental offices** are in charge of coordinating policy implementation at the departmental level, assisting with the identification of communities that lack schools, processing the financial and administrative data gathered by the ISEs, and supervising the school feeding program.

- **Educational Service Institutions (ISEs)** are NGOs hired by the implementation unit to identify communities' educational requirements, organize and assist COEDUCAs in obtaining legal status, provide capacity building opportunities to teachers and school councils, and maintain updated information on the school's administrative and financial matters.

- **COEDUCAs** are legal entities that draw membership from the local community. Their responsibilities include: selecting, hiring, paying and supervising teachers, monitoring student attendance, managing funds transferred from the central authorities, organizing school feeding programs, and defining the school schedule and calendar.

Similar to EDUCO, PRONADE schools are established in remote, rural areas and provide for pre-school and primary education. Communities may qualify to participate in the PRONADE program if they meet the following four criteria: (1) they demonstrate the ability and interest to manage the new school, (2) the nearest public school must be at least three kilometers away, (3) there are at least 20 pre-primary and primary school-age children, and (4) there is presently no official teacher in the community.²²

c) The Case of Honduras

Honduras' community-based education program, PROHECO (*Proyecto Hondureño de Educación Comunitaria*) was launched in March 1999 with the objective of enhancing access to education and fostering community participation in school-related decision-making. Studies the Ministry of Education had carried out in 1997 showed that more than 14 percent of school-age children were not enrolled in schools, 85 percent of these in rural areas. Building on the experiences in El Salvador and Guatemala, the Honduran government decided to use a school-based management model to address these deficiencies and establish new pre-school and primary schools in remote rural villages. By the end of 1999, PROHECO schools existed in more than 500 communities.

²¹ Information in this section is drawn from MINEDUC (2003a), MINEDUC (2003b), DP Tecnología (2002), and Valeria and Rojas (2004).

²² World Bank (2001a).

Responsibilities for the implementation of PROHECO are divided among stakeholders as follows:²³

- **PROHECO's coordinating unit**, located at the central level, as part of the MINED, is responsible for establishing the overall operational policies and strategies, including curriculum design, and for coordinating the program's technical and financial activities, including capacity building, community participation, collection of statistical data, and monitoring and evaluation.
- **MINED departmental offices** are responsible for raising awareness about PROHECO in the communities, and for overseeing the organization and fostering of the AECOs (see below). They should also coordinate and oversee the work of the promoters.
- **MINED district offices** support schools with the application of the national curriculum and the collection of school data, such as enrollment and drop-out rates. They also help identify communities in which PROHECO schools will be established.
- **Social Promoters** (*promotores sociales*) are in close contact with the communities and the school councils, helping with the identification of communities, providing training to the AECOs, and advising on questions of community participation and budget oversight.
- The school council, **AECO** (*Asociación Educativa Comunitaria*) is a legal entity that draws its membership from the community and that has the following functions: selecting and paying teachers, monitoring teacher and student attendance and performance, managing funds for school materials and school improvement activities, and building and maintaining the school.

Communities qualify for a PROHECO school if they meet the following criteria: (1) they are located in a rural area, (2) there are at least 25 pre-school and primary-school age children, (3) the nearest school is at least 3 kilometers away, and (4) the village is located in an area that was affected by hurricane Mitch²⁴.

d) The Case of Nicaragua

Nicaragua's school decentralization reform was introduced under the presidency of Violetta Chamorro and her coalition government that replaced the Sandinista regime in the 1990 election.²⁵ The goals of the reform included raising the efficiency and effectiveness of education services. Greater participation and decision-making authority of parents and teachers was regarded as central to this end. First steps towards the "Autonomous School Program" (ASP) were taken in 1991, when so-called consultative councils (*consejos consultivos*) were established in all public schools to ensure the participation of the educational community, particularly parents, in school-related decision-making.²⁶ The initiative was deepened as a pilot in 1993 with the transformation

²³ This section draws on Secretaría de Educación Pública (2003).

²⁴ Secretaría de Educación (2003).

²⁵ Gershberg (1999).

²⁶ Ministry of Education (1993).

of the consultative councils into full-fledged governing councils (*consejos directivos*) at the school level in 24 well-functioning secondary schools. The objective of this pilot was to test the feasibility of a program that not only envisioned community participation but also increased autonomous decision-making at the school level.

The autonomous school program divides responsibilities among different actors as follows²⁷:

- **MINED** is in charge of instituting norms for the operation of schools and the basic content of educational programs, setting standards for the quality of school materials, the qualifications of teachers and schools' physical facilities, determining the national curriculum, and channeling the national budget for the financing of public education.
- The **municipal delegate of the MINED** informs schools about ASP, guides schools through the application process, supports the program in the community while also acting as a liaison with the central ministry, and provides capacity building to the members of the school council.
- **School councils** (*consejos directivos*), both at the school and the municipal level, have legal status and are in charge of conducting the school's business, including hiring teachers and administrative staff, maintaining the school building, making and overseeing budget allocations, generating additional financial resources (student fees), overseeing teacher performance and making pedagogical choices.

Unlike the cases in El Salvador, Guatemala and Honduras, the Nicaraguan reform initially targeted secondary schools in urban areas. It was not so much concerned about the establishment of new schools but rather the transformation of the governing structures of already existing schools. Since 1995 the autonomous school program has also targeted primary schools, using two different models: (1) one for urban schools which is similar to the secondary school model, and (2) one for rural schools which are organized into municipal nuclei and where a centrally located school performs the management functions and operates the bank accounts for the school cluster²⁸. This means that in urban primary and secondary schools councils operate at the school level, whereas in rural areas they operate at the municipal level.

B. COMPARING THE DIFFERENT REFORM DESIGNS

This sub-section explores specific features of the different reform designs, comparing a series of aspects that relate to institutional arrangements, the organization, membership characteristics and functions of the school councils, financial transfers, and teacher salaries and benefits. It should be noted here that programs like El Salvador's EDUCO and Nicaragua's *Centros Autonomos* have evolved over time: EDUCO more in its

²⁷ This is adapted from World Bank (1995) and Gershberg (1999).

²⁸ King, Ozler and Rawlings (2001) and Fuller and Rivarola (1998).

organizational arrangements, Nicaragua in its target schools and financial arrangements. When necessary, we will attempt to capture this evolution.

The information on the characteristics and responsibilities of the councils is particularly important for understanding and comparing the *de jure* provisions for community empowerment and school autonomy. Overall, however, all the aspects of reform design analyzed in this sub-section will be key to understanding the impact of the SBM models on empowerment and educational outcomes, as will become clearer in section IV.

a) Organizational and Implementation Arrangements

SBM models can differ according to the organizational arrangements that are made for project implementation, including contracting and supervision of council trainers, teacher training, the identification of the communities that are to participate in the reform, as well as the organization, training and monitoring of the school councils. Table 5.1 shows how respective responsibilities are divided among different actors, indicating which actors are most closely in contact with the school councils and to what extent representatives or delegations of the MINED are involved with them. It should be noted that El Salvador's EDUCO program, as the one longest under implementation, has undergone a series of organizational rearrangements which are discussed in the subsequent sections and/or Table 5.1.

We will see in section IV that school councils' training and support is a key factor of success of an SBM model, because it is key to the working of the models that parents get adequate training and support in a variety of areas, starting from administrative matters.

Contracting of school council trainers. Initially, the El Salvador, Guatemala and Honduras programs did not differ substantially as to the actors responsible for contracting and supervising school council trainers (such as promoters, supervisors or ISEs). In each case, this function was carried out by the program's central coordinating unit, located within the MINED. While this is still the case in Guatemala and Honduras, in El Salvador the respective responsibility has been shifted to the school councils directly. El Salvador's school councils themselves are now in charge for contracting and supervising their trainers and therefore have substantially more powers than their counterparts in the other countries. Nicaragua's ASP was different from the start as, unlike the case in the other three programs, no system separate from the government was established to provide training and supervision to the school councils. In Nicaragua, the capacity building unit of the MINED— rather than an intermediary or non-government actor such as the promoter or supervisor — provides training to the school councils.

In three of the four countries, El Salvador, Honduras, and Guatemala, teacher training is mainly organized at the regional or district level. In contrast, Nicaraguan teacher training is organized at the central level.

Table 5.1: Organizational and Implementation Responsibilities				
Organizational/ Implementation Responsibility	El Salvador	Guatemala	Honduras	Nicaragua
Contracting and supervision of school council trainers (e.g. supervisors, promoters, ISEs)	Initially, contracting and supervision were done by the MINED and EDUCO's coordinating unit, respectively. More recently these responsibilities have been shifted to the ACEs.	PRONDADE's implementation unit	PROHECO's coordinating unit	An equivalent non-government system to that of the supervisors, promotores etc. in charge of council training and organization was not established in Nicaragua.
Training of teachers	Initially, this took place in EDUCO's regional offices. More recently, training is provided by MINED's regional training centers.	MINED's departmental offices	PROHECO coordinating unit plus MINED's district offices	MINED
Identification of participating communities	Initially, this was done by the supervisors with the help of the central coordinating unit. These have been replaced by the <i>tecnicos de enlace</i> .	ISEs together with MINED's departmental offices	Promoters together with municipalities and MINED's offices operating at the district and departmental level	Teachers vote to enter the program, principal then submits a petition to MINED's municipal delegate
Organization of school councils	Initially, supervisors carried out this function. More recently, these have been replaced by administrative assistants who are hired by the ACEs.	ISEs	Promoters	MINED's municipal delegate
Training for school councils	Originally, MINED's regional training centers provided training. This function has now shifted to the <i>tecnicos de enlace</i> , operating at the department level.	ISEs	Promoters	MOE
Monitoring of school councils	Initially, supervisors carried out this function. They have now been replaced by administrative assistants hired by the ACEs.	ISEs	Promoters	Municipal delegates

Identification of schools. Differences in reform design play a role with regards to the way schools are identified and selected to participate in the SBM reform: while in El Salvador, Guatemala and Honduras villages have to meet certain requirements to be

eligible for a community-managed school, it is at the discretion of Nicaraguan schools themselves whether or not they want to participate in the autonomous school program. The former have to meet such general criteria as location in remote, rural areas and often such specific criteria as a minimum distance to the nearest school or minimum number of school-age children. Communities are identified on the basis of information available to the MINED as a result of relevant assessments and/or information exchanges with lower levels of government. Intermediary figures such as Honduras' promoters or El Salvador's *técnicos de enlace* then visit the communities to inform the community leaders of the SBM reform and agree with them to return to the community on a given date when further information will be shared with the rest of the community and the council will be elected. In Nicaragua, schools do not have to meet any specific criteria to participate in the ASP. In order to become autonomous, teachers, along with the school principal, must vote on the matter. If the vote is in favor of joining the ASP, school staff sign a petition that indicates their inclination to participate in the program and then send the petition to the municipal delegate of the MINED for approval²⁹.

Organization of school councils. Differences in reform design are also evident with regards to the legal organization of the school councils. Once participating communities are identified and school councils elected, they typically receive support in order to foster their organization and gain their legal status (*persona jurídica*). The underlying idea for continued organizational support is that relevant procedures will be new to the communities and that they require support in legal and administrative matters. Without the legal status, school councils cannot open bank accounts, receive financial transfers, and perform functions on the government's behalf. In the case of Guatemala and Honduras, organizational support is provided by the ISEs and promoters, the intermediary figures most directly in touch with the school councils. In El Salvador, the district supervisors initially carried out this function. In the context of the program's rearrangements, however, responsibility for school council organization has shifted to the so-called administrative assistants who are hired by the ACEs. The Nicaraguan model also differs from the Honduran and Guatemalan ones as organizational support is provided by a government body, namely the municipal delegate of the MINED.

Training and monitoring of school councils. Following their election and legal recognition, school councils in all four countries are also provided training on budgetary and administrative matters. Differences exist with regards to whether the training is provided by intermediary figures or directly by the MINED. The latter is the case in Nicaragua. In addition to source of training provision, there also are some variations regarding the extent and duration of the training. In Nicaragua, content and amount of training provided vary on an annual basis but typically cover such topics as budgeting, accounting, planning and evaluation, and pedagogical matters. In El Salvador, the ACEs receive a total of 5 days of training on such issues as community development, budgeting, accounting, and personnel management.³⁰ Guatemala's COEDUCAs receive three days of training upon their legalization, plus an additional nine days as part of a 12-month follow-up service. The least amount of training is provided to Honduras' AECOs:

²⁹ Fuller and Rivarola (1998).

³⁰ Meza (1997).

training amounts to three days and covers a series of legal and administrative matters related to the school councils' functions. In all countries the same entities that are responsible for assisting school councils with their legalization are also in charge for monitoring their performance. Tasks that are subject to monitoring may include: book and record keeping, and procedural matters such as making announcements to the community at large and holding regular council elections.

To sum up, in terms of organizational and implementation arrangements, the School Based Management reforms of Honduras, El Salvador, and Guatemala are all quite similar while Nicaragua's ASP differs substantially from the others. Most notably, the Nicaraguan reform does not use intermediary actors, such as NGOs, to support local autonomy but rather schools interact directly with the MOE.

b) Characteristics of School Councils

School councils themselves vary greatly across countries and, indeed, across schools. They vary in size, constituents, and leadership. Table 5.2 details the basic characteristics of school councils in the four reforms. In El Salvador, Nicaragua and Honduras school councils are roughly the same size, between five and seven people, while in Guatemala they are substantially larger, at around 15 members. In Honduras, El Salvador, and Guatemala school council members are entirely drawn from the local community whereas in Nicaragua the principal as well as one teacher representative also must sit on the council. In all four countries local communities members have the voting majority within the council. We will see that the composition of school councils has an impact on community empowerment with communities being somewhat less empowered in Nicaragua due to a predominant role of the school principal.

Table 5.2: Characteristics of School Councils				
Characteristics	EDUCO, El Salvador	PRONADE, Guatemala	PROHECO, Honduras	ASP, Nicaragua
Size of Council	Five members	Fifteen members	Six members	Five council members in school with less than 500 students. Seven in schools with more than 500 students
Council Membership	All are members of the community.	All are members of the community.	All are members of the community.	Five member council: principal, one teacher, three parents. Seven member councils: principal, two teachers, four parents
Key decision-maker within council	Community members	Community members	Community members	Principal and Community members

c) Functions and Responsibilities of School Councils

The nature and extent of the functions relocated to the school level determine – at least in part – how much space the decentralization reform creates for parental participation and school autonomy, in other words for their *de jure* empowerment. Decision-making powers that are devolved typically fall into one of the following categories: personnel management, pedagogy and curriculum, school maintenance and infrastructure, and budget matters. As Table 5.3 indicates, the decentralization reforms in El Salvador, Guatemala and Honduras are fairly similar, granting the school council a certain degree of autonomy in the areas of personnel management, school maintenance and infrastructure, and budget oversight (with some limited power on pedagogy in Guatemala). The SBM reform in Nicaragua reaches further, however, in theory granting the council some decision-making powers over pedagogical matters and budget allocation and size. *De jure* responsibilities will have a clear impact on *de facto* empowerment, although implementation issues can complicate the transition from theory to practice.

Table 5.3: Functions Decentralized to School Councils				
Council Functions	EDUCO, El Salvador	PRONADE, Guatemala	PROHECO, Honduras	ASP, Nicaragua
Personnel Management				
Paying staff salaries	*	*	*	*
Establishing incentives for teaching staff				*
Hiring/firing teaching staff	*	*	*	*
Supervising and evaluating teachers	*	*	*	*
Hiring/ firing administrative staff				*
Pedagogy				
Setting classroom hours by subject				*
Selecting some textbooks				*
School calendar		*		*
Maintenance and Infrastructure				
Building/maintaining school	*	*	*	*
Buying school material	*	*	*	*
Budget				
Budget oversight ³¹	*	*	*	*
Budget allocation ³²				*
Establishing school fees				*

³¹ Budget oversight refers to the fact that school councils keep track of transfers and expenditures by checking account statements.

³² Budget allocation refers to the fact that it is at the school council's discretion how the transferred funds are used, i.e. which amount is spent on salaries and which on school materials.

d) Financial Arrangements and Teachers' Benefits and Status

This sub-section is concerned with the nature of the financial transfers that are made to the school councils and with the salaries, other benefits and contractual arrangements of teachers.

Composition and frequency of financial transfers. As highlighted in Table 5.4, formulas to calculate transfer amounts in El Salvador, Guatemala and Honduras are similar in that they all include a predetermined fixed sum for teachers' salaries and benefits. There is also a fixed sum for school maintenance and supplies, except in Guatemala where funds for school and teacher materials depend on the number of teachers and students. This is not the case in the Nicaraguan SBM model where transfer amounts depend on school-specific factors such as student enrollment and drop-out rates and the location of the school rather than on predetermined sums. The total school transfer in Nicaragua is obtained by multiplying a cost per student by the number of students attending school (calculated by resting drop-outs from initial enrollment). We will see that the incentives inherent in these different types of formulae are very different, making the formula applied in Nicaragua promising from an enrollment and efficiency perspective. The formula has evolved in time, becoming more equitable and efficiency-enhancing in 2002. In addition to the financial transfers, Nicaraguan schools are also allowed to collect school fees to supplement their state allocation.

Aspect of transfer	El Salvador	Guatemala	Honduras	Nicaragua
Formula used to calculate transfer	The amount includes: (a) teacher salary (USD 418/month), (b) additional funds for benefits (rural bonus of USD 40/month per teacher, 14 percent of each teacher's salary for social security), and (c) USD 35/year for school maintenance and supplies.	The amount includes: (a) teacher salary (USD 240/month), (b) additional funds to cover benefits, (c) USD 28 per teacher/yr to buy teaching supplies, (d) USD 7 per student/yr for school materials, and (e) USD 12 per child/year for school breakfast.	The amount includes: (a) teacher salary (USD 215/month per primary school teacher and USD 72/month per pre-school teacher), (b) contributions for social security (11 percent of each teacher's salary), (c) provisions for school materials (USD 100/yr.) and school maintenance (USD 65/yr).	Since 2002: a per-student amount is calculated, adding up salary costs ³³ and operation and maintenance costs per student and an extra amount for smaller and rural schools. This amount per student is multiplied by students attending school (enrollees minus drop-outs).

³³ Obtained by dividing the average teacher salary by a standard pupil-teacher ratio.

Frequency of transfers	Monthly	Quarterly	Quarterly	Monthly
Transfer arrangements	Initially, EDUCO's coordinating unit deposited funds into local bank account registered by the ACE. Following a series of organizational rearrangements, it is now the Ministry of Finance, through its departmental offices, who deposits the funds to the ACEs.	The Ministry of Public Finance transfers funds into PRONADE's trust fund account which then deposits payments into local accounts opened up by COEDUCAs.	The Ministry of Finance transfers funds to PROHECO's coordinating unit which then makes transfers to AECO bank accounts.	The Ministry of Finance transfers funds directly into local bank accounts opened up by the <i>consejos</i> .

Financial transfers to the school councils are made on a monthly (El Salvador, Nicaragua) or quarterly basis (Guatemala, Honduras). Transfer arrangements differ as to whether the transfer is made directly from the Ministry of Finance to the school councils' bank account (El Salvador, Nicaragua) or whether the funds pass through the program's central office (Guatemala, Honduras).

Teacher salaries, benefits and contract tenure. Comparing teacher salaries, benefits and contract tenure across countries as well as between SBM and traditional schools is important because it sheds light on the imbedded incentive structures that, among other factors, influences whether it is attractive for teachers to join and remain in their profession as well as their day-to-day work as teachers. Who teaches and teacher performance, in turn, is directly related to educational achievement. Comparing teacher salaries and benefits across SBM and traditional schools, we see that, for a similar levels of qualifications, in El Salvador and Nicaragua salaries are identical across the two systems (the possibility of raising fees would in fact allow salaries to be higher in the autonomous schools of Nicaragua), while in Guatemala and, particularly, Honduras, salaries are higher in the traditional system. All other monetary benefits are generally higher in the traditional system (where, in particular, there are more fringe benefits), with the exception of Nicaragua. Lower average teachers' benefits in the SBM schools will contribute to explain why teacher education is lower in these schools. Finally, contract tenure is typically fixed-term, yearly renewable, for SBM models, which constitutes one of the most salient features of the models, and was designed to create an incentive for teachers to perform well.

Country	Teacher salary in SBM	Teacher salary in traditional	Benefits in SBM schools	Benefits in traditional schools	Contract tenure in SBM	Contract tenure in traditional
El Salvador	USD 5016/yr	5016/yr	Teachers working in rural areas receive a monthly “rural bonus” of 40 USD. As social security benefit, they also receive 14 per cent of their yearly salary.	Rural bonus, social security benefits, other fringe benefits (medical and life insurance, maternity leave).	One year renewable	Open ended
Guatemala	USD 2880/yr	USD 3084/yr	Teachers receive an annual bonus of USD 720, paid in three installments, plus USD 157 as a contribution to a pension plan (no full social security).	Teachers receive an annual bonus of USD 514, paid in two installments, social security benefits and other fringe benefits.	One year renewable	Open ended
Honduras	USD 2431/yr	USD 3018/yr	Teachers receive two annual bonuses, in June and December. Teachers also receive social security.	Two annual bonuses, in June and December. Teachers also receive social security and a pension, plus other fringe benefits.	One year renewable	Open ended
Nicaragua	USD 1350/yr (primary school teachers), USD 1488/yr (secondary school teachers) plus funds potentially raised by parents.	USD 1350/yr (primary school teacher), USD 1488/yr (secondary school teacher).	As a bonus, teachers receive one additional salary per year. They also have social security benefits, in part paid for by MINED and in part by the teachers.	As a bonus, teachers receive one additional salary per year. They also have social security benefits, in part paid for by MINED and in part by the teachers.	One year renewable	Open ended

III. Impact of Decentralization Reforms

The purpose of this sub-section is to review and to systematize the existing analytical evidence on the progress and impact of the school-autonomy models in Central America. The evidence relies mostly on secondary sources and, for Honduras, Guatemala and Nicaragua, recently collected data on autonomous schools. In all countries the information was complemented by interviews with key actors on specific aspects of the impact of the models and by additional secondary data covering aspects such as coverage, internal efficiency, etc.

Before presenting the results, we should made clear at the outset a few caveats. Firstly, as already mentioned, community-based school management programs implemented in Central America have been aimed at increasing enrollment, community participation, efficiency and, very marginally, on improving the quality of education through more parental and local participation. Raising quality has not necessarily been at the center of these initiatives, and the quality improvement objective has instead been considered as an indirect outcome or simply been added on as the programs have matured. Secondly, three factors complicate the use of outcome measures (learning, years of schooling, etc.) to evaluate the impact of education decentralization: (a) time series of these measures are seldom available; (b) these school outcomes usually change slowly in response to any kind of educational intervention, including decentralization; and (c) it is very difficult to control for external shocks ranging from natural disasters and fiscal crises to teacher strikes and changes in national education leadership-that may also influence school outcomes. Thirdly, selection bias is another major concern when assessing the effectiveness of decentralization.³⁴ If the kinds of communities who choose to participate in the school based management program are made up of especially motivated individuals then evidence of marginally higher test scores or more frequent student attendance may be incorrectly attributed to the decentralization experience itself. Also, differing rates of student attrition between decentralized and non-decentralized school types may make comparisons of outcomes for enrolled students very difficult to interpret.

We are well aware of the inherent difficulties of decentralization research in developing countries, and we compensate for the lack of perfect data by bringing in multiple sources of information that include secondary evidence from other studies as well as recently collected data from three of the participating countries. Following our conceptual framework, our approach to understanding the effects of decentralization in Central American schools focuses on two kinds of variables. The first group, which we refer to as the “first order” or direct impacts of decentralization, includes improvements in things like community and school empowerment, the provision of supporting inputs and teaching and learning processes. By empowering communities and making teachers and directors more accountable to parent councils the SBM model predicts more effective schooling environments. These are the most immediate goals of the SBM approach. But the story does not end here, since it is hoped that first order effects like improved teacher attendance will translate into second order improvements in things like student learning. The first and second order distinction is necessary from an evaluation standpoint, and it is

³⁴ Jimenez and Sawada (1999).

important to first establish an impact of decentralization in things like learning and teaching environments in order to explain any observed differences in student outcomes.

This is not necessarily a requirement for establishing that decentralization works, since differences in second order outcomes may result from things that are not measured well in the data or, for non learning outcomes such as coverage and equity, from factors related to reform design which do not affect first order results. But a more causal argument in support of decentralization is built if the evidence shows that community participation or autonomous schools are more effective in areas that, in turn, are related to outcomes like test scores. This point has been somewhat neglected in the decentralization literature, at least in empirical analyses where the focus is almost always on student outcomes such as test scores or drop out rates and less attention has been paid to understanding first order differences in school environments.

A. COMPARING SCHOOL ENVIRONMENTS WITH AND WITHOUT DECENTRALIZED EDUCATIONAL PROVISION

a) School Autonomy and Community Empowerment

Community Empowerment

Mixed evidence, although community empowerment is generally greater in SBM schools. There is some encouraging evidence that communities have been empowered in Central American SBM models.

In El Salvador, parents of EDUCO students participate more in school affairs. ACE members (parent councils) in EDUCO schools visit classrooms almost 4-5 times more often than their traditional counterparts. At the parental association meetings, 80% and 79% of ACEs discussed teacher discipline and attendance of school personnel, respectively, while corresponding figures of schools in the traditional system are 62% and 38%, respectively.³⁵ EDUCO parents are also three times more likely to engage in day to-day classroom activities than parents in traditional schools.³⁶ Another benefit of EDUCO, cited by Lindo (2001), has been the growth of community social capital in communities with EDUCO. By empowering parents, it is expected that other improvements will result in areas such as democratic participation and state relations.

There is also positive evidence of community empowerment in Guatemala where each community is represented by the locally-elected school council, COEDUCA . A positive spillover effect of the program has been the community's more frequent and effective participation in other local and civic affairs.³⁷ This has also been confirmed by other studies such as Asturias et al (2001) that found that COEDUCAs have used the knowledge acquired in training to lobby for projects to develop their communities such as

³⁵ Sawada (2003).

³⁶ Jimenez and Sawada (1999).

³⁷ Valerio and Rojas (2004).

roads, schools, electricity, running water, credits and others. A prior study by CIEN (1999) also found that COEDUCAs are a key means of increasing social capital.

	El Salvador		Guatemala		Nicaragua		Honduras	
	Control	EDUCO	Control	PRONADE	Non-Auto	Autonomous	Public	PROHECO
Parent-Teacher Meetings (Parents)			4.8	5.0*	3.43	3.44		
Parent-Teacher Meetings (Teacher)			4.2	4.7*				
Parent-Teacher Meetings (Director)	1.56	5.65*			5.41	4.92*	2.62	1.71*
Director-Parent Meetings			4.5	4.8*				
Meetings Coverage					0.55	0.58*		
Parental Participation							1.65	1.73

Source: Nicaragua data 2002; UMCE 2003; PRONADE data 2002; Sawada and Ragatz, 2004. Notes: Data are not comparable across countries due to measurement differences. In all countries except Guatemala the data are taken from third/fourth grade questionnaires. For Parent-Teacher Meetings the numbers refer to frequency, whereas Meetings Coverage measures percentage of topics covered during meetings. Parental Participation (Honduras only) is the degree of parental participation in the school activities according to the Director. Asterisk indicates comparison is significantly different at $p < 0.01$, 0.05 or 0.10 level.

Table 5.6 presents more evidence on parental participation in the region. The results are not entirely positive. In Nicaragua and Honduras parents in SBM schools appear to meet less frequently with school personnel than parents in traditional schools while in El Salvador and Guatemala the opposite is true. This inconsistency is somewhat surprising, and we cannot rule out measurement issues since parents at SBM school may not consider all of their trips to the school to be “visits.”

But frequency is only part of the story, and it could be argued that the more important indicator of parental involvement relates to what parents actually do at schools and the amount of control they have, rather than how frequently they come around. On this count there is more evidence of an impact, as parents reported a (slightly) greater coverage of issues in Nicaraguan autonomous schools and PROHECO parents, according to Directors, have a greater degree of participation in school processes. However, neither difference is particularly large and, in the case of PROHECO, it is not significant (measurement error is likely to be particularly relevant in Honduras). In Nicaragua, a study on the ASP³⁸ concluded “the evidence that parents’ participation in school affairs has improved with the reform is weaker. About one-half of parents and teachers think that it (their participation) has become stronger, but a larger proportion of directors and council members think that it has not changed, at best”. While this is evidence of 1996, these findings are confirmed in more recent studies³⁹.

³⁸ King and Ozler (1996).

³⁹ See King, Ozler and Rawlings (2001) and Florez, Ruiz et al. (2003).

School Decision-Making Autonomy

Mixed evidence, although decision-making has generally increased. The next first order outcome to be considered is decision-making autonomy. The SBM model predicts greater involvement by parents in day-to-day school operations, and the evidence (detailed above) is generally supportive of this contention. The effects on autonomy are less predictable, since decision-making power may shift from directors and teachers to parents without necessarily increasing overall. For instance, the ability to fire teachers may shift from directors to parents under SBM but the locus of control versus the center may remain unchanged. This does not seem likely, however, since with more community participation and control of schools, the overall decision-making autonomy should increase too, especially when parents have financial power. These factors, like those demonstrating parental participation, are also difficult to measure. On the one hand SBM stakeholders may not consider many of their activities as evidence of increased decision-making power and may under-report their real authority. On the other hand there may be significantly more *de jure* autonomy than *de facto* autonomy.

The ability to hire and fire teachers is an important mechanism linking community participation with decision-making autonomy in all of the SBM reforms in the four Central American countries. Parents may feel less inclined to participate in administrative processes or enter classrooms to instigate procedural and/or curriculum changes. They may instead use their ability to replace teachers as a means for improving autonomy and making schools more responsive to communities. In all community school models parent councils have the power to hire and fire teachers. While certainly an important power, it is less clear whether communities members are skilled at choosing high-quality teachers. Additionally, communities are often faced with only a very small pool of applicants considering the common attributes of SBM schools - lower salaries, remote locations and one-year contracts. These supply side constraints in turn make it hard to fire teachers because readily-available replacements are largely absent.

It is also important to consider how well parents and community members can evaluate the work of their teachers. Parents may be limited to evaluating teachers on limited measures, such as absenteeism, and teachers may be resentful of being judged by non-professionals. The PRONADE data from Guatemala reveal that less than 2 percent of the parent councils in PRONADE schools report firing a teacher, which is not significantly different from the non-PRONADE schools (PRONADE data). However, PRONADE schools report nearly three times as many instances of teachers quitting the school. This, again, may be due to the more attractive salaries, job security, and working conditions in traditional schools.

The first evaluation of Nicaragua's autonomous schools⁴⁰ found that stakeholders in private schools report making 16 out of the 25 decisions pertaining to school operations and management at the school level (as opposed to a higher level), compared with 10 for traditional state schools and 13 for autonomous schools. At the primary level,

⁴⁰King and Ozler (1996).

respondents in both types of autonomous schools report that the school makes 10 out of the 25 decisions, as compared with seven for traditional public schools. These differences among the types of schools are statistically significant. There is some variation in the responses by school directors, teachers, and council members within each school type, but these differences are not significant; thus, there is general agreement among the members of the school community regarding the degree of autonomy their school possesses. The evidence suggests that the reform has indeed successfully expanded the role of the school in its governance. King and Ozler (1998) also found that autonomous schools make significantly more schooling decisions than do traditional schools, especially on personnel matters and in determining the school plan and budget. The Nicaraguan data also demonstrate that the degree of decision-making actually exercised by autonomous schools varies greatly, and depends on implementation.⁴¹ Overall, the evidence for Nicaragua shows that the reform has indeed successfully expanded the role of the school, although, in contrast to the other countries, we will see that this came more from an increasing role of the school director. In El Salvador, Sawada and Ragatz (2004) find that EDUCO parent councils have more power to hire and fire teachers and directors.

Some additional data on autonomy are reported in Table 5.7. The variables are not comparable and questions about measurement and quality abound. So the table is used only to highlight some of the issues that need to be considered in the context of autonomy and implementation of the SBM model. For example, there is some evidence that teachers feel more “incentive-ized” in Nicaraguan autonomous schools, which is a potentially important mechanism of local control and autonomy if school councils and parents control the incentives. In Guatemala, the evidence from PRONADE is that parent councils have more control over aspects of schooling such as the work calendar and schedule, teacher supervision and even teaching methods (suggesting higher *de facto* than *de jure* autonomy). This last point is particularly interesting, since the ability of parents to enter classrooms, observe processes and instigate changes would appear to be limited in these contexts, especially rural Guatemala where many parents have never attended school. Finally, the results in Table 5.7 indicate that PROHECO teachers report less control over various aspects of their work, although the results are not very significant (discussed below). Unfortunately, no evidence was specifically collected on the degree of control of the parents’ councils but *de facto* control is likely to be higher at that level (recent evidence extracted from a comprehensive assessment confirms that parents feel that they have substantial control over teachers in PROHECO schools⁴²).

⁴¹ Parker (2004).

⁴² See ESA (2004).

Table 5.7: School and Community Autonomy in Community Schools versus “Regular” Schools, Nicaragua, Honduras and Guatemala

Variable	Nicaragua		Honduras		Guatemala	
	Non-Autonomous	Auto	Control	PROHECO	Public	PRONADE
Sum of teacher-reported incentives	1.6	2.6*				
Degree of school control over promotions	0.25	0.38*				
<i>According to Parent Councils:</i>						
Control over Calendar					0.24	0.37*
Control over Work Hours					0.25	0.46*
Control over Teaching Methods					0.18	0.27*
Have Fired Teacher					0.012	0.015
<i>According to Teachers:</i>						
Control over teaching			2.8	2.6		
Control over priorities			2.6	2.2*		
Control over decisions			2.7	2.7		
Control over planning			2.7	2.6		

Source: Nicaragua data, 2002; PRONADE Data 2002, (MINED, 2001); UMCE, 2003.

Notes: Data are not comparable across countries due to measurement differences. In all countries the data are taken from third/fourth grade questionnaires. Asterisk means that comparison is significantly different at $p < 0.01$, $p < 0.05$ or $p < 0.10$ level.

Lack of teacher autonomy. The evidence on PROHECO highlights an important point: teacher autonomy does not appear to increase in community schools. This has also been found in Nicaragua where King, Ozler and Rawlings (2001) find that teachers feel less empowered in Nicaraguan autonomous schools. Increasing autonomy in community schools may involve shifting responsibilities, which can result in empowerment for some and relative disenfranchisement for others. Hannaway (1991) argues that decentralization can diminish, rather than increase, the feeling of autonomy of local agents such as teachers because of the greater control that is wielded by parents and the local community. There is some evidence on community control and autonomy from multivariate analysis. For example, Sawada and Ragatz (2004) present results for the marginal effect of EDUCO participation on perceptions of control among teachers, directors and parents. The results show that parents feel much more empowered, especially regarding teacher and director management, whereas directors generally feel less control over processes. We should highlight that the internal distribution of power is somewhat different in Nicaragua, where the experience shows that school directors dominate school councils in many schools and there are concerns about the low participation level of community members and parents.⁴³ In the case of Nicaragua stakeholder participation appears to depend integrally on the leadership style of the

⁴³ Castillo (1998); King and Ozler (1996); Fuller and Rivarola, (1998).

school director⁴⁴ and teacher participation appears to wane when financial incentives are smaller.⁴⁵

How can the impacts of SBM on community participation and school autonomy be summarized? With the available data only a few, tentative conclusions can be put forth. First, the fact that hundreds of these schools are operating in the region provides some evidence of community empowerment, at least as measured by participation. There is also some evidence that parents are participating more in day-to-day operations in community schools, although the most certain mechanism appears to be through teacher management (hiring, paying, supervising, firing) and budgeting. What is less clear is the extent to which parents are actively involved in the teaching and learning environment of SBM schools. These are difficult aspects to measure, and in some cases (especially Guatemala) the parents are reporting more involvement in these facets of school life. Final conclusions about school autonomy levels are also difficult. Decentralization may, in some cases, have the effect of switching decision-making power from teachers and directors to parents, rather than increasing overall autonomy *vis-a-vis* the center. However, the fact that parents are participating more in teacher management in community schools is an important finding that may signal greater overall autonomy.

b) Teaching and Learning Environments

In this section we consider the relationship between decentralized control of schooling and teaching and learning environments. With the exception of certain observable and clear-cut school and home factors and teacher characteristics these are difficult variables to measure. It is also not entirely evident whether we would expect SBM schools to have better or worse teaching and learning environments compared with traditional schools. On the one hand the remote and impoverished settings of many SBM schools may lead us to believe they would have inferior teaching and learning environments. On the other hand, increased community participation and school accountability may lead these schools to have superior teaching and learning environments.

Learning Materials and School Infrastructure

The relative state of school resources and infrastructure in SBM schools compared with traditional schools varies across countries due to program design and national priorities. In El Salvador, EDUCO schools and traditional schools are equally likely to have sanitation facilities, but fewer EDUCO schools have access to electricity or piped water. There are no differences in access to textbooks between the two types of schools, but EDUCO classrooms tend to have fewer students and a larger library.⁴⁶ Despite this advantage EDUCO schools have fewer overall resources than traditional or private schools and teachers use fewer resources in the classroom to improve learning.⁴⁷

⁴⁴ Florez, Ruiz et al. (2003).

⁴⁵ Gershberg and Winkler (2000); Gershberg (2003).

⁴⁶ Sawada (2003).

⁴⁷ MINED El Salvador/UES (2003).

The quasi-experimental study of PRONADE schools in Guatemala attests that PRONADE schools are more likely to lack water and sanitary facilities than a control group of schools.⁴⁸ Another study carried out by CIEN (1999) reports that people generally believe PRONADE schools to be worse off than traditional counterparts.

The situation is different in Nicaragua where, largely due to program design, Autonomous Schools tend to have more resources and better infrastructure than traditional schools. Parker (2004) finds that Autonomous Schools are more likely to have curriculum standards and teacher guides and that school conditions and resources tend to be higher.

This is also true for Honduras where PROHECO schools have more resources and better infrastructure, on average, than their traditional school counterparts. In terms of infrastructure, the program has benefited from access to external funds to improve infrastructure, and construction of PROHECO schools has been a priority of the Honduran Social Fund (FHIS). In terms of learning materials, PROHECO schools also tend to have more than traditional schools perhaps because school councils receive money directly to purchase materials.⁴⁹ PROHECO schools are not altogether more advantaged than traditional schools however, traditional schools tend to have more schools services and larger libraries than PROHECO schools.⁵⁰

Teacher Effort

If community schools have greater autonomy and parental participation it seems likely that they will do a better job of maximizing existing capacity, perhaps by eliciting more effort from teachers.⁵¹ Teacher effort is yet another elusive idea to measure but typically researchers use proxies such as teacher attendance, hours worked, and frequency of homework assigned. Eliciting greater or improved teacher effort is one of the key ways in which school-based management may improve student learning and development.

Teacher attendance and work hours

There is some evidence that community school teachers work more days and more hours than traditional school teachers, although this is more the case in El Salvador, and Guatemala than in Honduras or Nicaragua. In the case of El Salvador, Jimenez and Sawada (1999) argue that close community monitoring and greater job insecurity in EDUCO schools result in less teacher absenteeism and fewer school closings than in traditional schools. There is indication that school councils in EDUCO schools are more likely to discuss teacher attendance and disciplinary measures than parent associations in traditional schools.⁵² EDUCO teachers report that they are also more likely to visit students'

⁴⁸ MINED/DP Tecnologías (2002).

⁴⁹ Durston (1999).

⁵⁰ DiGropello and Marshall (2004).

⁵¹ Sawada (2003); DiGropello and Marshall (2004).

⁵² Jimenez and Sawada (2003).

homes if students are absent. This may also be at least in part a behavior stimulated by greater accountability to parents in these schools.⁵³

Table 5.8 summarizes the evidence from El Salvador, Honduras, Nicaragua and Guatemala. Similar measures of teacher attendance and work hours are considerably more mixed in Nicaragua. While autonomous school teachers and principals tend to report that teachers work more hours and are less absent than traditional school teachers these results are not reflected in parent or student surveys.⁵⁴

In Honduras, the PROHECO teachers report fewer hours of weekly work, although when decomposed into various categories the results show they spend the same amount of time on teaching activities.⁵⁵ PROHECO teachers appear to be absent more often, the difference emerging largely due to more PROHECO teachers receiving more training. Interestingly, students report that PROHECO teachers are less frequently absent than traditional school teachers. Finally, PROHECO schools are more insulated from labor problems as their teachers are not union members. During the last two years, PROHECO schools have remained open when others have been closed due to strikes. School directory also confirms that PROHECO schools are closed less frequently.

Variable	Nicaragua		El Salvador		Honduras		Guatemala	
	Non-Autonomous	Autonomous	Public	EDUCO	Public	PROHECO	Public	PRONADE
Work Hours	27.3	29.0*	33.7	36.8*	39.7	36.4		
Teacher Absences (a)			1.4	1.2*	13.9	17.4	0.19	0.15*
Teacher Absences (b)	0.34	0.35			1.94	1.54*		
Days Worked in School							111.0	113.0*
School Closings					29.5	20.5*		

Source: Nicaragua Data, 2002; UMCE 2003; PRONADE 2002; Marshall, 2004a, 2003b; Sawada and Ragatz, 2004.
 Notes: (a) According to teachers or parents; (b) according to students. Data are not comparable across countries due to measurement differences. In all countries the data are taken from third/fourth grade questionnaires. Asterisk means that comparison is significantly different at p<0.01, p<0.05 or p<0.10 level.

Using the PRONADE evaluation data⁵⁶ we see that parent committees in PRONADE schools report fewer teacher absences, meanwhile Marshall's (2004a, 2004b) data from three Guatemalan departments show that PRONADE schools report significantly more days worked during the school year. Parents also report that they prefer PRONADE schools because of more effective days of class and because teachers are more

⁵³ Ibid.
⁵⁴ King and Ozler (1996).
⁵⁵ Di Gropello and Marshall (2004).
⁵⁶ MINED/DP tecnologías (2002).

responsible to their duties and responsibilities.⁵⁷ Finally, EDUCO teachers in El Salvador report more weekly hours and fewer absences.

Teaching Pedagogy

In conclusion, while there is mixed evidence it appears that by and large SBM schools are less frequently closed and SBM teachers are less likely to be absent and may work more hours than traditional school teachers. These findings are more consistent in Guatemala and El Salvador and are somewhat less so in Honduras and Nicaragua.

Few school factors are as difficult to measure for quantitative analysis as classroom pedagogy. Furthermore, it is not clear that parent councils actively monitor teaching practices, especially given the targeting of school decentralization in poor areas where parents themselves have low levels of schooling. Nevertheless, it should not be dismissed that SBM teachers may be more inclined to adapt their teaching methods to better suit local needs and contexts by using more dynamic and interactive pedagogies or assigning more homework for example. As shown in Chapter II there is evidence that more interactive pedagogies may enhance learning although this is contingent on several factors such as teachers' mastery of these methods. Data on teaching methods comes from teacher and students surveys, both of which have their drawbacks. Finally, intervening variables—like class size or the number of grades in the classroom—can also influence the use or success of particular methodologies.

Little evidence that teaching methodologies are different. There is no evidence that SBM schools tend to differ significantly in pedagogical methods in Nicaragua or Honduras⁵⁸. The best data available on this subject may come from Marshall's (2004b) analysis of student learning and attendance in rural Guatemala. This study involved classroom observations of teaching methods rather than surveys and found that while there were differences between PRONADE and traditional schools, both types employed traditional teaching methods. PRONADE teachers tended to use direct instruction methods while traditional schools tended to use individual work methods.

In terms of homework there is equally weak evidence. Nicaraguan SBM schools tend to review homework more often while in Guatemala, PRONADE students report that they receive less homework.

Class Size and Grades in Classroom

Generally smaller class size, but more grades taught. Two final components of teacher effort are less actual indicators of teacher supply of effort and more likely to be indicators of the demands placed on teacher effort. These are class size and the number of grades taught in the classroom. Class size is an important variable for evaluating community schools and probably an endogenous one. For example, parents may intentionally limit class size in order to increase efficiency, or good schools with good reputations may find

⁵⁷ Asturias et al. (2001).

⁵⁸ Parker (2004) and Di Gropello and Marshall (2004).

themselves with large class sizes as more parents enroll their children. The number of grades is also subject to parental manipulation if they have concerns about the demands placed on the teacher. In both cases these variables are likely to have an intervening effect on implementation of SBM in the classroom.

Table 5.9: Average Student-Teacher Ratio and Enrollment

Variable	Nicaragua		El Salvador		Honduras		Guatemala	
	Non-Auto	Autonomous	Public	EDUCO	Public	PROHECO	Public	PRONADE
Students per teacher	25.9	30.6*	28.0	20.8*	37.6	29.7*	29.0	26.6*
Multi-grade school or grades per teacher			0.20	0.39*	0.65	0.73*	1.5	2.7*
Total Enrollment					98.5	68.7*	84.1	78.4

Source: Nicaragua Data, 2002; UMCE 2003; PRONADE 2002; Marshall, 2004b; Sawada and Ragatz (2004).

Notes: Asterisk means that comparison is significantly different at $p < 0.0.1$, 0.5 or 0.1 level. For multigrade the data in El Salvador equal 1 if teacher works in multigrade school, 0 otherwise; for Honduras the percentages refer to teachers that work in single to two-teacher schools; for Guatemala the numbers refer to the average number of grades per teacher.

For EDUCO, class sizes in the community schools are about seven students per teacher smaller than a group of control schools. The same pattern is apparent in Honduran and Guatemalan community schools (see Table 5.9). The exception is the Nicaraguan autonomous schools, which have larger class sizes than non-autonomous schools.

Honduras, El Salvador, and Guatemala SBM schools all tend to serve more grades per classroom than control group schools. By themselves these results may suggest that community schools are more concerned about class size, perhaps because they want to get the most out of the teacher's ability especially considering the multigrade context of the classroom. With a link between learning and class size we can put this (supposed) concern into an actual learning context. Another important issue concerns costs. If community schools are getting more effort out of teachers then the cost effectiveness is increasing, but this may be counter-acted somewhat by having fewer students per teacher. And once again the relationship between class size and learning (or other outcomes perhaps) is crucial because if class size really is not a conditioning variable linking teacher effort with student performance then parental efforts to maximize learning by limiting class size may be misplaced.

In sum, the evidence on teaching and learning environments is mixed. First, with regards to materials and physical conditions the evidence is inconclusive, as some autonomous schools (such as Nicaragua) appear to be better equipped while in other areas (such as PRONADE schools in Guatemala) the opposite is true. In terms of teacher effort the results are somewhat more conclusive, as autonomous and community-based schooling environments appear to maximize teacher effort to a greater degree (at least in terms of teachers' work hours). Once again it must be stated that these conclusions are tentative, and based mainly on simple t-tests using data that may be of low quality.

Despite the somewhat inconsistent results it is possible to begin to form a picture of SBM implementation in the region, or at least begin to prepare the ground for a more demanding analytical framework. The evidence that schools get more out of teachers, despite having generally lower qualifications (as we will see below) and being paid less (see sub-section II.2), points to a more efficient schooling model. This relative efficiency is attenuated, however, by the generally lower student-teacher ratio in these schools. In cost effectiveness terms we can of course only speculate, especially since we do not know how any of these measures (teacher effort, class size, etc.) translate into student outcomes like learning. Finally, given the numerous differences between the community school “treatments” in the region, we must once again highlight the role of local context, assets and implementation schemes in determining these outcomes.

B. COMPARING ENROLLMENTS AND STUDENT OUTCOMES WITH AND WITHOUT DECENTRALIZED EDUCATIONAL PROVISION

a) Impact on Enrollments

Ministries of Education have used three administrative models to rapidly increase primary school enrollment in rural and marginal urban areas, with local and multilateral financing. The first is the “traditional” model of opening schools. The two most difficult aspects of this model are the creation of a teacher position and school construction. A second model, supported by the World Bank, was the establishment of afternoon shifts in existing schools in marginal urban areas. This model has the same teacher position challenge but avoids the need to build additional schools. The third model has been that of School Based Management, this model has also been supported by the World Bank and other international agencies.

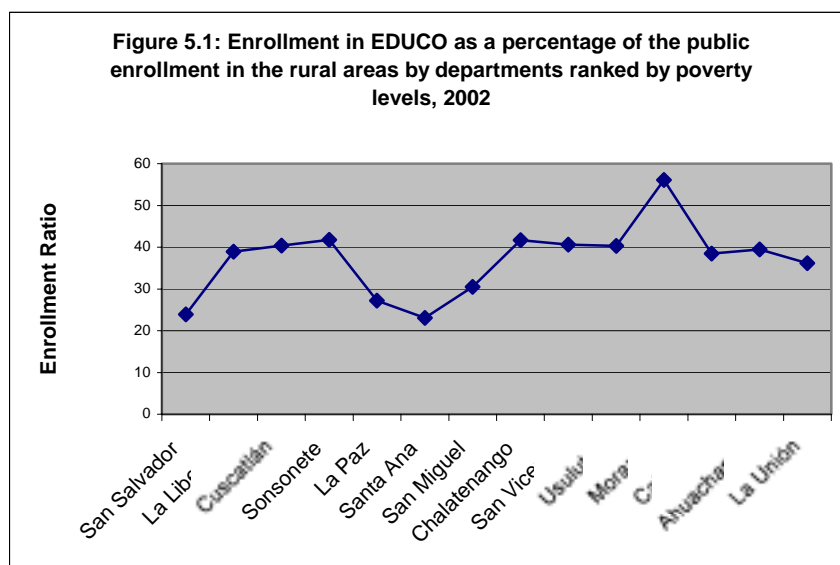
SBM models have been successful in increasing enrollment. In El Salvador there has been a steady increase in enrollments attributable to EDUCO. In 1991 the program was administered by 263 ACEs with 263 teachers and 8,416 students (see Table 5.10). 10 years later, in 2001, the program included 1,970 ACEs and 322,432 students in preschool, primary and middle schools. This represents 50% of the public rural preschool enrollment and 37% of all students in grades 1-9 in rural El Salvador (38% of students from grades 1-6, and 25% of grades 7-9). This growth is impressive and can certainly be related to the increased coverage in rural areas highlighted in Chapter I, although it is necessary to put it in the context of generally growing enrollments across the region in rural areas.

Year	Classrooms	ACE	Teachers	Students
1991	263	263	263	8,416
1992	1,009	845	1,009	32,288
1993	1,411	871	1,311	41,952
1994	2,313	1,334	2,316	74,112
1995	3,554	1,341	2,919	113,728

1996	5,279	1,700	3,884	168,928
1997	6,062	1,705	4,196	193,984
1998	6,448	1,640	4,369	206,336
1999	7,415	1,722	4,703	237,280
2000	8,271	1,811	5,339	264,672
2001	10,076	1,970	6,515	322,432

Source: MINED, 2002, and Database *Dirección de Evaluación*

The program has also contributed to improve equality of access to educational service. As Figure 5.1 shows, the program developed more in the poorest departments of the country (on the right hand side of the graph).



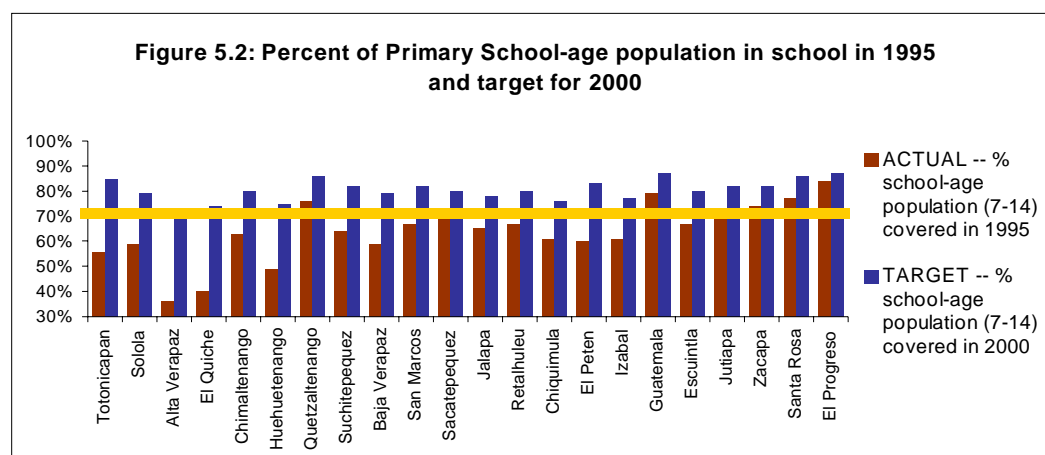
Source: MINED, database 2002; UNDP, 2001.

In Guatemala, PRONADE's main objective was to open educational opportunities for 50,000 out-of-school children per year until full primary school coverage was attained. The immediate goal was to ensure that at least 70 percent of primary school-age children in each one of the 22 departments received services by the year 2000 (Figure 5.2). Since most departments had already achieved this goal, priority was given to departments that had not yet reached the minimum coverage, which, coincidentally, are also the departments with the highest proportions of indigenous peoples. Today PRONADE provides services to children in virtually all regions of the country in 20 departments.⁵⁹ In a relatively short period of time PRONADE moved from a small innovative pilot program in 19 rural communities to a nationwide program reaching almost 3,600 communities. By the beginning of the current school year (2004), student enrollment reached almost 400,000 at the primary level. As of December of 2002, PRONADE schools represented 21% of primary school enrollment in rural areas and accounted for 14% of the total enrollment in primary education at the national level.⁶⁰ PRONADE

⁵⁹ Valerio and Rojas (2004)

⁶⁰ MINED (2004).

clearly had a significant role in contributing to the increase of the enrollment rate in rural areas pointed out in Chapter I.



Source: Valerio and Rojas (2004)

Table 5.11: PRONADE: Accomplishments 1996, 2000-2004

Year	Primary School Children served		Preschool Children served	Primary School Teachers hired	Schools	Department	ISEs
	Target	Actual					
1996	55,000	67,734	-	327		13	13
2000	258,000	249,024	43,848	7,373	3,419	21	17
2001		261,397	48,635	7,903	3,420	21	17
2002		272,820	48,739	8,325	3416	21	17
2003		328,448	57,564	10,001	4,161	21	17
2004		382,588	62,651	11,688	4,554	21	17

Source: Information from PRONADE Coordinating Unit, MINED, 2004

While not specifically targeted to rural communities, the autonomous schools in Nicaragua have also had an impact on coverage, in particular at the secondary level, where the enrollment rate increased substantially over the 1900s. In 1997, 73% of all secondary students and 37% of all primary students were under the autonomy program. In terms of teachers, 78% of all secondary teachers and 41% of primary teachers were under the autonomy program as well.⁶¹ By 2002, 37% (1,781) of all Nicaraguan primary and secondary schools were autonomous; autonomous schools served 63% of the students (501,000), and had 13,419 teachers.⁶² According to the Participation Law approved in 2002 all schools in Nicaragua must be autonomous by the year 2006.

In Honduras, where PROHECO targeted the poorest and most isolated rural communities, the program had 820 schools in 2000 with 5,396 students at the pre-basic

⁶¹ Arcia and Belli (1999).

⁶² MINED (2004).

level and 34,144 primary school students⁶³. According to the Central Unit of PROHECO, in 2004, 87,310 students were enrolled at the pre-basic and primary level in PROHECO, representing about 11% of the total enrollment in rural areas. PROHECO appears to be a somewhat more targeted program than the other SBM reforms.

b) Impact on Internal Efficiency (Student Flows)

As just shown, the SBM models have helped the countries in the region to improve their enrollment rates. Yet, one of the vexing problems for policy makers and other stakeholders of the education systems is how to keep children in school once they enroll. We have seen that repetition and dropouts are a problem in Central America, in particular in rural areas (Chapter I). There is some evidence that community schooling leads to better student flows suggesting that internal efficiency, in particular in rural areas, may have improved over these last few years, but it remains a problem.

There is some evidence of improved student flows. Once again the EDUCO program has received the most attention among researchers. Jimenez and Sawada (2003) find that the EDUCO program contributes significantly to decisions to remain in school beyond grade three. Additionally, students in EDUCO schools are less likely to repeat grades than students in traditional schools (although the result was not statistically significant).

There is less evidence for the PRONADE program in Guatemala. Based on 1995 data, PRONADE's indicators of internal efficiency are neither above nor below those of traditional rural schools, although PRONADE indicators have gradually improved in time. It is of particular concern that, as in traditional schools, repetition in the first grade of PRONADE schools was as high as 34 percent in 1999. More recent data confirm that PRONADE's indicators are very similar to the average rural indicators. More positive evidence, at least on student retention, comes from Marshall's (2004a) data from rural Guatemala, which make it possible to conduct very precise comparisons between cohort grade completion and retention rates in a regional sample of rural schools in Guatemala. His results show that PRONADE schools have done a better job at keeping students in school. Furthermore, in an econometric analysis using a multinomial outcome (passing, failing and desertion) Marshall (2004a) finds that boys enrolled in PRONADE schools are significantly less likely to drop out of school.

For Honduras, Di Gropello and Marshall (2004) find some evidence that community schools have lower rates of dropout and grade failure than traditional schools in rural Honduras in their multivariate analysis of school averages for various student flows.

Finally, in Nicaragua, recent data of the MINED (see Table 5.12) indicate that autonomous schools have slightly lower promotion rates, except in sixth grade; lower repetition rates, except in fourth grade; and slightly higher drop out rates in all grades, except in sixth grade. Overall, however, the results are very similar between the two groups. Higher drop-outs may be the consequence of the relatively little impact of the

⁶³ MINED (2000).

autonomous model on teacher attendance. The new allocation formula, which includes an adjustment for drop-outs, will hopefully help improve student flows.

Table 5.12: Nicaragua: Efficiency indicators for autonomous and non-autonomous schools by grade, 2003

Rates	Autonomous schools						Non-autonomous schools					
	1	2	3	4	5	6	1	2	3	4	5	6
Promotion	65.95%	81.75%	80.52%	81.63%	82.26%	97.06%	66.44%	81.84%	81.31%	82.26%	82.82%	96.61%
Repetition	17.76%	10.25%	10.57%	7.89%	6.28%	2.94%	20.02%	11.46%	11.86%	9.13%	6.78%	3.39%
Drop out	15.43%	9.34%	9.99%	11.26%	12.49%	0.00%	12.76%	7.62%	7.61%	9.42%	11.35%	0.00%

Source: MINED, Nicaragua, 2004

c) Impact on Student Achievement

The Evidence

It is commonly believed that community schools lead to more student learning. But it should be restated that none of the SBM models studied here has as a main goal improving quality of education. Despite the lack of a consensus in education policy circles on the relationship between student learning and community schooling, there is some evidence from Central America on this subject.

Mixed results on learning, but the impact of different assets needs to be considered.

Table 5.13 summarizes, in descriptive form, the evidence on learning in the region. For each country standardized test scores (mean 0, standard deviation of 1 except for El Salvador) are presented together with indicators of family socioeconomic status and parental education. The results show that in Guatemala the PRONADE students are scoring significantly lower than their public school counterparts, while in El Salvador and Nicaragua the differences are insignificant. In Honduras, the PROHECO students have higher averages in science.

Table 5.13 also addresses the issue of community assets (which we will develop further below). The pattern here is more consistent, as in all countries except Nicaragua the community schools are located in communities with lower levels of parental education and SES, usually measured by the quantity of services or items in the home. These data provide an empirical justification for an important point that has only been referred to until now: community school initiatives in Central America are being targeted in areas that have fewer resources. The issue of community assets is an important one, since implementation of any decentralization initiative requires local capacity to be fully effective. The data in Table 13 demonstrate the need for multivariate analysis in order to assess the true effect of SBM on learning. In the next section on explaining impacts we

will undertake our own analysis using data from Honduras, Guatemala and Nicaragua. But there are other studies—many using these same data—that also need to be summarized first and reveal a somewhat ambiguous pattern.

Table 5.13: Third/Fourth Grade Test Score Averages By School Type

Model:	Guatemala				Honduras		El Salvador		Nicaragua	
	World Bank 2002		HCRG 2002		Control	PROHE CO	Control	EDUCO	Control	AUTO
	Control	PRONA DE	Control	PRONA DE						
Spanish	-0.33	-0.39	0.02	-0.16*	-0.04	0.03	1.75	1.73	-0.03	0.02
Math	-0.27	-0.38*	0.01	-0.07	-0.04	0.03	3.74	3.59	-0.01	0.01
Science					-0.12	0.08*				
SES	2.5	2.2*	0.31	-0.46*	0.49	-0.42*	0.66	0.28	4.1	4.5*
Parental Education	4.2	3.0*	2.5	1.7*	3.2	2.5*	0.53	0.50	5.5	6.2*

Source: Nicaragua data 2002; UMCE 2003; World Bank 2002; Marshall, 2004b; Sawada and Ragatz, 2004. Notes: For El Salvador average SES refers to percentage of homes with electricity, while Average Parental Education is the percentage of mothers with basic education. Asterisk means that comparison is significantly different at $p < 0.01$, 0.05 or 0.10 level.

Existing studies indicate SBM schools support improved learning in El Salvador and Honduras and, to some extent, Guatemala and Nicaragua. In an evaluation of El Salvador's EDUCO program, Jimenez and Sawada (1999) compare teacher absenteeism and student achievement in EDUCO schools with that of traditional schools, controlling for student characteristics and selection bias (since the EDUCO schools were not randomly selected). They find that despite the fact that EDUCO schools have fewer days of teacher absenteeism than traditional schools, the student achievement in EDUCO schools was no different from that of traditional schools. The EDUCO analysis has continued with Sawada and Ragatz's (2004) recent paper that attempts to link community school implementation with student outcomes. They make the case that teacher behavior has changed for the better in EDUCO schools. The challenge lies in linking these changes with improvements in student outcomes, and the resulting statistical analysis provides a link—if somewhat tenuous—between improvements that result from EDUCO participation and improved student outcomes like test scores.

The already mentioned evaluation of Nicaragua's autonomous schools by King and Ozler (1998), investigating the impact of two types of autonomy (*de jure*, based on whether the public school officially had a contract with the Ministry of Education to transform the school council to a *consejo directivo*; and *de facto*, based on the proportion of key decisions made by the school council rather than central or local government), find that *de jure* autonomous schools do not appear to have an impact on student achievement. The authors attribute this lack of test score improvement to a possible lag time in becoming truly autonomous. Interestingly, they find that *de facto* autonomy - ie non-autonomous schools that practice decision-making power - is associated with higher student achievement. By disaggregating the *de facto* autonomy variable into two types of decision-making areas (decisions that are related to teachers, including such decisions as

hiring and firing, evaluation, supervision, training, and relations with the teachers union; and decisions related to instruction, including decisions such as class size, curriculum, textbooks, educational plans, and the school hours and calendar), they find that the variable on pedagogy gives mixed results; while the effect of the variable on teacher-related issues is positive for both education levels and subjects, and is statistically significant throughout, except for math scores at the secondary level. Recalling Levin (1995), these results suggest that the schools that are more active in tracking and monitoring teacher activity and in controlling staffing issues are likely to be more successful in increasing student achievement.

Parker (2004) also addresses the autonomous reform in Nicaragua and finds that autonomous schools, on average, have higher Spanish scores than centralized schools (only significant in the third grade). Unlike Spanish, student math scores are not predicted by the factors associated with school autonomy, namely teacher incentives, material resources, and professional development. Her overall conclusion is that the study has not shown clear differences in outcomes between centralized and autonomous schools (school type is only a significant predictor in one example, third grade classroom mean Spanish scores). An initial hypothesis of the paper was that the effects of decentralization contribute to changes in teacher behavior, with resultant changes in student outcomes, but the study has not shown a clear relationship between these three⁶⁴.

Despite PRONADE's expansion by 1994, very little is known about its real impact on the ground or on student learning achievement. In 1997, MINEDUC launched the National Assessment System (PRONERE) to monitor students' achievement in mathematics and Spanish. Although a formal evaluation of student achievement in PRONADE schools has not taken place, the PRONERE's tests carried out in 1999 and 2001 included some PRONADE schools in its sample of students.⁶⁵ Although average scores for PRONADE students are not among the highest, the results are encouraging given the lower base from which many of the PRONADE students begin, and the relative disadvantaged position of the communities from where the students come.⁶⁶

A World Bank study on student achievement in mathematics and reading was conducted in Guatemala in 2002. The study combined the test instruments developed by the UNESCO's Regional Office in Latin American and the Caribbean (OREALC) in 1997 for a comparative study in Latin America, with items developed by the Universidad del Valle for the MINEDUC in Guatemala. Without controlling for the characteristics of students, teachers or schools, the results show that PRONADE schools get some of the worst average scores, even within rural schools.⁶⁷ However, controlling for these background factors these negative findings disappear. In fact, they found that in

⁶⁴ Supporting the findings of Parker, Gershberg and Kaestner (2002) show some skepticism at the results of the King and others papers because of the non-random participation of schools in the reform program which, according to these two authors, was addressed using statistical procedures demonstrably not effective.

⁶⁵ de Baesa (2001).

⁶⁶ Valerio and Rojas (2004).

⁶⁷ The World Bank (2003a).

comparison with urban public schools and regular rural schools, PRONADE helped students achieve higher scores in Spanish.

Finally, Di Gropello and Marshall (2004) assess the PROHECO impact on student learning in Honduras using data from the UMCE's 2002 and 2003 data collections. As with the Sawada and Ragatz paper (2004) they make a link between improvements in teacher behavior (measured by work hours, frequency of homework, school closings, etc) and student learning, and the results are generally robust to corrections for selection bias.

IV. Explaining the Impact

As was shown in the previous sections, the SBM reform has had an important impact in several areas of the education system in the Central America sub-region. The impact, however, has not been the same in all of the indicators and shows similarities and differences across the four countries. The degree of the impact of SBM on different indicators and the similarities and differences across the countries can be explained to a large extent by the following factors: 1) the assets of the actors and communities involved; 2) the provisions that are made in the reform design; and 3) the context of implementation such as socio-political factors operating at both national and local levels.

All these factors mutually influence each other. But for analytical purposes, the discussion will focus on one at a time. As discussed in section I, assets include multiple resources such as skills and informational, organizational, human, material and financial assets; reform design has to do with both the objectives and the *de jure* provisions regarding the operation of the program; and the context of implementation consists of a series of sociopolitical factors that determine whether the reform, once adopted, can be sustained, and whether it is implemented according to the *de jure* provisions. Accordingly, in what follows, an effort is made to explain how and to what extent the differences in availability of assets, reform design and contexts of implementation help explain the progress and impact of the SBM models in terms of school and community empowerment, teaching and learning environments, and final outcomes such as student achievement within and across the four countries.

A. EXPLAINING IMPACTS AND PROGRESS IN TERMS OF ASSETS AVAILABLE AND LINKING TEACHER EFFORT TO LEARNING OUTCOMES

As was said before, the success of the SBM models depends to a large extent on the assets that the actors and communities involved already have and the ones they receive according to the provisions of the reform design.

a) First Order Effects

Community empowerment is high in spite of poor assets. For the SBM models to work properly, the school or community councils should be able to carry out the functions that have been delegated to them. By assuming decision-making powers that they did not have previously, or by increasing their influence in areas they already affect,

the councils are empowered. The effectiveness of this empowerment depends on the assets that the members of these councils have.

Because the reforms target different types of communities in the various countries, there is variation in the type of assets available in each case. In El Salvador, Guatemala and Honduras, the programs targeted poor, rural areas that lack material, financial and educational assets. In the case of Guatemala and Honduras very poor and isolated rural areas that did not have a school were targeted, which means there was little pre-existing knowledge of how schools work in these communities. In the case of El Salvador EDUCO was originally a grassroots experience, so the sense of ownership and motivation might be stronger than in Honduras and Guatemala. The Nicaraguan ASP model seems to be the better placed in terms of assets since the initial targets were larger secondary schools located in relatively well-to-do communities that had more financial resources. The schools were already operating and many parents were participating, so they had some previous experience and knowledge of how a school functions. Finally, since joining the program was voluntary, all the actors involved had the right motivation to participate.⁶⁸ Summing up, because of the type of communities they target, the SBM models of El Salvador, Honduras and Guatemala look similar in terms of community assets, although, across these countries, the communities targeted in Guatemala and Honduras have fewer resources. Higher levels of SES are found in the ASP of Nicaragua.

Across the region, thousands of SBM schools are functioning, attesting to at least some degree of community empowerment. Parents are making decisions on matters related to school management (hiring, supervising and paying) and budgeting that they did not affect before, more so in El Salvador, Guatemala, and Honduras, and less so in Nicaragua where parents seem to be less empowered. This suggests that even without previous experience in managing schools, poor rural communities have certain skill-sets and motivation to manage their schools and that the reform was able to harness and develop local capacity despite the lack of parental education, resources and experience in management. In Nicaragua, reform design was somewhat more focused on enhancing school autonomy through the role of the school director rather than on providing all the necessary support to communities. The SBM models in Central America demonstrate that, with the right type of assistance, even very poor and undereducated parents are able to run schools.

Poor community assets frequently mean poor school conditions. How does the physical and material conditions of the schools relate to the assets already possessed by the communities and other key actors in the schools? As was pointed out before, if community schools are concentrated in the poorest and most rural parts of the country it seems likely they have fewer resources and learning materials. This is certainly the case in Guatemala and Honduras. Communities have to meet certain requirements to be eligible such as not having another public school nearby. In Guatemala and Honduras,

⁶⁸But this has changed since the introduction of the Education Participation law of 2002. Beginning in 2006 all the schools in the Nicaragua education system must be participatory schools.

and even in El Salvador, schools begin to function in private houses or in huts built by the communities. So, SBM schools in these countries frequently begin with insufficient physical and material conditions, which are not always compensated by SBM programs. A different story holds for Nicaragua where students come from slightly better-off families.

Poor teacher assets can be a constraint for innovative teaching methods. An important component of decentralization in the context of education is to maximize teacher effort. The evidence reviewed above suggests that the schools in the SBM models are maximizing teacher effort to a greater degree. If parents have more say in how the school is run, or more power to sanction poor performing teachers and directors, then it seems likely that school personnel will put forth more effort. Indeed, community school teachers work more days and hours. However, their teaching methods, overall, seem to be no different from the ones used in traditional schools. This may raise an issue of reform design (lack of community participation in pedagogical matters and/or lack of teacher autonomy) which will be further explored. It may also arise due to a lack of teacher assets (skill, knowledge, experience, creativity). Teaching methods are likely to depend to a large extent on the assets already possessed by teachers. Teacher “assets” such as education and experience are considered important in educational delivery. In fact, much of the financial incentives that teachers get in the region are based on such assets. The skills and training that teachers bring with them to work are likely to help explain the degree to which the decentralization scheme is implemented inside the classroom, just as parental education and community assets will affect the overall implementation.

Table 5.14 reviews some basic teacher assets in the four countries. The results are, once again, mixed across countries in the region, although they are generally less favourable for autonomous schools. For Nicaragua the autonomous school teachers are more experienced but less likely to have a college degree. In El Salvador the opposite holds, as EDUCO teachers are highly educated and comparatively in-experienced. For PROHECO, targeted in very small communities, the teachers are less likely to have a degree from the national teacher’s university (UPNFM), are less experienced and in a majority of cases did not attend a normal school. Finally, in rural Guatemala, the data from Marshall (2004b) show that PRONADE teachers are also less educated, and have less experience, than control school teachers. Overall, there does not seem to be a very clear cut relation between teachers’ assets and teaching methods, although having a high proportion of teachers with no teaching certificate (such as in Honduras) and little professional experience is likely to make it more difficult to implement innovative teaching methods.

Variable	Nicaragua		El Salvador		Honduras		Guatemala	
	Non-Auto	Autonomous	Public	EDUCO	Public	PROHECO	Public	PRONADE
Percent Teachers with University	44.5	38.2*	30.0	74.0*	6.4	2.9*	2.5	0.0*
Percent Teachers without Certificate					3.9	54.8*		
Teacher Experience	5.8	7.2*	9.5	3.9*	7.6	2.2*	9.7	4.6*

Source: Nicaragua data 2002; UMCE 2003; Marshall, 2004b; Sawada and Ragatz (2004).

Notes: Asterisk means that comparison is significantly different at $p < 0.01$; $p < 0.05$, or $p < 0.10$ level.

b) Second Order Effects: Multivariate Analysis of Impact on Achievement

The evidence presented in previous sections on first order effects resulting from SBM implementation and differences in assets (especially for teachers) helps to form a picture of the dynamics of community schooling in Central America. In this section we continue this discussion by replicating the analysis of Di Gropello and Marshall (2004). Using multivariate analysis that introduces groups of variables one by one we can not only pinpoint the marginal effect of community school participation on student learning but also consider how other factors interact with this variable. This kind of analysis allows us to consider community and teacher assets together with other variables (like teacher effort) that we expect to be affected by implementation. We then can move on to larger, macro-type influences such as program design and contexts (next sections).

What are the factors that condition the results in academic achievement of the students in SBM schools compared to their traditional counterparts? Following Di Gropello and Marshall, the coefficients presented in Table 5.15 represent the marginal effect (in standard deviations) of studying in a SBM school relative to the control categories. We then gradually add up groups of variables (community SES, school and teacher controls and teacher effort) to see how this marginal effect varies when controlling for these variable. In the first model student test scores are regressed onto student gender only (and the community school dummy), which provides the most basic comparison of how community school students compare with their regular school counterparts. Not surprisingly, we see that in Guatemala the PRONADE schools start out lower when only accounting for these basic controls.

Table 5.15: Effect of Community/Autonomous Schools on Spanish and Mathematics, Summary of Regression Analyses, Guatemala, Honduras and Nicaragua

Model:	Guatemala		Honduras			Nicaragua	
	World Bank 2002		Spanish	Math	Science	Spanish	Math
	Spanish	Math					
1. Student gender	-0.22 (-1.49)	-0.24 (-1.82)*	0.08 (0.67)	0.15 (1.16)	0.29 (2.42)***	0.01 (0.07)	-0.02 (-0.26)
2. Student and community SES	-0.04 (-0.35)	-0.08 (-0.75)	0.17 (1.04)	0.22 (1.50)	0.34 (2.45)***	-0.02 (-0.22)	0.01 (0.05)
3. Plus school and teacher controls	0.14 (1.11)	0.07 (0.59)	0.23 (1.12)	0.44 (2.06)**	0.44 (2.34)**	-0.01 (-0.10)	-0.01 (-0.16)
4. Plus teacher effort	0.16 (1.24)	0.13 (1.04)	0.11 (0.54)	0.37 (1.65)*	0.16 (0.84)	-0.04 (-0.36)	-0.01 (-0.16)
Sample Size	3,103	3,103	975	952	974	2,596	2,575

Source: Nicaragua data 2002; UMCE 2003; World Bank, 2002. Notes: Dependent variable is standardized test score with mean of zero and standard deviation of 1.0. All parameters refer to dummy variable of community/autonomous school, and each is interpreted in relation to "control" (i.e. non community) schools. Variables are added in each model, and the sample size is the same for each estimation. For Guatemala the controls also include the incoming test score in the subject from 2001. All results refer to third or fourth grade students. t-ratios are between brackets. Asterisks indicate statistically significant at 0.10 (*), 0.05(**) and 0.01(***) levels.

When controlling for community, teachers and school assets, the impact of community schools generally improves. In the second estimation household and community controls for SES, parental education, child labor and school attendance are added. If community schools are serving different clients (i.e. poorer) then we should expect the relative effectiveness to be greater (or less negative) once we take into account these differences; the results in Table 5.15 demonstrate this is the case in Guatemala and Honduras. In Guatemala, the entire difference between PRONADE and control disappears once we take into account differences in student background. In Honduras, the difference in favor of PROHECO schools tends to increase when controlling for the different socioeconomic status (not as much as expected because an effort had already been made to identify a control group close enough to the PROHECO group⁶⁹). As expected there is little and ambiguous change in Nicaragua, where the autonomous schools are slightly more affluent than the control group.

In the third estimation the teacher and school controls are added. As shown above, community school teachers in these three countries (Honduras, Guatemala and Nicaragua) have lower educational qualifications and are also, with the exception of Nicaragua, less experienced. For the school controls like teaching materials and total enrollment the differences are less clear cut between SBM school and control in the region. As expected, the inclusion of these variables in Guatemala results in the PRONADE marginal effectiveness increasing vis-a-vis the control schools. In fact, although insignificant, PRONADE schools score higher than the control schools once

⁶⁹ See Di Gropello and Marshall (2004).

these factors are added. In Honduras, the trend is also to increase the community school effect. Finally, in Nicaragua there is almost no movement in the coefficients when taking into account these variables, which is consistent with what has been detailed earlier since the autonomous schools have similar, or even better assets in terms of teaching materials, compared with control schools.

The link between teacher effort and academic achievement is not consistent across countries. Indicators of teacher effort are added in estimation 4. These include measures of: days worked in the school and/or teacher absences and total work hours per week, school closings (in Honduras), homework frequency or frequency of going over previous material (in Nicaragua), teaching methodology, and class size and number of grades. If community schools have succeeded in making changes in these kinds of outcomes—and they are positively associated with test scores—then we should expect the marginal effect of community schooling in the production functions to decrease. In other words, the positive coefficients for community schools in Guatemala and Honduras should get smaller; and the negative ones for Nicaragua get larger. However, the results in Table 5.15 fail to provide a uniform picture.

There is strong evidence in Honduras that higher teacher effort, associated with autonomous schools, is also associated with higher test scores, but such evidence is much weaker for Nicaragua (although the dummy coefficient in Spanish moves in the right direction) and, even more, Guatemala. This can cast some doubt on the degree to which community schools have made improvements in teacher effort characteristics that, in turn, translate into differences in student achievement in Guatemala and Nicaragua. From the previous evidence, there is ground to think that teacher effort may not have improved very substantially in Nicaragua; while the results for Guatemala are more surprising suggesting that increased teacher effort did not translate into higher scores in that country.⁷⁰ However, before we rule out this link for these two countries altogether, we need to make an important point. The measure of teacher effort adopted in the regressions is somewhat heterogeneous, capturing different aspects which may not have evolved in the same direction. For instance, we know that teaching methodology changed little in the countries under analysis; or, still, class size, an imperfect measure of teacher effort, may have unpredictable impacts on achievement (as appears with class size in Honduras, which is quite strongly positively related to achievement, driving part of the results on the teacher effort variables).

The various estimation results in Table 5.15 are not easily summarized. For Guatemala and Honduras the community school treatment clearly needs to take into account the very different environments that these schools operate in. This relates not just to student background but also teacher assets. In Nicaragua the targeting scheme was very different, and it is not the case that autonomous schools are serving poorer communities.

Capacity is maximized and related to academic achievement in Honduras and El Salvador, capacity is also maximized in Guatemala but the relation with

⁷⁰ It is also true that different databases have been used for Guatemala, which can produce somewhat inconsistent results.

achievement is less clear cut. Overall, the evidence presented for Honduras, and the one that was presented for El Salvador by Sawada and Ragatz (2004), suggest that autonomous schools have been successful in providing learning environments that are equal or even higher than their public school counterparts, although targeting poorer communities, by maximizing existing capacity (mainly by working more and limiting class size) to make up for the lack of teacher and parental capacity (in particular in Honduras). The link between capacity utilization differences and student outcomes is encouraging, and provides *prima facie* support for community schooling on pure efficiency grounds. This is especially true in Honduras where PROHECO teachers are paid less and have fewer qualifications.

The evidence provided for Guatemala, while less positive, still shows that, in spite of lower teacher assets, PRONADE schools manage to provide a learning environment as good as their public counterpart for students with similar characteristics, although the link between improved capacity utilization (which higher teacher effort also illustrates in Guatemala) and achievement cannot be directly made.

Overall, across these three models, we seem to have a picture where SBM school parents concentrate their oversight to the most visible aspects of teacher effort—their attendance and hours worked—without entering classrooms and instigating changes in teaching methodology and classroom management, or choosing the best teachers. In other words, SBM parent councils may not be striving to create the best schools; they may simply want the most efficient.

Lower levels of efficiency in Nicaragua. The picture is somewhat different in Nicaragua where autonomous schools perform as well as non-autonomous ones but with slightly more community and teacher assets, which suggests somewhat lower levels of efficiency (although class size is kept larger counter-acting this trend).

B. EXPLAINING THE IMPACT IN TERMS OF THE REFORM DESIGN

So far the analysis of the impact of SBM on student outcomes has focused on linking differences in implementation and assets with outcomes like student achievement. What remains is an analysis of additional “conditioning factors” that are likely to determine not only the success of the SBM in affecting first order changes in schooling but also the degree to which these differences translate into observable second order differences. These factors are left for last for the simple reason that they are, of all of the possible influences on schools and schooling outcomes in these countries, the most difficult ones to assess from an evaluation standpoint. Nevertheless, they are likely to provide some additional clues about SBM performance.

The first factor, that we will briefly review here, is reform design.⁷¹ In section II, it was shown that there are differences in reform design in aspects related to institutional

⁷¹ A more detailed analysis of the link between reform design and outcomes can be found in Rapalo and Marshall (2004).

arrangements, organization, membership, characteristics and functions of the school councils, financial transfers, and teacher salaries and benefits. Among the differences in the reform design that are most relevant for explaining the impact of the models on community and school empowerment, teaching and learning environments and final outcomes such as enrollment rates, internal efficiency and student learning the following can be mentioned: the objectives of the reform, its coverage, the composition of the councils, the range of responsibilities delegated to the school councils, the provisions for relevant parental capacity building, and the system of transfers and teachers' incentives.

Objectives of the reforms. In terms of the reform objectives, as already noted, none of the SBM models considered in this study had community empowerment or quality enhancement as primary objectives of the SBM reforms. As such, any impact on empowerment and quality is more a *by-product* of the reform than an explicit target. By the objective of the reform design, the Nicaragua's SAP seems to have had the highest potential to contribute more to the empowerment of the school and communities, as school autonomy was a key instrument to increase social accountability and operational efficiency. However, for other aspects of reform design (see below), recent qualitative analysis of autonomous schools found that the reform has not reconstructed the social pact to increase parental participation in their children's education, but has had a "financial-administrative" focus.⁷² In general, because of their lack of focus on quality, the SBM did not make adequate pedagogic provisions to improve school quality, as will be discussed below.

Coverage of the programs. In terms of coverage of the program, we have already noted that some reforms are more targeted than others to poor areas, with consequences on community and teacher' assets and educational achievement. Another distinction concerns the extension/coverage of the models in terms of schools and students. While EDUCO, ASP, and PRONADE all cover a substantial fraction of schools, PROHECO is much more focused, serving a relatively small number of schools. This may partly explain the better results of the model, which may be due to more efficient implementation, perhaps because of better supervision from program operators.

Composition of school councils. In terms of composition of the councils, section II makes it clear that all countries have granted a key role to parents in the management of the autonomous schools, which has effectively translated into higher levels of empowerment. However, interviews revealed that no program has been able to involve all the community members all the time⁷³. Mothers of students and community leaders are most frequently involved in school councils. There is little evidence to show that parents in the councils rotate as expected to give chance to other leaders elected in a democratic way. The case of Nicaragua is different insofar as the director has a leading role in the councils, limiting somewhat, as we have seen, parental empowerment (and the 2002 participation law gave even more power to school principals making them executive directors and allowing them to run the councils almost at their will).

⁷² Florez, Ruiz et al. (2003); Gershberg, et al. (2001).

⁷³ This has been confirmed in a recent assessment of PROHECO (ESA, 2004).

Responsibilities of school councils. All countries also granted extensive responsibilities in teacher management, school maintenance and budget oversight to the councils which resulted in higher *de facto* decision-making in these areas and, overall, higher teacher effort. However, little or no transfer of pedagogical responsibilities to parents led to little or no decision-making in this area and unchanged teaching practices, which, in part, may have also been produced by little expertise or interest of parents themselves to instigate changes in the classrooms. In turn, no or little change in classroom processes hampered the impact of all the models on learning, compensated by a positive impact of small class sizes, which can be to some extent associated with more individualized learning, and higher work hours in Honduras and El Salvador. Another important highlighted aspect of all models is the decreased level of teacher autonomy which essentially occurred by design by shifting the balance of power towards parents: it is likely that this also explain the lack of pedagogical innovation of SBM models.

Provision for parental capacity building. In El Salvador, Honduras and Guatemala, the SBM models have all made provisions for relevant parental capacity building and technical assistance to compensate for the lack of assets and experience in running schools, with some success if we judge from the level of community empowerment achieved in all these countries. In fact, almost all the organizational structure underlying the management of these programs revolves around the issues of parental capacity building and assistance and the transfer of financial resources. In particular, one key element that has promoted community empowerment in Honduras and Guatemala has been the role played by the promoters and the ISE, respectively (although they provide largely administrative training with very little pedagogical training). In all countries, except in El Salvador, the content and duration of the training for school councils is decided by the central ministry or coordinating unit. As part of a general policy, recently, the Ministry of Education of El Salvador has given the power to all schools to decide about their own training and to contract trainers directly. This arrangement, although apparently instrumental in providing more power to school councils, seems to be working against them in the EDUCO schools because little funding is given and the location of the schools provides little access to hire quality trainers.⁷⁴ Despite the differences and the generally satisfactory results, in all countries there are some complaints about the content, relevance, duration and follow-up of the training. Again, in terms of technical assistance in administrative matters, the role of the ISE in Guatemala and the promoters in Honduras seems to be particularly important, while EDUCO schools, although they can hire accountants, complain about the little help they get from the departmental offices. Both in El Salvador and Nicaragua, many actors think that the administrative process should be simpler and more transparent. Speaking about Nicaragua, section II makes it clear that in this aspect as well the ASP program is the one that most differs from the others because no specific external facilitator/trainer is hired to help the councils. Because the schools are already running, the communities of autonomous and non-autonomous schools are similar and the principal of the school plays such a large role in the management of the school, Nicaragua has not seen the need to create intermediary actors to provide training and technical assistance as has been done in the other countries.

⁷⁴ Nochez (2003).

Transfers. Another important element of reform design is the design and implementation of the monetary transfers to schools (see section II) and the provisions for budget generation. Here again there is substantial difference between El Salvador, Honduras and Guatemala which allocate fixed amounts per teacher to the autonomous schools, plus a pre-determined amount for teaching materials, and Nicaragua which allocates funds on a per-student basis leaving the schools free to decide how to allocate them. Additionally, in Nicaragua, the schools had (initially) the right to charge fees and still have the possibility of undertaking fund raising. The evidence presented on the availability of teaching materials and equipment suggests that autonomous schools are decently provided with materials and equipment in Nicaragua, much less so in the other countries, suggesting limitations in the current allocation of funds in El Salvador, Honduras and Guatemala. In fact, in interviews carried out for this study, schools council members in El Salvador, Honduras and Guatemala argued that funding is insufficient and that they are only able to buy the most basic materials. Moreover, there are legal restrictions as to what can be bought with the transfers. Given that, it is unlikely that the strategy applied in Nicaragua can work in the communities covered by the other countries, where the socio-economic characteristics of the parents and the size of the communities limit additional fund-raising activities by parents or other community members, requiring a somewhat different strategy for the allocation of resources, which should include a share of non-salary recurrent costs proportional to the needs of the schools (see section on policy recommendations).

Interestingly, transfers seem to be designed to produce stronger incentives for maintaining small class sizes in the case of El Salvador, Honduras and Guatemala, and incentives for increasing enrollment and class size in Nicaragua. In El Salvador, Honduras and Guatemala the amount transferred increases with the number of teachers hired and in Nicaragua transfers and user fees increase with enrollment. None of the transfer systems appear to create direct incentives to improve the quality of education, although, to some extent, small class size seems to favour individualized learning which has a positive impact on achievement; and, by subtracting last year drop-outs from this year initial enrollment, the formula applied in Nicaragua encourages internal efficiency and, indirectly, quality. Additionally, only in Nicaragua transfer formulae take into account equity concerns, although the new law, approved in 2002, does not have provisions to compensate small schools if they do not have enough students and fund raising activities will benefit more those schools that are located in well-to-do neighborhoods, creating equity problems. Equity adjustments are clearly less important in the other three countries where autonomous schools are all rural and poor, but may become necessary if the models are scaled-up to incorporate larger and wealthier schools (as is already happening with EDUCO).

Teachers' incentives: monetary benefits and their link with teachers' assets. Finally, a key element of all the reforms is also the role of teachers' incentives. Teachers' incentives will be an important determinant of teachers' assets and teacher effort. Table 5.5 of Section II makes it clear that, while salaries are similar across SBM and traditional teachers in Nicaragua and El Salvador, they are lower for SBM teachers in both Guatemala and, even more, Honduras. Other monetary benefits are also lower in

autonomous schools in these countries. There seems to be a clear relation between teachers' assets as measured by education and experience and the lower monetary benefits in Honduras and Guatemala. In fact, these countries are already prone to have the least skilled teachers teaching in community schools because of the location of the schools and the existing teachers' incentives are doing nothing to counteract this tendency. Although Honduras may be particularly successful in maximizing the impact of its available community teachers, it seems clear that achievement results would be even better if PROHECO schools had higher-quality teachers. This is also likely to be true for Guatemala. Additionally, we have seen that teachers' assets are also likely to be related to teaching methodologies which, in turn, are likely to be related to learning: by investing in more skilled teachers, the SBM models in Honduras and Guatemala may be able to increase class size moderately, possibly generating savings.

Contract tenure and teacher effort. Finally, teachers' incentives will also affect teacher effort. Low salaries (or large delays in salary payment) may for instance have a negative impact on teacher motivation, although this does not appear to be the case in Honduras and Guatemala. More interestingly, fixed- instead of open-ended contract tenure, used in all four countries, may tend to motivate teachers to do better if contract renewal is based upon fair and accurate evaluations of teacher performance. Additionally, in the cases of Honduras and Guatemala, the reform design includes provisions penalizing teacher absences: in Guatemala teachers must compensate for days lost and in Honduras absences are deducted from salaries. In the case of Nicaragua, it is less likely that teacher effort is affected by the reforms because, although teachers are also appointed through fixed-term contracts, they continue to be protected by a general law that regulates the whole system (*Ley de Carrera Docente*). On the other hand, user fees in Nicaragua may provide an incentive for teachers to work in autonomous schools.

Teachers incentives and teacher permanency in the non-traditional system. Overall, judging from generally higher teacher effort, these mechanisms, together with the community empowerment that they confer, seem to be working. Two limitations of the models, however, are that: (a) none of the programs have established an adequate system of evaluating and monitoring teacher and school performance; and (b) the combination of lower monetary benefits and few professional development prospects could end up hampering the motivation of teachers who are doing well and would otherwise stay into the autonomous system. The first point will be further developed in the sub-section on contexts. On the second point, there is some evidence that, in Honduras and Guatemala, teachers move to traditional schools as soon as they get the opportunity. All SBM programs have put in place a system of teacher training, but this does not seem to be enough. Strategies to improve the medium term incentives for teachers to stay in the SBM system need to be found and applied. In fact, all SBM models (including Nicaragua, where a separate system for teachers in autonomous schools would be advisable) face the challenge of introducing some kind of professional development system, including creating a merit system (*escalafon*) for their teachers. Finally, we should also note that none of the SBM models has made provisions for special training for directors to develop leadership and managerial skills, which appears to be an important characteristic of effective schools.

C. EXPLAINING THE IMPACT IN TERMS OF CONTEXTS OF IMPLEMENTATION

The discussion in the previous sub-sections shows that the impact and progress of the SBM models in the education systems of the region have been affected by the assets of the communities and actors involved and by the provisions that are made in the reform designs. In what follows an effort is made to show that the impact, progress and sustainability of the SBM models have been also affected by the contexts of reform implementation. In this section we will briefly review some of the socio-political factors which appear to be particularly relevant for the implementation of the SBM reforms: state-related variables such as the level of political commitment, state and social linkages such as the inclusion of different groups in the policy reform, traditions of local participation, institutional capacity and efficiency in reform administration, and availability of information. We should also point out that the success of the SBM models will also depend on what goes on in the rest of the education sector because of the linkages between the different education levels and public and private delivery (for instance, an expansion of the private sector can free teachers for the public sector making more teachers available to autonomous schools).⁷⁵

Political commitment. In terms of state-related variables, there is a consensus that successful implementation of social policy reforms depends on state commitment. In the case of the SBM reforms in the region, support was strong at the beginning and has continued steadily in El Salvador and Nicaragua, while it has shown some variability in the cases of Honduras and Guatemala where there have been changes in the ruling parties and in key bureaucratic positions in the ministries of education and in the coordinating units. In El Salvador, the government has, in effect, adopted EDUCO as its educational policy for rural areas. In Guatemala and Honduras the SBM programs were initially designed to improve enrollment rates in poor and isolated rural areas. In Honduras, the scope of the program has remained the same but in Guatemala the program was quickly taken to scale. In the Portillo administration, however, there was an open attempt to terminate the program and this slowed down its implementation. In general, turnover rates have affected the expansion and implementation of the programs but have not changed their main objectives and their “thrust” (even in Guatemala), indicating that local communities have developed a strong preference on behalf of safeguarding the reform (stake-ownership). Lately, however, governments in Nicaragua and Honduras are discussing the possibility of shifting the focus of the decentralization reform from SBM models to municipalization. It is also interesting to note that, in all cases, the World Bank and international donors in general have played a constructive role in combating the tendency of new administrations to scrap the programs of the previous administration. Because the new administrations realize that these programs are Bank-sponsored, they hesitate to dismantle them.

⁷⁵ Illustrating this point, a massive expansion of the tertiary system much through the private sector in El Salvador helped EDUCO to hire lots of teachers.

Inclusion in the reform. Regarding state-society linkages, there is also evidence that including diverse groups from civil society (civic, business, university and religious leaders, notable personalities, opinion-makers, NGOs, consumer groups, teachers' unions, opposition parties) into policy discussions, both prior to the reforms and throughout the implementation process, generally helps implementation. In both aspects the SBM reforms have come up short. El Salvador seems to be the most inclusive case of all four. There were national dialogues at the start of the reform and repeated consultations during the implementation period. In Guatemala, there was a dialogue and consultation prior to the implementation of the reform but this has not continued during the implementation phase. In Honduras, PROHECO was created outside the MINED and was initially run by a commission of notables appointed directly by the Honduran president. There has been very little dialogue and consultation prior and during the implementation, and the same can be said in the case of Nicaragua.

In no country have the reforms included the teachers' union who are arguably the biggest cost-bearers of decentralization reforms, although some effort to do that has been attempted in El Salvador, perhaps explaining why relationships with the teachers' unions are more harmonious there than elsewhere. In general, teachers, who have not developed "stake-ownership", remain the main opposition and can potentially derail the reform, especially in Honduras and Guatemala where teacher unions are relatively strong. As we have seen, reform designs in these same two countries have also not been favourable to the creation of incentives for teachers in the autonomous system, aggravating the situation and creating serious issues of sustainability in spite of the success of the models in terms of empowerment and coverage.

Traditions of local participation. Another contextual aspect that may hinder the implementation of the decentralization reforms, especially in terms of community empowerment, may be traditions of local participation. Despite the apparent advantage of the Nicaragua program in terms of the type of communities they target, the programs in El Salvador, Guatemala and Honduras have advantages in terms of the tradition of social participation and the creation of social capital. Durston (1999) suggests that programs like PROHECO "have the advantage of not having to concentrate efforts in fighting against institutional and traditional habits to establish the new process." This is to say that since the relationship between parents and teachers is brand new, there is a better possibility to establish relationships of mutual respect, accountability, trust and compromise with the educational outcomes. Moreover, according to this author, the rural communities have better contextual conditions for creating social capital and for making possible that the school councils may influence some other social processes in the communities.⁷⁶ In general, parents in the rural areas have more sense of community, more experience in social participation and more willingness to sacrifice time and money to participate in these types of programs. Parents of these communities might also feel more empowered because they know that this is probably the only way that their children may have access to education. In the case of Nicaragua, parents and community members know that whether or not they participate they have a school where they can send their children.

⁷⁶ Durston (2002).

Institutional capacity and efficiency of the administration: sustainability of institutional arrangements. The technical capacity and efficiency of state agencies both at the central and local levels are crucial to ensure the proper implementation of decentralization reforms. A first issue is the sustainability of institutional arrangements. In the SBM models discussed here, the state agencies provide schools or community councils with the necessary resources, such as money, training and information. State agencies function differently in the four cases. In El Salvador and Nicaragua the coordinating units are within the ministries and work with the school councils with the help of the local MINED offices (departmental or municipal) (although in El Salvador, councils also work with assistants that they hire themselves). In the cases of Honduras and Guatemala, the coordinating units belong to the Ministries of Education but work more independently. Their work with the councils is carried out almost exclusively with the help of intermediary agents that do not belong to the MINED, with little contact with the local units of the MINED. This is why in these countries the programs are seen more as parallel programs than programs belonging to the MINED, with possible issues of sustainability. It has, however, been recognized that the intermediaries have been particularly useful in these two countries, suggesting that an hybrid type of solution (involving for instance both the deconcentrated units and fixed-term external agents) may be needed.

Technical capacity of coordinating units. The composition and capacity of the coordinating units is important to ensure their proper functioning. In all four cases the personnel of the coordinating units are selected by the MINED. Most of the time the personnel are selected for their technical capacity, although politics and personal connections may also enter into the selection process, especially in Honduras and Guatemala. Judged by their performance, the coordinating units have done a relatively good job, especially in El Salvador and Nicaragua. If we review some evidence of institutional strength in terms of financial transfers, provision of training and availability of information, we find, however, that: (a) there have been problems with the regularity of the transfers in some countries, which can indicate a difficult relationship between the ministries of education and finance but also low technical capacity of the coordinating units (this is particularly the case in Honduras and Guatemala); (b) the changes in government and personnel in the coordinating units have affected the provision of training in all the countries because they have changed the rules (community and schools actors in all the countries feel that the provision of training was stronger and better at the beginning of the programs); and (c) the models have not generated enough and relevant information to evaluate and monitor the performance of their schools.⁷⁷

⁷⁷For instance, coordinating units have not had the technical capacity to conduct studies to evaluate the performance of autonomous schools vis-à-vis traditional schools, although they have received technical assistance by international agencies and consultants. In El Salvador, despite the proliferation of information, most of the information used to evaluate the program with a comparison group comes from 1996, in Nicaragua from 1997 and in Guatemala from 1999. In the case of Guatemala, the quasi-experimental study was not completed and did not use standardized tests. In Honduras, because the program is more recent, it is only until this past year that a systematic study of its impact has been undertaken. Additionally, the available statistical information to monitor schools' characteristics and performance is often of poor quality and incomplete.

Availability of information and monitoring of teacher behavior. Related to this topic, another question that can be asked is whether the SBM models are providing school councils with the needed information to carry out their functions. In all countries the programs provide school councils with information regarding their functions, especially in terms of management of material and human resources. However, parents also need information on teacher performance to exercise effectively their task of hiring and firing teachers. In most cases, it appears that the council members do not have enough information to select the best candidates and technically evaluate them. A related point is that parents usually find it difficult to monitor curriculum and pedagogy. The only criteria used by parents seem to be teachers' attendance and good behavior. These are still important dimensions which ensure, as we have seen, higher teacher effort in terms of hours worked, but having a more comprehensive picture of teacher and school performance would be helpful to enhance the impact of the models on learning. None of the programs provide information about school performance and teacher performance; and although schools do produce some information on promotion, drop-out and repetition, they often send it to higher levels, without using it or sharing it with the community. If information on teacher performance is incomplete and it is difficult to relate school performance to teacher performance, "monitorability" of aspects such as pedagogical practices will still be a problem and other mechanisms will need to be found to make teachers accountable on this ground such as: (a) setting-up effective supervision/inspection systems, involving directors and deconcentrated levels of the ministries of education in the direct observation of classroom practices; or (b) providing incentives for pedagogical improvement such as school competitions for the best school improvement project.

V. Conclusions and Policy Recommendations

The school-based management models considered in this study seem to be a potentially promising means to promote more civic engagement in education and to cost-effectively get better or similar educational results than traditional programs. In particular, community and schools appear to have been generally empowered and teacher effort strengthened, resulting in a better use of the existing limited capacity. This is more true for El Salvador, Honduras and Guatemala than for Nicaragua. Additionally, the models have had a very substantial impact on enrollment and are somewhat associated with better student flows. There is also evidence that academic achievement is at least as high in autonomous schools as in traditional schools.⁷⁸ However, while some aspects related to school quality such as teacher/school effort have been prioritized in the models, some others such as availability of learning materials, teacher skills and pedagogical innovation have not been sufficiently developed, limiting the potential impact of the models on the quality of education and learning. Additionally, the sustainability of these models remains at stake in most of the countries.

⁷⁸ In Guatemala, only when taking into account the poorer communities in which these schools are located.

The evidence presented in this chapter, including the links that have been established with reform design, assets and the socio-political context, allows us to provide a set of recommendations for consolidating the good results of the models, improving their impact on the quality of the teaching and learning process and ensuring their sustainability.

Reform Priorities. Empowerment and quality should be introduced as explicit objective of all the models;

Pedagogical model. At the outset, the way forward in community schools should be to provide an integrated package (called *modelo pedagógico propio*) to give pedagogical strength to the model. The package should offer, in addition to community participation, bilingual education (if needed), multi-grade teaching, student assessment, teacher guides and in-service training, etc;

Pedagogical innovation: teacher autonomy. There is international evidence that increased teacher autonomy in pedagogical practices and more skilled teachers can be conducive to higher pedagogical innovation and improved teaching-learning processes. The effective school analysis undertaken in Chapter II confirms this finding. Increased teacher autonomy in pedagogical practices could benefit all model designs. At a minimum, given the importance of teacher participation in improving the quality of education, it is necessary to give teachers a more meaningful role by establishing support committees that can tackle issues and allow for their voices to be heard. More skilled teachers should also be attracted through the implementation of a better incentive framework (see below). Teachers' excellence also depends to a large extent on on-going professional development opportunities. For Guatemala and Honduras it would be imperative to create special incentives (such as scholarships) for teachers who do not have a degree to get into a flexible program that allows them to be trained in pedagogical matters, while also working;

Pedagogical decentralization to communities. Another option would consist in providing more pedagogical responsibility to the communities themselves to foster changes in teaching practices. There is less clear-cut international evidence that decentralizing this type of decisions to community would lead to better teaching practices. Additionally, by empowering parents in this area, teachers may feel even less valued. If it is decided to provide more power to the school councils in pedagogical matters, the models should proceed with some caution, gradually extending authority to communities as they acquire and demonstrate capacity in this area. They should establish mechanisms of accreditation before they grant this power and determine what kind of power they wish to hand over. There are some pedagogical matters such as the setting of policies regarding curricula, programs and evaluation which should remain, in any case, centralized;

Transfer formulae. Transfer formulae should be modified, by basing the allocation of funds on the real demands that may come from the school councils themselves (through their School Education Plans), ensuring therefore higher shares for non-salary recurrent

expenditure for materials and the like, and introducing allocation criteria that take into account equity, when necessary, and performance (provision for small schools in Nicaragua, measures of student attendance or retention in Honduras, Guatemala and El Salvador);

Parental support. Continuous parental support through flexible and transparent mechanisms needs to be provided. Although the use of intermediate agents, such as NGOs and social workers, needs to be more fully assessed in Guatemala and Honduras, there is some positive evidence on their role in providing administrative support. In any case, these agents should receive training on a continuous basis, keep close ties with other local officials from the ministries of education, and use standard procedures and provide timely advice and support. It is also imperative that in future strategic discussions regarding the programs' expansion and evolution, the longer-term role and status of these external agents be addressed. It would also be important, in particular for the sustainability of the models, to define with precision and strengthen the role of the deconcentrated levels of the ministries of education (departmental and district offices). These levels could have particular relevance in pedagogical support and supervision to parents, teachers and directors. Additionally, it would be useful to assess the feasibility of having these levels hiring the external agents (in particular in Honduras and El Salvador), to contribute to the institutionalization and acceptance of the models within the ministry of education, while not losing the economies of scale that can be made by hiring external agents at an intermediate level (in contrast to the school);

Information on school and teacher performance and supervision mechanisms. A substantial effort should be made to provide good information on the performance of schools and teachers and make it available to all education actors (directors, teachers, parents, department and district education offices). The MINEDs could create a very simple model with the most important indicators (*orientaciones*) to measure teacher and school performance. Standardized testing should be used and disseminated. The model should be shared and validated with the parents and local community members and information should be produced in a systematic way to measure those indicators on a regular basis. A good information system will ultimately allow parents to obtain information on the performance of their children relative to the rest of the school, the performance of the school relative to other schools of similar characteristics, and the performance of the system against itself over time. Setting-up effective supervision mechanisms, involving directors and the deconcentrated levels of the MINEDs, would also be key to monitor teacher behavior in cases of imperfect information.

Teachers' skills. Financial incentives are key to make the programs attractive vis-à-vis the traditional system and to attract skilled teachers. Teachers' salaries and social security benefits should be balanced across traditional and non-traditional systems in Honduras and Guatemala. In all countries, it is important to ensure that fringe benefits be more similar between the traditional and non-traditional sector (teachers in community based programs usually lack access to medical and life insurance benefits and female teachers do not have access to maternity benefits and leave). In all countries, there would be room for introducing performance bonuses in the non-traditional sector. The key here is to be bold and rely on the local school council to determine the type and size of the bonus to be

distributed at the end of each school year, and how to allocate the bonus among teachers. The idea is that school councils should guard against linking *permanent* rewards (such as salary level) to performance, but rely instead on cash or in-kind bonuses that are used to specifically recognize the work of good teachers, and openly express the appreciation of the community;⁷⁹

Teacher motivation and permanency in the non-traditional system: timely payment.

Due to administrative and financial difficulties, some of which are beyond the control of the coordinating units or MINEDs, there have been frequent delays in payments of teacher salaries, especially in Honduras and Guatemala. In order to ensure that teachers remain motivated and interested in working in autonomous schools, it is imperative that salaries be paid in a timely manner. To do this, having the school based management programs' budgets integrated into the general budget of the ministry of education may probably help. Secondly, in all countries, the forms and paper work to liquidate the funds should be simplified. Thirdly, explicit priority should be given to the payment of salaries within the transfer of funds. Fourth, to strengthen transparency, the programs should also contract independent firms to do the auditing of the transferred funds. Fifth, if the liquidation of funds has to be done every three months, it would seem more appropriate to pay teachers' salaries in advance;

Professional development. While maintaining fixed-term contracts, which is at the very core of the incentive structure of autonomous models, a merit system (*escalafón*), similar to the one applied in the private sector, should be designed and implemented for all countries in the non-traditional sector to retain teachers (including regular salary increases based on seniority and qualifications, increased responsibilities, training options, etc). It is also important to change the perception of instability which is part of the non-traditional system. Stability should not be understood in terms of time but in terms of performance. Teachers should feel confident that if they perform well they will keep their jobs. This can happen if they know what is expected from them and how their work will be evaluated.

Directors: role. A comparison of Nicaragua with the other three countries suggests that directors should probably not be part of the school councils, or, if they are part, that their relative responsibilities be very clearly specified, to prevent communities from not being truly empowered in administrative matters (teacher and budget management). Taking advantage of the involvement of the communities in these matters, directors could take up a key role in academic matters in the schools, providing pedagogical support and supervision and ensuring a sound and constructive academic environment. Directors should probably be granted higher authority in larger schools (such as in Nicaragua), where monitoring school and teachers may be more complex. However, it will be necessary to ensure a democratic type of leadership which will require a more transparent way of electing directors and closer monitoring of their performance as well as special training and technical assistance to develop their leadership skills.

⁷⁹ Also see Arcia and Belli (1999).

Training. Specific training should be introduced for directors to strengthen their management skills and leadership in a variety of areas, in particular in academic matters.

Institutional capacity of coordinating units. People in charge of the coordinating units should be selected according to their merit and not for political or other reasons. Their performance should be evaluated not only according to their individual actions but also according to the overall results of the community program. Their capacity of evaluating and monitoring schools should be strengthened. Finally, to help institutionalize the programs, it should also be gradually envisaged to substitute the coordinating units by departments or offices that are fully part of the structure of the ministries of education;

Consensus and institutionalization. As already discussed, consensus is a decisive factor in the successful expansion and institutionalization of any educational reform. Where it is impossible to achieve absolute consensus, it is important to make sure that the main political forces know the program's goals and its achievements. When this is not possible, as was the case in Guatemala in the previous administration, it is important to make sure that other important stakeholders (such as the parents themselves, private sector, majors and others) are ready and organized to defend the programs. The SBM models should have a network of key people ready to act. More studies are also needed to determine the impact of the models on student achievement, repetition and dropout rates, as well as teacher effectiveness. To institutionalize and create consensus around the programs it is also necessary that they appear as part of the general policies and programs implemented by the government to improve the quality of education. As such, they should be included in the legislation on education, in laws regarding participation, in the development plans and, especially, in the national budgets. They should be seen as part of the routine of the ministries of education without losing their innovative character;

Teacher inclusion and sustainability. Finally, it is key to implement strategies to include teachers and teacher's unions in the reform process, by disseminating information on the reform, negotiating more favourable employment conditions for teachers in the non-traditional sector (see above), or granting higher teacher pedagogical autonomy. It is necessary to reiterate that teachers, who have not developed "stake-ownership", remain the main opposition and can potentially derail the reform, especially in Honduras and Guatemala where teacher unions are relatively strong. It is imperative for the same sustainability of the models to address the issue of teacher opposition.

Regional collaboration. A mechanism should be established that allows for community based programs to share their experience in the region. This can start with a summit of the ministries of education (or vice-ministries) of the four countries to analyze the results of this study. The purpose should be to develop a common agenda to solve the most urgent problems and to plan the long term sustainability of the models.

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