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Networks of Schools

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Abstract

The study proposes: (1) that the institutional climate in schools, which includes formal rules, informal rules, mechanisms for enforcing both kinds of rules, clear objectives and an atmosphere of cooperation and trust, has a strong influence on school performance; (2) that "networks" of schools such as the Accelerated Schools Project in the U.S. and the Fe y Alegría schools in Latin America help improve school performance in a variety of ways, and have been successful in providing good education to disadvantaged children; and (3) that one of the reasons some networks are successful is that they promote the creation of sound institutional environments in member schools. The argument draws on New Institutional Economics and especially on the role of institutions inside school organizations in reducing agency problems

and facilitating transactions between actors in school communities. Three examples of networks with a specific orientation toward improving equity—the Matte Schools of Santiago, Chile, the Fe y Alegría schools in multiple Latin American countries, and the Accelerated Schools Project in the U.S.—are presented and analyzed in terms of how they influence intra-organizational institutions.

Introduction

Amid all the debate about how to improve education—the controversies over vouchers, charter schools, reward-based incentives, standards and accountability—a modest but often successful approach to increasing school performance has been all but overlooked. I refer to "networks" of schools that offer distinctive approaches to providing education, and that operate in both the public and private spheres. Examples in the U.S. include Robert Slavin"s Success for All model, Theodore Sizer's Coalition of Essential Schools, the Edison Project (a private education management organization or EMO), the Accelerated Schools Project, initiated by Henry Levin and now a nationwide movement, and others. In Latin America the Fe y Alegría schools operated by the Jesuit Order in many countries of the region offer a well-known and admired example. In Chile the schools operated by the Sociedad de Instrucción Primaria (Society for Primary Instruction, SIP) provide another example on a relatively small scale.

Like some charter schools, there are networks that have been established with the explicit purpose of offering children who are "at risk" (have a high probability of failing or dropping out) an opportunity to obtain a good education. These networks appear to perform better than schools serving the same student populations but that are not members of the networks. Most networks provide a kind of yardstick or basis for comparison with regular public schools, although their main objective goes well beyond creating competitive pressures. They may be publicly financed or private, but even those that are public are to some degree outside the main bureaucracy of the education systems in which they operate. Although specifics vary, the schools in the networks must comply with certain minimum essential conditions (non-discrimination, for example) but have fairly wide latitude regarding curriculum, teaching methods, teacher recruitment and selection and school management.

Why are networks of schools more than ordinarily successful, even when they often serve disadvantaged students and when, as research has established, their costs are not significantly greater than those of other schools? Does being part of such a network confer advantages on participating schools and, if so, what are those advantages? A conceptual model, developed in the course of research in Chile and applying New Institutional Economics to school management issues, suggests some reasons. School organizations that have internal "institutions"-formal rules, informal rules and enforcement mechanisms-that are conducive to making and upholding agreements and commitments tend to perform well according to various criteria. Networks tend to promote (or protect) favorable internal institutional climates, as elaborated further below. Schools in which "the rules of the game" make it possible for teachers and other actors to interact with confidence and cooperation provide contexts in which pedagogical inputs can operate effectively. Some networks promote their own particular pedagogical approaches, which obviously have an influence on student learning. For the purposes of this study, however, pedagogical factors are left aside, as part of "other things being equal". We are concerned here with the institutional environment in the school and the way being a member of a network helps

schools to develop and maintain good internal institutions. The following sections consider the nature of institutions and networks in turn.

What do we mean by institutions inside school organizations?

As Nobel laureate Douglass C. North defines the term, institutions are "the rules of the game". They include the complexes of formal and informal rules and constraints that apply in every social setting, and mechanisms for enforcing each kind of rules. They "reduce uncertainty by providing a structure to everyday life. They are a guide to human interaction" (North, 1990, p. 3-4). A good example of this way of using the term institutions is "the institution of marriage". Marriage is in some ways an economic contract, in other ways a religious sacrament, and in still other ways a set of legal rules governing property, children and matters such as insurance, taxes, rules of inheritance and so on. It is founded on and upheld by a rich complex of laws and formal rules, which can be enforced by courts, but also by long-established social norms and traditions and by the powerful influences based on the approval or disapproval of families, friends and the local culture. It is this broad-brush meaning of institutions that is used here.

A set of institutions that reduces uncertainty makes it possible for people to enter into transactions with each other. These include formal transactions such as purchase and sale of goods and services, as well as highly informal transactions—arrangements, agreements, commitments or "deals"—whereby one person undertakes to do something with a reasonably high degree of confidence that the other party will follow through on their part of the transaction. When someone contracts with another person to do something—when a principal enters into an agreement with an agent—there are costs. If there is not a well-functioning set of institutions, these agency costs can be very high. People do not have the security to enter into transactions without exercising great caution to keep from being cheated and incurring expenses of gathering information about the other party, writing and monitoring detailed contracts, paying for security or insurance and so on. If there are not sufficient safeguards, or if the costs of protecting one's interests are too high to make the transaction worthwhile, then activities that would otherwise have been useful and profitable for all parties do not get done.

The main literature on economic institutions has focused on their role at the macro level, in national economies or in major markets such as securities or commodities markets. This literature has established that institutions have a powerful effect on the costs of transactions and on economic performance. But institutions exist at an extreme micro level as well, inside organizations. There has been some study of institutions at this level. The work of Michael Jensen and William Meckling in the managerial economics literature deals in part with "the rules of the game" inside organizations (Jensen, 1998). Harvey Leibenstein's concept of "X-efficiency", especially his later work in *Beyond Economic Man* (1976) and *Inside the Firm* (1987) delves deeply into the determinants of efficiency inside organizations. Political scientist Gary Miller (1992) examines in depth the varieties of prisoner's dilemma situations that tend to arise in virtually any organizational structure or incentive scheme.

The theoretical framework used here to explore the role of networks of schools is based on the concept of institutions inside school organizations and how they influence performance. Schools constitute a large category of organizations, they tend to be organized along very similar lines and to have similar inputs and processes, yet their performance can vary greatly. There has been very little work on how institutions function inside schools (Rowan & Miskel, 1999, pp. 378-380).

When looking at institutions at this extreme micro level, it is feasible to add to the basic list of "formal rules, informal rules and enforcement mechanisms" two other factors that shape a school's institutional climate. The first is clarity of objectives, including both how clearly the objectives are articulated and how well they are understood, agreed upon and internalized by members of the school community. The second additional component of the institutional climate is the degree of trust, cooperativeness or "social capital" that obtains in the school community. These five components of an institutional climate, which are measurable, constitute a syndrome; a combination of factors that work together to influence performance. In economic terms a good set of institutions reduces principal-agent problems and the costs of transacting, thus making it feasible for beneficial transacting to take place. For a fuller explanation of this theoretical framework and the economic concepts that underlie it, as well as a description of an empirical study that measured institutions in primary schools in Chile, see McMeekin (2003).

The basic hypothesis of the theory is that, other things being equal, the more a school's institutional climate facilitates transactions between members of a school's community, the better the school's performance. "Good" institutions make it possible for teachers, students, parents and other members of the community to perform their respective tasks effectively. On the other hand, the lack of sound institutions can make it impossible for good inputs—even the best pedagogical methods and materials—to function as they should.

Three Examples of Networks of Schools

My colleagues at the Centro de Investigación y Desarrollo de la Educación (CIDE) and I became interested in networks through our study of primary schools in greater Santiago, Chile (McMeekin, Latorre. & Celedón, 2001). The private subsidized schools studied in the course of that research are all members of a 17-school network established and operated by the Sociedad de Instrucción Primaria (SIP) and best known as the "Matte Schools". Another source of interest in networks was a major study, conducted by John Swope and Marcela Latorre at CIDE, of the Fe y Alegría schools in nine Latin American countries (Swope & Latorre, 2000). Thus the study team at CIDE was alerted to the subject of networks and aware that they offered advantages to member schools in terms of fostering sound internal institutional environments. Through published sources as well as friendship and discussions over the years with Henry M. Levin, founder of the Accelerated Schools Project (ASP), I have learned enough about that project to recognize similarities between ASP and the other two networks, although superficially they may seem quite different.

One factor these networks have in common, and one reason for examining these three, is that all seek to provide a decent education to children who are disadvantaged. The Matte Schools were founded in the 19 th century to provide education to children from families with "few resources". The Fe y Alegría schools are usually established to serve children in poor rural areas "where the pavement ends". The guiding principle of the Accelerated Schools Project has been to provide a good education to students otherwise "at risk". In this sense all three networks address similar challenges and have similar objectives.

The following sections consider these three examples of networks of schools. They do not purport to offer in-depth analyses of each network. Their aim instead is to explore whether there are common factors associated with membership in these networks that help create sound institutions and contribute to good school performance.

a. The Matte Schools of the Sociedad de Instrucción Primaria of Santiago

The Sociedad de Instrucción Primaria was founded in 1856, before Chile had a public school system, with the aim of providing the children of families with "few resources" an education that would enable them to become successful, productive citizens. Its original slogan, at a time when 86 percent of Chile's population was illiterate, was "War against ignorance!" The SIP has been in continuous operation for nearly a century and a half and for much of that time the Matte family has provided strong and caring leadership as well as substantial material contributions.

There are 15 primary schools and two secondary schools in the SIP network, all in the greater Santiago area and intentionally located in low-income neighborhoods. The SIP schools, originally supported entirely from private contributions, were among the first to take advantage of the opportunity to become private, voucher-paid schools when Chile's nationwide voucher system was established in 1980. (Roughly 90 percent of enrollment in Chile is in public and private voucher-paid schools; the remaining ten percent is in elite paid private schools.)The SIP schools have always had complete autonomy to establish their own philosophy, rules, procedures, staff, and school communities and the guiding spirit of the network is very strong. These are non-sectarian schools but, since the SIP gives great emphasis to development of values and Chile is a Catholic country, a Catholic influence is clearly felt.

Private subsidized schools in Chile have higher performance than municipal schools on Chile's national achievement tests called SIMCE (Sistema de Medición de la Calidad de la Educación). In the private subsidized subsector, the Matte schools as a group have higher scores than the average for all private subsidized schools (SIP, *Memoria, 1999*, p. 16). Table 1 shows comparative scores on SIMCE tests for four categories of secondary schools in 1999.

SIMCE Test	Voucher paid Municipal	Voucher paid Private	SIP 10th Grade	Elite, paid Private
Language	236	254	287	297
Mathematics	237	252	280	299

Table 1Test Scores of Tenth Grade Students, 1999

Source: Sociedad de Instrucción Primaria (SIP), Memoria, 1999, p. 16.

The SIP schools' performance was better than both public (municipal) and private subsidized schools and almost as good as that of the more selective and much more expensive paid private schools. Most other private subsidized schools serve upper middle class families in higher-income neighborhoods (who also self-select to attend private rather than municipal schools). The SIP schools produce higher performance on the SIMCE tests than their peer schools, even though the families they serve have lower socioeconomic status than families in other private subsidized schools. The following sections consider some of the factors that characterize the Matte Schools and contribute to their good results.

Private status. Being private clearly conveys benefits on the SIP schools, whose leaders have a clear idea of what they want to achieve. The schools in the network have freedom to establish their own "proyectos educativos" or mission statements (guided by the goals of the network itself, which are clearly stated and widely disseminated to member schools). The SIP chooses its own school directors (many of whom have "come up through the ranks" as teachers and leaders in the network) and the directors have autonomy to select and develop their own teams of teachers. These and other characteristics that private status conveys undoubtedly contribute to the success of schools in this network. Other private subsidized schools in Chile have the same opportunities conveyed by private status, but not all of them take advantage of them in the same way the SIP schools do (nor do they, in most cases, belong to networks like the SIP).

The leadership role of the SIP. "The Society", as teachers and directors refer to it, is the top authority to which the schools report. It provides the overall mission or goal statement for all the schools, while individual schools within the network establish their own mission statements on a participatory basis. This means that the principal-agent relationships between the governance authority and the schools are very close and agency problems of asymmetric information or diverging aims are minimal within the community. Another advantage the SIP provides is continuity of governance; something the municipal sector lacks.

Management support is provided by the network headquarters, which relieves member schools of performing some managerial functions such as financial management and budgeting. It also provides guidance and knowledge about management functions, interacts with the national Ministry of Education on policy matters and with the association of private schools, brings in up-to-date information on instructional and management techniques from outside the network, and provides a buffer between school-level managers and some elements of the external community that might otherwise absorb time and effort.

Team building. The directors of member schools in the SIP network are chosen by the SIP, almost always from able educators who have made their way up from classroom teacher to middle-level leadership roles to directorship. The directors then have a high degree of autonomy in building their own teams (although a new director arriving at a school inherits a staff that has been carefully chosen and trained by predecessors and the SIP system). Directors put their own personal stamp on their schools, as was evident from our interviews with five primary school directors. They dedicate substantial amounts of time to in-class observation and play active roles of professional advisor, constructive critic and strong supporter of their staff.

Staff self-select to become teachers in the SIP network. Many members of the focus groups of teachers with whom we met had been students at Matte schools or were the children of former students, or both. Clearly there is a powerful sense of mission, tradition and commitment among this staff and there is a strong feeling of belonging to a team, of both the SIP network and of the individual school. In such an environment, feelings of trust are strong.

A substantial portion of parents who send their children to SIP schools are former Matte School students or children of former students, or both. The only selection of students the schools make is to take siblings of present students or children of former students, but this in itself provides a filter that results in a community of families that understand and support the ideals and traditions of the SIP. The proportion of "legacies" varies from school to school. In some cases the neighborhoods where schools were originally sited, which were chosen because they were in low-income communities, have changed with time and shifting demographics. Some families have also moved to other communities and yet still transport their children back to the older (and often poorer) neighborhood so they can attend the school.

Parental involvement in this situation is more than ordinarily strong and parents understand and feel commitment to the schools' goals and traditions. To further strengthen the links between family and school, the SIP contracts with an independent training firm to provide "Schools for Parents" (Escuelas para Padres) that present courses on parenting skills and ways to support the school by encouraging children to do their best.

Taking all these factors into account, the community feeling in schools in the SIP network is very strong. It appears to correspond to what Bryk, Lee and Holland (1993) have observed concerning "community" in Catholic schools. In school communities such as those described here, relationships between principals and agents are positive rather than conflictive, levels of uncertainty are low, and there are low risks or costs involved in entering into transactions—between teachers and students, between peers, and other pairings—having to do with accomplishing clearly-stated goals. The environments facilitate transactions between members of the school community.

Guidance regarding rules. The SIP has its own set of rules or Reglamento Interno covering working conditions of all staff, professional advancement for teachers, directors and other senior staff, rules regarding security and risks affecting personnel and students, provisions for sanctions in the event of violation of the rules and related matters (Sociedad de Instrucción Primaria, 1998). All are expressly in accordance with Chilean labor law. These general rules are binding on schools within the network, but each individual school has its own Reglamento that deals in greater detail with rules regarding academic matters, relations between parents and the school, and responsibilities of each category of members in the school community. Members of each school community are given copies of the relevant Reglamento and parents are required to sign written statements each year attesting that they have read the rules and agreeing to abide by them and uphold their parental responsibilities.

The Society also plays a role, through written documents such as the mission statement as well as through other communication channels such as training and periodic inspections, in establishing and reinforcing the informal rules that apply throughout the network. The member schools also place heavy emphasis on establishing the norms of academic and personal behavior that teachers, students and all members of the community are expected to respect. In the informal sphere, the presence of these rules is felt as much or more through positive recognition of good performance (based not only on grades but also on being "best friend", "most improved this month", or "teacher of the month") as through negative sanctions. And in addition to explicit recognition in a variety of frequent ceremonies, teachers and directors emphasized the role played by "conversation" in providing guidance, encouragement and correction of behavior and performance where necessary.

Social capital and a climate of trust. Repeatedly we heard school directors and teachers in focus groups mention that being part of the SIP network provides a sense of security, like being part of a "family". The Society's long history and traditions contribute strongly to this, as does its emphasis on values and teamwork. Teachers inside the system may have specific disagreements with each other, with the director or some aspect of the Society's system, and

directors may need to correct some aspect of a teacher's performance, but we were told that these things are worked out through "conversation", in an amicable manner, within a system of rules and procedures that all parties trust. When asked about how the system deals with teachers who are not performing well, teachers replied, "They know if they don't fit in. After a while they go away."

One of the themes among the values the SIP schools seek to teach is teamwork and cooperative behavior. And one of the explicitly recognized means of teaching values is through modeling, in which school directors and teachers engage actively. The formal and informal rules serve to establish an environment where all members feel secure, agency problems are minimal and transaction costs are low. While there is a strong sense of discipline, this is maintained through moral pressure and carefully managed so that individuals are not shamed or hurt.

Because the directors and teachers tend to progress through their careers within the system (and often are former students), they are strongly socialized into the SIP system of values. There is agreement and consistency in the educational communities. Having the Society as an umbrella organization shelters the school from shifting influences from external sources.

Material benefits. The SIP provides network management and leadership functions that relieve its schools of some administrative burdens. There are also services, especially teacher training and evaluation and activities such as "schools for parents", that are provided centrally. The Society's staff is well informed about the findings of educational research and best practice throughout Latin America and the world, and make this information available to the individual schools, which would otherwise not have access to it. It is a source of guidance and wise advice for its member schools.

By far the largest share of income comes from the government via various categories of transfer payments, the largest being the subventions or vouchers. The second largest source of income is payments by parents through the system of shared financing or "financiamiento compartido" that operates in 11 of the 17 schools. Contributions from the Society itself (members of the Board and senior staff are required to make contributions) and donations from third parties help fill the gap between income and expenses.

The Society manages its funds centrally and allocates them between schools in the network. It has also been instrumental in arranging for shared financing in those schools where parents have agreed to this measure, and in raising funds from private donors.

b. The Fe y Alegría schools of Latin America

The Fe y Alegría (FYA) network was founded by Jesuit Father José María Vélaz in Venezuela in 1955. It now operates in fourteen countries of Latin America plus Spain.

The Latin American countries in which FYA operates are: Argentina, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, Panama, Peru, Spain and Venezuela. Some country programs are quite small. The system was created to provide education to underprivileged children. Most of the FYA schools are located in rural areas but some are in or near urban slums. In each country a National Office coordinates the schools in its network and these national federations enjoy a high degree of autonomy. Over all coordination is provided by a headquarters in Venezuela. The statement of guiding principles to which all schools in the system adhere is the International Mission Statement of FYA. Each National Office develops its own mission statement, and each school within a federation has its own, locally developed mission statement. This, then, is a network of networks.

The schools' main aim is to reduce the high levels of repetition and dropouts that plague education in most Latin American countries. They strive to provide a good education and to assure that students complete at least the basic cycle of schooling. Student retention in school is the main indicator of performance, since most countries of the region lack standardized tests that would make it possible to evaluate schools on the basis of test scores. The FYA network is notably successful in reducing repetition and dropouts. The CIDE study of FYA in nine countries showed that in a majority of countries, FYA schools serving poor children achieved better results than the national averages for all public schools in terms of "opportune progress" (meaning completing the primary cycle within the expected number of years), lower repetition rates, lower definitive dropout rates and higher overall student retention rates (Swope & Latorre, 2000, pp. 102-114). Retention rates for girls were higher than for boys in FYA schools. Table 2 shows gross repetition rates and cohort dropout rates for FYA schools and averages for other public schools in nine Latin American countries.

	YA Scho	Schools and other Public Schools in ine Countries of Latin America					
	Gross l	Repetition Rates*	Gross	Dropout Rates			
Country	FYA	Public Schools	FYA	Public Schoo			
eru	25.43	32.48	9.86	25			
livia	20.35	72.88	0.00	26			

Table 2				
Comparison of Repetition and Dropout Rates in				
FYA Schools and other Public Schools in				
Nine Countries of Latin America				

Country	FYA	Public Schools	FYA	Public Schools
Peru	25.43	32.48	9.86	25.72
Bolivia	20.35	72.88	9.00	26.80
Venezuela	22.03	40.24	16.18	38.65
Nicaragua	24.07	39.11	13.75	10.00
Ecuador	7.21	12.80	29.20	38.60
Guatemala	20.49	18.04	22.30	38.20
Colombia	21.33	19.21	10.50	8.00
El Salvador	29.03	20.20	39.70	40.40
Paraguay	27.44	33.88	8.37	5.00

* Traditional gross grade repetition rates, equal to the accrued number of repeating students registered by a cohort as a percentage of enrollment in the cohort's beginning year.

** Includes dropouts from all causes including, for example, moving away. Source: Swope & Latorre (2000), pp. 104-105.

Recall that the FYA schools, intentionally located in poor rural areas, are compared here with the average for all primary schools in their countries.

FYA schools are both public and private. The proportions vary from country to country but a majority of FYA schools are public in every country. In most countries the schools enjoy a

high degree of autonomy, even though they operate with public funding and under public control. This autonomy is not always fully respected but when it is, it enables the National Offices to choose their own school directors and teams of teachers, without interference from the state or teachers' unions, and to keep teachers from being transferred out of the schools unless they choose to go (Codina, 1994, p. 333). Autonomy gives FYA schools a chance to build their own staff, which leads to like-minded teams, committed to the same goals. This in turn tends to reduce agency problems and the transaction costs involved in making agreements within the team, including between directors and staff and between peers.

The CIDE study found that the FYA schools do not differ substantially from public schools and that they are "a more efficient type of public school" (Swope & Latorre, 2000, p. 159). The main source of funding for FYA schools is government transfers to cover teacher salaries, which is by far the largest expenditure item for basic education. But in order to provide additional expenditures for textbooks and teaching materials, teacher training and (whenever possible) for educational innovations, it is necessary to raise funds from other sources. This is done through development of small school improvement projects, which become focal points for community involvement as well as channels for communication between the individual schools and higher levels in the FYA organization. The international and national offices of FYA help schools prepare projects and present them to donors for financing. Projects are thus both a source of additional financing and a means of forging stronger links between the school, its community and the network.

What are the reasons FYA schools achieve better student retention than their essentially similar public counterparts? The affiliation with the Catholic Church and the mystique and charisma that this provides is undoubtedly a factor, as is the high degree of autonomy mentioned above. Pedagogical inputs are also important (although the network encourages schools to develop their own models and philosophies of education in consultation with parents and the community). It is clear, however, that the network provides an overall vision or set of objectives as well as management practices that promote the development of a desirable institutional climate in its member schools. Such an institutional environment makes it easier for members of school communities to enter into the kinds of informal transactions that contribute to effective teaching and studying and good performance.

Mission and objectives. The international mission of FYA plays a powerful role in shaping the schools in the network. The mission statement helps explain the network's aims and convince communities to invite FYA to establish a school in their neighborhood. As Swope and Latorre (2000) emphasize, the language of the mission statement is "value laden" and "aimed at spreading an almost missionary message" (p.26). Examples of emotive language include:

- Popular education movement
- Commitment
- Construction of a more fraternal and fair society
- Educational action and social advancement
- Option for the poor
- Reach the poorest sectors of our cities
- Quest for a more equitable world
- A child without a school is everyone's problem
- Fe y Alegría starts where the pavement ends (p. 26).

Such evocative language, plus a single clear focus on keeping children in school, articulates the network's objectives and helps principals and agents understand each other, communicate effectively and bring forth the best efforts of all members of the network and its individual school communities.

Creation of a school community. Local populations must invite FYA to establish a school in their neighborhood, which provides the starting point for close relationships with parents and community leadership. FYA chooses its school directors, who then have the latitude to choose their own cadre of teachers. FYA helps provide teacher training in its aims, techniques and methods. It also manages to reduce teacher turnover, which is a chronic problem in schools in Latin America, especially schools in rural and poverty areas. Low teacher turnover further contributes to a sense of bonding and trust. (It is noteworthy that FYA does not attempt to provide economic incentives for teachers, yet teachers' commitment is very high.) These factors create feelings of community and teamwork.

Involvement of parents and the external community. Once a community elects to invite FYA to establish a school, it becomes closely involved with the school. One of the key "student-retention strategies" FYA uses is programs to involve the community and families. Activities promoting involvement include "workshops... for parents as a way of having them gain a better understanding of the problems that their children face", "increasing awareness of the importance of education", "strategies to get parents to support school work in the home", "programmed home visits", and "community involvement strategies, especially those designed to involve parents in the education of their children" (Swope & Latorre, 2000, pp. 120-121).

Formal and informal rules. Because there are obvious differences between the situations of FYA schools in different countries, as well as great diversity among schools in any one country, the FYA network does not present guidelines for formal rules in school. In general these schools, affiliated with a Catholic organization, tend to be orderly and to emphasize values and cooperation. The most important role of FYA is in the area of informal rules and enforcement mechanisms, especially in the relationships between school directors and teachers and between teachers as peers.

Environment of cooperation and trust. Schools in the FYA network are managed privately, although they receive public subsidy, and this facilitates establishing school communities in which teachers remain for extended periods, professional relationships between directors and teachers tend to be close and positive, parents are brought into contact with the school and encouraged to support it and motivate their children to study well and remain in school. FYA's strong sense of mission contributes to feelings of solidarity and participation in a worthy undertaking. Writing of the "key elements that determine the quality and efficiency of FYA", Father Gabriel Codina, S. J., head of FYA in Bolivia, says "The most important thing, without question, is the sense of 'mission', the charisma of FYA itself and its choice and spirit of service to the poor. This provides a 'value added' that is a particular characteristic of FYA in all of Latin America" (Codina, 1994, p. 344).

c. The Accelerated Schools Project

One of the best known and most successful networks of schools in the U.S. is the Accelerated Schools Project (ASP), initiated by Henry M. Levin and colleagues at Stanford

University in two pilot schools and now encompassing over 1,000 schools in 41 U.S. states. Schools in the ASP serve student populations that were "at risk" and were performing poorly before being incorporated into the network. Sixth grade students in the schools were reading one to two years below grade level when the schools opted to become Accelerated Schools. ASP's basic concept is that, in such situations, children need schooling that is more intensive (accelerated) than other schools rather than "dumbed down" because the students are below grade level in reading and math. The essential aim is that, by the time students complete primary or middle school, they should be reading and generally performing as well as (if not better than) the average for the district. The ASP applies techniques borrowed from schools for gifted and talented students, with the idea of providing for students at risk an education that anyone would want for their own children.

In most cases schools in this network are regular public schools and not special or charter schools. The ASP obtains permission and support from the local public education authority to put its philosophy and techniques into practice (and for this to happen, the local authority must support the idea). The schools are allowed to build their own teams of personnel and to practice their own pedagogical approaches with minimum intervention from above.

Building on the experience in the "pioneer schools" that were the first members of the network, the ASP has developed a philosophy based on three principles, a set of nine values, and instructional methods called "powerful learning" that integrate curriculum, instructional techniques and organization (Finnan, St. John, McCarthy & Slovacek, 1996, pp. 15-19, 297-301). The principles are "(a) unity of purpose, (b) empowerment with responsibility, and (c) building on strengths" (Finnan et al., p. 15). The values include "the school as a center of expertise, equity, community, risk taking, experimentation, reflection, participation, trust, and communication" (Finnan et al., pp. 17-18). A powerful learning situation "is one that incorporates changes in school organization, climate, curriculum, and instructional strategies to build on the strengths of students, staff and community to create optimal learning results" (Finnan et al., p. 18). This brief description cannot do justice to the richness of the principles, values and learning approach that have evolved since the project began in 1989. It does, however, suggest the vision and guidance the Accelerated Schools network provides to its members, and the way the network fosters strong institutions within its member schools. Detailed information on how these overarching ideas are put into effect is found in Hopfenberg, Levin, Brunner, Chase, Christensen, Keller, Moore, Rodríguez and Soler (1993).

Becoming an Accelerated School. One of the outstanding features of the ASP is the heavy investment—especially of time, expertise of ASP staff and coaches, and hard work of people at the level of the school that wants to join the network—that precedes full membership in the project. Before schools can join the network there is what Finnan *et al.* (1996, pp. 82-103) call a "courtship phase", involving extensive introspection and the development of strong commitment on the part of all members of the school community—including the local board, school leadership and staff and parents—to the philosophy. This is one means by which the ASP achieves a high degree of agreement between principals and agents.

Once the decision is made to join the project, a period of training and preparation begins. School district officials, school staff, parents and community members participate in preparing for the school to become an Accelerated School. Teachers have considerable voice and latitude to put their ideas into effect, which builds their sense of participation and their commitment to the program that emerges. The processes involved in implementing the project's concept of "powerful learning" create an environment in the classroom that is conducive to learning. Finnan and her colleagues found that teachers in ASP schools have a feeling "that collaborative practices that come about as a result of the Accelerated Schools model have led to their individual professional growth and increased communication and sharing among colleagues. A by-product of this collaboration and sharing of philosophy has been a greater feeling of support from peers, camaraderie, and accountability among the staff to provide a better education for all of the students" (p. 283).

Evaluation of ASP schools. Accelerated schools have generally achieved their aims of bringing students up to grade level in reading and mathematics and to levels of performance as good as or better than other schools in their district or area. Since their target populations are defined by being at risk, and would tend to have below-standard performance without the intervention of the ASP, evaluation on the basis of test scores must be done with care, since cross-section comparison is not a valid way of assessing the value added they provide. Scores on standardized tests do not capture the full range of the effects of ASP membership. These effects include not only gains in student achievement but also improvements in attendance rates, reductions in repetition, student suspensions and vandalism; increased parental involvement and numbers of ASP students who meet the criteria for traditional gifted and talented programs. A report by the New American Schools Corporation (NAS) summarizes findings on the effectiveness of the ASP (New American Schools, n. d.) Examples included fewer disciplinary referrals to the school principal, increased student attendance, reduction in the number of suspensions, and decreases in numbers of students retained in their grade. In the area of family and community involvement, NAS reports that a number of Accelerated Schools experienced large increases in parental involvement, including participation in decision-making and volunteer activity, as well as more student participation in community and extracurricular activities.

There are indications that ASP schools produce good results in terms of test results. The National Center for the Accelerated Schools Project publishes information on the "Accomplishment of Accelerated Schools" on its website, showing that ASP schools in Ohio, Tennessee and Texas produced higher reading and math scores than the average for schools in the same districts where the ASP schools are located (National Center for the Accelerated Schools).

An independent evaluation of ASP was conducted, with funding from The Ford Foundation, by the Manpower Demonstration Research Corporation (Bloom, Ham, Melton, & O'Brien, 2001). The MDRC study used an innovative methodology that compared the performance of schools in a sample during five years of implementation of the ASP model with base-line scores on reading and math tests during the three years prior to implementation and projections of what each school's average test scores would have been without ASP. The study found that, after five years of implementation, the ASP schools in the sample had higher third-grade reading and math scores than a set of base-line scores by a statistically significant amount.

On average, the schools increased their students' relative performance by 6 percentile points in reading and 7 percentile points in math during the five-year follow-up period.... The lowest-performing schools at baseline experienced the largest improvements in test scores" (p. 62). "Implementation of the Accelerated Schools reform was a difficult, time-consuming process. But schools that stuck with the reform were able to improve the school environment appreciably, especially with regard to organizational culture and decision-making. These environmental improvements were followed by increases in students' test scores, although it was not until the fifth year after the initiative was launched that average scores rose above

their baseline levels by a statistically significant amount" (p. 74).

The researchers are cautious not to draw too strong conclusions from their findings and spell out a number of caveats concerning the study and its interpretation. One must bear in mind, however, that students in these schools had been performing much below grade level prior to implementation of ASP, and that the program succeeded in bringing their average scores significantly closer to regional or national averages.

The ASP and institutions in schools. The first of the three principles of Accelerated Schools—unity of purpose—is closely related to clarity of goals or the objective function, with all that implies for reducing principal-agent problems. The ASP's values of equity, community, risk taking, experimentation, reflection, participation, trust, and communication reverberate strongly with the characteristics of schools with positive institutional environments. Requiring strong initial commitment on the part of the local authority, school director and teachers, and parents before a school becomes a member of the ASP is consistent with clarity of goals and also has overtones of contracting.

Clearly the emphasis on community has an effect on the institutional environment of ASP schools (reminding one of the findings of Bryk, Lee and Holland about community in Catholic schools). The ASP clarifies goals, builds powerful community feeling and commitment, and promotes an atmosphere of cooperation and trust. It has less explicit involvement in laying down formal rules than the Matte schools (in part because it leaves this to each school to establish for itself) but the development of a sense of community necessarily contributes to formation of informal rules and enforcement mechanisms. This is a different kind of network; one that transmits a powerful ideology to its member schools and provides information, training and oversight to help them implement an effective program. The ASP philosophy creates school environments in which relationships between principals and agents are based on shared goals and trust. This tends to reduce uncertainty in interactions or "transactions" between community members and makes it easier (less "costly" in terms of risk and uncertainty) for members to enter into arrangements having to do with how much energy and effort they will expend in pursuit of their school's goals.

Conclusions about networks

The three examples discussed above were chosen because of their similarities to each other, especially in their focus on equity objectives. Not all networks possess all the characteristics observed here, nor do all tend to promote positive institutional environments in the same way. On the basis of these examples, however, and information on other networks, it is possible to suggest the following ways in which networks with similar, equity-oriented objectives operate to promote positive institutional climates within their member schools. Networks tend to have the following characteristics:

- *Short, clear principal-agent links or relationships.* Network operators (who are often private groups) maintain close relationships with the schools and provide their vision, guidance and supervision directly to the schools. There tends to be a high degree of consensus between the network's leadership (or operating authority) and the schools in the network.
- *A strong sense of mission*. Networks are usually formed because some leader or group seeks to accomplish an educational mission. Those mentioned in the sections above have all sought to improve education for children of families in or near poverty. Such

a mission attracts participants—whether parents, teachers or others—who agree with the mission and are committed to working toward its accomplishment.

- *Clarity of objectives*. A general characteristic of networks of schools is a set of clear objectives, which are communicated effectively to all members the educational communities within the network, including parents. Clear objectives (that minimize problems in principal-agent relationships) are characteristic of schools with favorable institutional climates.
- *Social capital*. The three examples of networks described above all provide a sense of belonging to a parent organization within which there is trust, cooperation and mutual support, and this tends to be transmitted down to the individual schools as well.
- *Parent and community involvement*. All the networks discussed give high priority to involving parents and, to varying degrees, the surrounding community in school affairs. Parents are encouraged to support the school's objectives and motivate their children to study hard and make genuine effort.
- *Consensus within the community*. In the process of establishing a new school, or bringing an existing school into a network, some networks require that all parties to the school (including the public authority within which the school operates) understand and "buy into" the objectives and procedures of the network. The Accelerated School Project follows a procedure whereby it consults with members of a school's community over a period of up to two years, during which it establishes firm commitments, before a school becomes a member.
- *Contribution to establishing rules*. Networks help establish a clear set of formal rules, and may lay down guidelines for their member schools to follow, but individual member schools usually have a high degree of autonomy to clarify their own rules. In small-scale networks such as the Matte Schools, informal rules seem to be communicated within the network, especially those regarding the roles and responsibilities of teachers, parents and school directors. All the Matte Schools have a "reglamento interno" or set of written rules, and parents in this network are required to sign statements specifying that they have received the formal rules, understand them and agree to abide by them.
- *Continuity*. Networks provide a degree of continuity regarding objectives, leadership, rules and pedagogical orientation, and constitute a buffer between the school and political authorities, or a stabilizing force in times of political change or shifting educational fashions. They assume the role of the Board or governing authority, and the institutional relationship between the network/Board and the school is thus consistent and positive. Principal-agent relations between external authority and school are clear, strong and consistent.
- *Guidance and supervision*. One of the benefits networks provide is sharing experience within the network and making information (such as up-to-date knowledge on relevant research findings or proven practice improvements) available to network members. In addition to the value of the content itself, such communication tends to provide professional stimulation. The network leadership constitutes a respected supervisory authority.
- Administrative functions. Some networks assume responsibility for certain administrative activities, including relationships with the next higher administrative authority, screening and hiring teachers into a pool, central purchasing, or negotiations with unions, if this is relevant. This relieves schools of some administrative burdens.
- *Evaluation of performance*. Networks may establish their own system of evaluating member schools and their staff according to their own criteria and standards. The Matte Schools network has a carefully-designed system that teachers understand and

appear to trust.

- *Rewards and recognition.* Networks may establish systems of awards for good performance to individual member schools or teachers. (Since winning teachers are chosen from throughout the network rather than from within an individual school, this form of reward does not create undesirable competition, distortion of behavior or resentment toward either the winners or those who choose them.) The rewards may be monetary but many are based only on recognition, which provides an incentive many teachers value highly.
- *Inputs of resources*. Most networks provide resources in the form of leadership and guidance. Some also offer curricular guidance, materials, training and, in some instances, material resources in money or in kind. In most cases the financial resources available are limited, but some networks are adept at raising additional funding.

The characteristics of the networks examined here have strong parallels with: (a) the findings of several bodies of research on what makes a good school (including research on Effective Schools, Catholic schools, school culture, school leadership, site-based management and parental involvement), and (b) the characteristics of schools with good institutional environments.

Other authors have recognized the way networks can contribute to improving performance of their member schools. In a section titled "The Importance of Networks", Darling-Hammond, Ancess and Falk (1995) discuss the way in a local network in New York influences the five schools practicing authentic assessment they describe in their book. All five are members of the Coalition of Essential Schools (CES) network and four of the five are also members of the Center for Collaborative Education (CCE), the New York City affiliate of CES. The authors make the following comments about networks:

While these networks have provided common ground for sharing practice and for exploring new possibilities, each school has interpreted and enacted the CES principles in quite different, contextually appropriate ways... [This] underscores the importance of ensuring that practitioners invent models – rather than replicate models-that are embedded in and embody their knowledge of their local contexts.... As a network enables practitioners to consider these issues across schooling levels, each learns important strategies from the other. Elementary school work is strengthened as communities reflect on their values and purposes, articulating their expectations for what students should be able to do and developing public criteria for their standards and expectations.... The network is a vehicle for reconsideration of practice from many vantage points, centering around a hub of common values supporting learner-centered practice. This makes connections between like-minded practitioners both possible and mutually profitable... it expands the possibilities for the kinds of conversations that practitioners need to have if teaching, assessment and school structure are to be organized for school success.... (Darling-Hammond, Ancess & Falk, 1995, pp. 266-268.)

Linda Nathan and Larry Myatt (1998) find that, on the basis of their experience managing a "pilot school" within a Massachusetts school district, being part of a local network of such pilot schools had benefits for school leaders.

Networks are powerful tools for schools because they provide meaningful feedback as well as greater and better accountability than bureaucracies.

Friendly, finely-tuned feedback from a number of sources is indispensable to a good school.... Networks of schools and educators provide the opportunity to grow and learn with and from others who share a clear purpose and whose work we know, trust and respect. Participation in our pilot network is loose and flexible, but with appropriate degrees of critical friendship at a negotiated pace and style. Feedback from peer schools can have a tough edge to it and is perhaps taken more to heart because it comes from those who know young people and the profession firsthand... Membership in a national network, such as the Coalition of Essential Schools, gives [our school] access not only to an invaluable template of school reorganization but also to the voice of the practitioner—with a democratic and multicultural tone. (Nathan & Myatt, 1998, pp. 283-284.)

The subject of networks is attracting increasing interest. There are various kinds of networks, including those that provide a set of ideas or principles (such as the Coalition of Essential Schools and others), those that require schools to adopt a specific instructional approach or model (such as Success for All), profit-making networks or EMOs such as the Edison Project and others.

The statements of both Darling-Hammond, Ancess and Falk (1995) and Nathan and Myatt (1998) mention small local networks of schools that have something in common (e.g. pilot schools) that provide mutual support (including moral and political support) and play an important role in facilitating the exchange of ideas and information between like-minded professionals. In both cases the local networks were part of the larger Coalition of Essential Schools network.

A RAND Corporation study of the New American Schools (NAS) network analyzed the performance of seven models of "whole-school reform" that had many of the characteristics of networks (Berends, Bodilly & Kirby, 2002). NAS itself is a network of networks that provides information and a menu of alternative models of restructuring—as well as detailed information on model design, some funding and other inputs—to schools that are seeking to reform or restructure. Once a school has decided on the model it wants to follow, NAS provides additional information, advice and other inputs that help the school implement it.

The models of whole-school reform that RAND studied were: Purpose Centered Education of Audrey Cohen College; Authentic Teaching, Learning and Asessment for All Schools; Co-NECT Schools; Expeditionary Learning Outward Bound; Modern Red Schoolhouse; National Alliance for Restructuring Education, and Roots and Wings (Berends, Bodily & Kirby, 2002, pp. 37-41). These models had some of the characteristics of networks. They were "external change agents" that helped schools implement the models, but they did not offer the same articulation of a mission or set of objectives, nor the same sense of being part of a broader community of like-minded professionals to which Nathan and Myatt (1998) refer. Nor did they have the same kind of impact on institutions within the schools that networks such as the Matte Schools, Fe y Alegría or Accelerated Schools have.

Different networks have different objectives and operate in different ways. Lieberman and Grolnick (1966) provide a review of different types of networks, focusing on the processes involved in starting and operating networks. Their study raises a number of penetrating questions about networks and their role in creating communities in which professionals with common interests can share experiences and provide valuable information and mutual support. It illustrates the diversity of networks but does not analyze in depth the ways

networks influence their member schools.

Not all networks have all the characteristics of the three equity-oriented networks this paper considers, nor do they have the same influence on institutional environments within their member schools. Research on networks in general has reached guardedly positive conclusions about their ability to improve school performance. The three networks examined in this paper appear to help their member schools to perform as well as or better than other schools in their jurisdictions and to provide disadvantaged children with a better education than they would otherwise obtain. This paper argues that one way they do this is through their influence on institutions within schools.

The conceptual framework of institutions and their influence on school performance, described briefly in Section B above, helps explain the benefits of network membership. These three networks provide examples of how promoting strong institutions within schools can improve the education of disadvantaged children. Both subjects—networks and institutions in schools—deserve further study.

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