School Improvement Networks as a Strategy for Large-Scale Education Reform: The Role of Educational Environments

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Abstract

The development and scale-up of school improvement networks is among the most important educational innovations of the last decade, and current federal, state, and district efforts attempt to use school improvement networks as a mechanism for supporting large-scale change. The potential of improvement networks, however, rests on the extent to which they can thrive in the turbulent world of U.S. education. In this article, we adapt a model of innovation scale-up and apply it to the problem of scaling-up educational networks. The framework identifies the constituent components of networks and environments, and the relationship between them. We demonstrate the framework’s utility by illustrating the relationship between two prominent educational networks—the Success for All Foundation and America’s Choice—and the educational environments in which they operated at two different points in time. Results suggest that without robust environmental support, networks are prone to a high degree of uncertainty and unpredictability.

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Introduction

The development and scale-up of school improvement networks is among the most important educational innovations of the last decade (Cohen & Moffitt, 2009; Peurach & Glazer, 2012). School improvement networks function as quasi-education systems within the parameters of the larger system, with a network provider (typically a non-government organization) developing and supporting schoolwide designs for improvement. The most prominent and long-running form of school improvement network is comprehensive school reform (CSR), but the emergence of charter management organizations (CMO) and education management organizations (EMO) points to a greater variability in the types of organizations that develop and maintain these networks.

Current federal, state, and district efforts attempt to use school improvement networks as a mechanism for supporting large-scale change. For example, one of four options currently advocated at the federal level for improving “turnaround” schools is participation in a CMO-sponsored school improvement network. In addition, three of the largest “scale up” grants awarded under the federal Investing in Innovation Program went to organizations sponsoring school improvement networks. These trends are motivated by research documenting effectiveness of certain networks in supporting large-scale improvement, particularly in cases in which the network provider develops a detailed design for instructional and leadership practice that is matched with extensive, practice-based learning opportunities (Borman, Hewes, Overman, & Brown, 2003; Correnti & Rowan, 2007; Rowan, Correnti, Miller, & Camburn, 2009). Emerging theory also suggests the possibility of such networks functioning as the basis for a new form of educational R&D infrastructure in the United States, particularly in cases where the network provider has capabilities for both experiential learning and rigorous evaluation (Bryk & Gomez, 2008). In their recent book on the history of federal education legislation, Cohen and Moffitt (2009) refer to these type of educational networks as “... a useful beginning for building more ambitious and coherent systems of education” (p. 227).

The potential of improvement networks, however, rests on the extent to which they can thrive in the turbulent and unpredictable environments of U.S. education. In part this depends on the capacity of network managers to
negotiate this complex terrain. However, it is also contingent on other key institutional actors, such as policy makers, philanthropists, and education officials whose actions influence the capacity of networks to develop and scale-up their school improvement programs. Yet these actors are hindered by our modest understanding of the relationship between broader educational environments and the emergence, operation, and management of school improvement networks.

In this article we take a step toward filling this gap by: (a) developing a conceptual framework that explicates the relationship between external environments and school improvement networks; and (b) employing the frame to show how shifts in federal policy and the economy led to fundamental changes in the design and organization of two leading CSR programs (America’s Choice [AC] and Success for All [SFA]). Our central argument is that school improvement networks and educational environments exist in mutually dependent relationships and that turbulence in educational environments can have profound implications for the function, structure, and sustainability of school improvement networks. In examining the complex interdependencies between school improvement networks and educational environments, we show that while networks can be effective and adroit organizations, their vulnerability to changes in the environment confronts them with uncertainty and instability that threatens their long-term contribution to U.S. education reform.

Prior Research

Prior research into the development and scale-up of educational innovation suggests that, for sponsoring organizations, educational environments constitute a troublesome source of instability and a threat to long-term survival. One reason for this is the sheer number of agencies and organizations in the environments of U.S. public education with which innovators compete for schools’ attention. Governance and influence are distributed among tens of thousands of public agencies and a vast array of organizations that populate the “school improvement industry,” each with its own agenda, and with weak coordination among them. A second problem is the instability and fickle nature of educational environments and the effect this has on innovation. Rowan (2002) argues that fleeting policy agendas and funding streams lead to the quick birth-and-death of small-scale, niche educational innovators and the long-term strengthening and survival of conservative, commercial interests. Making a similar argument, Bryk and Gomez (2008) argue that the effect of federal policy has been to increase uncertainty in the market for educational innovation. A third problem lies in educational innovations,
themselves. Rather than providing deep support for practice, educational innovations have typically established expectations for schools absent commensurate guidance for how to improve learning, teaching, and leadership in the ways necessary to meet those expectations (Cohen & Ball, 2000).

As a consequence of environmental fragmentation and turbulence, as well as programmatic weaknesses, externally sponsored educational innovations have struggled to penetrate the core work of teaching and leadership. Elmore (2000) has written that “most innovation is about maintaining the logic of confidence between the public and the schools, [but is] not about changing the conditions of teaching and learning for actual teachers and students” (p. 6). Likewise, Cohen and Ball (2000) argue that those innovations that have experienced the greatest success, such as kindergarten, standardized testing, textbooks, were not aimed at improving instructional quality, while those that have attempted to alter instruction have typically faded away.

The relative inability of the U.S. education system to sustain meaningful instructional innovations has led some researchers to investigate organizations that mediate between schools and their environments by reconciling competing expectations and providing additional support for implementation. Honig’s (2004) study of four intermediary organizations demonstrated the potential of nongovernmental organizations to facilitate policy implementation; the organizations in her study managed to establish productive relations with a large city district as well as with funders. Nonetheless, the organizations she studied eventually succumbed to shifting priorities among both district leaders and funders (as the preceding analysis would predict). Like Honig, Coburn’s (2005) study of implementation of California State’s reading policy in the 1980s and 1990s documented the role that nonsystem actors played in translating policy into a set of ideas and practices that teachers could apprehend and work with. But Coburn’s analysis also pointed to the enormous challenge of creating a coherent system of guidance in which state and nonsystemic actors work in a coordinated fashion.

The complex relationship between nonsystem actors and U.S. educational environments (in particular, the role of states and districts) has also been a central theme of research into the implementation of CSR programs. From the outset, research on CSRs found that district environments complicated and often undermined implementation (Berends, Kirby, Naftel, & McKelvey, 2001; Datnow & Park, 2009; Desimone, 2002). Inquiry by Barnes, Massell, and Vanover (2007) illustrated the way in which state policy interacted with district management to create an environment that heavily mediated CSR implementation. Along this same line, Glazer (2009) illustrated the complexities that arise when CSRs attempt to forge partnerships with districts and states, such as becoming embroiled in state politics and ceding control of
support functions to district personnel. Contributing to this uncertainty is the relatively tenuous position of these organizations within the U.S. education system; a situation they must manage absent formal authority, guaranteed revenue, or large capital investments.

**Analytic Frame**

Past analytic perspectives have emphasized the loose and weak connections between elements of the educational system (Cohen & Spillane, 1992; Elmore, 2000; Meyer & Rowan, 1977). The analytic framework we present, however, explicates the interdependencies among environments and school improvement networks. The focus on interdependencies enables us to understand the position of networks in the broader education system, as well as the challenges that network providers confront in their work. To unpack these interdependencies, our analytic frame identifies the constituent components of both “networks” and “environments,” and then illustrates the web of relationships within and among them (see Figure 1). We then use this frame to depict the way in which two leading network providers responded to key changes in educational and economic environments in the first years of the 21st century.

In reading this account, readers will note that the conceptual frame that we use to depict the data emerged from those same data (instead of being derived from prior theory). This can give the argument a circular feel in that the frame with which we make sense of the data is, itself, the product of those same data. To resolve this problem, we describe in the methods section the iterative process by which we coconstructed our theory and narratives. Since space limitations require a succinct description of this process, we also refer readers to complementary work in which we provide more
detailed explanation as to the origins of our frame and the process by which it emerged.

**Networks**

Researchers increasingly use the notion of networks to conceptualize organizational forms that support or provide the context for improvement efforts. But while the networks concept has spurred considerable creativity in examining the links between individuals and institutions, the term is subject to variable definitions that point to different organizational forms.

Unlike recent research examining the role of informal social networks in school improvement (e.g., Daly, 2010), our analysis begins with the formal organization: hubs and clients linked by codified designs for instruction, leadership, school organization, as well as by formal contracts. Within this context, our treatment of social organization focuses on the ways in which formal organizations, designs, and contracts enable and constrain interactions among individuals within and between hubs and clients. By contrast, research that focuses primarily on social networks privileges social organization over formal organization and, in doing so, calls into question the salience of formal organizations’ boundaries and structures (Little, 2010). In this sense, our account reasserts the centrality of formal organizations as a critical component of large-scale school improvement efforts (Peurach and Glazer, 2012).

In the frame that we propose, networks are comprised of three key components: network providers, clients, and designs. The term “network providers” refers to the sponsoring organizations that establish and manage instructional networks and that function as their hubs. Clients, on the other hand, refer to the organizations that comprise the network, are the targets of change, and are users of designs (e.g., schools, districts). The term “design” refers to the blueprints or plans describing the intended changes in clients, as well as the means by which to effect those changes. Researchers have identified two design characteristics as essential: elaboration and scaffolding (e.g., Cohen & Ball, 2003; Correnti & Rowan, 2007; Desimone, 2002; Glazer, 2008, 2009; Peurach, Glazer, & Gates, 2004). Elaboration refers to the extent and specificity of guidance for intended practice, whereas scaffolding refers to practice-based learning opportunities, such as in-school professional development and classroom-level coaching.

As indicated by the square on the left side of Figure 1, providers, clients, and designs are interdependent with each other. For example, network providers that work with severely underperforming schools and that seek deep,
coordinated improvements in learning, teaching, and leadership have incentives to develop designs that are comprehensive, carefully elaborated, and extensively scaffolded. Conversely, network providers that work with more capable clients can devise targeted designs focused on specific domains of activity with less extensive elaboration and scaffolding needed to support implementation (Glazer, 2008).

The nature of the clients and character of the design bear directly on the organizational capacity required of providers. Network providers that work at multiple levels of the system (e.g., schools and districts), that serve clients with weak capabilities, that develop highly elaborated and scaffolded designs, that support implementation in schools, and that are committed to continuous improvement and sustainability over time require extraordinary capabilities for program development, training, research, and management. Conversely, for network providers that offer less comprehensive designs, that work with stronger clients, that do not provide practice-based implementation support, or that are less committed to continuous improvement and sustainability, the organizational burden is reduced (Glazer, 2008; Cohen et al., in press).

Environments

Organizational theorists have long known that organizations are highly sensitive to their environments. Yet for organizations involved in the development and scale-up of innovations, such as the ones discussed in this article, the salient dimensions of the environment differ from organizations that operate in more established fields with more established technologies. In their seminal study of innovation, Van de Ven, Polley, Garud, and Venkataraman (1999) argue that developing and scaling up a particular innovation (either social, technical, or organizational) requires the simultaneous emergence of a “community infrastructure” in the environment of the innovating organization. The concept of community infrastructure, which we employ in this article, contains four elements (depicted in the right hand box of Figure 1):

1. **Institutional arrangements** that establish a legal framework, set standards for performance, and legitimize underlying ideas. Examples of institutional arrangements that support the scale-up of innovations include government policies that establish a clear legal basis for the activities in question, common standards that define adequate performance, and rules that regulate service delivery.
2. Resource endowments that support the development of the innovation. Examples of resource endowments include funding streams either from public or private sources, relevant research, complementary technologies, and human and organizational resources such as skilled labor and mechanisms for training.

3. A reliable market for usable, effective innovations. This includes a demand for the innovation in question, pricing mechanisms, and ways of delivering the product to customers.

4. Proprietary activity by a critical mass of developers. This includes developers that aim either to (a) design and field a particular innovation or (b) provide component technologies and/or services to organizations designing and fielding a particular category of innovation.

As indicated by the arrows within the square on the right side of Figure 1, the constituent parts of the community infrastructure are interdependent with one another. For example, consider the community infrastructure needed to support “standards-based reform” as an educational innovation: institutional arrangements that included state-mandated performance standards and accountability assessments provided both a legal basis and social legitimacy; a variety of resource endowments that included funding for the development of standards and assessments, research and evaluation, aligned curricula, and other component technologies; proprietary activity by which providers actually devised technologies, services, and programs aligned with the standards and assessments; and market functions such as states vetting and identifying external partners with which schools could contract for programs and services. Removing any one category of activity in the community infrastructure would likely have inhibited the development of standards-based reform as an innovation.

Interdependence Between Networks and the Community Infrastructure

The community infrastructure and school improvement networks are interdependent with each other, as indicated by the dark arrow in Figure 1. Consider the case of comprehensive school reform (CSR). A population of CSR providers arose in the late 1990s in conjunction with the emergence of a complementary community infrastructure that included new legislation such as the Obey-Porter Comprehensive School Reform Demonstration Act of 1997; funding from the New American Schools initiative; efforts by states and districts to broker relationships between schools and CSR providers; and
activity within the population of the CSR providers, themselves, whose investments in program development and evaluation were critical. At the same time, instances of success in the CSR networks further strengthened the community infrastructure by increasing political, financial, and practical support from public agencies, private interests, and philanthropists. Nonetheless, the influence of the community infrastructure on an individual improvement network is generally greater than the influence of a network on the community infrastructure (a point which will become clear further below). Moreover, the more that a network seeks to institute changes that depart from past practices or that are at odds with dominant norms of the larger system, the more it depends on the emergence of an innovation-specific community infrastructure for support. As Van de Van and his colleagues (1999) write, “[m]ore novel innovations require greater change in all system functions and, therefore, greater development time and greater chances of failure” (p. 171).

In this analysis, we employ this frame to show how the early emergence of a community infrastructure led to the rapid expansion of two school improvement networks as well as how the subsequent weakening of that infrastructure forced the network providers to redefine their client base, redesign their designs, and modify their organizations. These findings, we argue, reveal the generally weak and turbulent nature of the community infrastructure supporting the development and maintenance of school improvement networks, and the resulting high degree of uncertainty and vulnerability with which network providers must cope.

Method

The preceding framework emerged from a longitudinal study of school improvement networks—the Study of Instructional Improvement (SII)—that ran from 1996 to 2009. A comprehensive, long-term research program, SII sought to understand the impact of three CSR programs (Success for All, America’s Choice School Design, and Accelerated Schools Project [ASP]) on instruction and student performance in more than 125 U.S. elementary schools. The longitudinal and comprehensive nature of SII provided a rich context for examining the coevolution of school improvement networks and their supporting community-industrial infrastructure.

While this period featured numerous events of national significance (e.g., two presidential elections, 9/11, and two wars abroad), two that were particularly salient for AC and SFAF occurred within a relatively narrow time frame (2000-2002): the economic downturn that followed the bursting of the dot.com bubble in 2000 and the signing of No Child Left Behind (NCLB) in 2002. These events changed at least two dimensions of the community
infrastructure that had supported SFAF and AC (institutional arrangements and resource endowments) and thus presented an opportunity to observe the effects on Success for All Foundation (SFAF) and AC. As such, we approached our data with the following question:

- How did changes in the community infrastructure of CSR bear on the structure and function of SFAF and AC as school improvement networks (i.e., their clients, their designs, and their own organizations)?

**Data Collection**

Consistent with principles of organizational ethnography, we employed three complementary modes of data collection that provided multiple perspectives on the school improvement networks and the community infrastructure of CSR: (a) interviews with the staff of AC and SFA; (b) observations of training events conducted by AC and SFA; and (c) analysis of documents that provided evidence of activity in the SFAF and AC networks and in the community-infrastructure of CSR.

**Interviews.** Interviews and/or observations were conducted no less than twice a year for the length of the study. This timetable was meant to ensure detection of major events, changes in the design and the organization, and the gradual process of organizational learning. The actual number of interviews conducted and events attended varied by program and by year. In some cases, additional interviews were held to respond to events in the environment (e.g., change in federal education law) or in the organization (e.g., the opening of a new regional office).

We employed a purposeful sampling technique (Marshall, 1996) to identify interview subjects. An underlying assumption guiding the study design was that the views of staff would co-vary with their position within the organization. For example, we allowed for the possibility that field-level staff who work with schools would have a different perspective from the leaders of the organization who have a broader viewpoint but are further removed from schools. Thus, to obtain the most complete picture, we sampled from multiple subunits within the two organizations: (a) the executive leadership; (b) senior staff involved in shaping strategy and assessing overall effectiveness; (c) program developers who created the designs’ materials and components; and (d) the field-level staff who worked directly with schools and districts. At the upper levels of the organizations, we typically interviewed the same set of individuals, which included executive directors, the directors of field operations, chief financial officers, and lead program designers. The selection of field-level staff was determined by multiple considerations,
including their experience with and knowledge of the designs, their specific responsibilities, and, in some cases, their involvement in a particular region.

Interviews were either semistructured or open-ended. Prior to conducting interviews, we designated key areas of interest, focusing on the design of the intervention, the overall improvement strategy, problems with implementation, relevant events in the environment, and possible changes in future strategy. We also wrote reflective memos following each interview.

**Participant-observation.** As a second source of data, we engaged in participant-observation of AC and SFA events. While the nature of these events varied, they typically involved training sessions for principals, coaches, and intervention staff to strengthen their understanding of the designs. From 2000 to 2009, we attended 33 Success for All training events (29 for schools and 4 for trainers). From 1998 to 2004, we attended 15 similar events for AC. We again employed a purposeful sampling technique for selecting sessions to observe. Selection criteria included the topic to be covered (e.g., use of a newly developed set of materials), the facilitating staff member, corresponding events in the environment (e.g., change in federal legislation), and/or events within the organizations (e.g., turnover of key staff). We produced detailed field notes for all training sessions as well as a summary analysis of each event.

These training events offered critical insight into two key areas of inquiry. First, they enabled us to “see” the intervention design as it was represented to teachers and school leaders by intervention staff. Second, the duration and intensity of these events offered a glimpse into the implementation problems encountered by teachers and leaders, and the way in which intervention staff worked with school professionals to overcome them. These data were gained in part through formal sessions during which intervention staff solicited feedback from teachers and school leaders about the state of implementation in their schools and anecdotally from our informal conversations with school personnel. In a few cases, we accompanied intervention personnel on visits to schools during which they evaluated implementation and worked with school leaders to solve problems. These school visits afforded an unusual opportunity to view implementation through the eyes of field staff and to observe some of the issues that influenced schools’ capacity to interpret and use the design as intended.

**Document analysis.** As a third source of data, we collected a comprehensive set of documents on SFA and AC, including: published works by program leaders, media accounts regarding one or both programs, internal reports and memos, external evaluations, funding proposals, as well as a plethora of curriculum materials, manuals, videos, and other resources produced for use in schools. We also collected a comprehensive set of documents on changes in
the community-infrastructure of CSR over the period of our study, including research, foundation reports, and media accounts.

**Analysis and Interpretation**

Our method for analyzing data evolved over the course of the study. From 1998 to 2000, we developed a conceptual framework that consisted of six major categories and 25 subcategories that emerged from our initial data. The intent, at this stage, was to identify patterns in the data and emergent analytic themes (Lincoln & Guba, 1985). The resulting framework was more descriptive than analytical, and focused on creating a coherent language for describing school improvement networks and their environments. This process culminated in 2000 with the drafting of technical reports that organized all evidence collected to date within this framework.

Continued data collection and analysis led to the development of a second, more analytic framework that identified a set of interdependencies between school improvement networks and their community infrastructures. This framework addressed (a) the overall intervention strategy, including the design for instruction, school leadership, and organization; (b) implementation in schools; (c) the intervention organization, including its structure, staffing, and overall capacity; (d) and the way in which the social, economic, and political environment shaped interveners’ understandings of clients, their designs, and their own organizations.

We refined this framework through iterative memo-writing in which we reconciled emerging and evolving themes in our data. These memos depicted changes among our key variables (e.g., changes in the design), presented substantiating evidence, and tested explanatory analyses. We compared memos corresponding to the two programs as well as to the third program in our study (the ASP). The cross-intervention comparison surfaced holes in the data, discrepancies in the analysis, and areas in need of further clarification.

We tested the validity of our analysis in four ways. First, we compared findings among SFA, AC, and ASP. While we expected findings to vary across different programs, we treated large discrepancies as a cause for further data collection and analysis. Second, we conducted thorough “member checking” within the AC and SFA organizations, presenting our findings and conclusions to various individuals occupying different positions within the two organizations. Third, we presented staff with the perceptions and analyses of other organization members to examine differences in interpretation. Fourth, we reconciled our analysis with the literature on CSR (specifically), educational reform (more broadly), and organizational innovation and change.
Table 1. Comparison of AC and SFA Between 2000 and 2008.

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<tbody>
<tr>
<td>Clients</td>
<td></td>
<td></td>
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<tr>
<td>CSR schools</td>
<td>600</td>
<td>400</td>
<td>1,600</td>
<td>1,200</td>
</tr>
<tr>
<td>Non-CSR schools</td>
<td>Less than 20</td>
<td>1,800-2,000</td>
<td>0</td>
<td>2,000+</td>
</tr>
<tr>
<td>Districts</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>380+</td>
</tr>
<tr>
<td>States</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Designs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSR</td>
<td>America’s Choice School Design (original CSR)</td>
<td>3 versions of CSR: light, classic; intensive</td>
<td>Success for All (original CSR)</td>
<td></td>
</tr>
<tr>
<td>Non-CSR</td>
<td>None</td>
<td>“Debundled” parts of CSR design; developed programs targeting specific subpopulations of students, specific content areas, and other specific needs within schools.</td>
<td>None</td>
<td>“Debundled” parts of CSR design; developed programs targeting specific subpopulations of students, specific content areas, and other specific needs within schools.</td>
</tr>
<tr>
<td>District</td>
<td>Worked with both districts and individual schools</td>
<td>Only work with schools as part of district-level intervention (did not develop programs exclusively for districts)</td>
<td>Ad hoc consulting assistance</td>
<td>Programs for analyzing instruction and student achievement, selecting interventions, and assisting with implementation.</td>
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Table 1. (continued)

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<tbody>
<tr>
<td>Nonprofit</td>
<td>None</td>
<td>None</td>
<td>Nonprofit</td>
<td>Ad hoc consulting</td>
</tr>
<tr>
<td>Approx. 300</td>
<td>For-profit</td>
<td>CSR revenue, sales of non-CSR programs, private investment</td>
<td>Nonprofit</td>
<td>CSR revenue, material sales, training and consulting fees</td>
</tr>
<tr>
<td>Grants, CSR revenue</td>
<td>Grants, CSR revenue</td>
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Note: AC = America’s Choice; SFA = success for all; SFAF = success for all foundation; CSR = comprehensive school reform.

Finally, in November 2006, we convened the leaders of the interventions in our study for a single-day session during which we presented our findings and obtained feedback.

Findings

Between the years 2000 and 2008, profound changes occurred to all the components of the SFAF and AC networks. As we argue below, these changes can be understood as a result of the interaction between a weakening of the community infrastructure supporting CSR and the constituent elements of school improvement networks. To illuminate this interdependence, we briefly depict the way in which an emerging community infrastructure contributed to the birth and scale-up of both the SFAF and AC networks from their founding until the early 2000s. Following that, we examine the way in which two key environmental changes eroded the strength of the community infrastructure and, in doing so, triggered a series of interactions among the designs, client bases, and organizations in both networks. Throughout this section, we identify key differences between the SFAF and AC. Yet, in the main, we identify and analyze patterns of interactions shared by both networks during this period.

Emergence of a Community Infrastructure

Between 1988 and 2001, a community infrastructure emerged to support the rise of CSR and, with that, the rise of SFAF and AC. A combination of new
institutional arrangements (predominantly new federal policies), access to new and formidable resource endowments, and the emergence of a market for schoolwide improvement services led to the development of SFAF’s and AC’s CSR designs, rapid growth in the size of their networks, and the expansion of their organizations. The 1988 Governors’ Conference in Charlottesville, America 2000, and Goals 2000 gave rise to standards-based reform, creating new urgency to improve results in weak schools. The 1988 Hawkins-Stafford Amendments and the Improving America’s Schools Act of 1994 expanded the opportunity to use Title I funding for whole-school reform, which arguably would become the key resource endowment for CSR providers. The emergence of New American Schools (NAS) in 1991 created a patron of the nascent CSR movement that actively supported the development of seven CSR programs and their sponsoring organizations (including both AC and SFAF). Additional resource endowments came from philanthropic support that, itself, was buoyed by a combination of a prolonged economic upswing and growing interest in school reform. The Comprehensive School Reform Demonstration Act of 1997, which provided schools with US$50,000 per year for up to 3 years to enlist in a CSR, stimulated the demand among schools for CSR. The Reading Excellence Act of 1998 provided even further funding to support schoolwide improvement in K-3 reading. Finally, in this period, a combination of research and evaluation reports showing positive, significant effects on student achievement for SFA and AC added to the legitimacy and support for CSR among funders, districts, and schools.8

Specific features of the emergent community infrastructure had a strong impact on each of the three dimensions of the SFA and AC networks: clients, designs, and organization. The policy emphasis on improving student outcomes in weak schools encouraged both SFAF and AC to define a client base comprised of underperforming schools that were under pressure to improve results and eligible for federal funding (see “client” section of Table 1). This, in turn, led to a rapid increase in the size of both networks. Between 1998 and 2003, the AC network increased from 48 schools to more than 600 schools, roughly as many elementary schools as in the State of North Carolina. Between 1997 and 2000, the SFA network grew from 750 schools to 1,600 schools, roughly as many elementary schools as in the State of New Jersey. The designs for improvement were also shaped by these same factors, as SFAF and AC developed comprehensive, highly elaborated, and extensively scaffolded programs crafted to support weak and underperforming schools (see “design” section of Table 1). Both programs began with highly elaborated designs for classroom instruction. The instructional designs were then complemented by organizational designs that restructured the school to focus
its activities on instructional improvement. In addition, both programs actively supported implementation with cadres of field-based trainers and staff that supported implementation in schools. The combination of rapidly expanding networks, complex designs, and a weakly developed proprietary environment perceived by program developers to provide few high quality component technologies led to a significant expansion in SFAF and AC as organizations (see “organization” section of Table 1). During this period, SFAF grew from a small, centrally located project team to a 500-person, independent, nationally distributed, nonprofit foundation with distinct capabilities for program development, training, research, business administration, and executive management. AC evolved from a small, centrally located staff to a 300-person organization (with similar capabilities as SFAF) with five regional offices around the country.9

In sum, a combination of new policies that pressed for and supported schoolwide improvement, the willingness of foundations to fund development efforts, the support and legitimacy provided by NAS, and the growth of the school improvement industry established an emergent community infrastructure. This community infrastructure stimulated a set of interdependent activities within the three dimensions of each network. This is not to say that other factors did not play any role in shaping SFAF’s and AC’s networks (e.g., ideology, past experience). Yet the comprehensive nature of their designs, the focus on underperforming schools, and the sudden expansion of their organizations all reflected deliberate decisions within SFAF and AC to adapt their networks to the community infrastructure taking shape during that period.

Changes in Educational and Broader Environments

The community infrastructure supporting SFAF and AC networks weakened quickly between the years 2000 and 2003. Two events instrumental in this decline were the economic turndown that followed the bursting of the dot.com bubble in March of 2000 and the signing of No Child Left Behind in January, 2002. These two events combined to create considerable turbulence in the community infrastructure of CSR in ways that led to dramatic changes in both networks.

Following the bursting of the dot.com bubble, philanthropic investment in educational reform declined, placing strains on development efforts funded largely by charitable contributions. The subsequent economic decline also constrained state and local budgets, leaving expensive CSR programs vulnerable to cutbacks. For SFAF and AC, the combined effect was reductions in both contributions and revenues.
With the signing of NCLB, both SFAF and AC executives predicted that the legislation would support continued growth of their networks (possibly softening the effect of shrinking philanthropic support). This optimism partially stemmed from the fact that NCLB included supplemental funding to schools to support the adoption and implementation of CSR programs. SFAF executives predicted that the SFA network was on the verge of expanding to more than 2,000 schools in 2001, with the potential to grow to more than 3,000 schools. AC leaders predicted that their network would grow from 600 to 1,000 schools within 2 years. But the actual impact of the law turned out to be far more complex than anticipated by program leaders, and by the end 2002, both SFAF and AC were reporting unexpected problems recruiting their traditional clients (weak schools), resulting in still further decreases in revenues.

With both networks unexpectedly strained, the most immediate problem for leaders in SFAF and AC was to understand why environmental changes were negatively affecting recruitment and retention. As NCLB was enacted by states, districts, and schools, executives from AC and SFAF identified a change in the growth market for school improvement services, away from underperforming schools and toward higher performing schools that sought targeted and less costly programs than CSR. In addition, leaders of both programs recognized a shift in decision making over issues of school improvement away from individual schools and to districts. They concluded that underlying the shift were provisions in NCLB holding districts accountable for student achievement; a tightening of the accountability sieve that had more schools identified as needing improvement (including relatively high-performing schools with subgroups of underperforming students); and, thus, incentives for district leaders to seek out districtwide improvement programs that incorporated all schools (in contrast to CSRs that catered predominantly to underperforming schools).

Thus, while a core group of weak schools continued to enlist in both AC and SFA, fewer districts seemed interested in either AC or SFA as the primary instrument of improvement for large numbers of their schools. In a 2005 interview, Lawrence Molinaro, AC vice president of programs, said that the AC analysis was informed largely by the reports of regional staff who worked directly with districts and schools.

The regional directors were responding to the conversations that they’d had with the school systems, where the schools were saying, “We don’t have the funds anymore to do CSR individually. And what we’re being held accountable for is reading and math. Don’t bother us with study groups or professional learning communities. We want a reading
intervention program. We need a math intervention program, ’cause that’s where we’re going to feel the pain and that’s where we’re going to be held accountable.”

Another catalyst for the shift to district decision making was Reading First, a US$1.5 billion program under NCLB that funded district-coordinated improvement of curriculum, assessments, and professional development in K-3 reading. Instead of prodding districts to contract with an external provider, SFAF and AC executives interpreted Reading First as encouraging districts to assemble their own, tailor-made, districtwide, comprehensive solutions by working across multiple commercial providers to assemble the right mix of curriculum, assessment, and professional development.

Furthermore, Reading First provided states and districts with enough funding to attract the interest of the major publishing companies that had the marketing and sales prowess to capitalize on the opportunity. This proved particularly problematic for SFAF, whose program featured a complete elementary-level literacy curriculum that placed it in direct competition with publishers (in contrast to AC, which sought to help schools use existing materials more effectively).

Still further, SFAF executives expressed concern that due to weak federal oversight of state-level program approval processes, commercial publishers were persuading state and federal agencies that their products met selection criteria. Robert Slavin, SFAF cofounder and chairman, considered these claims to be dubious, and the approval of many commercial reading programs to be at odds with the legislation’s original intent.12

What’s happening is that the five largest basals in America are getting all of the money and everything else is being ignored. . . . But it’s shocking. I mean it’s really, genuinely shocking. What is happening is 180 degrees different from the intention, this mentioning 111 times of scientifically based reading research. It’s basals. In fact, if anything, what’s happening right now is a transition to basals from anything that uses novels or trade books or any innovative programs or anything else. Four states approved Direct Instruction. Three states approved Success for All among the places that are making those approvals. Excuse me. What did we intend to do here? If you look at the patterns, you’d say this is not about scientifically based research, this is about large basal companies with multimillion dollar advertising and lobbying budgets.
The market changes took a toll on recruitment, retention, and revenues for both programs (see “client” section of Table 1). Where AC was predicting growth to more than 1,000 schools just 2 years earlier, the network contracted from more than 600 to less than 400 schools in this period. Likewise, the SFAF network dropped from 1,600 to 1,200 schools.

Seen from the perspective of SFAF and AC leaders, the close of 2003 marked a considerable change in virtually all the dimensions of the community infrastructure that had supported and shaped both networks. NCLB constituted a new set of institutional arrangements in which the pressure was not only on individual schools to improve, but also on state and local education agencies to take responsibility for school improvement. AC and SFAF executives saw NCLB as reshaping the market for school improvement services by providing incentives for comparatively high-performing districts and schools to examine (and try to improve) the achievement patterns of traditionally low-achieving groups. Moreover, commercial publishers appeared to be moving aggressively into the new market. The reduction in philanthropic support further curtailed access to resource endowments.

**Redefining the client base**

The weakening of the community infrastructure triggered dramatic changes in the SFAF and AC networks. One possibility for organization leaders was to cut costs, reduce the size of the networks, and try to weather the storm. This was the strategy chosen by another CSR provider, the Accelerated Schools Project (ASP) (Cohen et al., in press). But SFAF and AC took a different path. They redefined the nature of their client base to include both districts and “less impacted” schools, while still maintaining the installed base of CSR schools. Leaders from both organizations reasoned that the pressure on districts to support improvement in large numbers of schools would encourage district leaders to seek out extensive support to develop the necessary capabilities. SFAF and AC leaders also thought that district managers would be seeking programs that met the needs of higher performing schools newly accountable for improving achievement among particular subpopulations and/or subject areas. Thus, by 2004, both organizations had significantly expanded their targeted client base, going well beyond chronically underperforming schools to include higher performing schools, local education agencies, and (in the case of SFAF) even state education agencies.
Adapting the Designs

The changes to the client base led to a corresponding set of changes to the designs of both programs. Both SFAF and AC broadened their array of programs and services to include less-comprehensive school-level interventions as well as programs designed to enhance district-and state-level capacity. Departing from the core principles underlying their CSRs, these new programs involved less comprehensive designs for improvement and included less on-site support and professional development. (See “programs” section of Table 1.)

America’s Choice. The decision to expand their client base led AC to develop new programs and services that were considerably less comprehensive, less focused on teacher learning, and less geared toward fundamental transformation of schools than the original CSR design. While the new products enabled AC to serve an expanded client base, they also raised questions about whether more thinly resourced programs would improve teaching and learning.

The two products that represented this shift in strategy were Ramp-up and Navigator. Ramp-up is a classroom-level program designed to improve reading skills among middle school students who are at least 2 years behind grade level. Though it shares some characteristics with the CSR design (e.g., they both employ the “reading workshop” model), Ramp-up is not a whole-school program, and makes a more modest investment in professional development.

Navigator, on the other hand, is a series of highly elaborated texts that target second-grade through middle school students struggling with particular mathematical concepts. Scripted to a level of detail far beyond AC’s CSR design, Navigator relies heavily on elaboration and relatively little on professional learning, which had been the hallmark of the AC approach. AC’s chief of staff, Judy Aaronson, explained that “... the hope was that we could put out a product that was a wonderful product, but that would stand on its own. People would buy it and it could, in a way, subsidize a lot of the other work we were doing.” But while AC staff believed that these materials could benefit some students, AC president, Judy Codding, conceded that the approach was not without limitations.

Where unbundling the design fails, as far as I’m concerned, is when the schools don’t have the capacity. And so they will say, “We want Ramp-up,” but they don’t know how to put together the double-period required for the course. They don’t know how to screen and assign the right kids to the course. And if we’re there, we can help with all of that.
But if we just sold an unbundled solution, we’re not a part of that (process) on an ongoing basis.

The addition of Navigator and Ramp-up to the AC product-line illustrates the interconnected relationships among the components of the AC network as well as their connection to the community infrastructure. Once the traditional client base weakened, AC sought out new clients among relatively higher capacity schools with pockets of poor performance. This, in turn, led AC to develop new programs that departed from the original CSR design and that were less resource intensive. The risk was to condition success on existing capabilities within schools. An organization whose reputation was built on comprehensive solutions for whole-school change had expanded well beyond its initial (and proven) approach.

**Success for All Foundation.** As with AC, SFAF’s expanded client base led it to develop targeted programs and services that provided support for states, districts, and higher performing schools with isolated cases of weak performance, while still maintaining its CSR. To serve higher performing schools, SFAF devised a varied menu of components called “Success360.” Consistent with the strategy employed by AC, SFAF’s new products represented an attempt to maximize revenue potential by exploiting economies of scale and eliminating costly on-site support. These new components included a wide range of reading programs and interventions for Grades pre-K through 8, mathematics programs for Grades K-6, classroom management support, parent/community involvement, instructionally focused school leadership training, and more.

SFAF also developed a set of programs and services to help districts better support schools that were using SFAF-provided resources. The centerpieces of this new product line were quarterly benchmark assessments and an accompanying web-based information system. The combination provided schools, districts, and states with resources to generate and analyze quarterly measures of student achievement that correlated closely with state-specific accountability assessments. In addition, SFAF developed a series of products and services for districts that were not using SFAF programs at the school level (in contrast to AC, which worked with districts to create a supportive environment for their school-level program). Specifically, SFAF’s district-level initiative focused on supporting districts and schools in a 2-year process of evaluating problems underlying low student achievement, identifying a research-based and research-validated program targeting those problems (not necessarily provided by SFAF), and developing district-level capabilities to support the implementation of that program. At the same time, SFAF began providing ad hoc assistance to states to support districts in this effort.
While some SFAF staff questioned whether this strategy represented movement away from SFAF’s core mission of improving achievement for at-risk students, SFAF executives portrayed these initiatives as efforts to serve at-risk students in all types of schools (and not just chronically under-performing schools). This tactic further increased the scope of SFAF’s client base, yet brought with it the risk that improvement activity further removed from schools and lacking an instructional design would have little or no impact on student learning.

Thus, for both SFAF and AC, a weakening of the community infrastructure for CSR led to changes in the client base that, in turn, led to changes in the design. The design changes were not technical adjustments or tinkering at the margins, but calculated compromises in which both organizations relaxed long-held commitments to combining extensive elaboration and scaffolding. The reduced complexity of these new programs coupled with presumed capacity among users was thought to reduce the need for intensive professional development, as well as the potential for complex implementation problems. A degree of ideology was exchanged for the potential of enhanced revenue and reduced demands on their organizations. The risk was that products that departed from the proven CSR model would not be effective in producing the same effects on student learning as the CSRs.

Changes to the organizations

A weakening community infrastructure, an expanded client base, and the development of new programs and services had profound implications for both organizations. (See the “organization” section of Table 1.) A reduction in the number of enlisted schools required both cost-cutting measures and investment in programs and services tailored to the new market. In addition, leaders of both AC and SFAF reported increasing difficulty in raising funds from private donors in the weak economic climate. As such, executives of both organizations sought to enhance revenue, better leverage environmental resources, exert influence on the policy environment, and develop and support an ever-increasing array of products and services. While these efforts were at least partially successful, they significantly reshaped both organizations.

Success for All Foundation. The effort to adapt to a weakening community infrastructure had broad implications for SFAF as an organization. As part of early cost-cutting measures, SFAF reduced the size of its staff from 500 to 200. The remaining staff had to do much more with much less. Development initiatives that were not tied tightly to SFAF’s strategy for supporting its CSR and reaching NCLB-effected growth markets were eliminated, and a heavy...
emphasis was placed on new programs and services that did not require capital-intensive growth in the training organization.

Diversification of SFAF’s programs was paralleled by diversification within the hub organization. As part of its efforts to adapt to the new environment, SFAF established new organizations that operated within the SFAF metastructure. One was the Center for Data Driven Reform in Education (CDDRE). CDDRE was established and managed by SFAF executives to help states and districts identify research-validated programs and to advocate more broadly for research-driven reform. CDDRE also functioned as the locus of development for SFAF’s state and district level programs, with SFAF developers and trainers serving in both organizations. SFAF also established the Center for Research and Reform in Education (CRRE), which housed both CDDRE and SFAF’s research branch, and which also served as a platform for developing, supporting, and researching pre-K-8 reading programs. Finally, SFAF cofounders Robert Slavin and Nancy Madden were appointed to head the Institute for Effective Education (IEE) at the University of York in the United Kingdom. IEE functioned as yet another context for advancing the cause of research-validated programs.

These new organizational arrangements were matched with a new and wider set of organizational activities. Particularly noteworthy was SFAF’s aggressive attempt to offset the new and less favorable institutional arrangements by strengthening political and social support for its programs. One part of this strategy was to advocate for a more favourable policy environment. For example, in 2005, SFAF and other program providers requested two federal investigations into the administration of Reading First, on the grounds that federal oversight of state program adoption processes was excluding Success for All and other CSR programs from consideration. In 2006, the Department of Education’s Inspector General confirmed SFAF’s view that DOE officials had managed Reading First in a way that unfairly favored a few large commercial publishers (U.S. Department of Education, 2006). On the positive side, these and subsequent Government Accountability Office findings created opportunities for more evenhanded treatment in state and district adoption processes. On the other hand, following these and subsequent findings, political support for both CSR and Reading First weakened considerably, with funding for CSR eliminated from the federal budget in 2006 and funding for Reading First eliminated in 2009.

Furthermore, in anticipation of the reauthorization of NCLB (originally slated for 2007), SFAF attempted to influence two pieces of federal legislation (the Proven Programs for the Future of Education Act of 2007 and the Educational Research and Development to Improve Achievement Act of
by advocating for language, resources, and incentives that favored programs both based on and validated by research. Much as the Comprehensive School Reform Demonstration Act of 1997 and the Reading Excellence Act of 1998 had contributed to a favorable policy environment in the years prior to 2002, SFAF executives hoped that these two new acts would shape the reauthorization of NCLB in ways that supported the continued scale-up and sustainability of SFAF.

SFAF’s efforts to strengthen the community infrastructure were not limited to the policy arena. To shore up support for its CSR among adopters and funders, SFAF publicized what executives saw as favorable outcomes of a national randomized field trial of Success for All, as well positive findings from meta-analyses that compared Success for All to other CSR programs. In addition, as part of its effort to strengthen the market for research-based-and-validated improvement programs, SFAF established the Best Evidence Encyclopedia (BEE), an alternative to the federally funded What Works Clearinghouse. The BEE was intended to serve as an arbiter of school improvement programs by analyzing and publicizing evidence of effectiveness. However, these efforts would eventually be complicated by internal and external studies of its new, component-based products and services for schools that showed variable evidence of effectiveness.

In response to a weakened community infrastructure, what began as a university-based project had, by 2007, developed into a complex, multifaceted network of organizations spanning the United States and the United Kingdom. The core activities of these organizations were no longer confined to developing and supporting Success for All as a CSR. The organizations collaborated in enacting a set of activities intended to influence the national policy environment, strengthen SFAF’s national reputation, and invigorate demand for research-validated programs. SFAF executives reasoned that these efforts would ease access to federal and private funds and bolster what they saw as a softening national commitment to scientifically based interventions. These efforts were validated in 2010, when SFAF was awarded a US$50 million “scale up” grant under the federal Investing in Innovation program.

America’s Choice. The evolution of the AC organization was equally significant to that of SFAF. Whereas SFAF’s strategy focused on increasing both revenues and contributions, the AC strategy was to attract private investors who would support the expansion of the organization. In November 2004, AC became a for-profit organization when Quad Ventures (a New York-based firm that invests exclusively in education-focused companies) purchased a noncontrolling interest of AC from NCEE (Trotter, 2004). In a 2005 interview, Marc Tucker, AC’s founder, argued that private investment...
was the best way for AC to scale-up its own organization, create new departments, attract experienced executives, and increase overall capability.

We had a really big problem. To scale-up, we had to have a marketing and sales staff to get to where we thought we needed to be for making a difference. To actually take advantage of this enormous investment that we had made in the development of instructional systems, we needed a lot of money to do the development, field-testing, and publishing. In order to make that work we needed money to create the systems that a large publishing operation needs to have in place, none of which we had. And in order to get to the scale that we wanted to get to, we needed to have first class management in areas like legal and finance, marketing and sales . . . . There is only one place that we could do that, and that is private enterprise.

The decision to abandon its nonprofit status had ramifications throughout AC. The time and attention of executive staff was devoted almost entirely to preparing the organization for private investment, a process that proved far more time and resource intensive than any in the organization expected. As Tucker remarked, “[i]t took us an entire year of very concentrated effort to create the for-profit shell to attract the investment capital. It’s just a long and arduous process.” Other organizational processes were either put on hold or given lesser priority.

The change in status also raised questions about turning a mission-driven organization into a for-profit enterprise. Despite assurances that the goals of the organization had not changed, some staff were concerned. One long-standing, senior staff member expressed her doubts about the future of the organization:

I was not happy when we went (for profit) . . . [M]aybe what I do every day doesn’t change that much, but the drivers in this company become different. I mean, they have to when you have a board of directors and you have investors who are standing over (AC president) Judy (Codding’s) shoulders wanting to know what the revenue targets are. And people are being beat up all over the place for not meeting revenue targets, and that sort of thing. I mean, it does change.

Signifying the focus on sales, a professional sales force was brought in to sell the Navigator product-line to schools and districts. The introduction of a sales force with no background or commitment to school improvement brought the clash of a mission-oriented and profit-oriented organization to a
head. In the eyes of some original staff members, the sales force demonstrated little concern for the broader mission of the organization. In a candid admission of what she came to understand as a mistake, AC president Judy Codding flatly stated that “salespeople out of the traditional educational companies . . . don’t know much and they don’t have curiosity to learn much. As a high school principal, I would never meet with them because they were a total waste of my time.” After the first year, Codding dismissed the new sales force. The long-term consequences of AC abandoning its nonprofit status became more apparent in 2010 when Pearson Publishing bought AC outright. It remains to be seen what will happen to AC’s programs and services once they have been fully incorporated into Pearson. Programs with costly on-site support may be vulnerable in a for-profit environment.15

Though it did not engage in the same aggressive lobbying as SFAF, AC did make efforts to exert influence on its environment. For example, Tucker reconvened “the Commission on the Skills of the American Workforce.” The Commission had published its first report in 1990, and it published a new report, Tough Choices or Tough Times in 2008. The new report argued that meaningful improvement in teaching and learning would only occur as a result of deep systemic changes to the organization of public education. Though the report did not specifically advocate for America’s Choice, the authors voiced support for institutionalizing relationships between districts and network providers like America’s Choice, stating that: “. . . networks would be responsible for helping to shape the program, providing training, supplying regular technical assistance, and providing many other forms of support to the schools affiliated with them” (National Center on Education and the Economy [NCEE], 2007, p. 70). If such recommendations were adopted, network providers like AC and SFAF stood to gain immeasurably.

Between the years 2003 and 2008 a weakening community infrastructure, expansion of the client base, and changes to designs led to substantial changes in AC and SFAF as organizations. Small, nonprofit organizations became more structurally complex, developed new sources of revenue, upgraded management capacity, engaged in a broader set of organizational activities, and in one case, became a for-profit enterprise. As Tucker remarked, “we had started out as a CSR provider, but we had grown into something much more difficult to define.”

**Discussion**

The results presented above depict a complex relationship between the constituent parts of community infrastructure, on one hand, and the constituent
parts of educational improvement networks, on the other. From 1988 to 2001, a combination of legislation, philanthropic largesse, and market forces fostered a community infrastructure that supported the rapid expansion of SFAF’s and AC’s school improvement networks. The networks that took shape during that period—the type of schools that constituted the client base, the content of the designs for improvement, and the character of the organizations—mirrored that infrastructure. However, as broader research on the development of innovations has shown (Van de Ven et al., 1999), a stable community infrastructure can take decades to emerge, with leading innovators subject to its weaknesses and unpredictability.

The vulnerability of SFAF and AC became clear between 2002 and 2008, as the economy declined and new federal policies took hold. The passage of NCLB evoked a new set of institutional arrangements that both changed the nature of the market place and opened the door for powerful commercial interests. The reduction of philanthropic support further attenuated access to critical resource endowments. The rapid weakening of the community infrastructure for CSR triggered a series of changes within the AC and SFAF networks that were similar to each other in some ways while divergent in others. In both cases, a client base that was once comprised almost exclusively of underperforming schools was expanded to include a broader range of schools, grades, and subject areas. Likewise, the district emerged as a client as opposed to individual schools. For both organizations, a single design for school improvement gave way to a far more varied set of programs and services, some of which fundamentally departed from the core principles of the original CSRs. Finally, SFAF and AC, as organizations, changed dramatically, though in different ways. SFAF evolved from a small, university-based R&D center to a complex metaorganization that housed several interdependent organizations. AC, on the other hand, abandoned its nonprofit status in an effort to access a new source of resource endowments—private capital.

One way to summarize these findings is with the following observation made by Van de Ven and his colleagues (1999): “Technical innovations emerge through the accretions of many interrelated institutional, resource, and proprietary events involving many actors in the public and private sectors over an extended period of time” (p. 167). The long list of institutions, actors, and events that shaped the emergence and then transformation of AC and SFAF lend credence to this point. Yet another way to put this is that creating effective, instructionally focused networks is not only about discovering “what works” but also involves a complex constellation of social, political, and economic forces that support the continuing development and scale-up of effective programs as well as the organizations that create and sustain them.
Conclusion

A central purpose of this analysis has been to develop an analytic framework that disentangles the relationship between school improvement networks and the environments in which they operate. The framework that we advanced identified constituent components of both networks and environments as well as the relationship between them. The framework incorporates key concepts from broader research on innovation and shows how they apply to U.S. education reform. It also builds on previous scholarship examining the role of what Coburn (2005) calls “non-system actors” within the larger education system as well as adding to Rowan’s (2002) analysis of the school improvement industry by further illustrating how parts of that industry are prone to instability and uncertainty. We demonstrated the utility of this framework by using it to illustrate how environmental turbulence drove changes to the designs, client bases, and organizations of two leading school improvement networks.

These new understandings are important. Since the late 1990s, the federal government has invested approximately US$1.6 billion in direct support of CSRs (Gross, Booker, & Goldhaber, 2009). The lack of understanding of (and, thus, sensitivity to) the interdependent relationship between CSRs and environments reduced the return on that investment.

One test of these insights will be the extent to which they contribute to a better understanding of school improvement networks as a strategy for large-scale reform. While both AC and SFAF have managed to sustain operations over the last two decades, their experiences suggest endemic uncertainty in school improvement networks. For textbook publishers, test producers, or teacher colleges, which are deeply institutionalized within the system and provide narrower programs and services, educational environments rarely require such total and rapid adaptation. But for networks such as SFAF and AC that rest on a more tenuous economic and political infrastructure, the turbulent, fragmented, but oddly interdependent environments of U.S. public education present continuous need for such adaptation and, with that, continuous threats to survival.

Based on this analysis, one conjecture is that in current educational environments, existing and future school improvement networks will struggle to achieve organizational stability, and many will succumb to uncertainty and changing rules of the game. A second conjecture, however, is that the likelihood of success will increase if policy makers and philanthropists strengthen the community infrastructure supporting school improvement networks. The complexity and difficulty of large-scale school improvement requires a commensurate system of environmental support. For example, institutional
arrangements that feature high-level public and private support, coupled with standards for school improvement networks, would lend needed legitimacy and increase access to resource endowments. Restructuring institutionalized relationships between schools and their proximal environments—especially district offices—could reduce conflicts that, since NAS, have undermined the implementation and sustainability of school improvement networks.

Resource endowments will also need to be strengthened, potentially through such measures as public and private investment in program development, research that both informs program development and legitimizes effective programs, and a greater allowance of time for programs to emerge and mature. Of equal importance are market functions, including incentives for schools to engage in extended and deep-reaching improvement efforts, resources supporting their enlistment in proven and validated school improvement networks, a degree of protection from competition, and oversight of the program adoption process. As these pieces of a community infrastructure take shape, they could lead to proprietary activity among a critical mass of networks providers, as well as among a “factor market” providing essential components and technologies (e.g., curriculum, assessments, information systems, etc.).

Pieces of this community infrastructure have begun to coalesce, such as public and private support for school improvement networks, continued research, and “turnaround zones” that increase autonomy and relax bureaucratic constraints on schools. Moreover, the Common Core Standards may further motivate improvement and serve as a tool for coordinating efforts among multiple agencies and organizations.

But while the emergence of these environmental supports is encouraging, it is likely to be insufficient. One reason we say this is that, even in the heyday of CSR, organizations like SFAF and AC would have greatly benefited from an even stronger community infrastructure with even more access to operating capital and more funding to support program adoption. Furthermore, organizations like SFAF and AC would have profited from greater opportunity to learn from other network providers, more time to develop their own organizations, more time to learn from experience, and more time to allow the community infrastructure to take root. A second reason is that despite advances, the current situation is better described as “scattered environmental progress” than a coherent community infrastructure. To be sure, the US$50 million scale-up grant recently awarded SFAF under the federal Investing in Innovation Program provided it with a considerable boost. On the other hand, the sale of AC to Pearson Publishing points to the difficulty that network providers face in simultaneously fielding effective programs and sustaining resource-intensive organizations.
Given the formidable challenges of establishing a supportive environment for school improvement networks, one might wonder whether it is worth the trouble. The evidence suggests that it is. The U.S. educational environment is replete with programs that purport to advance educational outcomes, yet the research literature points to a far smaller number of organizations with proven track records of increasing student learning outcomes at a scale that involves hundreds of schools. That SFAF and AC were able to realize significant improvements in student learning outcomes despite the significant challenges posed to them by the educational environment points not simply to the success of these specific organizations but, more generally, to the still untapped potential of well-designed school improvement networks that benefit from a more stable community infrastructure.

If school improvement networks are to grow as a viable and effective option for large-scale school improvement, they will require a community infrastructure that includes coordinated institutional arrangements, resource endowments, market functions, and proprietary activity. The period between 1998 and 2001 that supported the emergence and expansion of CSR suggests that development of such a community infrastructure is possible. The period between 2001 and 2009 suggests that sustaining and extending the development of a coherent community infrastructure is most difficult.

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Notes

2. For a description of the phases during which innovations, their sponsoring organizations, and the community-infrastructure coemerge, see Van de Ven et al. (1999).
3. The Study of Instructional Improvement was conducted under the auspices of the Consortium for Policy Research in Education. The principal investigators were David Cohen, Deborah Ball, and Brian Rowan.
4. SFAF refers to the Success for All Foundation whereas Success for All (SFA) refers to the program developed and run by SFAF.
5. School visits were only conducted for AC schools.
6. For a full description of this coding system, see Glazer (2009).
7. While this process was intended to guard against a “self-enhancement” bias among respondents, it is important to bear in mind that all these respondents had vested interests in the depiction of AC and SFA and in the depiction of their roles within the organization.
8. A considerable body of literature has pointed to a general, albeit variable, pattern of effectiveness for AC and SFA. SII researchers found that both programs had significant, positive effects on leadership, instructional practice, and student learning. In addition, for SFA, a comprehensive meta-analysis of research on CSR reported positive program effects, with effect sizes ranging from 0.18 for SFAF-conducted research and 0.08 for external research (Borman, Hewes, Overman, & Brown, 2003). Two reports from the federally funded CSR Quality Center identified Success for All as having positive effects on student achievement (Aladjem & Borman, 2006). A national, randomized field trial conducted by SFAF again showed patterns of positive program effects (Borman et al., 2003). For AC, the research record (beyond SII-related research) is less robust yet still suggestive of an overall level of effectiveness. May and Supovitz’s (2006) longitudinal analysis of the effect of AC on student learning in Rochester, New York, documented significant annual gains in reading and mathematics in both lower and upper elementary grades. Likewise, a series of evaluation reports commissioned by AC from the Center for Policy Research in Education documented gains in student learning in elementary reading and writing. See cpre.org for a full list of CPRE reports on AC.
9. For a more thorough description of the Success for All and AC designs, see Cohen et. al., in press; Peurach, 2011.
10. Indeed, critics of SFAF charged that its influence on the agenda and funding of educational reform had become so formidable as to inhibit the development of
other promising approaches to improve underperforming schools (e.g., Pogrow, 2000a, 2000b).

11. Datnow, Hubbard, and Mehan (2002) and Datnow and Park (2009) describe the way in which CSR can be seen as a product of complex interactions and processes of coconstruction among schools, districts, states, and so on.

12. It should not be surprising that the notions of “research based” and “research validated” were subject to variable interpretation and even vulnerable to political or commercial interests. See, for example, Henig’s (2008) account of the role of research in the charter school debate.


14. Following the completion of this study of SFAF but preceding its publication, two reports were released that raised questions about the effectiveness of two of SFAF’s stand-alone components: Reading for Knowledge (a supplemental reading comprehension intervention) and Adventure Island (an after-school reading program). SFAF challenged findings from the first study on methodological grounds. SFAF did not dispute findings from the second and made the decision not to disseminate its program Adventure Island. For the two studies, see Institute for Education Sciences (2009a, 2009b). For SFAF’s response, see Zehr (2009a, 2009b).


16. Rowan’s (2002) analysis of the school improvement industry makes a similar point, noting the extreme vulnerability of relatively small organizations that promote instructional innovations to economic and political forces.

References


Rowan, B. (2008). Does the school improvement “industry” (organizations providing schools and governing agencies with information, training, materials, and programmatic resources relevant to instructional improvement problems) help or prevent deep and sound change? *Journal of Educational Change*, 9, 197-202.


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