New York City's Children First Networks: turning accountability on its head

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Abstract

Purpose – The purpose of this paper is to report findings from an exploratory study of New York's Children First Networks (CFNs); to examine what is known about the CFNs thus far, drawing on new empirical research, as well as document review and analysis of secondary sources.

Design/methodology/approach – Organizational learning theory guided this qualitative study. As such, in-depth interviews conducted with central office staff, network leadership teams, cluster leaders, and principals focused on the flow and management of information within the networks; the ways in which stakeholders developed shared meanings; how collective intelligence was built and transmitted; and organizational responses to the early experience of the CFNs.

Findings – Findings highlight the tools and processes the NYC Department of Education (DOE) has put into place to operationalize the CFNs. Respondents identified as critical the replacement of supervisory leadership from the district with customization of services provided by the network teams to promote principal-led reforms. Increased efficiency was noted by interviewees, but a number of challenges in the reform's implementation also surfaced that point to the limitations of the CFNs as a capacity-building mechanism.

Research limitations/implications – As an exploratory study, this research is intended to inform larger-scale, mixed-methods investigations of school networks, especially those implementing reforms aimed at improving teaching and learning in schools. Research is needed into the resource exchanges between individuals and groups in networks, what differentiates high-performing from lower-performing networks, and how data are used to inform the evolution of network structures and practices.

Originality/value – This study is the first peer-reviewed article on the evolution of New York City's Children First Networks.

Keywords United States of America, Schools, Educational innovation, Educational policy, Change management, Education reform, School networks, Accountability

Paper type Research paper

The national push for increased levels of school performance and accountability through policies and programs such as the No Child Left Behind Act (NCLB), and more recently, Race to the Top (RTTT) and the Common Core State Standards have escalated the pressure on school districts to improve student performance. However, trends indicate that most districts and schools struggle to improve their performance. US Secretary of Education Arne Duncan highlighted a lack of improvement in his testimony to Congress when he noted that NCLB, "[…] has created a thousand ways for schools to fail and very few ways to help them succeed," estimating that the percentage of schools not making Adequately Yearly Progress in raising student achievement could soon jump to 82 percent (Duncan, 2011).

Part of the reason for these results is likely linked to the fact that improving school performance is complex and difficult work, and the capacity to improve cannot be assumed. A number of efforts have been undertaken to improve the outcomes of schools, but often these improvements are fragile and not sustainable (Hargreaves, 2004). Based on what we know about how organizations learn (see e.g. Argyris and Schon, 1978, 1996; Senge, 1990; Huber, 1991) schools and school systems need to continuously add to their knowledge of what works, produce a wide range of solutions to organizational issues, experiment, take risks, openly assess the results, and apply new knowledge throughout the organization to achieve higher effectiveness. This challenge is magnified in our nation's urban school districts where large bureaucratic structures and unwieldy systems make reflection and taking speculative action arduous, to say the least.

In New York City, with a decade of mayoral control over K-12 public schools, a significant focus of their school reform attempted to place the locus of control for improvement directly with school principals. The first step toward empowering principals as change agents was to centralize the school district by awarding control over the system's management and oversight to a single Schools Chancellor, appointed by the Mayor. This state action (proposed and heavily promoted by Mayor Bloomberg) dissolved the decentralized system of 32 community K-8 school districts and the five borough-related high school districts. Concurrently, accountability systems were centralized, offering schools decision-making authority to customize decisions over budgets, staffing, and instructional programs. In 2004, a small number of schools were invited to join what was initially known as the "Autonomy Zone," a structure in which schools received distinct support from a small cross-functional network team.

The idea was that with increased school autonomy, local communities in New York City, the largest and most diverse school district in the USA, would be able to tailor their decisions toward local needs. As the New York City Department of Education's (NYC DOE) (2009) reform architect, Eric Nadelstern, explained:

> In a system this large, there's no way that a central office can decide how a school should run or what it needs to do to improve. It's just not possible, especially given the diversity of schools that we have in terms of the range of needs, the range of populations. The networks, with their cross-functional teams, were a way to enable schools that have similar needs or similar philosophies to come together as a unit […] to be able to articulate and customize the support they receive from their network team (Nadelstern, personal communication, May 2011).

On the flip side, principals were held accountable for school performance in return for the central office relinquishing a significant portion of the authority they had traditionally held. Principals gained real decision-making authority – over staffing,

budget decisions, and education program – in order to make consequential improvements for which they would be held accountable (Wohlstetter *et al.*, 2007). This authority came all at once, although as a reform was first piloted in the Autonomy Zone.

The Autonomy Zone (26 traditional public schools and three charter schools organized into four informal networks) heralded the reorganization of the New York City school district into networks. Over the next four years, the Zone matured into the Office of Empowerment Schools, the largest and most prevalent School Support Organization (SSO) in the DOE, supporting 22 networks and 535 schools. Its impact was so extensive that it became the foundation upon which citywide efforts to redefine school support has been constructed.

Built upon and within empowerment's organizational structure, Bloomberg and then Schools Chancellor Joel Klein introduced the children first networks (CFNs) in 2007 which "further institutionalized the belief that decisions about teaching and learning and school management are best left to those inside of schools" (Mishook *et al.*, 2011, p. 6).

In this paper, we report findings from an exploratory study of New York's CFNs. We look at the structures of networks through the lens of organizational learning. What was learned during implementation of CFNs? What parts of the reform persisted and were sustained? What parts of the reform changed and why?

This paper begins with a description of the theory of action underpinning the CFN reform. Next, a brief review of the evolution of CFNs – what was planned – is presented, followed by an overview of organizational learning theory which was used to frame the research design. Then, findings from this study are presented, followed by the conclusion which postulates a series of hypotheses to guide future research.

The emergence of CFNs

Few, if any, school districts in the USA have undertaken an organizational and management change of the magnitude of New York City's CFNs. In contrast to the reforms that maintain the hierarchy of accountability (teachers are accountable to their principal who is accountable to the district and state), the New York City CFN model turns accountability on its head by making the network team accountable to principals for helping them improve school performance. The premise is similar to Elmore's notion of reciprocal accountability: "For every increment of performance I demand from you, I have an equal responsibility to provide you with the capacity to meet that expectation. Likewise for every investment you make in my skill and knowledge, I have a reciprocal responsibility to demonstrate some new increment in performance" (2002, p. 5).

In the case of New York City, if the network team does not perform to the satisfaction of a school, the school then has the prerogative to affiliate with an alternative CFN. As Mishook *et al.* further note, "The network leader has little formal authority over principals and acts more as a coach" (2011, p. 7). The network leader may help assist schools in danger of being closed by providing extra mentoring and professional development (PD) to teachers each week; or the network leader may offer budget advice – for instance, reclassifying a part-time guidance counselor as a social services worker and using available special education funds (Winerip, 2011).

O'Day *et al.* observe in their anthology of education reform in New York: "With this [organizational] restructuring, the DOE dismantled the traditional line of authority in the system, placing ultimate authority with principals as 'CEOs' for student outcomes and allowing them to choose the support and resources to help them meet their goals"

(2011b, p. 9). The network approach also emphasizes lateral knowledge sharing and learning across schools. The underlying assumption is that when educators from different schools work collaboratively around pressing educational issues and have the opportunity to exchange knowledge, then the quality of teaching, learning, and school performance improves. In addition, empirical evidence from the UK suggests that good practice and innovation can be moved around schools more quickly through networks, in part aided by technology and established communication channels among network members (Hadfield and Chapman, 2009).

As suggested earlier, New York City experimented with different forms of school networks, refining and scaling-up the model as it matured. Across all iterations, the basic theory of action for networks in New York City remained largely the same: every public school, given proper levels of autonomy and accountability, and skilled principal leadership, would have the capacity to improve school performance and student achievement.

The Klein administration put forth the idea of school networks as the cornerstone of New York City's school improvement plan. The logic model went something like this: principals would self-affiliate with like-minded colleagues with a common vision for teaching and learning in networks that would attract schools with similar needs, desires, and challenges. Network teams would then bring member schools together for joint PD and knowledge sharing of promising practices across organizations. The network team also would spend considerable time in individual schools coaching and assisting school administrators and teachers. Over time, networks would also assume operational responsibilities to relieve principals of non-academic functions, so they could focus on the strategies they felt would improve student achievement in their building. As a result, network staff became accountable to schools for helping improve their performance. As part of this approach, the district did not require the networks to do anything in particular, just facilitate learning; the only thing the DOE requires is performance. The theory of action undergirding school networks in New York City is depicted in Figure 1.

The emergence of what eventually became the CFNs began in September 2004 when the NYC DOE created the Autonomy Zone pilot project, which in its first year included 29 "empowered schools" (many of which were newly created small schools that opened one grade at a time) into one informal network. The Zone was founded on the belief that decisions were best made at the school level and its purpose was to provide an increase in personalized services to enable this to happen (refer to theory of action, Figure 1). Streamlining the balance of instructional and operational support was key to the development of the Zone, which by spring 2008 had grown to 22 networks and was called empowerment schools.

Empowerment's evolution saw the creation of an alternative network structure called CFNs, designed to absorb the work of all district and regional offices. This new approach redefined school support, and after three years of successful pilots, in 2010, 60 CFNs of about 25-30 schools absorbed all aspects of both operational services as well as instructional. With the expanding role of networks, their leadership teams grew from a few, specializing in learning and instruction and student achievement, to a cross-functional team of approximately 14 with an increased focus on operational and organizational support. To assist CFNs in their capacity to understand and implement district policy, NYC DOE created six clusters (of about ten networks per cluster), which were modified versions of the previous SSO. Throughout the development of the CFNs, community district and high school superintendents have assumed largely a
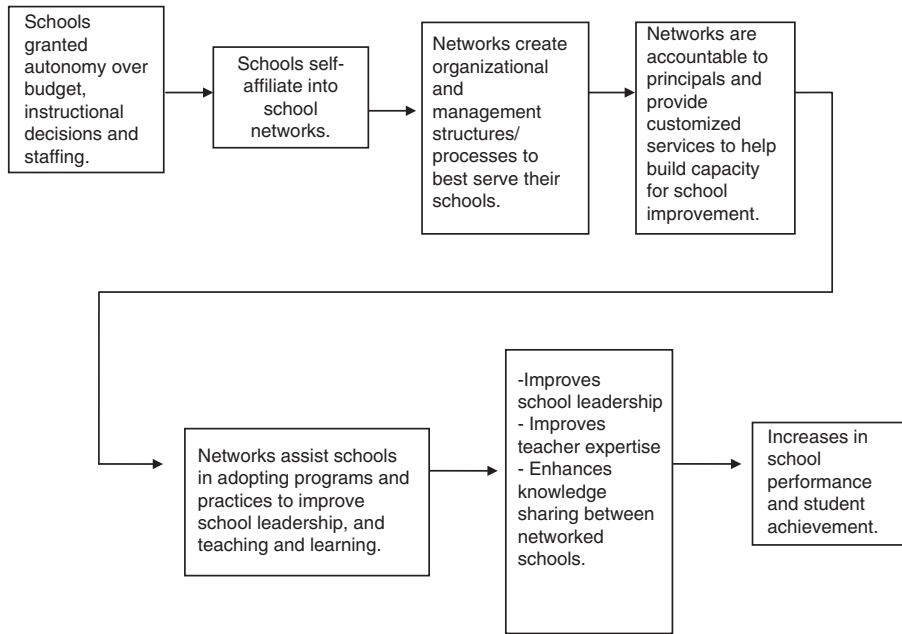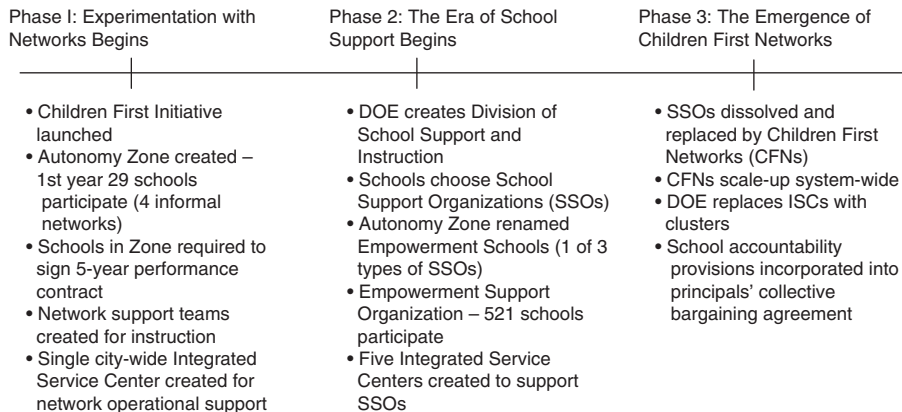
Figure 1.
Theory of action – New York City's school networks

supervisory role, with networks serving as the facilitators for school change. As in previous years, the NYC DOE continued to hold principals accountable by having them all sign a statement of performance, which had originated in the first phase for the Autonomy Zone schools. With the emergence of CFNs, the accountability provisions had been incorporated into the administrators' collective bargaining agreement. Figure 2, summarizes the key events and polices relevant to the development of the CFNs.

Framework for studying CFNs: organizational learning theory

Organizational learning is the ability of an organization to gain insight and understanding from experience – experimentation, observation, and analysis – and a willingness to examine and learn from successes and failures (Argyris and Schon,

Figure 2.
Evolution of school networks in NYC

1996, 1978; Senge, 1990, 1994). Organizational learning theory originated outside of education and has been applied in a variety of settings over the decades to study how organizations promote collective learning to improve performance (see e.g. Levitt and March, 1988; Huber, 1991; Silins *et al.*, 2002; Leithwood *et al.*, 1998; Leithwood and Louis, 1998). As Knapp notes, organizational learning theory views "the learning of an organization as a collective, often 'intelligent' response to events and conditions inside or outside of the organization, manifested in changes in collective thinking, organizational design and behavior, or organizational potential for behavior" (2008, p. 525).

Organizational learning theory is a useful lens through which to view the CFNs partly because, as Childress *et al.* point out in their analysis of NYC's approach to results-based accountability, aspects of organizational theory were "present in the design of the DOE's performance management system" (2011, p. 92). NYC DOE's Chief Accountability Officer at the time CFNs evolved, Jim Liebman (a professor on leave from Columbia Law School), espoused capacity building through reciprocal accountability of school teams working together to improve performance.

A second reason for selecting organizational learning theory relates to the tight coupling of the theory with accountability. Edmondson (2008) proposes that organizational learning theory and accountability are two sides of the same coin; the empowerment of principals exists in a context of increased accountability for improving student outcomes. Indeed, Childress *et al.* posit that "work environments characterized by high levels of organizational learning as well as high levels of accountability enable superior performance" when compared to contexts in which only one of those elements exist (2011, p. 93).

Knapp identifies the central constructs of organizational learning theory as:

- Information flow and management: how information moves into and through an organization, its meaning, and consequences.

- Inquiry, interpretation, and sense making: collective inquiry into and interpretation of events and conditions inside or outside the organization.

- Organizational embedding, encoding, and memory: information and its meaning are transformed into a "repertoire of routines, practices, or guidance for action."

- Collective "intelligence": shared meanings are developed cumulatively in a way that alters subsequent patterns of action.

- Organizational response to experience: how organizations react to internal and external events "in environments on which it depends for resources or legitimacy" (2008, p. 526).

Knapp further notes that applying organizational learning theory is well suited to understanding organizational improvement efforts that require complex capacity building. Applying the theory, he writes, "can give new and richer meaning to activities in school-district reform involving the nature and flow of information, its interpretation […] and how the organization processes its experience of reform events" (2008, p. 529). Finally, Gallucci, echoing several of Knapp's elements, stresses the importance of the feedback loop in organizational learning: organizational change is "an outcome of organizational learning and, in this context, what a school district actually does (in the form of new policies, structures, or procedures) [is a] response to what it learns about how to accomplish instructional improvement through support for professional learning" (2008, p. 546).

For all these reasons, the elements of organizational learning theory, identified by Knapp and reinforced by others, guided our inquiry. We structured our study methods, described below, around uncovering what structures and processes the NYC DOE put in place with the implementation of CFNs, and how these organizational elements changed over time (an indication of organizational learning). We also examine benefits of the CFNs and challenges to the reform approach.

Study methods: research questions and data sources

Drawing on organizational learning theory, this exploratory study was guided by the following research questions:

RQ1. How are the network organizations structured and what is the information flow?

RQ2. Is there evidence of a collective or shared intelligence within the networks?

RQ3. What has been the system's response to experience?

RQ4. What benefits and challenges exist to the CFN model?

Using organizational learning theory as a frame enables us to explore a range of hypotheses around these research questions. For one, we suspect that support networks would be varied based on the schools' needs and the shared intelligence that develops within each network. We also suspect that self-affiliation would enhance learning because people come from the same starting point, bringing a degree of shared experience a priori. Finally, we predict uneven change since each network may respond differently to its experience.

To test these hypotheses, we conducted in-depth interviews with central office staff (past and present), members of a sample of network leadership teams (leaders and achievement coaches), the five cluster leaders and a sample of principals (since school-based educators and cluster staff interact frequently with network teams)[1]. A snowball sampling method was employed, in which nominations for network leaders were made by central office and cluster leaders, who in turn nominated principals. We employed semi-structured interview protocols to gain multiple perspectives into the views of various stakeholders. Data collection occurred during fall 2011 and spring 2012. Interviews varied in length between 60 and 90 minutes. Twenty-one interviews were conducted across all levels of the system: NYC DOE (four), clusters (five), networks (nine), and principals (three). As a first inquiry into this topic, the study focussed on the crafters of the policy and those in network leadership positions rather than the target of the intervention (principals).

Protocol development was guided by organizational learning theory. Interview themes focussed on the flow and management of information within the networks; the ways in which stakeholders developed shared meanings; how collective intelligence was built and transmitted; and organizational responses to the early experience of the CFNs. In turn, data analysis began from the theory: codes were created a priori for topics addressed in the interview protocol, but coding was also an iterative process, allowing for ideas to emerge from the data in a grounded theory approach. For example, codes were created around information flow (e.g. information. flow.DOE.to.CFN) and additional codes were added based on the data (e.g. positional authority).

Preliminary findings

RQ1. How are the network organizations structured and what is the information
flow?

Our findings around network structure and information flow focus on the principles
and motivations behind how the networks are structured, the relationship they have
with schools and the central office (how information flows across different parts of the
system), and the variation in the work that they do to serve schools. In particular, we
examine accountability, network type, the introduction of clusters, and staffing
decisions.

Accountability under the CFN approach defines the roles of various institutional
elements: cluster leaders (overseers), network leaders (support providers to schools),
and schools (providers to the district but clients to the networks). One interviewee from
a network described the lines of accountability like this:

> Individual schools are accountable, number one to the city and the state, then to the
> superintendents in the city as a whole. They are not accountable to us as a network. Instead,
> the networks are accountable to the schools. The schools in our network review our
> performance every year. They grade us. They give us a rating […] if they don't like what
> we're doing, my rating goes down.

Network accountability has three components: annual school progress reports account
for 60 percent of the network evaluation, annual school quality reviews account
for 20 percent, and annual principal evaluations of the network leaders account for
20 percent. In comparing the system now to what it was previously, one network
leader noted:

> Before, network leaders were given ratings on Principal Satisfaction Surveys. Those things
> have always counted. Standardized test scores have also always counted for principals and
> they also impact the network leaders' performance too. But now, this new ranking of
> networks involves looking at networks in terms of the way we're pushing instruction in our
> schools and leadership in our schools, and teacher effectiveness in our schools, so networks
> are very much accountable, and now it's become a formalized accountability.

Furthermore, the accountability system now also has very real "high stakes"
consequences for networks: "Any network in the bottom ten percent, two years
running, the network leader is dismissed, the network's disbanded. Any network in the
bottom 25 percent for three years, they've got to find a new network leader." Networks
cannot select which schools join the CFN: just as teachers are evaluated based on the
performance of students they did not select, CFNs may find themselves overseeing a
group of low-performing schools.

Previously, the community district and high school superintendents had large
staffs and large budgets and monitored the schools in their geographic region. While
the superintendents still exist, their role is greatly diminished, in part because of the
a-geographical nature of the networks. As one interviewee noted, "The superintendents'
offices are teeny-tiny now – they've got only three or four people. Their work might be
district-based, but they now can have schools affiliated with seven different networks."
The networks have not replaced the community district and high school
superintendents, as another interviewee explained: "Networks and superintendents,
I would say, are parallel – they just play different roles. There is no reporting
relationship between the two." The interviewee from a network team went on to

describe the parallel roles: The superintendents are in charge of compliance, while the networks are in charge of assistance and support:

> The superintendents are not responsible for conducting professional development, or building capacity or school leadership. Their role is about measuring. They go in and do the quality reviews, and act as the judge with schools [...] They play the role of ultimate decision maker on things like teacher tenure and student promotion decisions. So it's a formal statutory role that is very supervisory in nature.
>
> As for networks, a tension was created between supervision and support [...] We have some instances where network leaders were previously superintendents and have continued to take somewhat of a traditional role with their schools, and schools tend to like being told what to do. In other cases, the principals are really high level and basically will say, "Here are the three little things I want you to do for me, network."

One notable finding around network organization was that there is no standard "type" of network. The reasons schools initially chose to affiliate with a specific network varied greatly. Many networks remain historically based around an educational philosophy (e.g. project-based learning) or principals who were previously socially networking with their colleagues. A few networks were formed based on geographic proximity; however, most span several boroughs. Some networks were created based on similar student populations (e.g. a large number of the special education high schools are together in one network, as are the schools that target ELL students). Some networks are grade-level specific, with only a few networks spanning kindergarten through twelfth grade. In the 2010-2011 school year, a new network was created by the NYC DOE to include schools "that are in the process of phasing out," while schools "going through school turnaround, transformation, or restart" were dispersed across networks.

Another part of the district reorganization was the creation of clusters designed to support the CFNs – a total of five clusters now oversee 10-12 CFNs each. Each cluster has a team of around eight people representing four functional areas: business services, student services (safety, suspension, youth development, struggling students), special populations (English learner, special education), and school improvement (new school models, turnaround school models, and the federal School Improvement Grants for school transformation work). There is a fifth strategic team at the Office of School Support and Instruction in the DOE that takes care of the cross-cutting work, such as developing a better tool for assessing network performance, and organizing the annual window during which schools are allowed to re-affiliate with networks if they want to.

The clusters help network leaders interpret the directives from the central office and then pass the interpretation to schools. In this role, cluster staff serves as the boundary spanner between the central office and the networks, transmitting policies to networks from the central office and clarifying district policies for networks as they assist schools in policy implementation. One cluster leader further explained: "Along the way, the information goes from 'generic' mandates from the central office to customized advice from the cluster and network teams. The cluster's job is to filter what Central says and make it relevant to the schools and their networks." Within this broad framework, school reformers were mindful of the diversity of the system. Common elements were prescribed but within those common elements adjustments were allowed to customize management structures, staffing, and information flow to the needs of schools served by their CFNs.

Figure 3 depicts the New York City public schools at the center, with policies and rules coming from the central office and the district superintendents, while at the same
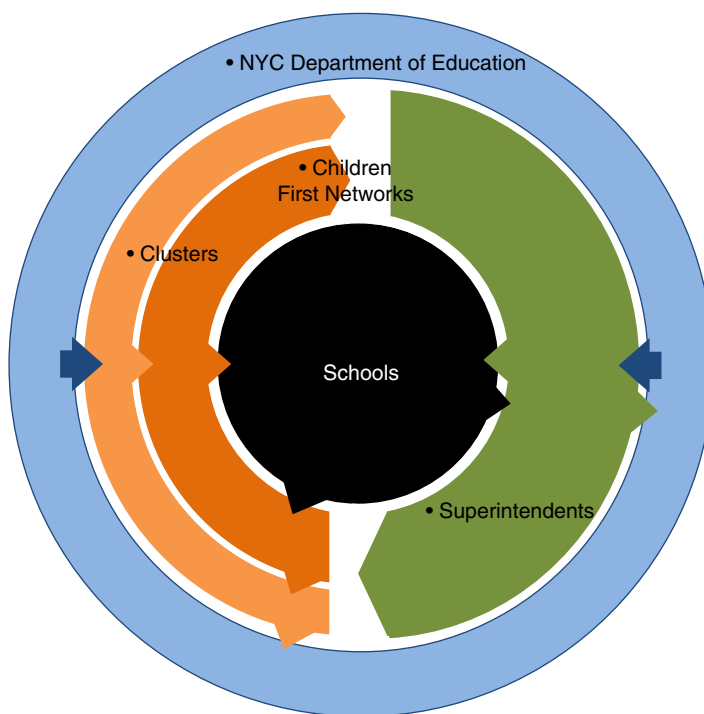
Figure 3.
The organization of the
NYC school district

time, schools are being supported by networks and clusters, each of whom maintain
direct lines of communication between the central NYC DOE and each other.

Also common across all the networks are the operational and instructional areas for
which they are responsible, as shown in Table I.

Despite the common size and types of personnel in each network, interviewees
noted a great deal of variety across the 60 networks in terms of staffing as networks
build their services to match the specific needs of schools in their network.
For example, there is no common organizational chart that applies to each
network. As one central office leader noted, "We don't have a prescriptive one size fits
all model; we would have to create 60 unique organizational charts for each network."
Consider, for example, the network leadership team. The NYC DOE suggested that the
leadership team, given its set of responsibilities, consist of 12-14 instructional and
operational support specialists. Mostly this is the case, however, a few CFNs have
experimented by hiring more staff at lower salaries (e.g. former teachers, not former
school administrators), especially when the needs of network members are clustered
around instructional issues.

Differences in the number of staff aside, the network leadership teams generally
have similar positions including a director of instruction and a director of operations.
As a network leader explained, "On the instructional side are curriculum specialists –
people with expertise in English/language arts, mathematics, students with disabilities
and English learners. On the operational side of the house, network teams have people
who are HR partners, budget specialists, people who can deal with procurement
issues." Interviewees noted that within the network leadership team, there is flexibility

Operations and organization	Network leader Deputy network leader Student services	Instruction and achievement
Budget and payroll	Youth development	Common core learning standards
Human resources	Special education	Quality review support
Purchasing and procurement	English language learners	Alternative quality reviews
Compliance	Transportation	Inquiry and teacher team support
Food services	Safety and suspensions	Content area support
Facilities	Attendance	Post secondary readiness
Grants		Professional development
Technology applications		Instructional expectations
		Leadership development
		Teacher effectiveness
		Student leadership

Legal services provided by the central office

Note: [a]This is a list of CFN functional roles
Source: Adapted from the NYC DOE CFN Overview (2011)

Table I.
CFN areas of
responsibility[a]

in about three or four of the positions: "You can't say, 'Oh I'm not going to do the HR function.' Or, 'I'm not going to support special education.' The flexibility in personnel occurs around things like safety and discipline: 'A network that has mostly middle class, elementary schools on the Upper West Side does not have a huge work flow related to safety and suspension, so they don't need a full-time person in those areas'."

In contrast to a traditional school district in which schools are left to their own devices to implement district, state, and federal policies, the CFN management structure places the network teams as service providers to the schools. Network teams respond to requests for assistance from the schools around a variety of issues – described by one network team member as "triage":

> Here's an example from this past week: All our schools needed to buy service protection plans for their computers. The schools had central office telling them, "You need to do it by this date" and the date had passed but the schools couldn't get into the district's MIS [management information system] to get information about requirements and choices. So, as a member of the network leadership team, I tried to help schools get access to information and make an intelligent selection. I find a lot of what I do with schools is triage.

PD, a key responsibility of most central offices, is another example of how the information flow within NYC DOE has changed. As a network team member explained:

> The amount of PD and the way it is offered and who is in charge has changed dramatically with the CFNs. PD is no longer prescribed. Customization is our new approach to PD. In the past, a [district superintendent] would say, "This is the PD that you and all of your teachers are going to have," regardless of whether the school needed that PD. Now, the school is saying to us, "Okay, Network, I want you to come and coach me on this."

In addition to providing services to schools, the networks advocate on the schools' behalf to the clusters, which then work directly with the central office. As one interviewee explained: "Networks cannot change the rules directly, but when we see something at odds with what one of our schools is doing to positively impact students, we will aid a principal in whatever way we can to highlight an issue, appeal a decision,

or fight for more funds. Most often this involves picking up the phone to call the relevant person in our cluster."

On the flip side, networks have the relationship and credibility with their schools to push for improvement without putting the schools on the defensive. Again, this is very different from the traditional central office-school relationship in which the former supervises the latter. As a member of a network leadership team explained:

> Networks build relationships that district superintendents are unable to build, especially in the case of high school superintendents who have such large numbers of schools. Network teams are in the schools with a great deal of regularity and so the network teams are able to be very direct with schools. We can approach a conversation and say, "You know, I'm noticing something at your school that I think may need addressing. Can we sit down and talk about it?" Given our position with the network [we have no supervisory responsibility for schools], the schools don't fear retribution from us. Further, we don't really dictate. It's more, "I've been thinking about you. Last week when I was at your school I noticed this and an idea popped into my head." It's backing up suggestions with evidence, and doing it in a way that I hope feels supportive of principals.

As suggested by the degree of customization in New York City's approach to education reform, the individuals we interviewed at all levels of the system stressed the high degree of school site autonomy. One principal described the balance of power this way:

> Prior to this period of reform, when I was in the classroom, I was told by the principal who heard from the superintendent what our yearly focus was. One year it was bulletin boards. People in charge at the district level would "lead" […] by coming into a school, walking around and rating teachers according to the bulletin boards in their classrooms and in the hallways. If the bulletin board didn't meet Central's requirements, then the teacher and the school would have six weeks or so to change it. There was very little that was actually instructional in my early days that came directly from within the school. Now, under the CFN reforms, principals have the authority to bring in the people they need. They have the budget and staffing authority to select and pay for a coach, based on their school's needs.

RQ2. Is there evidence of a collective or shared intelligence within the networks?

Shared intelligence was seen through the prevalence of meetings – another aspect of information flow – opportunities for school-to-school collaboration, and overall network stability. Multiple meetings across the system help develop shared intelligence: there are bi-monthly meetings between the NYC DOE and the clusters, clusters and their networks' instructional staff meet monthly followed by monthly meetings between network instructional staff and the principals or school staff. These interactions vary depending on the needs of schools. When schools have their annual performance reviews, network teams are in the schools helping principals and teachers draft the report and prepare for the walk through. Some CFNs have workshops for the entire teaching staff at the school. Some principals have requested assistance with classroom observations or coaching teachers. Most of the CFN-school interactions begin with a request for help from the principal, so the content and structure of the interaction is largely how individual principals want it to be organized.

In addition to providing direct support to schools, the CFN structure provides an opportunity for school-to-school collaboration among principals to increase collective intelligence. One of the cluster leaders asserted that in her mind, "The highly effective networks are the ones that facilitate conversations across schools or provide space for conversations and cross-learning. Collaboration and conversation are built into the

structure of the CFNs." While this hunch remains untested, the perception may be a self-fulfilling prophecy by providing a selling point for networks wanting to attract high-performing schools.

As a network team leader reported, "Most networks have monthly PD meetings for job-alike positions across the network – principals, assistant principals, and teacher leaders for mathematics, E/LA, EL, and Students with Disabilities. In our network, we also sponsor a book club to get the principals out of school and talking to each other to help build social relationships." Another network leader reported that it can be a challenge to get all schools to participate and collaborate: "Some schools participate consistently and regularly and with passion. And other schools say, "I know what I'm doing. I'll call you when I need you," which we have to respect." A NYC DOE leader noted that this variability was built in to the CFN idea: "Any of those strategies are fine, as far as I am concerned, as long as they produce results. I don't think we should be dictating what being a network means."

In addition to the CFN facilitating school-to-school collaboration, some schools have independently initiated collaboration around a common area of interest or grade-level concern. As one network team member reported:

> We have a core of six principals who work that way; the principals are all interested in team teaching […] They involve us sometimes […] We provide encouragement, a framework, and we step in when we need to, but we also step out when we need to […] And then they'll step up and share with the rest of the group, they'll say, "We just did something on collaborative teams. We'd like to share it with the whole network." They go out to conferences together and come back to us with ideas.

Shared intelligence may be facilitated through the (somewhat unexpected) stability of the networks. Schools can elect to switch networks during a certain window every spring. The networks are ranked on their performance and the schools are able to make a selection of which network to join based on the ranking as well as on a description of the network's philosophy. Surprisingly, there has been very little movement between networks – about 4-6 percent of schools switch networks each year. A network leader noted that movement across networks has reduced over time:

> Initially, if I was School A and you were School B, and we had a specific need around special education, we'd go and look for a network that was really strong around special ed […] I don't think that happens much anymore because, for the most part, schools are happy in their networks, even though needs may change; networks now work to adapt to their member schools' changing needs and networks have more team members to enable customizing services to their schools.

The fact that network "shopping" has settled down over time might be indicative of the networks, over time, developing a shared intelligence and a collective understanding around problem recognition and potential solutions:

RQ3. What has been the system's response to experience?

The response of the system – the NYC DOE central office – to experience has been a process of continual evolution. The reorganization of the district into networks took place over several years as a fluid process, with multiple adjustments along the way (refer to Figure 2). As a NYC DOE leader reported, "It's an ever-evolving model. Each year of its existence, it's changed […] because we continue to assess and figure out what are the right functions [for a network] versus what are not." This evolution

was seen across all levels – from the way the central office was reorganized to include an Office of School Support and Instruction and the five clusters to the number and size of the networks. For example, one district leader further explained:

> We recentralized the networks in order to build their capacity to be able to further decentralize them, and actually free them from the central office […] because the disparate performance was very evident, and so we went from 71 networks to 60 networks two years ago, and fired 13 network leaders, and this year we're scheduled to get rid of another ten, and dissolve their networks, and ask the schools to select from among the top 40 percent of network performers.

In addition, as the CFN model evolved, there was experimentation with size, as noted above; for a while networks were permitted to be any size but ultimately the NYC DOE decided that each CFN ought to have between 25 and 30 schools. This was the district's way of standardizing the CFNs for equity and efficiency purposes. The district, however, is willing to make exceptions. According to one of the cluster leaders, one CFN has a waiver to have 32 schools "based upon historical affiliation" and there may be others with similar waivers.

Organizational learning is also evident in the changes that have occurred within the network team structure over time, the role of the community districts has diminished as the networks – organizations closer to the schools – accumulated more responsibilities. This increased decentralization has been accompanied by accountability mechanisms incorporated into the network structure mentioned above. Accountability continues to evolve as the district learns what works: In November of 2011, a qualitative component was added to examine the leadership support and leadership development networks provide, priorities set by the district:

RQ4. What benefits and challenges exist to the CFN model?

Interviewees across the levels of the system – central office, cluster, network, and school – all reported increased efficiency as a result of the implementation of the CFNs. As noted above, at the network level, budgetary freedom has meant that "some networks are very savvy in who they hire, especially on the instructional side. Some networks are hiring more former classroom teachers, instead of administrative people, which cuts down considerably on salary costs."

Another interviewee, a network leader who previously had worked in a regional office, itemized the savings this way:

> The implementation of the CFN structure put $400 million into the schools' budgets that [formerly] went to fund the central and regional offices. Before CFNs, the regional office overseeing high schools in the Bronx had 20 schools and our budget was $650,000 off-the-top for each school we supervised. We had 120 people in the office supporting 20 schools. Today a network supporting 25 to 30 schools has 12 people [in the network office]. Instead of $650,000 per school, the cost [for support services] is probably somewhere around $75,000 to $80,000 per school.

In addition to financial efficiencies, time-saving benefits emerged. One network leader noted that the network structure had helped streamline problem-solving:

> Over the course of the day, principals have multiple issues to deal with – staffing, student enrollment, budget, purchasing issues. The network team serves as the advocate for principals in helping to resolve those issues. When a principal has a problem, they have one person to call at the network, and that person tries to get back to the principal with a solution within 24 to 48 hours.

There is no need for the principals to contact the central office and spend time trying to figure out which department and which individual has the authority to help.

Indeed, networks have been designed to replace the "command and control" directives from the NYC DOE, which often were perceived by schools as threats. With networks in place, team members use their established personal relationships with school principals to change undesirable instructional or operational practices. As one central office leader explained:

> I would get dozens of requests a day, usually from the Chancellor and City Hall to change principal behavior [...] I can now call the network leader and say that what is going on is really a bad idea, ask them to please have a conversation with the principal. Having that conversation between someone the principal is accustomed to interacting with on a weekly basis, who they trust because the networks don't evaluate them, is much better than my calling from the central office and threatening them. And so, in terms of being able to change principal behavior, the network reforms are much more effective and efficient.

While central office administrators use network leaders in this way for leverage with schools, the flip side is happening too: network leaders buffer schools from central office demands. As noted earlier, clusters filter mandates from the central office so that school leaders can focus on instructional leadership.

Interviewees reported a range of challenges to meeting the goals of the CFN reform. Some of these are predicted by organizational learning theory, others are a problem with scale-up of the reform but may be fixable, and still others point to fundamental flaws of logic, aspects that may never be implemented with fidelity. Organizational learning theory stresses the importance of developing a shared intelligence, but the reform's champions may have underestimated the difficulties of adopting a new mindset of who is accountable to whom and where power lies. As one interviewee put it, holding network staff accountable to schools and to the principal "represents a shifting philosophical bent from one where expertise and information are held centrally, to one that is more along the lines of facilitating the spread of knowledge and expertise that exists within schools, and activating that." This shift in mindset includes a move away from a traditional hierarchy, in which the network teams would have authority over schools, to a network structure in which the schools have authority over the networks. Operationalizing this principle has been challenging, but may be fixable incrementally and over time. As a cluster leader explained, "Although school leaders have the ability to fire ineffective network leaders, very few of them actually do. I remember the first year we had a terrible network [leader] [...] and I met with his principals without him at the end of the year and I said, 'He's just not going to help you improve performance.' They said, 'We don't care, we really like him.' And he's still their network lead." This shows one of the challenges of a relationship-driven reform. Theories of district transformation suggest that positive relationships are the key to making change happen (see, e.g. Honig *et al.*, 2010). But as this example shows, a relationship-driven support system can also impede change out of fear of harming a relationship.

Another difficult mindset adjustment concerns network leaders – their ability to "function as a result of earned rather than conferred authority that is tough for them [...] They have to earn the respect of principals, they didn't come in with the authority to say 'we can fire you'." Another interviewee felt that this challenge was particularly pronounced in struggling networks:

> One of the pieces of pushback that we get, almost always with respect to some of our lower capacity networks is that the network leaders don't have any teeth – they can't do anything.

The leaders are not the principals' rating officer. The principals decide whether they want to be affiliated or not, and if a network tries to engage in a really difficult conversation that makes a principal uncomfortable, well, the principal just walks away […] I think that those concerns arise at our low capacity networks. Also I think our stronger network leaders don't have a problem with positional authority versus earned authority, because the benefits of being affiliated with a particular network is so obvious to the schools. Consequently, even if a principal is getting pushed in an uncomfortable way, they stay in the conversation because [the principal knows] the relationship is very valuable and supportive.

This may not indicate that the accountability design is fundamentally flawed, but may rather point to a challenge of scaling-up the reform system wide so quickly. The principals who first joined the Empowerment Zone were motivated by a desire to improve their schools. These principals, and others like them, will seek networks that will help them improve and will utilize the support provided by a network. If the support is insufficient, these principals will leave and get better help. However, when scaled up system wide, it is not surprising that some principals are unmotivated to change, and that the positional authority of the CFN is ineffective in spurring change. As suggested by organizational learning theory, when accountability fails at any point in the system, the learning will also fail.

As a network leader put it, positional authority means that:

Although I am responsible for helping all schools in the network, I can't force myself into a school. There are some schools that decline my help or don't ask for it. And my role is to dig a little deeper in the data and see where I can provide support […] and then I would broach the conversation, possibly with the help of another team member. In some cases, the inability to require schools to participate in professional development opportunities has meant that we get a good number of people in the schools who don't attend [a PD event]. Then later we hear from those same schools, "I need help with this" and while the response is that we had a meeting about that and all schools were invited, we then have to provide targeted support to the school – that's when our capacity is stretched thin.

At the school level, one challenge associated with more school-level authority has been that principals were not always interested in taking advantage of their network's ability to help with school improvement efforts. In these cases, principals used the CFNs to deal only with back office, operational issues. Some of the principals with this mindset choose CFNs based on the "insider" knowledge that the network was hands-off in their approach. This approach is not seen as problematic by the district, which does not prescribe network functions other than to help schools improve student performance: if schools are doing well, the district is satisfied.

Lastly, several interviewees across different levels of the system observed that while principals in the district feel empowered, the authority had not yet been extended to classroom teachers. As one interviewee reported, "Right before [Eric Nadelstern] left, he voiced the opinion that he thought we'd done a very good job of empowering principals. However, he didn't think we had yet empowered teachers." As one interviewee noted:

I had presumed that if you model for principals that the more authority you share, the more influential you become, then they would turn around and do the same thing with their teachers, but very few of them have. In retrospect, we needed to be much more explicit about that. In some of the networks, very few teachers have created opportunities to work together across schools on projects they think will help improve student performance. So there are a handful of networks that actually do that, but those are definitely in the minority.

These challenges point to the limitations of the CFNs as a capacity-building mechanism for school improvement. The ability of schools to self-affiliate with like-minded schools and the inability of network teams to intervene against a school's wishes has resulted in "pockets" of collaboration rather than systemwide learning as the reform intended. Indeed, our preliminary findings suggest that while organizational learning – or at least the flow of information, collaboration, and trusting relationships that are often associated with learning – may be taking place in some spheres, particularly, in high-performing networks who have embraced the new autonomy in exchange for accountability model, a bureaucratic mindset has not disappeared with implementation of the CFNs. This suggests a transition problem: the district did not manage the transition to the new accountability and support model very well. As one interviewee noted, "If there's not buy-in and understanding to the network concept at all levels of the organization […] [the district office is] then creating workloads centrally that are ill-suited to the delivery structure that we have established." This creates the need for clusters and network teams to decipher the mandates from the central office, or, as noted above, to run triage for the schools. The interviewee further noted that although networks may understand that their role is to advocate on behalf of the schools and facilitate school improvement, the NYC DOE has held onto "a very learned and experienced understanding of top-down administrative bureaucracies, in which [central office] folks are creating huge work flows that will ultimately hit schools." According to a network leader, the rapid scale-up of the CFNs seems to have exacerbated the problem:

> Eric [Nadelstern] took the organization hostage and was able to push this out city-wide, in some ways, under the radar. Other deputy chancellors kind of woke up one day, the whole city was organized into networks, and they wondered. "How did this happen?" Now one school year into it, and it's like the insurgency is bubbling up. In my mind, that is one of the biggest challenges as far as network sustainability, because the things the networks need to do to please their constituents and to move their constituents, who I would argue are the schools, are almost at cross purposes with what they would have to do to satisfy the district leadership.

This may be an alignment problem or it may be that the accountability scheme is fundamentally flawed, something that will become evident with time.

Another interviewee described the process of navigating the new organizational structure as "deciphering what are district mandates versus what are the fictional policies – policies that were created at some point in the history of the Department of Education […] In general, as a network, we're able to figure out a way to meet the mandates and also still allow some customization. There are some things, though, that we'll never be able to be flexible with and, in those instances, we work to minimize the must-dos so that they don't impede upon what a school's vision is."

Another challenge has been engendering public support for the implementation of the CFNs. As a district leader explained, "It's difficult to translate to the public what a network is. It's a really complex management structure and it's hard, therefore, to reflect it outward, especially when you say, 'Well, we don't have a one-structure size fits all. We can't give you an org chart.' The need for public support extends beyond parents to local politicians and community organizations – groups whose resources would benefit the schools. Another interviewee from the central office noted, 'Within a four-block radius, you can have three schools that are in three different networks. So it's not like community groups are going to say, 'Well, I'm going to forge a relationship

with all three networks' […] Melding the a-geographic factor with some of those entities is difficult'."

On the flip side, several interviewees reported that the CFNs had reduced political nepotism in the district. According to one interviewee, the CFN structure "makes it near impossible for the politicians to get jobs for constituents, to get constituents' children into particularly good schools, and the like, that used to be a regular way of doing business here."

Conclusions and hypotheses for future research

As an exploratory study, the research is intended to inform larger-scale, mixed-methods investigations of school networks, especially those implementing reforms aimed at improving teaching and learning in schools, such as the Common Core State Standards, which have been adopted in the USA by nearly all states. Networks may be one of many models that illustrate the dance between centralization and decentralization that pulse through large urban school districts. Like portfolio districts, mayorally controlled districts, and the variations on those themes, the case of CFNs in NYC adds to our knowledge and suggests a substantive research agenda to follow.

Early results from CFNs are promising. According to James Kemple (2011), executive director of the Research Alliance for New York City Public Schools, "There is compelling evidence that the constellation of reforms being instated in NYC from 2003-2010 had a positive effect on ELA and math proficiency rates in the fourth and eighth grades and on graduation rates, over and above continuing effects of prior reforms or conditions shared by other districts" (2011, p. 288).

While Kemple acknowledges that is it difficult to link promising outcomes to a single component of Children First, it seems reasonable to conclude that without reorganizing the governance structures in the New York City education system, the reform efforts probably would not have gained the necessary traction to produce positive improvement in student performance. New York City moved from being a school system to "systems of schools" – school networks.

Not too surprisingly, the findings from this study suggest that the most direct change attributed to networks over time was in the area of governance: the replacement of one style of leadership – supervisory – with another kind of leadership – facilitation. In New York's education system, authority is not awarded politically or organizationally by virtue of the position one holds; instead authority is earned based on the network leader's demonstrated ability to help schools improve and meet their performance targets. Network performance, as noted earlier, is assessed in several ways largely by their member schools, including a market mechanism – if you are not selected by enough schools, you are not entitled to run a network – and also by a series of quality and performance reviews of networks and their member schools, sponsored by the district office. In addition, this case confirms that accountability, in any configuration and power flow model – be it top-down, bottom-up, out-to-in, in-to-out, power-over, or power-delegated – seems to have a similar impact in focussing actors and their organizational groups on the metrics of improvement.

As a pilot study for a large-scale study of district reform efforts in New York City, our findings identify several areas for future research. At this point, we have little information about the collaborative networking aspect of the CFNs. We know from this preliminary study that much of the networking occurs between the leadership team and individual or small groups of network schools. Using social network analysis would help identify the nodes (organizations and individuals) and how they are tied or

connected to one another. Such data would give a broad picture of underlying network structures that are important in understanding resource exchanges between individuals and groups within an organization (Cross *et al.*, 2002; Song *et al.*, 2007). For example, based on this exploratory study, we discovered through interviews that lateral learning among schools tended to be idiosyncratic to the individuals involved and not systemic, as in other school networks (Wohlstetter *et al.*, 2003). Through social network analysis, schools and individuals with the strongest ties to others could be identified and the source of the exchange could also be determined, leading to a blueprint of what exchanges between schools are generally about and who is involved. Adding qualitative methods to such a study would help researchers determine why lateral learning is not more wide spread. Further, in the hot spots where this exists, what factors contribute to it? What is the influence of principal knowledge/expertise and social capital on the incidence of lateral learning? We also hypothesize that lateral learning may occur more frequently in the more established networks as collective trust increases.

A second area for study would involve exploring what differentiates high-performing from lower-performing networks, as judged by improvements in student performance, and stability within the network (e.g. high retention among school staff and network team members). Based on previous research on networks, we hypothesize that network coherence is closely associated with network performance. Does the reason schools affiliate with the same network make a difference with regard to coherence – curriculum-based, similar target populations (e.g. English learners) or familiarity with network principals? Some networks have higher numbers of newly created schools and/or newly tenured principals: To what extent are these factors associated with network performance? Equally important is a set of research questions that drill down to examine the performance of the network leadership team – both individually and collectively. For instance, is the network team using a one-size-fits-all approach to helping member schools or are network services more customized?

Finally, we are struck by the large amounts of data the NYC DOE collects on network performance. Who uses this information and for what purposes? As described in this paper, the CFNs have evolved over several years, beginning with a pilot – the Autonomy Zone. Is the NYC DOE using the data to inform its decisions to tweak the network structure – if so, what are they responding to? To what extent do network teams have easy and timely access to the performance information such that they can benchmark their scores against other similar networks? Are the data most useful for compliance or are they also useful for guiding network improvement decisions? Finally, how are schools using the NYC DOE network performance data? Do schools use the network performance data to decide whether to join or leave a network? Are all data elements of equal value? During this time of significant budget cuts, particularly at the federal and state levels, revisiting the NYC DOE's performance accountability system with regard to network performance may lead to a broader array of types of data (i.e. qualitative and quantitative), as well as a reduction in the number of discrete data elements.

The evolution of network structures and processes in the NYC DOE has taken hold to such a degree that it is institutionalized throughout the public education system. As New York City begins to implement the Common Core Learning Standards in its schools, CFNs and clusters, along with school principals, are the "street-level bureaucrats" responsible for implementation. Beginning with summer 2010, all these groups were engaged in PD around the Common Core. This leads to additional

research questions: How much of a change does it represent in terms of curriculum and teaching? What's the best way to assess whether classroom teachers are able to teach the Common Core effectively? What assessments ought to be put in place to assess student learning of the Common Core?

The network approach put in place in New York has spurred similar reform elsewhere. In Philadelphia, for example, a proposed reorganization of the Philadelphia Public Schools would move responsibility for providing support and direction out of the district central office and into small Achievement Networks of 20-30 schools in an effort to make the system responsive to school and parent/community needs. Performance contracts would be created for every network, which would be launched in three phases starting in September 2013. The adoption of the CFN approach outside of New York intensifies the demand for future research.

Note

1. The first year New York instituted clusters (2010), the public schools were served by six clusters. Subsequently, the number was reduced to five late in the fall of 2011.

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