

## Developing new roles for research in new policy environments: The Consortium on Chicago School Research

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### Consortium on Chicago School Research Mission

CCSR conducts research of high technical quality to inform and assess policy and practice in the Chicago Public Schools. We seek to expand communication among researchers, policymakers and practitioners as we **support the search for solutions** to the problems of school reform. CCSR encourages the use of research in policy action but does not argue for particular programs or policies. Rather we help to build **capacity for school reform by identifying what matters for student success and school improvement, creating critical indicators to chart progress, and conducting theory-driven evaluation to identify how programs and policies are working.**

### Introduction

The Consortium on Chicago School Research (CCSR) was founded in 1990 after the passage of the Chicago School Reform Act that decentralized governance of the city's public schools. Since then, CCSR has distinguished itself as a unique organization that conducts research of high technical quality that is accessible to practitioners and policymakers and is used broadly by the school reform community. Most importantly, the CCSR is viewed as making important contributions to school reform both through the contribution of specific research studies and more broadly by improving the capacity of the district to use data, build effective strategies, and evaluate progress.

The success of the CCSR has led other cities to consider starting research consortia. Over the past several years, we have hosted visitors from many cities trying to understand how we are different from more typical university-based research centers. . Most of these discussions tend to center around questions of: how we organize our work; how we establish strong relationships with the district that allow us to maintain independence while trying to influence policy and

practice; how we organize our research so that it has broad influence; and, how we decide what to study. As New York City moves to establish its own version of the Consortium, researchers and policymakers in New York must struggle with two questions that we at the Consortium engage in on a regular basis. First, how can an organization conduct research in a way that best maximizes the impact of that research? And, second, what role can research ultimately play in building the capacity of the system to reform?

In this paper, we try to lay out some of the ways in which co-directors at CCSR think about those questions. We argue that two characteristics of CCSR make it a different kind of organization and have contributed to its impact. The first relates to how we do our research and how we interact with policymakers, educators and the school reform community around this work. The second is what we study. CCSR has maintained a consistent focus on the core problems of school improvement across many different research studies. In doing so, CCSR seeks to move away from siloed research studies where researchers work alone and produce disconnected findings. Our focus is on developing coherence across studies in ways that build the system's and practitioners' capacity to identify outcomes that matter, their role in shaping those outcomes, and more coherent approaches to solving the central problems they face. In essence, CCSR's theory of action is that social science research can make major contributions when social scientists do what we do best – carefully measure outcomes and create indicators to chart their progress, rigorously test alternative explanations and build frameworks and concepts for what matters for school and student success, and bring evidence to bear on whether efforts to improve are having their intended effect. By focusing on one place, moreover, CCSR can conduct high quality research in ways that promote engagement in those research findings across various levels of education practice and create a core focus on the central problems that educators, reformers, and administrators are grappling with as they try to build effective schools

and support student's learning and development.

### **Background of the Consortium**

CCSR began in 1990 in the wake of Chicago's decentralization reforms. The Chicago School Reform Act of 1988 devolved substantial resources and authority to local schools. The law established elected local school councils and gave these councils the authority to hire and fire the principal and set their own School Improvement Plan and budget. Principals gained the authority to hire their own teachers. With the greater autonomy came substantial discretionary funding through the redirection of Chapter 1 monies to local schools. At that time, the central office was viewed as a bloated, inefficient, and often inept bureaucracy that was at odds with school reform. Given the magnitude of this experiment, the advocates of reform, largely the foundation community and local reform organizations, felt that it was important to establish an independent research organization charged with supporting reform efforts through conducting independent objective evaluation of the progress of reform and by engaging in research that would assist local schools in developing their own strategies.

The 1988 School Reform Act was the first of three major waves of reform in Chicago. In 1995, in response to fiscal crises and union strife, the state legislature again intervened and turned control of the Chicago Public Schools over to the mayor. The act gave the mayor authority to appoint a new Board of Trustees and replace the superintendent with a mayoral appointed Chief Executive Officer (Bryk, 2003; Hess 1999, 2002). The new CEO, Paul Vallas, brought fiscal talent, union peace, and initiated substantial investments in capital improvements. Most importantly, the new CEO and Board of Education again put Chicago on the national map when it put accountability and ending social promotion in the 3rd, 6th, and 8th grades at the core of its educational improvement strategy. Since 2001, with a change in both the CEO and Board of Education directors, a new administration has initiated yet a third wave of reform, bringing a

strong focus to teaching and learning and building capacity in the school system through reforming teacher hiring and recruitment. The new administration has focused specific attention on high schools and has a more decentralized strategy focused on supporting innovation through creating new schools, allowing schools to opt into specific reform strategies, and supporting more choice.

The origins of CCSR during a time of decentralization strongly shaped the development of our organization. First, in the absence of a strong central district, the audience for research findings was not central administrators, but the critical actors in reform: the new principals, the foundation and reform organizations that were supporting reform, and the broader civic community. Second, if the audience were school level personnel and the reform community then the research itself must immediately attend to the central problem that these reformers were grappling with – what would it mean to judge the effectiveness of school improvement and create effective schools? In this context, the challenge for research was to find ways to inform that question through bringing data and evidence to bear on the problem and providing critical frameworks for understanding the task. Working closely with other research and reform organizations and the school district, CCSR developed a conceptual framework for organizing its research, “The Five Essential Supports for Student Learning,” which became a centerpiece of local school improvement planning guides. CCSR then initiated broad scale series of surveys to measure each school’s status on each of those supports and to support the work of schools through giving specific feedback on those measures. Schools that participate in Consortium surveys receive individual school reports comparing their school’s performance to similar schools on these essential supports and allow them to track progress over time. This new role for research --to provide a framework (but not a blueprint) for improvement, to provide critical measures of performance and feedback mechanisms to individual schools, and for researchers to

engage in the core questions of what it will take to improve performance—has had a significant impact in shaping the work of the Consortium and the role of research in the city. Now the researchers were not just an independent group doing studies “on schools” but were a resource for schools that practitioners could look to for support in managing their own school improvement efforts.

Over time the CCSR has evolved to be a more complex organization and our work has evolved to meet the changing policy environment in the district. We conduct topic specific studies on problems such as student mobility and new teacher induction. We engage in evaluation of district level initiatives such as new small high schools or the effects of ending social promotion. We support a range of research studies with diverse methodologies. But key to the success of the Consortium has been a consistent focus on these initial themes: (1) if research is to be effective, researchers must pay careful attention to the process by which people learn, assimilate new information and ideas, internalize that information, and connect it to their own problems of practice; (2) research must be closely connected over time to the core problems facing practitioners and decision makers; and (3) if research is to build capacity, the role of the researcher and the product of research must change from outside evaluator or expert to engaged and interactive participant in building knowledge of what matters. In the remainder of this paper, we discuss how these critical themes are reflected in how we conduct and disseminate research findings and how we view the role of research in informing policy.

**How can a research organization conduct research in a way that best maximizes the contribution of that research to practice and builds capacity for reform?**

Key to the mission of the Consortium is to “encourage the use of research in practice.” This requires explicit attention to building the capacity within this city for engaging with researchers and with research findings. It requires building relationships and procedures so that research findings are effectively communicated. And, as we argue in this section, it requires

paying particular attention to the processes by which decision makers, professionals and the larger education community assimilate new ideas. There are four critical characteristics that have governed the CCSR's organization and practice that serves these aims: (1) a commitment to developing an extensive data archive on the Chicago Public Schools; (2) a commitment to extensive stakeholder engagement and strong ongoing relationships with the district, (3) a commitment to setting high standards for research while making findings accessible to non-researchers; and, (4) a commitment to intensive public informing.

*(1) A commitment to developing an extensive data archive on the Chicago Public Schools to support the study of reform in a place.*

One of the central activities of CCSR and a defining feature of it as an organization is that CCSR seeks to build capacity for research by maintaining an extensive data archive. At present, CCSR maintains the most extensive longitudinal data archive on a city's public system in the country based on an ongoing data-sharing agreement with the Chicago Public Schools (CPS). The database contains complete administrative records on all students for each semester since 1991, course transcripts of all high school students since 1992, and elementary and high school achievement test scores of all students since 1990. The Consortium also collects personnel files and, more recently, in a joint effort with the CPS, has added data from the National Student Clearinghouse (NSC) on the college enrollment and college diploma attainment of CPS graduates, beginning with the graduating class of 1998.

CCSR's survey project supplements administrative data with more detailed information collected from students, teachers and principals. Beginning in spring 1994 and continuing biannually from 1997 through 2007, the CCSR has surveyed all CPS teachers, principals, and students about their school experiences, behaviors, practices, and assessment of school and classroom environments. Surveys also collect additional background data including home language and parent education that are unavailable elsewhere. We have also linked each

student's home address, and each school's address to information from the 1990 and 2000 U.S. censuses at the level of block groups, and to crime statistics provided by the Chicago Police Department. These data are all linked by student- and school-specific ID numbers.

We cannot emphasize enough how the extensive data archive sets CCSR's work apart from other researchers and how it has contributed to our impact. In more typical research, an organization or person gets funded to study a problem. The data for that study is collected – e.g. the researcher develops a survey and convinces a set of schools to administer it. The researcher obtains data and conducts the research. The analytic and technical knowledge that is gained from those activities is then owned by the researcher. Other researchers can try to reproduce their findings by mounting a similar study or, if studying a different problem, can begin anew in trying to obtain data and develop methods to deal with the complicated problems of cleaning messy school data sets.

This still goes on in the Chicago schools. Every year, we hear of independent surveys that are administered to schools by researchers studying, for example, after school programs, youth development, or teacher practice. And, every year, the Consortium fills data requests on approval from the school system for researchers at various universities engaged in independent studies. Seldom do administrators hear about the results of that work and even more seldom do the results of that work end up shaping future work in a school. Researchers who collect data from schools make well intentioned promises to feed back their results, but there is no accountability mechanism or formal process in place to make sure that happens. Most of the time it doesn't happen. A separate problem with these "one-off" research studies is that other researchers cannot then pick up the development of that work and build on it.

CCSR's commitment to maintaining the data archive provides a solution to many of the problems outlined above. It increases the analytic capacity of researchers to study a wide range

of issues and respond to new demands. It promotes coherence across research studies and agendas. And, it builds accountability for researchers. First, and most obviously, the data archive promotes research and increases the analytic capacity of the city among researchers and non-researchers. Even if researchers shared their data, the data an individual researcher collects is designed to address a particular problem and often does not generalize to new problems. The data archive, however, allows researchers to draw on a complete set of data, providing wide flexibility to address new research questions. In this way, the data archive plays the role that the U.S. Department of Education has played in increasing the capacity of researchers by investing in large longitudinal studies. The difference is that because our work is ongoing within one district, it allows researchers to respond to new demands and to do so in rigorous ways. For example, when CCSR was established, no one in the reform community would have predicted that within five years the district would engage in a large scale initiative to “end social promotion.” Researchers in other districts, who have faced similar dramatic shifts in policy, often must mount expensive studies from scratch and are limited in the ability to understand changes in performance without extensive pre-reform information. Yet the extensive data archive meant that within one year of the policy implementation, researchers could quickly track changes in retention rates and student test score performance. Longitudinal surveys meant that we could compare teacher practices and students’ report of their experiences of school pre- and post-reform. The availability of these data enabled one of the most extensive studies of the effect of ending social promotion to date.

The data archive also means that CCSR becomes an important “resource” for the city. CCSR regularly receives requests from reporters, external evaluators, and smaller independent organizations for assistance in helping evaluate their own programs. Often these requests go beyond simple data requests. CCSR analysts play an important role in helping other researchers,



reporters, and program administrators unfamiliar with large data sets talk through their questions, the data they need to answer them, and how to interpret results. Thus, the CCSR becomes a technical resource for a wide range of institutions throughout the city that would otherwise be unavailable if researchers were acting independently.

Second, the data archive allows CCSR to build coherence across research studies and institutionalize research findings into ongoing indicators. This is a core focus of the data archive and an area that we will discuss further when we ask what role research can play. For example, CCSR's founder Tony Bryk and colleagues developed several survey measures to tap into their framework of relational trust in schools (Bryk and Schneider, 2002). Since the measures are linked to student achievement, they now live on as a core survey indicators. Individual school survey reports then benchmark teachers' and principals' reports of trust in their school against comparable schools and the district. These measures of relational trust have then been used by other researchers as they evaluate the effect of new initiatives, such as whether small schools are creating effective conditions. Thus, core indicators build the capacity of researchers and the district to link across studies and create common dialogue across reforms.

And, finally, the data archive is also an important organizational feature because it creates an accountability pressure on both CCSR researchers and the school district, which can then lead to sustained mutual trust. CCSR researchers understand the need to continue building the archive over time, and are therefore more responsive to schools and the district. Similarly, the district sees the value of the archive for addressing unanticipated questions and are willing to continue providing data and assisting with the survey administration. Such relationships are unlikely to develop among individual researchers and the school district.

*2) A commitment to extensive stakeholder engagement and strong ongoing relationships with the district*

Visitors to CCSR often ask us: How do we keep the district happy and maintain relationships with key stakeholders when sometimes there is very bad news? There is no doubt that this is not easy task. Part of the response, as we discuss later, is that bad news can be taken well if policymakers and the education community believe firmly that the research is intended to inform improvement rather than argue a particular point of view. Part of building that trust, moreover, is by engaging stakeholders in the research and by regularly communicating research findings with the district and the larger community. The founders of the CCSR were strongly influenced by the central tenet of stakeholder evaluation – that seeking the input of many voices will influence both the quality and impact of research.

CCSR institutionalizes a stakeholder approach through our Steering Committee. CCSR is governed by an executive director, co-directors who lead major research projects, and an administrative oversight committee.. Although advisory in nature, the Steering Committee provides a critical role. The Steering Committee meets 7 or 8 times each school year for two hours. It is a deliberately multi-partisan group that is designed to represent various voices in the reform process. The Steering Committee is currently made up of 20-24 members who represent two distinct classes: institutional members and individual members. Our institutional members include the Chicago Public Schools, the Illinois State Board of Education, the Chicago Principals' and Administrators' Association, and the Chicago Teachers Union. These members appoint their representatives. The school district has three slots on the Steering Committee (all others have one), which have traditionally been filled by a designate for the Chief Executive Officer, a designate for the President of the Board of Education, and the Chief Officer for Research Evaluation and Accountability.

Our individual members are recommended by a Steering Committee nominating committee and include researchers, university and civic leaders, and reform advocates from

across the city. These members are selected for their expertise, their diversity of opinions, and their involvement in school reform. These positions are not allocated by institutional affiliation. Finally, foundation representatives attend meetings and participate but are not regular members.

The Steering Committee has five primary tasks: giving input into the research agenda, reviewing research designs, shaping the interpretation of preliminary results, providing feedback on final reports, and assisting with dissemination. Meetings typically focus on some substantive conversation about a study we are proposing to undertake or a review of research findings. CCSR researchers share study designs and/or preliminary data, and Steering Committee members raise questions about methods, inferences, alternative interpretations, and policy implications. Before research reports are written, a presentation is given to the Steering Committee for feedback. A penultimate draft of each report is distributed to members for comments. While the Steering Committee is advisory, their input plays an important role in shaping reports, research, and ultimately, interpretations. There are many times when CCSR researchers receive conflicting advice and perspective on what is useful or not useful in a report and hear various ways that one can interpret findings. These “voices” are important because often the resulting reports represent the input of constituent feedback. And, most often, researchers head back to work after a presentation feeling energized because they either heard an interpretation they had not tested or were pushed to take a research finding farther.

The Steering Committee assists in ensuring that CCSR research is useable and speaks to multiple needs and voices. But, the Steering Committee itself is an important way that we seek to increase the capacity of the city to engage in dialogue over reform and research findings. Steering Committee meetings are one of the few forums in the city where leadership of the district engage in regular dialogue with researchers, union representatives, and leaders of reform organizations around the core issues of practice and improvement. Steering Committee meetings

are a place of lively debate and offer a forum where a consistent group of people interested in reform can talk about problems and interpret research findings openly and respectfully, often setting aside their official roles. This is also critical for CCSR in disseminating research findings and ensuring that research findings are heard. By the time a report has been released, Steering Committee members have watched each research product unfold and have had time to process the findings in a group where they have the opportunity to listen to other members' interpretations and reactions. As a result, by the time a report is released, Steering Committee members can play a critical role in each of their respective communities in helping others process findings, understand the value of the research, and understand how the work fits into a larger research effort. Senior district leadership have had time to think about the findings and understand their implications. Members of the reform community have assimilated the findings and are often thinking about ways they can use the research in their own organization's work with schools. Thus, by the time a report is released, the findings and key ideas often are already on the agendas of the organizations involved and they are eager to start moving on the findings and can talk about them with confidence. Members of the Steering Committee then become champions of research reports and are key in deflecting criticisms of controversial findings and assisting in the translation of those findings into policy and practice.

The importance of this process – of giving an important segment of the intended audience of research findings time to process results before a report is released – is equally important for the district. CCSR maintains a “no surprises” policy. Before a report is released, CPS Steering Committee members receive penultimate drafts. We then hold formal briefings with the CEO, other appropriate district leadership, and members of the Board of Education. Throughout the process, we try as much as possible to regularly inform leadership of the findings as they develop. This is not just political. If CCSR research is to inform policy, researchers must pay

attention to the tremendous demands on district leadership and the need to give all stakeholders the opportunity to process findings. District leadership is under tremendous pressure. The public nature of CCSR's work means that many, particularly the press, approach new research findings as an opportunity to call the district to task, reveal flaws in reform efforts, or pronounce the district's claims of improvements as counterfeit. If all the district leadership did was manage these reactions, there would be little opportunity for them to process the potential contributions of the research and ultimately would undermine the CCSR's role. Regular briefings, formal presentation of research findings to key leaders and to departments who are the targets of the research, and the release of penultimate drafts of reports are all mechanisms by which the district can feel prepared to respond to the potential reactions of research but can go beyond that to process what those findings mean for their practice.

*3) A commitment to conducting technical and rigorous research while making findings broadly accessible.*

When do research findings become useful and how do decision makers use research? Carol Weiss and Michael Bucuvalas (1990) asked this question in a study of decision makers' use of research in mental health. They interviewed decision makers and social scientists and presented simulations and case studies of real research. One of the most important and, in their minds surprising findings of their study was the value decision makers place on "research quality." They note: "We had expected that the technical competence of a study would be positively associated with usefulness, but we were unprepared for the strength of the association." <sup>i</sup>(Weiss & Bucuvalas, 1990, p.252) Research is "believed to be useable," Weiss and Bucuvalas conclude, when social scientists do what they are best at—think deeply and hard about a problem, be rigorous in the analysis and interpretation, and be balanced in inquiry. CCSR, founded by cutting-edge quantitative researchers, has maintained a commitment to conducting high-quality technical work. CCSR studies use rigorous methods for estimating

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school effects, measuring the “value-added” of schools, accounting for selection bias in estimates, and evaluating the effects of policies. CCSR researchers have waded through the technical details of various methods of constructing dropout rates and weighed the pros and cons of various methods. And, CCSR has developed new methods for measuring classroom practices, mixing quantitative and qualitative data in analysis, and adequately measuring achievement growth. This technical quality, we believe, is one of the most important components of our work because people “believe” the work-- it is authoritative. As discussed above, part of this “trust” in our work is built because of our commitment to stakeholder engagement. But, a great deal of the trust is because of the quality of the research itself—decision makers and educators believe that they can trust the Consortium to tell the truth, be objective, and be rigorous. This certainly takes time to develop and takes a track record over time.

High technical quality, however, often presents a significant barrier to research findings becoming useful. While educators often want to be on top of the new findings in their field, gaining access to these findings is difficult. Particularly in quantitative work, by the time articles reach top journals they are in such technical language and presentation that findings are no longer accessible to the administrators, teachers and the education community that were the subjects of the research. School administrators do not have the time or inclination to read dry research articles and often don’t have the training to delve into detailed tables of complicated results. The publication and review time of journals is so long that by the time research articles are published, they are often dated. One of the unique characteristics of CCSR is our commitment to translating research findings into publicly accessible reports that are widely disseminated throughout the education and reform community. CCSR staff spend hours trying to find ways to give non-researchers access to more technical analysis—like how you might measure value added, what the effect of failing a course might be in shaping graduation after

adjusting for differences in student characteristics, or how differences in students' reports of the academic climate of their classroom is associated with learning gains. We take painstaking efforts to make the language of reports and the presentation of research results accessible. Rather than hide the methodology, CCSR reports seek to engage non-academics in the problem that leads to more advanced analysis and how that analysis changes estimates and interpretations (why it is important, for example, to not just look at test scores but move to value added or to be careful in constructing comparison groups or to use multivariate methods). Our commitment to multi-method research also enhances that accessibility because we are able to validate quantitative findings with qualitative analysis and vice versa, use qualitative analysis to demonstrate and test alternative hypotheses, and place research findings on the ground in real examples of how they play out in schools. Multi-method investigation not only enhances the rigor and validity of reports, it makes researchers "valid" to practitioners.

Ultimately, however, research reports are difficult to read even with painstaking efforts to make them accessible. The "window time" – the time in which people pay attention to a finding - for a research report alone can be very short. Yet, it takes time for educators to grapple with the importance of the findings, their potential implications, and the meaning of those implications for their day-to-day work. There are two important ways that the CCSR seeks to build engagement in research findings over time – through building coherence across research studies and reports and through developing indicators and presenting more "on-time" individualized reports to schools. First, the release of a report should not be the last word on a research topic, it must be thought of as the first word or the next word. As the CCSR takes on projects – ending social promotion, an investigation of the determinants of freshman year performance, the determinants of college access and success, or the effects of small schools in Chicago – we focus on developing series of reports that release critical findings over time and that build attention to

the problem and an emerging body of research on the determinants of those findings. This is often hard for researchers to engage in. In the middle of a study, it is hard to release findings without the definitive conclusion. It is hard for researchers to talk about the pieces of the puzzle without the definitive whole. But, just as researchers learn by piecing together the parts of their research, so too must the practice community. Thus, it is critically important that if research is to inform policy it must do so by engaging in long-run research efforts that engage the education and reform community in findings in multiple ways over time to build knowledge.

A key Consortium finding, discussed in the next section, is that effective schools build coherence across programs. This is a core focus of our work and a way we build the capacity of research to inform practice. Individual researchers putting out isolated siloed studies on different topics that pull schools in very different directions would reproduce the “Christmas tree” approach that Tony Bryk used to characterize schools that bought many programs but did not put those together as a coherent whole.

Internal coherence is as crucial to us at CCSR as it is in schools. We need to insure that all of our variables and measures are defined consistently across studies; that our rules for which students and schools are included in which analyses are rational and well documented; and that our programming code for common procedures is consistent from one analyst to another. Our primary vehicle for insuring this consistency is a mandatory, weekly, two-hour meeting called “data group” for all researchers and analysts at CCSR. These sessions combine professional development and socialization for new staff, accountability and quality control for all, and importantly, the venue to insure that everyone is on the same page and that we all follow the same jointly determined and documented analytic conventions in our research.

Finally, CCSR seeks to build coherence, accessibility and impact by providing more individualized products that allow school-based educators to see how research findings play out



in their own school. Individualized Survey Reports (ISRs) allow educators to track over time their status on critical indicators of school environment that have been linked to student achievement. Although ISRs were an initial central focus of CCSR's work, over time the content of the reports drifted from major research findings. Over the past several years, particularly in our emerging focus on high schools and the emerging emphasis in Chicago on supporting decentralized innovation, CCSR is viewing individual school reports and more on-time data support for schools as a critical component of our work both in building the analytic capacity of the school system and in helping research findings inform practice.

*(4) A commitment to intensive public informing around the results of research.*

We attempt to present research in accessible formats and to develop coherent themes across reports on the key factors for improving student performance and instruction. Being able to accomplish this is essential to helping the district grapple with the core problems of reform and having an impact on practice. Researchers seldom pay attention to the question of how ideas and research findings actually work their way down to decision makers and practitioners and how they conceptualize a problem and change their behavior. To many researchers, the implications of their findings are obvious. The details of what it would take to convert research findings into changes into practice are assumed to be left to others. This question -- how a research finding can work its way down into changes in how people think about a problem, their task, and their work -- is a complicated one and must be at the center of how organizations like CCSR conceptualize and conduct their work.

Charles Lindblom is one of the leading thinkers on the question of how social science can contribute to what he calls "social problem solving" (Lindblom & Cohen, 1979; Lindblom, 1990). Lindblom proposes that practitioners, policy makers, and the public are engaged in a process of

interactively trying to solve problems as a part of a complex search for knowledge from a variety of sources. As Bryk and Sebring argue, Lindblom's conception of problem solving

*“contains a radical idea. The proper aim of applied social science is not to find the one best technical solution to a problem (and then advocate for it) but rather to inform the existing competition of ideas and perhaps, extend it some with the best possible evidence that we can collect.”*

Lindblom's work has been instrumental in forming the approach of the CCSR. As described in the next section, the role of our research is not to provide the technical answers to problems but to inform debate around the core issues that form “problems” that engage the public and practice. Second, the work of informing is based in close interactions with practitioners over time. The view that it takes time for new pieces of evidence to have effects is supported by the findings of Weiss and Buculavus (1990). Weiss and Buculavus found that specific research studies can seldom be directly linked to changes in practitioners' work—e.g. seldom could policy makers point to a piece of research that directly impacted a decision they made. They found instead that *“the research information and ideas that percolate into their stock of knowledge represent a part of the intellectual capital upon which they draw in the regular course of their work”*(p. 263).

Key to this process by which research may influence practice must be changing the relationship between researchers and practitioners. First, it suggests that principals, administrators, and the public will not be able to take a CCSR study and immediately put it into practice. Rather, the ideas behind that work must take time and be heard in multiple ways over time if practitioners are to do the work of understanding the findings, connecting them to problems they face in their own work, and integrating that knowledge into what it means for their efforts and work in schools. This takes time and it takes interaction. An additional unique aspect of the CCSR's work is that we have increasingly paid attention to the process by which research findings get assimilated and processed within the education reform community. All of

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the organizational characteristics outlined above are key to our understanding of that process. Maintaining the data archive keeps key findings alive in ongoing research. The Steering Committee's engagement in the research process means that a group of top level practitioners both within and outside of the district are engaged in processing the ideas and become intermediaries between the research findings and practitioners in doing the work of translation. And, public reports that are accessible means that practitioners have useable documents they can turn to over time and use with their staff.

In addition, CCSR seeks to support that process through wide dissemination of research findings. Our studies often are released at a citywide symposium attended by Steering Committee members, district staff, and a broader range of foundation, reform groups, and the education community. A traditional press conference follows the symposium. Before either event we hold pre-release briefings with the Chief Executive Office, his staff, and staff from the Board of Education. For high school studies, we often invite all high school principals to a pre-release presentation and distribute preview copies. And multiple pre-release briefings are done with the district level staff most affected by the research findings. The public release, however, is often the starting point for a broader engagement of the education community in research findings. For example, following the release of our recent report on college access, enrollment and performance of CPS graduates (Roderick et al., 2006), the researchers made up to 20 presentations to district staff, principal groups, college reform organizations, and to the foundation community within a very short period of time. This public dissemination strategy is not only important in focusing attention on the research reports. It is critically important in assisting the education reform community in fully understanding the findings and connecting them to their own practice.

The organization of CCSR's work and our approach to disseminating and presenting research findings is intended to give broad access to research and to inform the ongoing dialogue and debate around school reform. But the organization of the Consortium itself does not address the questions: What role can research play in informing policy? How has our work actually built the analytic capacity of the city and what have we learned about the key role for research in influencing practice? These questions center around a core set of issues: What is the CCSR theory of action for what role social science research can play in informing school reform?

### **What is the role for research?**

Every time we are asked "How has the CCSR influenced policy? How do we know that we have had an impact?" the tendency is to cite studies that policymakers have reacted to by changing policy. The ending social promotion series of studies caused the district to change its criteria for promotion and several times throughout the study led to changes in district policy. Our 1996 *Students' Speak* report (Sebring et al., 1996), led to a major policy planning process in the district to improve high schools. Funders often evaluate the quality of the work by whether it hit the front page of the paper, and whether there was a "measurable" policy response. In this section, we argue that this traditional way of seeing the role of social scientist – that of external initiator of significant policy changes -- represents a paradigm that both mischaracterizes our approach and impact and represents an ineffective approach to building capacity within a school system. We argue that CCSR's approach has evolved as an alternative to the traditional policy planning model, one that focuses not on initiating policy changes but on encouraging and perhaps catalyzing policy development and changes over time. We begin by first stepping back and looking at traditional roles for social scientists in influencing education policy. We then contrast the traditional approach of policy planning with a newer approach which we, borrowing from William Easterly's work in development, term "supporting the search for solutions." We

provide a case study based on our research on freshman year performance to illustrate these differences.

***What roles have researchers traditionally played in influencing educational practice?***

If we think about how university- and college-based educational researchers have sought to influence policy and practice in education over the past several decades, four basic models emerge; (1) creation of the big ideas, (2) development and identification of effective models, (3) external evaluation; and (4) policy models of research.

*The Big Idea:*

A first way that researchers have had an influence on education practice is through “big ideas” that offer magic bullets to reform school systems. In the wake of *A Nation At Risk* (National Commission on Excellence in Education, 1983) education policy has largely been driven by big ideas and much of the debates in educational policy have been about the efficacy of these ideas. To name just a few, these big ideas include markets and choice, accountability and high stakes testing, standards, merit pay, and decentralization. The originators of the big ideas are often less concerned with the day-to-day practice of teaching and more concerned with what governance mechanisms can create incentives and conditions for improvements. There is no doubt that the big ideas have had major impacts and largely transformed public education in major cities. One cannot talk about Chicago and New York without referring to the big ideas that have generated major governance changes. Decentralization, privatization, accountability and high stakes testing, and now choice and new school development are the big ideas in Chicago that have largely created the conditions to generate reform.

*The R & D Developers.*

A second role for research informing practice is in developing clinically-based solutions to core problems by developing programs. Success for All, Reading Recovery, Accelerated

Schools, Talent Development High Schools, and First Things First are all well known examples of how researchers have tried to influence practice by developing effective models. The processes of influencing policy in this way are well set out: (1) use existing research findings and theory to develop an effective intervention, (2) try to implement the model and test its effectiveness, (3) try to replicate the model in different settings and test scalability, and (4) move to rigorous evaluation of impact. The Theory of Action of such approaches is that practitioners need good models and “evidence” of effectiveness. By developing “what works” we can then build knowledge of effective practice. This research-practice paradigm is largely the approach embodied in the U.S. Department of Education’s Institute for Educational Sciences (IES) which explicitly outlines this process in its funding of educational research. Researchers’ role as described by IES is to develop models, test their effectiveness, and then test the efficacy of bringing these ideas to scale using rigorous methods.

*The “Evaluator” Role.*

A third role for research to influence practice, also reflected in the IES model, is as “objective and rigorous evaluators of policy.” This is often how policy makers view the role of researchers. When we interact with leaders in other school districts about their research needs, almost invariably they tell us what they need from research is: “More help evaluating the programs and policies we have put in place.” The evaluator role in this case is not one of shaping policy or practice but seemingly validating (or not) whether changes in policy or practice work. Increasingly, large-scale evaluations are taken up by large research organizations such as MDRC in New York, which can mount rigorous randomized assigned trials or employ rigorous quasi-experimental methods..

Big idea generation, the development of effective practice, and the use of research to rigorously evaluate policy are all important roles. What we have learned over time is that none of

these models create sustained relationships between researchers and districts that are capacity building and bring a focus to the core processes at work within schools. And, one of the most consistent themes in CCSR's work is that the big ideas, while essential in creating the conditions for reform, ultimately sort schools based on their initial capacity. Decentralization in Chicago had important impacts. While there was evidence that many Chicago schools improved under the first wave of school reform, by the mid 1990's it was also clear that a significant group of schools essentially had been left behind. *The Students Speak*, (Sebring et al., 1996) , mentioned earlier, examined the quality of learning environments in the nearly one quarter of elementary schools (104) that were on the state's academic watch list. The study found that these poorly performing schools were characterized by weak leadership, a lack of any focus or impetus for school improvement, and extremely weak learning norms among students -- problems that decentralization did not address (Sebring, Bryk, Roderick & Camburn, 1996). The report concluded that these predominantly African-American, overwhelming low-income, and economically and geographically isolated schools had become "organized to maintain the status quo" and lacked the institutional capacity to respond to the incentives and resources provided by decentralization. As the report concluded: *Left to their own devices, it is unclear that many of these elementary schools have the human resources and collective will to improve.* (Sebring et. al. 1996, p. 75)

Similarly strong conclusions emerged out of other CCSR research . In a study of Chicago's school accountability policies, Jennifer O'Day and her colleagues found these same internal conditions – whether schools had strong leadership and high initial measures of “essential supports” – were central predictors in whether schools placed on probation (academic watch) were able to improve rapidly in the first several years of the policy. Similarly, Roderick and her colleagues' evaluation of ending social promotion found that high stakes testing largely

sorted students and schools by their capacities to respond to the motivation and incentives created by the policy. This was true in predicting which students were able to raise their test scores and be promoted. It was also true in predicting whether schools could effectively use the policy as a focus for organizing their improvement efforts. As Roderick and her colleagues discussed in their assessment of why Summer Bridge learning gains were nearly three times as large in high versus low achieving schools:

*Perhaps the most convincing evidence that capacity mattered came from Summer Bridge (Roderick et al. 2003) Even with its highly structured approach, students in schools with higher school year achievement had significantly larger test score gains in Summer Bridge, even after accounting for the fact that schools with low achievement during the school year tended to serve lower achieving students during Summer Bridge.... We would expect that school effects would be largest in the 3rd grade in reading because this is the grade and subject in which teachers' underlying knowledge of reading instruction would have the greatest impact on the capacity of students to benefit from the curriculum. ...Given the strength of our summer school results, it is not surprising that retention was as much of a school as a student phenomenon*

The concept that governance changes are ultimately “capacity sorters” should be a familiar theme to researchers who know the literature on the effects of efforts to replicate effective models. In study after study, the general conclusion of replication studies of effective programs is that the “capacity” of educators in the building to adopt reforms and effectively manage implementation ultimately determines whether successful programs worked or didn’t work.

#### *The Policy Analysis role*

Yet, a fourth model of research – the traditional policy analysis role – often encounters similar problems. CCSR is often characterized as a “policy analysis” organization. The traditional role of policy analysis organizations is to provide expert advice to the public sector devoid of political influence and interest group politics. Carol Weiss has done substantial work on the history and development of policy analysis as a field and the formal organizations that support such work. We refer to her work here as an important voice in the field of policy analysis. Born in the progressive era and blooming in the post-war era as researchers developed



more sophisticated analytic techniques to analyzing social science problems, policy analysis as a field was based on the assumption that better policy could be created with more scientific approaches to both evaluating evidence and alternative decisions. Currently, many school districts experience policy analysis in interaction with external consulting firms that are brought in for specific projects to organize data, bring standard planning techniques to bear on problems, and provide expert support in planning and creating “big plan” solutions. Of any of the models described above, the policy analysis model has come under the strongest critique both in its cut and dried methodology that provides simplistic answers and for “big plan solutions” that never fully get implemented. Nevertheless, the Planning Approach is what we would characterize as the predominant paradigm used by researchers and by the foundation community in conceptualizing how research findings shape policy. To simplify this approach, the policymaker or researcher identifies a problem, the findings are presented, policy reacts, a plan for fixing is made and the plan is implemented. The critiques are obvious. “Top down” solutions don’t work. Such approaches do little to build the capacity of professionals and the community “on the ground” to understand the nature of the problem and the reasons why the answer that has been chosen emerged as better than other options. And, externally imposed solutions ultimately become unfunded and unsupported.

CCSR has experienced the limitations of this approach and a central point of this paper is that effectively creating new models of research requires fundamentally rethinking this fourth approach. It was in pursuing a new model that CCSR turned a major failure into a success.

*The Transition to High School in Chicago: A case study and transformation in the Consortium’s work*

Our 1996 study *The Students Speak* provided a very negative assessment of CPS high schools, describing them as a “case of institutional failure” (Sebring et al., p. 78). The research

highlighted the difficulties students in Chicago were facing in the transition to high school. It documented that high rates of failure in 9<sup>th</sup> grade, even among students with adequate entering skills, led to a spiral of failure and disengagement. The report received wide media and policy attention and established CCSR as a critical player in the new “mayoral takeover” reform era, moving us from an organization seen as aligned with the decentralization reforms to a policy analysis organization. It particularly caught the attention of the newly appointed Chief Executive Officer, Paul Vallas, who was turning his attention to the high schools. The response of the administration followed the traditional policy planning approach and would be seen as one of the most substantial impacts that the CCSR had on policy. Vallas began a large-scale planning process organized around a series of planning committees. The resultant document, “A Design for High Schools,” adopted as its organizing principles CCSR jargon of “academic press” and “personalism.” The Design for High Schools was adopted by the Reform Board of Trustees in March 1997. Academic press was to be pursued by raising graduation requirements and requiring all CPS students to take a college preparatory curriculum aligned with admission requirements of local universities. End-of-course exams would ensure that courses would be aligned across high schools. And, the design intended to increase support for students by mandating academic advisory periods and creating freshman academies.

All of the pitfalls that befall policy planning approaches came to bear. Most of the reform efforts fell short. Few high schools bought into the new mandates and most resisted efforts toward restructuring. Teachers and the union strongly resisted mandated advisory periods and the end-of-course exams. Union grievances resulted in advisory periods becoming optional at the school level. The initiative was under-funded so that promised advisory curriculums and supports never emerged. End-of-course exams, which were initially required and were to be a substantial portion of students’ grades, never moved out of their pilot phase, were widely

criticized for poor quality and eventually discontinued. In the end, evaluators predictably concluded that the reforms were a failure because they were badly implemented, unfunded and resisted by teachers and principals (Hess & Cytrynbaum, 2002). And, in the end, CCSR researchers Shazia Miller, Elaine Allensworth, and Julie Kochanek (2002) concluded that most improvements in high schools between 1993 and 2000 could be attributed to improvements in the elementary schools since that many more students were entering high schools with higher skills.

*From “organized for failure” to “on-track to graduation”: Moving research from the front page to the principal’s desk.*

To those familiar with CCSR’s research on high schools (particularly the freshman year work), it may seem odd to characterize this as a “failure.” There are few high school principals in Chicago today who would not highlight improving freshman year performance as a central focus of their reform efforts. And, CCSR studies on the importance of freshman year have had national policy significance. But that influence did not emerge from the initial studies. It emerged later as CCSR researchers interacted with policymakers and educators around their central problems. And that story illustrates, for us, the critical lessons we have learned about the role of research.

In the late 1990’s, as high school reform efforts in Chicago were struggling, CCSR researchers sought to develop a way to report to elementary schools how their 8<sup>th</sup> grade graduates fared in high school. Influenced by previous research on the transition to high school work and our own identification of high rates of course failure as a primary indicator of student difficulty, CCSR researchers sought to measure the success of elementary school graduates in their transition to high school. The result was a quantitative indicator that assessed whether freshmen were “on-track” to graduate or not. Students were on-track to graduate if they had completed enough credits by the end of 9<sup>th</sup> grade to be promoted to tenth grade and have failed

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no more than one semester of a core subject. In 2002, these indicators were incorporated in a series of Consortium reports on student performance which showed improving trends in freshman year on this critical predictor variable of high school graduation (Miller et al., 2002).

In 2002, the new CEO of the Chicago Public Schools, Arne Duncan, turned to the on-track indicator as an additional criterion to evaluate high school performance. He was responding to criticism from principals that they were being judged solely on the basis of annual standardized test results. Principals argued such simplistic criteria did not reflect whether they were moving students forward and, particularly whether they were also paying attention to issues such as engaging more students in schools and reducing dropout rates. Chicago's charter schools already were being evaluated on broader measures of performance and had used freshman-year outcomes as one of their indicators of school success. On the basis of the positive reaction to that policy, Duncan adopted new criteria for judging high schools that included test scores, dropout rates, and the on-track indicator. The policy also judged schools on whether these three indicators improved over time.

Adopting the on-track indicator as an accountability measure would seem like an easy addition with straightforward implications. Hold schools accountable for their on-track rates and they will begin to work on the problem. It was clear, however, that schools did not grasp the connection between being on-track freshman year and later graduation. In 2005, prior to the release of a major report on graduation and dropout trends, CCSR researchers briefed central office leaders and all high school principals on the findings. Principals responded that they needed better information to help understand the dropout problem, develop interventions, and monitor their success. CCSR researchers Elaine Allensworth and John Easton decided that it was important to return to the initial findings that generated the on-track indicator. They updated the analysis and released a short report that clearly defined what the on-track indicator was and

demonstrated its relationship to high school graduation (Allensworth and Easton, 2005). The simple findings of the report (“students who are on-track four times more likely to graduate than students who are off-track”) not only established the connection between on-track and graduation but gave greater meaning and urgency to the need to improve the freshman experience and to be vigilant with vulnerable students.

The on-track indicator, defined and validated in a simple report, has become an important point of coherence for high school reform efforts in Chicago. New high schools and new reform initiatives, such as the Gates High School Transformation Initiative, have identified improved freshman year performance and “the proportion of students on-track to graduate” as a central focus of their efforts and central indicators of their success. A focus on freshman year, we would argue, is now seen as by schools as the internal problem they are trying to solve and the area where they are most looking for external supports in finding solutions. And, just recently, CCSR released a follow-up report “What Matters for Staying On-Track and Graduating in Chicago Public High Schools” that provides more detailed analysis of the instructional and school characteristics and the patterns in student behavior that contribute to lower rates of course failure and poor course performance freshman year (Allensworth and Easton, 2007). Schools now have more tools to move from a focus on the “indicator” itself to identifying strategies to improve on-track rates.

We present this case because of the stark differences in the role of research in these two time periods. After the release of our first report in 1996, our research on high school reform could be characterized as following a very traditional policy expert model. An “outside” research organization identifies the big problem (“high schools”) and the administration implements a big-plan approach that looks for technical solutions with little attention to whether people on the ground understand why the preferred externally imposed solution matters in their day-to-day

work. As a result, the problem we were trying to solve (high rates of course failure in freshman year) became hidden in fights over the right solution to high school reform. And, as has been the policy tradition, big plans were made with little attention to the details of implementation, with little accountability for whether plans fall short, and little attention to measuring progress and adjusting accordingly. The role for evaluators then was to conclude that reforms didn't work.

Our newer work on on-track, while focused on the same set of issues, put the specific problem front and center. The focus began with working with educators to find a way of thinking about the central problems they were trying to solve – in this case improving student performance in high school. The role of research was to bring measurement to bear to help educators identify a focus for their efforts. The answers were not apparent and were intended to come from the practitioners and not from the researchers or from the central office. And the approach was one of building consensus around a core issue, finding what is needed and adjusting accordingly.

How do we characterize this alternative approach? Our term “searching” is borrowed from William Easterly, formerly of the World Bank. Easterly has issued a virulent critique of this traditional “top down” policy approach in his recent book *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and so Little Good.*” In this book, he contrasts Planners to Searchers. Easterly argues that development efforts have been dominated by top-down, big-plan solutions that believe problems are easy to solve and require simple technical solutions. These result in grandiose objectives that are never realized and for which the initiators of the plan are never held accountable. Planners are those who identify a problem, announce big plans with little accountability for the solution actually being effective, believe they know the answers and believe in technical solutions to problems. Easterly argues instead that development policy would do better not with big plans and big solutions, but by creating

conditions in which people on the ground are given the incentives, resources, and feedback mechanisms they need to search for solutions. Easterly, giving multiple examples of successful development projects, argues that they are often characterized by practitioners working on pieces of the problem, not knowing the answers in advance, but by finding answers through trial and error and experimentation. Easterly is not talking about research, he is talking about policy development. And, this is not an unimportant point. One of the reasons that CCSR has had the impact it has had in Chicago is that the governance changes the city engaged (decentralization, accountability, choice) are those that explicitly created “markets for ideas” and produced significant incentives at the local level for innovation for principals, teachers, and external reform organization to try out different models. Thus, critical for research to inform practice is that research operate in a policy environment that rewards and incentivizes innovation and new ideas.

But, at the same time, policy mechanisms such as those enacted in Chicago that decentralize decision making and produce incentives for changes open up an entirely new role for research and one that CCSR from its origins set as its mission. That role is research focused on building capacity. In essence, this concept of supporting the “search for solutions” suggests that there is a missing role for research between the big ideas that create conditions for change, the model developers that offer externally developed solutions, and the evaluations that come to the conclusion that without capacity building, efforts at reform may ultimately fail. That role is researchers interactively working to help solve the problems of school reform and assisting in building the capacity to change by using research to provide a focus for efforts, support in identifying strategies, and the critical feedback loop essential for improvement. To be more specific, we would characterize three main roles in which the Consortium has used social science research to advanced school reform:

## **1. Problem identification and indicator development: The critical role of measurement.**

Measurement is an important part of all social science research, but it a particularly critical role for CCSR. Our attention to measurement distinguishes us as an organization that doesn't just study school reform in Chicago, but assists the process of school reform by identifying key outcomes and processes that matter. As illustrated in our example of the on-track rate, good measurement brings conceptual clarity by precisely defining the phenomena we are trying to change. Good measurement enables researchers to build frameworks that relate multiple concepts to each other and help us better understand mechanisms and pathways to improvement – allowing us to test hypotheses and generate evidence of pathways to improvement. And finally, the conceptual clarity brought about by good measurement helps us communicate more easily about our findings and develop a common understanding of important issues.

Three examples of the important of “measurement in action” illustrate these points. First, measurement is about clearly identifying what outcomes matter and how we can use those outcomes more effectively. This would seem like an easy task: (1) raise test scores, (2) increase graduation rates, (3) get kids to college. One would think that measuring student achievement and using analysis of student test scores in schools would be an easy task. But it isn't. For years, researchers have resisted attempts to judge schools simply on average end-of-year test scores. These scores are highly correlated with the family background of students, so that schools that serve students from advantaged background are judged to be good schools and schools that serve children from disadvantaged families are judged to be bad.

Under Tony Bryk's leadership, one of the most important and sweeping projects at CCSR was an effort to measure academic productivity in CPS. He asked: “How much do students learn while they attend school?” and “How much do schools contribute to students' learning growth?” Over several years, CCSR developed a method to judge the “productivity” of CPS schools –



work that laid the basis for research to investigate the determinants of that growth and, ultimately, changed the conversation in Chicago towards value-added measurement (Bryk, et al. 1998). This area of assisting schools and the district in better understanding how to use data effectively has become a consistent role for the Consortium. More recently, we have engaged in a similar effort at the high school level, assisting the district and schools in understanding the new high school testing system, the ACT EPAS system (Educational Planning and Assessment System, comprised of Explore, Plan, and ACT). After several years of experience, high schools principals and the district approached CCSR about how best to use EPAS. We were asked basic questions: “Can we look at student growth?” “Why are students doing so poorly on the ACT?” Analysts began looking carefully at differences in student performance across these tests and the testing system itself. Later this year, we will release a report analyzing students’ performance and gains in performance in this testing system. This report will address the needs of practitioners to better understand their performance under this system and will hopefully shift the conversation within schools away from test preparation to an analysis of the determinants of gains. This work also opens up a new research capacity to begin investigating what experiences in high school predict better-than-average growth in performance.

Second, as illustrated in our on-track work, good measurement and indicator development is critical if schools are to identify the “what they need to work on” that determines the outcomes they care about. Many schools concerned about drop-out rates had adopted programs with little coherent vision of the critical predictors associated with dropping out that were directly under the school’s control. On-track is a mediating outcome that brings the big problems – reducing dropout rates – down to the day-to-day experiences of students in the building. Similarly, one of the major findings of our forthcoming EPAS report is that students

who improve from Explore to Plan and Plan to ACT are those who do well in their courses (e.g. get high grades) regardless of their entering test scores.

And, third, measurement is not just about achievement and attainment outcomes. It is also about defining, testing, and measuring concepts that may be critical to improvement. In one of our first reports, *A View from the Elementary School*, Tony Bryk and his colleagues described a “Christmas tree” school (Bryk et al., 1993). In this school, the principal used the resources provided by State Title One funds to purchase an indiscriminate range of programs. These programs were described as the ornaments on a Christmas tree, displaying a great deal of energy and innovative spirit. The problem was that all these new programs were unconnected and uncoordinated and both teachers and students alike were adversely affected by this lack of cohesion. In some instances students moved from a whole language approach to teaching reading in one grade to a direct instruction approach in the next. The study contrasted the Christmas tree school with a school where the programs were coordinated and aligned both across and within grades. We called this concept program coherence.

The next step was to measure and validate this finding and ultimately decide whether it was important to student achievement. In our surveys, we asked teachers a series of questions about the degree to which they feel: Programs at their school are coordinated with each other and with the school’s mission; instructional materials are consistent within and across grades; there is sustained attention to quality program implementation. Together these items form a highly reliable scale. We created this scale, and most others on our surveys, with Rasch analysis, which uses Item Response Theory. Rasch analysis affords content-referenced measurement. Given sufficient responses from teachers, we can assign a value to each school and describe the degree of coherence or lack of it in each school with a relatively high degree of certainty.

This survey measure was then validated by field work in the Chicago Annenberg Research Project (Newmann et al., 2001). Based on numerous visits, observations and interviews, researchers independently rated schools on the degree of program coherence. Most importantly, we have found that schools with high program coherence are more likely to improve student achievement, and similarly, schools that become more coherent over time are more likely to improve student achievement as well. This was true in the period from 1991 to 1996, in the year 1997 when the intensive study was conducted, and it is again true in the years between 1997 and 2005.

Moving “coherence” from a research finding in one study to a measured concept that could be linked to student achievement and tracked over time was a critical way in which CCSR translated research findings into validated indicators schools could track over time. Careful measurement enabled us to better understand this phenomenon. It helped us understand how various concepts are related to each other—for example how leadership affects program coherence, and therefore adds to our understanding of the school improvement process.

## **2. Support in identifying strategies for improvement.**

Educators must start by wanting to know where they are and what they want to work on (increasing student learning throughout the school year, improving freshman year performance, building program coherence). Educators must then be able to turn to the research to identify the strategies and levers for improvement and in the end, understand their role in shaping those outcomes. Measurement plays a critical role. Moving from a focus on the percentage of student meeting norms to a “value added” approach places the focus on student achievement away from external forces, “the kinds of kids I have,” toward the classroom “what I do with the kids I have.” Documenting that being “on-track” at the end of 9<sup>th</sup> grade is a predictor of dropping out - - and that even higher achieving student are vulnerable in this transition -- moves the focus away

from factors outside of the school's control (family and neighborhood forces that lead students to leave school or prior achievement) toward students' experiences within the school

But a second significant role for research is in providing critical evidence and rigorous frameworks that help schools formulate an understanding of what generates outcomes. As with measurement, the process of setting out and testing hypotheses, weighing the evidence to support different arguments, and generating critical concepts is a key function of social science research. As discussed previously, for Charles Lindblom, the "aim" of social science research is not to provide an answer or a technical solution to a problem, but to provide cognitive schema for understanding the determinants of problems – the big organizing ideas that bring theory as well as data to the problem (Bryk and Sebring, 2001, Lindblom, 1990). The concepts of social capital, relational trust, or program coherence are important conceptual ideas that organize the data in ways that provide insight into problems in new ways. Thus, in Lindblom's characterization, while educators are using data to solve the problem – moving quickly to solutions—social scientists use the data to "probe" the problem, organize evidence to test theory and hypothesis, and look for anomalies. As illustrated in our example of program coherence, developing the key concepts provides a common language and focal point for educators in understanding their work and devising strategies. Sometime, this requires asking very simple questions: Do we understand why students are getting off track? And, it requires interacting with policymakers to investigate the assumptions underlying prevailing explanations and approaches (both successful and unsuccessful). The concepts of "academic press" and "personalism" may have been misapplied in the High School Redesign Initiative, but the big concepts helped policymakers and educators understand why high schools were having problems and gave them a conceptual framework for organizing efforts.

Our new research on the postsecondary outcomes of CPS students provides another example of this critical role. In 2005, CCSR began a unique partnership with the CPS to track all of their students into college or work. The first step was measurement. Researchers at CCSR worked closely with CPS staff to set up a valid tracking system that allowed us to understand what students' plans were on exiting CPS, compare those plans with actual enrollment, and track persistence and performance in college and work. But a second step was to understand the determinants of those outcomes. In our first report (cite), we focused specifically on trying to understand why, despite high aspirations, many CPS students were not making the transition to college and, when they did, were concentrated in two-year and non-selective colleges. A major finding was that low ACT scores and, particularly, low GPA's were constraining students' access. This report then challenged the approach that many principals initially used in reacting to their poor college attendance – which we would largely characterize as delegating improvement efforts to the guidance department – and placed the central strategy for raising college preparatory rates within the classroom. The report worked to begin aligning efforts at improving high school instruction with efforts to improve college readiness and access and, most important, challenged high schools to think about their students' course performance (GPA's) as well as their ACT. . Thus, whether post-secondary, on-track, or high stakes testing, our work has centered on assisting principals, educators and the district on understanding how to organize their work to move the central indicators they were working on.

### **3. Feedback loops to identify improvement and support program development (Theory Driven Evaluation).**

A third role for research is as “objective and rigorous evaluators of policy.” “Rigorous” in educational research has come to mean causal modeling and inference, the ability to isolate the counterfactual and estimate rigorous treatment effects. There is an important need in education

for researchers to use rigorous methods in evaluation and effectively isolate the effects of public policy. But in many school systems, attempts to isolate policies and make summative judgments about their success is often counterproductive. First, too often, identifying the “treatment” can be complex since most have multiple components. Did ending social promotion work? Ending social promotion is a policy. The theory of action of the policy was the threat of retention would motivate students to work harder and produce incentives for adults to pay greater attention to children at risk. The policy also put in place short-term supports under the assumption that extra time on task would be enough to help at-risk students catch up. Proponents of the policy argued that even if there were benefits to some, the policy relied on a practice -- grade retention -- that was harmful to students. Evaluating the effect of ending social promotion meant laying out and testing this theory of action. Is there evidence that people changed their behavior and students were motivated and got more attention? Is there evidence that simply working harder and getting extra time on task was enough? Or, did teachers change their instructional practices? And, is there evidence that negative effects were incurred among those students who were retained? Answering these questions required drawing on surveys, achievement data, and qualitative research. It required setting out and testing the basic thought process behind the policy -- the “basic hypotheses” and “theories of action” -- as well testing potential negative effects and unintended consequences. The result was not a definite yes or no but a complex story of how the policies attended to some problems, revealed other problems, and had both positive and negative consequences.

Painting complex stories may be frustrating to those interested in causal inference. But it is particularly critical in policy work and in informing policy debates. It is particularly critical if research is to assist in building the capacity of systems to learn from the past and correct course.

And, it is particularly critical if districts are to get out of this vicious cycle -- one policy being put in place, evaluated, concluded that it doesn't work, thrown out, and another put into place.

As a last example, our recent work on evaluating small schools in Chicago demonstrated how an emphasis on theory-driven evaluation and painting complex stories with evidence can contribute to policy development rather than dramatic policy shifts. In these studies, CCSR researchers, in collaboration with program implementers, carefully laid out the theory of action behind these new small schools and were able to measure most of the important components of the theory. Using a "real time" and collaborative approach to this evaluation, we were able to influence many ongoing decisions, most of which pointed to the need for greater emphasis on instructional improvements. This process required a new mode of work for us, with more frequent, brief reports produced with very quick turnaround.

#### **Four questions.**

In this paper, we have tried to present two CCSR directors' approach to thinking about the problems we face every day in trying to conduct research that will build the capacity of the CPS to improve. We don't think that the best idea is to simply reproduce the CCSR someplace else or that we have the answers. Every city is different. We have argued that CCSR's approach was shaped by an unique policy context and that our work evolved as those policy contexts changed. While we do not propose to present answers, we hope this paper raises four sets of important questions for the New York community as it begins its own effort:

*1. How can a research organization conduct research in a way that best maximizes the contribution of that research to practice and builds the capacity for reform?* In essence, what is the theory of action for how policymakers, professionals and the education community more broadly assimilate new information and use that information to change and adapt? What does

that mean for the set of organizational arrangements and practice that New York City must develop as it conducts and disseminates research?

*2. How does an organization break down the walls between researchers and the walls between researchers and practitioners to conduct research in a way that builds knowledge and capacity over time?* We would hypothesize that if all of the studies that CCSR have conducted were done by independent researchers acting alone, our impact would have been minimal. We have tried hard in this paper to demonstrate how CCSR's focus is to break down the silos, produce research findings, and then build on those findings by institutionalizing them into the education debate and ongoing research effort. Ultimately the success of the model is not whether individual researchers produce a good piece of research, but whether specific research findings translate into practice and contribute to the larger dialogue over what it will take to improve. At CCSR this also has meant changing the relationship between research and practice so that the education community sees research not as external to reform but as a resource to look to for ongoing development.

*3. What are the "central" problems that New York faces that will shape the capacity of the students, schools, the district and communities to improve? What does engaging in that question mean for the organization's work?* As we have argued in this paper, we did not start at CCSR by asking: What do researchers want to study? Or, is the district's approach correct? We asked instead and have continually asked: "What problems are at the core of practice and policy?" Sometimes, that was evaluation. "Is ending social promotion working?" Sometimes, it was about more basic issues of school improvement – why are some schools doing better than others under decentralization? And, sometimes, it was about basic issues of measurement – how do we begin to attack our high drop-out rates? But, it was by engaging in this question -- and continually engaging in this question with our Steering Committee, with the district, and



increasingly with the educators and the reform community who rely on our research -- that we formulate a research agenda. As described in our mission, it is by setting “the problems of school reform” as front and center that define us an organization and have shaped both our work and its impact.

*4. What is the theory of action for the role research can play in building the capacity of the system to solve those problems?* Perhaps the most important question that we would pose to a new organization is this: Given a problem, how can research help improve the capacity of educators at all levels of the system to solve it? We have emphasized throughout this paper that we have developed a particular approach – linking together a focus on measurement and indicator development, a core focus on building frameworks and identifying strategies for improvement, and developing feedback mechanisms both through evaluation and through providing direct data to schools. This may not be the approach others may take. But, ultimately, having a clear vision of the role research and a research organization could play has been particularly important in guiding CCSR’s development This has helped us formulate a coherent approach across research studies, and ultimately, define for ourselves our own measures of success and the strategies we use to move forward..

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<sup>1</sup> This finding, that the technical quality of a study was a significant contributor to decision makers' assessment of its usefulness, actually contradicted the assessments that Weiss and Bucuvalas obtained from the social scientists. They found that social scientist thought that technical quality would make only a marginal difference in decisions makers views