

Consortium on Chicago School Research

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Research
Agenda
2004-2008

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In 2003, the Consortium completed most of the studies recommended by the research agenda established in 1996, including the large Annenberg Research Project. Much of the research focused on the implementation of the policy to end social promotion and its consequences, the improvement of teaching and learning, the state of Chicago's public high schools, and educational technology. In addition, surveys were administered three times, and schools received their own results organized around their progress with respect to the Essential Supports for Student Learning. Since 1997, the Consortium has published 40 reports. (For a complete list, see www.consortium-chicago.org/publications.)

As we were coming to the end of our study cycle, the Steering Committee held several discussions regarding priorities for future research. This document sets forth a research agenda that continues some Consortium studies and outlines new investigations. Guiding this agenda are the concerns of the Steering Committee, major policy and program initiatives of the Chicago Public Schools (see *An Education Plan for the Chicago Public Schools*),¹ and capacity of the Consortium's research team. To augment our research capacity, we will continue to seek the participation of external scholars who bring specialized expertise.

This research agenda aims to provide results that are directly useful to CPS leadership, local schools, and the education reform community; to bring evidence to bear on the theory of action behind major initiatives; and to supply evidence that is relevant to long-term policy issues.

We have listed more studies than we can complete during the next five years. At this point, we are unsure of which of the larger ones will be funded, and when we can engage outside scholars. Including these studies in the agenda indicates the Consortium's priority areas of concern. See Tables I and II (pages 15-16) for a list of all studies and the proposed time lines.



Student Outcomes and School Productivity

These studies aim to answer one of the most fundamental questions: whether over time Chicago students are making greater learning gains and raising their level of achievement.

ACADEMIC PRODUCTIVITY

Stuart Luppescu has initiated analyses of the changes in academic productivity in CPS elementary schools during Phase II of Chicago school reform. This parallels our earlier work on productivity in Phase I.² The goal of this research is to examine the degree to which Chicago's elementary schools improved over the last eight years in terms of students' learning in reading and mathematics. Using Iowa Tests of Basic Skills (ITBS) data, the productivity indicator estimates each school's contribution, or *value-added*, to the learning of students enrolled at that school. In addition, we intend to examine how these developments are distributed across different kinds of students and schools. For example, in our Phase I analyses, we found a disturbing pattern of weak improvements in a subset of very disadvantaged, racially isolated African-American schools. Many of these schools were the explicit targets of Phase II reforms. Did they fare any better during the later period? Similarly, what kind of progress did schools with high proportions of English-language learners make?

Beyond these substantive concerns, this research will also break new ground methodologically. Since 2000, Consortium Senior Director Anthony Bryk has been collaborating with Professor Steve Raudenbush (University of Michigan) on developing a more refined statistical model for estimating trends in school and classroom effects from students' longitudinal test-score data. The model assumes that each student has an academic growth trajectory that is shaped jointly by the student's latent growth parameters and by exposure to

instruction in a given class and school. Formally, the model involves repeated measures of students over time within different classrooms and schools. In addition, it permits estimation of growth curves for each student and time trends for classroom and school effects.

One logical use of the new productivity indicator would be to compare it against the benchmarks for measuring adequate yearly progress that have been established by CPS and the state under the requirements of No Child Left Behind (NCLB). It is possible that under NCLB a school could be judged as not making adequate yearly progress, yet the more technically valid productivity measure would show improvement. The reverse is also possible. We may want to examine such differences.

ILLINOIS STANDARDS ACHIEVEMENT TESTS (ISAT)

We analyzed the ITBS extensively because it has been the main stable testing program in Chicago for decades, and it played a significant role in accountability. One strand of the analyses led us to probe the technical weaknesses of the test, and from time to time we have offered recommendations for its improvement.

The significance of the ISAT has been growing and will especially be important under the demands of NCLB. We have begun to undertake in-depth technical analyses of the test as we have done with the ITBS. In February of this year, we released the first report with ISAT results: *Research Data Brief: How Do They Compare? ITBS and ISAT Reading and Mathematics in Chicago Public Schools, 1999 to 2002*. We intend to continue to monitor the ISAT results.

HIGH SCHOOL TESTS

For high schools, Steve Ponisciak has begun analysis of the Prairie State Achievement Examination (PSAE) data. Eleventh graders take the test, which consists of writing, science, and social science assessments developed by the Illinois State Board of Education; the ACT Assessment, which includes reading, English, mathematics, and science reasoning; and two Work Keys assessments—Reading for Information and Applied Mathematics. Our goal would be to establish periodic indicators that would allow us to summarize progress in student learning over time. It is possible to produce a value-added indicator by controlling for students' basic skills level at the end of eighth grade and for the specific elementary schools from which they graduated.

The Steering Committee recommended that the Consortium advocate for high-quality assessment. Based on our study, *Academic Productivity of Chicago Public Elementary Schools*,³ we will submit recommendations to the Illinois State Board of Education regarding development of future tests. In addition, the Consortium will stay informed of the work of the local Commission on Improving Curriculum-Based Assessment that is being led by Don Stewart, Chicago Community Trust, and Sam Meisels, the Erikson Institute.

NO CHILD LEFT BEHIND ACT OF 2001 (NCLB)

The law has mandated dramatic expansion of state, and therefore, local accountability systems, and its impact has begun to take hold in the Chicago Public Schools. It requires states to establish challenging standards in reading and mathematics, annual testing for all students in grades three through eight, and annual statewide progress objectives ensuring that all groups of students reach proficiency within 12 years. Assessment results and objectives must be disaggregated by poverty, race, ethnicity, disability, and limited-English proficiency to ensure that no group is left behind. School districts and schools that fail to make adequate yearly progress (AYP) toward statewide proficiency goals will, over time, be subject to improvement, corrective action, and restructuring measures aimed at getting them back on course. Schools that meet or exceed AYP objectives or close achievement gaps will be eligible for State Academic Achievement Awards.

The school system must provide students in schools that do not meet the annual progress requirements the opportunity to attend better public schools and the necessary transportation. For students attending schools that have failed to meet state standards for at least three of the four preceding years, schools must permit low-income students to use Title I funds to obtain supplemental educational services. *If schools fail to make AYP for five years, they run the risk of reconstitution.* Unfortunately, the Bush administration has withdrawn support for the original level of funding, and the Congress has appropriated only a fraction of the money originally intended for NCLB.

So far, the main impact on Chicago has been to give students the opportunity to transfer and to supply supplemental services. During 2002-03, about 29,000 students were eligible to request a transfer; 2,300 students applied, and about 1,200 transferred to other schools. In 2003-04, 270,000 students, or over 50 percent, were eligible to transfer. About 19,000 requested transfers, but space was available for only about 1,000 students. In addition, it is evident that the

classification of schools will be unstable. Forty schools that could receive transfers in the first year did not meet second-year standards and will have to give their students the opportunity to transfer out. In subsequent years, the consequences of the law are potentially even more drastic.

While the Consortium does not recommend a specific study at this time, we have noted in other sections of this agenda the need to pay attention to the impact of the new law (see sections on academic productivity and mobility). The local consequences of NCLB will continue to unfold, and the Consortium intends to monitor the situation and if necessary conduct appropriate analyses to inform local (and perhaps national) policy. It is possible that this work could draw resources away from other topics in this agenda.



Deeper Examination of the Essential Supports

ORGANIZING SCHOOLS FOR IMPROVEMENT

We will finish the book on the essential supports for student learning. The book examines elementary school development from 1990-1996. It sets forth a theory of essential supports and community contexts that influence the improvement of student learning. Extensive empirical data validate and extend the theory, and two case studies illustrate ways the essential supports operate and mutually support one another. The book examines the essential supports across different kinds of school communities, drawing attention to the unique needs of schools in impoverished and dangerous neighborhoods that have few community resources other than the school. We also plan to add a postscript about how all the improving schools fared in the subsequent five-year period. We have written five of eight chapters. The University of Chicago Press has invited us to submit the manuscript.

SCHOOL LEADERSHIP: PRINCIPALS

We know from past studies that school principals play a powerful role in facilitating school development. Mark Smylie, Al Bennett, Holly Hart, and David Schalliol have begun to analyze principal and teacher survey data from multiple years to describe the characteristics of the CPS principal workforce and the support principals received to do their work. The last study of principal leadership occurred over 10 years ago. This study would provide the school system, those in the city concerned with school leadership development, and the public generally with important information concerning who Chicago's principals are, the demands of their work, how they are perceived by teachers, and what needs they may have for development. In addition, it will focus on their relationships with local school councils (LSCs) and with the new Area

Instructional Officers. The 2003 principal and teacher questionnaires contain items on LSCs that had been asked in surveys in the early and mid-1990s.

Particular attention will be paid to understanding the differences in principal practice between high- and low-performing schools, and differences in leadership practice between schools in the lowest economic quartile and the rest of the school system.

PROFESSIONAL CAPACITY: HUMAN RESOURCE DEVELOPMENT

The *Education Plan* announced initiatives to build professional capacity through new hiring and ongoing professional development of existing staff. These initiatives focus on teacher recruitment, certification, mentoring of new teachers, introduction of a career ladder, centrally-supported professional development programs, and extra supports for high-need schools in attracting and retaining high-quality candidates. As the plan was being created, the Chicago Public Education Fund commissioned a study that identified \$123 million in the CPS budget earmarked for professional development. The study concluded that professional development spending was not integrated into a comprehensive strategy for improving instruction.⁴ CPS leadership accepted the results and has begun to harness these budget allocations to implement the objectives of the *Education Plan*.

Currently there is little systematic data available on the city's teaching force. The Consortium contemplates a set of integrated studies that would address this need. Key indicators need to be developed in five areas of human resource development: teacher training and experience; recruitment and induction; movement of teachers from one school to another within the system and to other systems; support for teachers within their schools; and ongoing, high-quality professional development. Equity analyses of the distribution of qualified teachers across different kinds of schools are vitally important.⁵ These would include small schools, charter schools, and schools serving diverse student populations with respect to race and ethnicity and economic circumstances.

Steering committee members expressed considerable support and offered many suggestions for this topic. They noted the need to recognize the developmental stages teachers go through in learning their craft. In addition, they drew attention to the new requirements for certification and how these will unfold. Others raised questions about financial and nonfinancial incentives that help to keep good teachers.

Arne Duncan has instituted a policy to close nonperforming schools and to encourage the creation of new schools, including charter, contract, and small schools. Hence, studies in this area should address how new faculties are constituted, the degree to which new schools succeed in attracting qualified teachers, and whether struggling schools lose qualified teachers to these or other schools.

The 2003 teacher and principal surveys asked questions pertinent to human resource development. We continued, for example, our teacher background and professional development items. There is a new item on the teacher questionnaire asking whether the teacher had participated in one of several different alternative certification programs. In addition, the Chicago Public Education Fund financed a page of questions for principals about teachers in their school who are seeking or have obtained certification from the National Board for Professional Teaching Standards.

This is an integrated series of studies for which it would be advantageous to recruit an outside scholar to collaborate with a local director to lead the research activities. It will be necessary to raise significant funds.

INSTRUCTION AND ITS IMPROVEMENT

A major focus of the CPS leadership is on instruction and its improvement, and Anthony Bryk will lead an integrated program of research in this domain. It requires building a database at the classroom level that links students and teachers. Through the Annenberg Research Project, we were able to collect such data for about 60 classrooms, consisting of both reading and mathematics instruction for grades three, six, and eight. In these classrooms, teachers completed the regular Consortium teacher survey and a special survey on instruction. In addition, field staff observed teachers and collected teacher assignments and student work. Finally, we have students' full test score history in reading and mathematics. Hence, while the size of the sample is fairly small, we will begin to analyze the mix of content, academic demand, and pedagogical strategies teachers brought to the classroom and the relationship between classroom work and students' learning gains. Appropriately, the Annenberg Research Project helped lay the groundwork for a more ambitious investigation of instruction and its improvement, and this analysis will serve as a bridge to the larger research agenda on instruction.

To link teacher and student data, the 2003 surveys asked teachers to indicate their room number. In addition, with the help of a pilot test done in 2002 by the Center for School Improvement, the Consortium expanded survey

measures to address new areas of instruction, the availability of materials and resources, the type and frequency of assessment, professional development, and the work of the reading coordinators that the central administration assigned to schools in the last two years.

To expand classroom-level analysis to the entire system depends on a significant change in the CPS information management system to allow for the linking of teacher and student records. We expect this to happen in the next couple of years. By that time, the Consortium will have undertaken the first two sets of analyses and will be prepared to expand the investigation of instruction and its improvement to all elementary schools. The Consortium also anticipates exploration of principal questionnaire data about their working relationships with Area Reading Coordinators and Area Instructional Officers. In addition, we may make greater use of the ISAT and launch further fieldwork to collect teacher assignments and student work (additional funds necessary). We would ultimately like to link teaching practice, teacher preparation and certification, and teacher recruitment and retention.

Steering Committee members recommended that we also address the following questions: What is the importance of subject matter expertise? Is there coherence at the system level and school level between standards, curriculum, and assessment? What is the impact of class size and student discipline? What are the salient issues of race and ethnicity, culture, and language in improving instruction?



A Closer Look at Students in CPS

CHILDREN AND THEIR ENVIRONMENTS

We have begun to update our census indicators to produce a new report based on the 2000 census. The report, which will be available online, will produce citywide and community-area statistics that include the number of preschool-age children, the median family income, the count of school-age children who are non-English speaking, the households in linguistic isolation (no individuals 14 and older who speak English well), the number of school-age children, the racial and ethnic composition of school-age children, the person(s) with whom children live, the types of schools that children attend (magnet, neighborhood, etc.), and the percent of children living below the poverty threshold. For each variable, the report will produce count, percent, and change in percent. For example, consider preschool-age children in community-area three. Readers will be able to select the count, percent, and change in percent of preschool-age children in the community area alone for 1990 and 2000.

STUDENT MOBILITY

In the last couple of years, as a result of federal and local policies, student mobility has become a more salient issue. First, NCLB has forced school systems to allow students to transfer to other schools if their school has not improved in three years. While overcrowding of some Chicago schools has limited parents' options in this regard, in general the policy is likely to increase mobility. Second, the CEO of the school system has instituted a policy of school closures combined with the opening of new charter, contract, and small schools, which will also stimulate student mobility. The closing and demolition of Chicago Housing Authority buildings has also sent families to find other housing and schools. Finally, there are many parents who seek to improve their

children's opportunities by either moving to a different neighborhood or requesting a transfer to a different school.

Previous research has shown that school mobility, especially if it occurs often and within school years, can be harmful. Schools with high percentages of mobile students tend to see the pacing of instruction slow down as teachers work to accommodate new students.⁶ Hence, for this reason, as well as to inform statistical analyses for other studies in this agenda, the Consortium intends to produce a data brief on this topic.

CHILDREN AND YOUTH IN CHALLENGING CIRCUMSTANCES

During the past year, the Consortium has collaborated with Chapin Hall on a planning study that provides descriptive information about children who have been abused and neglected, and/or are in foster care. This information was compiled for the CPS leadership (and that of other institutions) as it determines future investments in this area. A main finding was the importance of close monitoring of children's school experiences in the first year of entering foster care, when the child needs considerable support, and the decisions about placement in programs or schools must be carefully considered. In addition, despite concerns about labeling and other issues, there is a great need for communication between the child's social worker, foster care family, and classroom teacher. The transition to high school was also identified as a critical event requiring extensive communication, understanding, and judgment.

Based on this preliminary analysis, we plan to develop a proposal in collaboration with Chapin Hall and other partners to undertake further work in this area, including analysis of CPS students who have been involved in the juvenile justice system.

ENGLISH-LANGUAGE LEARNERS

The Steering Committee expressed considerable interest in the quality of educational experiences for English-language learners. We understand that the CPS Planning Office intends to undertake an internal analysis of bilingual education. This activity will be similar to the preliminary analyses they completed of CPS graduates' postsecondary education and training and of students in foster care. Planning staff will compile existing data and conduct interviews and focus groups. As we have done with the previous two CPS planning studies, the Consortium will stay abreast of this project and make a determination of whether we should and could undertake a study in this area.



IV.

Follow-Up on Previous Research

HIGH SCHOOLS

Goal 6 of the *Education Plan* calls for strengthening existing high school programs, and the Steering Committee recommended that the Consortium give much more attention to research in this area. They reasoned that in our 13 years of experience, we have learned a great deal about the mechanisms for improving elementary schools. However, there is much less certainty about how to reform high schools.

With encouragement from the Steering Committee, we have decided to undertake two major studies with respect to high schools. First, Elaine Allensworth will lead a comprehensive analysis of dropout trends, the process of dropping out, and the school and program factors that appear to influence students' decisions to stay enrolled or leave school. Consortium estimates show that dropout rates have remained alarmingly high. Over 40 percent of students drop out by the time they reach 19 years of age.⁷

To follow up Allensworth's previous research in this area, she plans to produce a data brief that updates systemwide trends, analyzes factors behind those trends, and examines dropout rates by age, race and ethnicity, and gender (and combinations of these), and by elementary school attended, by high school, and by neighborhood. This will provide basic information on the phenomenon in CPS, as well as evidence regarding differences among schools with respect to keeping students enrolled. In addition, she intends to examine CPS drop-out patterns—who drops out and when they drop out. This includes charting the movement of dropouts in and out of the system, between schools, through alternative schools, and incarceration.

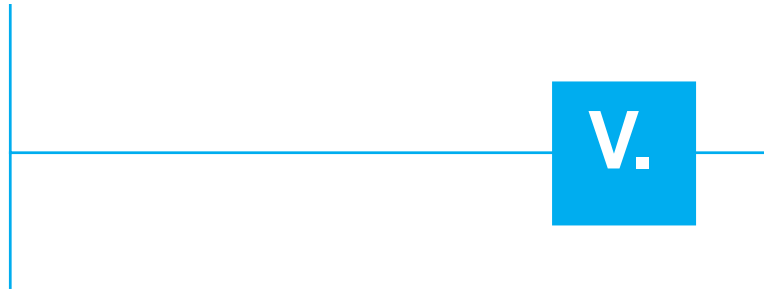
Allensworth also intends to probe further the characteristics of schools that succeed in holding students through graduation, including evidence of strength in the essential supports such as safety, peer relationships, and teacher-student trust. With additional funding, it may be possible also to conduct interviews with teachers, students, and administrators about the programs and policies they are implementing to prevent students from dropping out, including making accommodations in the curriculum, working with students who are chronically truant, and working with parents.

Second, Melissa Roderick has decided to undertake a complex study of CPS students who go on to postsecondary education and training. Initially this will involve obtaining national data sets of students in postsecondary institutions and matching CPS graduates. In addition, she plans to follow several hundred graduates over a period of three years. The purpose of the study is to map where CPS students go for postsecondary education, understand how they choose institutions, examine their preparation for the academic and social demands they confront, and evaluate their persistence. Ultimately, this study should inform the development and improvement of CPS high schools.

With respect to high school reform efforts, already we are providing assistance to the evaluation of the Fry Foundation's high school leadership reform project. We are analyzing quantitative indicators for the Institute of Metropolitan Affairs at Roosevelt University, where James Lewis, a member of our Steering Committee, is a coprincipal evaluator along with Al Bennett, a director of the Consortium. We also obtained funding from the Spencer Foundation to study the Bill and Melinda Gates' Foundation-supported small school efforts in Chicago. Research analysts Sue Spote and Macarena Correa have completed the first round of fieldwork.

EDUCATIONAL TECHNOLOGY

We will continue to monitor access to and professional development on technology. Growth in these activities would yield greater use of technology among teachers and students.



Assisted Studies

We are providing data and assisting several groups, including members of the Consortium Steering Committee. The largest assisted study is longitudinal surveys of teachers and students in Catholic Elementary Schools. The principal investigator is Maureen Hallinan, Notre Dame University.

**Table I: Research Agenda by Topic, FY 2004 – 2008
Consortium on Chicago School Research**

Topic	Method	Timing/Scope
Student Outcomes & School Productivity Prairie State Test and ISAT trends (NCLB) ITBS trends Second analysis of school productivity New productivity model for classroom analysis	Quantitative Quantitative, Data briefs Value-added, ITBS - Report Value-added, ITBS	Fall '03, annual Annual Summer '04 ?
Essential Supports Individual school reports of survey results Essential supports and improvements in student learning School leadership: profile of principals Human resource development* Instruction and its improvement*	Quantitative Quantitative – Book Quantitative – Report Multi-method Multi-method	Fall '03, '05, '07 December '03 Summer '04 Fall '04 – Summer '06 Fall '03 – Summer '06
Closer Look at Students in CPS Children and their environments Children and youth in challenging circumstances* Mobile students English-language learners (CPS Planning Group)*	Quantitative – Data brief Multi-method, Other partners Quantitative – Data brief Quantitative	Fall '03 ? Fall '03 – Summer '04 ?
High School Reform Drop-out rates Survey trends/small school study Transition of CPS graduates to postsecondary education*	Quantitative (or Multi-method*) Multi-method Multi-method	Winter '04 - Summer '05 Summer '04 ?
Technology Follow up: access and professional development	Quantitative – Data brief	Fall '05
Assisted and commissioned studies** Gear up Miscellaneous evaluations Catholic schools survey CSI analyses Many other analyses under discussion	Quantitative – Data brief or Web brief Quantitative Quantitative Quantitative	Winter '04 Ongoing FY 2007 Fall '03 – Summer '05

* Depends on success in raising funds. ** Assume these will constitute one-quarter of budget.

9/03

**Table II: Research Agenda by Study Type, FY 2004 – 2008
Consortium on Chicago School Research**

Type of Study	Method	Timing/Scope
Indicators Prairie State Test and ISAT trends (NCLB) ITBS trends Children and their environments Mobile students Technology follow up: access and professional development	Quantitative Quantitative - Data briefs Quantitative – Data brief Quantitative – Data brief Quantitative – Data brief	Fall '03, Annual Annual Fall '03 Fall '03 – Summer '04 Fall '05
Individual School Reports Survey results Gear up (commissioned)	Quantitative Quantitative – Data brief	Fall '03, '05, '07 Winter '04
Policy and Program Evaluations Second analysis of school productivity New productivity model for classroom analysis Human resource development* Instruction and its improvement* Children and youth in challenging circumstances* English-language learners (CPS Planning Group)* Drop-out rates Survey trends/small school study Transition of CPS graduates to postsecondary education* Miscellaneous evaluations (commissioned) CSI analyses (commissioned)	Value-added, ITBS - Report Value added, ITBS Multi-method Multi-method Multi-method, Other partners Quantitative Quantitative (or Multi-method)* Multi-method Multi-method Quantitative Quantitative	Summer '04 ? Fall '04 – Summer '06 Fall '03 – Summer '06 ? ? Winter '04 - Summer '05 Summer '04 ? Ongoing Fall '03 – Summer '05
Studies of School Development and Improvement Essential supports and improvements in student learning School leadership: profile of principals Catholic schools survey (commissioned)	Quantitative – Book Quantitative – Report Quantitative	December '03 Summer '04 FY 2007

*Depends on success in raising funds.

Endnotes



- ¹ Chicago Public Schools. (2002). *An Education Plan for the Chicago Public Schools*. Chicago: Author.
- ² Bryk, A.S.; Thum, Y.M.; Easton, J.Q.; Luppescu, S. (1998). *Academic Productivity of Chicago Public Elementary Schools* (1998).
- ³ Bryk, A.S.; Thum, Y.M.; Easton, J.Q.; and Luppescu, S.; 1998.
- ⁴ Miles, K, H.; Hornbeck, M., and Fermanich, M. (2002). *Chicago Public Schools Professional Development Project*. Chicago: Chicago Public Education Fund.
- ⁵ Lankford, H.; Loeb, S.; and Wyckoff, J. (Spring 2002). Teacher Sorting and the Plight of Urban Schools: A Descriptive Analysis. *Educational Evaluation and Policy Analysis*, 24 (1), 37-62.
- ⁶ Kerbow, D. (1996). Patterns of Urban School Mobility and Local School Reform, *Journal of Education for Students Placed at Risk*, 1, 147-169. Kerbow, D. (1997). School Mobility, Curricular Pace, and Stable Student Achievement. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.
- ⁷ Allensworth, E. and Easton, J.Q. (2001). *Calculating a Cohort Dropout Rate for the Chicago Public Schools*. University of Chicago: The Consortium on Chicago School Research.