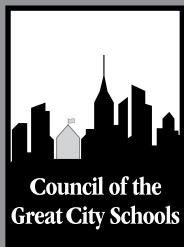Council of the

The SUERF Program:
A Summary of Findings and Reflections
on Research Partnerships

**Council of the
Great City Schools**

FALL 2012
THE COUNCIL OF THE GREAT CITY SCHOOLS

The Senior Urban Education Research Fellowship Series
Summary Report

Fall 2012

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INTRODUCTION

ABOUT THE SENIOR URBAN EDUCATION RESEARCH FELLOWSHIP PROGRAM

Large urban public school districts play a significant role in the American education system. The largest 67 urban school systems in the country – comprising less than one half of one percent of the nearly seventeen thousand school districts that exist across the United States – educate about 14 percent of the nation's K-12 public school students, including over 20 percent of the nation's economically disadvantaged students, 28 percent of its African American students, about a quarter of its Hispanic students, and a quarter of its English Language Learners. Clearly, any attempt to improve achievement and to reduce racial and economic achievement gaps across the United States must involve these school districts as a major focus of action.

These school districts face a number of serious, systematic challenges. To better understand the challenges in urban education and to develop more effective and sustainable solutions, urban districts need a program of rigorous scientific inquiry focusing on what works to improve academic outcomes in the urban context. Moreover, in order to produce such evidence and to move public education forward generally, the standards of evidence in education research must be raised in such a way as to bring questions regarding the effectiveness of educational interventions and strategies to the fore and to promote careful scrutiny and rigorous analysis of the causal inferences surrounding attempts to answer them.

It has been argued that, in order to move such an effort forward, a community of researchers, committed to a set of principles regarding evidentiary standards, must be developed and nurtured. We contend further that, in order to produce a base of scientific knowledge that is both rigorously derived and directly relevant to improving achievement in urban school districts, this community of inquiry must be expanded to include both scholars and practitioners in urban education.

Though a great deal of education research is produced every year, there is a genuine dearth of knowledge regarding how to address some of the fundamental challenges urban school districts face in educating children, working to close achievement gaps, and meeting the demands of the public for better results. Moreover, while there is a history of process-related research around issues affecting urban schools, relatively few studies carefully identify key program components, document implementation efforts, and carefully examine the effects of well-designed interventions in important programmatic areas on key student outcomes such as academic achievement. In sum, there is an absence of methodologically sound, policy-relevant research to help guide practice by identifying the conditions, resources, and necessary steps for effectively mounting initiatives to raise student achievement.

In order to address this need, the Council of the Great City Schools, through a grant from the Institute of Education Sciences, established the Senior Urban Education Research Fellowship (SUERF) program.

The Senior Urban Education Research Fellowship was designed to facilitate partnerships between scholars and practitioners focused on producing research that is both rigorous in nature and relevant to the specific challenges facing large urban school districts. We believe such partnerships have the potential to produce better, more practically useful research in at least three ways. First, by deepening researchers' understanding of the contexts within which they are working, the program may help them maximize the impact of their work in the places where it is needed the most. Second, by helping senior staff in urban districts become better consumers of research, we hope to increase the extent to which the available evidence is used to inform policy and practice, and the extent to which urban districts continue to invest in research. Third, by executing well-designed studies aimed at the key challenges identified by the districts themselves, we hope to produce reliable evidence and practical guidance that can help improve student achievement.

ABOUT THE SENIOR URBAN EDUCATION RESEARCH FELLOWSHIP PROGRAM (CONT'D)

The primary goals for the Senior Urban Education Research Fellowship were to:

- promote high quality scientific inquiry into the questions and challenges facing urban school districts;

- facilitate and encourage collaboration, communication, and ongoing partnerships between senior researchers and leaders in urban school districts;

- demonstrate how collaboration between scholars and urban districts can generate reliable results and enrich both research and practice;

- produce a set of high quality studies that yield practical guidance for urban school districts;

- contribute to an ongoing discussion regarding research priorities in urban education; and

- promote the development of a "community of inquiry," including researchers and practitioners alike, committed to both a set of norms and principles regarding standards of evidence and a set of priorities for relevant, applied research in urban education.

The SUERF program benefitted greatly from the guidance and support of a Research Advisory Committee made up of experts and leaders from large urban school districts and the education research community. The committee included Dr. Katherine Blasik, Dr. Carol Johnson, Dr. Kent McGuire, Dr. Richard Murnane, Dr. Andrew Porter, and Dr. Melissa Roderick. This extraordinary group helped to identify and define the objectives and structure of the fellowship program, and we thank them for lending their considerable insight and expertise to this endeavor.

OVERVIEW OF THE REPORT

Now in its final year, it is worth taking a step back and looking at what has been accomplished with this program. The Senior Urban Education Research Fellowship provided funding for research in nine urban districts across the United States. Nine lead fellows spearheaded ten studies[1] and produced reports that addressed some of the leading challenges and priorities facing urban school districts.

The purpose of this summary is to explore and learn from the findings, common themes, and experiences of the SUERF researchers and district partners as they undertook these collaborative research projects. To accomplish this, reports were analyzed and fourteen fellows and district leaders involved in the research were interviewed. These interviews provided additional context for the information derived from the reports. Both the content of the study reports and the process employed to conduct the fellow/district collaborative research are informative.

This summary was prepared by Linda Leddick. Dr. Leddick was engaged for this activity as she could analyze the outcomes of the fellowship activities with a fresh, unbiased view having had no relationship with the project prior to being invited to prepare the summary. Dr. Leddick has extensive experience working in urban districts. She served for a number of years as the Executive Director of the Office of Research, Evaluation, and Assessment for the Detroit Public Schools, where she engaged in collaborative research projects with staff from various universities. This experience provides her with a keen sense of the needs of urban districts and the challenges and rewards associated with external researchers working within urban school districts. Dr. Leddick currently serves as an independent researcher and evaluator working with universities, school districts and local, state, and federal governmental units.

The report first provides a brief description of each of the ten studies, presented as "snapshots" in section one. It then divides the ten research reports into three main categories—data and data use studies, literacy intervention studies, and student and staff development studies. Within each category, we examine selected findings, implications for district action, and opportunities for future research.

As promoting district research partnerships was an important objective driving the fellowship program, we then take a step back to highlight the lessons learned by both senior researchers and their district partners in mounting collaborative research efforts. This section is enriched by the reflections on collaborative research made by fellows and district staff during telephone interviews in spring, 2012. Some studies were published in 2010, others in 2011, and yet others not until 2012. This means that the interviews covered a range of time and distance from the work. The interviewees were extremely generous with their time and forthcoming in their conversations. We thank them for both.

Those interested in exploring the studies in greater detail are encouraged to obtain the full reports on the Council of the Great City Schools' website at: http://www.cgcs.org/domain/85. We hope you will find them important and useful to your work.

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1 Geoffrey Borman's work with the St. Paul Public Schools resulted in the release of two final reports, bringing the total to ten reports for nine SUERF fellows.

ABOUT THE SENIOR URBAN EDUCATION RESEARCH FELLOWS

ABOUT THE SENIOR URBAN EDUCATION RESEARCH FELLOWS

BECKY SMERDON

Becky Smerdon is Managing Director, Education Research and Policy, at Quill Research Associates, LLC. She was previously a Principal Research Scientist, Vice President and Deputy Director, U.S. Education and Workforce Development, Academy for Educational Development, where she was leading the development of a research and development agenda on disadvantaged youth and education reform with a particular focus on successful transition to college and work. Prior to working for the Academy for Educational Development, Smerdon was a Senior Research Associate at the Urban Institute where she led a formative and summative evaluation of Baltimore's high school reform initiative, a study of the math/science pipeline in North Carolina's reforming high schools funded by the National Science Foundation, and a project developing indicators of high school reform implementation funded by The Bill & Melinda Gates Foundation. Before joining the Urban Institute, Smerdon was a Principal Research Scientist at the American Institutes of Research where she led the U.S. Department of Education's National High School Center. She is a nationally recognized expert in high school reform and has conducted a number of research studies, many of which have been presented at national conferences and published in academic journals such as A*merican Educational Research Journal, Sociology of Education, Teachers College Record*, and *Research in the Sociology of Education and Socialization.*

ROBERT H. MEYER

Robert H. Meyer is director of the Value-Added Research Center (VARC) within the Wisconsin Center for Education Research (WCER) at the University of Wisconsin-Madison. Before joining WCER, Meyer was on the faculty of the University of Chicago (Harris School of Public Policy Studies) and the University of Wisconsin (Economics Department). Meyer is known for his research on value-added modeling and evaluation methods. Over the last decade and a half, Meyer has worked closely with districts and states to develop and apply innovative statistical methods. He has conducted major statistical evaluations of programs and policies such as SAGE (the Wisconsin class-size initiative), systemic reform in Texas, integrated versus traditional mathematics, and professional development, and other math and science reforms. At the other end of the evaluation spectrum, Meyer has worked with numerous districts and states, including Minneapolis, Milwaukee, Chicago, Michigan, Minnesota, and Wisconsin, to develop and implement custom value-added indicator systems and longitudinal data warehouse systems. He is a Principal Investigator on the Milwaukee and Chicago Value-Added Projects and a Technical Assistance Director for the Center for Educator Compensation Reform for the federal Teacher Incentive Fund (TIF) project.

CATHERINE SNOW

Catherine Snow is the Patricia Albjerg Graham Professor at the Harvard Graduate School of Education. She received her Ph.D. in psychology from McGill and worked for several years in the linguistics department of the University of Amsterdam. Her research interests include children's language development as influenced by interaction with adults in home and preschool settings, literacy development as related to language skills and as influenced by home and school factors, and issues related to the acquisition of English oral and literacy skills by language minority children. Most recently she has focused on literacy development in adolescence, and interventions designed to improve adolescents' literacy

skills. She has co-authored books on language development (e.g., *Pragmatic Development* with Anat Ninio) and on literacy development (e.g., *Is Literacy Enough?* with Michelle Porche, Stephanie Harris, and Patton Tabors), and published widely on these topics in refereed journals and edited volumes. Snow's contributions to the field include membership on several journal editorial boards, co-directorship for several years of the Child Language Data Exchange System, and serving as a member of the National Research Council Committee on Establishing a Research Agenda on Schooling for Language Minority Children. She chaired the National Research Council Committee on Preventing Reading Difficulties in Young Children, which produced a report that has been widely adopted as a basis for reform of reading instruction and professional development, and the National Research Council Committee on Developmental Assessments and Outcomes for Children. She is a past president of the International Association for the Study of Child Language and the American Educational Research Association. She heads the research activities of the Strategic Education Research Partnership's field site in the Boston Public Schools.

KENJI HAKUTA

Kenji Hakuta is the Lee J. Jacks Professor of Education at Stanford University. An experimental psycholinguist by training, he is best known for his work in the areas of bilingualism and the acquisition of English in immigrant students. He is the author of numerous research papers and books, including *Mirror of Language: The Debate on Bilingualism* and *In Other Words: The Science and Psychology of Second Language Acquisition.* He chaired a National Academy of Sciences report *Improving Schooling for Language-Minority Children,* and co-edited a book on affirmative action in higher education, *Compelling Interest: Examining the Evidence on Racial Dynamics in Higher Education.* Hakuta is also active in education policy. He has testified to Congress and other public bodies on a variety of topics, including language policy, the education of language minority students, affirmative action in higher education, and improvement of quality in educational research. He has served as an expert witness in education litigation involving language minority students. Hakuta received his BA Magna Cum Laude in Psychology and Social Relations, and his Ph.D. in Experimental Psychology, both from Harvard University. He has been on the faculty at Stanford since 1989, except for three years (2003-2006) when he helped start the University of California at Merced as its Founding Dean of Social Sciences, Humanities and Arts. He is an elected Member of the National Academy of Education, Fellow of the American Association for the Advancement of Science (Linguistics and Language Sciences), and Fellow of the American Education Research Association.

JAMES E. ROSENBAUM

James E. Rosenbaum is Professor of Sociology, Education, and Social Policy at Northwestern University. His books include *Crossing the Class and Color Lines,* University of Chicago Press, 2000, and *Beyond College for All,* Russell Sage Foundation, 2001, which was awarded the Waller Prize in Sociology. His book, *After Admission: From College Access to College Success* was published in 2006, with co-authors Regina Deil-Amen and Ann Person. He is an advisor to *Education Week,* the National Assessment of Career and Technical Education, the New Community College at CUNY, the Chicago Workforce Investment Council's *CWICstats* Advisory Council, and the National Opinion Research Center at the University of Chicago. His most recent research showed the positive impact of a college coach program in Chicago Public Schools, which led to expansion of the program.

ABOUT THE SENIOR URBAN EDUCATION RESEARCH FELLOWS

JOHN TYLER

John Tyler is Associate Professor of Education, Economics, and Public Policy at Brown University. He is an applied microeconomist who has been in the Education Department at Brown since 1998. His work focuses on questions within the economics of education field, especially as these questions can be viewed through a program evaluation lens. His past work includes evaluations of the economic impact of the GED credential, the effects of working while in high school on academic achievement, and the effects of prison-based education on post-release labor market outcomes. His recent and planned future work focuses on teacher quality issues in U.S. K-12 education. In this vein he has examined the extent to which classroom-based measures of teaching effectiveness are predictive of a teacher's ability to raise student test scores, teacher use of student test data as a means for improving instruction, and the extent to which teacher evaluation systems can help teachers become more effective.

Professor Tyler is a Faculty Research Fellow at the National Bureau of Economic Research and is in his first year of a two-year stint as a W.T. Grant Foundation Distinguished Fellow. He received his doctorate from the Harvard Graduate School of Education in 1998.

MARTHA ABELE MAC IVER

Martha Abele Mac Iver is an Associate Professor at the Center for Social Organization of Schools in the School of Education at Johns Hopkins University. A political scientist who made the transition into educational policy research after more than a decade of research on both the Northern Ireland conflict and the political transformation of Europe after 1989, she has focused her recent research on the effectiveness of numerous school and district educational interventions designed to improve student achievement. She served as co-investigator on the National Science Foundation ROLE grant to study the achievement effects of a decade of educational reforms in Philadelphia, and principal investigator on an analytical effort to provide useful information for data-informed decision making on the part of Colorado districts participating in an initiative aimed at cutting Colorado's dropout rate.

She has also studied educational reform efforts in the Baltimore City Public Schools for the past fifteen years, and participates actively as a researcher with the Baltimore Education Research Consortium (BERC). Her articles have appeared in *Educational Evaluation and Policy Analysis, Phi Delta Kappan, Education and Urban Society, Journal of Policy Research, Journal of Vocational Education Research, Urban Education,* and other journals.

NONIE K. LESAUX

Nonie K. Lesaux is a Professor of Education at the Harvard Graduate School of Education. She leads a research program that focuses on increasing opportunities to learn for students from diverse linguistic, cultural, and economic backgrounds, a growing population in today's classrooms. From 2002–2006, Lesaux was the Senior Research Associate of the National Literacy Panel on Language Minority Children and Youth. In 2007, Lesaux was named one of five WT Grant scholars, earning a $350,000 five-year award from the WT Grant Foundation in support of her research on English language learners in urban public

schools. In 2009, she was a recipient of the Presidential Early Career Award for Scientists and Engineers, the highest honor given by the United States government to young professionals beginning their independent research careers. Her studies on reading and vocabulary development, as well as instructional strategies to prevent reading difficulties, have implications for practitioners, researchers, and policymakers. Her research is supported by grants from several organizations, including the Institute of Education Sciences, Eunice Kennedy Shriver National Institute of Child Health and Human Development, the William and Flora Hewlett Foundation, Robert Wood Johnson Foundation, and the Council of the Great City schools. A native of Canada, Lesaux earned her doctorate in educational psychology and special education from the University of British Columbia.

GEOFFREY BORMAN

Geoffrey Borman (Ph.D., 1997) is a Professor of Education and Sociology at the University of Wisconsin—Madison, the Co-Director of the University of Wisconsin's Predoctoral Interdisciplinary Research Training Program, and a Senior Researcher with the Consortium for Policy Research in Education. Trained as a quantitative methodologist at the University of Chicago, Professor Borman's main substantive research interests revolve around the social distribution of the outcomes of schooling and the ways in which policies and practices can help address and overcome educational inequality. His primary methodological interests include the synthesis of research evidence, the design of quasi-experimental and experimental studies of educational innovations, and the specification of school-effects models.

Over the past ten years, Borman has led or co-directed twelve major randomized controlled trials, which have included randomization and delivery of educational interventions at the student, classroom, school, and district levels. He has conducted three recent research syntheses, including a meta-analysis of the achievement effects of 29 nationally disseminated school reform models. Finally, other recent projects reveal the consequences of attending high-poverty schools and living in high-poverty neighborhoods and uncover some of the mechanisms through which social-context effects may be manifested.

Professor Borman has been appointed as a methodological expert to advise many national research and development projects, including the National Research Center on the Gifted and Talented and three of the nation's regional educational laboratories funded by the Institute of Education Sciences. He was also named to the 15-member Urban Education Research Task Force established to advise the U.S. Department of Education on issues affecting urban education. Borman serves on the editorial boards of seven academic journals, including the *American Educational Research Journal, Reading Research Quarterly,* and *Elementary School Journal.* His research has been funded by a variety of organizations, including the National Science Foundation, U.S. Department of Education, Office of Educational Research and Improvement, Institute of Education Sciences, American Educational Research Association Grants Program, Spencer Foundation, Open Society Institute, and Smith-Richardson Foundation, among others. Dr. Borman was the recipient of a 2002 National Academy of Education/Spencer Postdoctoral Fellowship Award, the 2004 Raymond Cattell Early Career Award from the American Educational Research Association, the 2004 American Educational Research Association Review of Research Award, and the 2008 American Educational Research Association Palmer O. Johnson Award. In 2009, Dr. Borman's significant contributions to the field of education research were recognized by his nomination and selection as a Fellow of the American Educational Research Association.

THE SUERF REPORTS:
SNAPSHOTS

SNAPSHOTS

The ten SUERF reports can be divided into three broad categories.

- Data-use Studies
- Literacy Intervention Studies
- Student and Staff Development Studies

DATA-USE STUDIES

Volume I: *Lessons for Establishing a Foundation for Data Use in DC Public Schools,* Becky Smerdon and Aimee Evan, Fall 2010

The original intent of this study was to develop early warning indicators of high school readiness and to investigate the location, degree, and sources of the dropout problem in the DC Public Schools. Encountering significant data reliability challenges, the study shifted course and produced a detailed audit and report on the status of data practices based on interviews with a sample of K-8 schools. The report offers several recommendations for building a strong foundation for data collection and use in the future.

Volume II: *Accountability and Performance in Secondary Education in Milwaukee Public Schools,* Robert Meyer, Bradley Carl, and Huiping Emily Cheng, Fall 2010

The intent of this study was primarily to develop an early warning system to help the district identify middle and high school students at elevated risk of dropping out of high school, as well as those graduating with low levels of college/ workforce readiness. The project also involved the development of new high school value-added performance indicators, including non-cognitive factors such as attendance.

Volume VI: *An Examination of Teacher Use of the Data Dashboard Student Information System in Cincinnati Public Schools,* John Tyler and Christina McNamara, Fall 2011

This study looks at the recorded use of a data dashboard system by teachers. After identifying low levels of usage through analysis of web logs, focus groups with teachers were conducted to help identify the challenges teachers face in using the data system, as well as the opportunities for the district to better support data use at the school level. The report highlights the importance of leadership, professional development, collaborative opportunities, monitoring of data use, and fine-tuning of data systems.

Volume VII: *Predicting High School Outcomes in the Baltimore City Public Schools,* Martha Abele Mac Iver and Mathew Messel, Summer 2012

This study examines eighth- and ninth- grade early warning indicators as predictors of graduation and college outcomes. It also details the ways the district has acted on the data, as well as remaining challenges to effective district-level responses to research on early warning indicators.

LITERACY INTERVENTION STUDIES

Volume III: *Word Generation in Boston Public Schools: Natural History of Literacy Intervention,* Catherine E. Snow and Joshua F. Lawrence, Spring 2011

This report describes the implementation and evaluation of a cross-content literacy program designed to enhance middle school students' academic vocabulary. The report examines the impact of participation on student achievement, as well as the characteristics and practices that appear to facilitate the consistent and effective implementation of the program in schools.

Volume IV: *WordSift: Supporting Instruction and Learning through Technology in San Francisco,* Kenji Hakuta, Spring 2011

This study details the development, uses, and early efforts to evaluate a web-based interface that creates a visual, interactive representation of selected text to assist teachers in academic language instruction across the curriculum.

Volume X: *Examining Classroom Talk in the San Diego Unified School District,* Nonie Lesaux and Perla Gámez, Fall 2012

This study focused on the impact of the quantity and quality of teacher talk on students' vocabulary and reading comprehension skills. It also examined whether the implementation of a literacy intervention impacted the quality of teacher talk in urban middle schools, and what effect teacher talk had on different groups of students.

STUDENT AND STAFF DEVELOPMENT STUDIES

Volume V: *The Post-Secondary Coach Program in Chicago: Does It Affect the College Going Process?* Jennifer Stephan and James Rosenbaum, Fall 2011

This study examines the social barriers to college enrollment facing urban high school students, and documents the impact of a college coaching program designed to address these challenges.

Volume VIII: *An Examination of Professional Learning Communities in St. Paul Public Schools,* Geoffrey Borman, Fall 2012

This study examines the use of Professional Learning Communities (PLCs) to build teacher effectiveness and school capacity to improve achievement. The study investigated the variability in PLC participation and how it related to student achievement.

Volume IX: *Examination of a Self-Affirmation Intervention in St. Paul Public Schools,* Geoffrey Borman, Fall 2012

This study explored the effect of self-affirmation writing exercises designed to mitigate the psychological impact of stereotype threat on student achievement.

DATA-USE STUDIES

DATA-USE STUDIES

The use of data has become increasingly important to school districts across the country. A growing array of data is now being used for multiple purposes, including designing and targeting interventions and support for students, informing instruction, meeting accountability requirements, and evaluating teachers.

Four SUERF studies focused on district data and data systems. Martha Mac Iver and Robert Meyer studied patterns of academic failure in Baltimore and Milwaukee and developed early warning indicator systems designed to identify students at risk of dropping out of school. John Tyler studied the teacher usage patterns of Cincinnati's Data Dashboard Student Information System. Becky Smerdon studied the policies and practices governing data collection and use in the District of Columbia Public Schools (DCPS). Each of these researchers endeavored to both study the data and patterns of data use, and to make recommendations to the district on how to more effectively use data to improve student outcomes. Taken together, these four reports provide a road map to the development of data systems, implementation of activities necessary to facilitate use of a data system, and the application of data to improve student outcomes.

SELECTED FINDINGS AND OPPORTUNITIES FOR DISTRICT ACTION

- Grade nine is a critical year for determining graduation outcomes.

One of the overarching findings to come out of Martha Mac Iver and Robert Meyer's work with student tracking systems is that the ninth grade is a defining moment for many students.

Martha Mac Iver's study, for instance, examines both eighth- and ninth-grade variables as potential predictors of graduation and college outcomes. Mac Iver found that, even for students who showed warning signs—or "early warning indicators"—in the eighth grade, if there were no early warning indicators at the ninth-grade level these students graduated at nearly the same rate as other eighth-grade students (85.4 percent versus 91.8 percent). In contrast, a larger group of students had no problems in grade eight but then fell off-track in grade nine. These students face a significantly lower chance of graduating than students with no early warning indicators in the ninth grade (61.3 percent versus 91.8 percent) (Vol. VII, p. 23).

Robert Meyer also found the ninth grade to be an important make-or-break year for eventual high school graduation. He found that, while only 7.1 percent of students drop out after the first year of high school, 26 percent of students who drop out had grade nine as their last grade either completed or in progress (Vol. VII, p.11). This includes students who were in high school for three, four, five, and even six years. Like Mac Iver, Meyer also found that multiple years of middle school data appear to add minimal power for predicting first-year high school attainment[2], noting that students may have done well in middle school but experience difficulties in high school (Vol. II, p. 12).

Both authors touch on the point that, while students who fall off track in the ninth grade face considerably lower chances of graduating, this also means that many common warning signs can be detected in the first year of high school, and therefore present districts with opportunities

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2 Martha Mac Iver did find that one eighth-grade variable—chronic absence in grade 8—was a strong predictor of non-graduation.

for targeting support and intervention. According to Mac Iver, "sustained attention to implementing interventions to prevent students from slipping into chronic absence and course failure in ninth grade are crucial for increasing the graduation rate in Baltimore and similar districts" (Vol. VII, p. 36).

Moreover, despite the finding that ninth-grade outcomes are stronger indicators of student risk than middle school outcomes, both authors point to the need to develop better mechanisms for identifying, preparing, and supporting students as early as possible. Rob Meyer points out that simply "classifying students as either on track or off track at the end of the first year of high school, or even halfway through the year, is simply too late to prevent many students from dropping out" (Vol. II, p. 11). Based on his findings of the challenges that the transition to high school poses for many students, Rob Meyer and his team suggested developing and administering some type of academic "stress test"—administered at one or more points during the middle grades—that would be designed to measure and identify the skills and knowledge needed for success in high school that are not currently addressed by existing measures such as final course grades. This might be an academic exercise that is already in use or could be easily incorporated (such as a research paper assigned to seventh graders each year). Another possibility they cite is a "skills inventory" for each student, filled out by their teachers each year in the middle grades that measures teacher perceptions of student readiness for high school and college.

- The key early warning indicators of failure in high school are common across districts.

Both Martha Mac Iver and Robert Meyer also confirmed that, in Baltimore and Milwaukee, chronic absences, being over-age for grade or retention in grade, behavioral problems, and academic achievement as measured by test scores, grade point averages, and core-course performance are key predictors of high school dropout. These variables echo the results of student tracking studies in other cities, including Chicago and Philadelphia.

Specifically, Meyer found that eventual dropouts differed

from graduates during the first year of high school in that they have lower grade point averages in core subjects, failed a higher percentage of core classes, were more likely to be retained in grade nine, had higher absence rates, and had higher incidence of behavioral problems with longer suspensions and more severe offenses. These eventual dropouts also had lower standardized test scores and greater mobility, although both test scores and mobility yielded comparatively little predictive power when other variables were controlled for (Vol. II, p. 11). In addition, Mac Iver found that, even when controlling for their higher levels of behavioral early warning indicators, males are significantly less likely to graduate than are females—analyses that indicate the importance of explicitly addressing the needs of male students (Vol. VII, p. 10).

In her discussion of the Baltimore study results, Martha Mac Iver discusses both the steps the district has taken and the work that remains to be done to address these early warning signs of failure. For example, to address the issue of students over age for grade, Mac Iver writes that "finding ways to increase learning time during the school year and summer, rather than retaining students in grade in the elementary grades, may be a crucial step in reducing the number of students who fail to graduate from high school" (Vol. VII, p. 10).

Meyer, meanwhile, recommends steps for strengthening and fine-tuning early warning indicator systems to produce more robust and actionable data to help drive district efforts to intervene and support students at risk. He also points out that early warning indicator systems should be designed to not only identify students at risk of dropping out, but also address the needs and warning signs of students likely to graduate with low levels of college and workforce readiness.

- Support for data use is essential to the ultimate effectiveness and utility of data systems.

Two studies—Becky Smerdon's examination of data collection and use in DC Public Schools and John Tyler's examination of Cincinnati's Data Dashboard—dealt with the development and use of district data

DATA STUDIES

systems. Interestingly, during the period of study these sites represented two ends of the spectrum in terms of sophistication and development. DCPS at that point had a fledgling system plagued by incomplete data and a lack of codified data collection procedures, while Cincinnati's Data Dashboard Student Information System was among the most well-developed and sophisticated in the country.

Yet these two studies ultimately resulted in the shared finding that supporting teacher data use and creating a strong data culture ultimately determines the success of data systems. Despite the resources that Cincinnati had invested in their data dashboard, by tracking web logs John Tyler revealed startlingly low levels of use among teachers. Specifically, he found that while some teachers used the system extensively, core-subject teachers in grades where students are tested quarterly and where dashboard data could inform instruction spend an average of just over 30 seconds per week looking at individual student-level data on the Dashboard (Vol. VI, p. 7). Peak usage occurred immediately after the test results were posted, but still averaged only around a minute per week. While some teachers did use the system to simply print hard copies of student data, the number of teachers who do so does not account for this low usage.

Recognizing the data-use challenges that each of these districts faced, both researchers employed teacher and administrator focus groups as a means of exploring the barriers to data use at the school and classroom levels. In Cincinnati, these focus groups revealed that teachers felt they had not been sufficiently trained in usage, did not have sufficient time to use the dashboard in a useful way, and felt that the tests posted on the dashboard were not well aligned to the district curricula and pacing guides (Vol. VI, p.7). Smerdon, meanwhile, found a lack of sufficient guidance and oversight for data collection, as well as infrequent or inappropriate use of data by school staff.

In both reports, these findings led to concrete recommendations for district action. The authors both touch on the importance of increased support and oversight for data use, as well as communication and outreach to school sites in order to clarify the value and purpose of the data system. In addition to several procedural data collection recommendations, Becky Smerdon emphasizes the importance of five main components in supporting data use: building leadership support, assembling a collaborative data team, establishing a regular time to meet, establishing a central location for data, and aligning resources (Vol. I, p.11).

John Tyler, meanwhile, recommended such steps as making the data dashboard system more accessible and user-friendly through additional design features, providing teachers with interactive professional development on the data system, providing time for teachers to work with data and opportunities for increased collaboration, and requiring teachers to complete an assessment of student results after receiving them on the Data Dashboard as a way to both hold teachers accountable for using data and to identify teachers who may need extra assistance with data analysis (Vol. VI, p. 34-35). He also recommended clarifying the nature and purpose of the assessment data available on the Dashboard in order to address teacher concerns and build understanding and buy-in for the system.

OPPORTUNITIES FOR FUTURE RESEARCH

The data-focused studies each point to a number of potential areas for future research and development. These include refining and expanding early warning systems to make them more robust. Rob Meyer discusses the next step of investigating the feasibility of providing further detail within each of the risk categories (an element of their online early warning dashboard) by developing and assigning a "risk index score" to each student. Meyer and his team also point out that while early warning indicator work to date has been promising, this work needs to be expanded to identify/intervene not only on behalf of students at risk of dropping out of high school, but students at risk of graduating high school with low levels of college and workforce readiness.

Other avenues for study include exploring students' school engagement as a potentially powerful source of information for predicting which students are less likely to graduate from high school or enroll in college (Vol. II, p.53).

In her discussion of the ways Baltimore has responded to early warning indicator research, Martha MacIver points to the organizational aspects of dropout prevention efforts. Specifically, she suggests that another useful area for future research would be an examination of the "multiple pathways to graduation" approach. She writes:

> *"Ongoing research on "portfolio districts" like Baltimore emphasizes the importance of a diverse set of schools to meet the needs of different groups of students…One of the research questions we intend to pursue in future research is under what conditions a district portfolio system can coexist with a more unified district office framework for (dropout) prevention. We suspect that the degree to which the central office is "siloed," with different offices not communicating or working at cross-purposes, contributes significantly to the fragmented approach to supporting secondary schools struggling with keeping students on track to graduation. Both how a district is organized to support schools in improving student outcomes and how the people within those structures conceptualize their support roles appear to be crucial variables to explore" (Vol. VII, p. 41).*

Finally, while Meyer recommends exploring "matches" between specific middle schools with high schools, Mac Iver recommends further investigation of transfers between high schools (and the extent to which such mobility is truly voluntary). She points out that "if college enrollment rates, based on the percentage of graduates entering college, are included in the group of accountability measures without accounting for the loss of students after ninth grade, schools will have another incentive to transfer out students that would pull that measure down. Getting this incentive structure right in the precise set of accountability measures is an issue that must be tackled at the state and even national levels" (Vol. VII, p. 42).

THE LITERACY INTERVENTION STUDIES

THE LITERACY INTERVENTION STUDIES

Volume III: *Word Generation in Boston Public Schools: Natural History of Literacy Intervention,* Catherine E. Snow and Joshua F. Lawrence, Spring 2011

Volume IV: *WordSift: Supporting Instruction and Learning through Technology in San Francisco,* Kenji Hakuta, Spring 2011

Volume X: *Examining Classroom Talk in the San Diego Unified School District,* Nonie Lesaux and Perla Gámez, Fall 2012

The three literacy intervention studies each examine methods for advancing vocabulary development at the middle school level, especially the development of academic words and language. Catherine Snow studied the implementation and effectiveness of *Word Generation,* a program organized around weekly civic-related, cross-content assignments designed to build student knowledge of high frequency academic words and skills for spoken and written academic discourse. Nonie Lesaux studied the impact on the quality and quantity of teacher talk of the *ALIAS* (Academic Language instruction for All) program, a sixth-grade academic vocabulary intervention that emphasizes explicit instruction in vocabulary and word-learning strategies as part of daily lessons. Kenji Hakuta's study involved the development and examination of a web-based interface—*WordSift*—that creates a visual, interactive representation of selected text in order to highlight the relative frequency of various academic and subject-specific vocabulary. Each of these studies demonstrate the importance of explicit literacy instruction, as well as the challenges of improving literacy and academic achievement among English language learners and language minority students.

SELECTED FINDINGS AND OPPORTUNITIES FOR DISTRICT ACTION

- In order to improve literacy and academic achievement, students need access to rigorous classroom experiences and explicit instruction in academic vocabulary and comprehension skills.

The literacy intervention studies produced evidence that explicit literacy instruction in an environment that facilitates cross-content vocabulary development and word exploration will positively affect literacy outcomes for a majority of students. In the first year of Catherine Snow's study, students who participated in the *Word Generation* program for 20-22 weeks made gains equivalent to two years of incidental learning, and *Word Generation* schools in general outperformed comparison schools (Vol. III, p. 29). Moreover, assessment of the maintenance of long-term gains showed positive results for all students except Limited English Proficient students.

In her study of the *ALIAS* program, Nonie Lesaux also found evidence that the instructional shifts triggered by the intervention—namely, the increased quality and complexity of teacher talk—led to higher growth in students' vocabulary and reading scores. Similar growth was not linked to the mere quantity of teacher talk.

Both of these studies were driven by district concerns over low literacy rates, as well as a growing understanding of the important role academic literacy plays in a students' ability to access rigorous course content and materials. Yet explicit literacy and vocabulary instruction is rarely provided past the earliest years of instruction. The results suggest that programs and interventions aimed at improving academic vocabulary and literacy—particularly across multiple content areas—is an important lever for addressing low levels of academic achievement.

- The effectiveness of literacy programs and interventions varies for English language learners at different levels of English language development.

Another overarching theme to arise from the literacy intervention studies is the diversity and complexity of the group of students identified as Limited English

Proficient (LEP), English Language Learners (ELLs), or language minority (LM) students. The studies, for instance, found important differences in the impact that vocabulary interventions had on the achievement of ELLs at different levels of language development. Catherine Snow found that, on a vocabulary test given at the beginning and end of the *Word Generation* program, Limited English Proficient students did not appear to have made any gains as a result of participating in the program. Proficient English speakers from language minority homes, however, showed strong gains above and beyond the gains of English-only students (Vol. III, p. 34).

Similarly, Lesaux found that, although one measure of the quality of teacher talk—teachers' use of complex language—did not have an impact on the vocabulary scores of language minority students in the aggregate, follow up analysis did reveal a significant and positive association between complex language and vocabulary development for language minority students who had either "Early Advanced" or "Advanced" language skills, and scored at least above the 25th percentile in reading vocabulary (Vol. X, p. 29).

These findings suggest that ELLs are not a monolithic group, and that continued attention is required on the part of teachers, program developers, and researchers to better meet the specialized—and diverse—needs of these students. At the same time, Lesaux points out the importance of not denying ELL students access to rich, high quality classroom language and instruction, or other more rigorous strategies or programs. Instead, schools and districts need to build teachers' capacity to strategically scaffold their instruction so that they most effectively meet the language-learning needs of their students. "Regardless of language background, every student should have unrestricted access to content information and academic rigor," Lesaux writes in her discussion. "This is particularly important as the field strives to ensure that the Common Core State Standards are truly accessible and sufficiently rigorous for all students" (Vol. X, p.7).

- Effective implementation of literacy interventions depends on training, support, staff capacity, and collaboration.

Catherine Snow reported a strong correlation between the effect sizes achieved by schools participating in the *Word Generation* study and the level of implementation observed across school sites. In her review of several measures of implementation, including classroom observations, interviews, feedback surveys, and video recordings of exemplary teachers, Snow notes three key features that impact the fidelity of implementation at the school level: professional development, leadership and accountability, and oversight via dedicated program staff (Vol. III, p. 19). She observed that schools that are poised to implement an intervention and work collaboratively around issues of instruction have high levels of internal accountability, staff that collectively decide on high-priority commitments, and hold each other accountable for follow-through on commitments.

These findings have clear applications beyond interventions aimed at improving literacy. In fact, each of the three studies looked first at the level of implementation—a critical first step in district efforts to evaluate program effectiveness. These findings echo a growing body of research that suggests that providing effective support for implementation through resources, capacity building, oversight, and empowerment of school-based leaders is critical to the success of any program or intervention.

- In developing literacy interventions, districts face the challenge of content-area teachers who don't recognize their role in literacy development.

Catherine Snow's examination of the *Word Generation* program also revealed important differences in implementation of literacy and vocabulary instruction across content areas. *Word Generation* was designed as a cross-content intervention, wherein a short passage on a civics-related topic (with embedded academic vocabulary) was introduced by an English language arts teacher on Monday, and was followed up by activities aligned to that

topic in math, science, and social studies throughout the week. This cross-content work was supposed to "ensure that students have opportunities to hear the words in a variety of settings, where further, discipline-specific meanings (e.g. factor in math, or process in biology) can be explained" (Vol. VIII, p. 15). However, Snow found that math and science activities were much less widely completed, leading her to speculate that "this may reflect ongoing skepticism among math and science teachers about their responsibility for teaching vocabulary" (Vol. III, p. 9).

Kenji Hakuta's work with the *WordSift* web program also addressed the need to grow and enrich academic vocabulary—especially in academic content areas. Hakuta, like Snow, found that program implementation was challenged by teachers of mathematics and science who are prone to consider the English language arts teacher to be solely responsible for vocabulary instruction. "One of the greatest challenges in addressing the needs of students in general, and English Language Learners in particular," Hakuta writes, "is the problem of having content teachers see themselves as playing a role in the language development of their students, in addition to the development of content knowledge" (Vol. IV, p. 28). In developing and testing the *WordSift* program, Hakuta addressed this challenge directly by involving content-specific teachers as co-developers and pilot users who were able to provide their perspective and feedback on how to more effectively engage content-area teachers in the use of the tool for vocabulary instruction.

These findings suggest that schools and districts need to clearly communicate that language and literacy development is critical to student achievement across the curriculum, and that all teachers are teachers of literacy. It may also suggest that more closely involving content-area teachers in the design and implementation of literacy interventions may yield increased support and buy in for cross-content literacy programming.

OPPORTUNITIES FOR FUTURE RESEARCH

Catherine Snow's SUERF project—a quasi-experimental evaluation of the effectiveness of the *Word Generation* program—provided sufficient empirical indication of feasibility for the Institute of Education Sciences (IES) to fund an experimental study of the program, currently being conducted in three Council districts—Baltimore, Pittsburgh, and San Francisco. Under the Reading for Understanding Initiative, the Strategic Education Research Project (SERP) and Harvard University have also been funded to follow up on their study of *Word Generation* to study further ways to enhance reading comprehension among students in grades four through eight. This ongoing work involves extending the *Word Generation* program to grades four and five, and enhancing it across the grade levels by developing some extended units focused on particular topics (rather than shifting the topic every week). These extended topics are designed to provide the opportunity for students to accumulate more relevant background knowledge, and to work during an extended period on a longer piece of writing. Catherine Snow is also seeking opportunities to test adaptations of *Word Generation* for ESL and bilingual educational settings.

Kenji Hakuta concludes his report by talking about the need to 1) evaluate the *WordSift* tool in classrooms with more English language learner students, 2) evaluate whether instructional technologies have any differential long term impact on academic vocabulary retention, and 3) whether this impact may be related to the mode of implementation—i.e., whether the effect is larger if students interact with the tools individually as opposed to their teachers using the tools to help plan or execute classroom instruction or group based activities. He also recommends a pilot test specifically with girls to better understand features that would increase their positive interaction with the educational technology (Vol. IV, p. 25).

Finally, given the growing emphasis on meeting the language development needs of linguistically-diverse students, Nonie Lesaux's report calls attention to the potential benefit of further research on the inherent features of the classroom setting that may be leveraged to enhance student learning.

STUDENT AND STAFF DEVELOPMENT STUDIES

STUDENT AND STAFF DEVELOPMENT STUDIES

Volume V: *The Post-Secondary Coach Program in Chicago: Does It Affect the College Going Process?* Jennifer Stephan and James Rosenbaum, Fall 2011

Volume VIII: *An Examination of Professional Learning Communities in St. Paul Public Schools,* Geoffrey Borman, Fall 2012

Volume IX: *Examination of a Self-Affirmation Intervention in St. Paul Public Schools,* Geoffrey Borman, Fall 2012

The student and staff development studies each focused on methods and strategies for improving the way schools function to support student achievement. In Volume V, James Rosenbaum examines a college coaching program in the Chicago Public Schools designed to help schools and staff more effectively support students throughout the college application process. In Volume VIII, Geoffrey Borman looked at the effect of teachers' participation in Professional Learning Communities (PLCs)—an "organic" model of school organization that offers a departure from the more hierarchical and partitioned approach to professional development in most traditional K-12 educational settings. In a second study, Borman looked at the impact of a self-affirmation writing exercise administered to students before an assessment—an intervention schools might pursue in order to address the psychological aspects that may be impeding minority achievement.

SELECTED FINDINGS AND OPPORTUNITIES FOR DISTRICT ACTION

- Low college attendance rates among disadvantaged students and students of color are driven, in part, by unequal access to social capital.

Tracking nearly all graduating seniors in the Chicago Public Schools from 2004 to 2007, James Rosenbaum identified an important "leak" in the post-secondary education pipeline rarely discussed. He found that even students with specific college plans sometimes fail to attend college once they graduate. In fact, 37 percent of students who identified specific colleges they planned to attend in the fall of their senior year were not enrolled by the summer after high school (Vol. V, p. 22). Rosenbaum attributes these gaps in college enrollment to inequities in student access to "social capital"—the knowledge, skills, assistance, social support, and resources that create a college-going culture and ensure that students complete key college "actions," such as applying to multiple colleges, applying for scholarships, or filling out applications for student aid.

Rosenbaum examined the effects of one initiative—the College Coach Program—designed to address this issue. The program was launched in 12 high schools in Chicago in 2004-2005, and aimed to provide college-related social capital to all students. The study found that coaches did positively affect enrollment outcomes, and they appeared to do so by increasing the number of students applying to multiple colleges and completing federal student aid applications. Moreover, the program was found to have bigger benefits for more disadvantaged students (Vol. V, p. 8).

These findings reinforce the point that "social capital deficits, not just academic and financial deficits, are barriers to college for disadvantaged students" (Vol. V, p. 9), and suggest that this is an area that schools and districts can pursue to improve educational outcomes. Based on interviews with coaches and students, he found that the activities of the college coaches differed from the traditional activities of counselors in that coaches were more likely to do the following:

- Reach out and engage students rather than waiting for students to take the initiative;

- Build trusting relationships with students through increased interaction;

- Enlist students to provide college information to their peers; and

- Meet with students in groups as well as individually.

Rosenbaum speculates that results similar to those found in schools with coaches might be achieved on a wider basis if counselors or other staff employed techniques and procedures similar to those used in the coach program. Such techniques include proactive initiation with students, working with groups of students as well as individuals, having students peer coach regarding college-going activities, encouraging applications to three or more colleges and three or more scholarships, and completing FAFSA applications. He also points out that time and workload is a crucial factor. "Although we assume high school guidance counselors do college advising as a major part of their responsibilities," he writes, "counselors are assigned a multitude of other duties, among which college counseling is often the least pressing" (Vol. V, p. 29). He suggests that organizational changes such as having counselors report to the postsecondary office within the school district (rather than to principals) might help districts ensure that counselors maintain a focus on supporting students and improving college enrollment rates.

- Identifying and addressing the socio-emotional factors driving achievement gaps may hold great promise for increasing student achievement.

In the ninth SUERF report, Geoffrey Borman assessed the impact of a 15-minute self-affirmation writing exercise on the achievement test scores of seventh- and eighth-grade students attending three St. Paul middle schools. The affirmation exercises were intended to positively influence students' self-esteem and reduce the negative influence of "stereotype threat"—the apprehension individuals experience when confronted with a personally relevant stereotype that threatens their social identity or self-esteem.

This study builds on a growing base of research documenting the social and psychological dimensions of student achievement and engagement in school. Although the experiment did not replicate the positive impacts for African-American students found in prior research, Borman did find that the affirmation writing exercises positively impacted girls' math test scores (Vol. IX, p. 6). These findings suggest that the affirmation writing exercises may effectively combat stereotype threat. Girls generally perform as well as or better than boys on homework assignments and course grades in math and science classes, but boys tend to outscore girls when tested on the same content in high-pressure situations, such as standardized tests with time limits.

Although the intervention was not found to have the impact on African American male achievement that was expected, the pursuit of these types of targeted interventions and programs—as well as the concurrent effort to evaluate them—is a promising direction for school districts and researchers as it helps improve our understanding of the specialized needs and vulnerabilities of at-risk students and students of color. Moreover, the finding that these exercises did raise test scores by addressing stereotype threat for one group of students may indicate that further study and development of the

intervention could result in a stronger impact for other vulnerable students.

- Evaluation efforts need to be incorporated as an essential element of reform initiatives from the outset.

Geoffrey Borman also examined the effects of professional learning communities (PLCs) in St. Paul Public Schools. Initially, Borman hoped to contrast the levels of PLC participation in the two secondary schools that have had a longer history of implementing PLCs with data from five other secondary schools with relatively shorter implementation histories and, in theory, limited or no use of the PLC model. However, in reviewing the data, he did not find the uneven patterns of PLC participation across the seven schools he had anticipated. Though this is a positive outcome in one respect—most secondary teachers and schools in St. Paul participate in thriving PLCs—the lack of a high-quality "comparison group" limited his ability to track the effects of PLCs on student achievement. In sum, mounting this evaluation effort after the PLC model had taken hold deprived the district—and the field as a whole—of data on the effectiveness of this leading reform strategy in raising student achievement. These results suggest that future reform efforts would benefit from simultaneously-adopted research efforts.

OPPORTUNITIES FOR FUTURE RESEARCH

James Rosenbaum's study of the effect that social capital has on college enrollment and attendance patterns suggest that further research would be beneficial to identify additional school and district strategies for addressing both financial and social resource deficits. Such studies could be national in scale, and take into account not only differences at the school level but also the economic and policy differences between states and regions that may affect college enrollment.

Based on Geoffrey Borman's findings of the potential impact of self-affirmation exercises in combatting stereotype threat and increasing student achievement, further—and perhaps longer term—research on these and other strategies might help illuminate the ways that schools and districts can better support of at-risk students and students of color socially and academically.

Finally, given their widespread popularity as a school reform strategy, larger studies of Professional Learning Communities would also be of benefit to educators—particularly studies conducted within school districts with only partial implementation of this organizational model, so that the effects of PLCs on student achievement could be more clearly examined. Certainly, Geoffrey Borman's experience in St. Paul suggests simultaneous rollout of reform initiatives and evaluation efforts would provide districts and researchers alike with an important source of data on the effectiveness of programs and reforms.

TABLE 1. SELECTED RECOMMENDATIONS FOR DISTRICTS BASED ON RESEARCH FINDINGS

COLLECTING AND USING DATA

Provide intensive guidance and professional development to teachers to equip them with data-use skills and strategies, as well as opportunities for collaboration around the use of student data and data systems.

Incorporate the use of data into the district accountability system.

Clarify and communicate the purpose of benchmark assessments, and the value of benchmark assessment data for informing instructional decisions.

Develop standards and procedures for data collection and use throughout the district.

Support data use by developing strong, school-based data leaders. These school leaders should promote collaboration around data, establish a regular time to meet, establish a central location for data, and align resources to the priorities of the school.

As new programs and reforms are launched, identify plans for evaluation from the outset. Use this evaluation data to track the effectiveness of new strategies and to make mid-course adjustments to programs as needed.

DROPOUT PREVENTION

Carefully track student progress in grade nine, and provide targeted academic and social interventions for students who begin to fall behind.

Develop additional measures of academic readiness for high school in the middle grades to ease the ninth-grade transition.

Reduce the number of overage students caused by retention in grade by increasing learning time during the school year and summer.

Examine attendance data and implement interventions with students showing chronic absences.

Track suspension rates by school, and pursue approaches and programs that promote positive behavior and support schools in working with struggling students.

Hold schools accountable for the graduation outcomes of all of their students.

SUPPORTING LITERACY DEVELOPMENT AND INSTRUCTION

Provide explicit literacy and vocabulary instruction across content areas and grade levels.

Make sure content-area teachers are included in language development training and interventions, and clearly communicate the message that advancing literacy is a key function of all teachers.

Design literacy interventions that address the diverse needs of English Language Learners at different levels of English proficiency.

Provide the additional attention, resources, and scaffolding necessary to make rigorous, high quality curriculum and instruction accessible to all students.

Provide comprehensive support and oversight for implementation of new programs or initiatives.

COLLEGE AND CAREER READINESS

Review student tracking data to not only identify potential dropouts, but also to identify students who are likely to graduate with low levels of college and workforce readiness.

Develop and implement strategies that address the social and psychological challenges to academic achievement facing disadvantaged students and students of color.

Create a "college going culture" by providing disadvantaged students and students of color with the social capital and support necessary to pursue post-secondary education.

Ensure that college counselors have the time and skills to effectively support students in completing key college actions, such as applying to multiple colleges and applying for financial aid. College advising should be the main focus of their work.

REFLECTIONS ON COLLABORATIVE RESEARCH

REFLECTIONS ON COLLABORATIVE RESEARCH

In addition to providing research data and recommendations to districts, the SUERF program yielded valuable lessons about the successful conduct of research in large urban school systems. In each volume of the *Senior Urban Education Research Fellowship Series*, the authors were asked to reflect on the nature of their work with their district partners. Additionally, in April and May of 2012, telephone interviews were conducted with 14 individuals involved with the SUERF project. The conversations focused on the perspectives of both researchers and district staff on research partnerships, the process of developing a district-centered research study, and what had been accomplished as a result of the SUERF program in the nine districts. Interviewees included SUERF fellows, researchers and staff affiliated with research consortia, and district research and curriculum staff.

Despite the variety of research topics pursued across the nine participating districts, the interviewees noted a number of common benefits and challenges to conducting research and developing constructive research partnerships with urban school districts.

For example, the large, bureaucratic organization of these school districts was cited by researchers as a factor that could inhibit the development of innovative, timely research studies and interventions.

Urban school districts also tend to have high levels of staff turnover, which in some cases can lead to changing research priorities. This led one researcher to lament that what is of interest and use to one person might not be of interest or use to the person who replaces them. Another interviewee indicated that they were not sure that the research findings had "legs" in the midst of staff turnover and an array of other district changes.

Perhaps one of the most common challenges cited was the availability and quality of student and school data. In addition, examining the impact of new programs or interventions on student outcomes can be obstructed by low levels of program implementation and fidelity.

The speed with which research is conducted and turned into something of use by schools was also noted as a concern, along with the related point that the speed of district change is often not in sync with the time needed to conduct research. Of course, researchers and district staff alike acknowledged that urban schools have many pressing issues that require their attention on a daily basis other than facilitating and responding to research. Yet the need to think strategically over the long run and to avoid reacting defensively to evaluations and data is critical to a district's ability to improve.

Certainly, there are great challenges inherent in conducting rigorous education research that both adds to our base of knowledge and is able to inform the work of education practitioners. Yet the experiences of the researchers and district staff that undertook collaborative research projects as part of the Senior Urban Education Research Fellowship program also shed light on some of the factors that facilitated their work together, and can help researchers and district staff overcome these challenges.

Specifically, successful conduct of research in urban school districts depends on three essential features of the district/researcher relationship:

- Communication and Trust
- Flexibility
- District Capacity and Responsiveness

COMMUNICATION AND TRUST

One of the main themes voiced by interviewees was the importance of establishing strong working relationships built on open communication and trust. Many of the SUERF projects were able to leverage long-standing affiliations between research organizations and school districts. These organizations included the Strategic Education Research Partnership (SERP), the Wisconsin Center for Educational Research (WCER), the Baltimore Educational Research Consortium (BERC), and the Chicago Consortium on School Research (CCSR).

These relationships appear to be critical for coordinating district and researcher priorities, addressing project challenges, and facilitating the collection of quantitative and qualitative data. In detailing the role played by SERP in his work in San Francisco, Kenji Hakuta writes that the organization "has built a strong framework to facilitate communications between the practitioners in SFUSD and the research team," and is built on the premise that its function, as an external organization, is to "ensure that the goals of the partnership are primary at all times" (Vol. IV, p. 5). Two interviewees also made special note that the districts were comfortable working with their research fellows because of their involvement with the Council of Great City Schools.

Yet regardless of whether a study is pursued by an established research consortium or an individual researcher, working extensively with the district to define the most pressing issues and priorities was identified as a defining feature of meaningful collaboration. The interviewees all recognized the practical importance of having a district-driven research agenda—one that ensured that research could be used and applied in urban systems to improve student outcomes. This process was often described as a dialogue. One researcher noted that he had been able to help the district expand what they identified as the problem to be addressed. In another case, a compromise was reached where the research fellow agreed to conduct a study the district was interested in, while pursuing another study that was of interest to him.

Another key feature of a research partnership based on communication and trust is transparency. Researchers and district staff alike noted the importance of being clear and open about the research objectives from the outset, as well as the importance of regular updates and check-in meetings for sharing early findings and soliciting feedback. The interviewees also talked about the importance of never blindsiding a district with results, saying, for instance, that district staff should never open a newspaper and read about the results of a study in their schools for the first time. While urban education research can serve to shine a light on troubling inequities and areas in need of improvement, studies designed and executed just to damage a school district's reputation do little to promote reform and change. Research should be shared with the district in a timely and constructive manner so that the data can serve as a tool to help districts improve.

FLEXIBILITY

Another attribute that served to facilitate the work of researchers—and the usefulness of that work for districts—was flexibility. Certainly, urban schools and classrooms are not controlled, laboratory environments, and district central offices do not exist for the primary purpose of facilitating educational research. Working in large urban educational settings brings with it a whole host of potential complications, and to varying extents each of the SUERF research fellows encountered challenges to their original research plan.

These challenges often concerned the availability and quality of data, and sometimes could be met with relatively minor alterations to the research methodology. For example, when faced with limited student data prior to the 1998-99 school year, Rob Meyer and his team employed a "data splicing" approach that linked the middle school and high school outcomes of different cohorts of students on the same metric in order to describe the complete educational experiences of Milwaukee students over a period of 10 years.

At other times, data challenges or unexpected results required a completely new approach. Looking at teacher usage patterns of the Cincinnati Data Dashboard system, John Tyler originally set out to identify the characteristics and data-use behaviors of the system's "super users"—teachers that used the system most intensively. However, analysis of the usage patterns revealed that usage was quite low across the board, and that these "super users" were quite rare. Instead, Tyler decided to take the study in a new direction, conducting focus groups with teachers to identify the factors that might be impeding more intensive, widespread use of the system, and providing the district with recommendations for better supporting data use at the school level.

REFLECTIONS ON COLLABORATIVE RESEARCH

Similarly, Becky Smerdon's project sought to create indicators of high school readiness in the DC Public Schools by identifying the middle school-level academic characteristics that distinguish successful high school students from their less successful counterparts. However, at the time the study was mounted in 2008, district data on a number of key factors, such as attendance, were incomplete or unavailable. Like Tyler, Smerdon revised the project goals to include an examination of some of the school-level practices and policies that were working to impede the systematic collection and use of student data. This new study design also aimed to provide the DC Public Schools with recommendations for laying a foundation for future data collection and use districtwide.

DISTRICT CAPACITY AND RESPONSIVENESS

Interviewees cited district capacity and responsiveness to data as equally important elements determining the utility of district/researcher partnerships. In terms of capacity, staffing was the element most often cited. Many researchers noted the importance of cultivating a relationship with a key staff member who was either a strong champion of a particular program or reform priority, or of the use of data and research more generally. In addition to ensuring a shared research agenda, these relationships with district staff can also serve to expedite data requests and help break down some of the bureaucratic barriers and processes that researchers face working in urban school systems.

The readiness of the district to accept and act on findings is another crucial factor in translating research to practice. Interviewees reported that the research results from this and other research collaborations with external partners have been used for a variety of reporting and decision-making purposes. In Chicago, a cost benefit analysis of the college coach program led the district to maintain funding for the program in the face of financial cutbacks. In Milwaukee, research on early warning indicators of academic failure and high school dropout led to the development of an online data dashboard system.

Research findings can also spur districts to change or strengthen policies. For example, in Baltimore, data on chronic absenteeism prompted the district to revise school-level protocols for monitoring student absences. The district created a Student Attendance Workgroup of district administrators and external partners, and in 2010-11, the district's Office of Community Engagement launched a new absenteeism initiative, enlisting community organizations and faith-based groups in an effort to reach out to the families of chronically absent students and to address the issues that have kept them out of school.

All of this ongoing follow up work speaks to both the utility and timeliness of the research data, as well as the willingness of the district to act on that data in order to improve the educational outcomes of their students. In a broader sense, it also speaks to the strength and success of the research partnerships.

RECOMMENDATIONS FOR RESEARCHERS AND DISTRICT STAFF

The experiences of the SUERF research fellows and their district partners provide a number of useful lessons for mounting future collaborative research efforts and for establishing and maintaining research partnerships. By far, the most important element of these relationships identified by researchers and district personnel alike was communication and trust, and many of the recommendations provided are positioned to help both sides maintain an open and constructive dialogue about the priorities and purpose of education research.

TABLE 2. RECOMMENDATIONS FOR ESTABLISHING
AND MAINTAINING EFFECTIVE RESEARCH PARTNERSHIPS

RECOMMENDATIONS FOR RESEARCHERS AND DISTRICT STAFF	
FOR RESEARCHERS	**FOR DISTRICT STAFF**
ESTABLISHING A PARTNERSHIP[3]	
Generate a memorandum of understanding and establish a process for reviewing and amending the agreement when needed.	
Establish a shared research agenda and clear goals for the research partnership. Research partnerships can be leveraged to address core district operational needs, inform policy, and provide resources and data to support district- and school-level efforts to increase students' academic readiness and achievement.	
Decide when, what, and how data will be shared, where the data will be housed, and how data will be used by both parties.	
Establish primary points of contact at both institutions to coordinate the work of both research teams.	
Establish clear lines of communication between district staff and researchers.	
Agree on the frequency of meetings to discuss key projects and deliverables. Weekly meetings work best at the start, but after data exchange/research partnership is established, bi-weekly or monthly meetings are useful to continue the conversation and keep up to date on findings and ongoing work.	
BUILDING COMMUNICATION AND TRUST	
Invest the time to understand what the district needs, and what district priorities are driving the work of the research department and other central office divisions.	Clearly identify and communicate district research needs and priorities, and engage external researchers to fill in gaps in internal research capacity.
Enlist school staff and community representatives to join in formulating research questions. Include school staff as well as district staff in planning for research studies.	Make research and evaluation a priority from the outset of new programs and initiatives.
Be transparent with your objectives, methods, and findings, and ensure that research is undertaken without a political agenda.	Be open to the findings of research and evaluation, and prepared to respond to data in a constructive way.
CONDUCTING AND USING RESEARCH	
Cultivate a champion in the district—a staff member who is committed to the evaluation or exploration of specific program or strategy, or to the use of data and evaluation more broadly.	Where possible, identify a dedicated staff member or committee to coordinate the work of external researchers.
Be respectful of district staff members' time, and make good use of it.	Streamline the process for confirming requests for research and providing access to data.
Keep the district informed of interim results, and present results to the district first.	Share the results of program evaluations and other research with school leaders and staff.
Assure availability of necessary data at the start of a project.	Provide support and oversight for the implementation of new programs or initiatives.
Be responsive to the needs and priorities of districts, and be prepared to follow up on the results of studies in order to produce actionable feedback and guidance.	Use data to make mid-course adjustments to programs or policies to strengthen their effectiveness.
Changes in district staff make research difficult; establish an on-going committee to mitigate the impact of staff changes.	Revisit the partnership agreement and research agenda to ensure that the priorities are still timely, and that the work of the district and external researchers are aligned behind these goals.

3   Adapted from a presentation by Jennifer Bell-Ellwanger, Chief Accountability Officer at the Baltimore City Public Schools, given at the Council of the Great City Schools Curriculum and Research Directors Meeting, July 2012

CONCLUSION

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The ten SUERF research fellowship studies addressed some of the leading challenges and priorities facing urban education. They looked at the use of data and data systems to drive instruction and to identify students at risk, studied the implementation and effects of literacy interventions aimed at boosting academic vocabulary and comprehension, and examined and addressed the social and psychological dimensions of educational outcomes such as achievement on state assessments and college enrollment. In the course of this work, the research fellows developed or advanced successful, collaborative working relationships with district and school staff, and aimed to produce research that was both rigorous and of practical use to their district partners.

When the SUERF reports are reviewed in total, several realities become apparent. While researchers face significant challenges mounting research and development efforts in large urban districts, strong working relationships with district staff serve to facilitate these efforts and ensure the relevance and utility of research. These research partnerships need to be built on communication and trust, and while researchers must be flexible and responsive to district needs, districts need to be open and willing to act on research data.

Another reality is the advantage that accrues to both parties from long term research partnerships between school districts and external researchers or research institutes. During a July 2012 panel discussion at a Council of the Great City Schools Curriculum and Research Directors meeting, the advantages of partnerships were presented by Deborah Lindsey, then Director of Research and Evaluation for Milwaukee Public Schools and one of the district partners involved in the SUERF program.

Lindsey noted that research partnerships serve to:

- Augment district capacity, helping to get work done that might not otherwise get done;

- Develop district capacity, insofar as external researchers are able to serve as technical assistance providers and consultants who teach district staff;

- Legitimize the results and recommendations of studies due to the perceived independence and expertise of external researchers;

- Allow for deeper and/or longer-term or multi-method investigations given the vast resources of many universities;

- Result in greater visibility of the work via improved dissemination methods; and

- Align work more directly to the needs and interests of the district and result in findings that are more likely to be directly actionable at the district level.

Kenji Hakuta points out that "the development and maintenance of effective partnerships between researchers and practitioners is itself a form of expertise that must be developed and nurtured over time" (Vol. IV, p. 5). It became clear through conversations with district staff that researchers who work side by side with them and provide regular updates on project findings to the appropriate stakeholders are treasured. At the same time, district partners who are supportive, knowledgeable, and open to data that can inform their work are an invaluable resource for researchers.

As the SUERF program demonstrated, these research partnerships are of vital use to both researchers and district staff. Moving forward, a multi-site study of the key components that facilitate or impede the development, operation, and maintenance of research consortiums that work in collaboration with school districts could prove invaluable. As diminishing district resources are stretched to cover increasing costs, these partnerships will continue to create opportunities for urban districts to reform and refocus their efforts on what works, and provide additional resources, talent, and objectivity to our nation's big city school systems.