ADVANCING TEACHING – IMPROVING LEARNING (ATIL)

Continuous Improvement Expert Convening

MEETING SUMMARY

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INTRODUCTION

On May 9th and 10th, 2013, the Advancing Teaching – Improving Learning program at the Carnegie Foundation for the Advancement of Teaching hosted a convening of more than 20 leading experts and practitioners involved in continuous improvement work in the field of education. Broadly speaking, convening participants represented organizations that support the implementation of continuous improvement methodologies in schools, school districts, community colleges, teacher preparation institutions, and state departments of education.

The convening objectives were five-fold:

1. **Set direction**: Share Carnegie’s vision for using quality improvement methodology in the context of networked communities to advance quality instruction at scale.

2. **Build will**: Strengthen commitment to accelerating the spread of improvement ideas in K-12 to advance quality instruction at scale.

3. **Generate ideas**: Identify what is required to start and sustain the work of continuous improvement in educational settings.

4. **Build the foundation for the work**: Foster networking and learning across participant organizations.

5. **Execute change**: Begin the process of brainstorming potential initiatives and strategic partnerships.

The session content and activities were designed to lead to the development of two products:

1. A diagram of the drivers of continuous improvement in educational organizations, and

2. An integrative report identifying the significant factors influencing the initiation of improvement research in school systems. Data for the report were obtained during a 90-day cycle of research conducted prior to the convening.

The convening did indeed generate significant interest in ongoing collaboration with the Foundation to further a common agenda of spreading these ideas in the field of education.

OVERVIEW OF THE CONVENING AGENDA

The agenda was divided into three parts (for the full convening agenda, see Appendix A). The first was devoted to understanding the current state of the field of education by focusing on a particular problem of practice: the lack of quality instruction at scale. The second part was designed to develop an understanding of how continuous improvement methodologies could advance the current state of the field. Participants helped articulate the drivers for initiating continuous improvement work in districts or local education agencies (LEAs). The third part of the convening focused discussion on how to organize collective action toward building an understanding of and appreciation within the field for continuous improvement, as well as how to identify the actions necessary to provide for its spread.
Two aspects of the convening agenda warrant brief mention here. First, the design of the event included two “mirror panelists” or “reflectors,” experts in continuous improvement with deep experience in industries and sectors outside education. The participants turned to these individuals to reflect on the proceedings and conversations, to add an external perspective on topics discussed, and to suggest topics missing from the discussion. Second, a “fish bowl” practitioner panel discussion allowed three practitioner–participants to reflect on their experience using continuous improvement in schools, school districts, and state departments of education. Other non-practitioner participants were encouraged to engage in the panel discussion by asking questions or offering relevant commentary throughout the session.

A FRAMEWORK FOR CONTINUOUS IMPROVEMENT IN EDUCATION

Prior to the convening, the Advancing Teaching – Improving Learning team developed an initial driver diagram for continuous improvement. The diagram comprises five drivers that impact the capacity of LEAs to continuously improve: a culture of improvement; a coherent, focused vision; standard evidenced-based work processes; an applied quality improvement methodology; and engagement in a network of other LEAs. Testing this framework with convening participants helped refine our understanding of the processes an LEA would take to achieve a high level of functioning on each of the five drivers. The diagram also framed conversations about participants’ prior work experience with LEAs, what they had learned from those experiences and successes, as well as challenges they faced. We mapped the processes of embedding continuous improvement work in an educational organization onto the framework offered by this driver diagram.

ACTIVITY 1: ROOT CAUSE ANALYSIS ON THE LACK OF QUALITY INSTRUCTION AT SCALE

The first activity at the convening was a root cause analysis focused on the gap between current instructional practices in schools and classrooms and the aim of providing quality instruction for all students. The expert interviews we conducted prior to the convening revealed that in order to ensure meaningful engagement, continuous improvement as a methodology must be oriented toward a specific problem and focused on a specific set of users. In this case, the root cause analysis served to orient participants toward a particular problem of practice that we at the Foundation are exploring in other research.¹ The draft root cause framework used in this activity is shown overleaf.

¹ A separate 90-day cycle on the topic of educational system barriers to providing quality instruction for all students was conducted concurrently with the convening.
Figure 1: Quality teaching root cause analysis

- There is a lack of quality learning opportunities for teachers
  - High-quality teaching not practiced with integrity at scale
    - Educators’ beliefs do not support quality teaching
  - Standard work of instruction and accompanying supports are ill-defined
    - Teachers’ capability to undertake the work is limited
  - Structure of schooling mitigates the kinds of instruction sought
    - Assessment system does not value quality teaching
Prior to the convening, participants read David Cohen’s 2011 book, *Teaching and its Predicaments*. During the root cause analysis activity, participants reflected on the reading and on their own experiences working in school districts. They took note of their thoughts about the “root causes” of the lack of widespread quality instruction for all students. After an individual writing time, small groups discussed their ideas and categorized them under the main headings provided by the framework. Facilitators also encouraged participants to challenge the root causes down to their wording, and solicited feedback on what could be added to make them more complete.

In general, participants found the six major root causes both meaningful and helpful as categories for the issues they identified during the activity. The majority of issues participants raised could be comfortably grouped within the six categories, though some overlap between the categories was noted. Participants’ feedback on the root cause framework fell into two main areas. First, participants sensed the need for a common language and shared definition of terms with regard to instruction, neither of which seemed to fit under any of the draft root causes. Second, there was a strong reaction to the focus on instruction. Many participants felt the focus of the analysis should be on student learning—that learning, as opposed to teaching, was the “front line” work of classrooms and schools—and that the language of the root cause analysis should be changed accordingly. This initially seemed a fairly strong repudiation of the root cause analysis. However, at least one participant proposed that the current analysis, rather than ignoring student learning, instead assumed a causal relationship between the practices of teaching and learning. This insight helped clarify an important feature of the root cause analysis: the focus on instruction is not intended to supersede student learning as the primary goal of LEAs, but it does intentionally exclude factors germane to learning but over which LEAs do not exert direct influence (e.g., student home life). Participants noted that, in the future, a working theory concerning the relationship between instruction and learning should be made explicit when focusing on problems of instruction.

**ACTIVITY 2: PROCESS MAPPING THE CONTINUOUS IMPROVEMENT DRIVER DIAGRAM**

In the second group activity, participants generated ideas about how to get continuous improvement work to thrive and be sustained in LEAs. Through a series of interviews with continuous improvement experts prior to this meeting (see Appendix C), the ATIL team had prepared an initial version of a driver diagram with the aim of building districts’ capacity to continually improve (see Figure 2). Presented with the five drivers in the driver diagrams, participants chose to join one of five small groups (each group representing one of the five drivers) in order to 1) unpack the processes it would take to ready a district for continuous improvement with regard to the factor explicit in the driver, and 2) discuss how to close the gap between current conditions in districts and those required for continuous improvement to thrive.

Once organized into small groups, participants reflected on their prior experiences working within and across districts. They mapped out the processes necessary for a district to advance that particular driver, making explicit the underlying assumptions of that driver and the unique context of the district or LEA.
At the conclusion of the small group discussions, each group participated in a “gallery walk” to the four other groups’ white boards. They offered feedback and suggested changes to the process maps. At the end of the rotations, each small group returned to their process map to discuss and respond to the feedback given by other groups.

The ATIL team is currently working to synthesize the data obtained through these conversations in order to update the driver diagram in Figure 2 and incorporate the secondary drivers as discussed by participants. These secondary drivers represent the actual work processes of schools and districts. This work of synthesis and driver development will be published in a separate report by autumn 2013.

**ACTIVITY 3: FIELD BUILDING – “WHAT DOES THE FIELD NEED?”**

The final activity on Friday morning was a large-group discussion focused on what the field of education needs in order for continuous improvement to take root and be sustained in more districts and schools. While the driver diagram and process mapping exercise described above focused on actions that districts or LEAs could take to achieve a specific driver of continuous improvement, Friday’s discussion focused on more general requirements for will-building, case-making, information dissemination, and systems level strategic action. Participants’ comments and ideas were recorded on a white board at the center of the room (see Figure 3).
Discussion items shown in Figure 3 centered on four general topics: training and continued professional development in improvement methodologies (including immediate next steps for teachers); highly visible publications such as reports, research, and case studies; “campaign” strategies (such as engaging the media) to promote and raise awareness of continuous improvement; and formal networking events such as a national summit to showcase and learn from other organizations’ work in continuous improvement.

**Figure 3: Large group discussion points during Activity 3**

| Training and continuing PD in improvement methodologies | • Immediate, actionable next steps for practitioners  
| • Leadership training (including systems training)  
| • Online training tools  
| • Continuing education for school boards |
| Highly visible publications | • Op-Eds of large companies that have achieved significant results through continuous improvement  
| • Highlight examples of good practice  
| • Validate results through research |
| "Campaign strategies" to promote and raise awareness of continuous improvement | • Commission a report on the state of the field  
| • Engage the media  
| • Promote student and teacher voices about the power of continuous improvement |
| Formal networking events | • National summit on continuous improvement  
| • Connect/leverage existing networks  
| • Regional learning systems that facilitate collaboration |

**ATIL WORK GOING FORWARD**

The ATIL work on continuous improvement is currently ongoing under three major strands. First, the team is creating a summative report that integrates the research conducted prior to the expert convening and data obtained at the convening itself. This report will present our current thinking about how to enhance the capacity of LEAs to continuously improve through five main drivers. It will also enumerate and explicate a course of work for interested LEAs to undertake in order to achieve those five drivers. The team is currently following up with convening participants to obtain their feedback on drafts of this report and the framework for advancing continuous improvement.

Second, ATIL is conducting case studies of school districts engaged in continuous improvement in order to highlight what the work looks like on the ground and to present existence proofs of continuous
improvement in education and its impacts. The first case study is underway and a further study will be conducted in late summer 2013.

Third, ATIL is currently developing a framework to compare many of the leading methodologies of continuous improvement (e.g., Lean, TPS, Six Sigma, the Model for Improvement) so that educational leaders and organizations can better understand the purposes, differences, similarities, affordances, and strengths of the various methodologies.
APPENDIX A: CONTINUOUS IMPROVEMENT PARTICIPANT BIOS

Susan Allred is the Associate Commissioner for the Kentucky Department of Education’s Office of Next-Generation Schools and Districts. Her focus is on comprehensive school and district plans aligned with Kentucky Board of Education goals, including alignment of all Federal Programs, alternatives, virtual, safe schools and school improvement grant processes at the state level. Allred has 20 years of experience as a classroom teacher and more than 16 years of experience as a building and district administrator. Her continuous improvement theory of operation experience stems from being a Malcolm Baldrige Performance Excellence examiner and applying continuous improvement systems principles in her day to day work. The education recovery system in Kentucky is built on these experiences and tools. She earned her Bachelor’s degree from the University of North Carolina, Charlotte; her Master’s of Arts from Gardner-Webb University; and her Ed.S. in Educational Leadership and Superintendency from Appalachian State University.

Linda Argote is the David M. and Barbara A. Kirr Professor of Organizational Behaviour in the Tepper School of Business at Carnegie-Mellon University. She has also taught at the Kellogg Graduate School of Management in Northwestern University and at the Department of Industrial Engineering Management at Stanford University. She received a Bachelor of Science degree from Tulane University and a PhD in Organizational Psychology from the University of Michigan. Professor Argote's research and teaching focus on organizational learning, productivity, knowledge transfer, and group processes and performance. She has conducted studies of organizational learning and performance in aerospace, automotive and service industries. She is particularly interested in how groups and organizations create, retain, and transfer knowledge. Journals in which her research has appeared include Administrative Science Quarterly, International Review of Industrial and Organizational Psychology, Management Science, Operations Research, Organizational Behaviour and Human Decision Processes, Organizational Science, Personality and Social Psychology Bulletin, and Science. Her book Organizational Learning: Creating, Retaining and Transferring Knowledge (Kluwer, 1999) was a finalist for the Terry Book Award of the Academy of Management in 2000. She was co-editor of a special issue of Organizational Behaviour and Human Decision Processes on knowledge transfer in organizations (2000) and a special issue of Management Science on managing knowledge in organizations (2003).

Laura Baker is the Assistant Director of Professional Development for the Austin Independent School District. The Professional Development team supports teachers as they progress through the continuum of teacher development beginning with teacher mentoring, induction, and pre-service training, and continuing their evolution as leaders through programs such as the National Board for Professional Teaching Standards and demonstration classrooms.

Fred Bentsen is the Senior Vice President of Sales and Marketing for AQPC Education. Bentsen is committed to transformation in K-12 Education by focusing on the fact that you cannot improve outcomes without changing processes. By changing “that’s the way we’ve always done it here” processes, school systems can save money and improve student outcomes in a systematic manner. Bentsen works closely with
superintendents, central office leaders, and principals to help districts work more efficiently and effectively. Bentsen has over 20 years’ experience in K-12 curriculum, assessment, and operations and is a frequent presenter at education conferences. Bentsen began his career as a teacher, trainer, sales manager, operations manager, and Regional Vice President for The Princeton Review and immediately before joining APQC he served as Vice President for Vantage Learning. Bentsen and his family live in Cypress, Texas where Bentsen is active in a variety of community groups focused on promoting education. He has a Bachelor of Science degree in Mechanical Engineering from Rice University.

**Ron Bertieri** is School Board President for Menomonee Falls School District. Bertieri has served as board member and board chair of Waukesha County Technical College for 18 years and as president and board member of Waukesha County Economic Development Corp, as well as board member and current board chair of Wisconsin College Technical System Insurance Trust Committee. He holds a Bachelor's degree in Business Administration from Duquesne University.

**Jarrod Bolte** currently serves as the Director of Teacher Support and Development for Baltimore City Public Schools. Bolte has worked for the district since 1999 when he began his career as an elementary school teacher. He has since worked as an Instructional Support Teacher, Literacy Coach, Academic Dean, Acting Principal, and Coordinator in the Office of Teaching and Learning. He became involved with new teacher support and mentoring in 2009. Since that time he has reestablished the City Schools New Teacher Institute and developed an Institute II for teachers returning for a second year. Bolte also reestablished a mentoring program for beginning teachers that has grown to include site based mentors and support for all new teachers in City Schools. His work has most recently evolved to include the management of Teacher Professional Growth under the Race to the Top grant and the development of growth opportunities for all teachers and the systems to track and manage them in City Schools.

**Anthony S. Bryk** is the ninth president of the Carnegie Foundation for the Advancement of Teaching. He is leading work on transforming educational research and development, seeking to accelerate learning in and through practice to improve. Formerly, he held the Spencer Chair in Organizational Studies in the School of Education and the Graduate School of Business at Stanford University from 2004 until assuming Carnegie's presidency in September 2008. He came to Stanford from the University of Chicago where he was the Marshall Field IV Professor of Urban Education in the sociology department, and where he helped found the Center for Urban School Improvement, which supports reform efforts in the Chicago Public Schools. He also created the Consortium on Chicago School Research, a federation of research groups that have produced a range of studies to advance and assess urban school reform.

**Penny Carver, MEd.,** is a Senior Fellow at the Carnegie Foundation for the Advancement of Teaching and an independent consultant working with a select group of not-for-profit organizations including the Virginia Mason Institute and the Institute for Healthcare Optimization. Previously she was Senior Vice President at the Institute for Healthcare Improvement (IHI), responsible for IHI’s business and business strategy, including new initiatives, programs, and services. She was responsible for the design and start-up of IHI’s Breakthrough Series Collaboratives,
Breakthrough Series Guides, and Breakthrough Series College; IHI’s website, IHI.org; professional development programs; the National, International and Asia Pacific Forum events; IHI’s international strategy; and the IHI Open School for Health Professions. She first became involved with quality as the administrator of the National Demonstration Project on Quality Improvement in Health Care and began the Institute for Healthcare Improvement with Donald Berwick, MD, in 1991. Ms. Carver has also worked as an independent consultant, specializing in business and program development working with organizations including Beth Israel Hospital (Boston), AARP, Blue Cross Blue Shield of Mass., Mass. Executive Office of Elder Affairs, Rockport Shoes and Nabisco.

Barbara Chow is the Education Program director at the Hewlett Foundation, prior to her current role she served as policy director for the House Budget Committee. From 2001-2007, she was the executive director of the National Geographic Education Foundation and vice president for education and children’s programs at National Geographic. Chow served in both terms of the Clinton administration. From 1993 to 1997, she was a special assistant to the president for legislative affairs, acting as White House liaison to Congress on economic, budget, and appropriation matters. From 1997 to 2001, Chow worked in the Office of Management and Budget (OMB), where she was the program associate director for education, income maintenance, and labor. Starting in 2000, she kept the OMB position and added the position of deputy director of the White House Domestic Policy Council. She also served on two presidential transition teams – in 1992 for President-elect Clinton and in 2008 for President-elect Obama. Chow served as a member of the board of Grantmakers for Education from 2001 to 2006, the last two years as co-chair and then chairperson; as ex-officio board member of the National Environmental Education Foundation from 2004 to 2006; and as a member of the steering committee of the Geography Education National Implementation Plan from 2001 to 2006.

Jon Dolle is Research Associate for Network Initiation, Development, and Evaluation at the Carnegie Foundation for the Advancement of Teaching. His current work focuses on accelerating the development of networked improvement communities and leading the foundation’s evaluation efforts. As a Mirzayan Science and Technology Policy Fellow, Dolle staffed the recently released National Research Council report, Using Science as Evidence in Public Policy (2012). His book Rethinking Undergraduate Business Education: Liberal Learning for the Profession (2011) with Anne Colby, Thomas Ehrlich, and William M. Sullivan was selected to receive the Frederic W. Ness Book Award by the Association of American Colleges and Universities.

Brian Gadsden is a Coach and Non-Profit Management Consultant who is passionate about leadership, innovation, and building strong, supportive, healthy communities. As a coach, Gadsden focuses on helping individuals realize their own personal empowerment objectives. His consulting practice centers on organization capacity building with an emphasis on getting results. He has over 15 years’ experience in leadership positions in the public sector and extensive experience working where the public, private, and governmental sectors intersect. Prior to coaching and consulting, Gadsden started several AmeriCorps programs, taught high school, worked in senior management positions at several education non-profits, and worked for a start-up technology company. Gadsden is the co-founder of sf|noir, an arts organization that highlights the contributions and excellence of African American artists, performers, thinkers and cultural figures. He received his undergraduate degree at The
George Washington University, where he studied Political Science and Sociology. He has a Master's in Public Administration from the Kennedy School of Government at Harvard University.

**Louis Gomez** is a Senior Fellow at the Carnegie Foundation for the Advancement of Teaching and leads Network Initiation and Development. He holds the MacArthur Chair in Digital Media and Learning in the Graduate School of Education and Information Studies at the University of California Los Angeles. Beginning in 2009, he held the Helen S. Faison Chair in Urban Education at the University of Pittsburgh, where he was also director of the Center for Urban Education and a senior scientist at the Learning Research and Development Center. From 2001 to 2008, he held a number of faculty appointments at Northwestern University, including the Aon Chair in the Learning Sciences at the School of Education and Social Policy. Prior to joining academia, he spent 14 years working in cognitive science and personal–computer systems and interactions at Bell Laboratories, Bell Communications Research Inc., and Bellcore. His research interests have encompassed the application of computing and networking technology to teaching and learning, applied cognitive science, human–computer interactions, and other areas. Gomez received his Bachelor’s degree in Psychology from the State University of New York at Stony Brook in 1974 and a Doctorate in Cognitive Psychology from UC Berkeley in 1979.

**C. Jackson Grayson** is the American Productivity & Quality Center (APQC) Executive Chairman and Founder. He has a bachelor’s degree from Tulane University, an MBA from the Wharton School of Business at the University of Pennsylvania, and a Doctorate in Business from the Harvard Business School. His academic career has included professorships at Harvard, Stanford, Tulane, and Southern Methodist University, and he has taught in business schools in France and Switzerland. He became known for implementing innovations in business education at both institutions. Grayson became most widely known in 1971 when he was appointed to a U.S. Cabinet position during the period of price-wage controls. He served as chairman of the United States Price Commission, under President Richard Nixon. After he left Washington, Grayson returned to the private sector and founded the nonprofit APQC in Houston, Texas. It was his answer to a dangerous economy—it was an initiative that would help improve American competitiveness. In 1997, APQC launched an effort to help the education sector restructure and improve student achievement and system performance, drawing on the methodologies learned over the organization’s 30-year existence. It has projects under way in schools, districts, states, and the federal government. Its latest project is called the North Star, a major effort to transform US public K–12 Education using process management. Grayson is the author of about 50 magazine and newspaper articles, and is also the author of four books. The latest is co-authored by Carla O'Dell and is titled *If Only We Knew What We Know*, a book about knowledge management and the internal transfer of best practices.

**Pat Greco** is the superintendent of schools for the School District of Menomonee Falls. Greco received her doctorate from the University of Wisconsin in 1995. She has been recognized as an instructional leader and advocate for student learning at the state and national level. Greco was recognized as Educator of the Year by Wisconsin Manufacturers and Commerce, received recognition by State and National PTA for Elementary School of the Year as an elementary principal, and received the Educational Influence Award from Wisconsin ASCD for her advocacy for children and public education. She has extensive background in leading
instructional and organizational improvement. Greco has dedicated her professional service to organizations committed to impacting strong learning outcomes for students and educators. She currently serves nationally on the Educational Research Development Institute working with business leaders focused on research in the educational field. Within her community, Greco is on the Chamber CEO Round Table, Leadership Menomonee Falls, has served on the Library Board of Directors, and is active in community service. Now a superintendent, her career has included roles as teacher, principal, assistant superintendent, and as Associate Dean for Education Outreach at UW-Milwaukee. She continues to serve as a state leadership mentor and an ad hoc instructor for the University of Wisconsin – Milwaukee and Cardinal Stritch University.

Alicia Grunow is the Senior Managing Partner for design, development, and improvement research at Carnegie. She leads the Foundation's program of work focused on the design of information systems to support the advancement of teacher quality. She also leads efforts to bring quality improvement methodologies into the field of education. Towards this end, Alicia recently completed the Improvement Advisor Program at the Institute for Healthcare Improvement. Previously, she worked as an instructor in Stanford’s Teacher Education Program (STEP), where she taught practices to support the academic achievement of English Language Learners. Her research has used a range of quantitative methodologies to examine policy issues regarding English Language Learners. This professional experience, in conjunction with her educational focus, gives her a unique combination of practical knowledge in the development of teachers and technical skills in statistical analysis. Grunow has a Masters in Economics and a Doctorate in Educational Administration and Policy Analysis from Stanford University. She received her B.A. in Psychology from Reed College and completed the Bilingual and ESL Teachers Leadership Academy at Bank Street College. Before graduate school, she taught for seven years in transitional bilingual and dual language elementary school programs in both Denver and New York City.

Uma Kotagal is senior vice president for quality, safety, and transformation and executive director of the James M. Anderson Center for Health Systems Excellence at Cincinnati Children’s Hospital Medical Center. As director of the Anderson Center, Dr. Kotagal oversees the development of disease management teams and the development and institution of evidence-based clinical practice guidelines. Dr. Kotagal was director of the neonatal intensive care units at the University Hospital and at Cincinnati Children’s Hospital. She received her Master’s of Science in Clinical Epidemiology and Clinical Effectiveness from the Harvard School of Public Health, and refocused her clinical efforts on quality transformation at a systems level. She served as a visiting scholar at the Center for Risk Analysis at the Harvard School of Public Health and a visiting professor at the Tufts New England Medical Center, in the Division of Clinical Decision Making, completing further training in the field of decision and cost effectiveness analyses. Dr. Kotagal was born in Bombay, India, where she received her undergraduate and her MBBS from the University of Bombay. She did a rotating internship at the University of Bombay and at Detroit General Hospital. At Children’s Hospital of Michigan, Dr. Kotagal completed her pediatric residency and went on to do a fellowship in neonatology. She completed a fellowship in neonatal physiology at the University of Cincinnati. Dr. Kotagal is a faculty member of the Institute for Healthcare. She also serves as chair of the quality steering team of the Ohio Children’s Hospital Association, as a member of the advisory committee of the Toronto Patient Safety Center, as an associate editor of BMJ Quality and Safety, and as a member of the Institute of Medicine.
Paul G. LeMahieu is the Senior Vice President for Programs and Administration at the Carnegie Foundation for the Advancement of Teaching and is graduate faculty in the College of Education at the University of Hawai‘i – Mānoa. With degrees from Yale College (AB), Harvard University (EdM), and University of Pittsburgh (PhD), his scholarly interests focus on educational assessment and accountability as well as classroom learning and the professional development and policy environments that support it. From 2002 to 2010, LeMahieu was Director of Research and Evaluation for the National Writing Project at the University of California, Berkeley. Prior to that, LeMahieu served as Superintendent of Education for the State of Hawai‘i, the chief educational, and executive officer of the only state system in the United States that is a unitary school district, serving over 190,000 students with annual budgets totaling over $1,800,000,000. LeMahieu has published extensively on issues as diverse as testing policy and practice; educational accountability; staff development; school effectiveness; nontraditional work roles for women; minority achievement issues; science education; and vocational education. He has received a number of major awards for his contributions to educational theory and practice from the American Educational Research Association, the Evaluation Research Society, the Buros Institute of Measurement, the National Association of Test Directors, and the Association for Supervision and Curriculum Development. He has been President of the National Association of Test Directors and Vice President of the American Educational Research Association. He served on the National Academy of Sciences’ Board on International Comparative Studies in Education, and Mathematical Sciences Education Board. He is a Founding Director of the Center for the Study of Research on Expertise in Teaching and Learning, served on the National Board on Testing Policy, and the National Board on Professional Teaching Standards.

Krissia Martinez is a research assistant for the Learning Teaching programs at Carnegie Foundation for the Advancement of Teaching. She is a recent graduate of UC-Santa Cruz where she served as an academic peer advisor for one year, and for two years worked as a research assistant and participated in the Chicano Latino Research Center’s Undergraduate Research Assistantship program. She also spent her 2010 summer as an intern for the Interuniversity Consortium for Political and Social Research at the University of Michigan at Ann Arbor. She received her BA in Latin American/ Latino Studies and Legal Studies.

Julie Meredith is a PhD student at the University of Pittsburgh studying education policy. She plans on defending her dissertation, State policy diffusion and federal policy pressures during the Race to the Top competition, in May. Broadly, she is interested in school accountability and school reform policy and the contextual factors that impact the decisions about and implementation of state and federal education reform agendas. She holds a BFA from New York University.

Jeannie Myung is a research associate for the Learning Teaching program at the Carnegie Foundation for the Advancement of Teaching. At Carnegie she directs the Carnegie Knowledge Network — a partnership of technical scholars and educational leaders that synthesizes the state of the field of teacher assessment for a non-technical audience. In addition, she leads 90-day inquiry cycles to investigate issues relevant to the design and implementation of teacher assessment and development systems in states and districts. She also organizes convenings of researchers, tool developers, practitioners, and policy makers to facilitate productive conversations.
about the advancement of teaching to improve student learning. Previously, she has worked as a researcher for the Teacher Pathways Project, the School Leadership Research Project of the Center for Education Policy Analysis, and the Institute for Research on Education Policy and Practice. Her research has focused on school district human capital practices that work to build and sustain stronger teacher and principal workforces. Her publications include "Economic Approaches to Teacher Recruitment and Retention" (2010, The International Encyclopedia of Education), "Tapping the Principal Pipeline: Identifying Talent for Future School Leadership in the Absence of Formal Succession Management Programs" (2011, Educational Administration Quarterly), and "Learning to Teach in New York City: How Teachers and Schools Jointly Determine the Implementation of a District-Wide Mentoring Program" (2012, NSSE Yearbook: Organization and Effectiveness of Induction Programs for New Teachers). She began her career in education as an elementary public school teacher in San Jose, California. Jeannie holds a BA in Political Science from Yale College and a PhD in Administration and Policy Analysis from the Stanford University School of Education.

Blake Naughton serves as Executive Director of the Hook Center and Associate Clinical Professor of Education Policy in the College of Education and Truman School for Public Affairs at the University of Missouri. A native of Hannibal, Missouri, he has worked in education for over 15 years, with experience in public and private universities, state and federal government, and a major national policy center. Prior to coming to MU in 2012, Dr. Naughton was on the faculty of the University of Pennsylvania Graduate School of Education, where he directed an executive doctoral program for senior education administrators. He earned a Bachelor’s degree in Technology Policy from Stanford University, as well as an Ed.M. from Harvard University and a PhD from Stanford – both in Education Administration and Policy.

Ted Neitzke is the Superintendent of the West Bend School District in Wisconsin. West Bend is the 17th largest school system in Wisconsin. Neitzke is a trained Wisconsin Forward Examiner (State Baldrige) and is currently consulting with districts on continuous improvement processes. The West Bend School District has actively employed continuous improvement strategies for the last three years and trained around Baldrige for the last seven years. Neitzke has trained and implemented Baldrige strategies using the Jim Shipley model in his school district. He has also been trained in Pascal Dennis’ Lean strategies and processes. These continuous classroom improvement strategies have been instituted K-12 and Lean strategies have been applied in the operational ends of the district. Neitzke has sat in on manufactures strategic planning sessions, interviewed manufacturers, and toured facilities that employ Lean strategies in an effort to expand his school system’s ability to measure results and develop continuous improvement models. He is currently collaborating with a large local manufacturing corporation to have their senior leaders audit the schools and his senior leaders audit the manufacturing companies strategies and processes.

Lee Nordstrum is a research associate for the Learning Teaching program at the Carnegie Foundation, supporting the Advancing Teaching - Improving Learning (ATIL) program. At Carnegie, he conducts 90-day inquiry cycles to investigate issues relevant to the design and implementation of assessment systems in states and districts, and facilitates convenings that result in productive conversations between researchers, tool developers, practitioners, and policy makers about the assessment of teaching to improve student learning. Previously, Nordstrum gained extensive
international experience working as an educational research consultant for the Global Partnership for Education, UNESCO, Education International, the International Labour Organization, and the Government of Togo. In this capacity, he has conducted original research, written policy briefs and white papers on issues germane to education, policy, and development in educational systems ranging from India, Mozambique, South Africa, Switzerland, Togo, the United Kingdom and the U.S. Nordstrum completed his doctoral work in educational policy at the University of Cambridge. He also holds a MPhil in Education Research from the University of Cambridge, and an M.Ed. and BS in Education from the University of Minnesota. From 2002–2004 he worked as a primary school teacher in Stockton, CA and Minneapolis, MN.

Carla O'Dell is the Chief Executive Officer of APQC, and is considered one of the world's leading experts in knowledge management (KM). In 1995 and under O'Dell’s direction, APQC launched its first KM best practices consortium study, "Emerging Best Practices in Knowledge Management." Thirty-nine organizations sponsored the groundbreaking study. Since then, APQC has conducted more than 25 consortium studies on topics related to KM, involving more than 500 participating organizations and producing the world’s largest body of actionable best practices in designing, implementing, and measuring KM. APQC was the first nonprofit organization to be awarded the Global Most Admired Knowledge Enterprise (MAKE) award. O'Dell was a key driver in the formation of the Open Standards Benchmarking Collaborative SM research (currently Open Standards Benchmarking), which standardized the processes and measurements that global organizations use to benchmark and improve performance. This data allows organizations to compare their own performance against peer groups and across their industries. Over 9,000 organizations worldwide have participated to date. O'Dell is author of the book The Executive’s Role in Knowledge Management, and coauthor of If Only We Knew What We Know: The Transfer of Internal Knowledge and Best Practice and The New Edge in Knowledge: How Knowledge Management is Changing the Way We Do Business, as well as numerous articles. O'Dell has a bachelor’s degree from Stanford University, a master’s from the University of Oregon, and a Doctorate in Organizational Psychology from the University of Houston.

Sandra Park is the Director of the Building a Teaching Effectiveness Network (BTEN) and an Associate for Improvement Science for the Hub. The aim of BTEN is to increase the number of new teachers judged efficacious and to increase their rates of retention using methods of Improvement Science and leveraging the powers of a networked improvement community. Park previously taught elementary school in Oregon, Maryland, and Washington, D.C., and was most recently director of programs at First Graduate in San Francisco. She holds a BA in Sociology from Georgetown University, a teaching credential and M.A.T. from Louis & Clark College, an Ed.M. in Administration and Policy from the Harvard Graduate School of Education, and a PhD in Education Policy from UC-Berkeley.

Jennifer Perkins is the Associate Director for Collaborative Action at Strive, a subsidiary of KnowledgeWorks. As the Associate Director, Perkins provides strategic assistance to communities throughout the country working to implement the four pillars of the Strive Framework specifically focusing on bringing community partners together to impact educational outcomes using continuous improvement. This support includes providing real time support and coaching to communities working to improve educational outcomes for their students. Perkins joins Strive from
L’Oreal USA where she served as a Scientist managing a qualitative consumer testing department. She has a BA in Sociology from Kenyon College in Gambier, OH and holds a M.A. in Higher Education from the University of Michigan. She has previously worked as a teacher’s assistant in an elementary school, a market researcher, and as a graduate assistant for the University of Michigan’s Undergraduate Research Opportunity Program.

Janet Pilcher has a PhD in Measurement and Evaluation from Florida State University, known to have one of the top ten leading programs in the United States. She also has a Master's degree in Educational Leadership and a Bachelor's degree in Business. She has published a number of research articles, several books, and has trademarked online tools that help leaders and teachers improve their performance. She has also received and led over 17 million dollars of grants and contracts. Dr. Pilcher began her education career as a high school math teacher and tennis coach. After teaching for three years, she received a graduate assistantship to attend a doctoral program at Florida State University. She was responsible for analyzing the statewide standardized test data for Florida schools. In addition, she was selected to lead a research project studying critical issues that led to a high rate of infant mortality in Gadsden County, Florida. In 2001, Dr. Pilcher joined the faculty at the University of West Florida in Pensacola, Florida, where she served as professor, associate dean and then dean of the College of Professional Studies for her 19 year tenure. She was the first dean at the university to lead faculty to develop online programs that today are some of the largest programs on campus. In 2005, she launched an entrepreneurial center affiliated with the University of West Florida where she and her co-inventor, Dr. Robin Largue, created TeacherReady®, a premier virtual program that prepares second career teachers who live all over the world. Currently the program certifies teachers in over 25 states and over 18 counties. In May of 2010, Dr. Pilcher joined Studer Group to create and lead a new education venture affiliated with Studer Group, a highly recognized and award winning small to mid-sized business. She leads a team who works with district and school leaders to apply an Evidence-Based Leadership framework to create a culture of change and accountability in K-12 schools.

Jim Shipley is President of Jim Shipley and Associates and an educator with over 20 years of administrative experience serving as a principal, area superintendent, and associate superintendent. Shipley served as Executive Director of the Pinellas County Quality Academy and was responsible for the implementation and use of the Malcolm Baldrige Criteria in 155 school sites, as well as with all district-level administration and supporting services units. He coordinated the strategic effort necessary to transform a school system of over 100,000 students and 17,000 employees and to apply for and be presented with the prestigious Florida Sterling Quality Award. Shipley has been involved with the Baldrige Criteria since 1993, serving as a senior examiner for both the Florida Sterling Quality Award and the Baldrige National Quality Award. He also served on the design team for the National Baldrige in Education Initiative (BiE IN) sponsored by the National Alliance of Business. Shipley is a frequent presenter at national educational and quality conferences and has worked with hundreds of state boards of education, departments of education, school districts, and schools in the application of the Malcolm Baldrige Criteria to improve the performance of educational systems.
Holly Szafarek is the Program Coordinator for the Learning Teaching program at the Carnegie Foundation for the Advancement of Teaching. Before joining the Foundation, she worked at the University of Michigan School of Public Health in programs supporting public health workforce development. She holds a Bachelor’s degree in Language, Literature, and Writing from Eastern Michigan University and a Master’s degree in Public Administration from San Francisco State University.

Christopher Thorn is the director of Carnegie’s Advancing Teaching - Improving Learning (ATIL) program. The program gathers experts involved in the conceptualization, development, implementation, and use of teacher evaluation systems to focus on how these systems are best used to make consequential judgments about teachers. The ATIL program also explores how teacher evaluation can inform efforts to improve teaching practices more broadly. Thorn comes to Carnegie from the University of Wisconsin-Madison, Wisconsin Center for Education Research. His work has focused on identifying and addressing organizational and technical gaps in information systems in education, the selection and use of multiple measures of educational effectiveness, and the design and implementation of decision support systems at the state-, district-, and school-levels. Thorn also has both research and hands on experience with the increasingly complex data requirements of current educational reform efforts. He received a B.A. in Economics and German language from Indiana University and Master’s degrees in Political Science from the University of Wisconsin-Madison and in International Relations from The Johns Hopkins University, Nitze School of Advanced International Studies. He earned his Doctorate in Sociology from the University of Bielefeld, Germany.

Cindy Veenstra is the immediate past chair of the American Society for Quality’s Education Division. In that role she led the Division’s leadership team in developing programs for networking on continuous improvement and changing the paradigm on quality in education and continues to be active in its leadership. The Division found that the body of knowledge on quality in education needed to be developed, especially for higher education; and the most effective approach was to discuss continuous improvement using the PDSA cycle. With ASQ’s Advancing the STEM Agenda Conferences, the Division has blended the ideas of continuous improvement with improving STEM education. Veenstra is the conference co-chair of the 2013 conference. She is passionate about research that leads to improved best practices in P-16 education and is an associate editor for the Quality Approaches in Higher Education. Veenstra is currently conducting research on with the Detroit Schools-Higher Education Consortium project in the Center for the Study of Higher and Postsecondary Education, University of Michigan and consults on STEM education. Veenstra has published research articles in the Journal of Engineering Education, Advances in Engineering Education, and the Journal for Quality and Participation. She is the lead editor of Advancing the STEM Agenda: Quality Improvement Supports STEM (2012).

Michael Watenpaugh is the Superintendent of San Rafael City Schools (SRCS), a diverse suburban K-12 district in the San Francisco Bay Area. Appointed in 2007, Watenpaugh’s “100 Day Entry Plan”, to listen and learn, established the conditions for a climate of transparency, trust, and collaboration. In 2011-2012, the District was awarded $3.47 million in donations and services – all in support of closing the achievement gap. Under Watenpaugh’s leadership, the district was selected as the first client in the nation for...
the 114th Partnership and Dr. Jerry Weast’s “Communities for Deliberate Excellence.” The district is engaged in a multi-year collaboration with The National Equity Project to create an equity-based, culturally proficient learning organization. In 2012, Watenpaugh was selected as one of twenty-five superintendents from across the nation appointed to the American Association of School Administrators National Superintendent Advisory Task Force for Community Schools. Watenpaugh earned his B.A. in Social Ecology, and a Multiple Subjects Teaching Credential from the University of California Irvine. He has a M.A. in School Management and an Administrative Services Credential from the University of La Verne. He holds a Doctorate in Organizational Leadership from the University of La Verne.

Jerry Weast, Ed.D., is the Founder and CEO of the Partnership for Deliberate Excellence and a veteran of education leadership with more than 35 years as a superintendent of schools. Weast has demonstrated an unwavering commitment to ensuring all students graduate prepared and inspired for success in college and careers and led Montgomery County (Md.) Public Schools to achieve the highest graduation rate among the nation’s largest school districts for four consecutive years. Montgomery County’s high schools now are consistently ranked among the best in the nation by US News and World Report, the Washington Post, and Newsweek. Under his leadership, Montgomery County Public Schools received the Malcolm Baldrige National Quality Award for management excellence in 2010. Weast is respected for his expertise in crafting coherent strategies and leveraging his management experience to successfully sequence change efforts. Working through his Partnership for Deliberate Excellence, Weast advises and collaborates with foundations and school leaders to improve public education for children across the United States. Weast received the Educator of the Year Award from the Schott Foundation for Public Education (2011) in recognition of his successful initiatives to improve academic outcomes for African American students and the 2012 Distinguished Public Service Award from the American Educational Research Association for his success in closing the achievement gap.

Joseph Weitzer, PhD, is dean of the Center for Business Performance Solutions at Waukesha County Technical College (WCTC). He is an experienced facilitator with over 30 years of professional experience in the areas of organizational development, strategic planning, quality improvement, and leadership development. Since joining WCTC in 2008, he has provided leadership in the planning and implementation of a long-range strategic plan to ensure efficient and effective delivery of services through customized training, workshops, and seminars, along with cross functional projects that address the challenges faced by business and industry. He is responsible for the Center’s direction and operation, inspiring innovation, and developing leadership within the team of trainers and educational providers that are recognized as among the best in the region. He successfully secured more than $2 million dollars in training grants focused on skill enhancements and process improvements for area manufacturers and associated business networks over the past four years. Dr. Weitzer was instrumental in securing a national license for Wisconsin’s Dream It Do It® initiative. This initiative is a national initiative to raise the awareness of manufacturing career opportunities among youths and their parents. Prior to joining WCTC, Dr. Weitzer was a Clinical Associate Professor at the University of Wisconsin-Milwaukee. He directed undergraduate education programs for 20 years in health sciences. His interest in developing leaders, optimizing human capital, and aligning organizational strategy to performance has played key roles in his research and study. Since joining WCTC, he has focused much of his time promoting the value of training as a means to enhancing regional economic development. He has
recently formalized his Strategic Organizational Management Alignment (SOMA) model that holds the strategic plan as a core element of alignment.

**Kareen Mo Yang** is the Program Manager for the Learning Teaching program at the Carnegie Foundation for the Advancement of Teaching. In this capacity, she works closely with the teams of both the Assessing-Teaching Improving-Learning and Building a Teaching Effectiveness Network programs. She joined the Foundation in 2010 as the Learning Teaching program coordinator. Prior to that, she was the Research Manager at the National Writing Project at the University of California, Berkeley. In this role Yang led the development and administration of the instrumentation and coding systems for the Legacy Survey, a major study that documents the career paths of over five thousand current and past participants in NWP programming. She also managed the National Scoring Conferences (including workflow design and maintenance as well as data entry and management) at which an average of six thousand pieces of student writing was scored annually. She has a B.A. in Psychology from UC-Berkeley.
APPENDIX B: CONTINUOUS IMPROVEMENT EXPERT CONVENING AGENDA

Continuous Improvement Expert Convening
May 9-10, 2013 • Stanford, CA

Agenda

Thursday, May 9

8:30-9:00am Breakfast
9:00-9:30am Welcome and Introduction to the Day
9:30-9:45am Participant 5 Minute Presentations
9:45-10:15am Achieving Quality Instruction with Reliability at Scale
   Presentation by Tony Bryk, President of the Carnegie Foundation for the
   Advancement of Teaching
10:15-10:30am Participant 5 Minute Presentations
10:30-10:45am Break
10:45-11:00am Participant 5 Minute Presentations
11:00-12:00pm Small Group Breakouts: Quality Teaching Root Cause Analysis
12:00-1:15pm Lunch
1:15-1:30pm Participant 5 Minute Presentations
1:30-2:00pm Achieving Integrity of Implementation with Continuous Improvement in Networks
   Presentation by Paul LeMahieu, Vice President of the Carnegie Foundation for the
   Advancement of Teaching
2:00-3:00pm Small Group Breakouts: Process Mapping Continuous Improvement Organization
   Development
3:00-3:15pm Break
3:15-4:15pm Gallery Walk: Continuous Improvement Organization Development Processes
4:15-4:30pm Participant 5 Minute Presentations
4:30-5:00pm Reflections and Closing
5:00-6:30pm Reception and Dinner followed by Shuttles to hotel
**Friday, May 10**

8:00-8:30am  Breakfast

8:30-9:30am  Practitioner Panel Fishbowl Discussion – Challenges and Successes of Current Improvement Efforts

9:30-10:00am  Building Will for the Movement – Lessons from Health Care

  Presentation by Penny Carver, Senior Fellow at the Carnegie Foundation for the Advancement of Teaching

10:00-10:15am  Break

10:15-11:00am  What Can We Do To Advance Continuous Improvement in K-12? A Needs Assessment for the Field

11:00-11:45am  Reflections, Closing and Evaluations

11:45am- Lunch
APPENDIX C: LIST OF EXPERT INTERVIEWS CONDUCTED PRIOR TO THE CONVENING

Interviewees:

- Patricia Burch, Associate Professor of Education, Rossier School of Education, USC
- Penny Carver, Senior Fellow, Research and Development Field Building, Carnegie Foundation
- Jackson Grayson, Chairman & Fred Bentson, Senior VP, Sales and Marketing, APQC
- Lindsay Martin, Senior Research Associate and Improvement Advisor, Institute for Healthcare Improvement
- Sandra Park, Associate, Improvement Science, Carnegie Foundation
- Jim Shipley, President, Shipley & Associates and former Executive Director of the Pinellas County Quality Academy
- Jerry Weast, Former Superintending of Montgomery County Public Schools and founder of the Partnership for Deliberate Excellence