

FOUNDATION FOR CHILD DEVELOPMENT

Connecting research, policy and practice to create systems that work.

Our mission is to harness
the power of research to ensure
that all young children benefit
from early learning experiences
that affirm their individual,
family, and community assets,
fortify them against harmful
consequences arising from
economic instability and social
exclusion, and that strengthen
their developmental potential.

Sharing Knowledge for Better Implementation from Beginning to End

We can close the gap between research, policy, and practice.

Much attention has been paid to examining the effectiveness of early care and education (ECE) programs. Yet, little research examines how to implement such programs and help policymakers utilize research to inform on-the-ground operations in real time. This has left researchers conducting studies in silos, schools and programs applying for funding with distinct and varying mandates, and policymakers carrying out agendas based on limited information. The Foundation for Child Development (the Foundation) used New York City's (NYC) implementation of universal, full-day prekindergarten as an opportunity to solve the problem, creating the NYC Early Childhood Research Network (the Network).

NYC Early Childhood Research Network is a model for bringing researchers and policymakers together to define and produce better outcomes.

The Foundation funded the Network to rally researchers and policymakers from NYC public agencies around a single mission that focuses on continuous quality improvement, implementation, and scale-up of high-quality ECE programs.

Knowledge is more powerful when it's networked from beginning to end.

Creating a collaborative, multi-discipline research network helps researchers and policymakers implement effective programs by setting mutual goals, outlining common definitions, defining metrics and protocols, collecting the right data, and sharing multiple perspectives and experiences from beginning to end. This global view is often not seen until programs are scaled and flaws become evident, often hindering the growth and health of promising philanthropic and government investments. It is far better to work collaboratively on the critical knowledge necessary for innovation, implementation, and continuous improvement as programs are brought to scale than it is to remediate problems created by working in silos.

Two years into this research-to-impact approach, the NYC Early Childhood Research Network has aligned efforts and voices around implementing high-quality early childhood education.

Outcomes of this effort include: greater cooperation across sectors, coordination in research agendas, collaboration extending to the future, and enhanced capacity for understanding program implementation. While the outcomes of this effort are still evolving, the collaboration, cohesion, and efficiency of this effort stand as a success story in and of itself. The Network has transformed the way different institutions and cultures in NYC work together to better serve the needs of young children.

OVERVIEW

"There is a shared interest in the Foundation for Child Development, the NYC Department of Education, and the Network researchers to use [the Network] for implementation—to reflect and inform what we are doing throughout the process. There are more eyes and ears bringing info to me about the PreK programs on an ongoing basis and that is helpful."

 SOPHIA PAPPAS, FORMER CHIEF EXECUTIVE OFFICER, DIVISION OF EARLY CHILDHOOD EDUCATION, NYC DEPARTMENT OF EDUCATION

"The Network gives me a chance to communicate to researchers who provide the evidence base that I depend on."

- KELVIN CHAN, FORMER DIRECTOR OF EARLY CHILDHOOD DEVELOPMENT, BUREAU OF CHILD CARE, NYC DEPARTMENT OF HEALTH AND MENTAL HYGIENE

"Hearing from the NYC Department of Education, the NYC Administration for Children's Services, and the NYC Department of Health and Mental Hygiene affected my thinking about what they are trying to do. It's pulling back the curtain a little. Normally, we would be on the outside and looking in; now we see what they are trying to do, and it feels like we are working together with a better understanding."

- JEANNE REID, RESEARCH SCIENTIST, NATIONAL CENTER FOR CHILDREN AND FAMILIES AT TEACHERS COLLEGE, COLUMBIA UNIVERSITY

The New York City Early Childhood Research Network:

A new research-to-practice partnership with great promise

"In states that make it a priority to educate our youngest children...studies show students grow up more likely to read and do math at grade level, graduate high school, hold a job, form more stable families of their own. We know this works. So let's do what works and make sure none of our children start the race of life already behind."

- PRESIDENT BARACK OBAMA, 2013 STATE OF THE UNION ADDRESS

Moving research into practice is frequently dulled by conflict and compromise instead of sharpened by collaboration and clarity—often resulting in frustration and misperceptions that it is too difficult to bring public programs to scale with quality.

Such is often the case with efforts to implement high-quality public early childhood education programs. While specific evidence on effective early care and education (ECE) practices and model programs exists, it often stems from randomized control trial experimental designs resulting from individual research projects rather than through a coordinated effort across projects. Often outcomes are analyzed after the fact and do not fully capture the context of program implementation, missing opportunities to improve program quality along the way. Findings that could lead to improvements and better outcomes either come too late or are not fully understood in a program implementation context.

To date, there has not been an accessible model for bringing together researchers and policymakers with different priorities into a single mission that focuses on continuous quality improvement in the implementation and scale-up of such programs. As a result, the field is plagued with questions like:

Is there a way to build consensus that leads to effective, high-quality programs that result in positive outcomes for children, that so often prove elusive at scale?

What is the appropriate timing of examining child outcomes and answering implementation questions of why and under which conditions ECE programs and policies are most effective?

How can researchers provide responsive, continuous, and timely findings to policymakers through "actionable" policy and practice recommendations?

Finding the answer to these questions was the Foundation's mission when participating in the White House Summit on Early Childhood Education in December 2014. A significant component of President Obama's early childhood education agenda for the Summit was the Invest in US campaign that engaged public-private partnerships to advance early childhood education. The Summit called for greater investment in research, programs, and access. The Foundation was quick to the table with a bold commitment.

With former U.S. Education Department Deputy Assistant Secretary for Policy and Early Learning, Jacqueline Jones, at its helm, the Foundation made an initial pledge of \$2 million in 2014 to Invest in US. Funding was steered to study PreK For All (PKA), the nation's largest expansion of full-day prekindergarten (PreK) that was taking place in the five boroughs around the Foundation's headquarters in New York City (NYC). Shortly thereafter, Sara Vecchiotti joined the Foundation as Chief Program Officer.

The Foundation is committed to advancing the well-being of young children and their families by supporting research to continuously improve policy and practice. The PKA investment in policy-relevant research was no exception. With this investment, however, the Foundation took a novel approach to applied research. From the beginning, the Foundation invested in real-time implementation studies that facilitated collaboration between researchers and policymakers.

In the summer of 2015, the Foundation convened a group of researchers and policymakers in NYC to explore an unprecedented opportunity: develop a research agenda, focused on the ECE workforce, within the city's expansion of PKA. Recognizing the critical need for a neutral backbone organization to facilitate the Network from the very beginning, the Foundation engaged the New York Early Childhood Professional Development Institute (the Institute)—a public-private partnership dedicated to expanding excellence in ECE—to convene the group. This effort would build on research-to-practice partnerships, bring multiple perspectives into a single mission, ensure that research is useful to stakeholder decision-making¹, and move evidence into effective practice. What emerged was a new, hybrid² research model—the NYC Early Childhood Research Network (the Network)—an early care and education research-to-practice partnership that explores implementation and drives continuous improvement.

Two years later, the Foundation has awarded almost \$4 million to investigate the implementation of PKA through the Network and researchers and policymakers are collaborating in new and deeper ways to better understand and improve ECE in NYC.

With the Network still in the early stages, it is too soon to determine the lessons learned from implementation of PKA. This paper chronicles the development of this new research-to-practice partnership to help others see its value in informing ECE policy and program expansion. We describe the Network's contributions to the field, lessons learned for this approach to implementation research, and an overview of how the Network was built.

Aligning efforts and voices for high-quality early childhood education

There are many examples of networks that bring researchers together and networks that bring policymakers together, but far fewer are structured like the Network: a facilitated learning community that bridges the intent to foster collaboration with co-construction of ideas. As a hybrid, the Network is a place-based alliance of researchers and city leaders within NYC, it is a research partnership in which the Network members collaborate and co-create research studies, and it is a network improvement community focused on providing timely information and feedback from the research as part of the city's continuous quality improvement efforts.³

The Foundation's investment in the Network resulted in eight collaborative studies focused on the ECE workforce. These research studies will provide an acute understanding of the relationship(s) among characteristics of ECE professionals, program components and supports, and optimal classroom instructional practices in the NYC context.

Taken together, the research studies are providing a multifaceted view that includes instructional leaders, early educators, professional development and support staff, and families. These studies will provide information about assessment, instruction, professional learning, and family engagement practices. As findings emerge and are shared with the Network, a comprehensive and nuanced picture of PKA implementation is emerging.

Building such a learning community among the stakeholders was central to the Foundation's investment due to the inherent multi-disciplinary, multi-sector nature of ECE and the complexity of implementation. The very premise of the Network is that it provides a context for "deliberations and research [that] are structured to exploit the full range of talent represented by Network members. Therefore, they are better able to address more complex and significant problems than can often be accomplished by individuals working by themselves." Throughout the process, the Network has encouraged the partners to work together in new and meaningful ways, ranging from networking to deep collaboration.

Two years into the research-to-impact approach, the Network model has aligned efforts and voices for high-quality ECE across the nation. Its success can be boiled down to the following four insights.

▶ Cooperation across sectors makes a real difference.

Much attention has been paid to examining the effectiveness of ECE programs. Yet, little research examines how to implement such programs and help policymakers utilize research to inform their on-the-ground operations in real time. As a result, the Network was created with an intentional emphasis on building connections between researchers and representatives from various NYC agencies.

The Network has supported cooperation among researchers from several institutions in the Metropolitan area, including seasoned academics that have long histories of conducting applied research as well as early- to mid-career faculty at NYC's colleges and universities—tenured and non-tenured—who have been deeply invested in preparing early educators. Due to their different perspectives, one participant, Jeanne Reid, Research Scientist at the National Center for Children and Families at Teachers College, said she was encouraged that they have been able "to build an agenda that reflected individual interests and see that we all had different things. I've learned a lot from that."

By working towards a shared goal, any sense of competition among researchers and policymakers that might have otherwise been present was diminished. After participating in the Network, participants suggest that ongoing collaboration is not only possible, but desirable.

"It was an accomplishment to get the agencies in the room, but also a big accomplishment to get the universities in the same room," Reid noted. "It's been good to have an exchange with peers that I don't see regularly...There is a lot more learning from each other than what happens if you bump into people at conferences. These exchanges have been deeper and it's been very positive."

A member of the group, Beverly Falk, Professor and Director of the Graduate Programs in Early Childhood Education at The City College of New York's School of Education, noted that the Network experience stands apart because, "There is value in getting to know people from the agencies and universities. When we make those connections, it nourishes other collaboration. Our circles are different and although it's challenging, I think it will be a value added for both circles as members of the group and the field."

Finally, another researcher, Shannon Riley-Ayers, formerly an Associate Research Professor at the Center on Enhancing Early Learning Outcomes at the National Institute for Early Education Research, thought, "At first, I heard a lot of 'I' and now there is a lot more 'we.' We have gelled as a team." With mutual interest, participants are building personal relationships that are strengthening the capacity for ECE research and increasing the likelihood of jointly supporting work in the future.

Coordination in research agendas gets the research right.

Establishing the Network model has also allowed for efficient coordination in key components of research implementation, such as recruitment and sampling, so studies do not burden the actual ECE programs of study.

Faith Lamb-Parker, Senior Research Scientist and Founder of the Center on Culture, Race, and Equity at Bank Street College of Education, said, "I thought the sampling idea was brilliant. The last thing we want is to fight over sites. The result has been that research teams can thoughtfully support one another with sampling efforts."

Even more significantly, the coordinated sampling strategy conducted by MDRC, a research organization with experience conducting research in the city, has assured that samples are representative of early childhood programs that have PKA in NYC; thus, the general results from the eight studies may be discussed together and inform the understanding of PKA implementation throughout the city.

The coordination activities extend beyond the sampling for each study to include sharing key resources and information. Research teams have shared protocols with one another and some have even elected to build on one another's approaches to facilitate cross-study learning. For example, two study teams investigating instructional leadership are using the same research questions with early childhood program directors with additions that are specific to their respective research questions. Two other research teams that have a focus on culture and language have met to talk about ways to strengthen their respective research protocols. Another pair of research teams is using similar time utilization approaches and will therefore be able to compare the ways in which PKA coaches and the educational directors at PKA programs use their time to support instruction.

▶ Early collaboration naturally extends into the future.

Policymakers have noted that the Network has helped develop valuable collaborative relationships. In the words of Kelvin Chan, formerly the Director of Early Childhood Development of the Bureau of Child Care at the NYC Department of Health and Mental Hygiene, "The Network gives me a chance to communicate to researchers who provide the evidence base that I depend on."

Brenda Henry, Chief Operating Officer of the Division of Early Care and Education at the NYC Administration of Children's Services' Division of Early Care and Education, shared, "There is often a gap between research and policy/practice. The Network closes that gap by ensuring that those who are generating the evidence know the questions that key decision-makers are grappling with in the day-to-day work, and vice versa."

Within the Network, there are several examples of participants who have moved beyond cooperation and coordination toward formalized partnerships. These will allow researchers to pursue joint research proposals and strategizing to leverage their independent work to triangulate findings. When asked why one researcher decided to work with another entity in the group, Lamb-Parker responded, "It's more interesting and it gets better results when you bring people with different viewpoints into the work."

The relationships built around the table have led to instances of collaboration outside of the Network as well. "There is a shared interest in the Foundation for Child Development, the NYC Department of Education, and the Network researchers to use [the Network] for implementation—to reflect and inform what we are doing throughout the process. There are more eyes and ears bringing info to me about the PreK programs on an ongoing basis and that is helpful," said Sophia Pappas, formerly the Chief Executive Officer of the Division of Early Childhood Education within the NYC Department of Education.

Further, policymakers have partnered with researchers in the group to conduct a study investigating preschool expulsion in NYC. The Network played a role in facilitating this opportunity, as personal connections between members helped link the policymakers to prominent researchers who study the expulsion of preschoolers nationally.

Abigail M. Velikov, Senior Director at the Early Childhood Health and Development Unit within the NYC Department of Health and Mental Hygiene, commented, "The Research Network creates a space for academic researchers and city agency policymakers to connect in ways that would likely not happen otherwise, thereby enhancing our efforts to nurture and support 'Our Littlest New Yorkers.'"

Research networks build enhanced capacity for impact.

In addition to the progress witnessed in building relationships and linkages among the Network's participants, an additional benefit has been the increased understanding of varying perspectives within the ECE community.

For example, members of the Network now have a deeper understanding of the policy context. Reid said, "It's affected my thinking by hearing from the NYC Department of Education, the NYC's Administration for Children's Services, and the NYC Department of Health and Mental Hygiene about what they are trying to do. It's pulling back the curtain a little. Normally, we would be on the outside and looking in and now we see what they are trying to do, and it feels like we are working together with a better understanding."

Another unintended success coming out of this effort has been career promotion for researchers involved. Several researchers who have participated in the Network noted that their engagement has supported their careers and elevated their standing within their institutions. For instance, the Borough of Manhattan Community College research team was nominated to participate in The City University of New York's Chancellor's reception. "The team is more visible and respected on campus and we are inspiring others on our campus to do this kind of work," noted Jean Yves-Plaisir of the Borough of Manhattan Community College. Professor Yves-Plaisir, the lead principal investigator, has now been promoted to Full Professor and is poised to continue to have a tremendous impact on NYC's early educators and the children they serve.

Lessons for building an implementation research network

In reflecting on the Network's efforts to date, several insights have emerged. The following lessons are valuable to share with the philanthropic community in order to spur additional investments in the field of implementation research.

- Engage a partner with content expertise from the start to provide the infrastructure needed to build and sustain the relationship-based work.
- Establish trust, a safe space, and a culture of learning around researchers sharing their interests and designs and policymakers sharing areas which require program improvement.
- Balance the academic freedom of the researchers and the public dissemination of findings within a frame of continuous quality improvement and outcomes evaluation.
- Engage an independent and neutral facilitator, who understands the issues and has established relationships with the different stakeholders, to set clear parameters and support the effort.
- Foster shared decision-making about the topics and research questions that are important to the policymakers, interesting to researchers, and critical for achieving the goals of the Network.
- Take time to engage policymakers throughout to ensure participation is valuable to addressing their policy and practice issues and decisions.
- Take time to engage researchers throughout to ensure their participation is valuable and their individual study experience both supports and informs that of the other researchers.
- Attend to needs and concerns of both policymakers and researchers to keep them engaged to foster substantive discussions of research implications for practice and policy.
- Minimize the sense of competition among researchers and policymakers by expecting participants to work together—and showing them how it helps their individual work.
- Build relationships among participants by providing opportunities for collaboration that strengthen individual efforts to keep members engaged.

How we built the Network

Recognizing a critical opportunity to improve NYC's early childhood efforts, as well as inform national prekindergarten policy and practice, the Foundation first began discussions about an intentional approach to implementation research with key leaders across the city. These included representatives from the NYC Department of Education, responsible for PKA implementation, and researchers from the Mayor's Office of Economic Opportunity who were charged with the evaluation of the PKA expansion. The Foundation also reached out to leadership of the NYC Administration for Children's Services, responsible for the city's EarlyLearn NYC programs, and the NYC Department of Health and Mental Hygiene, the licensing entity for ECE programs.

Insights from these initial conversations, and a desire to connect NYC agencies devoted to ECE with leading applied researchers and teacher educators from institutions of higher education, laid the foundation for a groundbreaking initiative. In the summer of 2015, the Foundation officially established the Network.

The creation of the Network entailed four phases of work, from the development of the Network concept through implementation and analysis. As depicted in below, the Foundation conceptualized the process as cyclical: as new resources are allocated to researching NYC's early childhood system, the process continues.



▶ Determining a focus and selecting membership.

The Foundation began with a set of broad parameters for the Network's focus that aligned with the Foundation's strategic focus on the ECE workforce, as well as supporting implementation research to engage in meaningful exploration of what works (or not), for whom, and under what conditions. Each parameter was thoughtfully considered in light of current thinking about the research needed to inform policy and realize the potential for high-quality programs to provide children with the best early learning possible. These initial parameters included:

1. Connect research, policy, and practice.

Creating a collaborative, multi-discipline research network would help researchers and policymakers implement effective programs by setting mutual goals, outlining common definitions, defining metrics and protocols, collecting the right data, and sharing multiple perspectives and experiences from beginning to end.

2. Co-create an implementation research agenda with researchers and policymakers.

Carrying out a coordinated research agenda was the key to providing rapid response intelligence that matters to both researchers and policymakers alike. In the words of one policymaker, Pappas, "We want research that has a back and forth to help our ongoing work." With the substantial expansion and great promise of NYC's PKA initiative, understanding implementation would be key to understanding the components of its success, both for the city's policy as well as for other locales throughout the nation interested in learning from and replicating the city's approach. The intent from the start was to share interim research findings to provide rapid feedback in real time to inform program implementation. The intent was not to wait until the findings were final to engage in discussion of implications. Providing a deeper understanding of program components within implementation would also provide important context in interpreting child outcomes arising from the city's evaluation of PKA.

3. Guide research through a place-based strategy that spans ECE settings.

At this point, the Foundation's leaders had the keen awareness that ECE is highly contextualized. Prekindergarten programs, both in public schools and in community-based organizations, are strongly shaped by the communities in which they are located. Research shows that family well-being and community capacity are closely linked; as families tend to do better in neighborhoods with greater resources, place matters. Knowing this—but without a preconceived notion that higher-resourced areas would necessarily yield higher results—the Network attempted to explore the relationship of place-to-implementation practices. A place-based lens asked researchers to consider how PKA implementation varies in communities with low, moderate, and high levels of resources. NYC's tremendous diversity is a prime lab for examining how differences in community characteristics and resource levels can influence program implementation. The initial implementation research provides the foundation for future research to eventually examine and explain child outcomes.

One researcher, Lamb-Parker, even noted, "Here we are working with the same communities and same people—it's more intimate because of that."

The PKA implementation focus also grew from the field-wide recognition that successful ECE program models could be taken to scale only if all learning settings were considered as part of the city's mixed-delivery system. In NYC, this includes district public elementary schools, the NYC Department of Education's early childhood contracted community-based centers that provide PKA programs, the NYC Department of Education's PKA centers only serving four-year-olds, the NYC Administration for Children's Services EarlyLearn NYC community-based contracted programs where the NYC Department of Education's funds are blended with Head Start and/or Child Care funding and community-based organizations that provide both EarlyLearn NYC and PKA early care and education services.

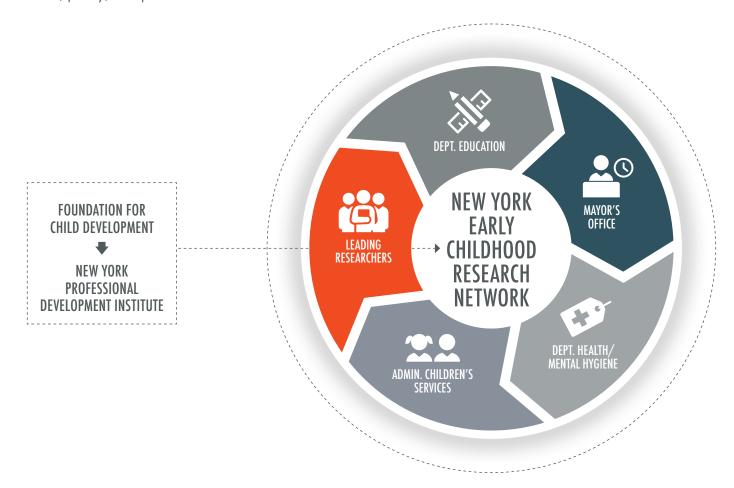
4. Focus on the ECE workforce.

Aligned with its strategic direction, the Foundation determined that funding should focus on the ECE workforce: the early educators, leaders, and professional development providers who have the special responsibility of providing young children with high-quality care. Teachers are the most important in-school factor that affects the quality of young children's learning,⁶ followed closely by the program and school leaders who oversee teachers' work. The National Academy of Sciences' landmark report, *Transforming the Workforce*, convincingly revealed the need for more information about the workforce and the strategies that policymakers can pursue to ensure each and every child has well-prepared and effective teachers.⁷

The research would also directly inform the implementation of PKA policy in public schools and community-based settings. Since the Mayor's Office had invested in an evaluation of PKA, this research would be different. Rather than ask whether PKA works, the research would examine factors that influence implementation. In other words, the Foundation's stance was that how teachers, leaders, and support staff have enacted the essential elements of a model program design is just as important as what they are enacting.⁵

After identifying the research parameters, the second order of business was to determine the academic institutions and appropriate researchers that would contribute to the effort. Due to the complexity of understanding PKA implementation, it was critical to thoughtfully identify and engage researchers and policymakers who would bring a variety of experience and expertise to bear.

To support the Network, the Foundation engaged Sherry Cleary, Executive Director, and Kate Tarrant, Director of Research and Evaluation, of the New York Professional Development Institute at The City University of New York (the Institute). The Institute was uniquely positioned to convene the Network considering its dedication to supporting a strong and diverse ECE workforce and since its ongoing work to improve ECE in NYC relies on the intersection of research, policy, and practice.



The Institute recommended that research participants include senior and junior teacher educators and developmental psychologists from two- and four-year colleges and universities, as well as public and private institutions in the metropolitan area. They represent different orientations to research, with some using more qualitative, in-depth approaches to understanding particular phenomena and others using quantitative approaches that generate more generalizable findings.

Many of the researchers also had experience working with the city's agencies in the past. Policymakers identified for participation represented the key agencies that are responsible for the ECE system in NYC.

▶ Refining the research agenda.

ECE workforce

The Foundation recognized that multiple studies aimed at understanding the many layers of support and information that shape early educators' practices could advance the field's understanding of how to design and implement effective early childhood educator professional learning systems and support effective instructional practice. Through a series of facilitated meetings, the group developed a set of specific research questions that would advance policy, research, and practice. To arrive at those questions, they explored three categories of related issues:

- 1. Implementation questions, especially related to instructional practice, and indicators;
- 2. Workforce status and indicators; and,
- 3. Professional development questions and indicators.

Participants then identified research questions that fell into these three categories and appropriate data sources to answer the questions, with consideration of both secondary data analysis of administrative data sources and primary data collection. When it came time to submit proposals, the Foundation provided guidance to applicants and indicated that successful proposals would "provide an understanding of the relationship(s) among specific aspects of early care and education professionals, specific program components and supports, and optimal classroom instructional practices within various universal PreK settings across and within designated neighborhoods."

Place-based strategy

At the same time that the Network was refining the research agenda, the Foundation, the Institute, and selected researchers worked with the NYC Department of Education to determine how to operationalize the place-based strategy. All three city agencies shared data on ECE programs within NYC to assist in community selection. Together, the Foundation, the Institute, and New York University (NYU) researchers used NYC demographic data and the city's data about program characteristics to determine community districts where researchers would focus their analyses. In total, the Foundation selected nine community districts reflective of NYC demographics. The three low-resource community districts have high concentrations of poverty, the moderate- and high-resource community districts have medium and low levels of poverty. Each community needed sufficient numbers of PKA sites located in public schools and community-based organizations, as well as a representative population of African-American and Hispanic race/ethnicities and passing rates on the English Language Arts assessment.

Once the Network identified the research priorities and neighborhoods in which the researchers would focus their efforts, the Foundation invited proposals from the Network members and welcomed collaborative projects. Researchers submitted proposals, which were reviewed by the Foundation and external experts to evaluate the rigor and contribution of the research to the field. Simultaneously, the Network provided the policy partners with a summary of the proposals and asked for comments on the research questions and methods. Informed by these reviews, the Foundation worked with each research team to prepare proposals that would fulfill the Foundation's goals. Over the course of a year, the Foundation funded eight research studies through a staggered approval process.

▶ Coordinated implementation.

As soon as the Foundation awarded research proposals, it was clear that the researchers would need to work together as they launched their investigations. The initial coordination included several steps. First, the Network saw an opportunity to reduce the burden of applying for full approval through the Institutional Review Boards (IRB), which assures research meets ethical standards. This process was particularly time intensive since each study needed approval by the researchers' academic institutions and then by each city agency involved. To facilitate the process, the NYC Department of Education's IRB representative joined a Network meeting to become familiar with the proposed research and to answer questions. The Network also worked with the NYC Administration for Children's Services and the NYC Department of Health and Mental Hygiene staff to streamline reviews, and it was determined that these agencies would review proposals after they received approval from the NYC Department of Education.

The Network also facilitated a coordinated approach to sampling and initial communications with potential participants. Since the research would be conducted in specific communities throughout the city, it was paramount for each study team to have a unique and representative sample with the characteristics needed to carry out the work. The coordinated sampling approach had four goals:

- 1. To conduct studies in programs that are located in community districts of varied resource levels (e.g., low, middle, and highly resourced communities);
- 2. To ensure each sample had sufficient numbers of public school and community-based sites representative of PKA's mixed-delivery system;
- 3. For study teams' program samples to allow for some generalizability across one another; and,
- 4. To avoid overburdening programs with research activities.

It was critical to secure buy-in from each research team to participate in the coordinated sampling approach. It was also important that each study team's sample meet the study parameters while ensuring that no sites were asked to participate in more than one study so as to reduce the stress on participants. Since academic research is usually conducted independently and researchers have significant discretion over their work, this level of collaboration was a real departure from business as usual and required significant trust within the group.

The Network engaged MDRC as an independent party to coordinate sampling. The group first arrived at several agreements about the process. The Network needed to ensure the process would have: 1) full transparency; 2) significant communication throughout the process, which required MDRC's researchers to be accessible and responsive; and, 3) ongoing monitoring and support regarding recruitment. Then, MDRC interviewed each research team to learn about the study design and determine the sampling criteria. Working with administrative data provided by each city agency, MDRC was able to develop a cohesive and uniform sampling frame across studies. When each study team received their sample, the Institute sent each site a joint letter signed by the NYC Department of Education, the NYC Administration for Children's Services, and the NYC Department of Health and Mental Hygiene city agencies in order to facilitate recruitment and provide a point of contact for programs about the research activities.

▶ A comprehensive understanding of ECE workforce in PKA implementation.

With the Network in place, eight studies are exploring PKA using different methods to provide a coherent and comprehensive view of the ECE workforce in PKA (see Appendix B for a detailed description of each study). Four studies are delving deeply into teaching practices. City College of New York and Teachers College, Columbia University are investigating high-quality instructional and family engagement practices that are responsive to families from low-income, immigrant, linguistically, and culturally diverse backgrounds. Fordham University's College of Education will investigate the instructional practices, supports, and learning needs of dual language learners in PKA. Hunter College of The City University of New York is exploring the ways in which educators find and use formative child assessment tools tied to specific curricula to support their pedagogical decision-making. New York University's Institute of Human Development and Social Change will provide information about ways that administrators and teachers understand and use data about classroom quality to inform professional development and classroom practice. The Borough of Manhattan Community College's research will provide important insights about the recruitment, retention, professional development, and mentoring of male educators as part of the teaching pipeline.

Several studies are examining professional learning supports. Bank Street College of Education and the National Center for Children in Poverty at Columbia University joined forces to examine the capacity of instructional leaders in community-based and public school PKA programs; the study looks at the supports that leaders provide to their teaching staff in order to foster high-quality instruction in PKA classrooms. The National Institute for Early Education Research (NIEER) at Rutgers examines how professional development coaches use their time and perceive their roles as influencers of ECE practice. Further, New York University will describe the social networks that educators' leverage to support their classroom practices.

Finally, three studies provide information about New York City's ECE professional development system. Specifically, the National Center for Children and Families at Teachers College will address teacher characteristics, professional development supports, instructional approaches, and program structures across PKA settings, governance structures, and communities. NIEER will also provide insights about the ECE system through one component of the study that describes the professional development workforce landscape supported by each city agency. New York University also examines the ways that teachers with different levels of teacher qualifications are distributed across universal PreK classrooms across all PreK settings.

▶ Cross-study learning.

Throughout the initial phases of the Network, the Institute has taken steps to support cross-study learning. Within the early stages of the process, the Institute invited researchers engaged in similar work to share their research to support Network researchers' study designs and data collection. Louisa Higgins, Director of New York Works for Children at the Institute⁹, presented current NYC early care and education workforce data from ASPIRE, the state's workforce registry database. In another Network meeting, Debra Pacchiano, from the Ounce of Prevention Fund¹⁰, also shared the tool, *The Five Essentials of Early Ed*, that assesses an ECE program's organizational climate and stems from a partnership with the University of Chicago Consortium on School Research.

The Network also benefitted from hearing from PKA leaders. Several representatives from public school and community-based ECE programs, Michael Zisser, formerly of University Settlement, Carol Brathwaite, Hanson Place Child Development Center, and Sheila Durant, Public School 69: Journey Prep School provided a Voices From The Field perspective. This grounded Network members in the realities of daily operations and pressures in program implementation and provided lessons learned about implementation of ECE programs in the city. Also, Marcy Whitebook, from the Center on the Study of Child Care Employment¹¹, shared an assessment instrument the Center developed that examines ECE program work environment called the Supportive Environmental Quality Underlying Adult Learning in Early Childhood Settings. Finally, Jennifer Hamilton and Jill Lammert, the research team from Westat, shared some of their implementation findings from the Mayor's Office's evaluation of PKA and, importantly, the strategies they used to recruit participants, which helped to inform the strategies that Network members pursued with their work.

As the research moves from implementation to completion, the Network continues to cultivate numerous opportunities to facilitate cross-study learning. First, as findings emerge, researchers present their work to one another and to their policy partners. These informal briefings are central to the Network's mission to provide policy-relevant and actionable research. For example, as researchers identify potential misunderstandings about assessment policies, the NYC Department of Education is able to address the issues immediately within their professional development sessions. Indeed, policymakers' engagement in the Network depends on the opportunity to learn about and act on emerging findings from rigorous independent research.

Second, the Network's meetings provide an opportunity for the city agency partners to provide updates on policy developments that may have an impact on the PKA program implementation. During these discussions, policymakers also pose questions to the researchers regarding new initiatives or potential policy shifts. At the same time, the Network creates a safe space for researchers to report interim findings and engage in discussions with the policymakers about the implications their findings have for policy and practice. The presentation of results as they emerge is a rare opportunity for policymakers to rapidly respond to emerging findings. Recently, city partners also shared findings from their own internal research projects relevant to ECE services; breaking down the traditional understanding of researcher vs. policymaker.

Third, the Network has potential to facilitate the development of crosscutting synthesis articles that address topics that transcend the funded studies. These papers can explore topics such as teacher work environment, professional learning, and family engagement. As collaborative papers are developed, data may be analyzed within studies and then findings from each study would be used to speak to a broader area of crosscutting interest. The findings from these articles will also elevate the national significance of the research.

Fourth, the Network plans to create a website hub that could include a data repository and archive. To support secondary data analysis, study teams may create Restricted Access Files (RAFs) with available de-identified quantitative data at the conclusion of their analyses. Other research studies underway in NYC could also be included in the repository. The Network will support researchers to create RAFs and facilitate access to these analytic files. The hub would also be a valuable archive where research protocols, codebooks, and publications would be available. In addition to these aforementioned strategies to support cross-study learning, other efforts may emerge as the Network process continues to unfold.

Finally, the Network members are consistently finding new ways to support the development of this learning community. The Institute is preparing a symposium in which policymakers, practitioners, researchers, and funders will come together to learn about the Network and the results emerging from the research—a broad and deep perspective on the implementation for PKA.

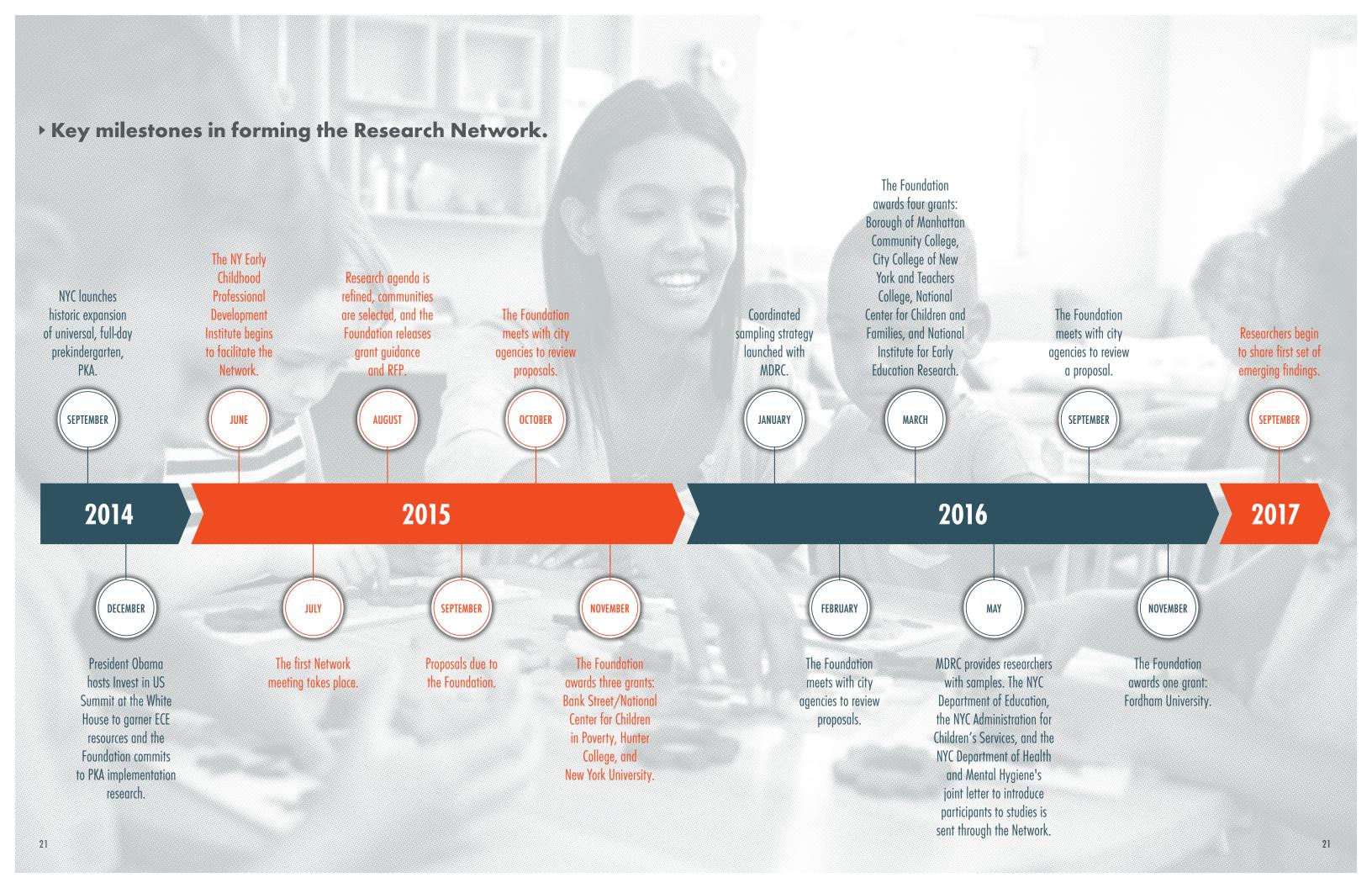
The Foundation, the Institute, and the research and policy partners are interested in sustaining the Network and its commitment to build the capacity for ECE research in NYC. The participants have noted that the work together has been "a bold experiment" and "truly remarkable."

Future Network directions.

As the implementation research studies come to conclusion, the Network also looks forward to sharing the research findings and the lessons learned from the individual and collective body of studies. Synthesizing research results across studies will provide unique opportunities to provide an in-depth understanding across programs, communities, and early educators within one city's implementation of a full-day universal preschool program.

Sustaining the Network to conduct additional studies will also require new ways to build out the community of researchers, policymakers, funders, and practitioners who come together in ways that lead to action for all of the stakeholders involved. As the Network evolves, it will look for new and additional funding to support a broader focus that includes research on the services, educators, and families that support children from birth through age eight. Additionally, the Network can examine topics beyond the ECE workforce. For example, exploring issues related to infants and toddler or family child care settings. Opportunities to generate and disseminate actionable research, and also attract and leverage funding, will be important to sustain the engagement of the group and reach the Network's goal of enhancing ECE research in NYC. Further, the Network can also extend to researching child outcomes as a deeper understanding of program components in implementation is obtained.

The Network story is far from over, but is instead to be continued.



References

- ¹ Tseng V. and Nutley S. (2014). Building the Infrastructure to Improve the Use and Usefulness of Research in Education. In: Finnigan K., Daly A. (eds) Using Research Evidence in Education. Policy Implications of Research in Education, vol 2. Springer, Cham.
- ² Henrick, E.C., Cobb, P., Penuel, W.R., Jackson, K., and Clark, T. (2017). Assessing Research-to-Practice Partnerships: Five Dimensions of Effectiveness, New York: New York. William T. Grant Foundation.
- ³ Henrick, Caobb, Jackson, & Clark et al. (2017).
- ⁴ Rose. R. M. (n.d.). Finding answers to big questions: Overcoming disciplinary boundaries through research networks. A Guide to Conceiving, Organizing, Implementing, and Monitoring Interdisciplinary Research Networks.
- ⁵ Metz, A., Naoom, S.F., Halle, T., & Bartley, L. (2015). An integrated stage-based framework for implementation of early childhood programs and systems (OPRE Research Brief OPRE 201548). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- 6 National Commission on Teaching and America's Future (1996). What Matters Most: Teaching for America's Future.
- ⁷ LaRue Allen, L. & Kelly, B.B. (2015). Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation. National Research Council; Institute of Medicine; Board on Children, Youth, and Families; Committee on the Science of Children Birth to Age 8: Deepening and Broadening the Foundation for Success.
- ⁸ National Commission on Teaching and America's Future (1996). What Matters Most: Teaching for America's Future.
- 9 New York Works for Children (NYWFC) is the State's integrated professional development system for the early childhood and school age workforce. Begun as an initiative of the Early Childhood Advisory Council's Workforce Development work group in 2010, NYWFC consists of interrelated programs, services, and efforts to address workforce needs with the goal of building and sustaining an effective, committed early childhood and school age workforce.
- ¹⁰ The Ounce of Prevention Fund, based in Chicago, Illinois, is an organization that provides early childhood services, conducts research and policy analysis, and advocates for improved services for young children and their families. For more information, please visit: https://www.theounce.org/
- The Center for the Study of Child Care Employment, based out of UC Berkeley, conducts research and policy analysis focused on achieving comprehensive public investments that enable the early childhood workforce to deliver high-quality care and education for all children. For more information, please visit: http://cscce.berkeley.edu/

Appendix A: NYC Early Childhood Research Network participants

Network partners.

Foundation for Child Development

- Jacqueline Jones, President and CEO
- Sara Vecchiotti, Chief Program Officer
- Naomie Macena, Program Officer

New York Early Childhood Professional Development Institute

- Sherry Cleary, Executive Director
- Kate Tarrant, Director of Research and Evaluation

▶ Network city agency partners.

NYC Administration for Children's Services

• Brenda Henry, Chief Operating Officer, Division of Early Care and Education

Office of the Mayor

• David Berman, Director of Programs & Evaluation, Mayor's Office of Economic Opportunity

NYC Department of Education

- Joshua Wallack, Deputy Chancellor, Strategy and Policy
- Amudha Balaraman, Manager, Research and Evaluation
- Ailish Brady*, Director, Research and Policy Support Group
- Sophia Pappas*, former Chief Executive Officer, Division of Early Childhood Education
- Sabrina Silverstein*, former Executive Director of Teaching and Learning, Division of Early Childhood Education

NYC Department of Health and Mental Hygiene

- Katharine H. (Tina) McVeigh, Director of Research, Division of Family and Child Health
- Abigail M. (Jewkes) Velikov, Senior Director, Early Childhood Health and Development Unit
- George L. Askew*, Deputy Commissioner, Division of Family and Child Health
- Kelvin Chan*, former Director of Early Childhood Development, Bureau of Child Care
- Frank Cresciullo*, former Assistant Commissioner, Bureau of Child Care

Network research partners.

Bank Street College of Education and the National Center for Children in Poverty at Columbia University Purpose: Examination of leadership capacity and an exploration of what center and public school instructional leaders do to support teaching staff and foster high-quality instruction in UPK classrooms.

- Faith Lamb-Parker, Senior Research Scientist, IPR; Founder of the Center on Culture, Race, and Equity at Bank Street College of Education
- Sheila Smith, Director, Early Childhood National Center for Children in Poverty at Columbia University
- Veronica Benavides, Deputy Director, Center on Culture, Race and Equity
- Rima Shore*, Director, Adelaide Weismann Center for Innovative Leadership in Education

Fordham University

Purpose: Examines relationships between teacher characteristics and preparation, instructional practices, supports provided to dual language learners in classrooms, and the concentration of dual language learners by number and linguistic diversity.

- Chun Zhang, Associate Professor and Chair, Division of Curriculum & Teaching
- Tiedan Huang, Assistant Professor, Division of the Educational Leadership Administration and Policy
- Nancy Gropper*, former Interim Associate Dean for Academic Affairs of Graduate School of Education
- Virginia Roach*, Dean of Graduate School of Education

Hunter College of the City University of New York

Purpose: Investigation of the ways in which teaching staff involved in curricula planning find and use formative child assessment tools tied to specific curricula to support their pedagogical decision-making in daily practice and curricula implementation.

- Lacey Peters, Assistant Professor, ECE Department of Curriculum and Teaching
- Sherryl Browne Graves, Professor of Psychological Foundations; Acting Senior Associate Dean, School of Education

MDRC

Purpose: Support for the coordinated sampling strategy and recruitment for research study teams.

- JoAnn Hsueh, Deputy Director and Senior Research Associate, Family Well-Being and Children's Development Policy
- Sharon Huang, Senior Associate, Family Well-Being and Children's Development Policy
- Meghan McCormick, Research Associate, Family Well-Being and Children's Development Policy

Note: Individuals are listed by principal investigator/co-principal investigators first, followed by alphabetical order.

National Center for Children and Families at Teachers College, Columbia University

Purpose: A comparison of teacher characteristics, professional development supports, instructional approaches, and program structures across UPK settings, governance structures, and communities.

- Lynn Kagan, Co-Director, National Center for Children and Families; Virginia and Leonard Marx Professor of Early Childhood and Family Policy; Director, Office Policy and Research; Professor of Early Childhood Policy; Associate Dean of Policy
- Jeanne Brooks-Gunn, Co-Director, National Center for Children and Families; Virginia and Leonard Marx
 Professor of Child Development at Teachers College and the College of Physicians and Surgeons at Columbia
 University.
- Jeanne Reid, Research Scientist, National Center for Children and Families
- Samantha Melvin, Graduate Fellow, National Center for Children and Families
- Anne Martin*, former Senior Research Scientist, National Center for Children and Families

New York University, Institute of Human Development and Social Change

Purpose: A study of how teachers with different levels of teacher qualifications are distributed across UPK classrooms and an examination of ways that administrators and teachers understand and use data about classroom quality to inform professional development and classroom practice.

- Cybele Raver, Vice Provost, Research and Faculty Affairs
- Pamela Morris, Professor of Applied Psychology; Vice Dean for Research and Faculty Affairs, NYU's Steinhardt School of Culture, Education, and Human Development
- Elise Cappella, Associate Professor of Applied Psychology; Interim Deputy Director, Institute of Human Development and Social Change; Co-Director, IES Predoctoral Interdisciplinary Research Training Fellowship
- LaRue Allen, Raymond and Rosalee Weiss Professor of Applied Psychology; Chair, Department of Applied Psychology; Director, Child and Family Policy Center
- Travis Cramer, Research Assistant
- Carlos Quirola*, Data Analyst

Rutgers University—The State University of New Jersey, National Institute for Early Education Research

Purpose: Identification of the professionals within the current coaching/PDI workforce system who are working within UPK programs; an examination of how these support professionals use their time; and an exploration of how they perceive their roles as influencers of early care and education practice.

- Sharon Ryan, Research Fellow; Assistant Professor of ECE, Department of Learning and Teaching, Graduate School of Education
- Steve Barnett, Director; Board of Governors Professor
- Alexandra Figueras-Daniel*, former Associate Research Professor
- Shannon Riley-Ayers*, former Associate Research Professor, Center on Enhancing Early Learning Outcomes (CEELO)
- Rebecca Gomez*, former Assistant Research Professor

Research Foundation of the City University of New York, Borough of Manhattan Community College

Purpose: A study of the recruitment, retention, professional development, and mentoring of male educators in the implementation of the UPK system.

- Jean-Yves Plaisir, Full Professor, Teacher Education
- Kirsten Cole, Assistant Professor, Teacher Education
- Mindi Reich-Shapiro, Assistant Professor, Teacher Education
- Meghan Fitzgerald Raimundo*, Assistant Professor, Teacher Education

Research Foundation of the City University of New York, City College of New York and Teachers College, Columbia University

Purpose: Investigation of high-quality instructional and family involvement practices that are responsive to families from low-income, immigrant, linguistically, and culturally diverse backgrounds in the UPK system.

- Beverly Falk, Professor/Director, Graduate Programs in ECE at the City College of New York; Affiliate Faculty,
 CUNY Graduate School of Education
- Mariana Souto-Manning, Associate Professor, Department of Curriculum & Teaching; Director,
 Quality Universally Inclusive Early Responsive Education (QUIERE) at Teachers College, Columbia University

Note: Former Network participants are noted with an asterisk (*).

Appendix B: Research network study descriptions (as of October 2017)

RESPONDENTS SAMPLING STRATEGY DATA COLLECTION Bank Street College Instructional leaders • 36 sites will be selected across three CDs Education directors for observations and interviews and the National Center for including time use protocol at all 36 sites. Education directors • Selection will prioritize site, principal, and **Children in Poverty,** education director stability, as well as schools Teachers/assistant teachers for observations and • Deputy education directors **Columbia University** serving low-income populations interviews: three to five classrooms (each with (where this role exists) Purpose: teacher/assistant pair) will be identified at each • There is a representative sample of community Teachers Advance knowledge and site depending on program size. vs. school-based sites offer actionable policy Assistant teachers Principals/assistant principals for interviews: recommendations regarding Principals (or assistant principals) of all 36 sites Principals factors that help or (if present). hinder education directors' Assistant principals (where this role exists) Three data collection points, in-depth data (EDs) efforts to support Other interview subjects: Representatives of collection with subsample at time two. high-quality classroom practices. NYCDOE, ACS, and DOHMH responsible for recruiting, hiring, supporting and/or supervisina EDs and families. **Borough of Manhattan** Male educators: 20 different ECE sites within the NYC UPK system; The first phase of data collection focuses on **Community College** Projected number of participants: 20-25 participants are recruited from NYCDOE schools and gathering descriptive statistics through surveys. Number of participants recruited to date: 60 UPK/ECE sites in designated community districts This helps to explore the initial differences Purpose: between male NYC UPK/ECE educators and other Analyze recruitment, retention, The project will gather comparison data from participant sets. The initial findings will inform the mentoring, and professional elementary and secondary schools within the next and longer data collection phase when more development (PD) efforts that same CDs. in-depth interviews, focus groups, and place-based support ECE male educators to observations will be used. optimize instructional classroom practices. The researchers use research methods that attend respectfully to the ethnic, linguistic, and cultural

City College of New York and Teachers College, Columbia University

Purpose:

Identify teaching practices, classroom environments, family involvement practices, and organizational structures and policies that are responsive to and sustaining for children and families from culturally and linguistically diverse (non-dominant) backgrounds.

- Educators
- Families
- Children
- Administrators
- Community members

One UPK program in a DOE and two NYCEEC sites (nine sites altogether) will be selected from each of the three districts (after ascertaining that they have certified teachers, meet health and safety requirements, and display effective pedagogical practices) based on:

- Review of data ECERS-R or CLASS data
- Recommendations from administrators, teachers, teacher educators, and families (specifically focusing on cultural and linguistic relevance)

We will start with a pilot, observing each classroom in the recommended sites (in 2016-2017) according to a protocol to be developed by the research team, focusing on developmentally appropriate, quality environments as well as cultural and linguistic responsiveness of the program and its classrooms.

diversity of the research participants (i.e., African-American, Asian, Caucasian, Latino, and others).

Each classroom within the identified nine sites will be observed a minimum of two times. Upon pilot observations (if and as needed), we will modify the instrument so that it captures the nuances of quality teaching practices for diverse learners. Following adjustment of instruments, each classroom in the recommended sites will be observed again.

One classroom from each of the three selected sites in each of three districts studied (n=9) will be selected for an in-depth investigation.

RESPONDENTS

SAMPLING STRATEGY

DATA COLLECTION

Fordham University

Purpose:

Examine teaching staff characteristics, professional development, and instructional practices and supports provided in classrooms serving varying concentrations (by number and language spoken) of dual language learners in UPK.

- Lead teachers
- Assistant teachers
- Teachers' gides
- Paraprofessionals
- Program leaders

Stratified random sampling method in drawing 50 classrooms from the designated community districts with varied resource provision and concentrations of DLLs. The stratification variables will include resource provision (limited, moderately, and highly resourced), school SES (percentage of low-, medium-, and high-income families), program delivery model (public school, and NYCEEC), and concentration of DLLs in the classroom (low is defined as less than 20%, medium 20% to 49%, and high 50% and more).

Descriptive quantitative design with the use of multiple sources of data.

Sources: Aspire, NYCDOE, and individual program sites. Additional programmatic data using direct classroom observations, teacher self-report, and survey questionnaires.

Instruments: CLASS, CASEBA, and SASEBA

Survey questionnaires will be used to gather structural and contextual features of each UPK classroom and program and also focus on the educational preparation, professional credentials, in-service training, and ongoing supports that program staff have received to work with DLLs.

Hunter College of the City University of New York

Purpose:

Administrators' and teachers' perspectives on how authentic assessment tools influence daily practices, decisions made about curriculum design, and the teachers' use of assessment to develop a deeper understanding of children's individual needs and interests.

- Administrators
- Lead teachers
- Assistant teachers
- Other support staff
- Parents or primary caregivers

Data collection in 2016-17

Sites: 8

Directors: Head teachers: 13 Assistant Teachers: 12

Parents/primary caregivers survey: 56 Focal families interviewed: 23

Assessment systems used: Teaching Strategies Gold: 3 Work Sampling System: 3

Creative Curriculum COR: 2

Intake surveys:

Intake surveys will be collected from teachers, assistant teachers, site directors/administrators, and parents/caregivers to provide demographic information, as well as information on educational background, qualifications, and experiences in early childhood care and education (of education personnel).

Initial & ongoing interviews with directors, head teachers, assistant teachers, parents/caregivers for case study data: Interviews with teachers, assistant teachers, program directors, and parents/caregivers will use various inquiry strategies to better understand the use of assessments to inform work with children in UPK classrooms and use of assessments to inform practice and communication between teachers, parents, and administrators to triangulate beliefs about the use of assessment in UPK classrooms.

Classroom observations: Observations of teachers during various instructional periods to obtain a full picture of instructional practices across content and domains. Observations of children will be conducted during instructional and free play.

RESPONDENTS SAMPLING STRATEGY DATA COLLECTION National Center for Administrators 1) Administrator survey Sites: Children and Families, Randomly selected 57 UPK programs in nine Teachers • Child demographic characteristics Teachers College, CDs after stratifying by setting (22 school vs. • Funding streams **Columbia University** 35 NYCEEC) • Linkages with CBOs Administrators: Purpose: Comparison of NYC UPK All selected sites (n = 57)Turnover programs across settings Teachers: • PD (school vs. NYCEECs) and Randomly selected one UPK classroom per site agencies (DOE, Head Start, Ratios (n = 57). In sites that differentially allocate Early Learn) funding streams across classrooms, selected • Teacher compensation additional classrooms to represent distinct funding 2) Teacher survey blends (n=9). (Total n=66). • Qualifications Administrators (n=16) and teachers (n=14) for • Autonomy, job satisfaction interviews • Mental health Economic security PD Compensation • UPK implementation 3) Administrator and teacher interviews • Strengths and weaknesses of UPK implementation in each site 4) CLASS observations in each sampled teacher's classroom 5) Child demographic data from NYCDOE for children in classrooms led by our sampled teachers

New York University

Purpose:

Equity of distribution of teachers with different qualifications.

Use of data to inform PD and teaching practice.

Flow of information among teachers, leaders, PD providers, etc. Every adult who has a professional role at their site will be included in the sample.

- A stratified randomly selected sample of 45 programs across those three CDs
- A stratified and representative sample of 36 classrooms from within the 45 programs that will have participated in the social network mapping (12 from each of the three CDs)
- Within each CD, selection criteria will ensure
 the inclusion of teachers/administrators:

 (a) in NYCEECs and district dchools,
 (b) across
 each of the PD lanes,
 (c) with high
 centrality and low centrality in networks

Analysis of teacher qualifications using Aspire and DOE data.

Workforce relationships will be assessed via a survey completed by all staff from all randomly selected sites in each of the three CDs. We will conduct social network analysis to determine staff who are central in their sites, staff who are peripheral or isolated, prevalence of cross-site connections, and site network density.

During the school year, open-ended interviews and three to four hour classroom observations will be conducted with each of the selected teachers, as well as their program administrator.

RESPONDENTS SAMPLING STRATEGY DATA COLLECTION

National Institute for Early Education Research (NIEER), Rutgers University

Purpose: Early childhood (EC) coaches' time use and impact.

Analysis of how coaches and other technical assistance providers spend their time.

Coaches and professional development specialists working at ACS and DOE

We will work with city officials to map the current system of PD supports. This information will then inform the identification of coaches and PDI for participation.

39 participants have been recruited so far for time use interviews.

At three points throughout the school year, we will conduct structured interviews with the identified coaches for the purpose of completing a time use diary. The time use diary is a retrospective semi-structured interview that asks the participant to reflect and report on the past 24 hours. These reports are then coded to represent the task and record how long was spent on the task.

We are sampling on three different days at three different points in the year to ensure that we capture the ways the work of coaches and other technical assistance providers changes through the year.

The **FOUNDATION FOR CHILD DEVELOPMENT** is a national private philanthropy based in New York City that supports research to help researchers, policymakers, and advocates develop high-quality, evidence-based early childhood systems to serve the needs of all children. The Foundation focuses on identifying areas of child well-being where there is little to no research in order to fill those gaps, build new fields of knowledge, and promote policies and practices that improve the lives of young children and their families.

FOUNDATION FOR CHILD DEVELOPMENT

Connecting research, policy and practice to create systems that work.