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8-23-2016

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Recommended Citation

Rebekah L. Dorman, Elizabeth Anthony, Billie Osborne-Fears & Robert L. Fischer (2017) Investing in high quality preschool: lessons from an urban setting, *Early Years*, 37:1, 91-107, DOI: 10.1080/09575146.2016.1228614

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Investing in high quality preschool: Lessons from an urban setting

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Abstract

Large numbers of low income children in the United States arrive at kindergarten already far behind their more affluent peers on measures of school readiness. In the absence of any federal preschool policy and amidst alarm about this growing divide, universal prekindergarten (UPK) programs have been launched around the United States, at both the state and local levels, to address the school readiness gap. Invest in Children, a public/private partnership in Cuyahoga County (Cleveland, Ohio) launched a UPK program of high quality, affordable preschool nine years ago. The program's creation, implementation and challenges are discussed along with evaluation findings that document its positive impact on school readiness. Lessons learned are discussed in terms of the impact of political and economic shifts, as well as state policy changes, on this local program. The program's planned expansion and enhancements to program design and evaluation are also described.

Keywords: early childhood; prekindergarten; school readiness; preschool

The American Dream is that with hard work, determination, and initiative, every child growing up in the United States has the opportunity to become “anything they want to be.” But, statistics on poverty, racial disparities and educational achievement reveal that for far too many low income and minority children, this is more myth than reality. As stated in a recent bipartisan report, “*The poor prospects for children born into poor families are an urgent national concern. This state of affairs contradicts our country’s founding ideals.*” (AEI/Brookings 2015, 8)

In fact, research suggests that the achievement gap between affluent and poor students is widening and even exceeds the deep racial divide between African American and White students’ academic outcomes in the U.S. (Reardon 2011). This gap, evident at age six when American children begin kindergarten and enter into the formalized U.S. educational system, (Reardon and Portilla 2015) is now referred to as a gap in “kindergarten readiness.” Typically measured by tests of literacy- and numeracy-related skills, recent findings suggest that less than half of children living in poverty (households with incomes below 100% of the federal poverty standard) are ready for kindergarten compared to 75% of children from families with incomes above 185% of federal poverty (Isaacs 2012).

The situation in the United States is compounded by the fact that, in the absence of a federally funded high quality preschool system, children in greatest need of a high quality prekindergarten experience are often the least likely to get it. According to LoCasale-Crouch et al. (2007) their analysis of 676 prekindergarten classrooms across eleven states revealed 19% were ‘poor’ in both emotional and instructional support. Compared to the 15% of classrooms that were rated ‘high’ in these domains, the poorest quality classrooms were disproportionately comprised of racial minority students whose mothers had low educational attainment and whose families were living in poverty.

In seeking answers to address this disparity in the United States, outcome studies on the impact of high quality early education programs provide a reason for hope. The research on positive short- and long-term outcomes for children who attend high quality early educational programs demonstrates that if low-income and minority children receive a high quality early educational experience, they will be better positioned for a path to success (Barnett 2008). This viewpoint is shared by leaders around the world who have increasingly sought ways to expand access to high quality educational programming for preschool age children. The World Organization for Early Childhood Education and the Association for Childhood Education International have passed resolutions on the importance of early childhood and created global guidelines calling on leaders to enact policies and practices for comprehensive, high quality early childhood education and care. A 2001 comparative analysis from the Organisation for Economic Cooperation and Development (OECD) examined educational policy in 12 countries, highlighting the most promising strategies for promoting early childhood well-being. Gambaro, Stewart, and Waldfogel's (2014) recent volume updates OECD's work, focusing specifically on how policies in eight countries affect access to preschool among low-income and otherwise marginalized children, and outlines a number of policy and implementation challenges facing these countries, which include the U.S. But, despite these challenges, the most recent report from OECD (2015) shows that preschool enrollment is rising steadily around the world with the exception of the United States, which lags far behind in the percentage of children enrolled in preschool. Only 66% of American four-year-olds were enrolled in preschool in 2013 in comparison to 88% among all OECD nations.

In the absence of federal policy and with increasing concerns about the achievement gap, state and local governments in the United States have taken action and universal prekindergarten (UPK) programs have been created throughout the U.S. Most are created with the goal of changing the odds for low-income children, and that goal is the justification for the significant public funding required. However, there is no single definition of a UPK program--programs with widely varying eligibility criteria, structures and standards use the term. Each program exists within its own political, economic and demographic context and funding mechanisms vary considerably. Most programs, like the one described in this paper, build upon existing preschool providers, while smaller programs (San Antonio, Texas) have built a system from scratch. Each program faces the challenge of defining and then ensuring high quality standards, while operating within the context of government administered quality rating systems (QRIS) that vary across the country. As of August 4, 2016, the QRIS National Learning Network summarized the current state of quality indicators across the country on their website in the following way: For center-based early care and education the most commonly represented indicators across QRIS are those related to the environment, included in 39 of 40 systems (98%). This is closely followed by indicators related to staff qualifications and training, which are included in 38 QRIS (95%). Family partnerships and engagement; program administration, management, and leadership; and curriculum are also incorporated into the center-based indicators for most QRIS (90%, 88%, and 83% respectively).

Despite programmatic differences, evidence from several large-scale, state-funded UPK programs in Georgia, Oklahoma, and New Jersey has shown substantial improvements in preparing children for kindergarten (Fitzpatrick 2008; Gormley and Gayer 2005; Barnett, Lamy, and Jung 2005). At kindergarten entry, children who attended state-funded preschool programs

in Oklahoma, Michigan, New Jersey, South Carolina, and West Virginia performed significantly better in the areas of reading, writing, spelling, math reasoning, and problem solving than children who did not attend the program (Gormley et al. 2005; Barnett et al. 2005). The largest benefits have been found among low-income and minority children; results that are mirrored in programs around the world (Gambaro et al. 2014). These positive outcomes are heartening, and play a crucial role in convincing U.S. policymakers to invest in UPK.

At the same time, some longitudinal data has shown a “fade out” effect or gradual erosion of early academic gains as the child progresses through the elementary grades. For example, recent longitudinal results from Tennessee’s state-wide voluntary prekindergarten program found that children enrolled in the program were considered better prepared for kindergarten by teacher ratings and literacy scores, but by second grade these same children scored lower in measures of achievement than control children (Lipsey, Farran, and Hofer 2015). Critics use results such as these to question the wisdom of additional investments in early childhood education. However, advocates and critics alike agree that more research is needed to understand why, in many studies, the superior academic scores of children who have attended UPK diminish over time, when compared with those who have not attended a high quality program. Research is just beginning to emerge that documents how later school quality impacts those earlier cognitive gains, a finding that until now has been hypothesized but not documented (Swain, Springer, and Hofer 2015).

We understand why most studies of preschool impact have focused on academic gains: the data can be gathered from educational records, they are straightforward and easy to understand, and are viewed as a direct measure of school success and closing the academic achievement gap. However, the early childhood education field prides itself on being responsive

to and affecting “the whole child” including social/emotional development. And, in fact, the most robust longitudinal outcomes are “real life” outcomes such as high school graduation, higher earnings and reduced rates of teen pregnancy and criminal activity (Yoshikawa et al. 2013) These are the outcomes that economists, most notably Nobel Laureate James Heckman, have monetized and used to calculate a high return on investment, presenting a very convincing argument for expanding high quality early childhood education (Heckman 2011). An interesting unanswered question is whether we can identify and measure the precursors of those positive life outcomes during preschool. Yoshikawa et al. (2013) point out that a fruitful path for future research is to understand why *despite the diminishing academic impact*, the significant long term effects occur.

With the backdrop of the American context described above, in the remainder of this paper we examine the experience of the UPK program in Cuyahoga County, Ohio, including its creation, implementation and challenges, along with the outcomes that were observed in children who participated. This case example illustrates one community’s path to an investment in high quality early learning as well as how the program weathered the changing political and economic environment that presented challenges to its existence early on, but, most recently, has presented significant opportunities for enhancement and expansion. Lessons learned on both implementation and evaluation, as well as future plans for the initiative, will be discussed.

Creating the Universal Pre-Kindergarten Pilot in Cuyahoga County, Ohio

Cuyahoga County, Ohio has a population of 1.3 million with approximately one-third of the residents living in the City of Cleveland, an urban core that is one of the poorest cities in the U.S. In 1999, with the backdrop of welfare reform (which created work and training

requirements as a condition of receiving cash assistance), and the emerging research on early brain development, private foundations joined with county government to create an early childhood initiative to provide an array of services from the prenatal period until kindergarten. A particular focus of the newly created service system (now known as Invest in Children) was the expansion and then quality improvement of child care options for low income families. From 1999-2004, millions of dollars were directed to expand child care programs in the county. Initial concerns focused on increasing quantity to ensure that there were sufficient child care places for the children of low income mothers who must now go to work or training to preserve their cash benefits. Once capacity had expanded sufficiently, the focus quickly turned to quality, and funding was used for training and professional development activities for both child care centers and family child care homes (private homes inspected and licensed by the state to serve up to six children).

Invest in Children, the public/private partnership staffed by the Office of Early Childhood in county government, provided funding and oversight for these activities. Starting Point, the local nonprofit, non-governmental organisation (NGO) designated as the regional resource and referral agency for child care, was responsible for implementation. At the end of that five-year period, a strong foundation of high quality programs had been created throughout the county. At the state level, Ohio had created a voluntary, tiered, quality rating and improvement system known as Step Up To Quality (SUTQ). SUTQ ratings are based on the extent to which a program incorporates structures, policies, and practices that have been shown, through research, to improve child outcomes. Therefore, by the mid-2000's, local and state government sent a strong message to early childhood educational providers encouraging a higher quality standard beyond the minimum expectations for health and safety required for licensing. Thus, with the SUTQ

rating system in place, and after five years of work to enhance child care quality throughout the community, Invest in Children embarked on a strategic planning process to create a UPK pilot program.

Creation of UPK: Stakeholder Engagement is Key

To create the program model for UPK, a task force of over 100 community members was assembled from the public and private sectors, and national experts were hired to serve as consultants in the planning process. Several studies were conducted to inform decision-making. Statistics were gathered to determine whether there was the capacity and quality in the current mixed-delivery system (public preschools, private centers and family child care homes) upon which to build a UPK program. Consultants conducted focus groups and interviews with community stakeholders to determine the program components, teacher qualifications, and scholarship eligibility. These findings were compiled and used to create the final UPK model that has been in effect for nine years with very little alteration. A national financing expert was then retained to determine the funding formula that would be used to help programs reach and maintain the higher level of quality that is required of UPK sites.

Stakeholder engagement in planning was key to our success in achieving community buy-in and support. Program standards were set high, and this can be a challenge for providers, but the provider voice was at the table when they were created to ensure they were realistic. Another core element of the program's success rests on the decision to build UPK upon the early childhood mixed-delivery system, recognizing that quality exists in all types of settings and that parent choice in choosing the best type of setting for their child should be respected.

At the same time that Invest in Children was considering the creation of a local UPK program, the Ohio Board of Education had convened the School Readiness Solutions Group to

create a comprehensive early learning system for children in the state. Fully cognizant of the state planning process, Invest in Children aligned the standards of its UPK program with the recommendations of the School Readiness Solutions Group, knowing that Cuyahoga County would likely initiate its pilot program before the state would move to implementation, and it could therefore serve as a model for the statewide program.

There was every expectation that with the State Board of Education's acceptance of the School Readiness Solutions Group's recommendations, Ohio would eventually move to create a statewide UPK program. Instead, an economic downturn and a change in state leadership meant that a statewide UPK program would not come to pass. This was a big disappointment to local leadership, and meant that a shift was needed in how we regarded the program. It could no longer be considered a pilot program, but was clearly far from living up to its universal designation.

Since then, many enhancements to Ohio's early education system have occurred, perhaps the most sweeping being the requirement that by 2025 all center-based child care programs and public preschools that receive public funding must be rated high quality according to SUTQ standards. This state push towards high quality is a very favorable development.

What We Mean by Universal Pre-Kindergarten

The use of the term "universal" underscores the aspiration of the UPK Planning Task Force; the vision was a steady and gradual increase in the number of children served until it was truly a universal program able to serve all county families with preschool children (three years old-kindergarten). Unfortunately, the county, like the state, felt the impact of the economic downturn and has only been able to expand in a limited way. Currently, approximately 2000 children are served each year with annual funding of \$4.7 million dollars. However, in 2016

county government unveiled a bold new plan that will double the number of children served, bringing total annual capacity to 4,000 children. New public funding of \$10 million has leveraged \$12 million in private funding from corporations, foundations and private individuals. In addition, serious efforts are now underway to develop a sustainability and advocacy plan that would identify a different ongoing source of revenue and allow the program to expand even further.

Becoming a UPK Provider and Taking Quality Even Higher

Existing child care programs interested in becoming UPK providers compete via a Request for Proposal process. Initially, any provider that had been rated in the SUTQ system was able to apply, but as time progressed a higher bar was set. Currently, only programs that are rated three stars or higher in the five star system, and therefore deemed “high quality” in SUTQ are eligible to apply. Each applicant must demonstrate that they meet UPK’s higher standards and also offer a plan for how they will utilize the additional funding they receive to enhance their program quality even further. While there are guidelines for how these funds can be used, considerable flexibility is offered to programs to use the funding in the way that benefits that program most effectively. Programs may use the funding to improve teacher salaries and benefits, purchase new equipment and materials, pay for field trips, bring in specialized programs, or pay for professional development for staff. In some instances, programs simply pay for more teacher hours, recognizing that certain aspects of the UPK program require much more from staff. Flexibility in how programs spend UPK dollars allows creativity and variation among UPK programs—it also poses some additional challenges for conducting a process evaluation. While overall quality improvement within the programs has been measured and is reported later in the paper, the impact of these varied enhancements upon child outcomes has not

yet been documented. We believe that more attention should be paid to documenting the variations that occur in high quality child care settings beyond the widely accepted standards. We recognize that this is a fruitful direction for further research and will therefore include it in the evaluation of our expanded program.

The amount of funding a program is awarded depends on the gap between the revenue the program receives from all public and private sources and the calculated cost of providing high quality education and care in Cuyahoga County, Ohio. The “true” calculated cost was derived by a national expert in child care financing based on the higher standards set by UPK. Thus, UPK funding is considered “last dollar in” and builds upon all of the other funding sources available to programs.

Cuyahoga County began to pilot its UPK program in the fall of 2007 with 1,000 of the county’s approximately 32,000 preschool-aged children. Over the past nine years, over 8,000 children have participated in UPK. Forty-eight percent served lived in the City of Cleveland and the remaining 52% in the surrounding suburban neighborhoods, nearly evenly divided between boys and girls. The children were 53% African American, 40% White, and 7% of another race/ethnicity. Sixty-five percent of the children came from families living under 200% of the federal poverty level.

UPK: A Mixed Delivery System of High Quality Providers

A significant decision made by the program planners was to build UPK on the system of high quality preschool programs already in existence in an array of settings: public preschools, Head Start sites, private centers and family child care homes. Programs around the country have varied in this respect, with some relying primarily on public preschools (Oklahoma); some building programs from scratch (San Antonio, Texas) and others, like New York City, operating

in partnership with a diverse array of programs similar to Cuyahoga County. The decision to deliver UPK in a variety of settings was based on the fact that the capacity study, alluded to previously, revealed a sufficient supply of quality providers that could apply to become UPK providers. It also reflects a local value of respecting both high quality providers operating in the community and the role of parents in determining the best type of program for their child. We believe that we are the only UPK program (or one of the very few) in the U. S. that includes licensed family child care homes in our network.

Program Standards and Variability

Cuyahoga County's UPK program includes the structures and processes present in high quality preschool classrooms in other states' successful UPK programs. Classroom size is limited to twenty children, with a staff-child ratio of 1:10. Lead teachers must have at least an Associate's Degree (2-year degree) and be working on a professional development plan to move to a Bachelor's Degree (4-year degree). The curriculum must be from an approved list that is consistent with Ohio's Early Learning Content Standards. There are requirements related to family engagement and providing referrals to community resources to families with other needs.

Family Engagement

The active engagement of families in their child's education is widely recognized as a contributor to the child's educational success (Hara and Burke, 1998). The preschool period provides an ideal opportunity to welcome and engage families in a way that will serve as a model for their future involvement in their child's schooling. Invest in Children's UPK program was the first preschool initiative to adopt the Epstein Model of Family Engagement, a research-based model developed for the K-12 System and adapted in Cuyahoga County for the UPK program (Epstein, 2011). Each UPK site develops a Family Action Plan with input from program staff

and parents that clearly delineates how the program will enact each of the Epstein Model's standards. In addition, a Family Engagement theme is selected each year (e.g., Learning through the Arts, Cultural Diversity) and each Family Action Plan must incorporate that theme.

While the Epstein framework has worked well, we are now exploring an even more robust approach to family engagement—one in which the parents' needs are considered more fully and in combination with the child's. This is now being referred to widely as the Two Generation approach (Schmit et. al 2014). Instead of referring families to community resources, those resources are brought to the UPK families and integrated into the UPK model. Meeting parents' needs is conceptualized as integral to meeting the needs of children.

Program Administration

The program administration is managed by Invest in Children in collaboration with Starting Point. Although monitoring and accountability are vital, as the program is funded with public dollars, it was deemed important to separate this function from the ongoing technical assistance that the program receives. Therefore, contracting, payment, and monitoring of all program requirements rests with Invest in Children while training and technical assistance resides with Starting Point. Continuous quality improvement occurs throughout the year via a Technical Assistance Specialist from Starting Point who makes monthly visits to each program. Each year, Invest in Children staff make unannounced visits to review both program administration and classroom operations. Programs are assessed using a standardized tool and given a report of the findings. In some cases, a corrective action plan has been required when a program has fallen short of meeting UPK quality standards. The reports from the unannounced visits are provided to the technical assistance specialists for their follow through with helping the programs address the issue. Programs provide monthly computerized attendance reports and are

paid based on child enrollment. In addition, they must submit documentation to show that they are utilizing the program dollars to enhance quality in accordance with the budget they submitted.

Making the Program Financially Accessible

UPK is truly universal in one sense: the program is open to all children. However, scholarships have been provided to families whose income is at or below 400% of the Federal Poverty Level (\$97,000 for a family of four in 2016.) These families receive a one-third reduction in their parent fee and that is paid directly to the program. Currently, approximately half of the children in the program receive a scholarship and another 17% attend at no charge because they are in slots for very low-income families that have no fee attached (e.g., Head Start).

Program Challenges

Staff Turnover

Despite the additional funding that programs receive through UPK, it is not enough to raise the salaries and benefits of teachers with Bachelor's Degrees so that they are commensurate with those of public preschool teachers. Thus, while UPK encourages staff professional development, particularly to attain a Bachelor's degree, once teachers receive that credential it becomes much more likely that they will leave for a position in a public preschool where their compensation will be considerably higher and they will receive an excellent benefits package. This is an issue of national concern that has no apparent answer. There is an irony that programs intended to help raise children out of poverty have a workforce that is so underpaid, and that UPK programs like ours require a higher level of teacher credential and professional development, but are not sufficiently funded to lift salary levels in private providers to those of

public preschool. Still, providers report that the ability to use UPK funds to raise compensation, even a relatively small amount, has had some positive impact.

Underenrollment

Maintaining full enrollment is key to a program's overall financial well-being, and their ability to draw down the UPK funding which depends on the number of children served. Despite the higher quality of UPK providers, and the financial scholarships for families, many sites still experience under-enrollment. We believe several factors account for this. First is cost. Even with a UPK scholarship, some low income families still cannot afford the parent contributions. Such fees, after the scholarship is provided, may still be in the \$5,500-\$8,000 range annually. For families whose incomes are above eligibility for a State of Ohio child care subsidy, this is an annual financial burden many families cannot bear. To begin to address this issue, we are increasing the scholarship amount for families with income less than 200 percent of the federal poverty level from one-third to one-half of the parent fee and will track whether enrollment is positively affected.

Another significant obstacle to full enrollment is the location of programs in relation to where families reside or work. Families who have unreliable transportation, or who rely on public transportation, find it very difficult to travel long distances with a young child in tow, especially during the winter. The near-term solution we have focused on is ensuring a supply of high quality providers throughout the county. Providing transportation is not a practical solution for Cuyahoga County with over 30 sites spread across the county that will soon be doubled to 60.

Managing Accountability

As a publicly-funded program that is administered by county government, UPK requires a significant amount of documentation to ensure accountability. Providers must document family income eligibility for scholarships and maintain computerized daily attendance records in order to receive payment. They are also required to document that they have *spent* the funding on the quality improvements specified in their budgets. These requirements can be time-consuming, especially for small providers with limited administrative staff. In fact, some providers use a portion of their UPK funding to pay staff for the extra time it takes to maintain documentation. On the administration side, Invest in Children staff spend a considerable amount of time reviewing the monthly documentation, catching errors and omissions and helping providers understand the correct procedures. Although we are proud of the level of accountability in the program, ensuring that funds are serving children who are actually attending and paying for quality enhancements, it clearly comes with a hefty investment of time and energy by providers and administrators.

Continuing Changes in State Policy

Local UPK initiatives are subject to policy and funding shifts that occur at the federal, state and local levels. While the UPK program model was originally created to be consistent with emerging state standards of quality, State of Ohio rules have continued to evolve and change over the course of the nine years the UPK program has been in operation. Thus, despite local control over our program design and evaluation, our UPK program can be significantly affected by state policy changes. And, depending on the change, the program can be strengthened or weakened.

When the global economic downturn occurred in 2008, the income eligibility for public subsidies for families was tightened so that fewer families qualified. This meant the need for

UPK scholarships was greater. And, as described earlier, we believe narrower eligibility for public subsidies has continued to hamper enrollment. Over time, eligibility has been somewhat expanded so that families at 130% of the federal poverty level now qualify for intake to the child care subsidy system, but this has not returned to the original level of 200% of poverty when our UPK program began. Because our model is “last dollar in”, any policy that results in less funding in the system, means that our local dollars must make up the difference to preserve funding and the level of quality that we require. As state policies continue to change, we are increasingly in the position of needing to advocate at the state level, joining with other communities around the state who are implementing local preschool initiatives.

The reduction in state funding for the scholarship program that supports child care staff in pursuing professional development, including both the two year Associate’s Degree and Bachelor’s Degree, is a great concern. We recognize that well-qualified staff are the core of what makes a preschool program high quality, and credentials bring increased salary level expectations. Our program expansion can only continue to occur and go to scale if the professional staff capacity is there. However, as we have noted earlier, it is not realistic for local initiatives to have enough financial resources to raise salary levels in private providers to the level that school districts are able to afford.

On a more positive note, the quality rating system, SUTQ, evolved from a three-star to a five-star continuum. In response, the eligibility to become a UPK provider moved from being rated in the system to being rated at the three-star level or above, which the state now officially recognizes as high quality. Having a state sanctioned definition of high quality, which now serves as the eligibility criterion for programs to apply to become UPK , has been a helpful

change, as are the coming deadlines that require programs receiving public funding to be rated in the system by 2020, and highly rated by 2025.

Program Evaluation

Pilot Year

A fundamental goal of the UPK pilot was to invest in the quality of care in participating sites to enhance child outcomes. As described earlier, while certain high quality standards had to be met, programs were also able to utilize funding to enhance quality in ways of their choosing. To assess whether, in fact, quality did increase in the center-based sites, a standardized measure of structural quality of care was administered mid-program year in 2008 and 2009. The scores on the Early Childhood Environment Rating Scale –Revised (ECERS; Harms, Clifford, & Cryer, 1998) showed statistically significant ($p < .05$) improvements on all subscales and the total ECERS score between 2008 and 2009. The overall ECERS score improved by 18% and the largest gains were found in the areas of personal care routines (30% increase) and activities (35% increase).

While it is encouraging to observe increased quality in the sites, the more pressing question was whether higher quality translated into improved child outcomes. To assess child cognitive development during the initial year of the pilot (2007-08), a stratified random sample of 208 children representing all UPK sites was drawn. Cognitive outcomes were measured using the Peabody Picture Vocabulary Test (PPVT-III), as well as 2 subtests of the Woodcock Johnson III: Letter/Word Recognition (WJ-LW) and Applied Problems (WJ-AP). The PPVT-III measures receptive language skills; the WJ-LW measures the child's ability to recognize words and letters; the WJ-AP measures children's beginning math skills. Children were assessed at three different time points. Data analysis supported four conclusions: First, the results showed that achievement

improved for children who were most at-risk at baseline (started below the 50th percentile). Second, achievement remained relatively flat for children who were between the 51st and 75th percentile at baseline. Third, while scores decreased for those above the 76th percentile, the decrease was only significant on the PPVT. This result suggested an urgency to examine the educational needs of high-performing students. Fourth, the magnitude of the gains for the most at-risk children exceeded the gains to be expected from simply having a preschool experience, and are comparable to the gains found in larger-scale high quality UPK initiatives around the U.S.

Five-year Evaluation of UPK

During its first five years of operation, two analyses were conducted to examine child cognitive outcomes: (1) analysis of data on cognitive development before and after UPK participation; and (2) analysis of data on kindergarten readiness for UPK participants. The Bracken School Readiness Assessment (BSRA-3) was used in the first analysis. Consisting of five subtests to assess basic concepts related to school readiness (i.e., letters, numbers/counting, size/comparison, shapes), the Bracken was administered by independent consultants (not the child's UPK teacher) in the fall and spring through direct interaction with each child. The following results are based on data from 1,031 children who participated in UPK during the 2010-11 and 2011-12 years (see Table 1).

(Table 1)

On average, children showed statistically significant gains on all five Bracken subscales over the course of the UPK year. Bracken scale developers consider a change of 3-points on each subscale to be 'meaningful.' Using this criterion, approximately one-half of children

demonstrated ‘meaningful change’ on the numbers, size, and shapes subscales, 40% on the letters subscale, and 9% on the colors subscale.

In addition to examining subscale scores, the Bracken also allows for the categorization of children based on their individual performance in relation to their age cohort. These categorical ratings are nationally normed and take into account that older children should know more than younger children and are expected to be able to get more items correct. Categorical ratings include ‘Very advanced’, ‘Advanced’, ‘Average’, ‘Delayed’, and ‘Very delayed’.

(Figure 1)

Overall, 60% of students remained in the same category between fall and spring, 26% moved up, and 14% moved down (see Figure 1). By examining the changes by group, we saw that the majority of children who were in the ‘delayed’ categories in the fall had improved by the spring. Conversely, the majority of the children who were in the ‘advanced’ categories in the fall remained in those categories in the spring, while one-third moved down. Among children in the ‘Average’ category, the majority remained there, but by a margin of nearly two to one, they moved up to ‘advanced’ categories (23%) versus moving down to ‘delayed’ categories (9%). These data show that the most delayed children demonstrated the largest gains by the spring term. However, despite substantial gains, many of these children continued to show delayed performance.

The Bracken is designed to predict a child’s readiness for school. To examine their actual readiness, the Kindergarten Readiness Assessment-Literacy (KRA-L) was used. Between 2007 and 2014, in the State of Ohio, the KRA-L was administered by kindergarten teachers during the first three weeks of the fall term (Ohio Department of Education, 2014). Scores range from 0-29

and are divided into three bands: Band 1=0-13, Band 2=14-23, and Band 3=24-29. Children scoring in Bands 1 and 2 are considered unprepared for the kindergarten experience.

KRA-L data on children entering the large, urban metropolitan school district in the City of Cleveland, Cleveland Metropolitan School District (CMSD), between 2008-2012 were obtained and matched to children who participated in UPK during the previous year.ⁱ Figure 2 summarizes the mean KRA-L scores for several subgroups of children. The mean scores for all children in Cuyahoga County and state-wide in Ohio came from reports produced by the Ohio Department of Education.

(Figure 2)

These data show that, on average, children served in UPK settings fare better on the school readiness measure compared to all children entering CMSD and children with consistent participation in UPK scored higher.ⁱⁱ However, UPK children do not fare as well compared to the average for all children in Cuyahoga County or state-wide in Ohio. Figure 3 shows the proportions of children scoring in each of the three bands in each of these groups. These data also show that a larger percentage of children entering CMSD with consistent participation in UPK are prepared for a kindergarten experience compared to the general CMSD population.

(Figure 3)

Overall, these results confirm a positive pattern of cognitive outcomes for children who participated in UPK. They show meaningful developmental gains during exposure to UPK and higher levels of kindergarten readiness compared to peers. In addition, the results demonstrate that the children who showed the largest gains were those who started the farthest behind their peers, suggesting a compensatory effect of UPK exposure. Though the most developmentally

advanced children showed the least gains during UPK, UPK does not appear to negatively impact their kindergarten readiness.

The data presented here are not without limitations. First, children with diagnosed developmental delays are included in these analyses because no systematic data were available to identify them. Inclusion of these children likely reduces the magnitude of the effects observed. Second, kindergarten readiness scores are available only for a subset of children who attended CMSD. Overall, only 13% of the children served by UPK were able to be matched to a KRA-L score from CMSD. A major factor is that nearly half of UPK children lived outside the City of Cleveland and therefore, their KRA-L score would have been collected by other school districts. Presently, data from other districts, charter and parochial schools are not available for analysis. These factors could impact the comparisons made here in a number of ways, but at present, no conclusive evidence is available to make a determination on this impact.

Lessons Learned

Reflecting back over the first nine years of our UPK program, the impact of political and economic forces is now clear to us. The community's emphasis on improving academic outcomes had a significant impact on the mindset and priorities of program administrators and evaluators. For the first five years of operation, we were most concerned with demonstrating the program's efficacy through cognitive measures, and the evaluation design reflects that priority, although there was some measurement of program quality improvement as well. The program was viewed as a "pilot" as we awaited the statewide implementation of a universal prekindergarten program, but due to The Great Recession of 2007-2009, the statewide UPK program never materialized and our local government budget was tightened. As a result, the program was in peril of being completely eliminated.

We were successful in maintaining the program, albeit at a reduced level of funding, but a significant mindset shift needed to occur. We were no longer “piloting” the program in anticipation of a statewide program. This was our local program and we needed to assume full ownership of it and maintain local support from county government.

And then a new challenge appeared: a change in local government structure that no one had anticipated. County government shifted from a Board of three County Commissioners (still the case in 86/88 counties in Ohio) to a charter form of government, led by a County Executive and County Council. With this new political landscape, we were once again concerned about the program’s future. However, by that point, we had evaluation outcomes showing the impact on academic child outcomes, and there was growing attention and support nationally from advocates, media and business leaders for high quality preschool programs.

Our new County Executive added \$2 million to program funding, more than compensating for the previous funding reduction, and we were able to expand, but did not enhance the program model in any way. The expansion itself was a challenge, as the new funding came with little advance notice. Thus, we were preoccupied with managing the expansion and the expanded evaluation, which now included a pre and post assessment of every child-- a change from the sampling technique done originally. However, the Bracken School Readiness Assessment was viewed not just as an evaluation measure, but valuable information for teachers to use to individualize instruction. There were significant logistical challenges with assessing every child in a timely fashion and, although we hoped teachers would see a benefit in the use of the Bracken, in truth it did not work out that way. Teachers had reservations about children being removed from classroom activity and assessed by someone unknown to the child, questioning whether children had performed at their highest potential and results came back to

the sites later than anticipated so teachers relied on other forms of assessment to inform their teaching strategies.

In 2015, a new County Executive was elected who deemed UPK expansion a priority, and under his leadership we are about to double the number of children served. We are at a very exciting moment in Cuyahoga County, as we build upon nine years of UPK implementation to double capacity and enhance the program model. The program's evaluation of academic outcomes, along with other evidence in the literature, convinced the County Executive, County Council and private funders to add \$22 million to expand the program and to seek a sustainability strategy to bring the program to scale. That is significant. We now have an unprecedented level of government and community support for the program and the opportunity to craft an enhanced program with more wide-ranging evaluation goals.

Although the results of the program evaluation that were obtained were influential, we are now engaged in examining how to enhance our program model, and are keenly feeling the lack of a more detailed process evaluation that would guide next steps with data. When government implements large-scale UPK programs, the emphasis on accountability and adherence to quality program standards is understandable. But, once those quality standards have been verified, documenting program variations and ascertaining their impact on children will allow us to expand and refine our definition of high quality.

In our UPK program, sites were monitored for adherence to our required quality standards, and we did not capture innovative or distinct high quality practices that would set a program apart. In fact, a strength of the UPK funding model is its flexibility, in that programs are allowed to spend their quality funds in a way that most benefits their specific program, within

a set of approved parameters. Assessing how those variations may impact child outcomes will improve our understanding of how to maximize program impact.

As we work to enhance the program now, we are relying on providers' feedback, offered in anecdotal fashion. Though this type of input is very valuable, it would be greatly strengthened with data that could support providers' retrospective views and also serve as a baseline to assess whether future program changes produce the desired effects. If we are to advance practice in the field, we need to shift our focus to the variations that occur *among high quality settings* beyond the widely accepted standards and understand their impact on child outcomes - our evaluations must become more nuanced and detailed in their approach.

The effects of a high quality preschool experience on social and emotional development have yet to be demonstrated as clearly as those for cognitive and academic outcomes and the research literature that does exist is decidedly mixed (Yoshikawa et al., 2013). To date, the UPK evaluation has focused upon the widely-accepted types of outcomes for preschool programs with a heavy emphasis on academic preparedness. While the results of the evaluation are encouraging in this regard, other potential outcomes of UPK in the social, emotional, and health realm have not yet been documented; a more nuanced and holistic evaluation of UPK participation will be included in the next phase of the evaluation with a measure of executive functioning included.

Our UPK program, like virtually any government-funded program, is subject to changing political winds and economic shifts. As program leaders and evaluators we have had to respond to those realities, while maintaining the quality and integrity of a program designed to improve children's lives. Our program and its evaluation continue to evolve and remain a work in progress, but the program is now bolstered by strong community support that will allow us to take a more expansive approach to both the program design and its evaluation.

Acknowledgements

The authors wish to acknowledge the UPK providers and families participating in the UPK program for their commitment to the development of young children and the evaluation of the UPK program. We are grateful to the leadership of Cuyahoga County government and the taxpayers of Cuyahoga County, Ohio who have made the UPK program and its evaluation possible. We are also very thankful for the contributions from our philanthropic partners: The George Gund Foundation, PNC Bank and The Cleveland Foundation.

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ⁱ Among the sample of UPK children, 963 records had suppressed names, 279 records had no UPK attendance data, 2,071 children lived outside Cleveland, and 920 children had no KRA-L score in CMSD data.

ⁱⁱ Consistent participation (“high dose”) is defined as a child being enrolled in UPK for 9 months or more and having at least 16 days of enrollment per month (average or 4 days per week). Fully 75% of UPK children receive a “high dose” of UPK experience.