

**STRATEGIES FOR EFFECTIVE SUPPORTS  
OF EARLY CHILDHOOD DEVELOPMENT:  
A REPORT FOR THE MARY BLACK FOUNDATION**

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**Why Early Childhood Develop Is a Worthy Investment**

Many children enter American schools with significant deficits in the skills they need to profit from the educational experiences of kindergarten and first grade. Unready children lag behind their school-ready peers from the first day of school. Starting out behind, many never catch up. Although the risk is greatest for children from low-income families and communities (especially children of color, those of recent immigration, and those living in poor inner-city and rural areas), school failure is not completely dictated by demography. Just as there are many examples of children from high-risk groups who show remarkable resilience and succeed in school and adult life despite the odds against them, there are many children who do not appear to be at risk but fall through the educational cracks and experience great difficulty in school.

For students who start school significantly behind their peers, the readiness gap is never closed but tends to widen as they move through school (Lee & Burkam, 2002). That is, children who are not prepared for kindergarten may have a hard time mastering the curriculum, so they won't be ready for what will be taught in first grade, and on and on. Indeed, school readiness has been shown to be predictive of virtually every educational benchmark (e.g., achievement test scores, grade retention, special education placement, dropout, etc.). It is not an exaggeration to fear that lack of school readiness sets the stage for dismal educational trajectories and diminished lifelong outcomes (Lewitt & Baker, 1995).

The implications of early educational failure are broad and profound. School difficulties are associated with significantly higher expenses for extra help, special education, and grade retention (Alexander & Entwisle, 1988; Shepard & Smith, 1988). The added costs are not limited to those incurred at the school level. Children who experience school failure are more likely to be truant, and when they are not in school they may engage in unhealthy or delinquent behaviors. These students are more likely to drop out of school or to be pushed out through expulsion. This obviously makes them less likely to receive the postsecondary education that is increasingly required for gainful employment in an American work environment that demands specialized skills. When they reach adulthood, the societal costs continue to mount because of higher reliance on welfare and other social supports, increased crime and incarceration, and

underemployment with the resultant loss of tax revenue. (Low wage earners contribute less through income, payroll, sales, and property taxes.) Due to the intergenerational nature of poverty, the costs of school failure at the individual child level tend to compound over successive generations.

The problems presented by school failure are clearly serious. Decision makers and educators have long attempted to address the issue through various school-based interventions aimed at improving school climates, supporting underachieving students, increasing educational standards and accountability, and ending social promotion. Many of these attempts have shown limited success largely because they offer too little too late.

As research accumulates on the causes of school failure and the circumstances that place children at increased risk, it has become evident that for many children the trajectory for school failure is set well before kindergarten registration. Many children who will struggle in school can be identified very early in their school careers. When they enter kindergarten, these children are often targeted for special services, retained, or suspended or expelled from school. As many as one-third of teachers in schools in high-poverty areas report that their students do not have the abilities to transition successfully to kindergarten, though for some communities the proportion may be much higher (Love, Logue, Trudeau, & Thayer, 1992). Boyer (1991), citing results from a survey of over 7,000 kindergarten teachers across the nation, reported that 35% of all kindergarteners start school without the skills they need to succeed, and 42% of kindergarten teachers feel the problem is getting worse. Additionally, as many as eight percent of children enter kindergarten with behavioral and/or emotional problems so severe as to warrant a psychiatric diagnosis (Keenan & Wakschlag, 2004), and many more exhibit less serious behavioral problems and social delays that nonetheless impede their educational progress (Howes, Calkin, Anastopoulos, Keane, & Shelton, 2003). School readiness programming is therefore imperative to strengthen their chances of educational success and ultimately, secure the nation's future.

### **What Can Be Done?**

Quality early childhood education and early intervention programs for young children and families positively impact the educational achievement of low-income children (Barnett, 1995; Brooks-Gunn, 2003; Miller, Shieh, & Lavagna, 2002; Peisner-Feinberg et al., 1999; Ramey et al., 2000; Schweinhart, Barnes, Weikart, Barnett, & Epstein, 1993). These programs also have been successful in providing broader services to improve children's nutrition and access to medical and dental care (Barnett & Brown, 2000; Fosburg, Goodrich, & Fox, 1984; Hale, Seitz, & Zigler, 1990; O'Brien, Connell, & Griffin, 2004). Good physical health is critical for school readiness (Zigler & Trickett, 1978). Gains from quality preschool programs have been shown to impact a range of school-related skills, including intelligence and cognitive abilities (Barnett, 1995; Broburg, Wessels, Lamb, & Hwang, 1997; NICHD, 2000), language (Feagans & Farran, 1994; McCartney, 1984; Vandell, Henderson, & Wilson, 1988), preliteracy skills (Whitehurst, 1997; Whitehurst et al., 1999), math skills (Johnson & Walker, 1991; Peisner-Feinberg et al., 2001) and social development (Campbell & Ramey, 1994; Yoshikawa, 1995).

Unfortunately, many children in the United States enter kindergarten without prior experience in preschool. According to the U.S. Census Bureau, in 2001 about 65 percent of four-year-old children were enrolled in a preschool program. Three-year-olds were far less likely to attend—only 39 percent were enrolled in preschool, and more than half of these were in private programs (U.S. Census, 2001).

Among middle-class families, preschool enrollment is closely linked to socio-economic level, whether measured by family income or mother's education. In families with incomes above \$75,000, two-thirds of children ages three to five attended preschool in 2001. Just over half of children from families making between \$50,000 and \$75,000, and 40 percent of children from families with incomes between \$30,000 and \$50,000, attended preschool programs (U.S. Census, 2001). These percentages are roughly the same when maternal education is used instead of family income. Children whose mothers have at least a bachelor's degree are more likely to attend preschool than those whose mothers have some college, who are more likely to attend than children whose mothers have a high school diploma.

The Census data further suggest that attendance is related to the availability of *public* preschool programs: Of children who attended preschool, the proportion enrolled in public programs was inversely related to income. For example, among families with incomes below \$20,000, 82 percent of the children attending preschool were in public programs. By contrast, among families earning between \$40,000 and \$75,000, only 37 percent of children in preschool attended public programs, and among families earning more than \$75,000, the proportion dropped to 21 percent. The same trend is evident when children are grouped by maternal education. While the impact of the financial burden associated with private preschool was not directly assessed, these data suggest that the scarcity of universal public prekindergarten limits the ability of middle-class families to choose preschool for their children.

### **The Need to Support (Not Assume) Quality**

After over 40 years of research on the effects of early childhood education and child care programs, two overall findings are clear. First, high quality preschool programs can have a remarkable, long-lasting impact on the lives of children, both educationally and in terms of life-long productivity. Second, these impacts are dependent – completely – on the quality of the program actually experienced by the child and family. In numerous studies, high quality programs have been found to be related to beneficial outcomes, whereas low quality programs are often associated with disappointing results (Berlin, O'Neal, & Brooks-Gunn, 1998; Gilliam, Ripple, Zigler, & Leiter, 2000; Love, Schochet, & Meckstroth, 1996). This relation has been demonstrated in both child care and early childhood education programs, such as Head Start and state-funded prekindergarten programs (Cost, Quality, and Child Outcomes Study Team, 1999; Gilliam & Zigler, 2000, 2004).

Because many young children spend about as much time with teachers and child care providers as they do with their families, it is not surprising that the quality of their experiences and personal relationships away from home affect their development. Indeed, the influence of quality in early childhood settings on academic and social learning appears to be independent of

the child's home environment (Bryant, Burchinal, Lau, & Sparling, 1994). In other words, quality matters whether you are rich or poor.

### **The Ingredients of a High Quality Early Education Program**

After decades of hearing about the impressive effects of model preschool programs with nearly ideal conditions of quality, many decision makers and advocates have come to expect that any early education or intervention program implemented with any level of quality and funding will achieve the same results. Although this expectation is enticing, it is not realistic (Brooks-Gunn, 2003). Most public (and indeed the majority of private) preschool programs fall far short of what is needed to have a meaningful impact on children's chances for educational success. This is not only a waste of resources, it is a false promise.

Over the past decades there has been a vast amount of research on quality indicators in child care and early education programs. Recently, an expert panel at the National Institute for Early Education Research (NIEER) synthesized the results and compiled a list of key aspects of high quality preschool (Jacobson, 2004). These include physical space and materials; teacher qualifications, compensation, and supervision; group size and teacher-child ratios; positive teacher-child relationships filled with a high level of mutual, responsive, and stimulating communication; and parental involvement. Of these characteristics, the structural variables of teacher qualifications and compensation, class size, and ratios are arguably the easiest to address, with the expectation that high levels of the quality in these areas will enable children to have greater amounts of positive interactions with teachers and other children.

**Teacher Credentials.** Considerable research on teacher education shows that preschoolers learn best in classes led by well-trained and compensated teachers (Bowman, Donovan, & Burns, 2001; Cost, Quality and Child Outcomes Study Team, 1999; NICHD, 2005). "Well-trained" is usually defined as a minimum of a bachelor's degree with specialized training in early childhood education. Specifically, evidence suggests that teachers with higher educational levels and specific training in early childhood provide care that is warmer and more sensitive to children's needs, and are able to create a more stimulating and language-rich learning environment (Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002). Well-educated teachers are also more likely to endorse a child-centered approach to teaching, leading to increased educational stimulation.

As a result, children in these environments have been found to show higher levels of cognitive and language development. Indeed, Howes (1997) found that teachers with a bachelor's degree or a Child Development Associate (CDA) credential tended to elicit more language activity and higher levels of complex play from the children in their care relative to teachers who did not have either of these credentials. Teachers whose bachelor's degrees were in early childhood education elicited even greater levels of complexity and creativity in children's play. In a study of Head Start classrooms, teacher educational level was found to be significantly related to children's school readiness outcomes, whereas years of experience teaching was not a significant factor (Wheeler, 2002).

To date, research and reality have yet to meet. While the consensus of the fields of early education and developmental psychology is that preschool teachers should have a minimum of a bachelor's degree plus specialized training in early childhood, most early care and education classrooms in America are not taught by a teacher with these credentials. Of the 40 states with prekindergarten, only 20 require teachers to have a bachelor's degree, and only 16 of those 20 require content specific to early education (Barnett, Robin, Hustedt, & Schulman, 2003). Child care licensure is far behind even the modest requirements for prekindergarten. Only one state requires child care teachers to hold a bachelor's degree, and most (40 states) require no formal postsecondary education or credentials (e.g., the CDA) at all (Barnett et al., 2003).

Standards are even more lax regarding the qualifications of assistant teachers. Preschool classrooms typically consist of 16 to 20 children, a lead teacher, and one or more assistant teachers or aides who may have a variety of roles. Although researchers and decision makers have been paying increased attention to the qualifications of the lead teacher, the characteristics of assistant teachers are often overlooked. This is shortsighted for at least two reasons. First, the purpose of having assistant teachers in preschool classrooms is to allow for a more advantageous ratio of staff to children. This enables the adults to provide more supervision and have more individual interactions with the children, and it gives children more access to adults who can help facilitate their learning. Second, it is not uncommon for assistant teachers to eventually become lead teachers. Since these assistants may represent a sizeable portion of the lead teachers of tomorrow, investing in their skills today may reap benefits later in terms of developing the preschool teacher workforce.

If the purpose of these programs is to better student outcomes, they must be equipped with the tools needed to achieve this goal. The most essential tool in every preschool classroom is a highly qualified staff. Teachers with specialized training in how to educate young children are more likely to have the skills necessary to provide a rich learning environment, facilitate active learning, and ultimately achieve greater levels of school readiness among their young students.

**Compensation.** Higher education and specialized training in early childhood are important ways teachers gain the skills necessary to work effectively with young children, facilitate learning, manage active classroom environments, and engage parents. For a college student to undertake the level of training and education needed to be an effective preschool teacher, the end result must be worthwhile. New teachers rightfully expect to be compensated for the efforts they put into their long course of study and the expenses incurred. In the early childhood field, however, compensation generally falls very short of what a skilled worker is worth—and what a person needs to support a decent standard of living. Currently, the average pay for a child care provider in America is barely above \$8 per hour, often with no health, vacation, and retirement benefits. The average salary of a preschool teacher is less than half that of the average elementary school teacher (Olsen, 2002). Furthermore, salaries in early education tend to not increase much over time, even during periods when public expenditures for early education and salaries in other fields are rising (Blau, 1992). The situation is worse for preschool teachers who work in areas of concentrated poverty, serving the most at-risk populations (Sachs, 2000). An exception is preschool teachers in public school settings. They are generally more educated and better compensated relative to their peers in community-based child care programs (Bellm, Burton, Whitebook, Broatch, & Young, 2002) and Head Start

(Gilliam & Ripple, 2004). Not surprisingly, their turnover rates more closely match those of elementary school teachers rather than the much higher rates found in community-based child care programs (Bellm et al., 2002).

With salary structures this poor and inconsistent across the field of early education, program directors often cannot attract highly qualified teachers (i.e., those with a bachelor's degree in early education). And when current teachers attain higher qualifications, they very often leave for jobs in public schools or other fields where pay is a lot higher. In the preschool setting, where quality and learning depend on interpersonal relationships, high teacher turnover can disrupt children's attachments and educational progress. Studies have in fact shown that staff stability is associated with better educational and developmental outcomes for children, especially those at greatest risk for educational failure (Cost, Quality and Child Outcomes Study Team, 1995; Peisner-Feinberg et al., 1999).

The link between wages and turnover is understandable and undeniable, and both are clearly associated with quality. Indeed, teacher salaries are one of the most robust predictors of the overall quality of the classroom learning environment (Phillipsen et al., 1997). For example, in a study of 104 child care centers in Boston, Atlanta, and central Virginia, teacher wages were found to be the strongest single predictor of classroom quality for both infant/toddler programs and preschools (Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2000). In fact, teacher wages significantly predicted classroom process quality even after teacher-child ratio, group size, and teacher education and training were controlled. In a nutshell, higher wages allow directors to staff their programs with higher skilled teachers and improve workforce stability. It is also important to note that better credentialed directors, who can provide better supervision to teachers, are also associated with lower staff turnover rates (Cost, Quality, & Child Outcomes Study Team, 1995; Phillips et al., 2000; Whitebook, Sakai, Gerber, & Howes, 2001; Whitebook, Sakai, & Howes, 1997).

A few efforts have been mounted to increase teacher qualifications by making training more available and affordable. Programs such as the highly successful TEACH in North Carolina and other states attempt to make higher education and specialized training in early education more affordable to a workforce of preschool teachers and caregivers who earn salaries so low that subsidizing their own education is financially difficult (Roseman, 1999). Unfortunately, there are few mechanisms in early education by which wages and benefits are kept in line with increased qualifications, and there is some evidence that when early education providers achieve more marketable credentials they leave the field of early education for jobs where they can earn more money for fewer hours of work, such as in elementary schools (Bellm et al., 2002). Clearly, policy strategies for increasing teacher qualifications must be matched with strategies to reward higher credentials with higher salaries and benefits in order to keep these professionals in the field.

**Group Size and Child-Teacher Ratios.** Even well-trained and adequately compensated teachers will not be very effective educators, if they have little time to interact with the individual children in their classroom. Obviously, the more children the teacher is responsible for, the fewer opportunities for individual attention each child will have.

It is generally assumed that regardless of the number of adults present, large numbers of children in the room increase noise levels and can create an overstimulating, chaotic environment not very conducive to learning. Research, however, does not strongly support this assumption *if* child-teacher ratios are low. While studies have shown that lower group sizes are associated with more positive caregiving in infant and toddler programs (Clarke-Stewart et al., 2002; Phillips et al., 2000), this seems to be less true for programs serving preschoolers (Phillips et al., 2000). Group size was only related to quality in infant and toddler classrooms, and even then the effects of group size vanished once child-teacher ratios were considered. In contrast, lower child-teacher ratios are associated with better classroom quality across all age ranges of young children—infants, toddlers, and preschoolers (Phillips et al., 2000; Phillipsen et al., 1997). Additionally, lower child-teacher ratios are related to increased responsiveness by teachers, leading to a host of positive outcomes for young children such as improved language skills, social-emotional functioning, behavior, and play skills (Howes, Smith, & Galinsky, 1995; Love et al., 1996; NICHD, 2005; Phillips et al., 2000). Given these data, it seems best to focus efforts primarily on reducing child-teacher ratios, since group size—which typically ranges from 16 to 20 preschoolers—seems to matter less.

What is the ideal child-teacher ratio to maximize children’s learning opportunities? This is a critical question because reducing the number of children per teacher increases the overall cost of providing the program and may limit the number of children who can be served. Research to date offers suggestions but no definitive answers. We do know that highly effective, model early education programs, such as the Perry Preschool, the Abecedarian Project, and the Chicago Child-Parent Centers, had teacher-child ratios that ranged from 1:6 to 1:8—much less than most widely implemented programs mandate (Duncan & Magnuson, 2004).

A study of 123 state-funded prekindergarten classes in Connecticut (Gilliam, 2000) revealed a direct link between ratios and quality. Classrooms with child-staff ratios of 7 to 1 or less scored significantly higher on a measure that primarily assesses the quality of the learning opportunities in the classroom. Additionally, classrooms with three or four teachers present in the room (regardless of the number of children) scored significantly higher than classrooms where only one teacher was present. Given these data, a reasonable child-teacher ratio might be no fewer than three teachers for a class of 20 preschool children.

**Intensity and Duration.** In addition to issues of quality mentioned above, the effectiveness of early education programs is also a function of intensity and duration. Intensity refers to the amount of the program the children receive on a daily basis. The range of intensity in many early education and intervention programs is great, ranging from about two hours long for a couple of days per week to programs that are 6 to 10 hours in length five days a week. Duration refers to how long children attend the program. This is typically one year, or less often two years, for preschool programs. As previously discussed, the effectiveness of any early education program depends on how much of the integral ingredients (i.e., stimulating interactions with adults, other children, and classroom materials that facilitate learning) participants receive. The more intensity and the longer the duration of the program, the more contact with these ingredients children have.

Surprisingly, little is known about the degree of intensity needed to achieve beneficial outcomes for preschoolers. Although research supports the conventional wisdom that intensity is

related to child outcomes across a variety of early intervention programs for at-risk infants and young children with developmental disabilities (see Shonkoff & Phillips, 2000, for a review), less is known about intensity effects in educational programs for preschoolers in the general population. One relevant study of intensity examined the effects of full-day versus half-day kindergarten (Elicker & Mathur, 1997). The study employed a rigorous design in which both teachers and students were randomly assigned to the longer or shorter sessions. Children who attended the full-day kindergarten scored significantly higher than half-day participants on school readiness indicators, as rated by their first-grade teachers. The mechanism by which the full-day students achieved greater levels of school readiness appeared to be at least somewhat related to the effects of the longer day on the teacher's pedagogical style. Specifically, children in full-day kindergarten spent more time engaged in child-initiated learning activities and stimulating interactions with their teachers. Children in half-day kindergarten spent a higher proportion of their time in more passive teacher-directed activities aimed at the entire group.

Several studies of early intervention programs for at-risk children have shed some light on the relative roles of duration and timing. The Carolina Abecedarian Study (Campbell & Ramey, 1994) was one of the few rigorous studies to randomize both duration and the exact timing of the intervention. The results indicated that earlier intervention was more beneficial than later, and a longer duration was associated with better child outcomes that tended to last longer. In a study of the effects of the Chicago Child-Parent Program (CPC), Reynolds (1995) found that two years of preschool were significantly more effective than one at increasing children's cognitive school readiness at kindergarten entry. This has also been found in a study of Head Start classrooms (Wheeler, 2002). In a careful review of dose-effect issues, Reynolds (2003) concluded that evidence from the early intervention literature supports the theory that longer durations, including follow-through programming into elementary school, are associated with increased educational achievement beyond the immediate effects of the preschool experience. For example, children who received four years or more of services through the Chicago CPC had higher educational achievement when they were 12 to 15 years old, relative to children who did not attend CPC. Since the Chicago CPC is implemented in public school settings, these results are particularly relevant to the issue of duration in universal prekindergarten. A caveat is that the program operates in low-income, inner-city districts, so the results may not generalize to other populations.

### **What Areas for Improvement Should Efforts Target?**

To provide children with the level of quality needed to optimally support their development and school readiness, early education and intervention programs should:

1. Be led by a qualified teacher with a bachelor's degree or higher that includes specialized training in early childhood education, and an assistant teacher who has at least a CDA credential or associate's degree in early education
2. Have a system of continuous in-service training for all staff, similar to what is provided for elementary school teachers. Workforce development strategies should be diverse and include strategies such as credit-bearing in-service training, continuing education scholarships, recruitment, differential compensation based on training, and others.

3. Have no more than 10 preschoolers per teacher or assistant teacher, and fewer if children with special needs are in the class
4. Have full-day and two-year program options, for both preschool and kindergarten
5. Implement curricula with empirically demonstrated effectiveness at increasing children's school readiness across all of the relevant areas – cognitive, language, motor, health, social-emotional, motivation for learning, creativity and play, and parent involvement
6. Parent involvement efforts should begin at birth through universal access to research-based parenting support programs.
7. Preschool programs should have clearly articulated plans for encouraging and facilitating parental involvement. Preschool program should provide connections between the home and educational environments through activities such as home visits and regularly scheduled parent-teacher meetings.
8. Have a monitoring system in place that includes on-site observation of the quality of education and care, with results used for tangible quality enhancement efforts
9. Use validated methods of monitoring programs that provide useful information that parents can use to become wiser consumers of early education programs and better advocates for quality. Program accountability should be based on the quality of the services being provided to the children, rather than single-point in time evaluations of children at the end of the program.
10. Preschools should have classrooms, playgrounds, and adequate materials that are safe and developmentally appropriate for preschool age children.
11. Preschool teachers, aides, and administrators should be compensated at a rate that is at least competitive with their elementary school counterparts at the same level of training, experience, and work hours.
12. Infuse within early education programs comprehensive services for parents (e.g., educational support, job training, and support for family involvement in children's schooling) and children (e.g., health/mental health and nutrition services)
13. Support early screening for developmental disabilities and appropriate referrals on a regular basis, starting during infancy through school entry. Assessments should be conducted by teachers and other professionals who are trained in evaluating young children, using only instruments that are well-validated for the purposes and populations in which they are to be used.
14. Early education and child care programs outside of the schools should be integrated seamlessly with early special education services, and should be a model of inclusive education. All programs should have full access to special education staff and supports needed to provide a quality educational experience to children with and without disabilities.

### **Before Preschool – Recent Findings and Directions (Some not yet in the research literature)**

A considerable amount of recent research has shown that home visiting programs following specific curricula, such as Parents as Teachers and the Nurse Home Visiting Program, have been able to achieve remarkable and lasting improvements in young children's development and parent involvement. Similar programs that are not based on specific evidence-supported curricula have largely shown disappointing results. In many cases, this is because the

model is poorly defined and a large number of children and families receive a very small amount of services.

Similarly, family literacy programs have been launched in many communities and there is a large literature on these programs and their effectiveness. The rationale is a clear one – family literacy is an important and robust predictor of school success, and it is hard for many to imagine something more fundamental than a parent reading to his or her child. Unfortunately, after many years of evaluating these programs, the results are dismal. The reason is simply that in many cases the interventions serve large numbers of families but provide very little direct service time to each of the families served. Attrition rates in the programs is often remarkably high – in many cases most of the families drop out before receiving any services or only a few hours at most. These families often are then immediately replaced by more families that drop out. As a net result, many hours of services are provided, but few individual families ever receive the level of services necessary to have any impact at all. Most of the participants in these programs are extremely poor and have many life stressors that get in the way of their attending these programs on a regular basis. As a result, little change is often seen in the parents, and assuming that this change will somehow impact the amount of time they read to their children and the quality of that reading is not realistic. This does not mean that we should not serve these families – far from it. Rather, our expectations should be realistic, embracing the knowledge that in order for changes this profound to take place, the amount of services actually received by each family would have to be very high and delivered with an similarly high level of quality.

There is emerging well-founded speculation for researchers, however, that reducing unwanted pregnancies and increasing the time interval between births is a highly effective strategy. There is a massive literature on the negative implications for child development of rapid pregnancy and short birth intervals. The implications are clear. If a child is entering an age where he or she is starting to communicate more with his or her parents, the birth of a sibling makes it far more difficult for that child to receive the level of cognitive and linguistic stimulation needed to promote school readiness. In fact, a review of the home visiting literature suggests that one of the most robust findings is an increased interval between the birth of children, typically achieved through effective family planning and contraception advice. This outcome appears to many to be a pathway outcome. Specifically, home visiting programs that have been able to achieve this outcome also achieve a host of other positive outcomes, such as improved child cognitive and linguistic skills, increased parenting sensitivity, and improved parent-child interactions. Home visiting programs that do not achieve this outcome of reduced rapid pregnancy, often fail to achieve any other significant child and parent impacts. Another way of understanding this is that increasing the time between children is a permanent positive impact – once achieved, it never vanishes. If a child's nearest sibling is 2-3 years younger (rather than 1 year), this will always be true for that child. Permanent impacts are a rarity in social programs. This is enough to lead some researchers to speculate that this outcome is largely responsible for the other positive outcomes, suggesting the need to focus efforts here.

### **Mary Black Foundation's Grants during the Past Five Years**

[Sensitive Grantee Information Redacted]

## General Strategy Recommendations

Several recommendations specific to various areas of investment have been addressed above. To this list, a few more general strategies are offered.

First, consider continued investment in improving the quality of already existing child care and early education settings. This is a proven investment strategy with a solid track record of demonstrable effects. It is also an efficient use of resources because it capitalizes on extant programs and infrastructures. In order to further maximize investments in this area, MBF may choose to invest in the creation of a local quality rating and improvement system (QRIS). Not only does an effective QRIS provide much needed data for targeting supports, it can also help mobilize parents as strong and invested advocates for quality. This can only be achieved, however, with savvy dissemination of QRIS findings to parents in a format that is easily accessible and useful to them in making child care and early education purchasing decisions.

Second, consider investing in few programs and guarding the resources well by requiring very specific data on the amount of services actually received by each participant and the quality of those services. In terms of promoting real impacts, the number of children and families served is of far less value than how much services each one actually received and how high the quality was.

Third, consider investing a modest amount of resources in a local evaluator to help grantees develop a solid plan for process and outcome evaluations. Ideally, this would be a local university professor with clear expertise in evaluating community-based early childhood programs, and one with several graduate students in need of master thesis and doctoral dissertation topics. A modest investment in this area could provide a wealth of both evaluation expertise and affordable data collectors. Further, if provided in a consultative manner, the evaluation support could help build local capacity in grantees to design and use evaluation findings from their programs to both improve the services and seek funding from state and federal sources.

The MBF portfolio of investments in early childhood development is admirable and addresses the most important and evidence-based areas for enhancing early development. By focusing on enhancing existing systems, the resources are used efficiently. Specific targeting to the areas most likely to show impact and promoting the use of ongoing process evaluation to ensure adequate levels of services reach the intended recipients will be key to guarding these investments and reaping their rewards.