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American Early Childhood Education: Preventing or Perpetuating Inequity?

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Part I – Introduction and Background

Unlike merely two decades ago, early childhood education (ECE) is currently regarded as a magical panacea that prepares young children for school and life, equalizes opportunity, and prevents welfare dependence, incarceration, teenage pregnancy and school dropout. While a veritable aura of success encases contemporary early childhood education, few analyses have seared these accolades and examined the realities. This paper dons an equity lens and addresses America's contemporary commitments to all its young children. It discusses early childhood education's successes as well as its failures, noting that depending on where children live, how much money their parents have, and the color of their skin, their access to, and experiences in, early childhood settings vary dramatically. The paper suggests that while ECE has the proven potential to *prevent* educational inequity, if not dramatically improved, it will do the reverse and *perpetuate* it.

Setting the Stage

Nations provide for the care and education of their young children in vastly different ways. Although some provide extensive, and others quite meager, services, all nations approach early childhood education according to their visions of childhood and their values for young children (Organisation for Economic Cooperation and Development, 2001). Rhetoric aside, what countries actually do with and for youngsters is a mirror of their fundamental beliefs.

America is not different. Historically, twin values have framed America's approach to young children (as well as many other social policies). Escaping tyranny and religious persecution, America's forefathers built a nation around the dual values of family primacy and privacy. With family life sacrosanct and primacy pre-eminent, the family was regarded as the basic unit of society. Moreover, what went on within the family was a private matter. Government had little right and less reason to pierce the family unit. Only under the most limited of conditions—when families could not help

themselves—was government called upon to intervene. A close scrutiny of early public policies regarding children and families clearly reflects this ethos. In, arguably, the first American comprehensive family policy, the 1935 Social Security Act provisioned for widows and orphans—those without complete “traditional” families. Sustaining this orientation, all subsequent public policies for young children have focused on those who were at risk or otherwise in need of special supports.

Amidst this ethos, it is not surprising that America’s earliest programs for young children emerged in the private sector. Evangelical women, hoping to improve the lot of the poor and disenfranchised, established infant schools that enabled mothers to work and removed children from “the unhappy association of want and vice...[to] be placed under better influences” (Infant Society of Boston, 1828). As Cahan (1989) notes, for 19th century Americans, poverty was a spiritual, not an economic, problem that could be remedied through hard work and moral attentiveness. Though short-lived, the infant school movement firmly set the stage for one stream of services, notably those for the poor. In contrast, when the nursery school movement emerged in the late 19th and early 20th centuries, it focused on early enrichment and served the children of more affluent parents. These contrasting motives (remediation for the poor and enrichment for the middle and upper classes) led Tank (1980) to affirm that the footprints of the division of contemporary early education in America were set very early. With some private sector programs for the poor and others for the more affluent, the concept of ubiquitous early education for all was not on the agenda.

Early Childhood and Public Policy

Lodged firmly within the ideological context of the primacy and privacy of the family and the practicality of private sector service provision, early childhood education was slow to become a matter of public policy. During national crises (World War I, the Great Depression, and World War II), federal policy did establish child care facilities; these, however, were quickly disbanded when each successive crisis ended. Another national challenge, the Civil Rights Movement, evoked the War on Poverty and with it, the nation’s premier early childhood program, Head Start, for low income children. Unlike its federal precursors, the federally-funded Head Start program has remained intact for over 40 years, standing as the foundation for much American early childhood

innovation. Despite its Herculean contributions, Head Start remains an economically segregated program; in its economic segregation, however, Head Start is not alone. Indeed, all major federal early childhood programs serving young children have income eligibility constraints, fortifying the original private sector legacy of government intervention for children whose families cannot provide for them, not for *all* children.

Given that America is a nation committed to social integration, this divide not only belies a national goal, but is problematic for many other reasons. Importantly, American early childhood education is a confusing hybrid of programs and services, lacking clarity and coherence for parents, policy makers, and the public. Programs exist in the private and public sectors, with private sector programs being either profit or non-profit. Public programs are also highly variegated, with Head Start serving low income children and pre-kindergarten programs serving low, middle, and/or high income children, depending on whether they are universal or not. Equally confusing, child care can exist under public and/or private auspices, in centers or in homes. Typically, child care provides a longer day and is open for more months than pre- kindergarten programs or most Head Start efforts. To make matters even more confusing, the terminology used to describe these programs is often inconsistent. The term early childhood education is used fairly consistently, though, as it will be in this paper, as an umbrella term to cover all early childhood programs and services despite their differences.

However confusing the nomenclature, the programmatic differences it represents are not inconsequential. First, they reveal important operational differences in terms of clientele, participant eligibility requirements, fiscal allocations, operational guidelines, accountability and regulatory requirements, and bureaucratic auspices. Sometimes there are also philosophical or ideological differences, with public programs for the poor focusing on care and sometimes on comprehensive services including physical, mental, cognitive, and social/emotional development, while programs for the more affluent tend to focus on socialization and cognition.

Second, however important these differences are individually, they are also important in the aggregate. Because of its many discrete programs, early childhood education is best understood at this point in our social history as a market—a series of small, quasi-independent micro-enterprises. Though often thought of as a system,

somewhat analogous to the K-12 public education system, American ECE lacks systemic qualities—overarching governance, funding, and accountability mechanisms. ECE also lacks the K-12 status as a requisite public good, rendering it a variable market commodity that is subject to conventional market patterns of failure and spillover (Adema, 2001; Hacker, 2003). Characteristic of market economies, and liberal market economies in particular, services are inequitably distributed, decentralized, and deregulated, workers lack protections, and turnover is high (Hall & Soskice, 2001). Indeed, ironically what both binds early childhood education and breeds its multiple inequities is a lack of public commitment and a lack of an infrastructure to support program consistency and quality.

Part II – Multiple Inequities

Perhaps the most egregious legacy of America’s historic commitment to the values of privacy and primacy of the family is the problem of inequity—inequity of opportunity and of outcome. In the past, when inequity has been addressed, it has been linked with children’s socioeconomic status, race, and/or home language. Although important and omnipresent, these are not the only inequities that characterize American early childhood education. This paper suggests that inequity pervades early childhood education, seriously restricting who has access to services, the quality of the services themselves, the quality and competency of those who teach young children, the nature and application of regulations, the quality and thoroughness of the expectations and standards that guide pedagogy and instruction, and the amount and distribution of resources. While confirming socioeconomic status and race as predictors of inequity, this paper suggests that state, regional, and programmatic inequities are also serious and ubiquitous. We turn to an examination of multiple inequities and their impacts on American early childhood education.

Inequity Well Before the Starting Gate

For decades, studies have revealed that a child’s home environment has a profound influence on his/her development and readiness for school. Hart and Risley (1995), in their now classic study, found that by the age of three, children in families receiving welfare had vocabularies that were half as large as those of their more affluent peers, with these disparities persisting through childhood. Substantiating this work, Hoff

(2003) found that differences in vocabulary growth among three-year-olds were largely accounted for by the quality and quantity of the vocabulary used by their mothers. Indeed Smith, Brooks-Gunn, and Klebanov (1997) found that close to 40% of the associations between young children's lower academic performance and economic disadvantage are explained by the lower quality of their home learning environments. It should be noted that economic disadvantage may have differential effects, with studies indicating that low socioeconomic status significantly affects ability and achievement measures, but not measures of behavior, mental health, or physical health (Brooks-Gunn, Duncan, & Britto, 1999).

Once children enter kindergarten, those from economically disadvantaged backgrounds continue to demonstrate substantial gaps in cognitive and academic competencies when compared to their more advantaged peers (Stipek & Ryan, 1997). Several fine analyses of the Early Childhood Longitudinal Study-Kindergarten (ECLS-K) confirm important differences. This national study, of approximately 12, 800 kindergarten children who were enrolled in kindergarten in 1998, included data reported by parents and teachers and data from the children themselves. Lee and Burkam (2002) found that socioeconomic status (SES) is strongly related to cognitive skills and accounts for more variation in results than race/ethnicity, family educational expectations, access to child care, home reading, and television habits. At school entry, cognitive scores from the highest socioeconomic group were 60% above the scores from the lowest group, meaning that SES differences at kindergarten entry are very large. In the United States, where race/ethnicity are intertwined with SES, black and Hispanic children perform much lower than white children; for example, average math achievement is 21% lower for black than for white children and 19% lower for Hispanics (Lee & Burkam, 2002). Indeed, 90% of the mathematics achievement gap observed in 8th grade between whites and children of color is apparent at entry to kindergarten (Bridges, Fuller, Rumberger, & Tran, 2004). The data are quite clear: low-SES children fall behind at a very early age, even before they enter formal school, and most are likely to stay behind.

The ECLS-K data also provide evidence regarding how some of these inequalities might be reduced. Children who attend center-based preschool perform better in kindergarten when compared to peers who did not attend preschool. These effects were

larger for lower income children and the effects in reading and math were sustained as the children moved into first grade (Magnuson, Meyers, Ruhm, & Waldfogel, 2004). The nature of the preschool experience affects children's achievement as well, with youngsters in pre-kindergarten programs outperforming children in other types of early childhood settings in reading, though effects were less clear for math (Magnuson et al., 2004). Furthermore, according to Robin, Frede, and Barnett (2006), children in full-day pre-kindergarten programs accrue greater, longer-lasting cognitive benefits than children in part-day programs. It is clear that while inequity begins early and runs deep, preschool can alter its trajectory.

Inequity in Who Attends Preschool

Given extant inequities and given the importance of a preschool experience for young children's development, some conjecture that access to services should be a right—much like public school—to which all young children are entitled. In practice, however, quite the opposite is true; children's access to preschool programs varies dramatically by their race, socioeconomic status, parents' education, mothers' employment, English proficiency, and geographic locale. The variation is large and inequitably distributed.

Race

Preschool participation rates differ by race, with the variation changing over the decades and according to the ages of children. If we look at the period from 1991 to 2001, Hispanic children had the lowest participation rates of any ethnic group and showed the lowest increase in participation rates; their participation rates increased from 36% to 38% while those of black children in the same time period escalated from 55% to 62% (Barnett & Yarosz, 2004). Confirming this, Hirshberg, Huang, and Fuller (2005) found that even among California parents who moved from welfare to work, when presumably child care became a necessity, Latino and non-English speaking parents were the most unlikely to use child care. In contrast, when looking at preschool, Barnett and Yarosz (2004) found that after controlling for family structure income, parental education, and region, Hispanic children did not attend preschool at rates significantly different from those of white children.

Asian children present an interesting profile, with those under the age of three months being the most likely to spend more than 40 hours per week in child care. When the children are nine months, however, they are less likely than black children (63%) or white children (49%) to be enrolled in child care. Only Hispanic children are enrolled at slightly lower rates—46% in comparison to Asian youngsters at 47% (Flanagan & West, 2005).

Because there are so many more white children in the nation than any other racial group, they are more highly represented than others in preschool programs nationally (Smith, Kleiner, Parsad, & Farris, 2003). When looking at schools with the highest poverty rates, however, black children account for 36% of all pre-kindergarten children while white children constitute 22% of pre-kindergarten enrollments. Yet, despite this high initial enrollment, African American children in state pre-k programs experience the highest rate of expulsion of any group (Gilliam, 2005). Therefore, race appears to condition children's admission into ECE programs and their continued participation in them—both important facets of access.

Socioeconomic Status

A range of studies indicate that children from wealthy families are more likely to attend preschool than children from middle or low income families. For example, Bainbridge, Meyers, Tanaka and Waldfogel (2005) indicate that three- and four-year-old children from the wealthiest families are 23% more likely than children from the lowest income families to be enrolled in center-based care. Lacking family resources and finding themselves ineligible for governmental subsidies, middle income families are generally the most underserved by early education. Using data from the 2001 National Household Education Survey, Barnett and Yarosz (2004) show that 41% of children from middle income families (earning \$40,000-\$50,000 annually) attend preschool in comparison to close to half of all children from low income families (earning \$10,000-\$40,000 annually). Families in the upper range attend preschool even more frequently, with 62% of children from families earning \$60,000-\$75,000 annually, 68% of children from families earning \$75,000-\$100,000 annually, and 78% of children from the wealthiest families attending preschool (Barnett & Yarosz, 2004). When looking at access for infants, the same patterns hold, with infants from non-poor families being

more likely to be in child care than infants from poor families—52% compared with 43% (Flanagan & West, 2005). Access to early childhood education is enhanced for non-poor families because they begin their preschool attendance earlier than other children, thereby accruing long-term benefits (Barnett & Yarosz, 2004).

These data, however, mask an important fact. Enrollment differences may be attributed not only to lack of income, but to an inequitable distribution of licensed child care centers. A California study suggests that affluent neighborhoods house a greater number of centers than do less affluent neighborhoods (Hirshberg, 2002). Middle income families, however, seem to have the hardest time accessing all forms of early childhood education for their children. Confirming the challenges that middle income families face, a Boston Globe study found that in both low and high income Massachusetts communities, there was a one to one match between the number of preschool children and the number of spaces available for them; in middle income communities, however, there was one space for every four children (Wen & Dedman, 2002).

But the income level of a community is not the only factor that impacts its supply of early childhood education. Preference for certain types of care or responses to public policy may influence supply. For example, in a study of California ECE following welfare reform, Hirshberg (2002) found that more family child care homes opened in majority Latino zip codes than in non-Latino zip codes. Policy response has also been shown to influence the trajectory of supply. Between 1991 and 2001, NHES data reflect roughly equal rates of program expansion rates for poor and non-poor families; yet, because poor families began with such depressed preschool participation rates, three- and four-year-olds from non-poor families were still 13 percentage points more likely to be enrolled in early childhood education (Barnett & Yarosz, 2004). In addition to family income, then, other socioeconomic factors contribute to the equity—or inequity—of ECE access.

Parents' Education

A large number of studies indicate that children's participation in preschool correlates strongly with parents' education (Bainbridge et al., 2005; Barnett & Yarosz, 2004; Fuller, Kagan, & Loeb, 2002; Hirshberg, 2002; Hirshberg et al., 2005; Wolfe & Scrivner, 2004). One study indicated that parents' education had a stronger effect than

family income (Bainbridge et al., 2005). From an equity perspective, focusing eligibility on income alone, as so many programs do, may disadvantage children from undereducated families (Barnett & Yarosz, 2004).

Maternal Employment

It is not surprising that maternal employment is highly correlated with children's participation in preschool programs because working mothers need care for their children while they work (Bainbridge et al., 2005; Barnett & Yarosz, 2004; Flanagan & West, 2005; Fuller et al., 2002; Hirshberg et al., 2005; Wolfe & Scrivner, 2004). Yet, as overall preschool participation has increased, the effect of mothers' employment status on preschool participation has declined over the past 30 years (Bainbridge et al., 2005).

English Proficiency

Preschool services for limited English proficiency (LEP) children are a relatively new but crucial development for immigrant and first generation families. While access to these services is certainly conditioned by the factors discussed above, immigrant settlement patterns may have an equally significant effect. More high-LEP elementary schools (43%) have pre-kindergarten programs as compared with low-LEP schools (33%) and no-LEP schools (30%) (Cosentino de Cohen, Deterding, & Clewell, 2005). Yet, according to an analysis of ECLS-K data, preschool participation among LEP children (58%) remains lower than among non-LEP children, with children from Spanish-speaking families having even lower participation rates (48%); furthermore, language-minority children are 30% less likely to attend state pre-k and other preschool programs (excluding Head Start), even when these programs have proven positive outcomes for their cognitive development and readiness for school (Rumberger & Tran, 2006).

Geographic Locale

Although it is clear that children have vastly different opportunities to attend preschool depending on where they live, the data are quite equivocal on the link between geographic region of the country and participation in early childhood programs. One study suggests that children in the Midwest have the greatest access to preschool in the year prior to kindergarten, with 72% in attendance; 71% of children in the Northeast attended preschool, 69% in the South, and 62% in the West. In this study, participation by race varied considerably, with black children far more likely to attend preschool in the

West than in any other region. Asian children in the Midwest attended preschool at the rate of 74% (Rosenthal, Rathburn, & West, 2006). Barnett and Yarosz (2004) assessed the situation differently; they noted that three- and four-year-old children in the Northeast were likely to attend preschool at a rate of 62% as compared to 57% in the South, 53% in the Midwest, and 46% in the West. Part of the discrepancy may be due to differences in the populations these studies surveyed and the way each defines the “West,” the “Midwest,” etc.

Perhaps even more profound than these regional differences are state differences. Because the provision of early childhood education is not compulsory, states have and exercise great freedom in determining the nature of their preschool provision. Oklahoma leads the nation in the proportion of four-year-olds enrolled in pre-kindergarten or Head Start programs at over 90%. Georgia follows with 67% of four-year-olds enrolled while New Hampshire and Nevada enroll 13% of their four-year-olds (Barnett, Hustedt, Robin, & Schulman, 2005). As wide as this range appears, 11 states have no preschool program for four-year olds whatsoever, emphasizing the breadth of state variation in the provision of services to four-year-olds. It should be noted among states that provide services for three-year olds, the range of provision spans between a low of 7.8% in New Hampshire and Virginia and a high of 29% in Kentucky (Barnett et al., 2005). These dramatic differences in provision produce highly inequitable access by state.

In short, there are grave discrepancies in who attends preschool—discrepancies caused by multiple variables. Perhaps the most significant of these variables is state variation, a factor highly influenced by vast variation in state expenditures for preschool education.

Inequity in State Preschool Investments

American early childhood education is funded from a variety of sources: federal programs, state contributions, parental fees, and, in some cases, corporate sponsorship. Without considering the federal child care tax credit options, the three major sources of federal support for early care and education have been Head Start, the Child Care and Development Fund (CCDF), and funds from Temporary Assistance to Needy Families (TANF). Federal funds also emanate from the Department of Education, largely through No Child Left Behind (NCLB) and supports for Special Education. While it is well

beyond the scope of this paper to delineate all these sources and their attendant regulations, it is important to note that much of the federal funding is formula driven and dispersed according to the greatest need. Yet, despite these formulae, there are great discrepancies in the actual amounts expended on early childhood education. In Head Start, for example, the average per child allocation across all 50 states and DC is \$7,208, but this figure masks state discrepancies. For example, Washington State is allocated \$9,016 per child while Oklahoma is allocated \$5,809 (Head Start Bureau, 2006).

Such state variation is also apparent in the per capita allocations of the CCDF, (Child Care Bureau, 2006; U.S. Congress, 2004). Maine, for example, spent the most per CCDF recipient and awarded over ten times the amount that DC provided (\$7,487 versus \$728). Even though states have increased their CCDF spending, variation persists. With regard to CCDF, such variation is in part attributable to the fact that grant eligibility is set at a percentage of state median income, a figure which varies by the state. Often, therefore, poor families living in poor states are less likely to receive adequate child care subsidies than comparably poor families living in wealthier states.

States exert considerable control in how they use both federal and state funds. For example, because so much discretion is left to the states, great discrepancies exist in the amount of federal TANF, NCLB, and special education funds allocated to early childhood education. This discrepancy, however great it is, is modest by comparison to differences in state investments of their own resources in young children. The most dramatic examples are differences in state pre-kindergarten investments. Investments of \$478 million in Texas, \$432 million in New Jersey, \$276 million in Georgia, \$264 million in California, and \$246 million in New York top the list; at the same time, 11 states (AL, ID, IN, MS, MT, NH, ND, RI, SD, UT and WY) do not spend anything on their state funded pre-kindergarten. Of those states that do invest in pre-kindergarten, New Jersey spends a high of \$9,305 while Maryland spends a low of \$721 on a per child enrolled basis (Barnett et al., 2005). State expenditures vary by both their overall and per enrolled child investments, highlighting the range of state options and differential expenditures that result.

In addition to wide variation in both total and per child enrolled pre-kindergarten investments, states vary with regard to the durability of their investments. Unlike K-12

education, where funding is guaranteed and stable, funding for young children is episodic—a pattern set early on in our history. States that have recently increased their funding for early childhood seem particularly vulnerable to funding cuts. Between the 2001-2003 and 2004-2005 years, 16 states actually cut their total allocations while 12 states did not increase their total allocations for pre-kindergarten (Barnett et al., 2005). In addition, over half the states decreased their per enrolled child spending while only 10 increased it in the same period (Barnett et al., 2005). These cuts reflect two important points: first, there is no funding guarantee for ECE programs, and second, there is no consistent pattern regarding when and how states increase or decrease their early childhood investments. Funding decisions are highly idiosyncratic within and between states.

Naturally, such inconsistency causes problems for those charged with planning and implementing programs, much less for parents. Halpern (2003) noted that when programs are forced to cut their funds, they often: (i) turn full-time teaching positions into half-time jobs with minimum wages and/or no benefits; (ii) increase child-teacher ratios; (iii) purchase fewer materials, and (iv) eliminate field trips and arts curricula. Dealing with such fluctuation wreaks havoc on maintaining personnel and program quality; indeed, the ramifications of inequitable investments are clearly manifested in inequitable quality across early childhood programs and settings.

Inequity in Quality

Virtually every study of American early childhood, whether it be domestic or cross-national, cites the low level of quality of the majority of early childhood programs. The Cost, Quality and Outcomes Study found that the vast majority of preschool programs were either poor or mediocre in quality, with only 14% being of the quality which educated parents might select. The case for infants is worse, with fully 40% of the programs providing unsafe and unhealthy conditions for this age population (Cost Quality and Outcomes Study Team, 1995). Affirming these data, the NICHD Early Child Care Research Network (2000) found that positive care giving, a cornerstone of quality, was highly characteristic for only 9% of children.

Even within this “low-quality” context, amazing quality variation exists. Like variation in access, quality variation corresponds to differences in auspice, race and SES, and geographic locale. Reflecting the long-standing split in program auspices, programs

that are operated under the public sector are generally of higher quality, with some studies favoring the quality of Head Start (Lazar & Goodson, 1993) and others favoring the quality of state funded pre-kindergarten programs (Bellm, Burton, Whitebook, Broatch, & Young, 2002; Magnuson et al., 2004). Pre-kindergarten programs provide comparatively higher quality as a result of more stringent state regulation regarding teacher qualifications. If one accepts that pre-kindergarten programs do provide higher quality, then middle and high income children, who in 24 states, do not have access to state pre-kindergarten, may be disadvantaged (Schulman & Barnett, 2005).

Even though the increased prevalence of pre-kindergarten programs would appear to hold some advantage for low income children, the overall data do not support this finding—yet. Children from upper income families are more likely than children from either middle or low income families to be in programs with better trained, more stable, better compensated, and more sensitive teachers (Phillips, Voran, Kisker, Howes, & Whitebook, 1994). Even despite many targeted efforts, lower-income children are not receiving the high-quality care experienced by their upper-income peers (Barnett & Yarosz, 2004). These income-based differences are particularly harmful given that child care quality has the strongest impact on the developmental outcomes of children from low income families (Votruba-Drzal, Levine Coley, & Chase-Lansdale, 2004).

Quality is a global term that researchers disaggregate, enabling them to study its component parts. Structural quality is composed of that which can be regulated, including adult-child ratios, group size, and teachers' qualifications. Conversely, process quality refers to that which is more intangible, involving, for example, the interactions between child and teacher. When dividing quality into these components, children from middle income families seem to experience the poorest structural quality, presumably because subsidies are not available and their families can not afford the higher costs associated with more regulated settings; when measured by process quality, however, lower-income children receive the lowest quality care (Phillips et al., 1994). Magnuson and colleagues (2004) note that process quality is not only more difficult to judge and to regulate, but varies significantly across settings.

Quality also varies by state, with only one state (Arkansas) meeting all ten of the quality indicators on a recent scale (Barnett et al., 2005). Five additional states met nine

of the ten characteristics; 21 states, however, met fewer than five of the indicators. Such variation is apparent in the results from empirical studies as well. Fuller and Kagan (2000) found significant quality differences among three states in structural and process variables. Whether examining the state investments or overall program quality, state variation persists, favoring wealthy states and states that are willing to make investments in early childhood education.

Inequity in Who Teaches Young Children

The single most important determinant of quality and the factor most related to achieving critical outcomes for children is the quality of the faculty who work directly with young children. For example, the provision of more language activities and greater sensitivity are both related to having a BA degree and to improved child outcomes (Howes, James, & Ritchie, 2003). Despite the importance of having a well-trained and well-educated workforce, there is no consistent teaching requirement for all those who work with young children.

Required qualifications to teach young children vary between states and by program type within any given state. Head Start, for example, mandated that 50% of its teachers attain AA degrees by 2003; two years later, 33% of teachers had a BA, 34% had an AA, 5% held advanced degrees, and 21% had a CDA or state equivalent (National Head Start Association, 2005). Beyond Head Start, most state-funded pre-kindergarten programs require a high level of education for their teachers; 20 of these programs require teachers to have a bachelor's degree (Gilliam & Marchesseault, 2005) and, nationwide, 86% of pre-k teachers working in public schools hold a BA (Smith et al., 2003). Despite this figure, 21 states did not require all state pre-kindergarten teachers to hold a BA; 9 of these states did not require any teachers of preschool aged children to hold a BA (Barnett, Brown, & Shore, 2004). When looking at child care, however, only 12 states have *any* minimum education requirements for teachers (LeMoine & Azer, 2005). Quality of teachers, if it is measured by degree, varies by program.

But is there any systematic variation? Because of the requirements for Head Start and state funded pre-kindergartens, higher levels of professional education are generally found among teachers in publicly funded and operated programs (Bellm et al., 2002). Moreover, publicly funded programs have lower faculty turnover rates and pay higher

wages than do privately operated programs (Bellm et al., 2002; Whitebook & Eichberg, 2001). When comparing center-based programs and family child care homes, differences emerge, as well: children who are served in center-based care are more likely to have better educated teachers than those children in who are served in family child care homes, where only an estimated 11% of providers have BAs (Herzenberg, Price, & Bradley, 2005; Marshall, Dennehy, Johnson-Staub, & Robeson, 2005).

Although teacher training and education have long been noted as important quality variables, scholars have focused recent research on the nature and importance of the match between child-teacher ethnicity and its implications for child outcomes. Regarding the match, Saluja, Early, and Clifford (2002) found that early childhood classrooms that contain large numbers of non-white children are likely to contain a larger number of non-white teachers than other classrooms. Regarding the link between match and children outcomes, Burchinal and Cryer (2003), in analyzing the NICHD Study of Early Child Care, found that the ethnic match between teacher and children does not correlate with better child outcomes in language and math. While ethnic match may not be important in these cognitive areas, we are unaware of its impact in social and emotional areas.

The good news regarding teacher education and professional development is that highly educated teachers tend to serve in public programs often geared toward low income children. The bad news, however, is that even given this fact, the levels of early childhood teacher education are poor, teacher turnover is high, and young children are not the beneficiaries of a quality workforce.

Inequity in the Infrastructure that Supports Early Childhood Education

As noted earlier, the equity challenge in American early childhood education is deep-seated, with historical roots in the nation's values and policy predispositions. Investment in early childhood has been troublingly episodic and inconsistent. Even more problematic, however, is the lack of attention that policy makers accord the infrastructure underlying programs. Policy makers, always anxious for quick gains, are far more willing to support direct services for children—something that is highly visible to constituents—than to support an amorphous infrastructure. With funding perpetuated in program silos and with little attention to regulation, governance, and accountability, early

childhood programs find themselves bereft of the supports that normally accompany human service enterprises. Unlike K-12 education, for example, early childhood lacks state and local boards to govern programs; it lacks a consistent set of facility and teacher certification requirements; it lacks a unified accountability system, and it lacks even a quasi-coherent mechanism for durable and consistent funding. The lack of attention to these infrastructure elements jeopardizes the quality and equality of early childhood education.

Governance

Early childhood programs function in both the market economy and in a publicly subsidized non-system. As early childhood expands, it needs long-term visioning to maximize the efficient use of parental and public resources, available staff, and facilities. To that end, governance entities are emerging in the states, with several different approaches taking hold (Vast, 2005). Some include the establishment of state level boards of early childhood education analogous to state boards of education (GA, MA, WA). More conservatively, other states are establishing public-private partnerships to handle program coordination. In other cases, governors have established coordinating entities or secretary-level cabinets within their administrations. Whatever form these entities take and however necessary they might be, they are highly experimental and vary considerably in their scope, funding, authority and durability. Once again, while such variation is respectful of state differences, it also results in very different approaches to early childhood education throughout the nation.

Regulation

Regulation is the process by which the state assures a minimum floor of quality to safeguard young children in centers and family child care homes. The stringency and enforcement of these regulations is critical: studies have directly linked the strength of governmental guidelines to program quality (Cost Quality and Outcomes Study Team, 1995) which, in turn, is linked to the prevalence of positive child outcomes. However important regulations are to quality, states, in part because of a pervasive anti-regulatory ethos, are reluctant to require them in statute. Indeed, only 39 states have statutes that specifically regulate center-based facilities (National Resource Center for Health and Safety in Child Care and Early Education, 2006). Even when regulations do exist, states

are reluctant to make them more stringent. Beyond the stringency problem, there is great state variation in who is obligated to meet regulations, with legal exemptions existing widely. Five states have specific exemption provisions for parochial, special education, and other ECE settings (National Resource Center for Health and Safety in Child Care and Early Education, 2006). In other states, programs are exempt from licensure if they operate only part day, a condition which, in many states, may exclude the majority of early childhood programs.

Finally, states vary in how they monitor and enforce their regulations, with many states making visits to programs on a bi-annual basis. In other states, however, it is common for the enforcement visits to take place quite intermittently due to shortages in state monitoring staff (Helburn & Bergmann, 2002). Even if monitoring visits do take place, the staff who conduct them are rarely licensed and have limited formal preparation for the monitoring role (Ochshorn, Kagan, Carroll, Lowenstein, & Fuller, 2004). If regulations are a quality elixir, then their inconsistent stringency, irregular scope of coverage, and erratic enforcement serve to breed quality and equity differences across and within states.

Accountability

With so much early childhood funding emanating from the states, policy makers want to be certain that their investments are paying off in terms of children's outcomes and overall readiness for school. As a result, accountability in early childhood, though not mandated nationally as in elementary and secondary school, has become a new force in early childhood education.

States are responding to accountability in diverse ways. Though still somewhat controversial, early learning standards have been launched at the pre-school level in most states, providing the foundation of an accountability system. These early learning standards, however, are quite different from state to state, with some states focusing primarily on cognition and language and other states focusing on more holistic domains including socio-emotional and physical development (Scott-Little, Kagan, & Frelow, 2005). So prevalent is the more narrow focus that 39% and 31% of all standards in the nation are lodged in cognitive and language domains respectively; only 12%, 10%, and 9% of the standards are in social/emotional, approaches to learning, and physical/motor

development, respectively (Scott-Little et al., 2005). Early learning standards for infants and toddlers are more sparse, with only 9 states having them (National Child Care Information Center, 2006). Differences in state standards reflect widely discrepant expectations for young children, a serious challenge to the promotion of equity for all.

Beyond standards, an accountability system must have the capacity to collect data and employ it in decision-making. Few states have established on-going mechanisms for early childhood data collection over time. While there are inherent challenges in assessing young children, the fact that some states are moving forward on accountability efforts while others lag behind differentiates states. Moreover, if one views effective accountability as instrumental in promoting more positive outcomes for children, then such vast differences in state expectations and assessments only serve to exacerbate inequities for children depending on their state of residence.

Inequity or Merely Differences?

Throughout this paper, recurrent references have pointed out widely inconsistent approaches to early childhood education among programs and among the states. In fact, so numerous are these discrepancies that they alone may form a primary characteristic of American early childhood education—inequity. But we do need to examine if differences in themselves are harmful, or if the existence of such variation actually provides more options and greater flexibility for parents and children. Given that pervasive differences characterize all elements of American early childhood, the operative questions must be: (i) do these differences *promote* or *prevent* inequity and poor quality, and (ii) if so, what should and could be done?

While readers may come to their own conclusions after having read the information presented, it is apparent that from our earliest history, founders and framers of early childhood efforts launched public programs for young children as a means of promoting equality. The very name Head Start implies that some children need a boost to render them equal to others. Aspirationally, then, one might conclude that the uniquely American approach to early childhood has tried to right an unequal balance. Low income and otherwise at-risk children were supported in public programs while their more well-to-do counterparts were served in private programs.

Despite good intentions, however, baseline inequities have snowballed. On balance, children from lower income families end up with less access to programs. Once enrolled, their programs are often vulnerable to funding cuts and to associated programmatic reductions. Today's young children live in states with vastly different ideas and different commitments to young children. Some invest heavily; others not at all. Some regulate stringently; others quite loosely. Some govern to evoke greater consistency; others maintain that governance is unnecessary. Some have broad expectations for what children should know and be able to do; others' expectations are quite targeted and narrow. Indeed, state variation in early childhood education is profound and penetrating.

In a limited number of areas, such variation actually favors the less advantaged. Children who enroll in public programs do have better educated teachers, on average. Their teachers earn higher salaries and leave their positions less frequently. Moreover, the overall quality of publicly funded programs is higher than that of private programs. It is clear that decades of public investments have paid off, with high quality early childhood programs altering the life chance for millions of low income and at-risk children.

Such success, however, must be regarded with caution. As the data point out, not all children who are eligible for services receive them. Access to high quality programs is not equitably distributed, meaning that for many low income children, preschool opportunity is foreclosed. In addition, millions of children who live marginally above the poverty lines are ineligible for public services and rarely can their parents afford private early education. Even though their need is great and their family income may not be appreciably different from that of "low income" families, these lower-middle income students suffer greatly and, comparatively speaking, have less access to programs than their poorer counterparts. Further, the reality is that children in public programs are regularly segregated from age mates of diverse incomes and often diverse backgrounds, belying a national commitment to integration.

Finally, it may be argued that even though some low income children have access to higher than average quality programs, the average is so low that what passes for "high quality" is actually insufficient to lift children to the levels accomplished by highly touted

interventions. Today's mainstream public programs may be high quality when compared to other efforts, but are not necessarily high quality in the absolute sense. Those who advocate for universal pre-kindergarten contend that without a ground swell of support for all children, wide scale perpetuation of an absolute standard of high quality is not possible. Only when investments are made that are deemed appropriate for middle and upper class children will an absolute and equitable standard of quality be fostered and will real equity be achieved.

Part III: What We Still Need to Know:

Research Recommendations for Addressing Equity and Quality Concerns

As this review has indicated, there is a great deal of research underway, particularly regarding the impact of high-quality early childhood programs on children's development, the nature and status of pre-kindergarten programs, and the relationship between quality of effort and child outcomes. Despite the amount of research, it is characterized by several overall challenges. First, again as well noted herein, many of the studies are small and not generalizable to the population as a whole; they tend to be conducted on narrow population sub-groups, isolated program types, and/or in a small number of locales. Second, much of the research is quite restricted in funding, rendering many studies one-time efforts, so there is little opportunity to chronicle changes over time. Limited funds may also compromise the extent of the data collection, analysis, and dissemination, thereby limiting the scope and utility of the data. Third, because there is no single national sponsor or entity responsible for early childhood education at the national or state level, what little program population data we have is scattered among agencies. For example, Head Start has a rich tradition of supporting evaluation research and the collection of program information and monitoring data. As helpful as these data are to Head Start, little of it is generalizable beyond the program. Data banks also exist for other funding sources, but nowhere is the data aggregated effectively across funding streams and sponsors.

Turning from data to research, because there is no coordinated national research agenda on young children and the programs that serve them, federal agencies create their own individual studies. For example, to its credit, the United States Department of Education is now sponsoring some early childhood research, focusing on curriculum interventions across program types and states. Other agencies are sponsoring helpful research, as well, but there are no systematic linkages among the studies, resulting in a hodge podge of potentially useful information; there is no consolidated or agreed-upon research trajectory. Finally, it should be noted that, unlike other fields, there is no national institute or massive philanthropic or commercial investment in research on early childhood education. Given these conditions, the early childhood research enterprise is

highly idiosyncratic, usually responding to the interests of a particular researcher, research team, or funding entity.

Quality/Equity Research Recommendation 1: *Advance the development of the Institute for Education Sciences or a National Institute of Education Research, comparable to the National Institute of Health, with a broad-missioned and richly funded National Center on Early Care and Education Research.*

Among the human services, education is the primary discipline that has historically lacked an integrated and appropriately funded research capacity. Health has its National Institute of Health, Mental Health has the National Institute of Mental Health, and child development has the National Institute for Child Health and Human Development. Serving education, the former Office of Educational Research and Improvement within the United States Department of Education did launch major research efforts and fielded independent work. Its successor, the Institute of Education Sciences sits within a highly invigorated research environment. Nonetheless, the emphasis on young children has been limited, often focusing on the launching and/or evaluation of curricular efforts. Lacking a broader research agenda and a greater focus on young children, the nation will lack an integrated research strategy of sufficient quality and breadth to suitably impact the kinds of reform suggested in the policy recommendations above.

To that end, advance the development of the Institute for Education Sciences or the establishment and funding of a National Institute of Education. Within the Institute, a priority should be placed on funding a federally-based National Center on Early Care and Education Research. The Center should promote systematic inquiry and provide national data on critical issues pertaining to American early childhood education. Data collection and analyses would transcend individual programs, states, or population sub-groups, providing, for the first time, a comprehensive overview of the field in its entirety. The Center should have three foci: (i) the collection of on-going data that report on the quality and equity status of all early childhood programs; (ii) the initiation, funding, and oversight of “ahead of the curve” research that advances the practice of early childhood education; and (iii) the launching of critical studies related to the early childhood workforce, governance, accountability, quality, and equity.

Quality/Equity Research Recommendation 2: Collect Data Annually on the Status of American Early Childhood Education

The Center should initiate a new and recurring survey on all types of early childhood settings and all early childhood teachers. The data should reflect the current status of the field and should serve as a data bank to which researchers would have access. Such data should be published in a timely way so that legislators and other policy makers can base their programmatic and policy decisions on complete and accurate data.

Quality/Equity Research Recommendation 3: Expand the ECLS-K and ECLS-B

Already launched, the Early Childhood Longitudinal Study (ECLS) has two cohorts, a kindergarten cohort and a birth cohort. Helpful, these two cohorts represents a solid start on enriching the field's longitudinal data base. If, however, critical policy decisions are going to be made, then ongoing data of this sort is needed. Collected on large numbers of children throughout the nation, these data represent the clearest analysis of early childhood use and impact. These efforts should be continued.

Quality/Equity Research Recommendation 4: Fund Policy-Related Studies

The implementation of the above recommendations would be enriched by a robust research agenda. Studies are needed that examine the nature and capacity of the workforce from a systems perspective. It would be helpful, for example, to know the nature and extent of standards and how they differentially impact different programs. Examining which programs are legally exempt for regulation would be helpful, as well. Data are needed to ascertain the essential elements of a quality rating system and how they compare to one another in terms of return on investment. Comparative analyses of different early childhood programs would enable policy makers to discern if their investments in particular program types warrant the investment. Research should also be done to discern the critical elements and costs of establishing a national early childhood credential. Finally, although some states have undertaken fiscal analyses of the costs of providing services to three- and four-year-olds, the methods are inconsistent, with huge variations in per child costs. A national analysis of this, using a common metric, is necessary.

Quality/Equity Research Recommendation 5: Develop an Institute for Equity Research.

While research is badly needed in the early childhood field, if all of the above research recommendations were put in place, there would be no guarantee that issues of equity would be systematically addressed. To that end, if there were an Institute for Equity Research developed (at Teachers College or elsewhere), an early childhood component could be supported. This would enable the equity lens to predominate. It would also have the advantage of linking scholarship on early childhood with scholarship on K-12 education, thereby fostering intellectual continuity around the equity issue that has little prospect of otherwise developing.

Part IV: Preventing Inequity:

Reforming Early Childhood Education Policy and Practice

This analysis has suggested that while there is much more research to be done, we do already know enough to move forward with policy reforms. For instance, we do know that inequitable access to services, episodic and inconsistent funding, massive differences in state investments, and clear infrastructure inconsistencies are the bedrock upon which any contemporary reform of early education must rest. These perspectives, however, did not always prevail. At one time in our national history, reform of early education took a decidedly programmatic focus. The rationale at the time was to create the optimal programmatic conditions in which low income children could thrive, with the additional goal of replicating those efforts that were proven effective. This may be called a program approach to reform. Others, concerned that such a programmatic approach would not impact all children, took steps to universalize pre-kindergarten services. Still others, uncertain that quality and equity could be achieved without attention to the improvement of the infrastructure, called for the development of an early childhood system. All important, these reform approaches must be understood because each attempts to address the equity issue and because each is a prelude to the equity recommendations that conclude this analysis.

The Program Approach to Reform

Perhaps the most well developed of all three strategies, the program approach to reform has provided much information related to advancing quality in early childhood programs for low income children. Recognizing that early childhood education was

somewhat embryonic as both a policy and programmatic strategy, various efforts were launched. The most comprehensive was that sponsored by the Head Start program that had a Research and Demonstration (R & D) arm as a part of the federal apparatus. In his chapter entitled “Head Start: Not a program, but an evolving concept,” Zigler (1979) recounts the history of Head Start’s many innovative efforts that were systematically mounted and evaluated to improve the overall Head Start program. Far from a static program, Zigler credits some 12 innovative efforts as forming the definition of Head Start.

Other well-known and highly effective programmatic approaches to reforming early childhood education include the Perry Preschool Program, the Abecedarian Project, and the Chicago Child-Parent Center Program. The 1962-1967 High/Scope Perry Program, based in Ypsilanti, MI public schools, provided at-risk three- and four-year-old African American children with high-quality, part-day preschool and supplementary home visits. Interviewed at age 40, participants in the program, when compared to non-participants, were more likely to have graduated from high school and to be employed, reported higher earnings, and had committed fewer crimes, all of which amounted to dramatic cost savings (Schweinhart, 2003). The Abecedarian Project (1972-1985) was a comprehensive, full-day early education program that provided academic, physical, and social enrichment, along with free diapers, food, and transportation, to 111 low income African American children in Chapel Hill, NC. As participants entered kindergarten, some joined “school-age support” groups; two decades later, all had performed better in school, were more likely to have attended a four-year college, and were more likely to be engaged in skilled jobs than those who had not attended the program (Ramey & Ramey, 2004). The Chicago child-parent centers (CPC), run from Chicago public schools since 1967, provide preschool and elementary school children with literacy-focused instruction along with health, nutrition, and other social services. CPC sites require parent participation and are staffed by teachers with BA and early childhood certification. The participants have shown academic and social benefits similar to those resulting from the Perry and Abecedarian programs (Reynolds & Clements, 2005).

What these programs demonstrate, and effectively so, is that with resources and for particular populations, intensive early education can produce effective long-term

outcomes. That these efforts have been endorsed by Nobel Prize winners and that early childhood education has been catapulted to the forefront of the policy agenda, based on their data, is a landmark contribution that must be applauded (Heckman, 2006).

In addition to the fact that these efforts all share effective results and positive outcomes for children as shown in rigorous longitudinal evaluations, they also share some serious limitations. Each was conducted on a specific population, each had staff who were better trained than average early childhood teachers, and each has not been replicated at large. In short, as positive as these three programs in particular have been in generating wide-scale investment in early education and wide-scale support, they remain isolated examples that have not been directly generalized to early childhood education. As islands of excellence, they are strong reminders that quality can be achieved. Yet, the hard reality is that quality in the majority of early childhood programs remains very low (Cost Quality and Outcomes Study Team, 1995; Waldfogel, 2006).

With the goal of reaching all programs and hence all children, newer programmatic efforts have moved from the “programmatic model” approach to focus on fundamental reforms that can and are impacting all early childhood settings. For example, the development of early learning standards, curricula geared to those standards, and individualized assessments are being widely touted as a means of programmatic improvement. Efforts are also underway to improve the climate of early childhood programs with numerous activities and incentives to stave the 41% teacher turnover in programs—efforts to enhance workforce quality and increase program quality (Jorde Bloom & Sheerer, 1992).

Universalizing Pre-Kindergarten Approach to Reform

While clear that the data from these well-examined interventions has elevated the importance of early childhood education, there is a growing concern that not all children are being served by any program, much less programs of the quality achieved by these splendid interventions. Consequently, a movement toward universalizing early learning services for all pre-kindergarten children (e.g., usually four-year-olds, and sometimes three-year-olds), is taking root in the nation. With massive support from foundations, the universal pre-kindergarten movement is growing so that all but 11 states offer pre-

kindergarten in programs that serve over 800,000 children with funding at about \$2.8 billion as of the 2004-2005 school year (Barnett et al., 2005).

Universal pre-kindergarten programs tend to be quite effective, with studies demonstrating impressive gains. In Georgia, children who attended the universal state pre-kindergarten program performed five directly assessed language and cognitive skills as well as children who attended private preschool once they got to kindergarten; they exceeded children who had attended Head Start on three of these measures. Furthermore, kindergarten teachers rated children from state pre-k higher than private preschool children on social behaviors and higher than Head Start children on school readiness, academic skills, and communications (Henry et al., 2003). The Universal Pre-K program in Oklahoma had similarly positive effects, increasing Tulsa attendants' scores on Letter-Word identification, Spelling, and Applied Problems assessments by 53%, 26%, and 18%, respectively, compared with students who did not attend the program (Gormley, Gayer, Phillips, & Dawson, 2005). While the program benefited all participants, its effects were stratified by race and income (as measured by school lunch eligibility). Hispanic and Native American children increased their scores on all assessments (Letter-Word identification, Spelling, and Applied Problems) well beyond the average increases for all universal pre-k children. White children scored above the average Spelling test increase, and black children's average scores fell slightly below the average increases for all pre-k participants, though their scores were 17% higher than children from a similar background who did not attend the state pre-k program (Gormley et al., 2005; Gormley & Phillips, 2005).

While all children participating in Oklahoma's universal pre-kindergarten program showed greater language and cognitive skills than their peers upon kindergarten entry, the size of children's gains on language and cognitive assessments was associated with family income along with race. Children eligible for reduced-price lunches (those from families with an annual income of 185% of the federal poverty level) benefited the most from pre-k. These children improved more than all students attending the program on two out of three assessments. Children receiving free lunches (whose families earned below 130% of the federal poverty level) had greater improvement than all pre-k participants on one of the three assessments. Children from families with an annual

income above 185% of the federal poverty level showed improvement near the program average (Gormley et al., 2005; U.S. Department of Agriculture, 2005). Data from Oklahoma and Georgia's universal pre-kindergarten programs show that universalization can effectively improve children's cognitive abilities; moreover, it makes substantial headway in reducing race- and income-based achievement gaps. As such, universal pre-kindergarten appears to be a solid reform approach for reducing inequities.

Despite its effectiveness, universal pre-kindergarten efforts suffer from several important limitations. Of the states that offer "universal" pre-kindergarten, only two states—Oklahoma and Georgia—make it available to all who wish to participate, and hence are truly universal. Other states are expanding their efforts to children in need first. Twenty-four states tied their pre-kindergarten enrollment to parental income, with the cutoffs generally between 100 to 200% of the state median income (Schulman & Barnett, 2005). Even though many states have the intention of serving all young children, they usually begin by serving segments of the population—often those children living in at-risk neighborhoods (e.g., CT and NJ). Moreover, "universality," as it is presently conceptualized, applies primarily to four-year-old children, and in some cases to three-year-olds. It is not, therefore, conducive to creating an integrated, birth to age five early childhood system.

Universal programs have appeal, however, because they do afford great flexibility to states and locales, with the result that there is great variation in terms of which children are actually served, and in how and where they are served (Schulman & Barnett, 2005). In a few states, programs are provided in public schools only; other states delegate large portions of their programs to community-based providers. Although physically located outside schools, some of these efforts are linked to public education through their adherence to continuous standards and curricula. Some of the efforts provide half-day services; others provide full day services. The appeal of this approach is that it has the distinct goal, like public education, to be available to all children. The premise for this approach is that, except for a small fraction of efforts, programs for poor children will generally remain poor in quality. By providing all children with what society sanctions for its middle and upper class youngsters, not only is equity assured, but higher quality is more likely to eventuate.

The Systemic Approach to Reform

To complement the programmatic and universal approaches to reform, a third type of effort has emerged. A growing number of scholars and policy makers are calling for the development of an early childhood system (Bruner, Wright, Gebhard, & Hibbard, 2004; Gallagher, Clifford, & Maxwell, 2004; Kagan & Cohen, 1997). Understanding the national history, values, and fiscal realities, those who advocate a more systemic approach suggest that without complementing the call for more equitable access to services with an emphasis on more equitable access to *quality* services, early childhood faces the challenge of doing more but doing it poorly. This means proliferating programs with little hope that they will produce the kinds of outcomes associated with the widely touted high-quality programs.

The systemic approach acknowledges that in order to have high quality and equitable services, the field needs to advance both programs and the infrastructure to support programs. Indeed, they posit that because we have funded so many programs without funding the attendant infrastructure (regulations, staff recruitment and development, professional preparation, accountability, parental engagement, finance and governance), normative programs have remained low in quality and inequitable in distribution. Instead of recommending program by program reform, advocates of a systemic response suggest that the strategies deemed effective in the program evaluations above be implemented for all children birth to six (Henderson, 2006). In addition, advocates of the systemic approach conclude that quality and equality will emerge only when fiscal and policy attention is accorded to both programs and their underlying infrastructure. Throughout the nation, many states are developing visions of an early childhood system and the means to implement it (e.g., California, Delaware, Florida, Illinois, North Carolina, Ohio, Virginia)

Addressing Equity and Quality: Broad Recommendations

The three approaches to early childhood reform all have commendable aspects and, ideally, should not be pitted against one other. Rather, they should all be regarded as the essential perquisites for creating equitable and high quality early childhood services. From the programmatic approach, we have learned and can continue to learn how to improve direct services to young children. Applicable to all early childhood programs,

these lessons will impact the nature of direct service delivery, including curricular innovations, improved assessment and instructional strategies, and improved child outcomes. The program approach is strong on quality enhancement. But it does not provide for transferability or for scaling up to meet the needs of preschool children throughout the nation.

Because the program approach cannot impact the total population, it must be augmented. The quality enhancement strategy associated with this approach must be coupled with an equity strategy. Universal pre-kindergarten, the second approach, is very strong on meeting equity needs, if and when it is implemented fully. The very design of universalized services presumes that they would touch all pre-kindergarten-aged children whose parents would like to enroll them in early childhood services. These services should remain voluntary, but, like parks and libraries, should be publicly available for those who wish to use them. Universalizing services is primarily an equity approach.

The third approach, the systems approach, is necessary if we want to ensure ***both equity of access and quality of service for all***. It suggests that while there are many quality lessons to be learned from isolated programs (the program approach) and while there is a need to provide equal access to preschool for all children (the universal pre-kindergarten approach), the real mission of early childhood reform is to assure both equitable access and quality for all. The systems approach uniquely provides for this. It does so, first, by focusing on all elements of the early childhood enterprise—the programs and the infrastructure. Second, it does so by redressing pervasive programmatic and state inequities in funding, governance, accountability, teacher qualifications, and regulations. And third, it does so by contouring an approach that builds on the heritage of the field and the values of the nation. The systems approach preserves parental choice and flexible programming while instantiating quality and equity thresholds. It addresses both the programs and the infrastructure; its properties transcend states, funding streams, delivery systems, and program sectors.

Addressing Equity and Quality: Policy Recommendations

To build an equitable, high-quality early childhood system, America must take some bold steps on the both the policy and research fronts. To that end, six bold policy

recommendations are suggested below. If enacted in their entirety, they would reduce inequity and increase quality.

Quality/Equity Policy Recommendation 1: Develop and implement a common set of high quality program standards that serve as foundational requirements for all ECE program licensure in all states. By establishing a standards' floor, quality will be enhanced; by having the standards be a pre-requisite for program licensure, they will equitably impact all programs (and ultimately all children)

Given the vast difference in states' approaches to program licensure, some equitable floor of regulation is needed to equalize quality. Federal regulations have been attempted at numerous times in our social history (reflecting the durability and significance of the concept). Now, with more children falling behind, with the need for higher achievement among all citizens, and with the ubiquity of early childhood approaching, it is time to reinvest energy and talent into the creation and adoption of common program standards that will equalize the baseline of program quality.

Quality/Equity Policy Recommendation 2: Create an integrated quality rating system (QRS) in which all licensed ECE programs would participate. Quality rating systems provide a mechanism for improving the quality of individual program by advancing a self-assessment and review process. Programs determine their own strengths, needs, and goals. Predicated on this analysis and a verification of it, usually by recognized experts, programs receive rankings or STARS that are used to help parents identify the quality of their children's programs. Quality rating systems provide effective information to parents while fostering an ethos of improvement within programs.

Quality rating systems are emerging throughout the nation, with great success at enhancing program quality. Unfortunately, to date, participation in most of the QRS efforts is voluntary; as a result, the best programs often seek to self-improve while lesser quality programs avoid the process. Thus, unless required for all programs, the QRSs will become "wedge" efforts, driving the field toward greater inequity. To work for all, QRS participation should be required as a condition of sustaining licensure. Only when such participation is required will we realize the full potential of the QRS as an equity enhancer.

Quality/Equity Policy Recommendation 3: Develop and implement common early learning standards and a common metric for their measurement and reporting. With early learning standards as the basis for curriculum and assessment, it is critical that such standards be comprehensive, age appropriate, and used on behalf of all children. Moreover, the data collected should be used to guide policy makers and hold all early childhood programs—irrespective of funding source—accountable for improving children’s physical, social, emotional, language, and cognitive competence.

Early learning standards are now emerging in all the states, but they are very different in content, and they are used in very different ways. Some standardization of the early learning standards is possible without sacrificing the inclusion of additional standards that are unique to states. To accomplish this, a common set of core early learning standards should be developed by the profession and used as a model for state standards. Once rigorous and appropriate state standards have been validated—something no state has done, to date—data should be collected, analyzed, and used as an accountability tool to determine which programs are and are not altering children’s outcomes, given their starting points. Such a set of common standards for children’s learning would help all early childhood programs know what is pedagogically expected of young children. It would create a set of equal expectations, avoiding both explicit and implicit under-expectation that often characterizes programs for low income and otherwise at-risk children. There could be no greater equity and quality elixir.

Quality/Equity Policy Recommendation 4: Develop and implement a required early childhood teacher credential for all who act as lead teachers with groups of children. All early childhood teachers would be required to obtain the credential in order to teach. By establishing a common teacher credential, quality will be advanced because competence will need to be demonstrated; equity will be achieved because all who work with young children will be required to possess the credential.

As noted earlier, teachers who work in early childhood settings share little in the way of entry level requirements to the profession, with criteria varying by state, program auspice, or funding source. As a result, there is great disparity in the quality of the early childhood teaching force, and, consequently, great disparity in the quality of teaching to which young children are exposed.

In many fields, a credential is required to practice (e.g., nursing, architecture, medicine, law). Typically, such a credential is conferred by the profession or the state upon recommendation of the profession. Given the disparity of training and workforce requirements in early childhood, the passage of a common, competence-based test and observation would provide a common entry baseline. Such a credential could be acquired whether one has an AA or a BA degree, as in the nursing field. With demonstrated competence as the prerequisite, the credential serves as an entry gate that keeps unqualified individuals from teaching, while assuring that qualified individuals receive the acknowledgement and opportunity they deserve. Moreover, it promotes both quality, in that teachers would need to demonstrate their competence, and equity, in that all teachers would need to earn the credential.

Presently, there is no mechanism for such a competency-based credential to be administered at this level, although there is precedent for such a process for individuals at the pre-AA or BA level. Called the Child Development Associate, this competency-based approach could provide many lessons for developing a counterpart, more rigorous credential.

Quality/Equity Policy Recommendation 5: Compensate all early childhood teachers who have earned the credential with comparable wages if they are executing comparable responsibilities, regardless of teaching setting or program auspice. By establishing comparable compensation for comparably qualified individuals, more competent teachers would be drawn to, and would remain in, the field. Inadequate and inappropriate compensation depresses workforce and, consequently, teaching quality.

Inadequately compensated teachers depress ECE quality more than any other single variable in the field. Without adequate compensation, individuals who might otherwise consider a career in ECE look elsewhere. Those in the field leave programs, either to enter a different field or a different program; both changes wreak havoc on the need for adult continuity necessary for young children's adequate development. Not only should salaries across programs within a state be comparable, but a national salary floor should be established. In addition, all those ECE teachers who have earned their credentials should be eligible to participate in TIAA-CREF and should have adequate health benefits, using the Rhode Island Health Scheme as a model. Improved

compensation (salary and benefits) would gin up quality by attracting more qualified individuals to the profession and keeping them there. By establishing a common floor, it is likely that all preschool programs would have equitable access to more qualified personnel. Competition for personnel and quality stratification would be greatly reduced if comparable pay for comparable work policies were enacted.

Quality/Equity Policy Recommendation 6: Consider early childhood education for three-and four-year-old children a right, comparable to public schooling in America. While keeping early childhood participation voluntary (and, in that sense, unlike K-12 education), it should be available at a price parents can afford. To that end, each state should set aside funds on a durable basis to fund early childhood education, on a sliding scale, for all parents who wish to enroll their children in quality programs.

Revenue for such efforts would be generated from the tax base that funds public education. It would be distributed to school districts on a per child formula basis, comparable to the method of distribution currently used for students in K-12. Districts that have a higher percentage of free and reduced lunch children in their populations would be eligible for a bonus in the funding formula. Each school district would then have a pool of funds to distribute to families for their children's early education. Parents in the district would be eligible for a voucher that could be used only in preschools that meet quality standards. The amount of the vouchers would be based on parents' financial wherewithal, with lower-income families receiving a voucher of greater value; more advantaged parents, conversely, would receive vouchers of lower value. Using this approach, quality is incentivized, the market/choice nature of early childhood education is preserved, and equity is instantiated because all parents who wish their children to attend preschool would be able to afford it.

In Conclusion

It is a precarious time for American early childhood education. Expectations and investments are soaring now as never before in the nation's history. Domestically, early childhood is on the agenda of every governor; bills are in the hopper in nearly every state legislature. Internationally, other nations look to America to see if and how we are educating our youngest children. The Chinese want to understand how we inculcate

creativity; the Mongolians want to learn how we use standards; the Jordanians want to understand how we monitor young children's progress.

But no one is asking America how we achieve *equity* in early childhood education; no one is asking how we achieve overall *quality*. The answers to these questions are being found in other lands. Yet America does have the answers. They are before us in the research and programs we are mounting, in the universality we are espousing, and in the systems that are being embryonically etched in state after state.

The problem is that the research and practices are all there for us in little pieces. True to our earliest national values and policy heritage, when we study or think of young children, we do so in sub-groups—the poor, the minority, the English language learners, the children in Head Start or in pre-kindergarten programs. Stated simply, we don't think *all*. We don't think about *all* the children's teachers; we don't think about standards for *all* the classes and programs; we don't think about entry gates for *all* teachers; we don't think about an accountability system for *all* children and programs. Equally abhorrent, we have deluded ourselves to think that research or policy progress for some equates with progress for all. As the litany of inequities cited in this paper indicates, clearly it does not.

Unless we reconceptualize American early childhood education research and policy for all and unless we counter centuries of history to think about the creation of an early childhood system, our strategies, as promising as they appear, will *perpetuate*, not *prevent*, inequity and inequality. America owes its children, and the world, far better.

REFERENCES

- Adema, W. (2001). *Net social expenditure, 2nd edition* (Labor Market and Social Policy Occasional Papers, No. 52). Paris, France: OECD.
- Bainbridge, J., Meyers, M. K., Tanaka, S., & Waldfogel, J. (2005). Who gets an early education? Family income and the enrollment of three- to five-year-olds from 1960-2000. *Social Science Quarterly*, 86(3), 724-745.
- Barnett, W. S., Brown, K., & Shore, R. (2004). *The universal vs. targeted debate: Should the United States have preschool for all?* New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W. S., Hustedt, J. T., Robin, K. B., & Schulman, K. L. (2005). *The state of preschool: 2005 state preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W. S., & Yarosz, D. J. (2004). *Who goes to preschool and why does it matter?* New Brunswick, NJ: National Institute for Early Education Research.
- Bellm, D., Burton, A., Whitebook, M., Broatch, L., & Young, M. (2002). *Inside the pre-k classroom: A study of staffing and stability in state-funded prekindergarten programs*. Washington, DC: Center for the Child Care Workforce.
- Bridges, M., Fuller, B., Rumberger, R., & Tran, L. (2004). *Preschool for California's children: Promising benefits, unequal access. Policy Brief 04-3*. Berkeley, CA: PACE.
- Brooks-Gunn, J., Duncan, G., & Britto, P. (1999). Are socioeconomic gradients for children similar to those for adults? In D. Keating & C. Hertzman (Eds.), *Developmental health and the wealth of nations* (pp. 94-124). New York: The Guilford Press.
- Bruner, C., Wright, M. S., Gebhard, B., & Hibbard, S. (2004). *Building an early learning system: The ABCs of planning and governance structures*. Des Moines, IA: Child & Family Policy Center, State Early Childhood Policy Technical Assistance Network (SECPTAN) in collaboration with the Build Initiative.
- Burchinal, M. R., & Cryer, D. (2003). Diversity, child care quality, and developmental outcomes. *Early Childhood Research Quarterly*, 18(4), 401-426.
- Cahan, E. (1989). *Past caring: A history of US preschool care and education for the poor, 1820-1965*. New York: National Center for Children in Poverty.
- Child Care Bureau. (2006, December 12). FY 2001 CCDF final allocations and earmarks for states and territories. Retrieved August 3, 2006, from <http://www.acf.hhs.gov/programs/ccb/policy1/archives/im0101/01alloc.htm>
- Cosentino de Cohen, C., Deterding, N., & Clewell, B. C. (2005). *Who's left behind? Immigrant children in high and low LEP schools*. Washington, DC: Program for Evaluation and Equity Research, The Urban Institute.
- Cost Quality and Outcomes Study Team. (1995). *Cost, quality and child outcomes in child care centers, Executive summary* (second ed.). Denver: Economics Department, University of Colorado.
- Flanagan, K. D., & West, J. (2005). Children born in 2001: First results from the base year of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B) [Electronic Version]. *Education Statistics Quarterly*, 6. Retrieved July 28, 2006 from http://nces.ed.gov/programs/quarterly/vol_6/6_4/3_1.asp.

- Fuller, B., & Kagan, S. L. (2000). *Remember the children: Mothers balance work and child care under welfare reform. Growing Up in Poverty Project 2000; Wave 1 Findings--California, Connecticut, Florida*. Berkeley, CA: PACE.
- Fuller, B., Kagan, S. L., & Loeb, S. (2002). *New lives for poor families? Mothers and young children move through welfare reform. The Growing Up in Poverty Project 2000; Wave 2 Findings--California, Connecticut, and Florida*. Berkeley, CA: PACE.
- Gallagher, J. J., Clifford, R. M., & Maxwell, K. (2004). Getting from here to there: To an ideal early preschool system [Electronic Version]. *Early Childhood Research and Practice*, 6. Retrieved August 21, 2006 from <http://ecrp.uiuc.edu/v6n1/clifford.html>.
- Gilliam, W. S. (2005). *Prekindergarteners left behind: Expulsion rates in state prekindergarten systems*. New York: Foundation for Child Development.
- Gilliam, W. S., & Marchesseault, C. M. (2005). *From capitols to classrooms, policies to practice: State-funded prekindergarten at the classroom level. Part 1: Who's teaching our youngest students? Teacher education and training, experience, compensation and benefits, and assistant teachers*. New Haven, CT: Yale University Child Study Center.
- Gormley, W. T., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-k on Cognitive Development. *Developmental Psychology*, 41(6), 872-884.
- Gormley, W. T., & Phillips, D. (2005). The effects of universal pre-k in Oklahoma: Research highlights and policy implications. *The Policy Studies Journal*, 33(1), 65-82.
- Hacker, J. (2003). *The divided welfare state: The battle over public and private social benefits in the United States*. Cambridge: Cambridge University Press.
- Hall, P., & Soskice, D. (Eds.). (2001). *Varieties of capitalism: The institutional foundations of comparative advantage*. New York: Oxford University Press.
- Halpern, R. (2003). *Making play work: The promise of after-school programs for low-income children*. New York: Teachers College Press.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Paul H. Brookes Publishing Company.
- Head Start Bureau. (2006, June 15, 2006). Head Start program fact sheet. Retrieved July 31, 2006, from <http://www.acf.hhs.gov/programs/hsb/research/2006.htm>
- Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged children. *Science*, 312, 1900-1902.
- Helburn, S. W., & Bergmann, B. R. (2002). *America's child care problem*. New York: PALGRAVE.
- Henderson, J. (2006). *Challenges and strategies in systems coordination*. Columbus, OH: State Department of Education.
- Henry, G. T., Henderson, L. W., Ponder, B. D., Gordon, C. S., Mashburn, A., & Rickman, D. K. (2003). *Report of the findings from the early childhood study: 2001-02*. Atlanta: Georgia State University, Andrew Young School of Policy Studies.
- Herzenberg, S., Price, M., & Bradley, D. (2005). *Losing ground in early childhood education: Declining workforce qualifications in an expanding industry, 1979-2004*. Washington, DC: Economic Policy Institut.

- Hirshberg, D. (2002). *Child Care Demand and Supply under CalWORKs: The early impacts of welfare reform for California's children, 1998-2000*. Berkeley, CA: PACE.
- Hirshberg, D., Huang, D. S.-C., & Fuller, B. (2005). Which low-income parents select child-care? Family demand and neighborhood organizations [Electronic Version]. *Children and Youth Services Review*, 27, 1119-1148.
- Hoff, E. (2003). The specificity of environmental influence; Socioeconomic status affects early vocabulary development via maternal speech. *Child Development*, 74(5), 1368-1378.
- Howes, C., James, J., & Ritchie, S. (2003). Pathways to effective teaching. *Early Childhood Research Quarterly*, 18, 104-120.
- Infant Society of Boston. (1828). *Constitution and by-laws*. Boston: T. R. Marvin.
- Jorde Bloom, P., & Sheerer, M. (1992). The effect of leadership training on child care program quality. *Early Childhood Research Quarterly*, 7, 579-594.
- Kagan, S. L., & Cohen, N. E. (1997). *Not by change: Creating an early care and education system for America's children. Full report*. New Haven: Yale University Bush Center in Child Development and Social Policy.
- King, J. (2006). *Closing the achievement gap through expanded access to quality early education in grades PK-3. Issue Brief*. Washington, DC: New America Foundation.
- Lazar, J., & Goodson, B. (1993). *Life in preschool: Volume one of an observational study of early childhood education programs for disadvantaged four-year-olds*. Dover, NH: Development Assistance Corporation.
- Lee, V. E., & Burkam, D. T. (2002). *Inequality at the starting gate: Social background differences in achievement as children begin school*. Washington, DC: Economic Policy Institute.
- LeMoine, S., & Azer, S. (2005). Minimum early childhood education (ECE) preservice qualifications and annual ongoing training hours for teachers and master teachers. Retrieved February 10, 2006, from <http://nccic.org/pubs/cclicensingreq/cclr-teachers.pdf>
- Magnuson, K. A., Meyers, M. K., Ruhm, C. J., & Waldfogel, J. (2004). Inequality in preschool education and school readiness. *American Educational Research Journal*, 41(1), 115-157.
- Marshall, N. L., Dennehy, J., Johnson-Staub, C., & Robeson, W. W. (2005). *Characteristics of the current early education and care workforce serving 3-5 year-olds [Massachusetts Capacity Study Research Brief]*. Wellesley, MA: Center for Research on Women.
- National Child Care Information Center. (2006, March). State infant and toddler early learning guidelines. Retrieved August 1, 2006, from <http://www.nccic.org/pubs/goodstart/state-infant-elg.pdf>
- National Head Start Association. (2005). *Head Start program information report for the 2004-2005 program: Staff qualifications report - national level summary*. Alexandria, VA: Author.
- National Resource Center for Health and Safety in Child Care and Early Education. (2006). Individual States' Child Care Licensure Regulations. Retrieved August 16, 2006, from <http://nrc.uchsc.edu/STATES/states.htm>

- NICHD Early Child Care Research Network. (2000). Characteristics and quality of child care for toddlers and preschoolers. *Applied Developmental Science*, 4(3), 116-135.
- Ochshorn, S., Kagan, S. L., Carroll, J., Lowenstein, A. E., & Fuller, B. (2004). *The effects of regulation on the quality of early care and education (Child Care and Early Education Research and Policy Series Report No. 3)*. Denver, CO: National Conference of State Legislatures.
- Organisation for Economic Cooperation and Development. (2001). *Starting strong: Early childhood education and care*. Paris: Author.
- Phillips, D. A., Voran, M., Kisker, E., Howes, C., & Whitebook, M. (1994). Child care for children in poverty: Opportunity or inequity? *Child Development*, 65, 472-492.
- Ramey, C. T., & Ramey, S. L. (2004). Early learning and school readiness: Can early intervention make a difference? *Merrill-Palmer Quarterly*, 50(4), 471-491.
- Reynolds, A., & Clements, M. (2005). Parental Involvement and Children's School Success. In E. N. Patrikakou, R. P. Weissberg, S. Redding, H. J. Walberg & A. R. Anderson (Eds.), *School-family partnerships: Promoting the social, emotional, and academic growth of children* (pp. 109-127). New York: Teachers College Press.
- Robin, K. B., Frede, E. C., & Barnett, W. S. (2006). *Is more better? The effects of full-day vs. half-day preschool on early school achievement*. NIEER Working Paper. New Brunswick, NJ: National Institute for Early Education Research.
- Rosenthal, E., Rathburn, A., & West, J. (2006). Regional differences in kindergarteners' early education experiences. *Education Statistics Quarterly*, 7(1 & 2).
- Rumberger, R., & Tran, L. (2006). *Preschool participation and the cognitive and social developments of language-minority students*. Los Angeles and Santa Barbara: University of California Graduate School of Education & Information Studies, Center for the Study of Evaluation and University of California Linguistic Minority Research Institute.
- Sadowski, M. (2006). The school readiness gap [Electronic Version]. *Harvard Education Letter*. Retrieved August 24, 2006 from <http://www.edletter.org/current/readinessgap.shtml>.
- Saluja, G., Early, D. M., & Clifford, R. M. (2002). Demographic characteristics of early childhood teachers and structural elements of early care and education in the United States [Electronic Version]. *Early Childhood Research and Practice*, 4. Retrieved August 21, 2006 from <http://ecrp.uiuc.edu/v4n1/saluja.html>.
- Schulman, K., & Barnett, W. S. (2005). *The benefits of prekindergarten for middle-income children*. Policy Report. New Brunswick, NJ: National Institute of Early Education Research.
- Schweinhart, L. J. (2003). *Benefits, Cost, and Explanation of the High/Scope Perry Preschool Program*. Paper presented at the Meeting of the Society for Research in Child Development. Retrieved August 21, 2006, from http://www.highscope.org/Research/PerryProject/Perry-SRCD_2003.pdf.
- Scott-Little, C., Kagan, S. L., & Frelow, V. S. (2005). *Inside the content: The breadth and depth of early learning standards*. Executive Summary. Greensboro, NC: SERVE.

- Smith, J., Brooks-Gunn, J., & Klebanov, P. (1997). The consequences of living in poverty on young children's cognitive development. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 132-189). New York: Russell Sage Foundation.
- Smith, T., Kleiner, A., Parsad, B., & Farris, E. (2003). Prekindergarten in the U.S. public schools: 2000-2001 [Electronic Version]. *Education Statistics Quarterly*, 5. Retrieved July 21, 2006 from http://nces.ed.gov/programs/quarterly/vol_5/5_1/q3_2/asp.
- Stipek, D., & Ryan, R. (1997). Economically disadvantaged preschoolers: Ready to learn but further to go. *Developmental Psychology*, 33(4), 711-723.
- Tank, R. M. (1980). *Young children, families, and society in America since the 1820s: The evolution of health, education, and child care programs for preschool children*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.
- U.S. Congress. (2004). *Background material and data on programs within the jurisdiction of the House Committee on Ways and Means*. Retrieved August 4, 2006. from <http://www.gpoaccess.gov/wmprints/green/index.html>.
- U.S. Department of Agriculture. (2005). Child nutrition programs--Income eligibility guidelines. *Federal Register*, 70(52), 16226-16229.
- Vast, T. (2005). Governance option: Part I [PowerPoint Presentation]. Early Childhood Education Temporary Task Force, Governance Working Group Meeting. Retrieved August 1, 2006, from http://www.hawaii.edu/hepc/ece/GovernanceOptions_Sep_8_05_TeresaVastpresentation.ppt
- Votruba-Drzal, E., Levine Coley, R., & Chase-Lansdale, P. L. (2004). Child care and low-income children's development: direct and moderated effects. *Child Development*, 75(1), 296-312.
- Waldfogel, J. (2006). *What children need*. Cambridge, MA: Harvard University Press.
- Wen, P., & Dedman, B. (2002, September 1). Stuck in a day-care dilemma working-class families struggle with shortage. *Boston Globe*, p. B.1.
- Whitebook, M., & Eichberg, A. (2001). *Finding a better way: Defining and assessing public policies to improve child care workforce compensation*. Berkeley, CA: Center for the Study of Child Care Employment.
- Wolfe, B., & Scrivner, S. (2004). Child care use and parental desire to switch care type among a low-income population. *Journal of Family and Economic Issues*, 25(2), 139-162.
- Zigler, E. (1979). Head Start: Not a program but an evolving concept. In E. Zigler & J. Valentine (Eds.), *Project Head Start: A legacy of the War on Poverty* (pp. 367-378). New York: The Free Press.