Executive Summary

This study examines the two large-scale public preschool programs in Baltimore City, one operated by Head Start and the other by the Baltimore City public schools. Together these two programs spend approximately $32 million annually to provide preschool to most of the city’s four-year-olds and some three-year-olds. In spite of this expenditure, most of Baltimore City’s poor children continue to arrive at kindergarten unable to demonstrate measurable benefits from the preschool experience. Over the last 20 years, city, state, and federal officials have allocated hundreds of millions of public dollars to Baltimore City’s public preschools, without determining if this investment is improving academic outcomes.

Baltimore City’s lack of attention to its preschool programs would constitute a serious public policy failure even if the only issue were effective use of scarce public resources. But the inattention has far more serious ramifications. Done properly, a preschool experience can mean educational success for many children for whom otherwise there would have been failure. Preschool can also make a powerful contribution to greater social equality. Experience in other nations, research on brain development, and studies of effective preschools all present a strong, consistent case for using preschools to achieve democratic aims. From these sources, we can identify four criteria of preschool that may be necessary if Baltimore intends to increase the academic performance of poor children.

1. The primary goal of preschool should be the development of a child’s intellect.
2. Some poor children need to start preschool as early as age two in order to accrue lasting benefits.
3. The school day should be all day, even for some two-year-olds.
4. Teachers must have bachelor’s degrees and be experts in the curriculum that they deliver.

Though most developed countries can boast better results from their preschool programs than the U.S., the French model of preschool education is especially successful at reducing the gap between advantaged and disadvantaged children. The French model, now over 100 years old, provides compelling evidence for implementing a more intellectual preschool curriculum, at an earlier age and for a longer school day, using better qualified teachers.

Even with its large underclass of uneducated North African immigrant and Gypsy families, French preschools achieve what should be the envy of an American school system.
one in ten chance of repeating a grade in elementary school. Without any pre-
school, French children repeat a grade at a rate of one out of three children. In
contrast, if Baltimore City children were held to the same rigorous promotion
criteria as France insists upon, seven out of ten children would repeat a grade.

In Baltimore City, the two preschool programs operated by Head Start and the
Baltimore City Public School System (BCPSS) offer an interesting local perspective
on the disappointing national experience with public preschools. In the case of Head
Start, there is no evidence that it either produces measurable academic results for
the city’s poor children or that it even sees itself as accountable for doing so. The
creators of the curriculum used in most Head Start centers criticize other preschool
programs that have as their objective the preparation of children for elementary
school. They take the position that preschool teachers should not be accountable
for what children learn. While the public perception of Head Start may be that it is a
preschool, Head Start is in fact primarily a social service agency, operating under the
city’s Department of Housing and Community Development.

Head Start’s cost per child is significantly higher than the cost of providing pre-
school to a child in a Baltimore City Public School System (BCPSS) preschool. At
$7,155 per child, Head Start spends almost four times more per child than BCPSS,
which spends roughly $1,886 per child. The higher cost of Head Start is especially
surprising because the agency spends a lot less on staffing its preschool classrooms
than does BCPSS. Head Start’s wages are distressingly low, which restricts it to
hiring teachers with substandard credentials. Head Start centers typically offer
more full-day programs than does BCPSS, which means paying staff for longer
days, but its instructional salaries are too low to fully explain the high cost of
operating Head Start.

The reasons for Head Start’s high operating costs lie more in its commitment to
extending a full array of services to parents. Head Start appears to be spending less
than one-third of its $24 million annual budget on the classroom; the remainder is
spent on family services and adult education.

In contrast to Head Start, BCPSS is well aware of the academic deficits it must try to
remedy when children start school. BCPSS tries hard to address them in the short
time that it has, since it only educates four-year olds in half-day programs. Its efforts
clearly need to be strengthened, a fact which the school system is the first to ac-
knowledge. Waiting until age four to admit students to a half-day program allows too
much time to elapse between birth and school, in terms of both brain development
and a child’s range of experiences. At four years of age, the average disadvantaged
Two to three years of preschool for some children may be more effective than one year for all children.

A strong preschool experience linked to an equally strong elementary school experience is a key to overcoming the major social challenge facing Baltimore City.

child will know less than a third of the vocabulary of a child from a more advantaged family. He has spent only a tiny fraction of the time spent by his more advantaged counterpart on activities that build literacy skills: being read to, watching educational television, playing computer games, writing, and drawing. Unless these children receive an effective preschool experience, it is unrealistic to expect a kindergarten teacher to overcome the children’s many deficits in nine months, and have them prepared for the first grade.

There are six policy changes for the Mayor and the School Board to consider:

1. **Insist upon Head Start shifting children’s intellectual development to front and center.** If Head Start is going to effectively improve children’s educational outcomes, it will need to adopt a higher standard for the credentials of its teachers and teachers’ aides. Teachers should possess a bachelor’s degree with expertise in the curriculum and aides should meet minimum literacy standards.

2. **Begin a concerted effort to provide preschool to all poor children who are two, three, and four years of age.** If funds cannot be found for universal access for poor children, two to three years of preschool for some of the city’s poor children may be more effective than one year for all children.

3. **Determine if a full-day program is a luxury or a requisite.** Full-day programs for some of the city’s poor children may have more of an impact than a half-day program for all children.

4. **Implement a city-wide preschool curriculum that establishes specific, measurable expectations for a child’s development.** An effective preschool curriculum articulates all aspects of a child’s appropriate development: physical, cognitive, language, and social.

5. **Assess children from the time they leave preschool through elementary school to better evaluate the impact of city preschools on academic outcomes.**

6. **Consider placing all public preschools under one authority.** In order to ensure the consistent preparation of the city’s poor children for school, the city may want a sole provider to oversee all public preschools. Given Head Start’s secondary interest in intellectual development, the city may justifiably decide that the school system, rather than the Department of Housing and Community Development, is better suited to provide the preschools that are needed.
The disparity in vocabulary, experience, and skills between an advantaged child and a disadvantaged child is well documented. Bridging that gap is essential to success later in life for poor children, but even the most talented kindergarten teacher starts too late in the process to succeed. A strong preschool experience linked to an equally strong elementary school experience is a key to overcoming the major social challenge facing Baltimore City: breaking the cycle of poverty perpetuated in a city teeming with nonreaders.
I. Introduction: Two Experiences Worlds Apart

While their IQs may be perfectly normal, most poor children in Baltimore City start preschool with little preparation for their first experience in school. Little about preschool relates to their own experiences in four years of living. In comparison with more affluent children, these children know few words. For example, they may be unaware that the wooden things found in the bin are called blocks, they may have never played with blocks to learn such physical concepts as balance, and almost certainly they do not know the names of the various shapes of the blocks. If a teacher were to urge these children to build a castle with the blocks, many of them will not recognize the word “castle” and will have no idea what one looks like.

Teachers may easily overlook many opportunities to address these deficits and are not likely address them in any systematic way. For example, a teacher might hand a child a container of crayons, telling him to pick out the orange crayon for coloring in a paper jack o’lantern that she (the teacher) has cut out. The child may not have heard the term “jack o’lantern” before, may never have held a pair of scissors, may not know that a jack o’lantern is shaped like a circle, and may not be sure which crayon is orange. Meaning well, the teacher might overlook the child’s confusion in deciding which color crayon to pick, telling him that a jack o’lantern can be any color he chooses. Even if she does show him the orange crayon and show him what a circle is, she may fail to reinforce these same concepts for this child except by accident. Without such reinforcement, the child will not hear, practice, and experience these concepts often enough to master them.

The lack of writing opportunities in some classrooms, critical to developing children’s literacy skills, is glaring. Though some Head Start writing centers are well maintained, others are woefully inadequate, consisting, for example, of a disconnected computer keyboard, dried-up markers, and crayon bits. Likewise, in a classroom’s “culture center,” there is a globe, but the children are never told that the globe represents the...
The Untapped Potential of Baltimore City Public Preschools

Of all of the fundamentals that these children should have acquired, their lack of knowledge of words and books is most palpable. Long before Baltimore's poor children start school, their French counterparts can sing and recite familiar songs, nursery rhymes, and poems.

Though many Head Start parents hope their children will learn the ABCs in preschool, these same parents probably do not appreciate that the minimal exposure to letters is quite deliberate, because many educators believe this approach to be in young children's best interests. Consistent with the concept, many teachers will not post an alphabet banner out of a belief that even subtle exposure to the alphabet is premature. Children most likely will not be taught how to write their names or to recognize the letters in their names.

Of all of the fundamentals that these children should have acquired, their lack of knowledge of words and books is most distinguishing. Many have never had a book read to them and have never seen a book in their homes. They are as likely to hold a book upside down as right side up, despite the pictures. When a teacher reads a story, the children may have no idea that the teacher is reading words, that she is describing pictures. If the alphabet is introduced, the introduction may be done poorly because there is little support or tradition in Head Start for teaching the alphabet. For example, a teacher might decide to introduce the sound of the letter B after reading a story simply by pointing to a letter on the cover of a book. She may make the B sound, which the children may then mimic. The fact that the children hear this lesson without any previous understanding of print—its relationship to the words they speak, what letters symbolize, that individual letters make sounds—renders the teacher's hurried lesson on the B sound premature. Unfortunately, the failure of these children to understand will ultimately be blamed on low intelligence or intractable social problems, not on poorly delivered instruction.

Paris, France

In France, public preschool has been available for 100 years. The poor in Paris typically live in public housing on the outskirts of the city, bleakly reminiscent of the...
towers recently imploded in Baltimore City. Most are uneducated Algerian immigrants; North Africans and Gypsies comprise the majority of the French underclass. These children are likely to start preschool at age two, not age four.

Long before Baltimore’s poor children start school, their French counterparts can sing and recite familiar songs, nursery rhymes, and poems. They learn early how to hold a book, and pretend to read the words under the picture, an important signal that they understand the function of print. Throughout the school day, teachers will read not one, but three books to the children. The quality of the literature is high. Books are selected often to support certain concepts, but always because they will foster the love of a good story. For example, a teacher might read Aesop’s fable about a lion and a mouse. Because the teacher has the skills and facility to keep children engaged and excited about learning, she can use this story as a springboard to work with the whole class for up to an hour, far more than the 15 minutes recommended in Head Start preschools. She then might launch a discussion about the differences between lions and mice.

When the alphabet is taught, each letter is introduced and then reinforced in a variety of creative ways throughout the year, employing all of the children’s senses. A teacher may have the children write letters—in sand, in chalk, with paint, and in pantomime. They will be led to sing songs and recite rhymes to better learn the letter’s sound. Each child will learn to master the letters that make up his own name.

When children are restless, the teacher does not necessarily cease whole-group instruction. For example, she might lead children through a small obstacle course. One by one the children will go through the course, practicing somersaults, jumping, hopping on one foot, and climbing. Afterwards, the children may help to draw a large map of the course, using different shapes to symbolize the different obstacles. The teacher will talk about space, distance, and size.

When painting at an easel, children are guided to progress beyond scribbles to representational drawings. Stick figures grow increasingly complex. The child adds more and more detail to a drawing of his home. The children are exposed to beautiful art. The teacher may show paintings by Van Gogh or Gauguin and ask them to paint flowers in the styles of the great artists. Children are encouraged to sign his or her name on their paintings, beginning with the first name and progressing to the last.

A Common Background and Vastly Different Futures
Urban poverty is not uniquely American. The urban poor in Paris are quite similar to the urban poor in Baltimore. They tend to live in single-parent homes, with mothers who
have usually not completed high school and who work long hours at minimum wage. Their homes usually contain no books; the television may be on at all times. Neither the poor French mother nor the poor American mother has much of an idea about what it will take for her child to succeed in school; it is a job they entrust to the schools.

Preschools in both Baltimore City and Paris provide attentive and caring teachers who respond to children’s imaginations and praise them for good work and good behavior. The children all benefit from learning what it is like to be in a classroom, sharing toys and taking turns. The classrooms in both cities are relatively inviting, happy places to spend time, but the educational philosophies that govern them, the training of the teachers, and the curricula delivered, are as far apart as the two cities.

**In France:**

- **The teacher orchestrates classroom activities.** Baltimore City’s Head Start places strong emphasis on play, almost entirely self-directed. In contrast, the French preschool balances activities initiated by the children with activities that the teacher directs. In France, the teacher spends up to an hour a day working with the class; in Baltimore, 15 to 20 minutes a day.

- **School readiness is the paramount goal.** The curriculum in many Head Start classrooms boils down to a free-for-all. Head Start’s guidance on the classroom environment is explicit, but guidance on instruction, though desperately needed, is implicit at best and often misinformed. With no particular skills in hand except their love for children, many Head Start teachers must invent new activities and lessons daily, with no assurance that their efforts will be effective. Social goals are given higher priority than intellectual goals. In contrast, children throughout France, rich and poor, receive the same explicit, written curriculum, carefully paced to continually introduce new knowledge and skills. The curriculum has been practiced, reworked, and updated in classrooms throughout France to ensure that every moment is a learning moment. Best of all, French kindergarten teachers know with confidence the skills and experience that children will bring with them from preschool.

- **Teachers are well educated.** Most of Head Start’s teachers do not have bachelor’s degrees. Even in cases where they do, their training would not have included much of the new research and knowledge that argues so persuasively for the intellectual preschool program such as France offers. French teachers have master’s degrees that instill in them high expectations for their students and the competency to reach those expectations.
The Untapped Potential of Baltimore City Public Preschools

Poor children in France stand an excellent chance of reading proficiently, while poor children in Baltimore face staggering odds against reading well.

- **Pay level is commensurate with expectations.** Baltimore’s Head Start teachers are paid far less than most American teachers, as little as $12,000 per year. French preschool teachers are paid as well as any teacher at any level of schooling in their system, and they receive extensive professional development, including a full week each year for more training, during which a paid teaching substitute is provided by the French government.

- **Early preschool is a funded mandate.** Many poor children in France receive a government benefit not available to children in Baltimore, or elsewhere in the United States. They enjoy the opportunity to begin school at the age of two, attending from 9:00 a.m. to 4:00 p.m. each day (with a two-hour lunch), nine months a year. This policy of universal access makes teachers’ job easier. With the help of only one aide, a French teacher can handle 27 children competently. The teacher can do so not only because she is well trained, but because the children start so young. The teacher has plenty of time to ensure that each child learns what he or she needs to learn.

The quality of French preschools and the early age of their entering students does indeed seem to make a difference in the acquisition of reading skills. Poor children in France stand an excellent chance of reading proficiently, while poor children in Baltimore face staggering odds against reading well—about a one in six chance.2

Many poor French children have a good opportunity to overcome the cognitive deficits that foster social inequality, an opportunity seen as next to impossible in the United States.

This report presents the case for promoting earlier access to preschool for Baltimore’s poorest children, but only when that access is accompanied by a sound, field-tested curriculum and a far better quality of instruction. Without such changes, increased spending on preschools will be largely wasted.

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2 The best available way to measure reading levels of children in France is through grade retention, as children are not promoted to the next grade unless they are reading at grade level. As reported in Section IV, French children have only a 10 percent chance of being held back a grade for not reading. A Baltimore child’s chance of becoming a proficient reader was estimated using the Maryland School Performance Assessment Program (MSPAP) data, showing that only 15.6 percent of all third graders in the city posted a satisfactory score in reading in 1999. The preponderance of poor reading skills is reinforced by results from the Comprehensive Test of Basic Skills, which puts Baltimore third graders in the 27th percentile nationwide.
• First, we explore the data that show that lack of school readiness of Baltimore’s poor children is attributable in part to preschool quality, not access by poor families with four-year-olds. We show the extent to which the city’s four-year-olds are currently enrolled in public preschool.

• Second, we review brain research that suggests what kinds of preschool experiences young children need in order to be ready for school.

• Third, we examine the research on effective and ineffective preschools for poor children.

• Fourth, we review the costs associated with providing preschool via BCPSS and Head Start, revealing the enormous disparity between the two providers and their very different missions. In an attempt to understand why Head Start is so costly, we look at its mission, its commitment to parents, its internal structure and how these factors impact its preschool program.

• Fifth, we take a critical look at the curriculum that is used in most Baltimore City Head Start centers.

• Sixth, we take a look at the considerably more academic preschool offered by the BCPSS preschools, the genesis of its curriculum, and the problems it faces.
II. Enrollment and Access to Public Preschools

Most children in Baltimore City start elementary school ill prepared for the work at hand. Even at age five, most children who live at or near the poverty line already test far below their more advantaged peers, a disparity that gets worse as these children get older. We do not know the true extent of the gap that exists at age six, because traditional tests do not report scores below what a kindergartner should be able to do. Research provides some indication. A 1995 study of kindergarten children's vocabulary showed an almost seven-year spread between poor and middle class children. Many poor children arrived at school with the vocabulary of an average two-year-old and more affluent children arrived with the vocabulary of an average nine-year-old. These discrepancies did not diminish by second grade.3

It is a common misperception that the lack of school readiness on the part of so many poor children can be blamed on their lack of access to the city's existing preschool programs. The lack of funding and access is indeed an obstacle for two- and three-year-olds (who are not eligible to attend most preschools), but not for four-year-olds. None of the data on enrollment, availability, access, or funding suggest that too many children in the city are competing for too few slots.

How many of the city's four-year-olds living in poverty are going to public preschool? To estimate the number of four-year-olds in poverty, we used recent kindergarten enrollment data, the first year that children must attend school.4 If we assume there are about the same number of four-year-olds as there are kindergarten students, there should be roughly 8,000 four-year-olds in the city.5 Based on data reported by the Baltimore City Public School System, three-quarters of these children, or 6,000, will qualify for free or reduced lunches when they start kindergarten.

**Baltimore City Preschool Enrollment**

**There are enough preschool slots in Baltimore City for every four-year-old living in poverty.** There are currently two large-scale preschool programs open to poor four-year-olds free of charge, one operated by the Baltimore City Public Schools System (BCPSS), and one by the city's Department of Housing and Community Development, the Head Start program. Together, the BCPSS Preschool program and

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4 Some poor families may be sending their children to private school, but we are assuming that few are.
5 The number of children entering kindergarten in the last half of the 1990s dropped 11 percent from the average of the first half of the 1990s, reflecting the city's declining population. Over the past 50 years, Baltimore has lost a third of its population. The enrollment of children in public school, which was as high as 190,000 in the 1960s, is now at an all-time low of 103,252 (BCPSS Financial Report, 1999).
An additional source of government funds provides even more access to free preschool for poor families. Mothers participating in Maryland’s Welfare to Work program are given vouchers that enable them to enroll their children free of charge in a private preschool to provide day care. The Department of Human Resources, Child Care Services, reports that 719 vouchers for day care were provided to parents of four-year-olds in the fall of 1999, some at facilities which offer formal preschool, others for care in private homes. Some children may be enrolled in both programs, but the extent to which this occurs could not be verified by program administrators.

Baltimore City Public Schools System (BCPSS) Preschools

- 3,702 four-year-olds are currently attending preschool in a BCPSS program.
- The total program has a current capacity (space and funding) for 4,240 students; with about 538 open slots, it is operating at about 87 percent capacity.
- Two new sites were opened in 1999-2000.
- Thirty of its 104 schools are at capacity. The remaining 73 preschools are underenrolled.

Head Start Preschools

- 1,396 four-year-olds are currently attending preschool at a Head Start center, in addition to 1,448 three-year-olds, for a total of 2,844 children.
- Baltimore City Head Start has a capacity of 3,083 (space and funding) for three and four-year-olds; it currently reports 239 open slots, operating at about 92 percent capacity.

An additional source of government funds provides even more access to free preschool for poor families. Both of the city’s public preschool programs are operating well below capacity, reporting about 777 open slots for four-year-olds in February 2000.

Head Start currently serve nearly 5,100 four-year-olds and have enough funding to serve roughly 6,000. Both of the city’s public preschool programs are operating well below capacity, reporting about 777 open slots for four-year-olds in February 2000.

Any estimate about the number of children living in poverty who are enrolled in preschool is complicated by two factors:
- The total number enrolled ranges between 5,000 and 5,700 because it is not known how families are using their the Welfare to Work vouchers. It is not possible to distinguish how many of the 719 four-year-olds in the Welfare to Work program are using the vouchers for before/after care at a Head Start or BCPSS preschool, or if these children are using the vouchers to attend private preschools or private day care.
- Some of the children currently enrolled in a BCPSS preschool may not have to individually qualify for free or reduced lunches, based on family income, but qualify because their zoned school serves a predominantly poor population.
Location of Baltimore City Preschools

Preschools are accessible; there are more preschools than elementary schools in Baltimore City. BCPSS is serving the greatest number of children, operating 104 sites. Head Start has 70 sites. Together, there are 174 public preschools in the city, with a varying number of classrooms at each site. In contrast, there are only 124 public elementary schools in the city. About one-third of Head Start centers are located in 23 Baltimore City public elementary schools, where BCPSS also offers a preschool. Another third of the Head Start Centers are located in churches, with the remaining third located in general child care facilities.

At 174 preschools, the large number of sites spread over the city’s 79 square miles suggests that every neighborhood in the city is located near a public preschool. It is not the case that one quadrant of the city is well served and another ignored, because most of these preschools are housed in one of 111 elementary schools, which by design are evenly dispersed throughout the city. All but 11 of the regular elementary schools house a preschool. The 11 that do not house preschool tend to serve a more affluent population, have a problem with classroom space, or have elected to forgo offering a preschool program in order to use the funds to provide full-day kindergarten.

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10 The following BCPSS Elementary Schools do not house any preschool program, including the percentage of students who qualify for free or reduced lunch: Mount Washington (22.0); Roland Park (33.6); Glenmont (39.8); Violetville (40.6); Hazelwood (55.6); Gardenville (61.8); Hampstead Hill (70.7); Furley (74.1); Robert Coleman (84.1); City Springs (88.2); and Rayner Browne (94.9). The average poverty level at these 11 schools is 60.4 percent; the average for all city elementary schools is 76.8 percent. Two other elementary schools, Elmer Henderson and Fort Worthington do not offer both kindergarten and preschool. Kindergarten and preschool are provided for children in these schools at Lakewood and Luther Craven Mitchell elementary schools.
The Untapped Potential of Baltimore City Public Preschools
If the lack of skills evidenced by the city’s poor children is due in part to the quality of the preschool experience, the logical move would be to improve the curriculum and pedagogy used in preschools. However, many educators have fiercely held beliefs about how children learn. These beliefs have roots that go back to the educational theory developed in the 19th century and often run counter to the kinds of changes that many believe are needed in today’s preschools. It helps to understand what theories undergird these beliefs and how new research challenges current practice.

**Jean Piaget’s Legacy**

Much of the theory that has shaped American preschools can be attributed in some fashion to Jean Piaget (1898-1980). This Swiss psychologist is, arguably, the most influential person in American public education, although even he might not lay claim to all the conclusions about his work reached by others. Piaget believed that infants and children acquire knowledge much like one would climb a ladder, beginning with simple concepts and progressing as they mature to complex, abstract thoughts. Scientists now present an image of learning that is much more cyclical, complex, and dynamic. Piaget also distinguished between how children and adults think, as operating under two fairly separate processes, which current evidence challenges.

Some of Piaget’s theories have led to what is called developmentally appropriate practice. In a developmentally appropriate classroom, the teacher is a facilitator of play, not an instructor who accelerates a child’s interest and motivation to learn. The child’s own biology and natural desires will determine what, when, and if he will learn. Children are viewed as “flowers” opened only by time; for a teacher to try and accelerate this blossoming is believed to be harmful.

While national preschool policymakers are slowly modifying this view of developmentally appropriate practice, its residual effect still dominates many classrooms. This vision of the child as an opening flower, though charming, has not only been discredited, but also is not in the best interest of poor children.

Popular application of Piaget’s theories, including developmentally appropriate practice, is largely discredited by research on cognitive development, longitudinal data on reading readiness and other academic outcomes, and well-grounded theories of child development. Yet Piaget’s romantic theories continue to be applied (or misapplied), perhaps because the image of the child as a flower in bloom retains considerable potency, perhaps because it takes a long time for people to change...
their beliefs, and perhaps because educators do not want to take responsibility for children’s educational outcomes. Slowly, new research is beginning to have an impact on national preschool policies, most notably the policies of the National Association for the Education of Young Children (NAEYC), but the early response on the part of many educators is a combination of foot-dragging, denial, and a visceral distrust of science. In Baltimore’s Head Start classrooms, the impact of these newer findings for the most part has not been felt.

How the Brain Learns
This section presents three of the most cogent findings on brain development and their implications for preschools. Some of these findings provide hard, quantifiable evidence that had been lacking a decade ago. Other findings cannot be seen so concretely, but correlate well with other types of research in areas such as reading skills and early childhood development. A number of books and articles on this subject provide more detail and explanation (see sidebar on right).

1. Children who learn with ease have had lots of experiences. The brain, unlike a computer, operates long before it is finished being built. Beginning at birth, the brain is involved in the furious activity of building the connections between 100 billion nerve cells that allow the mind to learn. The growth of these connections is theorized to be directly related to stimulation of the brain by experience. Without experience, less learning takes place; the brain has not built important connections that allow it to keep learning. Not unlike a car, the poorly stimulated brain ends up firing on one or two cylinders. Before a child is one year old, though, his brain begins a pruning process, ridding itself of less-used connections.

For a child who is not experiencing much intellectual or cognitive stimulation, the brain decides that there is little reason to hold on to those little-used, feeble connections and discards them. Though no one is exactly sure at what age the brain can best learn a given set of skills, there appear to be definite windows of opportunity when certain connections are formed more easily than they are later, allowing for relatively easy acquisition of skills. For example, it has been shown to be far easier to learn a foreign language as a young child than as an adult. Although later stimulation of the right sort can have powerful effects, the job is much harder.

These findings on the brain’s learning process have important implications for preschools. Raised in an environment that offers plenty of conversation and books, it does not much matter to a child’s cognitive potential whether she is five or six when she starts school or what philosophy guides her particular preschool. For a child raised in an environment that offers little, every year that transpires between birth and...
Learning to read is a process that begins at birth, not first grade. Many of these windows of opportunity relate directly to language and prereading skills. A first grader who does not understand that sounds can be translated into print and who lacks the many fundamentals that contribute to that understanding is headed for academic trouble. These are not skills that he will easily acquire when he is older. Reid Lyon, chief of the Child Development and Behavior Branch of the National Institute for Child Health and Human Development (NICHD) observes, “given kids that come to school with limited exposure to language and literacy interactions, starting early may be their only saving grace.”

At four years of age, the average disadvantaged child knows less than a third of the vocabulary of a child from a more advantaged family. A child from an advantaged home arrives at kindergarten having been read to for an average of 500 hours, with perhaps another 2,000 hours in related activity (educational television, computer games, listening, writing, and drawing). Contrast that lucky child with one from a home where words, spoken or written, are sparse. She may have been read to for a total of 25 hours in her four years of life and may have been exposed to 200 hours of print-related activity. How can we expect an elementary school teacher to overcome that kind of deficit in just 360 hours of reading instruction, delivered to a classroom filled with at least 20 children?

It is true that some children learn later than others. It is also true that none will learn if the appropriate opportunities are withheld. A child whose home and school are not building background knowledge, vocabulary, and early literacy skills inevitably faces cognitive roadblocks in kindergarten, leaving the child at extremely high risk for reading difficulty. The prognosis for turning a nonreader into a reader after first grade is not good. One study found that only 10 percent of first graders who were poor readers had become competent readers by the fourth grade. Another researcher estimates that just 25 percent of all nine-year-old nonreaders will become readers.

11 Interview with Dr. Reid Lyon, March 10, 2000.
In one of the few longitudinal studies of children’s language skills, Dr. Gordon Wells reported a “very strong relationship between children’s vocabulary size and all later assessments of school achievement.” Wells further noted that children’s class rank at age ten is established by the time children begin kindergarten.

3. **An effective curriculum and teacher are essential if the brain is going to learn new and challenging skills.** Research in the field of cognitive neuroscience provides new insights about the conditions necessary for the brain to function at a high level, in order to learn challenging new skills and knowledge. Absent the support of an effective teacher, most thinking and learning occurs at lower levels of brain functioning, not at the optimal level. If there is minimal support from a teacher, a child has difficulty functioning at a high level. The child will need extensive practice and experience to learn on his own, something a young child usually does not have. Effective teaching and, at later ages, effective textual presentation powerfully support high-level functioning at all ages, including the preschool years. Removing such support leads to a natural, rapid drop in the level of understanding.

Put plainly, there is increasing evidence that learning is not a natural consequence of our biology, as Piaget theorized, and a preschool child is certainly not comparable to a flower blooming. Noted child psychologist Rita Watson of the Hebrew University of Israel remarks, “It is not accurate to assume that we must wait patiently on the sidelines until children bloom, untouched. It is evident from current research that they are just as likely, or even more likely, to wilt than to bloom.”

**Vygotsky, Successor to Piaget?**

The research on how the brain develops substantiates a body of long-held child development theories developed by the leading theorist on literacy instruction, Lev Vygotsky. Unlike Piaget, Vygotskian psychologists believe that instruction should move ahead of development and pull it along. By talking with grownups and capable peers as they go about doing the kinds of things literate people do, children are able to construct meanings for tasks that they could not understand on their own. This modeling and scaffolding enables children to perform tasks they could not otherwise do. But such instruction, Vygotsky projects, actually transforms the child’s development so that tomorrow the child can do independently what he can do only with assistance today.

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At an effective preschool, children hear a lot of words and are engaged in conversations and experiences that build their own vocabulary and their ability to use complex grammatical structures. Books are read to them frequently throughout the day. They learn to recognize or draw some letters of the alphabet, rhyme, separate and manipulate the sounds made by syllables, categorize sounds, make up spellings for words, and learn nursery rhymes. They build basic math concepts, many of which are not naturally learned but must be taught. They learn social skills, such as how to talk on the telephone and how to wait for their turn to speak. They learn motor skills, such as playing catch and pumping on a swing. Teachers accomplish these goals through a combination of instructional methodologies, all of which require knowledge of child development. Sometimes children will need to discover things on their own; other times children will learn under the direction or guidance of a teacher.

**Practical Differences.** There are two reasons why the building of language and cognitive skills is considered by many to be the primary work of preschools serving poor children. First, the skills in these two areas are needed in order for a child to learn how to read; and second, the greatest gaps between poor and middle class children are found in these two areas. A study done of preschools in Albany, New York illustrates just how sharply different the experience is for poor children than for...
their more affluent peers.\textsuperscript{18} It compared five types of preschools: a public school, Head Start, subsidized child care, a university day care for faculty children, and a nursery school run by a synagogue. The preschools attended by the poor children (the public school, Head Start, and subsidized child care) spent anywhere from one-third to two-thirds less time on literacy activities (reading out loud, letter recognition, writing) as the programs attended by more affluent children at the synagogue and university. Teachers talked from two to three times more about books in the affluent schools. The number of books in the school library ranged from a high of 1,300 books for the university day care to a low of 68 books at the Head Start center.

2. **Children with more preschool experience have higher achievement scores and fewer behavior problems and are less likely to repeat a grade.\textsuperscript{19}**

A high-quality preschool provides a solid and coherent foundation for later learning in kindergarten and beyond. For children in poverty, high-quality preschool programs can produce meaningful effects on IQ during the early childhood years and sizable persistent effects on achievement, grade retention, special education, high school graduation, and socialization.

3. **The length of time spent in preschool produces positive long-term outcomes.**

In the late 1970s, the Carolina Abecedarian Project provided a birth-to-five language-rich preschool experience to over 100 poor African-American children. Twenty years after the intervention, these young adults had higher IQs, were better readers, and were three times more likely to attend a four-year college than their controls. As adults, these students were on average one and a half years older than the control group when they had their first child.

Of particular interest is a study on French preschools and its varying effects for 1,900 children who began preschool at two, three, and four years of age.\textsuperscript{20} In France, attendance at preschool is close to universal, with 97.5 percent of three- and four-year-olds attending. Because there is no social promotion, children are typically retained in third


or fourth grade if they have not reached a level of competency. The following table illustrates the dramatic effects of a preschool experience on retention rates; a child who attends preschool at age two is three times less likely to have to repeat a grade.

<table>
<thead>
<tr>
<th>Years of preschool attendance</th>
<th>Percentage of sample that repeated a grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three years</td>
<td>10.0%</td>
</tr>
<tr>
<td>Two years</td>
<td>14.5%</td>
</tr>
<tr>
<td>One year</td>
<td>18.3%</td>
</tr>
<tr>
<td>No years</td>
<td>30.5%</td>
</tr>
</tbody>
</table>

In the United States, several major studies of effective preschools demonstrate that the number of months that children spend in preschool can improve achievement test scores in second grade, reduce behavior problems in third grade, and lower grade retention rates in kindergarten through third grade.21

4. Educational outcomes for children participating in Head Start are uneven and dissipate over time.

A positive impact of Head Start on academic outcomes is not consistently observed at any level (in any classroom, center, or program), and when it is observed, it can be seen that the impact diminishes with time. A 1985 study by the Department of Health and Human Services concluded, “In the long run, cognitive and socio-emotional test scores of former Head Start students do not remain superior to those of disadvantaged students who did not attend Head Start.”22

Of particular relevance to the largely African-American population of Baltimore is the fact that improved academic outcomes for African-American children who attend Head Start are not sustained through the school years. A 1998 evaluation of Head Start noted that classroom quality is lower at Head Start centers with high percentages of minority children.23 These children typically attend the poorest quality Head Start Centers followed by the poorest elementary schools. As author E. D. Hirsch remarks, these children “have left the frying pan for the fire.”24 Contrast these with results from

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the French study, where children who attended preschool at age two showed a more pronounced benefit in the fifth grade than they showed in the first grade.

5. Effective preschool does offer a disproportionate advantage to children who are poor.

A recent large-scale American study on preschools found evidence that preschool can offer a greater benefit to poorer children than more affluent children. The French study too showed stronger, positive effects of preschool on poor children than more affluent children. While all children had received benefit, poor children received more benefit with disproportionately higher gains than more affluent children did. Certainly these findings support an understanding of effective preschools as society’s best tool for whittling away at the deficits associated with poverty.

One of the most comprehensive and scholarly publications on literacy, Preventing Reading Difficulties in Young Children, discusses at length the skills that are prerequisite to reading. The skills it recommends that teachers impart to preschoolers, along with many activities suggested in the book’s accompanying handbook Starting out Right, all require the teacher to teach them; and this instruction is particularly important in the case of children from disadvantaged backgrounds. Effective European preschools are even more forthright about the need to instruct. Though “in-

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26 National Research Council (1998), Preventing Reading Difficulties in Young Children, Snow, C., Burns, M., Griffin, P., eds., Washington, D.C.
27 The handbook Starting Out Right builds upon the research and principles presented in Preventing Reading Difficulties, presenting the essential components of a preschool curriculum that promotes children’s learning in many domains. Among the many activities suggested—all of which require a very carefully planned program by the teacher—are rhyming songs, choreographed movement, syllable clapping, grouping objects, classification and seriation (arranging objects in order or patterns such as color and size and describing their relationship, such as biggest to smallest), numbers (counting and relationships, such as more, fewer, the same) and relationships; space, time, regular one-on-one conversation, frequent reading out loud, interpretation of signs and symbols, and providing specific writing experiences. It recommends formal methods for reading with preschoolers, such as the PEER sequence (a way of interacting with preschooler while discussing books) and the CROWD principles which lay out five types of prompts to use during the reading interactions. See: National Research Council, page 45 in Starting Out Right, Burns, M. Susan, Griffin, P., Snow, C. eds. Washington, D.C.: National Academy Press.
struct” can conjure up images of long lectures being delivered to preschoolers, the word simply means to “impart skills and knowledge,” and implies nothing about the particular methodology used to do so.

Whether or not instruction needed in preschools could correctly be labeled as “formal” (in that it requires careful lesson planning, orchestrated delivery, and specific outcomes) is also irrelevant. What counts has been identified by clear preponderance of research on effective preschools which includes, but is not limited to, the explicit, systematic instruction by the preschool teacher in order to convey a specific body of skills and knowledge.
The Untapped Potential of Baltimore City Public Preschools
V. Funding and Costs of Baltimore’s Public Preschools

As we discussed in Section II, Baltimore’s Head Start and BCPSS preschool programs currently serve 5,100 four-year-olds and are funded to serve up to 800 more, roughly equal to the total number of poor four-year-olds in the city. Head Start also serves 1,448 three-year-olds, all of whom are poor. BCPSS has no program for three-year-olds, with the result that only about a 25 percent of all poor three-year-olds in the city are being served. Head Start does operate a program for infants and toddlers, including age two, but enrollment is negligible.

Hours of Operation
Head Start programs offer considerably more full-day programs and/or extended day options than BCPSS. BCPSS preschool sessions run only two and a half hours a day. A teacher will typically teach two sessions in one day, morning and afternoon.

Cost Per Child in the Baltimore City Public School System (BCPSS)
There are two sources of public funding for the Baltimore City public preschools: 1) state SAFE\textsuperscript{28} funds, totaling $4.13 million a year (FY00), used to fund Expanded Early Elementary Program (EEEP) preschools and 2) federal Title I funds, totaling $2.57 million a year (FY00) used to fund pre-K programs in high-poverty schools. These two funding sources are entirely separate, but programmatically the classrooms operate the same and are managed by the same staff at school headquarters. Both EEEP and Title I preschools employ city school teachers paid on the same salary scale as all BCPSS teachers.

EEEP is a large initiative serving 11,000 children statewide. Its funding is comprehensive, meaning that it provides the salaries for both the teacher and the aide and all materials. The city is unable to allocate its federal Title I funds as generously. Title I provides only the salary of the full-time teacher, but the local school must designate its own money for the aides and any materials that it uses. This additional need requires that the participating elementary school devote about $30,000 per classroom to cover an average aide salary with benefits totaling $26,715 and miscellaneous materials. It is for this reason that some school principals will decide not to fund a preschool in their school and use the Title I money for other purposes, such as full-day kindergarten.

\textsuperscript{28} SAFE or School Accountability Funding for Excellence is a source of education funding provided by House Bill 1 of 1998 in the Maryland General Assembly. EEEP preschools are just one of many recipients of the $283 million allocated to the State’s 24 local jurisdictions over a four-year period.
Here in Baltimore, an aide starts at an annual salary of $10,620 and earns only $13,230 after five years.

26 The Untapped Potential of Baltimore City Public Preschools

These state and federal funds, along with the added local school contribution for the Title I schools, equal about $8 million per year. In January 2000, BCPSS reported 3,702 four-year-olds on its rolls. If the BCPSS programs were operating at capacity (they are at 87 percent of capacity in 1999-2000), the cost would be $1,886 per child per year for a 2-1/2 hour session, 5 days a week, 40 weeks a year.

Head Start Costs

Though Head Start is funded to serve 25 percent fewer children than the BCPSS programs (3,270 versus 4,240), its funding allocation from the federal government is three times as great. In FY00, its budget allocation was $23.4 million, which does not include the 20 percent contribution of in-kind donations required from the local programs (usually the facilities and volunteers). In January 2000, Head Start reported 1,396 four-year-olds on its rolls, 1,488 three-year-olds, and 187 infants and toddlers. If Head Start were operating at capacity (it is at 92 percent capacity in 1999-2000), the cost per child would be $7,155 per child per year, almost four times the cost of BCPSS preschool.

The Costs behind Head Start

Why is Head Start much more expensive? The answer is not as simple as it first appears. True, Head Start does operate a 45-week program, not a 40-week program as does BCPSS, and in some instances provides a full 12-month program. Children attend up to ten hours a day, not two and a half hours. But as we will show here, the longer day and year do not account for Head Start’s higher costs. Head Start sometimes chooses, and sometimes is obliged by federal regulations, to spend, a considerable sum of money on an array of social services for adults.

Wages. Head Start salaries are low in most places around the country. The wages are set locally, not by any federal authority. Here in Baltimore, an aide starts at an annual salary of $10,620 and earns only $13,230 after five years. Most of the program directors we surveyed reported paying a salary of $12,000 on average to their aides. A teacher without a bachelor’s degree starts at $11,970. With a bachelor’s degree, a teacher starts at $19,620, roughly $7,000 lower than a starting teacher for BCPSS. Some of the Head Start centers pay no health or retirement benefits; others pay minimal benefits.
The overarching reason for the higher cost of Head Start is its mission to serve as a social service agency, not as a preschool.

For purposes of illustration, compare the labor costs of two classrooms, one a Head Start Preschool and the other a BCPSS preschool.

**Average Salaries (estimated) for Baltimore City Preschools**

<table>
<thead>
<tr>
<th>Position</th>
<th>BCPSS</th>
<th>Head Start</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher salary</td>
<td>32,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Benefits</td>
<td>15,000</td>
<td>1,000-4,000</td>
</tr>
<tr>
<td>Aide salary</td>
<td>18,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Aide’s benefits</td>
<td>8,500</td>
<td>1,000-3,000</td>
</tr>
<tr>
<td>Half-time aide, after hours</td>
<td>—</td>
<td>6,000</td>
</tr>
<tr>
<td><strong>Approximate Cost for Classroom Instruction</strong></td>
<td><strong>$73,500</strong></td>
<td><strong>$36,000-$41,000</strong></td>
</tr>
</tbody>
</table>

While Head Start may spend only $40,000 per classroom, it must also pay the cooks, bus drivers, secretaries, custodians, and administrators needed to support these classrooms. (For BCPSS, these noninstructional positions come out of the general operating budget, not its $8 million preschool budget.) Even if these positions are accounted for, they only add an estimated $12,000 to $15,000 per classroom, bringing the total operating cost of a classroom to about $55,000, still nearly $20,000 less than the BCPSS classroom. It is worth reiterating that Head Start classrooms spend $55,000 to operate 45 weeks, ten hours a day compared to a BCPSS classroom which costs $73,500 to operate 40 weeks, two and a half hours a day. (Not included in this calculation are positions such as the family coordinator or non-salaried consultants, as their purpose is not to support classroom instruction but to provide another range of services.)

**Where does Head Start money go?**

Head Start’s comparatively greater expense is plainly not due primarily to longer hours of service and 45 weeks of operation. The overarching reason for the higher cost of Head Start is its mission to serve as a social service agency, not as a preschool. Using the estimates of salaries needed for classroom instruction, it appears that two-thirds of Head Start’s annual budget is spent on services not directly related to the operation of its classrooms.

**Nonteaching Positions.** As the clearest example of Head Start’s priorities, the classroom teacher is usually one of the lowest-paid positions. All programs employ at least one family coordinator, one for every two classrooms. Family coordinators typically earn between $26,000 and $32,000 per year. They administer services to families and have no teaching duties. Head Start also employs numerous consultants who are not on a pay scale but who are used quite frequently in such areas as mental
health, nutrition, occupational therapy, language enhancement, and cultural and special education.

**Extensive Services.** The list of services that Baltimore’s Head Start centers offers is extensive. These services are available not just to parents of current students, but to parents of former students, and sometimes to individuals who have never had a child in Head Start. The services include employment and job training, adult literacy classes, substance abuse counseling, access to dental, nutrition, and mental health counseling, HIV screening, social services for the homeless, as well as an array of adult educational services, such as tuition reimbursement for both parents and teachers at area colleges, parenting and GED classes, adult basic education, and computer training.

**Serving Parents.** Despite the public perception of Head Start as a preschool, Head Start officials are quite clear about their mission as a social service agency, with early childhood education only one component. Historically and in current practice, their “overall goal ... is to bring about a greater degree of social competence in preschool children.”29 It is a mission embraced wholeheartedly and even expanded upon by officials at the local level. One Head Start deputy administrator in Baltimore City stated that parent education, not early childhood education, is Head Start’s main purpose, because the best way to improve children’s lives is to help their parents. “People have decided what Head Start is, but they don’t understand. Head Start is there to serve families,” says Carlethia Johnson, Baltimore City’s Head Start director.

No matter what Head Start views as its mandate or mission, the more important issues are whether it represents good value for the money and to whom it is accountable. At $7,148 per child, does Head Start provide nearly four times the value of the BCPSS preschool? How do we define “value”?

**Does Baltimore City have the funds to provide an effective preschool program?**

A full-day preschool program operating from 9:00 a.m. to 3:00 p.m. each day, 40 weeks a year, is estimated to cost about $3,800. We arrived at this estimate by doubling the current cost per child of BCPSS’s half-day preschool.30 A strong training component may add $250 per child.

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30 Providing free day care services before and after school, using the same wage level paid by Head Start, would cost an additional $600 per child per year. However, providing free day care is usually not considered an obligation of the school system.
Providing preschool to all poor children in Baltimore City would cost as follows:

- For 6,000 four-year olds to attend full-day @ $3,800 per child = $22.8 million per year
- For 6,000 three-year olds to attend full day @ 3,800 per child = $22.8 million per year.

The estimated cost for universal access for three- and four-year-olds in Baltimore City is $45.6 million per year, with an additional $3 million for teacher training. For 1,000 two-year olds to attend full-day would cost $5.1 million, with an additional $250,000 needed for teacher training.

Though this estimate is based on 12,000 children attending, there are currently only 5,100 children attending and about 800 open slots. The city is currently spending $32 million per year on preschool, combining both Head Start ($24 million) and the BCPSS program ($8 million) funds.

The French Option

One option that would affect the cost per student is to change the current standard for class size. Baltimore’s preschools currently allow no more than 20 students in a class. The French allow 27 children in a class. At this size, these preschools are still producing enviable results, but the larger class sizes are not popular with French teachers and administrators. If these larger class sizes were adopted in Baltimore, the city could lower the base cost per child by about 30 percent, from $3,800 to $2,660 per child. As state regulation limits preschool class sizes to a 1:10 ratio, the state would have to permit a waiver. This decision would no doubt meet resistance here as well, but if the program achieves similar results to France, and if smaller class sizes are not affordable, the city should still consider this cheaper option. (The two-year-old preschool would require an additional adult, bumping the base cost back up to a base rate of $3,800 per child.)

But there are two conditions present in French schools that would need to be present in Baltimore City for a larger class size to be effective: 1) all children must start attending at an early age, when deficits may be addressed by the teacher before they are too entrenched or create too much disparity; and 2) the system must hire only highly educated teachers and then gives them considerable training, support, and oversight, all of which costs more money.
• For 6,000 four-year olds to attend full-day = $16 million @ 27 children per classroom.
• For 6,000 three-year olds to attend full day = $16 million @ 27 children per classroom.

The estimated cost for universal access for three- and four-year-olds, using the cheaper French model is $32 million per year plus an estimated of $3 million for teacher training. For 1,000 two-year olds to attend full-day under the French model is estimated to cost another $3.8 million (three adults for 27 children) plus $250,000 for teacher training.
VI. Understanding Head Start

Head Start believes that the best way to improve children’s lives is by strengthening their communities and the lives of their parents. This philosophy encourages the delegation of authority to communities where Head Start centers are located, and the use of financial resources for social service programs in those communities. Head Start delegates considerable authority to its 16 programs scattered across Baltimore City. These programs are operated by churches, schools, and day care facilities, and are independent of one another in every respect except wage scales. By our estimate, approximately two-thirds of Head Start’s Baltimore $32 million budget is spent on activities and staff not directly related to the operation of its classrooms.

This chart, copied from Head Start’s Second Progress Report, illustrates where Head Start places its priorities. Academic goals, other than fitting loosely under the third category, “Provide children with educational, health, and nutritional services,” are conspicuously absent.
In Head Start's programming, its preschools are only one piece of a larger mission to improve children's "social competence," the keystone of Head Start. By social competence, Head Start means the "child's everyday effectiveness in dealing with both his or her present environment and later responsibilities in school and life." Within this framework, language, literacy, and cognitive skills make up only a fraction of the Head Start's performance standards, only three of the almost 300 performance standards which Head Start centers must fulfill. Most of the standards address the child's emotional development, health, and nutritional needs. While Head Start specifically embraces the importance of meeting children's health needs, it makes only a vague reference to addressing the injury caused by school failure and illiteracy.

This ethos is shaped by strong federal directives and has at its roots a philosophy developed in the 1960s when Head Start began. On the face of it, this supposition makes sense; of course children are better off if their parents are themselves socially competent. However, the overriding evidence after 30 years is that Head Start has, at best, only marginally proven the efficacy of this philosophy.

**Head Start's Local Structure**

Baltimore City's central Head Start office operates under the authority of the Department of Housing and Community Development (DHCD), the official "grantee" of Head Start for Baltimore City. DHCD is the only grantee in Baltimore City; in other cities there are multiple grantees (Philadelphia has seven, including its school system). A Head Start grantee can be any public or private nonprofit agency. The fact that Baltimore's only grantee is a city public agency answerable to the mayor bodes well for the mayor's ability to address Head Start's operations.

The central office in Baltimore does not manage or direct individual Head Start centers. Instead, it is charged only with coordinating the activities of 16 Head Start programs which have successfully completed the agency's complicated application process, set up facilities, and annually contribute 20 percent of the cost of running these centers, in exchange for Head Start funds. Some programs in Baltimore City run only one Head Start center. Others manage as many as ten. The 16 programs run a total of 70 Head Start centers. Control of curriculum, staffing levels, hiring decisions, benefit packages, and teacher training are all left to these 16 programs;

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32 The 20 percent contribution usually takes the form of in-kind contribution: donation of rent-free facilities and recruitment of volunteers to work in the centers.
Variability in Baltimore’s Head Start Classrooms

As part of this study, in 1999, 21 Head Start classrooms in Baltimore City were observed for the purpose of assessing the classroom environment and the extent to which it supports language development and early literacy. The two classrooms described here reflect the wide range in quality in Baltimore City.

Classroom A is large and bright. About one-third of the room is occupied by cubbyholes for children’s things, teacher’s storage, and an inviting carpeted area reserved for whole-group learning. Two colorful bulletin boards feature a calendar and materials, indicating that the teacher uses a literacy-building technique called “message time” as part of the class’s daily routine.

The rest of the room is occupied by seven “learning centers” for housekeeping, science, library, blocks, writing, manipulatives, and art. These centers are “print-poor.” Only about half of the learning centers have visible, readable signs. No displays, alphabet strips, or posters hang on the walls. A set of magnetic letters offers the only complete alphabet in the room, and only its uppercase sequence is complete. What little children’s work is on display contains no writing except for the teacher’s notation of the child’s name on the work.

The play kitchen in the housekeeping center has no cookbooks, recipes, grocery lists, food charts, or coupons. The only print matter is a small sign reading, “What’s for dinner?” and two recipe cards inside the toy refrigerator.

The writing center has a large table, a chair, pencil holders, a bulletin board, a mailbox, storage space for children’s journals, and the magnetic letter set, but no paper, no usable markers, and a computer keyboard that does not work. The only writing visible in the center is the sign that identifies it, a label on the mailbox, and the names of two children (apparently written by the teacher) on their displayed papers. Though the center had been set up for five months, none of the children’s journals had more than three entries. The lack of emphasis on writing and drawing is also reflected by the very small amount of children’s work on display.

There are virtually no print materials in either the art or science areas. Science center materials include a globe, plastic spiders, and other odds and ends. Cultural materials include a “Kenya” sign with a missing letter, a doll in traditional African dress, and a record player. It is unclear what children are expected to do with the materials. The art area is well stocked with paints, easels, smocks, and brushes. At the rest of the centers, blocks are in ample supply, but with all shapes and sizes heaped in one large bin, children do not sort and match them as they play or put them away. Other play supplies are stored on mislabeled shelves, as though the teacher had reorganized them but had not gotten around to updating the shelf labels.

The library contains 70 high-quality books, a rug, and a beanbag chair, but no signs, displays, or lists of library rules. The shelves form a narrow entrance, and no more than two children could comfortably use the center at one time. Separate from the classroom library is the home lending library of 35 books. Only four children had used the lending library, and during the first half of school year, only ten books had been checked out.
Classroom B takes up one large room with a stage raised several steps above the rest of the room at one end. The room is divided into nine centers: dramatic play, discovery, writing, library, manipulatives, listening, blocks, art, and “sand and water.” Cubbyholes for children’s belongings, a sign-in table, and the home lending library are just inside the main entrance.

The teacher has enhanced this large, bright room to be an excellent Head Start classroom. The library, located on the stage above the rest of the room, has a carpeted floor, seat cushions, two rocking chairs, and room for up to six children, although no more than three may use it at once during “center time.” Several bulletin boards, signs, and posters decorate the library, including a list of library rules, an “Author of the Month,” and a sign showing where to put damaged books. Several book jackets are also posted and there are props related to recently read-aloud stories. Signs about reading are everywhere and labels are also prevalent: on mats, the library center itself, chairs, and bookshelves. Three wooden bookshelves display a total of 40 books; the teacher reports that she has other books but prefers rotating them to having them all on display at the same time.

The home lending library of about 100 books is next to the children’s cubbies by the door, so that children see it as they are leaving and ask their parents to take a book home. The teacher posts a “reading raindrop” on the entryway windows for each book a child has borrowed. About half the class’s 17 children regularly borrow books. Children also borrow from the bookmobile that visits each week.

The writing center has a table, three chairs, a mailbox, and a low bookcase that holds children’s journals, blank books, clipboards, and many kinds of paper and writing implements. Shelves are correctly and clearly labeled so children can return items to the proper shelf after using them and begin to recognize the words for these common objects. A large bulletin board displays ten pieces of children’s writing under the banner, “Look at all of our writing!” An upper-case alphabet illustrated with animal pictures and another alphabet with upper- and lower-case letters (“Aa is for Africa,” etc.) are posted in the center. The teacher suggests topics for the children to write about; during the observer’s visit, the topic was winter and winter clothing.

The other centers feature suggested activities, well-organized materials, and literacy-related tasks and supplies. Dramatic play, for example, takes place in a “grocery store” with receipts and lists. Pictorial and written labels are prevalent and up-to-date. In the blocks center is a road map for children to follow, and all blocks are shelved and labeled by shape and type. Nearby, a collection of hats for children to try on is displayed above labels for occupations, next to a tool bench with labeled tools and suggested activities. The art center contains magazines to use in making collages and a wall poster made by the teacher, showing and naming colors and the results of color mixing. Elsewhere there are alphabet puzzles, letters, and many kinds of building and sorting toys.

Labels posted by the teacher help children find and sort items without help. Other signs give clues to appropriate activities. Print is used when children choose a daily center activity: each child places his name tag in a pocket at a particular center in order to play in that center. Each center’s maximum capacity is designated by dots and a numeral (e.g., “. . . 3”). Children also find their names on a list at the start of each session and “sign in.” Classroom B is a detail-filled, well-conceptualized learning environment. Literacy clearly has high priority here and is infused into almost all activities. Children enjoy frequent reading and writing as both self-directed and guided activities. Work on display demonstrates their growing competence. Finally, the teacher has placed cues within the centers that empower children, classroom aides, and volunteers to operate independently.
Six of the 21 centers that we visited appeared to provide some intellectual instruction, stressing literacy.

the Head Start central office, the regional office in Philadelphia, and the Department of Health and Human Services make few mandates.

**Classroom Visits.** In our visits to 21 local Head Start classrooms, we found that they consistently shared many good qualities. Most were clean, bright and in good repair. Adults provided nurturing to the children. There was ample staff in the classroom, often four adults for 15 children. When children misbehaved, teachers handled the children appropriately and lovingly. The children always appeared happy to be in school.

However, we observed very little in these 21 centers indicating that there is a common standard for the instructional quality (see box “Variability of Head Start classrooms”). Six of the 21 centers that we visited appeared to provide some intellectual instruction, stressing literacy. Five provided just adequate support for learning with only some “markers” visible in the classroom, signaling that literacy was important. The remaining ten classrooms, nearly half, did not support children’s learning. This huge variability in quality, also shown in national Head Start studies, reflects the laissez-faire principle that guides the agency.

**Is Baltimore’s Head Start Effective?**

The question is better asked, “To what degree is it effective?” If Baltimore is a reflection of Head Start programs across the nation, there is certainly persuasive evidence that Head Start is not addressing children’s language and cognitive needs. There has been no citywide effort to measure the effectiveness of the city’s Head Start program. The Baltimore Head Start office is not required to set any measurements or goals for the 16 programs under its care. There is little if any effort to measure the success of Head Start centers relative to each other or to national norms, or to collect citywide data on these children’s performance once they enter school. The Baltimore office “evaluates” only about four of the 70 centers each year, a rate at which each center would be evaluated once every 17 years.

**Head Start’s own evaluation.** As discussed in the last section, national studies that tracked the performance of Head Start children upon entering school have consistently shown poor cognitive results. Probably the most troubling evidence against Head Start’s preschool program is its own evaluation.33 In Spring 1997, Head

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Start children scored so poorly on preschool tests of cognitive skills that the evaluators felt the need to state that in future assessments, they will be “reshaping” the tests, so that they will be “more suitable for children in this age range who are from low-income families.”34 This decision provides insight into how little responsibility Head Start takes for children’s results. The following chart lists the results from Head Start’s own assessment.

### Head Start’s Own Analysis:
**What its four-year-olds can and cannot do***

- Tells his/her full name and age, but cannot tell his home address, birthday or write his name
- Identify ten basic colors by name
- Show the meaning of basic shape and action words, but “does not know the less basic shape and action words”
- Count four objects and solve simple addition and subtraction problems
- Use a pencil to copy a circle or letters like Z and E but cannot “identify most letters”
- Correctly repeat a series of four spoken digits
- Can show the front cover of a story book and open it to start reading, but does not know that you go from left to right and top to bottom when reading English text
- Answer simple factual questions about a story that is read to him/her

*For ease, this table merges two sections of the Head Start evaluation; no phrases have been changed but the italics have been added.

Some of the measured tasks have nothing to do with literacy or numeracy skills. For example, to correctly repeat a series of four spoken digits is a rote memory exercise and has nothing to do with numeracy. Copying a circle or a letter Z is a fine motor skill, not alphabet mastery. Other results are so vague that they tell the reader nothing: what is a “less basic action word?”

The evaluation states that the skills that Head Start children cannot typically do are not skills “required for admission to kindergarten” and that the children will probably learn these skills in kindergarten, though it notes that middle class children can...
do these things. In truth, many middle class students entering kindergarten can write their own name, know the alphabet, and can count from 1 to 20, to name just three obvious differences. While poor children are supposedly catching up in kindergarten, middle class children continue to move ahead with mastering increasingly complex skills. The gaps in vocabulary and skills between middle class and poor children are wide and deep.

**Head Start’s Commitment to Parents**

Head Start’s commitment to employing parents and others in the community is laudable, understandable, and warranted, given the enormous needs of the population it serves. Parents are given preference for staff positions, and individual programs are expected to design staff positions with parent needs in mind. Head Start officials feel passionately about this stand. If the policy of employing parents were sacrificed to ensure a better-credentialed staff of teachers and teacher aides, Head Start’s identity would be lost. Some Head Start critics claim that the agency is more of a job corps than a preschool.

Though Head Start may help parents find employment and improve the standard of living for poor families, the sad, unassailable truth is that if children arrive at school years behind academically, most notably in vocabulary, they are unlikely to ever become successful readers. Unless a child learns to read, he is doomed to repeat the cycle of poverty no matter what has been done to help his family.

**What is so wrong with hiring parents to teach?** Nothing, if the parents have credentials and appropriate verbal skills. Most Head Start parents have neither: nationally, Head Start reports that only 8 percent of its parents possess either a two-or four-year degree. Five out of six families are on some form of public assistance. There is a high correlation between parents’ lack of credentials and the Head Start staff’s lack of credentials. Nationally, only a third of the Head Start’s teachers have a bachelor’s degree; because strong preference is given to parents in hiring, the correlation is not surprising.

Yet extensive use of parents or any noncredentialed individuals limits Head Start’s ability to improve children’s skills. An effective preschool program requires well-trained, highly articulate adults who have mastered the content and skills necessary for successfully instructing small children. Given the “sponge-like” nature of a young

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child’s brain, it is at least as important for a Head Start teacher or aide to possess a large vocabulary and speak well as it is for a high school teacher.

Preschool teachers must be able to engage children in frequent and challenging conversation that exposes children to new vocabulary and extends their general knowledge. With some exceptions, Head Start parents do not have the language or educational proficiency to deliver this level of discourse consistently. On average, low-income parents have poorer language skills, typically provide language-poor environments at home, and engage in fewer teaching behaviors with children than parents with higher incomes and more education. There are, of course, exceptions to this generalization.

A study done in the 1980s found a disheartening equivalence between the daily vocabulary used by a three-year-old whose parents were professionals with the vocabulary used by an adult on welfare. The same study provided startling evidence of the disparity in words heard between children from professional families and children from welfare families. The differences in the number of words heard are literally in the millions, even though the welfare families that were studied were stable, two-parent households. Imagine what the vocabulary experience must be for children from unstable households with one less adult—a profile that characterizes the environment of most poor Baltimore City children.

Estimated Cumulative Words Addressed to Children

![Diagram showing cumulative words addressed to children by age and family income level]

Estimated Cumulative Words Addressed to Children

it is hard to find merit in a curriculum which advises that a warning sign of a poor preschool is that “teachers feel they are accountable for what children learn.”

The Untapped Potential of Baltimore City Public Preschools

Head Start’s Ill-Advised Curriculum

Each local Head Start program chooses its curriculum. Most of Baltimore’s centers use the Creative Curriculum (Dodge & Colker, 1998), as do many Head Start centers across the country. The guiding principal for the Creative Curriculum’s approach to what and how young children learn derives from Jean Piaget’s theories, now largely discredited as discussed in Section III. Apart from explicit instruction about how to arrange the classroom environment, the addition of some literacy goals into the 1992 third edition, and its fairly explicit teaching of math skills, the Creative Curriculum presents serious problems for preschools whose aim is to remedy the intellectual deficits of poor children. Indeed, it is hard to find merit in a curriculum which advises that a warning sign of a poor preschool is that “teachers feel they are accountable for what children learn.”

There are eight issues pertaining to this curriculum that cause concern:

1. **The classroom environment takes precedence over the critical role of the teacher.** The language used throughout the Creative Curriculum sends a strong message to the teacher that her instructional role should be as limited as possible; she is there to create and support the environment. For example, the primary goal of the teacher is to help “young children use the environment productively and see themselves as capable learners.” No statement in the curriculum acknowledges the teacher’s need to impart specific knowledge and skills, delivered in an engaging fashion. Instead, programs which ensure that the children learn a common set of concepts and skills are seen as signs of an unacceptable curriculum.

2. **The Creative Curriculum discourages key opportunities for instruction.** Most preschools provide “circle” time, the time of day set aside for the teacher’s meeting with all of the children in a group. It is the time when teachers talk with children either to present new concepts or read a story. The Creative Curriculum is consistently emphatic that circle time should last no longer than five to 15 minutes, depending on the age of the preschool child. This limi-

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39 Ibid., page 1.
tion is based on a belief that circle time embodies inappropriate teaching practices and that it is not possible for a teacher to engage children if they are in a large group.

The Curriculum even refers to circle time as an opportunity for children to “talk with one another,”42 the implication being that the teacher has nothing useful to impart. We find no evidence that young children are incapable of learning and enjoying whole group instruction, especially when it comes to listening to storybooks, but like any teaching methodology group instruction can be ineffectual. The fact that group instruction can be ineffectual is no reason to nearly eliminate it from the daily schedule, especially given the well-documented need children have to be read to, and frequently. Story time is not treated with nearly the importance as free time, and there are mixed messages about story time. It appears that the teacher can use circle time to tell a story, but the teacher need not feel obligated.43

The curriculum reserves a teacher’s “active involvement” (a substitute word for instruction?) to small group activities, which means either that the teacher is capable of being many places at one time, or that the percentage of instruction that each child receives daily is relatively small.44 Contrast this with the practice in France, where children spend up to an hour in a whole-group activity, actively and happily engaged in the teacher’s lesson. The instructions in the Creative Curriculum tie the hands of the teacher.

3. **The Creative Curriculum places inordinate value on giving children choices about what they want to learn, without recognizing the educational consequences.**45 Any parent who has ever tried to persuade a child to rent a video that the child is unfamiliar with, recognizes that children are not always open to experience the new. Sometimes children—even very young ones—may have to explore a topic or learn a skill that they are initially reluctant to try. The Creative Curriculum does not take the reluctant learner into account, nor does it recognize that there are certain knowledge and skills that all children must acquire.

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43 Page 38 in A Guide for Supervisors and Trainers on Implementing the Creative Curriculum.
44 Ibid., pages 43, 220, 228.
The Creative Curriculum presents learning as a natural phenomenon.\textsuperscript{46} There is much learning that is not at all natural, foremost of which is the reading process itself. For example, although talking is a “natural skill,” the level of vocabulary and complex grammar that must be acquired by children is not a natural activity. Counting past the number four is not a natural activity.\textsuperscript{47} The Curriculum’s brief advice about what to do with reluctant learners does not adequately solve the problem.\textsuperscript{48}

4. Many of the Creative Curriculum’s literacy, language, and cognitive goals are vague and unchallenging.\textsuperscript{49} Methods to enhance vocabulary acquisition (desperately needed to reduce the alarming discrepancy between middle class and poor children) are not entirely absent from the curriculum, but are referred to only in a cursory manner.\textsuperscript{50} Vocabulary acquisition is not mentioned in the introduction, key sections and assessments, or even the index. This lack of specific and challenging intellectual goals, along with the teachers’ need to focus on those goals, is also evident in the Curriculum’s assessment instrument, the Creative Curriculum Checklist, the teacher’s Weekly Planning Form, and the guide’s instructions for what to include in a student portfolio.\textsuperscript{51}

Oddly enough, it is only the cognitive and literacy goals that lack specificity in the Creative Curriculum. The Curriculum is quite explicit on goals regarding mathematical reasoning and physical development, but the goals for language and literacy remain purposely vague, probably to avoid the tag of an “academic” preschool. All but the most mentally challenged children should be able to meet such cognitive and literacy goals as “applies information or experience to a new context,” “shows enjoyment of a book,” “observes and makes discoveries,” and “uses words to communicate ideas and feelings.” There is no expectation

\textsuperscript{46} Ibid., pages 7, 8, 45, 47.
\textsuperscript{47} In addition to the distinction between language, a natural skill, and reading, an unnatural, quite difficult skill, there are also distinctions between natural and unnatural mathematical domains. Natural mathematical abilities include the ability to automatically and quickly determine the number of items in sets of three to four items, a basic understanding of counting and very simple addition and subtraction. These skills are evident in human infants, as well as in many other species, such as chimpanzees. See Gallistel, C.R. & Gelman, R. (1992) pages 43-74 in “Preverbal and verbal counting and computation,” Cognition, v44; and Gallistel, C.R. (1990) The Organization of Learning. Cambridge:Bradford/MIT Press.
\textsuperscript{48} Ibid., page 24.
\textsuperscript{49} Ibid., pages 12, 46, 110 162.
\textsuperscript{50} Ibid., pages 220, 248, 328.
\textsuperscript{51} Ibid., page 43.
that a child will learn how to write his name, learn to recognize or draw some
letters of the alphabet, rhyme, separate the sounds made by syllables, categorize
sounds, or know nursery rhymes—all skills needed for reading. The closest the
Curriculum comes to stating a goal for children to learn colors or shapes is the
one “to use words to describe characteristics of objects (colors, shapes)” and, in
the library and computer sections, to “recognize objects, colors, and shapes.”52
What colors? What shapes? Is knowing one color sufficient? Two colors?

The need to acquire certain key knowledge may become evident after careful
study of the document, but such acknowledgments are implicit, rather than
explicit. For example, one of the few references to the alphabet is found in a list
of activities appropriate to the “sand and water center,” advising that children
“write letters in sand.”53 However, such asides are superseded by instructions to
teachers’ supervisors, advising them to admonish teachers whose classrooms
“stress academic learning such as recognizing and writing the alphabet…”54

5. The Creative Curriculum does not provide teachers with a sequence of
skills that all children should acquire. While the Curriculum articulates
the difference between a three-year-old’s behavior and four-year-old’s behavior,
it does not set forth milestones of knowledge and skills that should be met at
each age.55 This is a critically important articulation for classes filled with poor
children who will fall increasingly behind as they progress through preschool
and elementary school. Teachers need red flags to identify skill deficits that
indicate early problems. The philosophy that allows children to proceed at their
own pace, or, worse yet, at what the teacher believes is the child’s own pace,
only broadens the enormous educational deficits in poor children.56 There is
plenty of consensus about what children should know at both ages.

6. Print is not pervasive in the classroom. Print is not absent from the
Creative Curriculum classroom, but it is not given sufficient presence and
emphasis. For a curriculum that relies heavily on environmental cues to
stimulate a child’s learning, this is a serious omission. Many of the labels in the
classroom that are suggested by the Curriculum are picture symbols, not

52 Ibid., pages 220, 298.
53 Ibid., page 57.
54 Page 44 in A Guide for Supervisors and Trainers on Implementing the Creative Curriculum.
55 Pages 1, 47 and 357 in The Creative Curriculum, Third Edition.
56 Pages 5, 48, 49 in A Guide for Supervisors and Trainers on Implementing the Creative Curriculum.
accompanied by the printed words. Displaying children’s work is not mentioned as a key tool for displaying print. Books, magazines, and other reading materials are not shown in ample supply in the center areas.

7. **The Creative Curriculum makes sweeping statements citing the dangers of academic preschool.** In its indictment of academic preschool, the Curriculum equates all academic preschools with those using the Direct Instruction curriculum—an extremely narrow interpretation. A single citation supports the rhetorical question, “why are many of the children who master these [academic] skills later requiring remedial help, repeating grades, and dropping out of school?” First, the study cited followed only 18 children who had had one year of a Direct Instruction preschool, hardly enough children or enough of an intervention to support a broad generalization about how these children were performing ten years later. Second, while the study charged Direct Instruction preschools with developing criminal behaviors in children, it did not, as the Creative Curriculum asserts, find a higher remediation rate, more grade retention, or a higher number of drop outs in the Direct Instruction group.

The Creative Curriculum also equates cognitive tasks with rote learning. Poorly trained teachers may rely on rote learning to teach these skills; competent teachers do not. Again, the fact that cognitive tasks may be taught badly is not adequate justification for omitting the teaching of more academic skills from the curriculum.

8. **The Creative Curriculum has not been shown to be effective by any objective criteria.** The Creative Curriculum has not been evaluated by an objective measure and no studies were found of the outcomes for children in preschools that use this curriculum. Given the broad use of the Creative Curriculum, it is disturbing that so little data exist to support its use.

In 1998, the U.S. Congress weighed in on some of these issues when it reauthorized Head Start. It insisted that Head Start begin employing classroom teachers with an associate’s degree (two years of college) starting in 2003. In a battle with agency officials, Congress also insisted that Head Start implement nine “specific learning

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57 Ibid., pages 4 and 6; and, pages iii and 42 in The Creative Curriculum, Third Edition.
58 Page 43 in A Guide for Supervisors and Trainers on Implementing the Creative Curriculum.
outcomes for children,” of which only about half appear to be actually measurable skills.\textsuperscript{59} Congress also decided that Head Start must start including cognitive data on children in its evaluations. More than two years after the reauthorization, Head Start is still figuring out how to get these new requirements implemented at the federal level, with no directive yet to the local level.

\textsuperscript{59} The nine outcomes are 1) developing phonemic, print and numeracy awareness; 2) understanding and using language to communicate for various purposes; 3) understanding and using increasingly complex and varied vocabulary; 4) developing and demonstrating an appreciation of books; 5) in the case of non-English background children, progressing toward the acquisition of the English language; 6) knowing that the letters of the alphabet are a special category of visual graphics that can be individually named; 7) recognizing a word as a unit of print; 8) identifying at least 10 letters of the alphabet; and 9) associating sounds with written words.
VII. BCPSS Preschools

In the middle of a unit on transportation, a 16-year veteran teacher at one of the city’s preschools discovered that all of her talk about boats was going over the heads of her four-year-old students. She realized that most of them had no concept of what boats are or that they float. She put the unit on hold; then, she brought in a trough of water and had the children see for themselves what she meant by the word “boat” and what float means. These children live less than two miles from Baltimore’s Inner Harbor. “I cannot,” she concluded, “assume anything about what these children know.”

This section explains first how BCPSS preschools are funded and operated, then looks at the obstacles preventing the school system from being as effective as it wants to be. BCPSS preschools suffer from poor evaluation efforts, flaws in the curriculum, and foremost, as indicated by the account above, not enough time to allow for the teaching of everything that children need to learn.

As discussed previously, there are two funding streams for BCPSS preschools: state funds distributed by the Maryland State Department of Education and federal “Title I” funds targeted to high-poverty areas. The state directs funds exclusively to its 20-year old Expanded Elementary Education Preschool (EEEP). In this section, we will focus only on EEEP standards and practices since, for the most part, what is true programmatically about EEEP classrooms is also true about Title-I-funded preschool programs. They are essentially indistinguishable.

Are BCPSS preschools effective?

Until recently, there were no data on children’s performance in BCPSS preschools. When the school system contracted last year with the Children’s Literacy Initiative (CLI) to improve the literacy program of 58 of its preschools, this national nonprofit literacy group began assessing student’s vocabulary, understanding of print, and alphabet recognition. When the initiative was expanded to all BCPSS preschools in 1999-2000, all preschool children were tested in the fall and again in the spring. It is CLI that produces the report summarizing student results, not the school system. It is not certain that the school system will continue to collect the data without the CLI intervention, though the data collection does satisfy new requirements from the state to collect student data.

The only study on EEEP, though impressive, is now ten years old, and the sample of students that it followed attended EEEP preschools 20 years ago. Moreover, the statewide study provided no breakout for students in Baltimore City. 60

60 Maryland State Department of Education (1991), An Analysis of the Long-Term Effects of the Extended Elementary Education Pre-Kindergarten Program.
BCPSS has no current plan to assess children after they finish preschool. But assessing children through elementary school would cost very little and is critical if a preschool program is worth spending money on at all. BCPSS could make an assessment now about how well children in EEEP do once they enter school, and compare their performance with children who attended Head Start, private preschools, or no preschool at all. Using its system of pupil identification numbers, BCPSS need only group older students by their preschool experience (which should be in a child’s permanent record) and assess grade retention, and performance on the Comprehensive Test of Basic Skills (CTBS). Unless these data show some significant difference in academic outcomes as a result of preschool, there is no reason for public spending on preschools in their current form.

**Work Sampling Assessment System.** In 1999-2000 all of the city’s kindergarten teachers have begun training to become familiar with a nationally designed assessment instrument for children, an instrument that would be equally useful at the preschool level. Known as the Work Sampling Assessment System, the instrument allows teachers to collect useful data on students and build student portfolios.

Officials in the school system seem unsure whether to require the kindergarten teachers to finish the two years of training that the assessment, needs and do not elaborate as to why the training might be dropped. Some, not all, experts familiar with the instrument observe that while the instrument is highly effective, it requires a departure from the way early education teachers are used to teaching. Because the instrument requires constant observation and notation of student practice on a daily basis, it can prove cumbersome and time-consuming. A preschool teacher in Calvert County who uses the instrument reported that it took her two years to learn to use it without effort.

In addition to better tracking the progress of children, preschools should also screen for children who may have difficulty. With growing attention to preventing literacy problems, there are a number of assessments that can be used. Two nationally respected experts on reading, Barbara Foorman and Marilyn Jaeger Adams, have each developed two-minute screening assessments on the sounds that letters make.

There is no comparison in quality between the state’s preschool standards, with their clear focus on school readiness, and Head Start’s dismissive treatment of these same skills.
State Preschool Standards

There is no comparison in quality between the state's preschool standards, with their clear focus on school readiness, and Head Start's dismissive treatment of these same skills. While the state's goal of school readiness is clear, its guidance to the local school systems is deliberately less so. The state leaves most of the business of defining what specific skills need to be learned, and by when, up to the local school system, a practice consistent (though debatable) with its policies in later grades.

For example, the state does not distinguish between what a kindergartner should know and what a four-year-old or a three-year-old should know, though a national consensus exists on both the timing and sequence of at least those skills related to literacy. Like the Maryland standards written for older grades that are grouped into grades three, five, and eight clusters, it is left up to the individual school systems to decide what happens in each grade, preschool through kindergarten. Given the importance of early language development, explicit expectations from the state for ages two through five might prove to be good preventive medicine, even if the state has no intention of funding programs for all of these ages.

The City Preschool Curriculum

Baltimore City has developed a Pre-Kindergarten Resource Guide (BCPSS, 1998) that elaborates upon the state's standards to produce a detailed curriculum for teachers. The curriculum seems useful; the language is refreshingly clear and free of jargon. It provides practical guidance for teachers on how the day should be divided and how the classroom should be set up specifying the requisite “centers.” It specifies what books should be displayed in the classroom and read by the teacher. It also provides a comprehensive list of specific activities for large- and small-group activities built around twelve themes, each of which takes anywhere from a few weeks to a month to teach.

What we don't know about this curriculum is whether it works. It was developed with very little outside direction by a small group of Baltimore City preschool teachers, presumably quite good teachers, but whose expertise is most likely limited to their own classrooms and who may or may not have much knowledge of the research in the

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61 The state uses the terms “outcomes and indicators” to describe its standards; we use the term “standards,” as it is the more commonly understood term.

62 The state provides a comprehensive set of outcomes in the areas of physical development, social and emotional development, approaches to learning, language development, and cognition and general knowledge, with broadly defined outcomes followed by examples of mastery.
area. The units in the Guide were never field-tested to see how effective or efficient they are at helping teachers impart the skills they are designed to teach.

The problem behind this method of curriculum writing cannot be stated strongly enough. The activities and instruction called for by the curriculum writers may or may not result in the desired outcomes, but it is a fact that no one knows whether they will. What one teacher knows works in her own classroom may not work at all when broadly applied to all classrooms. The difficult task of a good curriculum is to be “generalizable,” so that it will produce a common set of outcomes by a diverse group of teachers. To achieve this goal requires an expert knowledge of the relevant theory and research needed to undergird the curriculum.

This criticism could be aimed at almost any curricular document in the United States, so it is hard to fault the city for following traditional practice. However, in other nations with far better track records of using education to maximize social equality—precisely what Baltimore City needs to do—the task of writing and developing lesson plans is never approached so informally, without testing, and with such limited expertise.

Taking such a haphazard approach to curriculum writing leaves huge gaps in what needs to be accomplished in classrooms where students arrive with enormous gaps in background knowledge and vocabulary. For example, the city’s curriculum rarely suggests large- or small-group activities that involve writing. Even if this omission is an oversight, it is a serious one. Brief directions on room organization mention that each room should have a writing center, but none of the thematic units mention the center again or suggest writing center activities. Children need to see writing, to have writing modeled for them, and to get support and opportunities to try writing themselves. Teachers need to know how to do it right.

**Teacher Competency and Training**

Implementing an unproven curriculum, however effective that curriculum might be, is especially risky given the other large unknown: the level of teacher competency and training. The BCPSS curriculum clearly does not offer enough information on how to teach, a void which could lead to teaching methods suitable only for older children, or to unnecessary “dumbing down.” Most importantly, it leads to lack of program consistency.

While all BPCSS preschool teachers have bachelor’s degrees, most Head Start teachers do not, and so do not have the training or understanding of what is needed for a truly effective, intellectual preschool. In the past, very few teacher-training
institutions or school systems in the United States have embraced the critical need for intellectual preschool for disadvantaged children. For example, the work and training that a teacher must undergo to achieve a CDA (Child Development Associate) credential is still defined by the goals and methodologies that characterize an anti-intellectual preschool.

In France, preschool teachers hold master’s degrees and have been provided with an explicit curriculum, yet teacher training and supervision is still a high priority. Teachers are visited regularly by a mentor and semiannually by a government inspector who decides whether the teacher will get a pay raise based on her performance. The teacher leaves the classroom for one week each year for further intensive training.

In Baltimore, there seems to be an implicit “hands-off” policy for principals’ supervision of the preschools in their buildings. Principals remark that they consider the preschool classrooms in their buildings outside their purview. The only supervision that these preschools get comes from a tiny staff located at Baltimore City school headquarters. Otherwise, teachers are on their own.

Though there is little data by which to judge the effectiveness of the BCPSS preschool, the program does meet one of our four conditions for maintaining an effective preschool program: teachers are well educated and appropriately compensated. Philosophically, BCPSS meets another condition in that it has recognized and responded to the urgent need for an academic preschool. The school system knows that it is fighting an uphill battle. Until it begins serving younger children (at least at age three) and provides full-day programs, its preschool program stands little chance of adequately readying children for kindergarten.
The Untapped Potential of Baltimore City Public Preschools
Conclusions and Recommendations

What lessons can Baltimore City learn from the impressive performance of French preschools? First, the city must not succumb to the frequently stated logic of educators who claim that poor children elsewhere are not like poor children in Baltimore. The positive preschool experience of poor children in France—who are predominantly North African emigrants, subjected to considerable racial and religious bias—should offer real hope to Baltimore City, not prompt a flurry of excuses about why these lessons bear no relevance.

Noted psychologists Harold Stevenson and James Stigler counter this parochial sentiment (poor children elsewhere are not like poor children in Baltimore) most accurately in their book *The Learning Gap*. In their studies of American and Asian education systems, they observed that “it is not the diversity in American children’s social and cultural backgrounds—which every nation has—that poses the greatest problem, but the diversity in American children’s educational backgrounds and academic preparation.” The diversity that some claim is unique to the United States — vast disparity between children’s cultural and social backgrounds — is found in all developed countries.

One needs an open mind, not just for absorbing the lessons from abroad, but also for moving away from romantic ideas to ideas grounded in science. The beguiling image of a young child’s mind blooming as naturally as a flower is far more appealing than the drab image of a young child restrained at a school desk, exposed to excessive drill and repetition. Yet neither image reflects reality.

In this study, we have deliberately chosen to use the term “intellectual” preschool, a term attributable to prominent educator Lilian Katz, rather than “academic” preschool wherever possible in hopes of projecting a less polarizing image of preschool. The nation’s largest preschool policy group, the National Association for the Education of Young Children, is revising its once heavily anti-intellectual views of preschool while continuing to use language that will be palatable to educators well versed in developmentally appropriate practice. In the organization’s most recent policy statements, it has jumped on the literacy bandwagon, redefining the term “developmentally appropriate practice” to mean very different things from what it meant ten years ago. The organization is now emphatic that literacy skills need to be taught in preschool.

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64 See NAEYC’s web page for its position statement on developmentally appropriate practice, www.naeyc.org.
To fulfill the need for an intellectual preschool, teachers need to be well educated and well trained. We also have suggested two likely conditions for effective preschool which the city should consider and test: 1) poor children need to start school as early as age two in order to accrue significant long-term benefits, and 2) the school day needs to be a full day, even for two-year-olds.

How close do Head Start and BCPSS come to meeting these conditions? With three and one-half times as much money as the city school system, Head Start currently is able to intervene at an earlier age and for more hours in the day. Where Head Start falls short is with the quality of its curriculum, the pedagogy used by its teachers, and the credentials of its teachers and aides. Though Head Start teachers receive ample professional development, the sessions are more likely to touch upon nutrition and dental care than they are on how to teach the sounds letters make. Only three of its nearly 300 performance standards address literacy, numeracy, and cognition.

Conversely, BCPSS comes closer to meeting the criteria of an intellectual program and employing well-educated teachers. It might eagerly embrace the opportunity to expand its preschool program to earlier ages and a longer day, but it does not have the necessary funding. There might not be enough classroom space to move towards a full-day program serving children at an earlier age, but considerably more space could be had if the school system partnered with Head Start which has 74 sites and is growing. By partnering with Head Start, the school system could expand its reach immediately.

The teacher shortages reported in some disciplines is not a problem in early childhood education. Twice as many teachers as the state needs to hire are being trained each year in the state’s early childhood education programs, to say nothing of the teachers trained out of state who move to Maryland.65

The school system can hardly be criticized for not voluntarily adding two to three more years of educational services, when it is having such a difficult time delivering the 13 years the state requires it to offer. Preschool is not a vaccine against an inadequate K-12 education, but the system can reasonably expect that when children arrive at kindergarten more consistently prepared, every teacher at every grade level can do a better job.

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Because the city does not currently use a proven curriculum and because there are many issues as to what ages to teach and how much time is needed, it would be a costly mistake for the city to jump in to provide immediate universal access. Before widely implementing a more rigorous and extensive preschool program, BCPSS should pilot alternative interventions to determine if they work.

We therefore offer six recommendations for Baltimore’s policymakers:

1. **Decide if Head Start should have an intellectual focus rather than a social focus.** We believe the evidence points strongly towards the benefits of an intellectual focus. In fact, there is considerable pressure on a national level to make the transition. The issue has been raised in the current presidential campaign. The New Jersey Supreme Court hammered the state’s preschool program for disadvantaged children, complaining that the system had created a “two-tiered system in which some students could receive education while others get mere day care.”

   If the city agrees, then it must ensure that the program employs well-educated, well-trained teachers. Teachers should have at least a BA degree. Teachers’ aides should be able to read a story out loud in an engaging fashion. Imposing this standard will reduce Head Start’s ability to serve as a ready source of jobs in neighborhoods where jobs can be scarce, but the city has no choice if it wants to improve the educational outcomes for Head Start children.

   There is no shortage of data emphasizing the critical need for poor children to acquire vocabulary; this overwhelming need means surrounding children with articulate adults who themselves have good vocabularies. Confronted with such evidence as the Kansas City study showing that a three-year-old from a professional family speaks as many words daily as an adult on welfare, the city has no other option but to face the political heat this move will entail. There are precedents. Over half of the Head Start centers in Philadelphia are managed by the school system, employing teachers with bachelor’s degrees.

2. **Determine the age at which poor children must start preschool.** We believe that the evidence points to an early start at age two. However, given a finite amount of money, Baltimore City first needs to prove to the Maryland General Assembly and the public the benefits that it will derive from educating children at ages two and three.

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children at ages two and three. As preschool education is not yet required by the state, this means the city could implement a more flexible policy of doing for some what it cannot yet do for all. The system could begin in one area of the city, expanding to other areas, as it learns by doing. It will have to weigh the cost of starting at two versus three and three versus four against the benefit of providing a program at each age. If an early preschool program impacts educational outcomes as research indicates that it should, few are likely to argue about the ultimate necessity of funding universal access for poor children in the city.

3. **Discover whether a full-day program at each age is a requisite to success.** Again, we believe that the evidence supports full-day programs at all ages. As a universal full-day program is unlikely to be funded soon (at an estimate of $3,800 per child for three- and four-year-olds and $5,100 per child for two-year-olds), it may be sounder to put the issue to a test with the city’s poorest children. Implementing a comprehensive full-day program for some, rather than for all at once, will at least allow the city and state to learn what should be done for all.

How far is the city from affording full-day programs? A full-day program for the 6,000 poor children in the city for four-year-olds is estimated to cost between $16 million and $22.8 million. Another $16 million to $22.8 million would provide a full-day program for three-year-olds. A range of $3.8 million to $5.1 million would be needed to educate 1,000 poor two-year-old children. These estimates vary depending on the standard for class size that the city elects to use. The estimates do not take into account the training, books, and other materials needed for a strong program.

Head Start and BCPSS are collectively spending $32 million per year now on preschool. While most of the school system’s preschool costs are attributable to teachers’ salaries, Head Start’s costs are not. By our estimate, Head Start is spending around $7.5 million on classroom-related positions, meaning that it is spending the remaining $16.5 million (or two-thirds of its annual budget) on services not directly related to the routine operations of its classrooms. If the city were given the authority to spend its Head Start appropriation as it sees fit, it could fund immediately a full-day program for three- and four-year-olds by reducing social services and focusing on cognitive development.

4. **Implement a preschool curriculum that establishes specific expectations for a child’s development in all areas, most importantly the child’s intellect.** A preschool curriculum should articulate all aspects of a
child’s appropriate development: physical, cognitive, language, and social. Two factors decide for us what areas need the most attention: 1) the connection between a brain’s ability to learn and a stimulating environment, starting in infancy; and 2) the enormous language and cognitive discrepancies between poor and middle-class children.

The notion of an explicit curriculum is anathema to many early childhood educators. They worry that teachers will deliver material in a lecture format, in a lockstep fashion, and that teachers will be more concerned with keeping pace with the curriculum than in ascertaining that children are learning. However, an explicit curriculum is certainly not synonymous with lectures, nor does it eliminate the need for a teacher’s common sense. A teacher who has lesson plans (that include good, informal assessments) is no less likely to exercise good judgement than the teacher who has no lesson plans. However, the teacher must possess full understanding and expertise in the curriculum, not just serve as a conduit for prepackaged instruction. An explicit curriculum helps to ensure that teachers are intentional in their teaching, that they are conscious of the core knowledge and skills that must be taught in the course of a school year.

To our knowledge, there are no large-scale public preschools in the United States that have developed a seamless intellectual program that starts at age two and progresses up to the elementary grades. In order to provide such a program, the city first needs to agree upon the knowledge and skills that rising kindergartners and first graders should demonstrate. The city will then need to work backwards, deciding on the set of skills and knowledge that children should know at each age in order for them to arrive at kindergarten prepared.

The city does not have to reinvent the wheel to complete this exercise. Many groups are responding to the need for a more intellectual program by developing new preschool curricula or translating good programs from abroad. The Core Knowledge Foundation has adapted the French preschool curriculum for American preschools, but its efforts are still in a pilot phase in Arkansas Head Start centers. Whatever happens, the city should not be penny-wise and pound-foolish in identifying existing curricula can be adapted to its needs or developing a new curriculum entirely.

The city should obtain the advice and consultancy of national experts in cognitive development and literacy to advise this process. Baltimore’s preschool teachers should participate as field-testers, not curriculum writers.
The city needs to understand that a curriculum needs to be assessed for outcomes. Especially given the high rate of teacher turnover, a one-shot training program for teachers will not be sufficient. The city will have to institutionalize a mechanism for training teachers in the curriculum that is respectful of their various levels of competency and experience.

5. **Follow children through elementary school to continually assess the impact of city preschools on academic outcomes.** Preschools must be able to produce better academic outcomes in elementary school and beyond. If children do not perform better at these grades, there is simply no reason to provide public preschool unless the city is only interested in being a daycare provider.

6. **Consider placing all public preschools under one authority.** In order to ensure that preparation of all of the city’s poor children for school is consistently strong, the city should consider a sole provider to oversee all public preschools. Given Head Start’s low priority to intellectual outcomes, the city may decide that the school system, rather than the city’s Department of Housing and Community Development, is the more fitting provider of a preschool program geared to the development of a child’s intellect. Ensuring that all poor children are educated under one standard, offering a coherent curriculum that is taught by uniformly trained teachers, is not only desirable but practical. Without a unified effort, schools will most likely continue to be burdened with children who fail.