Long Term Effects of a High Quality Preschool Education: Does good Early Childhood Education Prevent Students from Dropping out of High School?

Eshetu Setegn
St. John Fisher College

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Preschool Education and the High School Dropout Rate

Introduction

This study is about Early Childhood Education and the profound impact it has on the high school dropout rate plaguing our urban communities. This paper establishes a strong relationship between preschool education and academic success or failure. Early Childhood Education is usually looked at as a separate entity from childhood, adolescent and high school education. As a result, when policy makers and education officials try to come up with programs to reduce the high school dropout rate, preschool education is rarely seen as a contributing factor. The paper also examines what early childhood education programs consist of and how they influence success in school. Finally it corroborates with data from empirical studies and the survey that Early Childhood Education indeed affects the high school dropout rate. This is based on the premise that “the earliest years of a child’s life are keys to predicting ultimate success in school and life” (Measuring Up: The State of Texas Education-Early Childhood Education, 1999, p. 1).

“The most effective way to reduce the number of children who will ultimately drop out is to provide the best possible classroom instructions from the beginning of their school experience...” (Smink & Schargel, 2005, p. xx). One of the major reasons children dropout of school is poor academic performance which is usually the direct result of starting first grade already behind by not attending quality preschool programs (Smink et al., 2005). This research looks into the quality of the preschool programs available in these neighborhoods, family involvement, grade retentions and possible strategies in the form of intervention to fix the problem of dropping out of high school.

Early Childhood Education is defined as children’s education programs from age three to age five. Exposing children to programs in pre-K and kindergarten has long lasting educational effects that have positive social and economic implications. Early Childhood Education more
effects that have positive social and economic implications. Early Childhood Education more than pays for itself in terms of social and economic costs by reducing the number of high school students who eventually drop out (Schweinhart, Montie, Xiang, Barnet, Belfield & Nores, 2005). The research establishes a relationship between good Early Childhood Education and school achievement of students through their high school careers in comparison to those children who did not have such an education and who may eventually drop out of school. This early education is vital to children's learning skills at the earliest stage of development. Those children who have never attended preschool or had less than adequate instructions and drop out of high school are likely to be unemployed and create insurmountable costs to society in-terms of increased welfare, unemployment, prosecution and incarceration costs (Lehr, Clapper & Thurlow, 2005). It gets harder and harder for children to catch up if they have started behind their peers. Later reading difficulties are usually the result of lack of quality preschool education. “Children who are not at least modestly-skilled readers by the end of third grade are unlikely to graduate from high school” (Committee for Economic Development, 2002, p. 1). Research on preschool education shows how effective preschool attendance is in developmental literacy (Abadiano & Turner, 2005). The High/Scope Perry Preschool Study through age 40 shows employment rates by preschool experiences at age 27 and 40 to be:

<table>
<thead>
<tr>
<th>Groups</th>
<th>Age 27</th>
<th>Age 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program group (those who attended quality preschool)</td>
<td>69%</td>
<td>76%</td>
</tr>
<tr>
<td>Non-Program group (those with no preschool education)</td>
<td>56%</td>
<td>62%</td>
</tr>
</tbody>
</table>
At age 27

At age 40

(Schweinhart et al., 2005)

Research proven teaching strategies utilizing current and appropriate curriculum enhance early childhood education. For that to happen, the school has to have highly qualified teachers as defined by No Child Left Behind (NCLB), state certified college graduates. Attendants of pre-k and kindergarten are less likely to be categorized as learning disabled or to be held back. They perform persistently better than those who did not attend preschool long enough to graduate from high school. They enter first grade “recognizing letters, basic numbers...shapes and the concept of relative sizes” (Maeroff, 2006, p. 35). As they go through elementary grades, the achievement gap between those who attended early childhood programs and those who did not, widens significantly by grade three (Maeroff, 2006).

This early learning environment is highly dependent on the quality of teacher training and experience, the dedication of school administrators and the involvement of parents and the community. Home environment affects children long before they get to preschool. The
collaboration of schools and parents in creating and running quality preschool programs is vital for the prevention of dropping out of school. This shared responsibility for student achievement includes the key issues of constant communication between parents and teachers, supporting the child's learning and development as well as attending to the educational needs of the child. Family engagement has a direct effect on school achievement regardless of socioeconomic status (Ramey & Ramey, 1999).

The main purpose of this research is to make parents, educators, superintendents and policy makers more aware of the importance of pre-K and kindergarten education as the foundation for a successful measure in the prevention of dropping out of high school and to help make it a legal responsibility of all parents to enroll their children in preschool and kindergarten. When children with no preschool and kindergarten experience enter first grade they are behind their counterparts in most aspects of social, emotional and cognitive development. In most instances these students never catch up. The reasonable conclusion of this paper is that it is more cost effective to implement mandatory preschool education programs than dealing with high school dropouts who become dependent on welfare, or get incarcerated. High quality early education ensures that children are better prepared to handle the demands of elementary education and beyond.
Preschool Education and the High School Dropout Rate

Literature Review

Modern Early Childhood Education programs were implemented in the United States in the 1960s in the form of a Federal government initiative known as Head Start to combat poverty among African Americans and other minorities in the urban and rural areas of the country. The goal of Head Start was to enhance the school readiness of disadvantaged children who were at risk, so they could begin formal schooling on a more equal footing with their peers. Findings in the last 40 years have indicated that preschool programs can enhance children’s cognitive, literacy and social skills which are necessary for school success. In addition to promoting school achievement in the elementary grades, preschool education also reduces the need for special education, grade retention, the risk of delinquency and dropping out of high school. Of all these outcomes, educational achievement is particularly important, given its link to successful high school completion, which has significant social and economic implications. This review will focus on the connection between preschool participation and measures of school completion in the published literature (Ou & Reynolds, 2004).

Overview of Early Childhood Education

Quality preschool education programs are defined as "...organized and supervised programs with social and educational goals for children (of up to age six) in the temporary absence of their parents, and encompass a diversity of programs, varying in hours of operation, ages of children and socio-economic status (SES) of families..." (Smith, 2003, p. 1). What makes a good preschool program? There are a number of criteria to qualify preschool programs as “quality”. According to Sorenson, (2001), Early Childhood Education programs have two faces: Structural and Process which incorporate:

- “A child development curriculum – student initiated learning not teacher-directed
small classes (high teacher-student ratio)
• trained staff
• supervisory support and in-service training
• parent outreach
• sensitivity to the non-educational needs of children and
• developmentally appropriate evaluation procedures” (Sorenson, 2001, p. 114).

Early Childhood Education programs have grown tremendously since the beginning of Head Start. However there is no one national standard to guide and evaluate the criteria for a quality early childhood education particularly in the field of curriculum design. “Given the multitude of available curriculum models, the confusion regarding which ones are appropriate for three and four year olds is understandable” (Frede & Ackerman, 2007, p. 1).

![Expansion of Access to Preschool](image)

(Committee for Economic Development, 2006, P. 8)
Full day kindergarten and extended Early Childhood Education programs have a much better impact on preparing children for school than traditional programs. The benefits experienced by children in extended day preschool programs were not caused by exposure to something generally better, but rather by increased exposure to an equally advantageous environment. Results of studies indicate that students in a high poverty district who are far behind at entry to preschool can develop vocabulary, math, and literacy skills that approach national norms if provided with extended-duration preschool that maintains reasonable quality standards. The findings clearly indicate that duration and intensity matter. Extended day preschool seems to have dramatic and lasting effects when it is high quality. In this research all teachers in the study classrooms were certified, public school employees paid on union scale and a comprehensive curriculum implemented with strong supervisory support offered to classroom staff. Classrooms were also well supplied, and both children and families received support services. Given the evident need of many families for full day care for their four and five year olds, and the evidence presented here, full-day preschool has important benefits for child learning (American Federation of Teachers, June 2003).

Research has also found that early childhood-special education is first and foremost an intervention program for young children with physical or mental impairment and who are at risk. Thus the purpose of a preschool program for children of needs must:

- "Minimize the effects of handicapping condition and development and maximize opportunities for normal childhood activity"
- Prevent at-risk condition of early developmental irregularities from becoming serious problems and
• Prevent the development of secondary handicaps as a result of interference from a primary disability which might alter a child's ability to receive certain types of stimulation” (Peterson, 1987, p. 72).

Secondly, the purposes of Early Childhood Education for children without impairment are for enrichment while Early Childhood Special Education is an intervention strategy to reduce the impact and or the development of a new handicapping element.

<table>
<thead>
<tr>
<th>Early Childhood Education</th>
<th>Early Childhood-Special Education</th>
<th>Special Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enrichment</td>
<td>• Intervention</td>
<td>• Remediation</td>
</tr>
<tr>
<td>1. Social exposure and experiences</td>
<td>1. Teaching children the developmental skills they need that may not evolve normally like in other children</td>
<td>1. Serve students with existing, diagnosed disabilities</td>
</tr>
<tr>
<td>2. Preparation for Kindergarten</td>
<td>2. Taking action before problems become full blown</td>
<td>2. Provide remedial, corrective and supplemental instructions</td>
</tr>
<tr>
<td>3. Enhancement of cognitive and social development</td>
<td>3. Timing for service is a critical element</td>
<td>3. Offer alternative educational opportunities</td>
</tr>
</tbody>
</table>

(Peterson, 1987)

**Child development and Early Childhood Education**

Early childhood till age six is a period of tremendous growth for cognitive, social and emotional development. The ability of the environment to substantially alter developmental outcomes in the early years suggests the potential for preschool programs to have a powerful impact on child development (Bowman, Donovan & Burns, 2000). Development is fostered
when a child is engaged in activities related to cognitive and social exercises. In order to accomplish that the program must have a high teacher to child ratio, small class size, high program intensity, well trained teachers, and responsiveness to parents. For preschool programs to be effective the curriculum goals must be based on active, independent observation and exploration: active engagement in planning their learning/experience and immersion of students in a clearly sequential set of experiences for “cultural literacy” (Bowman et al., 2000).

Developmentally Appropriate Practice (DAP) is considered to be the best practice in Early Childhood Education. DAP is designed to be age, individually, and culturally appropriate. Early intervention in the form of applied DAP practices in preschool resulted in “lower rates of retention, higher levels of academic achievement, fewer special education services, and a strong commitment to graduate from high school” (National Dropout Prevention Center/Network, 2007, P. 5).

For successful preschool programs, the developmental stages of every learner have to be identified and aligned with classroom instructions: that is knowing what the child can and cannot do physically or cognitively. The groundwork for adult functioning is laid in the first six years of life. The brain develops according to the child’s experiences during this period. The domains of the learning that takes from birth to age six include the following:

- Motor development
- Confidence and emotional development
- Social knowledge and competence
- Language skills and
- General knowledge and cognitive skills (Council of Ministers of Education, Canada. May 1998).
<table>
<thead>
<tr>
<th>Age</th>
<th>Socioemotional Behavior</th>
<th>Perceptual-Motor Behaviors</th>
<th>Cognitive Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three</td>
<td>Knows self as an individual</td>
<td>Climbs stairs unassisted</td>
<td>Likes to talk with adults</td>
</tr>
<tr>
<td></td>
<td>Plays by self and others</td>
<td>Learns to hop</td>
<td>Talks to self in monolog</td>
</tr>
<tr>
<td></td>
<td>Learns to share toys</td>
<td>Jumps, walks, runs with music</td>
<td>Asks questions</td>
</tr>
<tr>
<td></td>
<td>Cannot share work space</td>
<td>Rolls ball with direction</td>
<td>Has 250-900 word vocabulary</td>
</tr>
<tr>
<td></td>
<td>Feels sympathetic</td>
<td>Throws underhand</td>
<td>Says full name</td>
</tr>
<tr>
<td></td>
<td>Waits and takes turns</td>
<td>Walks on tiptoe</td>
<td>Tells action in picture</td>
</tr>
<tr>
<td></td>
<td>Enjoys praise</td>
<td>Cuts with scissors</td>
<td>Speaks in 6 word sentences</td>
</tr>
<tr>
<td></td>
<td>Is proud of what he/she makes</td>
<td>Holds crayons with finger</td>
<td>Works 7 pieces puzzles</td>
</tr>
<tr>
<td>Four</td>
<td>Plays with small group</td>
<td>Climbs ladder and trees</td>
<td>Asks for explanation</td>
</tr>
<tr>
<td></td>
<td>Likes birthday parties</td>
<td>Bounces large ball</td>
<td>Counts 4 or more objects</td>
</tr>
<tr>
<td></td>
<td>Is interested in rules</td>
<td>Builds building with blocks</td>
<td>Makes up words and rhymes</td>
</tr>
<tr>
<td></td>
<td>Answers telephones well</td>
<td>Cuts with scissors online</td>
<td>Likes to finish activities</td>
</tr>
<tr>
<td></td>
<td>Aware of sexual differences</td>
<td>Hops on one foot</td>
<td>“Reads” pictures</td>
</tr>
<tr>
<td></td>
<td>Likes to go on field trips</td>
<td>Eats with fork and spoon</td>
<td>Can compare 3 pictures</td>
</tr>
<tr>
<td></td>
<td>Likes to brag</td>
<td>Balances on walking board</td>
<td>Gives home address and name</td>
</tr>
</tbody>
</table>
Preschool Education and the High School Dropout Rate

<table>
<thead>
<tr>
<th>Five</th>
<th>Likes to play house and baby</th>
<th>Is able to sit longer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asks adult help as needed</td>
<td>Can jump rope</td>
</tr>
<tr>
<td></td>
<td>Has poise and control</td>
<td>Can roller skate</td>
</tr>
<tr>
<td></td>
<td>Likes to have rules</td>
<td>Uses knife and fork</td>
</tr>
<tr>
<td></td>
<td>Gets along well in small groups</td>
<td>Draws a triangle</td>
</tr>
<tr>
<td></td>
<td>maturity</td>
<td>Does simple errands</td>
</tr>
</tbody>
</table>

(Spodek, Saracho & Davis, 1991)

**Longitudinal Studies on Early Childhood Education**

The three most referenced longitudinal studies, the High/Scope Perry Preschool Program, the Abecedarian Project and the Chicago Child-Parent Center (Appendix D) exemplify the nature of a high quality preschool program. Participants in the High/Scope Perry Preschool Program were found to have higher rates of high-school graduation (67% vs. 49% at age 19; 71% vs. 54% at age 27). Participation in the Abecedarian Project was found to be associated with a higher rate of attending four-year College (36% vs. 14%) and more years of education at age 21. Similar results were found in a large-scale program, the Chicago Child-Parent Center (CPC). Participants in the CPC preschool program had higher rates of school completion (49.7% vs. 38.5% at age 20; 65.8% vs. 54.2% at age 22) and more years of education. Head Start did not show significant effects; 64.6% Vs 58.6% for high school completion and 25.1% Vs 17.6% for college attendance (Ou et al., 2004).
High School completion by Project

<table>
<thead>
<tr>
<th>Projects</th>
<th>Program Group</th>
<th>Non-Program Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Scope Perry</td>
<td>67%</td>
<td>49%</td>
</tr>
<tr>
<td>Chicago Parent Ct.</td>
<td>49%</td>
<td>38%</td>
</tr>
<tr>
<td>Head Start</td>
<td>64%</td>
<td>58%</td>
</tr>
</tbody>
</table>

College Attendance/Completion by Project

<table>
<thead>
<tr>
<th>Projects</th>
<th>Program Group</th>
<th>Non-Program Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Scope Perry</td>
<td>71%</td>
<td>54%</td>
</tr>
<tr>
<td>Abecedarian Project</td>
<td>36%</td>
<td>14%</td>
</tr>
<tr>
<td>Chicago Parent Ctr.</td>
<td>54%</td>
<td>22%</td>
</tr>
<tr>
<td>Head Start</td>
<td>25%</td>
<td>17%</td>
</tr>
</tbody>
</table>
Preschool Education and the High School Dropout Rate

The High Scope/Perry Project which tracked students from preschool to age 40 found the effects of quality preschool education to last a lifetime. Quality Early Childhood Education lays the foundations for getting children on the right track to help them become educated and productive members of society. Its effect is not mainly in the field of education but also in economics, performance, crime intervention, health and family relationships.

From Preschool to Age 40

<table>
<thead>
<tr>
<th>Participants</th>
<th>Arrest</th>
<th>Income 20k+</th>
<th>H.S. graduation</th>
<th>Achievement at age 14</th>
<th>Homework at age 15</th>
<th>IQ 90+ at age 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-Group</td>
<td>36%</td>
<td>60%</td>
<td>65%</td>
<td>49%</td>
<td>61%</td>
<td>67%</td>
</tr>
<tr>
<td>Non-PG</td>
<td>55%</td>
<td>40%</td>
<td>45%</td>
<td>15%</td>
<td>38%</td>
<td>28%</td>
</tr>
</tbody>
</table>
The Benefits of Early Childhood Education

Early Childhood Education programs have clearly shown to enhance children's development in vocabulary, print awareness, math and problem solving skills. By the time children arrive at kindergarten, they would have acquired these skills depending on the duration of instructions and quality of teachers and programs. Development of literacy starts early in life and is highly correlated with school achievement. The domains and stages of child development are interrelated and interdependent. The more the child is exposed to a quality learning environment in the early stages of development, the more, he or she acquires the basic foundations for a good education. Specific skills in oral language, alphabetic code, print knowledge and concepts are very critical in learning for children ages birth to five years old.
Contrary to popular belief learning to read and write starts long before first grade and lasts through the life of the child (Strickland & Riley-Ayers, 2006).

Print Awareness Scores for Kindergartners with 0, 1 and 2 years of Preschool

(Barnett & Lamy, 2006)

The results from several preschool model programs have shown the positive effects of preschool participation on school completion and years of education. The research data shows that high-quality early childhood education helps narrow the achievement gap, reduces the dropout rates and antisocial behavior, increases economic productivity and social stability. High-quality Early Childhood Education programs produce the following benefits to society in general and to the individual in particular.

Children who had quality preschool education have shown to have:

- “Better higher-order thinking and attention skills
- Better reading, writing, and mathematical abilities
- Better social skills
- Less grade retention
- **Higher graduation rates**
- Fewer special education placements
- Fewer behavioral problems
- Less societal disengagement later in life and

The findings of the different studies indicate that by starting earlier, preschool education programs can have larger impacts on the development of children's speech, vocabulary, print awareness and problem solving skills for all children particularly for those from disadvantaged backgrounds. These findings are particularly important given current thinking about the contribution of early language development to children's capacity for subsequent learning. The idea is that the earlier a child knows more words and more concepts, the more they are prepared for reading. The earlier a child learns words, the greater the conceptual basis for later learning. In this case the advantage of a high-quality preschool experience at three years old is instrumental in paving the road for emergent literacy (Frede et al., 2005).
Receptive Vocabulary Scores for Kindergartners with 0, 1 and 2 years of Preschool

(Barnett & Lamy, 2006)

The results of most of the studies in Early Childhood Education show that there is a good reason to provide high-quality preschool programs to three and four year-old children. The better early start in vocabulary development that preschool education can provide at age three and four, the more important ramifications for children's subsequent learning. Due to this fact, policymakers and school districts should carefully consider the implications for early childhood program availability, funding, curriculum and professional development (Barnet & Lamy, 2005).

One of the most significant findings to emerge from these studies on children who drop out of school, is that early problem identification is vital for finding effective prevention. Although we tend to think of students dropping out during their high school days, many are lost long before that. Social and task related behavioral problems that develop into school adjustment problem can be identified at preschool. The dropout problem is not one that can be addressed exclusively at the middle or high school levels; by then it is too late for some students (National Dropout Prevention Center/Network, 2007).
Children who participate in these programs build confidence, competence and skills. Research has demonstrated time and again that early childhood education is definitely a good investment. The American Medical Association evaluated the Chicago longitudinal study on the long-term effects of a preventive intervention called the Chicago Child-Parent Center (CPC) program and found the three major contributions the study made to the literature on child health and development. First, as one of the most comprehensive longitudinal studies of a large-scale early intervention programs on education and crime, the CPC found that preschool participation was associated with a significantly higher rate of school completion. This demonstrates that established existing public programs which are offered without cost, can have a positive impact through early adulthood. “To date, almost all evidence for the effects of early intervention on educational attainment comes from model programs rather than large-scale programs. The largest increases in educational attainment (especially dropout rates) occurred for boys in the program”
(Reynolds, Temple, Robertson, Mann, 2001, P. 11). This may be explained by the type of programs, intensity and duration, in short by the quality of those programs.

The second major contribution was the finding that participation in CPC preschool program resulted with significantly lower rates of juvenile arrest. Preschool participants had lower rates of juvenile arrests. Given the high costs of treatment and incarceration, the results of this study reinforce those of model preschool programs and demonstrate the value of public programs in preventing dropping out of high school and reducing delinquency (Reynolds et al., 2001).

Thirdly, participation in the extended childhood intervention program was associated with lower rates of needs for special education and grade retention by late adolescence. Consistent with previous studies of the project, programs that extend into the primary grades can enhance school performance above and beyond less extensive intervention. Nevertheless, participants in extended intervention consistently outperformed their comparison counterparts and had the highest levels of performance across outcomes. As preventive interventions, the Chicago CPCs and others like it have advantages over other programs. They generally provide greater levels of intensity, longer durations, and comprehensive services. These attributes make it more likely that child outcomes will be improved. The demonstrated impact on education attainment is especially significant given its link to health status and lower disease risk. "Given that the annual cost to society of school dropout and crime is estimated at $350 billion, study findings suggest that the benefits to society of program participation can exceed costs" (Reynolds et al., 2001. p. 12). While the results demonstrate the long-term benefits of early intervention, they also show the limits of intervention in meeting children's educational needs. Like earlier studies, rates of school dropout and delinquency for program participants are substantially higher than for children
nationally. Although early intervention can provide a stronger foundation for learning than would otherwise be expected, it alone cannot improve the effects of continuing disadvantages children may face (Reynolds et al., 2001).

A good early education experience can teach children not only academic knowledge and skills, but it can shape their attitudes, dispositions, and habits regarding learning and influence their social and emotional development. For example, preschool education can help children begin to understand that there are consequences to their actions and that they can be responsible for what happens to them. As they go through life, successes in school and work and with their families can reinforce the sense that, by working hard and acting responsibly, they can control their own futures (Schulman, 2005).

Preschool education exposes children to the appropriate norms of social interactions through listening and speaking skills, appropriate volume and speed; following the rules of polite conversation like when someone speaks they listen without interruption. They also learn the use of language to express feelings and ideas, applying spoken language for a variety of purposes in asking and answering questions (Schargel, 2003).

**Early Childhood Education and the High School Dropout Rate**

Lehr, Clapper & Thurlow (2005) claim that 33% of students who dropout out of school do so due to poor academic performance related to early childhood education. The flow chart below illustrates the relationship between dropping out in the ninth grade and early childhood education.
1. But Why? 1. Students had to repeat ninth grade. (Students’ permanent records)

2. But why? 2. Students failed the majority of their ninth grade courses. (Student transcripts)

3. But why? 3. Students are unable to keep up with content reading in ninth grade courses. (Student achievement tests/interviews)

4. But why? 4. Students possess weak reading fluency and comprehension skills. (Student permanent records/test scores)

5. But why 5. Students did not acquire basic reading skills in early childhood and elementary school and did not receive remedial reading assistance. (Student permanent records/interviews)

"...the lack of quality Early Childhood Education programs in the United States is evident in the significant percentage of children starting kindergarten without the necessary skills to do well in school. Too many of these children lack critical preliminary skills such as knowledge of letters and numbers, knowing how to hold a book, or how to interact positively with their peers and teachers. When unaddressed early on, these deficiencies contribute to the achievement gap between advantaged and disadvantaged students, a gap ... that still remains too wide" (American Federation of Teachers, December, 2002, p. 7).

Among the high quality preschool programs that were rigorously evaluated (Appendix D) and whose students were followed to the end of high school, dropout rates were reduced by about 25%. Preschool’s positive effect on several risk factors for dropping out of high school, low academic achievement, special education needs, and grade retention, further suggest that
high quality preschool should significantly boost high school graduation rates. Preschool may improve the likelihood that students enroll in college. For instance, students in the Abecedarian program were more likely to enroll in college, and twice as likely to still be enrolled in school at age 21 (Committee for Economic Development, 2006).

The study done by Peter D Hart Research associates (Appendix E) on 16-24 olds in Philadelphia, Pennsylvania, and Baltimore, Maryland in 2005 confirms that some dropouts, but not the majority, leave school because of significant academic challenges. Thirty-five percent said that "failing in school" was a major factor for dropping out. Three out of ten said they could not keep up with schoolwork and 43% said they missed too many days of school and could not catch up (Bridgeland, Dilulio & Morison, 2006). Forty five percent said they started high school poorly prepared by their earlier schooling. Many of these students likely fell behind in elementary and middle school and could not make up the necessary ground. They reported that additional supports in high school that would have made a difference such as tutoring or after school help were not there. Thirty two percent were required to repeat a grade before dropping out and 29% expressed significant doubts that they could have met their high school's requirements for graduation even if they had put in the necessary effort. Students fell behind in elementary and middle school and were not able to make up the necessary ground. Almost half of dropouts polled (45%) said their previous schooling had not prepared them for high school. The majority of survey respondents (57%) reported that it was difficult to pass from one grade to the next and that the high school requirements for graduating were too difficult (Bridgeland et al., 2006).

Preschool also reduces grade repetition by about 21 percent, an effect almost twice as large as on special education. However, the cost of repeating one grade (about $7,700 per
student) is rather small relative to the cost of special education, which can extend over several years. Preschool’s impact on students’ educational attainment is particularly important because high school graduates have better employment and earnings prospects than high school dropouts (Committee for Economic Development, 2006).

Interim, Rochester, New York, City School District Superintendent William Cala, said “Without adequate Early Childhood Education kids are coming to school “less than whole;” and “If the kids were whole in grades K to 3 our children’s graduation rates would soar” (McLendon, (July 12, 2007, Democrat and Chronicle. P. B1). Cala’s statement accentuates the importance of quality preschool education as the best preventive medicine in reducing the high school dropout rate. Having no opportunities to learn these skills at an early age, students from any background can fall behind later in life. Too many students who come from disadvantaged backgrounds have very limited access to structured early childhood programs resulting in having an even greater risk of falling behind. The existing Early Childhood Research is clear: “quality Early Childhood Education programs provide young children with the experiences they need to thrive. Such programs help to prepare all children for school, close the achievement gap, reduce dropout rates and delinquency, increase economic productivity, and boost family stability” (American Federation of Teachers. December, 2002, p. 7). In addition to quality of programs, duration of attendance has shown long term gains in both literacy and math skills. Children who attended an extended day or extended-year preschool program experienced greater improvement in test scores compared to peers who attended half-day programs. The difference in performance gains over time was evident for measures of both verbal and mathematic abilities. These results indicate that duration is an important consideration for the effectiveness of preschool education. Research suggests that increased time in the classroom yields better results because it provides
greater opportunity for teachers to work individually, with one student at a time (Robin, Frede & Barnett, May 2006).

Many researchers have examined the effects of preschool education on the economic gains of individuals with and without early childhood education. Those who are impacted to the point of later dropping out of high school end up earning well below a living wage (Smink & Schargel, 2004). Family income also influences the attitude of parents on enrolling their children in preschool programs.

![Income vs Enrolment in Preschool %](chart)

(Spodek, Saracho & Davis, 1991)
Major Issues in Early Childhood Education

“If we are to address the needs of all children to meet high standards and to close the objectionably large achievement gap between advantaged and disadvantaged students, we must turn our attention to issues related to Early Childhood Education and school readiness” (American Federation of Teachers, June 2003, p. 3). Studies have shown that high-quality preschool education increases the likelihood that children will gain higher levels of cognitive and social skills and become successful students and productive citizens and reduces the chances that they will drop out of high school, become dependent on welfare, or be incarcerated. However, studies show that current child care policies and practices do not reflect what is known about child development particularly what has been learned in the last three decades about brain development and the critical role that systematic exposure to high-quality learning opportunities play in future development and academic abilities (American Federation of Teachers, June 2003).

Studies have also shown reports from kindergarten teachers which state that many children still come to school unprepared and being unprepared jeopardizes children’s chances to learn and succeed in school. More than 50% of U.S. children have one or more risk factors for school failure including too little exposure to stimulating language, reading, storytelling, and other literacy building activities upon which later success in schooling is built on. Children with these risk factors often have trouble following directions, working independently or in groups, communicating, and establishing secure relationships with adults. They also have lower academic achievement. The math and reading scores of new kindergartners from the lowest socioeconomic group are 60% and 56% lower, respectively, than the scores of kindergartners from the highest socioeconomic groups. “Beginning kindergarten students from the highest SES
group are a staggering 60% above the scores of children in the lowest SES group. The research is unequivocal in finding that disadvantaged children, on average, lag substantially behind other children in literacy, numeracy, and social skills even before formal schooling begins” (American Federation of Teachers, December 2002, p. 10).

Other factors, in addition to SES like children who have limited English proficiency, who have mental or physical impairment, and whose parents have low literacy skills, influence children to be unprepared for school. They have reading difficulties in the early grades, and will be at risk of falling behind in all subject areas down the road. Even when kindergarten teachers do an excellent job helping low-income children who are behind close the learning gap in basic skills, the more advantaged youngsters continue to have an edge, especially in higher-order skills, reading, and mathematics knowledge.

<table>
<thead>
<tr>
<th>Ability to:</th>
<th>Lowest SES Group</th>
<th>Highest SES Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize Letters of Alphabet</td>
<td>39%</td>
<td>85%</td>
</tr>
<tr>
<td>Understand Beginning Sounds of Words</td>
<td>10%</td>
<td>51%</td>
</tr>
<tr>
<td>Recognize Numbers and Shapes</td>
<td>84%</td>
<td>98%</td>
</tr>
<tr>
<td>Recognize Relative Size</td>
<td>31%</td>
<td>77%</td>
</tr>
</tbody>
</table>
Preschool Education and the High School Dropout Rate

As a result, education professionals argue in favor of making preschool available to all three and four year-olds, including disadvantaged children and:

- Guarantee full-day kindergarten for all children whose families want them to participate.
- Coordinate the administration of their early childhood education programs.
- Require higher levels of formal education and training.
- Develop sources to increase compensation of all teachers and staff.
- Raise the overall quality of their programs.
- Require and enforce standards for all programs.

Studies in the last 30 years have discovered an alarming phenomenon “...that more than 50 percent of children in the country have one or more risk factors that, without intervention, can lead to an achievement gap even before they start kindergarten and jeopardize their chances to learn and succeed in school” (American Federation of Teachers, June 2003, P. 3).
Preschool Education and the High School Dropout Rate

These risk factors include too little exposure to stimulating language, reading, storytelling, and other literacy-building activities upon which later success in schooling is based; limited-English proficiency; hearing and vision disabilities, speech and language impairments and learning or other disabilities. Even though effective teaching strategies and successful models of preschool programs have been developed, they have not been widely adopted due to lack of training and funding (American Federation of Teachers, June 2003).

As many as 80 percent of the early care and education programs in the United States not only fail to reflect what is currently known about child development, they also fail to meet basic standards of quality thereby putting children’s health, safety and overall development in jeopardy. Lack of access to high quality preschool programs is a major problem that affects nearly every working family in America, whether poor or middle class. Studies have also shown that there is little or no coordination and connection between various early childhood programs, their funding and policies, and their targeted communities. There must also be an articulation of early childhood education and Head Start programs with standards, curricula and frameworks. (American Federation of Teachers, June 2003).

Lack of adequate space in their current facilities to house early childhood education programs and full-day kindergarten is one of the reasons that more public elementary schools do not have Early Childhood Education programs. Programs, like the use of research-based practices, are linked to having adequate numbers of well-qualified adults who get decent salaries. 40% of current preschool staff has only a high school diploma. We can learn from and build upon the high quality, universal preschool programs that are widely available in other industrialized countries and in the United States including the early childhood education and care system sponsored by the Department of Defense and promising elements in programs offered in
states like Georgia, New York, North Carolina and Oklahoma. Head Start, the federal early childhood program for disadvantaged children, has already provided a foundation on which to base a system of quality early childhood education. However, its current funding level is insufficient to meet the needs of all eligible children, and its trademark health and social services and parent involvement programs must be augmented by an enhanced intellectual development component. Extending kindergarten to a full school day is key to establishing and reinforcing school readiness (American Federation of Teachers, June 2003).

Our resources for education are misspent on programs that do not address the major issues in Early Childhood Education. The Committee for Economic Development claims, “America is wasting its education dollars on remediation of past failures. Getting it right from the start would leverage all other educational investments...” (Committee for Economic Development, 2006, p. 2). Studies and preschool models like the High Scope Perry and the Chicago Parent Center have shown that “high quality preschool programs improve students’ schooling experiences and increase the likelihood of graduating from high school. Students who attend preschool tend to have more positive learning experiences in their elementary and secondary school years, with fewer students requiring special education classes or being retained in a grade” (Committee for Economic Development, 2006, P. 20). The economic advantage from “reducing special education enrollments is particularly beneficial to state education budgets because it costs roughly twice as much to educate each child enrolled in a special education class” (Committee for Economic Development, 2006, P. 20).
Research Motive

During a visit to an urban first grade classroom as a fulfillment for a required field experience, I noticed the disparity in achievement between two students of the same age when I received the welcome back cards they made for me. I could not figure out why the difference between the two pieces of writing depicted in the above pictures occurred, until the school based teacher explained to me the reasons for the disparity. She said “Mary (not a real name) never went to preschool or kindergarten. She has come a long way since September.” What is shocking is not that there is a difference in achievement but the wideness of the gap of the achievement. What are the chances that Mary will ever catch up with Tricia (not a real name)? How much help
does she need and who is going to provide that assistance? There is a good chance that Mary would be retained in first grade. According current research if no remediation programs are available, Mary has a 90% chance of dropping out of high school.

I began to question myself: how many other children are in the same predicament as Mary? Whose fault is it? Which community is mostly affected by this situation? What are the school districts, the state and the federal governments doing to change this trend? What about parents and the community? Does poverty have anything to do with it? Obviously race does not matter since Tricia and Mary are members of the same ethnic group. Why aren’t parents enrolling their children in preschool and kindergarten?

**Design**

I planned the questionnaires according to the vital information I needed to answer my research questions. I categorized them for teachers into preschool/kindergarten and elementary grades 1 through 6. The pre-k/kindergarten questionnaire had questions on:

District access for early childhood education
Quality of programs
Percentage of enrollment based on race
Parental involvement
Funding and
Achievement by the end of kindergarten

The questions for the elementary grades contained performance levels of those who attended preschool and kindergarten vs. those who did not on Reading, Writing and Math. What remediation programs if any are available for those who perform under grade level? There were a total of 31 questions. Most of the questions required detailed responses to district policy and
Preschool Education and the High School Dropout Rate

funding. (Appendix B and C). The questionnaires were distributed along with self addressed and stamped envelopes. For those who wanted to use computers, the questions were available in electronic format.

**Setting**

I decided to look into the problem deeper by doing an anonymous survey on preschool and kindergarten education in the City of Rochester School District in Rochester, New York. From reviewing current literature on the matter, I know only 45.2% of three and four year olds were enrolled in preschool (in public and in private school) in the entire country in 2005. What about the other 54.8%? (U.S. Census Bureau, 2005). I selected four schools with preschool and kindergarten: one a charter school, one with special education programs, one with a thousand students and another a regular small school of less than 300 students. I formally requested the institutions to grant me permission to conduct the survey. I brought the questionnaires to the schools and had the school staff distribute them. I am familiar with these schools. I had observed and taught lessons in these schools. They have lots of similarities in teacher-student ratio, student ethnicity, funding, parental involvement and preschool attendances.

**Participants**

All the participants of this anonymous survey were teachers, preschool through 6th grade. They have experienced the existence of two types of students in their classrooms, those who never attended preschool and kindergarten programs, and those who did. They are responsible for identifying students who need additional help or any remediation to help them catch up with the rest of the class.
**Data Collection**

The responses to the survey were mailed to me in the envelopes provided. The raw data was then retrieved and categorized into:

- State and district policy and standards
- School administrations
- Staff and faculty
- Parental involvement
- Student performances: Reading, Writing and Math

The data collection also included percentages of respondents: the ethnic groups affected the most by lack of preschool education, the achievement gap, attendance and teachers' input. All grades up to 6th grade are represented in the collected data.
Findings & Discussion

The number of teachers who responded to the survey was only 40%. However, the data from these responses was more than enough to tell us about the state of preschool education in the district and its impact on the high school dropout rate. The answers to the questions were short and to the point. Unlike school administrators and policy makers these teachers seem to know exactly what needs to be done to alleviate the problem facing children who are lagging behind and who would probably drop out of school later.

On the question of whether preschool attendance should be mandatory or not, the response is a resounding “yes” by all respondents. The reason, though phrased differently still says that the early childhood years set the stage for many skills that may be over looked in later grades. The earlier the intervention, the better; and preschool education improves a student’s school career. If preschool education including kindergarten is so critical to student achievement, why doesn’t the state make it a legal requirement for parents to enroll their children in preschool programs? Mandatory preschool enrolment may be the victim of cost and affordability by the state and the school districts. “It would be nice but I am not sure if the cost would be so much that it can be afforded. In Rochester, preschool programs are available for those who want to register their children” (Survey response, June, 2007).

The next question is if preschool programs are available with no cost to parents, how come attendance is so low nationwide (45.2%) in general and higher in urban school districts in particular? The reasons given are varied and address all the other factors that affect children from poor urban areas. Lack of free childcare facilities before and after school for working mothers; drug and alcohol addiction by the primary care giver and parents having no high school diploma
themselves are the major causes teachers think why parents are not responsive to their children's educational needs at an early age.

Parent involvement for those who are enrolled in preschool and grade school is also another factor that influences school achievement. Teachers' responses are somewhat mixed. But 60% agree that it is less than adequate, 50% of the time. The home environment does not promote reading, writing or even doing homework. Most students, (50%-60%) do not turn in homework. They are not interested in doing school work usually because it is partially too difficult for them because of not having the proper start in preschool. The other problem that needs parental involvement is the low school attendance rate. On any given day, 5%-10% of students are absent from class. On the average 10% of students from a class of 22 are reported to family services for missing more than 30 full days of school per semester. The other problem is that even though "preschool education prepares students for success in kindergarten, the curriculum delivered by preschool teachers is comprehensive and few parents have the time, materials or training to help prepare their children as well" (Survey response, June, 2007).

The students who are affected by not having gone to preschool and kindergarten are mostly African Americans and some Hispanics. Besides poverty, lack of structured and nurturing home environment, drugs and alcohol, the neighborhood reinforcing negative outlook at proper schooling contribute in paving the way for dropping out of high school. As these children grow up, the achievement gap widens and they get retained in a grade or two before they finally drop out of the ninth and the tenth grade.

The survey also found that teachers have to modify their instructions to accommodate these children who are not performing at grade level. These include presenting "smaller units, repeating curriculum activities, giving them extra instructions, getting reading help two times a
week or more outside classroom, reviewing directions and numbering them to better understand what was expected.” In addition, teachers use simplified directions; modified assignments and provide students with spelling sight word and multiplication cards for use at home.

There are research based curricula and instruction strategies for preschools available today. On the question how current is the district in applying these practices, teachers’ response is that the Rochester school district is compliant and in alignment with state and federal standards. Most (80%) of the teachers in preschool are state certified college graduates.

On the connection between quality preschool education and dropping out of high school, all respondents agreed that staying behind their peers because of grade retention does affect students’ decision to eventually drop out of high school. Regarding the percentage of students who drop out, one teacher responded “I would think at least 30% and may be 50% dropout. I think students who do not attend preschool are behind other students from the beginning and many do not catch up.” This assessment agrees with most of the literature on school completion problem. Children, who enter first grade without ever attending preschool, stay behind and mostly fail to catch up and repeat grades before finally leaving school.

Comparing the social skills of those students with no early childhood education experiences at the beginning of kindergarten, respondents of the survey are unanimous in rating their behavior 1 or 2 on a scale of 10, which is a call for behavioral warning. But by the end of the year most of them had improved to age appropriate behaviors. In regards to reading, writing and math, they still struggled at the end of their first school year. Thirty percent to 50% eventually catch up provided they are in remediation programs that fit their needs. Most of them never catch up. In fact some teachers believe 50% of them repeat at least one grade. “I would
think at least 50% repeat grades and half of that dropout of high school..." (Survey response, June, 2007).

How can school districts make preschool education more appealing and necessary to parents? The response to this question incorporates the solutions for most of the factors affecting early childhood education like making kindergarten a full day operation, providing transportation to preschoolers, using census information to track and inform parents, sending flyers home and advertising available preschool services on television and newspapers.

In sum, preschool education is considered the very foundation upon which children can build their social, cognitive and physical skills which they can use not only for success in school but also in life. According to this survey, without preschool, success in education is an uphill struggle in which most children lose when they give up and drop out of high school. The survey also puts most of the responsibility for the low preschool enrollment on parents. If there is any chance of reducing the high school dropout rate, Early Childhood Education has to have a higher priority in our educational system.
Conclusion

Early Childhood Education programs that are of high quality and intensive have positive effects on cognitive development, school achievement and completion of high school especially for children from low-income families. Both the literature review and the survey data enumerate the need for early childhood and kindergarten education if we want to reduce the ever increasing national high school dropout problem. As more and more parents (83% in 2005) join the labor force, a growing number of children will be in need of well structured and run day care centers and preschools to nurture and educate them. Young children learn best through engaging in spontaneous and reciprocal interactions, meaningful activities and caring relationships. The learning that takes place starting at birth and the early years of life results largely in neurological development. This window of opportunity allows for adult intervention in the form of providing stimuli to develop the child’s brains neural pathways enhancing intellectual, social and emotional abilities.

The other benefit of preschool programs is reducing the chances of children at risk from becoming special education students in the form of an intervention. Some of the programs used as interventions are parent empowerment, parent support, health and social services and good-quality education provided by qualified staff. These programs have both long term social and educational gains. Even though teachers believe in early childhood and kindergarten education to help not only disadvantaged children but every child, they are skeptical about any changes that will alter the status quo. To them, more funding for quality preschool programs, housing, materials, trained staff and informed parents are unrealistic in today’s state of city and county budgets. Their simple message is “do not wait until the situation becomes a problem; prevent it from becoming one.”
Education is a social enterprise. Like the phrase, “it takes a village to raise a child”: it takes parents, teachers, school administrator policy makers and the community to properly educate our children by providing quality early childhood and kindergarten education. The one way to reduce the high school dropout rate is by making sure children have access to quality preschool education.
Recommendations

In most states in the United States including New York State, Preschool and Kindergarten education is not mandatory. Early Childhood Education has shown to enhance child development and improve social, physical and cognitive skills of all participants. It gives all children a solid foundation for starting out their educational journey on the right track. Based on all research data and teachers’ responses, sending three, four and five year olds to preschool programs must be a legal responsibility for parents. This study recommends that states pass laws to make preschool attendance compulsory for all children ages three and up. For long lasting benefits, full-day preschool education should be implemented by policymakers as well.

The definition of curriculum is what to teach and how to teach it. In order to have an effective preschool curriculum for quality education, early childhood educators must have a say in the design of the curriculum. The preschool curriculum content, delivery and methods of assessment should relate to early intervention programs for children with special needs. In addition, more resources should be invested in preschools. Since attendance in preschool and kindergarten is not usually compulsory, it receives less government funding than elementary, middle and high schools. To ensure accessibility and affordability, policies should be developed to encourage widespread participation in early childhood education by children from diverse backgrounds. High priority should be given to the improvement of preschool quality. For that to happen, the program must have:

- Access for all children ages 3 to 5
- Qualified, trained teachers and staff with appropriate wages
- High teacher-child ratio
- Extended full day preschool and kindergarten programs
• Developmentally Appropriate Practice (DAP)
• More funding
• Interactive learning across the curriculum
• Holistic, nurturing, hands on and exploratory teaching characteristics and
• a standardized curriculum that is applied throughout the state.
References


Appendix A

Introduction Letter to Survey Participants

Survey completion implies consent!

Eshetu Setegn
286 Merrill Street
Rochester, NY 14615
(585) 621-4632
esetegn@rochester.rr.com

Dear Preschool and Elementary School Teachers,

My name is Eshetu Setegn (Mr. Shoe). I am a Graduate Education candidate at St. John Fisher College in Pittsford, New York. As a partial fulfillment for the program, I am doing a study on the role of Early Childhood Education as an effective strategy for academic success and for the prevention of dropping out of high school. The title of my paper is: Long term effects of a High Quality Preschool Education: Does Good Early Childhood Education Prevent Students from Dropping out of High School?

This research looks into the nature of student disengagement from academic life as a gradual process that starts years before the student stops attending school. Two of the warning signs for students at risk of dropping out, low grades and grade retentions, are the direct results of lack of appropriate Early Childhood Education. “Poor academic performance linked to retention in one grade is the single strongest school-related predictor of dropping out...out of every ten drop outs, nine had been retained at least one year” (Smink & Schargel, 2004, p. 33).

I am doing a survey on the subject in four schools in CRSD. I have two different questioners, one for preschool teachers the other for 1-6 grade teachers. The survey is both in paper and electronic forms. You can send me your response in the self-addressed and stamped envelopes or if you are using the CD, you can e-mail them to me using the address above. I would greatly appreciate your participation in this survey!

Thanks!

Sincerely
Eshetu Setegn

[Candidate Signature]

6/20/2007

Date
Appendix B

Survey Questions: For Preschool Teachers

Eshetu Setegn

June, 2007

*Survey completion implies consent!*

1. Do you teach pre-K or Kindergarten?

2. Should New York State make Preschool education mandatory? Why?

3. What percentage of your preschool students are African Americans?

4. What is the level of parental involvement in preschool?

5. Preschool education is considered a key factor in school achievement. Do you think it would be a factor in reducing the high school dropout rate in our district?

6. NCLB calls for qualified teachers (State certified college graduates) in preschool. How compliant is the Rochester school district?

7. How accommodating is the preschool environment for children with mental and physical impairments?
8. School funding is a problem throughout the district. How much of a drawback is it in implementing current and appropriate materials and strategies in preschool?

9. Preschool curriculum and pedagogy has evolved since the early days of Head Start in the 60s. How current is the New York standard governing pre-K and Kindergarten programs?

10. If you had the power to make one change to make preschool more appealing to more parents and to help solve the attendance problem, what would it be? Why?

11. The Rochester (New York) City School District has been running a television advertisement reminding parents to register their children in preschool for the next academic year. What more needs to be done to get more children in preschool? Why?

12. Preschool education is considered a major tool in helping children's social skills development. How accurate is this claim?

   - The table below is just a guide. Please feel free to add anything you think is relevant in your comment!
   - Apply the Key at the bottom of the table to fill out the table.
   - Use the back of this page for additional comments.
**Preschool Education and the High School Dropout Rate**

<table>
<thead>
<tr>
<th>Social/Behavioral Development</th>
<th>Beginning of School Year</th>
<th>End of school year</th>
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<tr>
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<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
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<td>Self-Concept</td>
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<tr>
<td>Perceived-competence</td>
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</tbody>
</table>

**Key**

- Behavioral Warning: 1-2
- Below expectation: 3-4
- Age appropriate: 5-6
- Exceeds expectation: 6-8
- Mature beyond stage of development: 9-10

13. What is the academic achievement of the average child at the end of Kindergarten?
   - The table below is just a guide. Please feel free to add anything you think is relevant in your comment!
   - Apply the Key at the bottom of the table to fill out the table.

Use the back of this page for additional comments.
### Reading
- Comprehension
- Fluency
- Phonics
- Phonological Awareness
- High Frequency Words
- DRA Level

### Writing
- Spelling
- Sentences
- Punctuation

### Math
- Counting/Number sentences
- Adding/Subtraction
- Multiplication/Division

**Key:**
- Academic Warning: 1-2
- Below Standard: 3-4
- Meets Standard: 5-6
- Exceeds Standard: 6-8
- Exceptional: 9-10

I appreciate your participation!

Thank You Very much!!!

---

Eshetu Setegn

Date: 6/3/2007
Appendix C

Survey Questions: for grades 1-6 Teachers

Eshetu Setegn
June, 2007

* Survey completion implies consent!*

What grade do you teach?

Have you had students in your classroom who did not attend either Pre-K or Kindergarten?
Yes________ No________

If yes, on a scale of 1 to 10, (10 being Exceptional) how was (is) their performance compared to those who attended Early Childhood Education in reading, writing and math?

The table below is just a guideline. Please feel free to add anything you think is relevant in your comment!

Apply the Key at the bottom of the table to fill out the table.
Use the back of this page for additional comments.

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### Preschool Education and the High School Dropout Rate

| Prewriting |  |
| Drafting |  |
| Revising |  |
| Editing |  |
| Publishing |  |

#### Math

| Counting/Number sentences |  |
| Adding/Subtraction |  |
| Multiplication/Division |  |
| Decimal |  |
| Fraction |  |
| Algebra |  |

**Key:**

**Academic Warning:**
- 1-2: below Standard
- 3-4: Meets Standard
- 5-6: Exceeds Standard
- 6-8: Exceptional

**1. How would you rate their cognitive development?**

| Age appropriate | Yes | No |
| Below age level | Yes | No |
| Above age level | Yes | No |
| Needs Intervention | Yes | No |

**2. How would you rate their social development?**

| Age appropriate | Yes | No |
| Below age level | Yes | No |
| Above age level | Yes | No |
| Needs intervention | Yes | No |

How much extra help/one to one instruction/tutoring did they (do they) need?
Every day __________
Every other day __________
Once a week __________

3. Did you (do you) make curriculum adaptations and other accommodations for these students? Please give examples!

4. Roughly, what percentage of these students catch (caught) up with the rest of the class by the end of the year?

   None _______ 5% to 10% _______ 20% to 30% _______ 30% to 50% _______ 100% _______

5. Nine out of ten students who repeated a grade drop out of high school. What is the likelihood of children who are behind due to lack of preschool education to repeat grades? Why?

6. What is (was) the main reason parents did not register their children for pre-school and kindergarten classes?

7. What other factors you know of influence their decisions not to send their kids to Preschool?

8. How likely are these students to drop out of high school? Give reasons.

9. Does the district provide parent education on the importance of Preschool? How often?

10. Should the state or the Federal government make Early Childhood Education Mandatory?

11. What other interventions do you want to see applied at the elementary grades to overcome this deficiency?
12. Should Pre-K and kindergarten classrooms be housed in completely separate buildings away from elementary schools? Please give reasons.

13. What ethnic groups are most affected by this problem? Give approximate percentage.

14. We tend to point at poverty as a major cause for everything that goes wrong in society, from violence to poor academic performance. Preschool education is free in the Rochester School District. What role do you think poverty plays in the low attendance rate in pre-K and Kindergarten?

15. The Rochester (New York) City School District has been running a television advertisement reminding parents to register their children in preschool for the next academic year. What more needs to be done to get more children in preschool?

I appreciate your participation!

Thank You Very much!!!
Sincerely

Eshetu Setegn

Date: 6/20/2007
Appendix D

Early Education Programs with Long-term Evaluations

Carolina Abecedarian Early Childhood Intervention:

Between 1972 and 1977, 111 infants who were determined to be at high risk for school failure based on a number of parental and family circumstance factors were enrolled in the Carolina Abecedarian program. The infants, who were primarily African American, either received early care and education services from the age of six weeks through age 5, or were assigned to the control group. In both the child-care and preschool components, special curricula were developed focusing on language development, and the classrooms had very low child/teacher ratios and teachers with bachelor’s degrees. The program participants were followed through adolescence and, most recently, at age 21. The Carolina Abecedarian program enrolled children earlier in the lifecycle than other preschool programs, and the longevity of its follow-up provides valuable information on the long term effects of sustained early education interventions.

Chicago Child-Parent Centers:

The Chicago Child-Parent Centers (CPC) are publicly funded preschool centers in high-poverty neighborhoods serving low-income three- to five-year-olds that began operating in 1967 and continue today. The children attend preschool three hours per day during the school year, and receive reading and math instruction by well-qualified public school teachers with small class sizes. The quasi-experimental Chicago Longitudinal Study follows a cohort of 1,539 students (primarily African American) who attended kindergarten in 1985-1986. Of the children in the cohort, 989 attended a CPC center for one or two years prior to kindergarten, while the other 550 did not attend a CPC program (and less than one-quarter of this group attended any
Preschool). The most recent student follow-up was conducted when the children were age 20 or 21.

**Perry Preschool Project:**

The High/Scope Perry Preschool Project provided high-quality preschool experiences for a small number of disadvantaged three- and four-year-old African-American children in Ypsilanti, Michigan, between 1962 and 1967. The 123 children in the study were born into poverty and at high-risk for failing in school. The treatment group received a high-quality preschool education for 2.5 hours each day during the school year, in addition to a 1.5 hour home visit each week, while the control group was not provided any program services. All Perry Preschool teachers had bachelor’s degrees and earned 10 percent more than kindergarten teachers in the same school. The program participants were followed throughout their youth and adult years, with the most recent follow-up at age 41 (Committee for Economic Development: The econ promise, 2006, p.19).
Appendix E

The Silent Epidemic: Methods

Peter D. Hart Research Associates conducted four focus groups of ethnically and racially diverse 16- to 24-year-olds in Philadelphia and Baltimore in August 2005. In September and October 2005, interviews were conducted primarily face to face with 467 ethnically and racially diverse students aged 16 through 25 who had dropped out of public high schools in 25 different locations in large cities, suburbs and small towns. These locations were selected from high dropout rate areas with a significant degree of geographic and demographic variation. Sixty-seven percent of our sample consisted of city residents and the remainder were from the suburbs (14 percent) or small towns and rural areas (17 percent). Thirty-six percent were white, thirty-five percent were black, and twenty-seven percent were Hispanic. Fifty-two percent were men and forty-eight percent were women. Forty-nine percent of these young people live with one parent and forty-four percent would describe their family income as below average. Seventy-one percent of the respondents reported that at least one of their parents graduated from high school. Almost half of the 25 locations in which we surveyed former students are in jurisdictions with a majority of high schools that have "weak promoting power" in moving classes of students from 9th grade through 12th grade on time. These data are not a nationally representative sample, but they do offer reflections from a broad cross-section of the very people who are most affected by the silent epidemic of high school dropouts in America. (Bridgeland et al. P. 22. 2006).