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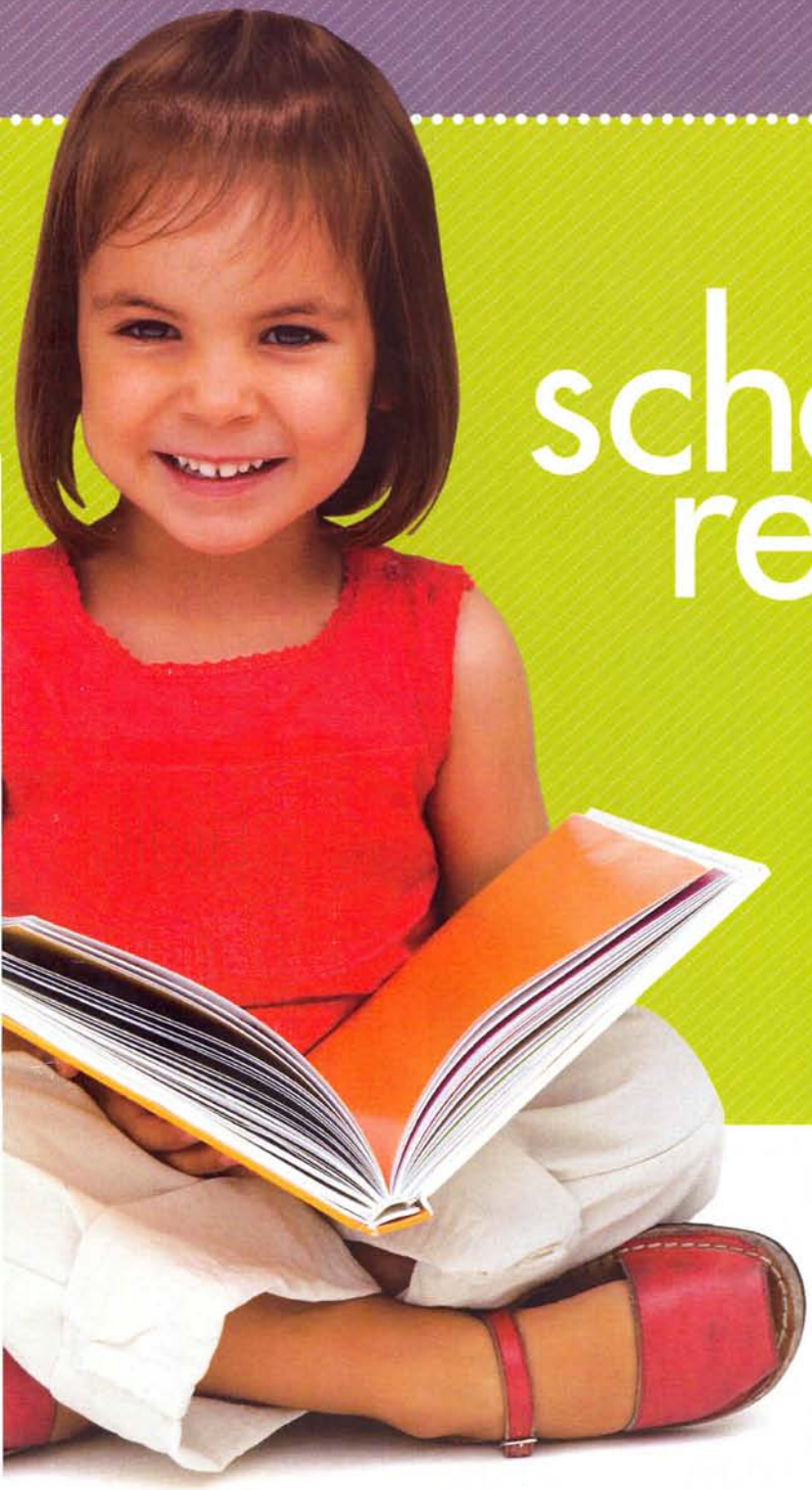

# school readiness • ISSUE BRIEF

"All children deserve an equal opportunity for **success in school** and in life."

smart start oklahoma

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# preface

Oklahoma's children and families face a number of challenges. Forty-two percent of families with children under age 18 in Oklahoma are considered low-income (National Center for Children in Poverty 2007a). This alarming number includes 385, 678 children—almost half (46%) of all children in the state. Of the children living in low-income families, 68, 433 do not have an employed parent (National Center for Children in Poverty 2007b). Oklahoma has the eighth highest rate of births to teenage mothers in the nation (29 out of every 1,000 births). The state also has one of the highest rates of serious psychological distress (SPD) in the nation. Recent statistics reveal that 11% of Oklahoman's suffered from SPD within a year time span, with only eight states experiencing higher rates (Wright and Sathe 2006). Families are also affected by crime in our state. In 2005, there were 18, 022 violent crimes in Oklahoma, including murder, rape, robbery and aggravated assault, and 143, 289 non-violent crimes such as burglary and theft (Oklahoma State Bureau of Investigation 2007).

What does the future hold for our children? How do we improve the financial status of, improve physical and mental health, reduce the rate of births to teenage mothers and reduce the number of crimes? The tendency of many policymakers is to design and implement policies that provide incentives for behaving in a socially acceptable manner or for punishing unacceptable behavior. Policies are mechanisms for guiding human behavior to promote a safe, healthy and prosperous society. However, policy can also help shape our attitudes and behavior early in our lives and enhance the likelihood of future success? Certainly, this is not to say that there would be no need for policies that penalize criminal behavior or promote safe, healthy environments; but, what if more policies and resources were focused on providing the necessary supports and opportunities during the first years of life so that our youngest children are less likely as adults to be unemployed, poor, chronically ill or in prison? Rather than placing a band-aid on a gaping wound or working to minimize the symptoms of social

ailments, more should be done to address the sources of problems found deeply rooted in our early life experiences. Policy is often about who wins and who loses—taking resources from one program to give to another. However, Smart Start Oklahoma (SSO) believes that policymakers can work with families to create a win-win situation for the future of our great state.

In order to have maximum impact, it is important to focus on the first years of life prior to school entry. Research indicates that "by age three, the brain is 90 percent adult size and the emotional, behavioral, cognitive and social foundation for the rest of life is in place" (Perry 1998). A recent poll found that 91 percent of Oklahomans believe that experiences during the first years of a child's life influence his or her success later in life (Campbell and Hartman 2007). These experiences shape the architecture of the brain. Positive experiences lay a solid foundation on which future learning and development is based, whereas negative experiences such as neglect and abuse weaken this foundation (National Scientific Council on the Developing Child 2004). As Nobel Laureate James Heckman states, "early learning begets later learning and early success breeds later success" (Heckman 2000, 5).

"What does the future hold for our children?"

SSO leads the state in coordinating an early childhood system focused on strengthening families and school readiness for all children. School readiness is a powerful lens through which we can evaluate how well we are meeting the needs of families with young children. It is the idea that strong families, schools and communities should provide the necessary support to ensure all children are safe, healthy and eager to learn.[1] All children deserve an equal opportunity for success in school and in life. In 1994, the Goals 2000: Educate American Act was passed by Congress and included goals established by governors from all fifty states and then President George Bush at the National Education Summit in 1989. Goal one declared that "by the year 2000, all children in America will start school ready to learn" (Goals 2000: Educate America Act 1994). Unfortunately, this goal is far from being achieved.

If families, schools and communities provide safe and nurturing environments in which the individual needs of the child are met, children are more likely to make significant progress in the five domains the National Education Goals Panel (1997) suggests are important for successful participation in school: physical health, social and emotional health, approaches to learning, language development and cognition and general knowledge.

The physical health of a child may affect his or her ability to succeed academically. There is a good deal of research that illustrates the direct impact of poor health on a child's ability to learn and the potential for behavioral problems (Emel and Alkon 2006; Currie 2005; Denton and West 2002). Students with undiagnosed vision, hearing or dental problems may find it difficult to concentrate on classroom activities or homework.

In addition to physical health and well-being, social and emotional health is also key to school readiness. This includes "getting along with others..., following instructions, identifying and regulating one's emotions and behavior, thinking of appropriate solutions to conflict, persisting on a task, engaging in social conversations and cooperative play, correctly interpreting other's behavior and emotions, [and] feeling good about oneself and others" (Smith n.d., 2). Studies also suggest that "the emotional, social and behavioral competence of young children...predict their academic performance in first grade, over and above their cognitive skills and family backgrounds" (Raver and Knitzer 2002, 3).

It is also critical to support strong families by providing needed programs and service to reduce

the impact of various risk factors on a child's readiness for school. These "...early indicators of disadvantage...have implications for how prepared children are when they first enter school at kindergarten" (Rand Corporation 2005, 2). Families must have the resources necessary to nurture, teach and provide for their children. This includes parent education programs, services that support economic self-sufficiency and support services for preventing child abuse and neglect. Failure to provide these supports may have significant consequences. "Research on early brain development says that young children warranting the greatest concern are those growing up in environments, starting before birth, that fail to provide them with adequate nutrition and other growth-fostering inputs... and subject them to abusive and neglectful care" (National Research Council and Institute of Medicine 2000, 217). A major research study found that adverse experiences during the first years of life have significant negative, long-term health effects. In fact, these experiences "have a powerful relation to adult health a half-century later" (Felitti 2002, 2).

"Investment in quality early education programs has yielded a return to society at large of $7 to $17 for every $1 invested..."

Finally, participation in early education programs has also been proven to affect a child's readiness for school and success later in life. Evidence indicates that participation is associated with a number of positive outcomes, including a greater likelihood of future academic success (Campbell and Ramey 1995), lower unemployment rates, greater earning potential, and lower crime rates (Schweinhart 2004). The long-term effects of these programs have proven particularly beneficial to children in poverty (Barnett 1998). A recent study of universal pre-kindergarten in Oklahoma found that the program had a positive impact on school readiness among participants, improving their reading, spelling and math scores (Gormley et al. 2005). Investment in early education programs has yielded a return to society at large of $7 to $17 for every $1 invested based in large part on crime, education and welfare savings (Reynolds et al. 2001; Schweinhart 2004). State leaders recognize the long-term benefits of early education programs. The Oklahoma Attorney General and Fight Crime: Invest in Kids, a national nonprofit anti-crime organization, recognize early education programs as a means of reducing the likelihood that children will commit crimes as adults (Fight Crime Invest in Kids 2007a; Fight Crime: Invest in Kids 2007b).

Since experiences during the early years are diverse and involve many factors, the policies and systems needed to promote positive experiences and improve the likelihood that children are ready for school involves a tapestry of interwoven policy issues and social concerns. Experts agree that children are born ready to learn; but, they may not have the necessary supports in place to ensure positive learning and growth experiences. School readiness is simply about equal opportunity. It is comprised of meeting diverse but very basic human needs such as food, shelter and loving, nurturing relationships. We must ask ourselves whether the necessary supports are in place to ensure our children can focus on learning. Policies and systems must support families, communities and schools so they are able to provide what our children need to thrive and prosper.

3

"Policymakers must design and implement policy that **supports families, communities and schools** so they are able to provide what our children need to thrive and prosper."

# profile of oklahoma's youngest children.

How do Oklahoma's youngest children and their families fare with regard to key indicators of healthy, strong families and early education? There is certainly room for improvement within each of these policy areas. This section outlines a set of core indicators[2] that SSO believes are important for success in school and in life, beginning with maternal and child health (Table 1). Among children under six, 11 percent do not have health insurance.[3] "Babies born to mothers who received no prenatal care are three times more likely to be born at low birth weight, and five times more likely to die than those whose mothers received prenatal care" (Maternal and Child Health Bureau n.d., 1); yet, only 71 percent of pregnant women in the state receive adequate prenatal care, which is four percentage points lower than the national average.[4] The percent of children ages 19-35 months who have been fully immunized to protect against disease has improved significantly over time, and is just below the national average (80 percent and 81 percent, respectively).[5]

"Our children do fare well compared to children around the nation when it comes to participation in early education programs."

With regard to family characteristics (Table 2), Oklahoma's children are faced with overcoming several key risk factors. Mother's level of education, births to teen mothers, child abuse and neglect and a family's socioeconomic status are common indicators associated with measuring whether or not children will be ready to successfully participate in school.[6] Almost one-fourth of births in Oklahoma are to mothers with less than a 12th grade education.[7] Studies have shown that these children are "particularly vulnerable to having low reading and math scores" (Lara-Cinisomo et al. 2004, 33). In addition, 29 out of every 1,000 births are to teen mothers.[8] These children are at greater risk of being born premature or at low-birth weight, living in poverty and being abused or neglected (Oklahoma State Board of Health 2006). Child abuse and neglect among children under age six is also significantly high. Abuse and neglect tends to be higher among the youngest age groups (U.S. Department of Health and Human Services 2007). One in every fifty children under age six in Oklahoma is abused or neglected.[9] Finally, almost half (49 percent) of children under age six in the state live in low-income families—seven percentage points higher than the national estimate (42 percent).[10]

Our children do fare well compared to children

Table 1 - Physical Health

| Indicator | OK | US |
|---|---|---|
| Percent of children under age six without health insurance | 11% | 11% |
| Percent of pregnant women receiving adequate prenatal care | 71% | 75% |
| Percent of children ages 19-35 months who have been fully immunized | 80% | 81% |

Table 2 - State of Families

| Indicator | OK | US |
|---|---|---|
| Percent of births to mothers with less than a 12th grade education | 22% | 22% |
| Number of births to teens ages15-17 per 1,000 girls | 29/1,000 | 21/1,000 |
| Rate of substantiated child abuse and neglect among children under age six | 1 in 50 | 1 in 50 |
| Percent of children under age six living in low-income families | 49% | 42% |

around the nation when it comes to participation in early education programs (Table 3). Seventy percent of Oklahoma four-year-olds participate in public funded pre-kindergarten.[11] For the 2004-2005 school year, the National Institute for Early Education Research ranked Oklahoma "first in the nation for the percentage of 4-year-olds enrolled in state-funded prekindergarten" (NIEER 2005, 122). In addition, about three-fourths (76 percent) of eligible three and four-year-olds are served by Head Start.[12]

However, estimates of the percent of children with special health care needs under age six being served with Individual Family Service Plans (IFSP) or Individualized Education Plan (IEP) are lower than national estimates. IFSPs provide a plan for early intervention services to be provided to children under age three with special health care needs, while IEPs outline plans for special education services for individuals with special health care needs ages three through twenty-one. Only 20 percent of children under age three with special health care needs have an IFSP,[13] while 54 percent of children ages three through five with special health care needs have an IEP.[14] There is certainly progress to be made in serving children with special health care needs.

With regard to child care settings, Oklahoma has received national attention for its quality rating system. The Reaching for the Stars program assigns star levels ranging from one to three to child care centers and family child care homes based upon their ability to meet quality criteria. Quality child care has been found to have a positive impact on the language development of young children (Frank Porter Graham Child Development Institute 2007) and can have a positive impact on a child's readiness for school. Sixty-three percent of centers and twenty-nine percent of family child care homes have achieved a rating of two stars or higher. Despite great strides in recent years, we can continue to make improvements.

Given the status of our youngest citizens and their families, it is evident that there is much work to be done if children are to be well-equipped to succeed in school and in life. It is critical that we work at the state and community levels to address gaps in the system and inadequate policies to ensure that all children have a solid foundation for acquiring new knowledge and skills. Otherwise, many children will be at a disadvantage when entering kindergarten and may find it difficult to catch up.

"...there is much work to be done if **children are to be well-equipped** to succeed in school and in life."

Table 3 - Early Education Programs and Services

| Indicator | OK | US |
|---|---|---|
| Percent of four-year-old children enrolled in public funded pre-kindergarten | 70% | 20% |
| Percent of eligible 3 & 4-year-olds served by Head Start | 76% | 54% |
| Percent of children with special needs under age three with Individual Family Service Plans | 20% | 31% |
| Percent of children with special needs ages three through five with an Individualized Education Plan | 54% | 74% |
| Percent of child care centers that are two star or higher | 63% | N/A |
| Percent of family child care homes that are two star or higher | 29% | N/A |

# kindergarten performance

Many of our children enter school already lacking the skills necessary to perform at grade level. In 2006, Smart Start Oklahoma partnered with the Oklahoma State Department of Education to survey kindergarten teachers in the state asking about teacher observations and perceptions of student performance. There were 1,213 usable surveys received representing 24,772 kindergarten students, or about half of the total enrollment. Participating kindergarten teachers said that 30 percent of students entering kindergarten during the 2006-2007 school year were not performing at kindergarten grade level (Table 4) compared to 48 percent of students nationwide who were not ready to successfully participate in school (National Center for Early Development and Learning 1998). Among teachers with students who were not performing at kindergarten grade level, 84 percent indicated that a delay in the development of language or literacy occurred somewhat or very often, followed by delays in social and emotional development (72 percent somewhat or very often), mathematical or cognitive development (70 percent somewhat or very often), and the development of fine motor skills (62 percent somewhat or very often).

"Many of our children are entering kindergarten at a disadvantage and struggle with academic and behavioral performance in the classroom."

With regard to specific skills, teachers reported that 17 percent of students were not yet beginning to recognize the relationship between letters and sounds, 16 percent were experiencing some difficulty related to social and emotional development, 14 percent did not yet have age-appropriate fine motor skills, nine percent did not yet recognize or count numbers up to five and six percent were not yet beginning to recognize basic shapes.

Teachers with students who were not performing at kindergarten grade level based on social and emotional development were also asked to identify specific delays. Eighty-eight percent indicated a delay in the ability to follow instructions occurred somewhat or very often, followed by persisting on a task (76 percent somewhat or very often), responding to solutions for conflict (71 percent somewhat or very often), playing cooperatively (68 percent somewhat or very often), identifying and regulating emotions (67 percent somewhat or very often) and participating in social conversations (59 percent somewhat or very often).

Many of our children are entering kindergarten at a disadvantage and struggle with academic and behavioral performance in the classroom. Though there is no agreed upon measure for school readiness and we must recognize individual differences in learning and development, by working to improve the basic skills of children entering kindergarten we help to level the playing field and to prepare each child to realize the full potential of the learning opportunities available.

Table 4 - Students Not Performing at Kindergarten Grade Level

| Indicator | OK |
|---|---|
| Percent of students kindergarten teachers say are not performing at kindergarten grade level | 30% |
| Percent not beginning to recognize the relationship between letters and sounds | 17% |
| Percent of kindergarten students not performing at kindergarten grade level based on social and emotional development | 16% |
| Percent not having age-appropriate fine motor skills | 14% |
| Percent not recognizing or counting numbers up to five | 9% |
| Percent not beginning to recognize basic shapes | 6% |

# implications for policy and system design

It is evident that school readiness is more than just cognitive development. Rather, it includes children who are healthy physically and emotionally; strong families in which parents are supported as their child's first and most important teacher; communities that have the necessary resources to provide family support; and, schools and early education programs that provide developmentally appropriate learning opportunities and meeting a child's individual needs. The interdisciplinary nature of school readiness requires collaboration, partnership, big picture thinking and system-building. We cannot afford to view policies affecting our youngest citizens from a narrow perspective. Rather, we must think holistically and identify the common threads that connect health, education, human services and economic development.

In 2004, SSO convened focus groups that included more than 200 participants to discuss the strengths and weaknesses of the existing systems. Input from stakeholders resulted in the development of a long range plan for building a system of collaboration where families, service providers and policymakers work together to create the necessary changes for improving outcomes. The goals that were set relating to these components of school readiness are as follows:

### Physical and Social/Emotional Health

1. Services promoting health are available and accessible to all children.
2. Children have a source of comprehensive, family-centered primary health care.
3. Families have the knowledge and resources to make decisions on healthy practices and long-term wellness.
4. Families of children with special health care needs receive the support and resources they need.
5. Families have access to individualized mental health services that address the social/emotional needs of their children.

### Family Support

1. Parent education programs are available to all families to ensure that families have the tools and resources to be their children's first and most important teachers.
2. Family support services assist families in providing a safe and nurturing environment.
3. Families have access to resources that support them in becoming economically self-sufficient.

### Early Care and Education

1. Children have access to a variety of high-quality, developmentally appropriate early care and education programs when needed.
2. Schools have the resources to ensure that high quality early learning environments are available to all parents who wish their preschool child to attend.
3. Adequate public and private funding is available to assist with the cost of early education programs.

"...school readiness requires **collaboration, partnership,** big picture thinking and system building."

To achieve these goals, SSO works with community and state-level partners from the public, not-for-profit and private sectors. There are currently 18 Smart Start communities around the state. Collaboration is essential to building community and organizational capacity to more effectively and efficiently the needs of children and families. Duplication in services and gaps in the current system that leave children and families without proper support mechanisms are identified and addressed. We create change in policies and systems by mobilizing communities, increasing public awareness of issues and solutions related to school readiness and strong families and securing private sector funding to implement innovative ideas.

## conclusion

**All children deserve an equal opportunity for success in life.** We all share in the responsibility to care for our youngest citizens, and must work together to provide the necessary supports and opportunities so that all children are safe, healthy, eager to learn and ready to succeed when they enter school. Oklahomans will reap the benefits for decades to come as we not only improve the future of our children, but we make an economic investment that has great potential for reducing crime and unemployment while improving overall physical and mental health. Through collaboration and commitment of resources to critical policy areas, our state can begin to reverse the negative trends that challenge many of our families. Smart Start Oklahoma leads the state in this effort, and is dedicated to creating change and improving outcomes. Together with Oklahoma families, we will coordinate an early childhood system that is responsive, accountable and sets standards of excellence that inspire change across the nation.

# notes

**1. This definition is based on the components of school readiness identified by the National Education Goals Panel.**

**2. Estimates for all indicators are based on the most recent data available at the time of publication.**

**3. Source: U.S. Census Bureau, Current Population Survey, 2003 and 2006 Annual Social and Economic Supplements. State and national data representing 2005 are from the Current Population Survey 2006 ASES Supplement. The Current Population Survey Annual Social and Economic Supplement is administered to approximately 78,000 households nationwide. The Census Bureau advises that caution be used when making inferences due to small sample sizes in some cases.**

**4. Source: Oklahoma State Department of Health and Centers for Disease Control. State estimate for 2000 and current state estimate representing 2004 data are from the Oklahoma State Department of Health Center for Health Statistics. The current national estimate is from the Centers for Disease Control. The percent of women receiving adequate prenatal care is based on the Adequacy of Prenatal Care Utilization (APNCU) Index developed by Milton Kotelchuck, an algorithm that accounts for the timing of the initial visit and the total number of visits.**

**5. Sources: Centers for Disease Control. Immunization rates are based on recommended vaccines in the 4:3:1:3:3 series.**

**6. Related indicators are used as part of the National School Readiness Indicators Project. Additional information can be found at http://www.gettingready.org/matriarch/.**

**7. Sources: Annie E. Casey Foundation Kids Count on-line database and Oklahoma State Department of Health. State estimate represents 2005 data and is from the Oklahoma State Department of Health's OK2SHARE on-line database. The national estimate representing 2004 data is from the Kids Count database, and is based on Child Trends analysis of data from the National Center for Health Statistics.**

**8. Sources: Centers for Disease Control and Oklahoma State Department of Health. State estimate is from the Oklahoma State Department of Health's OK2SHARE on-line database. It is based on a three- year average of**

2003-2005 data and provides an estimate of teen births in Oklahoma for 2004. The current national estimate represents 2005 data and is from the Centers for Disease Control.

9. Sources: U.S. Department of Health and Human Services, Administration for Children and Families (ACF) and Oklahoma Department of Human Services. State estimate is based on 2006 data obtained from personal communication with Oklahoma Department of Human Services staff. National estimate representing is based on 2004 data from ACF's Child Maltreatment 2004.

10. Source: National Center for Children in Poverty, Columbia University, Mailman School of Public Health. State and national estimates are from NCCP's on-line data wizard. State estimate is based on a three-year average calculated from the 2004, 2005 and 2006 Current Population Survey, Annual Social and Economic Supplement (CPS-ASES) representing data from 2003, 2004 and 2005. National estimate is from 2006 CPS-ASES data representing 2005.

11. Sources: National Institute for Early Education Research and the Oklahoma State Department of Education. State estimate is based on data from the 2006-2007 school year provided by the Oklahoma State Department of Education. National estimate represents the 2005-2006 school year and is from The State of Preschool 2006 published by NIEER.

12. Sources: Oklahoma Association of Community Action Agencies and Office of Head Start, Administration for Children and Families, U.S. Department of Health and Human Services. State and national estimates are based on total actual enrollment that includes all children ages three and four served by Head Start regardless of funding source (federal and non-federal), as well as those who were not enrolled for the entire program year. This number reflects the total number of children served by Head Start during the year. The number of eligible three and four-year-olds includes children living in families below the federal poverty level and accounts for the additional ten percent of eligible children who are over-income or have diagnosed disabilities.

13. The definition of children with special needs is from the National Survey of Children with Special Health Care Needs Chartbook 2001, and includes "...those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally" (see http://mchb.hrsa.gov/chscn/pages/intro.htm). It is important to note that not all children with special needs based on this definition will qualify for intervention services (i.e., an Individual Family Service Plan) in Oklahoma. Therefore, estimates do not reflect the percentage of eligible children served by a particular program. Sources: U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau; and the U.S. Department of Education, Office of Special Education Programs. The percent of children under age six in Oklahoma and the U.S. with special health care needs was obtained from The National Survey of Children with Special Health Care Needs Chartbook 2001 published by the U.S. Department of Health and Human Services. This percentage was used to calculate state and national estimates for the number of children birth through age two with special health care needs. The number of children birth through age two in the state and nation receiving services under Part C of the Individuals with Disabilities Education Act (i.e., IFSP's) was obtained from the U.S. Department of Education, Office of Special Education Programs' public Web site housing this data and was collected in the fall of 2005. The number of children served represents a point in time, and does not reflect the total number of children served over the school year.

14. The definition of children with special needs is from the National Survey of Children with Special Health Care Needs Chartbook 2001, and includes "...those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally" (see http://mchb.hrsa.gov/chscn/pages/intro.htm). It is important to note that not all children with special needs based on this definition will qualify for intervention services (i.e., an Individualized Education Plan) in Oklahoma. Therefore, estimates do not reflect the percentage of eligible children served by a particular program. Sources: Oklahoma State Department of Education; U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau; and the U.S. Department of Education, Office of Special Education Programs. The percent of children under age six in Oklahoma and the U.S. with special health care needs was obtained from The National Survey of Children with Special Health Care Needs Chartbook 2001 published by the U.S. Department of Health and Human Services. This percentage was used to calculate state and national estimates for the number of children ages three through five with special health care needs. The number of children receiving services under Part B of the Individuals with Disabilities Education Act (i.e., IEPs) in Oklahoma in the fall of 2006 is from the Oklahoma State Department of Education. The number of children ages three through five with IEPs in the U.S in the fall of 2005 is from the U.S. Department of Education, Office of Special Education Programs' public Web site housing this data. The number of children served represents a point in time, and does not reflect the total number of children served over the school year.

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