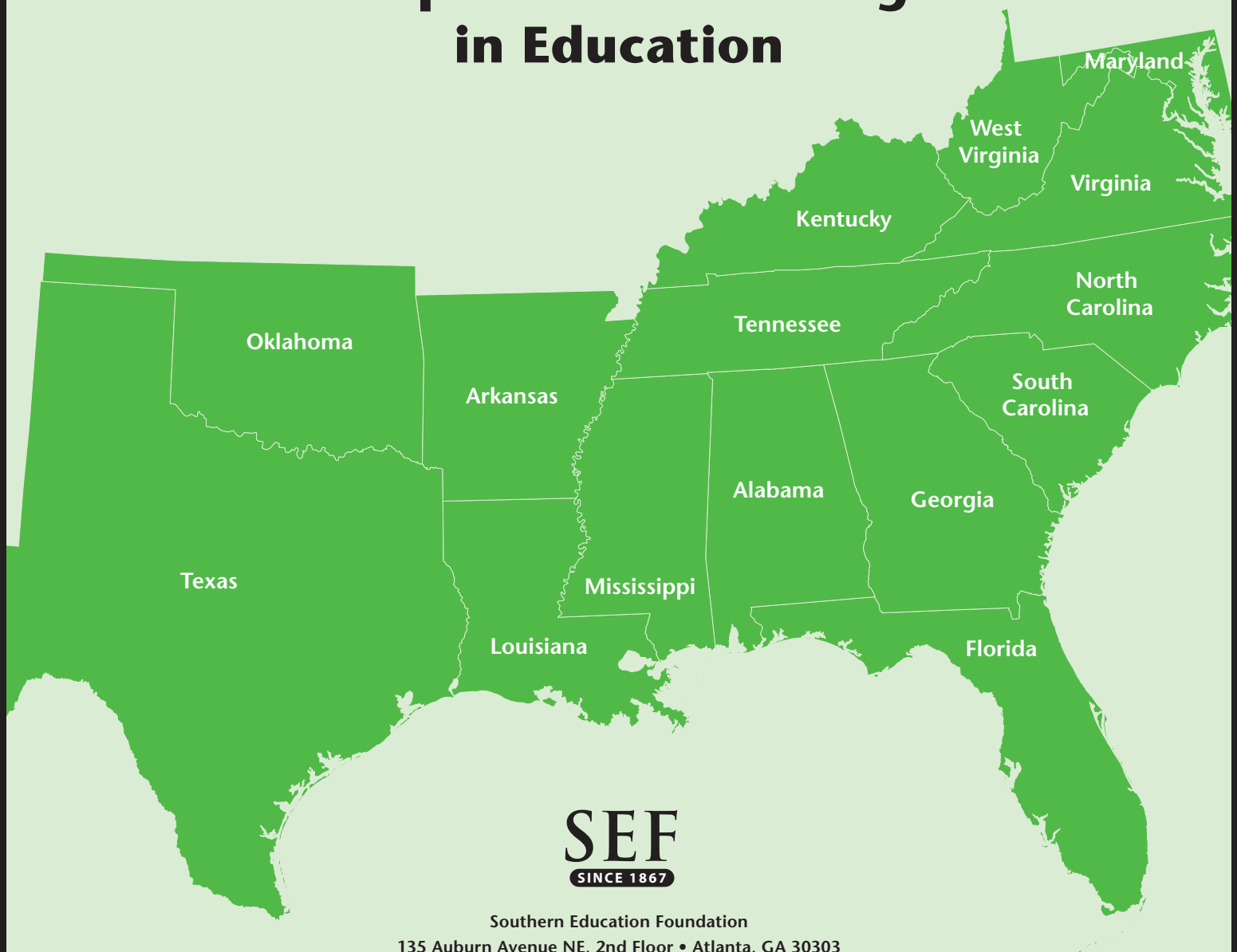


# Pre-Kindergarten in the South

## The Region's Comparative Advantage in Education



**SEF**  
SINCE 1867

Southern Education Foundation  
135 Auburn Avenue NE, 2nd Floor • Atlanta, GA 30303  
[www.southerneducation.org](http://www.southerneducation.org)

## The Southern Education Foundation

The Southern Education Foundation (SEF), [www.southerneducation.org](http://www.southerneducation.org), is a nonprofit organization comprised of diverse women and men who work together to improve the quality of life for all of the South's people through better and more accessible education. SEF advances creative solutions to ensure fairness and excellence in education for low-income students from preschool through higher education.

SEF develops and implements programs of its own design, serves as an intermediary for donors who want a high-quality partner with whom to work on education issues in the South, and participates as a public charity in the world of philanthropy. SEF depends upon contributions from foundations, corporations and individuals to support its efforts.

### SEF's VISION

We seek a South and a nation with a skilled workforce that sustains an expanding economy, where civic life embodies diversity and democratic values and practice, and where an excellent education system provides all students with fair chances to develop their talents and contribute to the common good. We will be known for our commitment to combating poverty and inequality through education.

### SEF's TIMELESS MISSION

SEF develops, promotes and implements policies, practices and creative solutions that ensure educational excellence, fairness and high levels of achievement among African Americans and other groups and communities that have not yet reached the full measure of their potential. SEF began in 1867 as the Peabody Education Fund.

### CREDITS

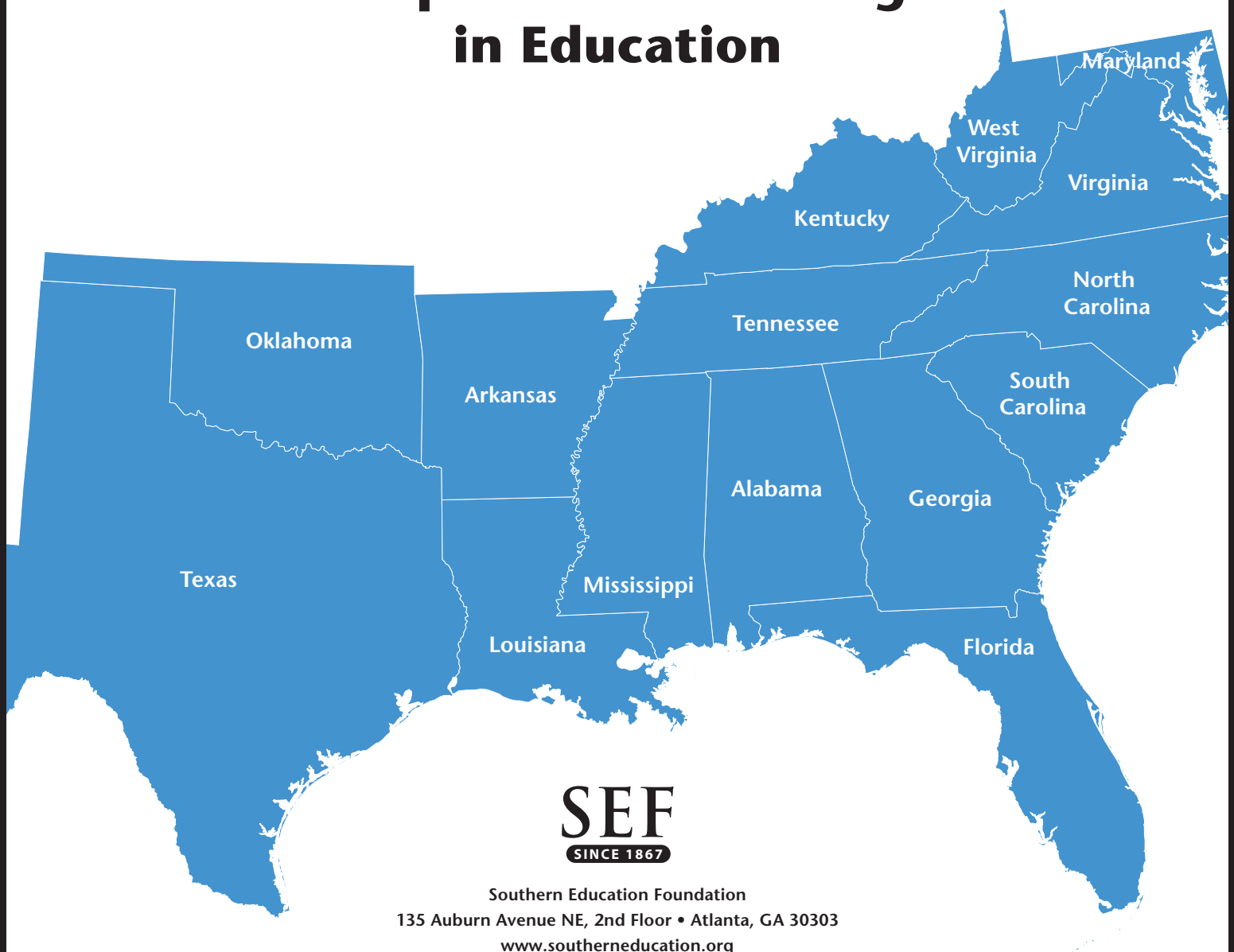
*Pre-Kindergarten in the South* is a SEF special 140th anniversary report. Other SEF reports and publications can be found at [www.southerneducation.org](http://www.southerneducation.org).

SEF wishes to express genuine appreciation to Luz Vega, President, and Cynthia Renfro, Program Officer, of the Marguerite Casey Foundation for the good counsel and general support that has helped to make this report possible.

With the assistance of SEF associate program officer Lauren Veasey, SEF program coordinator Steve Suitts was responsible for the development and writing of the report. Lynn Huntley and Andrea Young of SEF also contributed to the development and editing of the report. Mary Sommers of Typographic Solutions designed and supervised the printing of the report.

# Pre-Kindergarten in the South

## The Region's Comparative Advantage in Education



**SEF**  
SINCE 1867

Southern Education Foundation  
135 Auburn Avenue NE, 2nd Floor • Atlanta, GA 30303  
[www.southerneducation.org](http://www.southerneducation.org)

© 2007 Southern Education Foundation, Inc., Atlanta, Georgia  
All rights reserved.  
Printed in the United States of America. First Edition.

Portions of this work may be reproduced without permission, provided that acknowledgement is given to the Southern Education Foundation. Limited permission is also granted for larger portions to be reproduced by nonprofit and public agencies and institutions only, solely for noncommercial purposes so long as acknowledgement to the Southern Education Foundation as the source is prominently given. Reproduction or storage in any electronic form for any purpose, commercial or noncommercial, is prohibited without the express written permission of the Southern Education Foundation.

A limited number of printed copies of *Pre-Kindergarten in the South* is available from the Southern Education Foundation, 135 Auburn Avenue, Second Floor, Atlanta, GA 30303-2503, for \$15.00 each while supplies last. The electronic version is available without charge at [www.southerneducation.org](http://www.southerneducation.org).

# table of contents



## *Preface*

*by Lynn Huntley, President*

*The Southern Education Foundation*

3

## *Executive Summary*

**Pre-K – The South Leads the Nation**

5

## *Introduction*

**Pre-K in Southern Education**

7

**Pre-K Will Advance Southern Education**

10

**Pre-K Will Help the South's Economy  
and Quality of Life**

14

**Pre-K Access and Enrollment:  
The South Leads the Nation**

17

**Pre-K Quality Standards:  
The South Leads the Nation**

19

**Emerging Pre-K Trends:  
New Challenges and Possibilities**

22

## *Conclusion*

**Going the Distance**

24

## *Appendix*

**Pre-K Enrollment Rates  
by Region and State**

26

**Selected Bibliography**

28

## **Sidebars**

SEF and Early Childhood Education

9

What is a State Pre-K Program?

16

What is High-Quality Pre-K Today?

21

More on Pre-K in the South on the Web

25





# preface

The year 2007 is the 140th anniversary of the founding of the Southern Education Foundation (SEF). From its origins in 1867 with the establishment of the Peabody Fund to the present, SEF has had one aim: To help the people of the South improve educational quality, access, attainment and opportunity so that the region can provide a better life for everyone, no matter how poor or what color, religion, race or ethnicity.

Through its service and leadership, SEF has helped Southerners identify innovative ways to improve education for low-income people as the best means to reduce, if not eliminate, the many pockets of concentrated poverty that make the South the nation's poorest region. SEF has made unique contributions to enhance teacher preparation, development and recruitment; advance diversity in higher education; and build capacity among historically Black colleges and universities. It has informed a broad public with its policy analyses, cutting-edge research and educational outreach programs. It has invested in leadership across the region – for human capital is our most cherished resource and source of innovation. SEF is still involved in all of these areas, from preschool through higher education.

Though not well known, SEF was in earlier times one of the leaders of the South's efforts to provide publicly supported elementary and secondary education for all students on a fair and equal basis. Later, SEF encouraged policymakers to provide publicly supported kindergarten to all of the South's children. Millions of children have entered first grade better equipped for learning as a result of these efforts.

With a gathering sense of optimism, SEF is building on the work of the past to help Southerners take advantage of the growing body of contemporary knowledge about the effects of early childhood education. The news is good. Data in this report demonstrate that quality pre-kindergarten programs (Pre-K) add remarkable benefits to the extant investment in kindergarten programs. Indeed, the data show that quality Pre-K programs, targeted at children of three and four years of age,

improve readiness for success, not just in the early years of education but over the life of the child.

Leaders from all walks of life throughout the South have begun to make significant contributions toward providing publicly supported quality Pre-K. In fact, many Southern states are leading the nation in the quality of such services, the numbers of students served and documentation of impacts to inform future efforts.

Pre-K programs have an educational focus and rigor different from that provided by Head Start or most day-care programs. While all are valuable, the data show that quality Pre-K programs have especially dramatic impacts on the learning readiness and achievement levels of very young children.

In the future, SEF will convene and work with Southern leaders of all types – business, public, education, community, policymaker – to keep the momentum of change strong. There is much that Southerners can learn from each other and from others involved in quality Pre-K service delivery in other parts of the nation.

The South has many shortcomings in education which leaders have begun to address with courage and vision. But in the area of Pre-K, many Southern states are leaders in the finest sense of the word.

SEF intends to “stay the course” and help Southern states remain at the forefront of leadership in this vital area. We have no doubt that publicly supported, high-quality Pre-K programs will become part of the education pipeline for all children in the future. SEF will work to make it so.

Lynn Huntley  
*President*

The Southern Education Foundation  
April 2007





# executive summary



## Pre-K – The South Leads the Nation

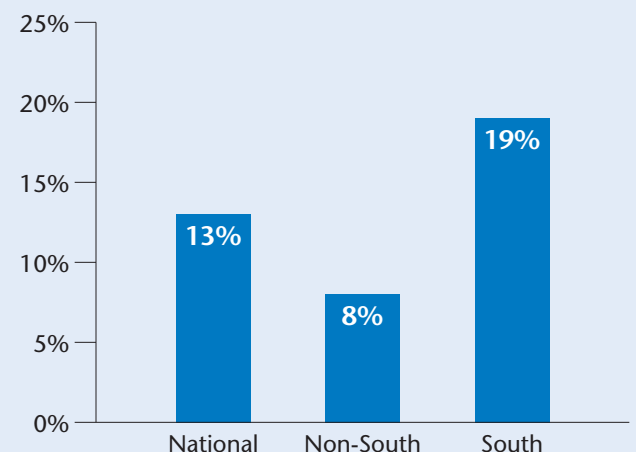
Over the last 140 years, Southern states have made significant progress in catching up with the nation in education and income, but in recent decades the South's gains have virtually flattened as the world economy continues to elevate the critical role of education in innovation, productivity and income. Today, most Southern states remain where they were in the early 1980s, closer to the national average than they were decades ago, but still at or near the bottom of the nation's major rankings in education, income and well-being.

There is an all-important exception to this pattern of Southern underperformance: high-quality, early childhood education – pre-kindergarten (Pre-K). Several Southern states have become the nation's leaders in Pre-K over the last 10 years. As a result, the South in 2007 leads the nation in offering state-funded Pre-K to three- and four-year-old children:

- 19% of three- and four-year-olds in the South are in state-funded Pre-K, more than double the rate in non-South states.

### Estimated Enrollment Rates State Pre-K, 2007

Percent of 3- & 4-Year-Olds Served by State Pre-K



- Two-thirds of the states with the highest standards for Pre-K quality are in the South.
- Only six states require full-day Pre-K programs statewide, and all are in the South.
- Nine Southern states fund Pre-K above the national average cost per child.

Today, Pre-K is the South's most important comparative advantage in education and a significant, efficient economic investment for the future. Pre-K promises to go a long way in assisting the South to overcome its historical deficit in education and eventually help move the region out of the bottom ranks in education, income and prosperity. When combined with other investments and improvements throughout the education pipeline, Pre-K can make a big difference for children and for communities.

An overwhelming body of independent research confirms that early childhood education has become strategically important in shaping a child's real-life prospects and a state's long-term future. The research shows that high-quality, state-supported Pre-K across the South is helping all children – especially low-income, African American and Latino children – prepare for school. In Arkansas, Georgia, Louisiana, Maryland, Oklahoma, South Carolina and West Virginia, independent researchers have recently undertaken studies that found strong evidence of positive effects on young children's learning in areas of language, literacy and math skills. In some states, primarily Oklahoma, Louisiana and Georgia, the results appear phenomenal.

In six Southern states, independent cost-benefit studies consistently document very large economic gains from investing in Pre-K. In Texas, for example, for each dollar invested in high-quality Pre-K, the state can realize as much as \$3.50 in direct benefits or as much as \$7.70 in direct and indirect benefits. The research evidences substantial economic gains for all Southern states where these studies have been undertaken.

But Pre-K has not developed uniformly across the South. For instance, as of the start of 2007, Mississippi was the only Southern state that had no state Pre-K program; and Alabama has a state program with only a minuscule enrollment. In contrast, Georgia and Oklahoma have ranked at the top of the nation in terms of both enrollment and high-quality standards for the last several years, and Arkansas has emerged as a new national leader in Pre-K.

To realize the full benefits of Pre-K, Southern states must continue to build and expand on their early, good start. For the region to maintain national leadership in this vital field of education, Southern states will have to make substantial, additional investments in Pre-K. Equally importantly, the South has miles to go in ensuring that high-quality standards are actually realized as programs expand across the states and that gains in Pre-K learning do not dissipate in the early elementary grades. Southern states will need to establish an adequate infrastructure for sustaining successful Pre-K growth over time, support an unbroken continuum of independent research for evidence-based analysis and decision making, and facilitate meaningful collaboration among entities that provide early childhood care and education in local communities.

The South's continued leadership in Pre-K is an essential strategy in finally closing the gap between the South and the nation in educational attainment, personal income and quality of life. Pre-K is not all that should be done to improve the South, but it is proving to be an essential part of what must to be done.

# introduction

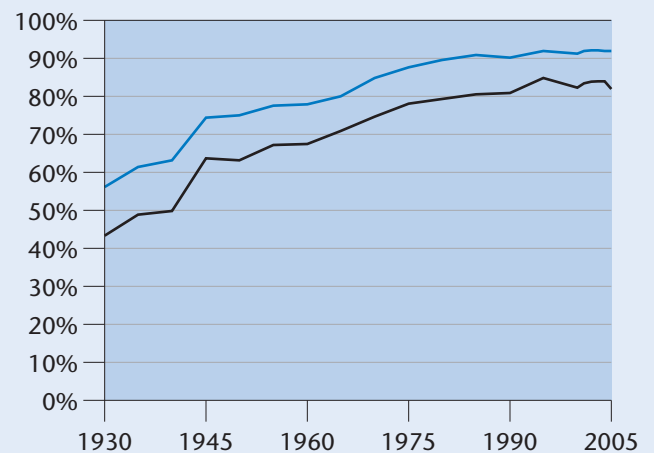


## Pre-K in Southern Education

The American South has lagged behind the nation in education and income since before the Civil War. Over the last 140 years, Southern states have made notable progress in catching up with the nation. During the 20th century, the South narrowed the income gap with the rest of the country, especially in the years following both the New Deal and the end of legalized racial segregation. In the aftermath of both eras, the South rapidly expanded its income relative to the national average once the South's people were afforded new opportunities to develop their human capital.

In the last 25 years, however, the new world economy has greatly enlarged the critical role of education in innovation, productivity and income, and the South's gains in both education and personal income have virtually flattened. The gaps in income that existed in the early 1980s generally persist today in the South – and notably in the Deep South.<sup>1</sup>

**Per Capita Income in the South and Deep South as a Percent of US Average, 1930–2005**



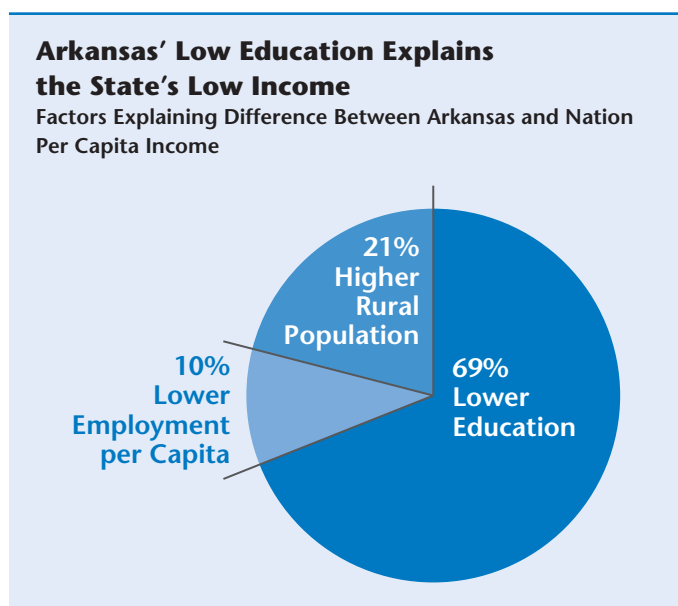
**LEGEND**

■ South

■ Deep South

<sup>1</sup>The Southern Education Foundation includes 15 states in the South, of which six are often referred to as the Deep South. The 15 Southern states are: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia. The six Deep South states include: Alabama, Arkansas, Georgia, Louisiana, Mississippi and South Carolina.

Today more than ever, the difference in per capita income between most Southern states and the rest of the nation is due primarily to the region's comparatively lower levels of education. For example, almost 70 percent of the difference between Arkansas' per capita income (ranked 47th among states in 2005) and the national average is attributable solely to Arkansas' lower levels of education. In several Southern states, education plays an even larger role in explaining the state's low income.



The historical trends and current economic research provide a clear lesson: If the South's personal income is ever to reach the national average, Southern states must increase their levels of educational attainment to match or exceed the national average.

During the last three decades, Southern states have initiated a wide range of reforms to improve their educational systems and economies, including adopting mandatory testing and measurable standards for achievement. But so far the results have been mixed at best. One of the few encouraging signs of regional progress in

recent years has been the learning gains of fourth grade students. In several Southern states, these elementary school students demonstrated higher gains in reading and math than the national average from 1998 through 2005. Yet, on almost all important educational benchmarks for achievement and attainment, the South has shown little progress and remains behind the nation.

There is an all-important, primary exception to this Southern pattern of underperformance: high-quality, early childhood education – Pre-K. Several Southern states have become the nation's leaders in Pre-K over the last 10 years, and as of early 2007, the South leads the nation in offering state Pre-K to three- and four-year-old children. Some Southern states also rank among the nation's top programs in terms of quality and effectiveness.

The national movement to establish state-supported Pre-K as the foundation of early childhood education for a large number of children is a recent development. In the early 1990s, two Southern states, Georgia and Oklahoma, initiated efforts that led to the development of the first statewide Pre-K educational programs in the country. While federal support for Head Start began over 40 years ago and some states (in and outside the South) established small Pre-K programs earlier, the initiatives in Georgia and Oklahoma were the first to become far-reaching, truly state programs of early education.

In 1992, Georgia Governor Zell Miller established a Pre-K program financed by proceeds from the state's new lottery, which had been narrowly approved by voters in a state referendum that Miller promoted. A year later, Georgia became the first state to establish a Pre-K program funded entirely with lottery revenues. In the first few years, the program served only low-income children. In 1995, Governor Miller announced that Georgia was expanding the Pre-K initiative to become the first state to offer universal, voluntary Pre-K to all four-year-olds.



In his announcement, Governor Miller set a new standard for Georgia, the South and the nation:

*Today we become the first state in the country, in fact, the first state in the nation's history, to offer Pre-K for every four-year-old who wants it... The benefits of Pre-K now belong to every Georgia parent who has a four-year-old.*

In 1990, as part of a broad agenda of education reform, Oklahoma launched a new Pre-K program for students eligible for Head Start. Over the next few years, the Oklahoma program expanded both reach and eligibility so that by the late 1990s it had become integrated into the public school system as a statewide program open to four-year-olds regardless of income. From early days, Oklahoma set a high standard for Pre-K quality. The program required teachers with a bachelor's degree and an early childhood teaching certificate, regular professional development for teachers, a low teacher-student ratio, and a curriculum that aligned with early elementary grades.

By the end of the 1990s, other states such as New York, Illinois and New Jersey had begun to make large investments in Pre-K, and most Southern states started to explore or experiment with preschool education. At that time, newly published research on the human brain began to demonstrate how the learning functions of a child require nurturing, interaction and stimulus, usually before the age of five, in order to promote learning at later ages. In addition, the results from a few long-term empirical studies of the positive effects of Pre-K on children's life chances were widely disseminated. Together, these two lines of research reawakened a wide interest in the importance and effectiveness of early education.

## SEF and Early Childhood Education

As early as the late 1890s, the Southern Education Foundation (known at that time as the Peabody Education Fund) recognized the need for early childhood care and education by assisting some of the South's Black colleges to start day-care programs on their campuses.

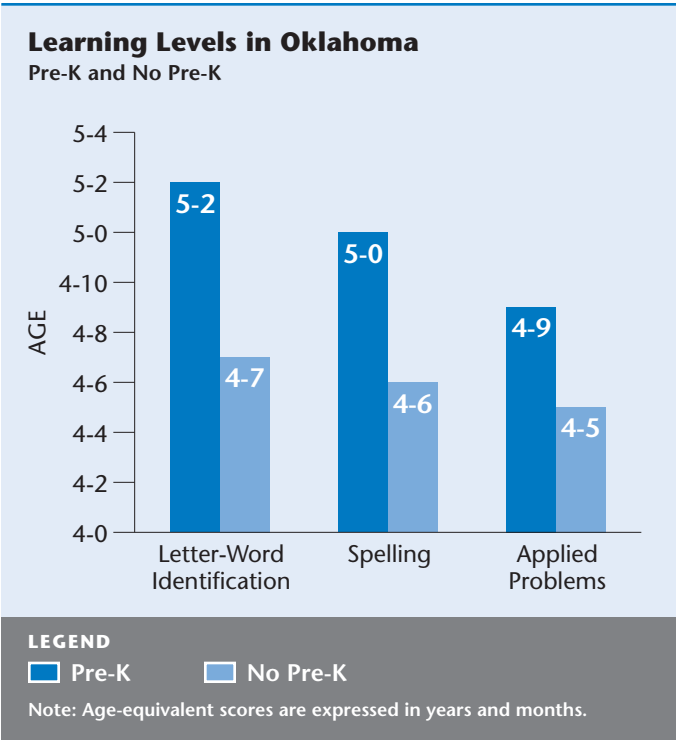
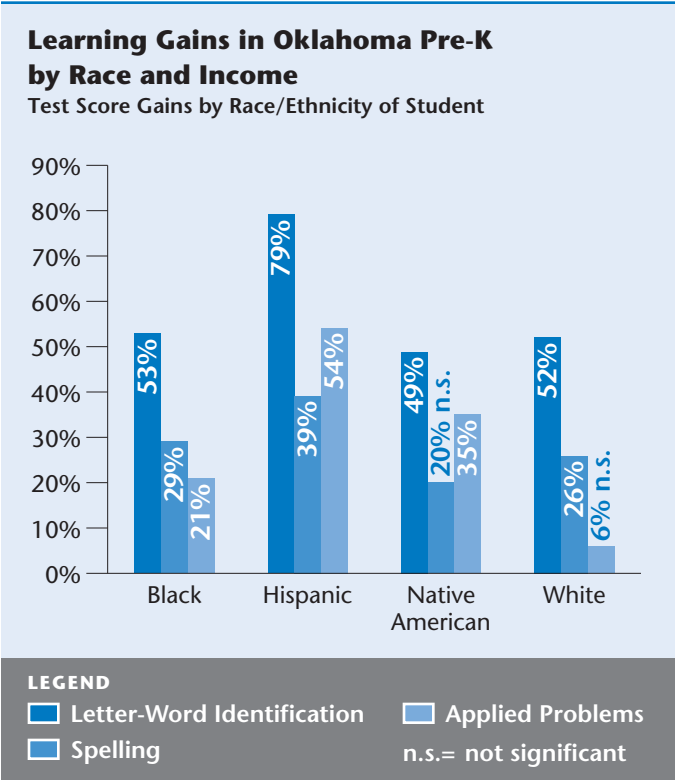
Forty years ago, SEF announced that "while early education is not the solution to all our education problems," it is a critical concern especially for "children who because of race and poverty have been excluded from access to real education." Beginning in 1976, SEF undertook a series of approaches to establish state-supported kindergarten across the South and to spur the growth of community-based child care centers in the rural South. Working with experts, policymakers, community leaders, and schools of education at both state universities and HBCUs (Historically Black Colleges and Universities), SEF helped to lead the way for Southern states to adopt kindergarten as an integral part of the modern public education system.

In 2000, all but two Southern states, Mississippi and Florida, had some kind of Pre-K pilot or program. By the start of 2007, as research consistently evidenced the growing educational and economic benefits of Pre-K, all but one Southern state, Mississippi, had established a significant effort to make state-supported Pre-K a more important part of their strategies for improving the South's future.

# Pre-K Will Advance Southern Education

High-quality Pre-K programs for three- and four-year-old children are among the best education investments a state can make. The independent research documenting the positive effects of Pre-K in Southern states is remarkably consistent and clear. In Oklahoma, for example, an independent study by Georgetown University demonstrates clearly that high-quality Pre-K prepares all children to be school-ready. After examining the learning skills of children enrolled in Pre-K in Tulsa over two years (2001-2003), the Oklahoma study shows that students in every racial and ethnic group and in every income group made substantial gains in basic cognitive skills.

The Oklahoma study also confirms that Pre-K delivers the largest gains in early learning skills to minority and low-income children – the student groups who most

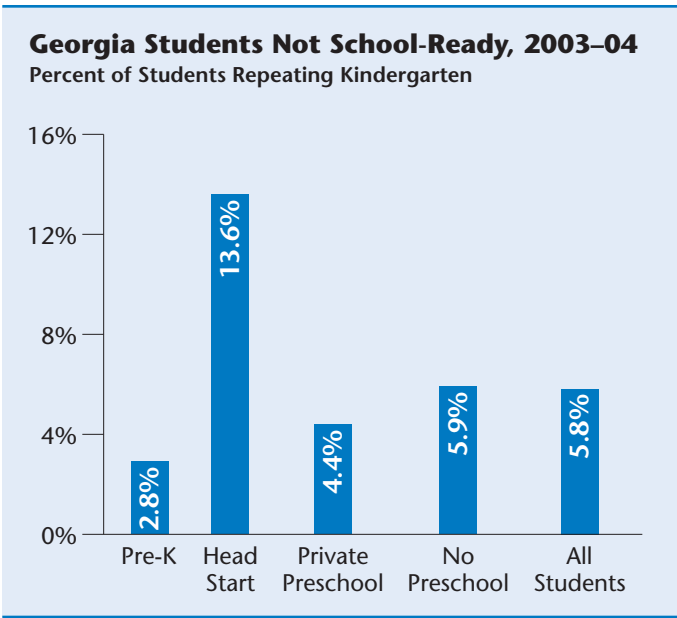
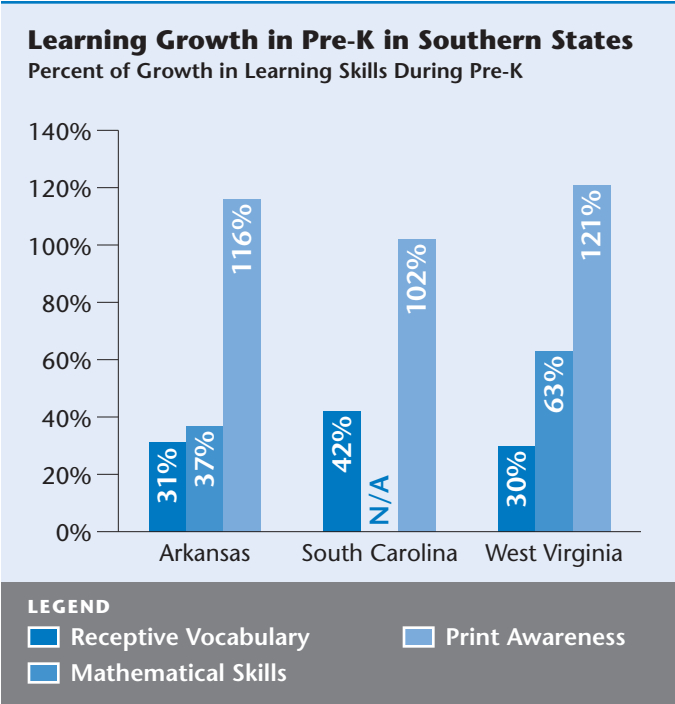


often start school behind and score lowest on standardized tests. For example, both African American and Hispanic students in Pre-K made impressive gains in all tested skills – letter-word identification, spelling and problem solving. And they made significantly higher gains than those made by White children. Similarly, children from low-income families in Tulsa’s Pre-K made excellent gains in learning that outpaced the gains of all other children from families with higher incomes.

This study illuminates not only how Pre-K helps to jump-start the learning of the children who often are not school-ready but also corroborates the fact that Pre-K is a benefit to all children. In comparing children with and without Pre-K, the study found that “the child exposed to Tulsa Pre-K is substantially better off.” Expressed in terms of age-appropriate skills, the study found that Pre-K kids were approximately seven months ahead of other children in cognitive skills for letter-word identification, six months ahead for spelling, and three months ahead in learning applied problems.

In West Virginia, South Carolina and Arkansas, researchers from Rutgers University’s National Institute for Early Education Research (NIEER) have undertaken similarly measured studies in recent years on random groups of children to determine the educational impact of state-supported Pre-K on four-year-olds. In each state, NIEER found “strong evidence of positive effects on children’s learning in areas of language, literacy and math skills.” In each state, while Pre-K programs created substantial growth in children’s learning in all areas, the gains in “print awareness” more than doubled in all states.

In Georgia, scholars at Georgia State University (GSU) have studied the academic impact of the state’s Pre-K program for several years and consistently have found significant growth in all areas of learning among all Pre-K children – especially low-income and minority students. Their latest findings followed a sample of children over time to measure how Pre-K skills carry forward into the first years of elementary school.

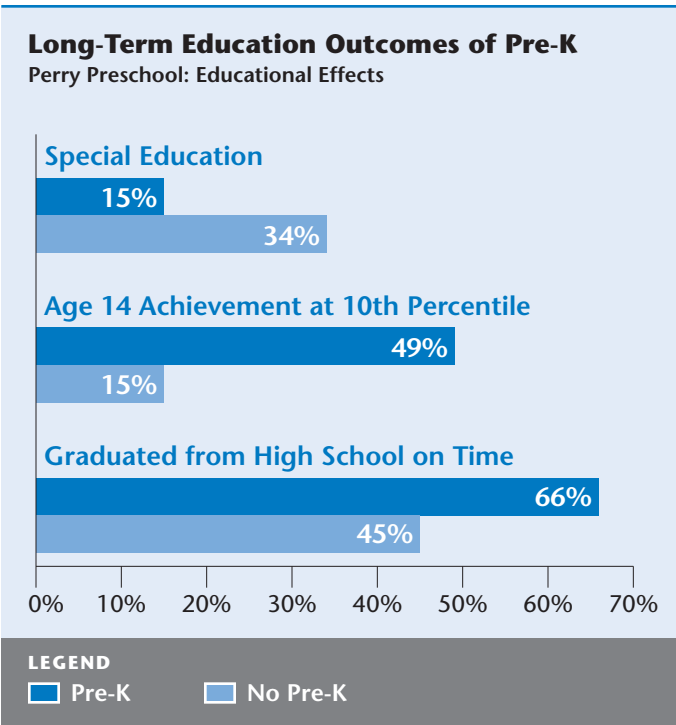
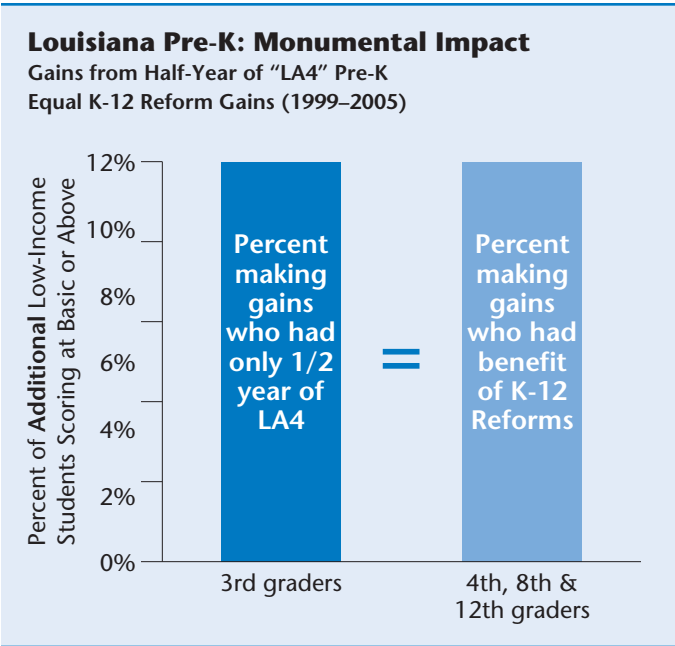


“Children enrolled in the Georgia Pre-K program gained substantially on their peers nationally on the assessments of language and cognitive skills,” the researchers concluded. “They began preschool well behind the national norms on three of four skills assessments and finished well above the national norms” by end of the first grade on three assessments (and on par with the national norm on the fourth assessment).

In addition, the GSU study found that Georgia Pre-K children were the students who are least likely to repeat kindergarten. Only 2.8 percent of the children who had been in Georgia Pre-K repeated kindergarten in 2003–2004; this retention rate was less than half the percentage of all students repeating kindergarten and almost one-fifth the rate for Head Start students. In fact, Pre-K students were generally more school-ready than all other groups of children – those attending Head Start, private preschool or no preschool.

Georgetown University’s recent study of Louisiana’s full-day program for low-income children has extended the examination of Pre-K’s impact into the third grade. Researchers tracked a cohort of the first class of Pre-K students in the state’s LA4 program who moved into elementary schools. In short, the learning gains of these four-year-olds who had only one semester of Pre-K (not a full year as is the case in following years) have been phenomenal, especially in comparison to the cumulative results of the state’s wide-ranging set of additional K-12 reforms.

The independent scholars found that the LA4 Pre-K children increased by 12 percent the proportion of low-income children scoring at or above basic in the third grade tests. This gain by Pre-K children exactly matches the percentage of gain that low-income fourth, eighth, and twelfth graders have achieved in Louisiana test scores since 1999 when major K-12 reforms began in the state.



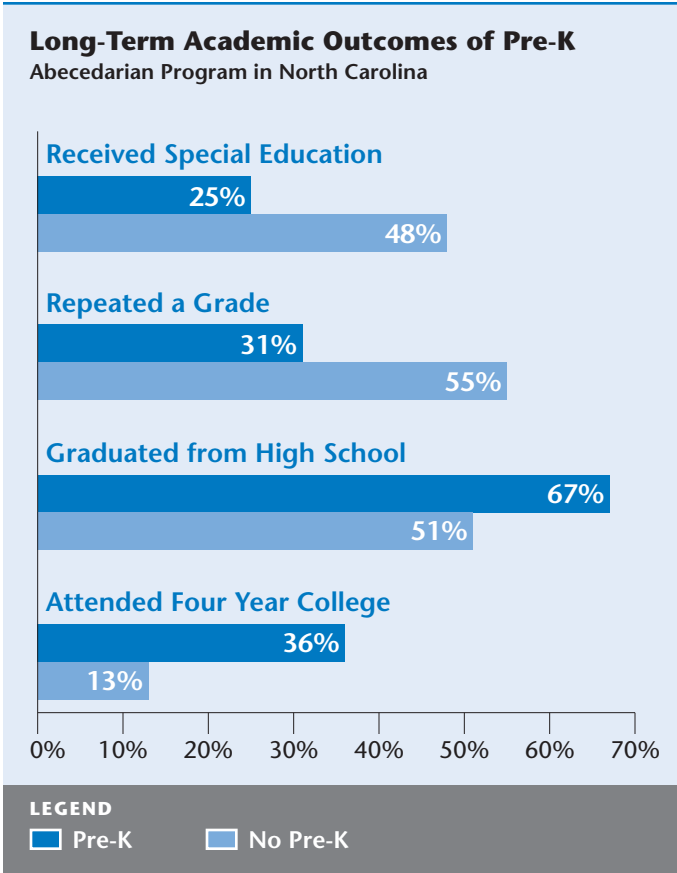
In other words, a half-year of Pre-K had the same degree of positive effects for low-income third graders as all of Louisiana’s six years (1999-2005) of education reform and investments, which involved accountability, curriculum standards, yearly standards-based and high-stakes testing, reading programs, remediation efforts, and all other special reforms and interventions for low-income students in the fourth, eighth and twelfth grades. Essentially, the positive effects of one year of a half-day Pre-K equaled the cumulative results from all other K-12 reforms over six years.

The academic gains of Pre-K students, which these recent state-based studies document in the South, appear to continue beyond a student’s early grades. In the long-term study of the Perry early childhood education program, students who attended preschool were three times more likely to make better grades and significantly more likely to graduate from high school on time than students without high-quality Pre-K.



The long-term studies of a North Carolina preschool program, Abecedarian, reveal similar academic gains that reach years into the future. For example, Pre-K students at Abecedarian were almost three times more likely to go to a four-year college than students without Pre-K.

All controlled, long-term studies of high-quality pre-school programs reveal the same trend line: Pre-K students can carry their gains in learning and learning skills forward. In other words, Pre-K students in the South will perform better in school, stay out of trouble with the law, graduate on time from high school and go on to college more often than other students.



## Pre-K Will Help the South's Economy and Quality of Life

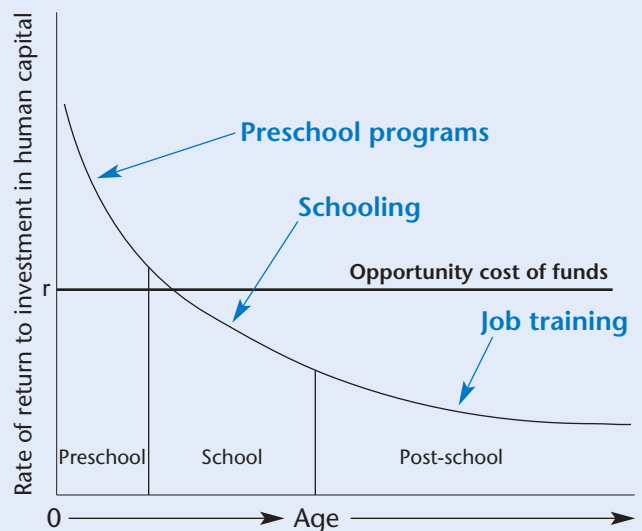
In recent years, economists and business groups across the nation have begun to document the importance of early childhood education as an investment in economic development. In the last couple of years, for example, the Business Roundtable (representing America's top 500 corporations), the Committee for Economic Development (a 60-year-old national business group), and the Federal Reserve Bank of Minneapolis have issued reports demonstrating that high-quality Pre-K programs provide the best long-term investment for economic growth. In their words, the economic return "on investment from early childhood development is extraordinary." Pre-K offers "greater potential returns and substantially less risk" than state subsidies and incentives that try to attract plant locations, company headquarters, office towers, entertainment centers, or professional sports stadiums and arenas.

One of America's Nobel laureate of economics, James Heckman of the University of Chicago, is examining the economic gains in national productivity that come from early childhood education. Heckman has found that high-quality preschool programs have a very high economic benefit for communities. "We cannot afford to postpone investing in children until they become adults," Heckman observes, "nor can we wait until they reach school age..." The economic benefits that Heckman documents flow from the ways Pre-K sets in motion a long-range pattern of learning that helps to keep students in school, out of juvenile detention and crime, and on their way to becoming active citizens and productive workers who contribute to a state's increased productivity and quality of life.

Based on his review of hundreds of studies, Heckman believes that Pre-K is currently the single most effective and efficient investment in building human capital. High-quality Pre-K produces the largest returns for indi-

viduals and for states in developing human skills. One reason for such remarkable results, Heckman observes, is that the early childhood years are when children develop fundamental, lasting skills – both cognitive and social. At three and four years of age, children learn how to learn and how to achieve – absorbing lifelong qualities such as curiosity, persistence, focus, aspiration, patience and cooperation into learning habits. The social skills that Pre-K students learn can influence success in school and in life just as much as their learning skills. In combination, these different skills can help take a child a long way.

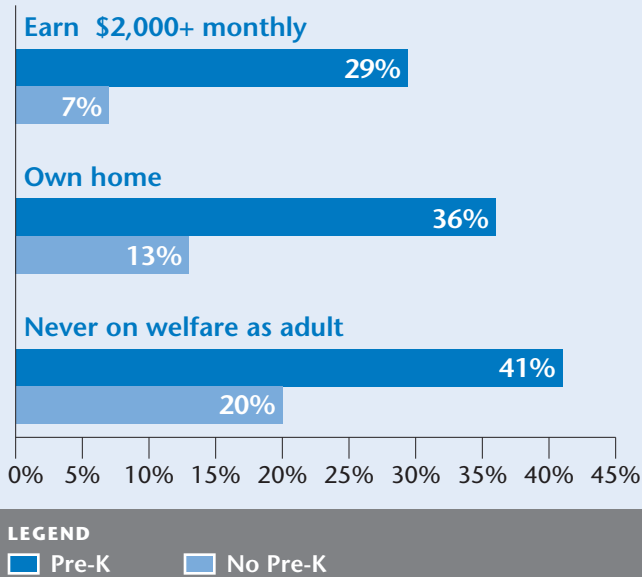
### Heckman's Model for Best Rate of Return in Human Capital Investment



There have been long-term studies of high-quality preschool education that show clearly the comparative economic value of Pre-K. For example, in one of the nation's older, most closely documented programs, Perry Preschool, researchers have followed neighborhood children into adulthood and now are able to compare what actually has happened to participants and nonparticipants from a working-class, low-income area. The results are striking.

## High-Quality Preschool: Economic Outcomes

Perry Preschool: Economic Effects



The middle-aged adults who had the benefits of Perry Preschool are today four times more likely than those without the program to earn a good monthly income. They are almost three times more likely to own their own home and twice as likely to have never been on welfare as an adult. The results from other programs with long-term studies show similar results.

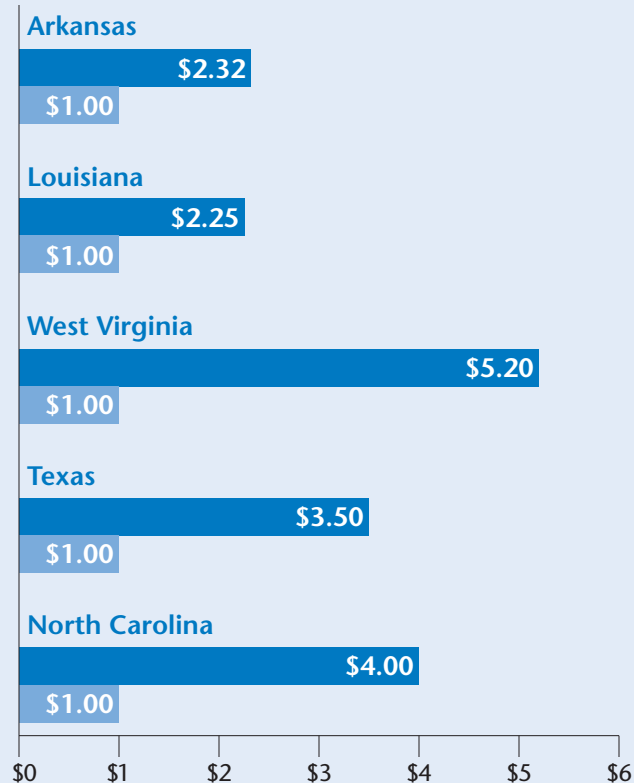
In several Southern states, cost-benefit studies have demonstrated the potential economic advantages of investing in Pre-K. The cost-benefit studies that have measured direct benefits from Pre-K investments show that for every dollar invested, Southern states will realize between \$2.25 and \$5.20 in savings and benefits (see chart right). In West Virginia, Marshall University's business research center found the cost benefit ratio as \$1 to \$5.20. In Texas, a study by the Bush School of Government and Public Service found that for every \$1 spent on Pre-K the state will generate \$3.50 in savings. The North Carolina cost-benefit study found that every dollar invested in Pre-K will return \$4 in direct benefits in that state.

There has been a study of the combined direct and indirect benefits from investing in Pre-K in four Southern states. These calculations include not only the "direct" benefits of increasing taxes and avoiding some current government expenses but also "indirect" benefits such as increased personal income. On these terms, the cost-benefit ratios grow substantially. In Arkansas, Louisiana, Mississippi and Texas, the cost-benefit ratios for public investments in high-quality Pre-K were as large as \$1 to \$8 when both direct and indirect benefits were included in the calculations. Simply put, for every dollar these states invest in high-quality Pre-K, the state will get back a minimum of \$7 over time.

In terms of macroeconomic measures, Arthur J. Rolnick, senior vice-president of the Federal Reserve Bank of Minneapolis, has documented that investing in high-quality

## Cost Benefit Analysis of Pre-K in Southern States

Amount of **Direct** Benefits for Every \$1 Pre-K Investment



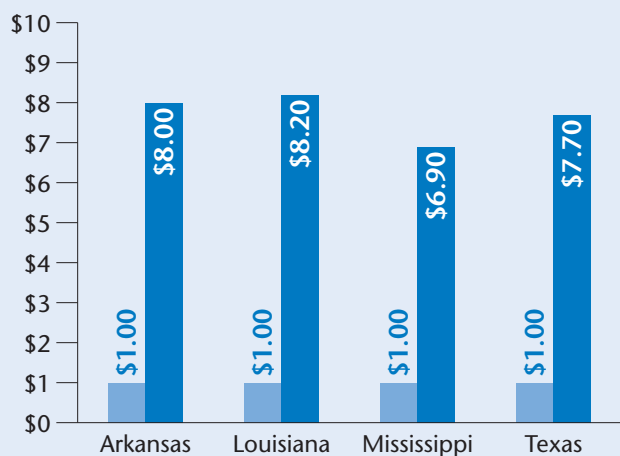
## What is a State Pre-K Program?

This report does not consider or define Pre-K as including any and all state childhood education programs. Each element of a state's early childhood services has a real, promising role for improving the development and learning of young children from birth through five, especially parent training centers and parental assistance with in-home instruction for low-income families. These types of programs are probably necessary components of any on-going, successful Pre-K program, but, as stand-alone programs, they do not provide the same experience for a child as Pre-K. Nor is there a solid body of research at this time to verify that these types of programs on their own have large educational and economic gains that match those of Pre-K. For these reasons, this report considers and defines pre-kindergarten (Pre-K) as only preschool experiences in private centers and public classrooms that include independent standards and assessments to assure a high-quality program.

Pre-K produces a larger rate of return than almost all traditional economic development investments. Rolnick finds that even after adjusting for inflation, Pre-K provides a rate of return of 12 to 16 percent. As Rolnick observes about investing in Pre-K, "the costs of not making such an investment are just too great to ignore."

### Cost-Benefit Analysis of Pre-K in Southern States

Amount of **Direct** and **Indirect** Benefits for Every \$1 Pre-K Investment



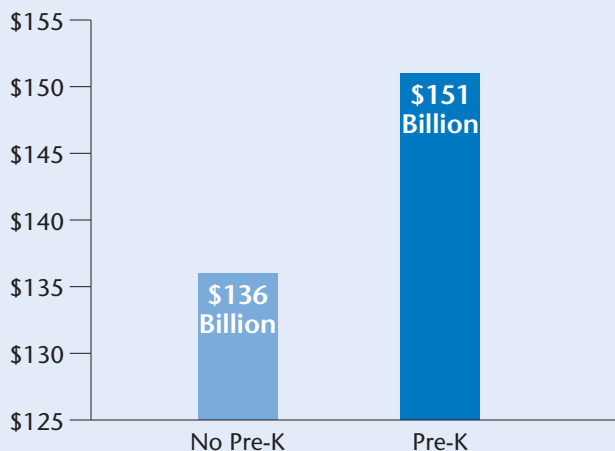
In Arkansas, an econometric projection in 2006 undertaken for an SEF study indicated that the academic and economic outcomes of Pre-K could grow the state's economy by an extra \$15 billion – a rate of over 11 percent – within two generations, if Arkansas made high-quality Pre-K available to all three- and four-year-olds among the state's low-income and working-class families.

In discussing education's critical role in reducing income inequality in America, Federal Reserve Chairman Ben Bernanke pointed out the importance of Pre-K in a speech in early 2007. "Although education and the acquisition of skills is a lifelong process, starting early in life is crucial," Bernanke stated. "Recent research...has documented the high returns that early childhood programs can pay in terms of subsequent educational attainment and in lower rates of social problems, such as teenage pregnancy and welfare dependency."

In summary, across a wide spectrum of possible investments for creating economic growth and income, improving a state's quality of life, and developing a state's physical and human capital, Pre-K currently ranks above all others. Today, it is the South's most efficient, rewarding economic investment for the future and the region's most important comparative advantage in education.

### Pre-K Impact on the Arkansas Economy

Projections of Extra Growth in the State GDP by Year 2035



# Pre-K Access and Enrollment: The South Leads the Nation

As of 2007, the South leads the rest of the nation in Pre-K enrollment. Seven of the top 10 states with the highest estimated enrollment rates are Southern. Ten of the South's 15 states comprise half of top 20 states for Pre-K enrollment of three- and four-year-old children.

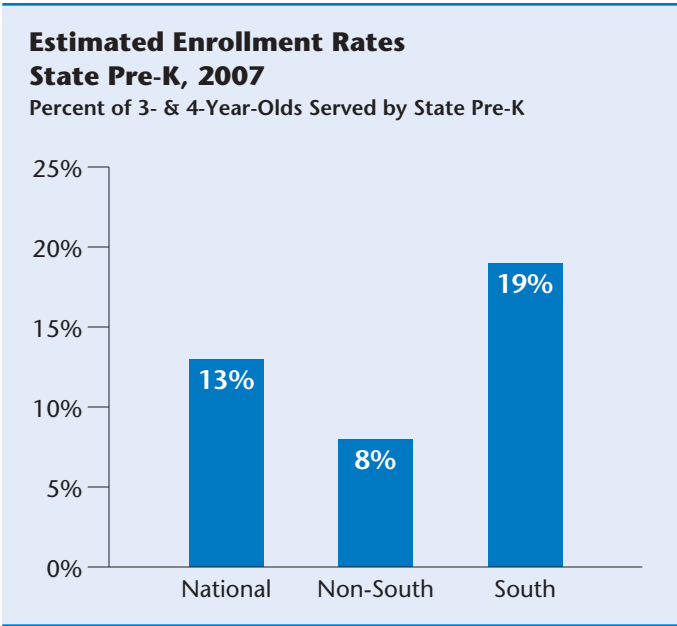
Top 10 Pre-K States 2007 Estimated Enrollment Rates			
Oklahoma	33%	Illinois	25%
Kentucky	32%	Texas	24%
Florida	32%	New Jersey	23%
Vermont	29%	West Virginia	21%
Georgia	27%	Arkansas	17%

While Oklahoma, Georgia, West Virginia, and Texas have been nationally ranked for several years, they have been joined in 2007 by Kentucky, Florida and Arkansas in the top ranks for Pre-K enrollment rates.<sup>2</sup> As a result, the South in 2007 has twice the estimated rate of Pre-K enrollment as the rest of the country.

Nineteen percent of the South's three- and four-year-old children are in state-supported Pre-K as of the start of 2007, while the rest of the nation has a rate of only 8 percent. The national rate, including the Southern states, stands at 13 percent.

During the last seven years, the enrollment rates of all three- and four-year-olds across the country in state-supported Pre-K have grown steadily but slowly. In 2001-2002, according to NIEER, 9 percent of the nation's three- and four-year-olds were in Pre-K. By 2007,

<sup>2</sup>Estimates for Pre-K enrollment in 2007 are computed as the percentage of three- and four-year-old children enrolled in state-supported Pre-K. This rate is based on both ages since some states include both three- and four-year-olds in their coverage and because research indicates that children of both age groups can benefit from appropriate play-based academic learning.



SEF's estimates show the nation's enrollment rate was at approximately 13 percent.

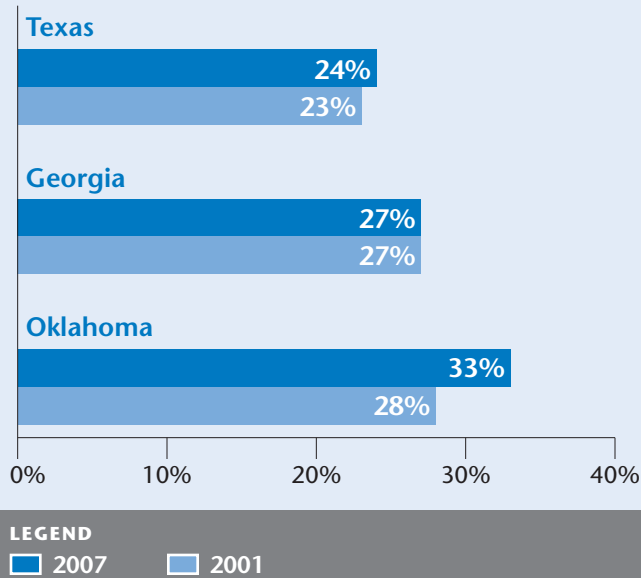
Since the beginning of 2000, most states have increased enrollment of eligible children in Pre-K at a steady pace. However, especially in states leading the nation in Pre-K enrollment, new Pre-K slots did not grow enough to outpace the enlarging number of young children who became of age for Pre-K. In other words, the growth in the number of three- and four-year-olds in many states matched or exceeded the growth of new Pre-K openings.

Therefore, from 2001-2007, there was relatively little growth in Pre-K enrollment rates in several states, including the three Southern states (Oklahoma, Georgia and Texas) that have become the nation's leaders in Pre-K coverage.

This slowdown did not apply to all states. During the first seven years of the decade, some states – primarily in the South – grew their Pre-K enrollment at a rapid pace. Florida, Kentucky and Arkansas along with Illinois improved their enrollment rates by at least 10 percentage points during this time. North Carolina, New Jersey, and Louisiana also grew Pre-K enrollment by an average of at least 1 percentage point each year over seven years.

### Estimated Growth in Pre-K Enrollment Rates, 2001-2007

States with Slow Growth



With the 2002 passage of a referendum amending the state constitution (an effort that received only lukewarm support from the state's primary elected officials), Florida voters endorsed universal, state-supported Pre-K. Three years later, after intense political in-fighting, the Florida legislature finally passed a Pre-K law and in only two years Pre-K in Florida has grown from zero to 32 percent enrollment of all three- and four-year-olds. This growth in enrollment has not been matched by a growth in per child funding, which remains among the lowest levels in the country (roughly \$2,625 per child per year).

As a result, Florida has become a leading state in Pre-K enrollment in the space of two years, but endangers the long-term promise of Pre-K if it continues to lag near the nation's bottom in per child funding and possibly in quality.

Kentucky was ranked among the top states for Pre-K enrollment of three- and four-year-old children in 2001, and the state has continued to enlarge its rate of coverage. With an increase of 16 percentage points,

Kentucky advanced to second place among the states in 2007 Pre-K coverage – only 1 percentage point behind the national leader, Oklahoma. Also, unlike Florida's, Kentucky's Pre-K program receives solid marks for high quality.

From 2001 to 2007, Arkansas quadrupled its enrollment rate of Pre-K coverage from only 4 percent of all the state's three- and four-year-old children to a total of 17 percent. While maintaining some of the nation's best, high-quality standards, the growth in Arkansas Pre-K enrollment has moved the state into national leadership for early childhood education.

Similarly, both North Carolina and Louisiana have moved out of the nation's lowest ranks for Pre-K enrollment during the current decade. In 2001, North Carolina Pre-K enrolled barely more than one-half of one percent of all three- and four-year-old children in the state. In 2007, the state has an estimated enrollment of 8 percent, and, by the latest study, maintains its status as one of the top programs in the nation for high-quality standards. Also, Louisiana has tripled its Pre-K enrollment rate since 2001, when less than 3 percent of the state's three- and four-year-olds were in state-supported Pre-K.

Vermont remains a leader in Pre-K enrollment, although its rate of growth has slowed. The two non-Southern states, Illinois and New Jersey, that made significant gains in Pre-K enrollment since 2001 were also able to establish high benchmarks for quality. While New Jersey increased its rate of enrollment by 7 percentage points and Illinois enlarged coverage by 10 points, both had Pre-K systems<sup>3</sup> that in 2006 were rated with four Southern states (Arkansas, Alabama, North Carolina and Tennessee) as the best in the country.

<sup>3</sup>The National Institute for Early Education Research (NIEER) rates state Pre-K programs across the nation for establishing high-quality standards. New Jersey maintains more than one Pre-K program, but its largest program is commonly known as the "Abbott Preschools." This program, named after the court case of *Abbott v. Burke* (149 N.J. 145, 693 A.2d 417, 1997) that prompted the funding for the Pre-K programs, meets benchmarks that the 2006 NIEER study established for highest quality.



# Pre-K Quality Standards: The South Leads the Nation

The South has led the nation throughout this decade in establishing and maintaining high standards for state-supported Pre-K. In the only national survey of state Pre-K quality, the National Institute for Early Education Research (NIEER) at Rutgers University has found Southern states to have the highest rankings for state Pre-K quality standards since its first report in 2001. In fact, six Southern states – Alabama, Arkansas, Oklahoma, North Carolina, South Carolina and Tennessee – have ranked among the top states for high-quality Pre-K benchmarks in each surveyed year.

As in most fields of education, preschool experts do not agree about the exact standards for high-quality Pre-K, but NIEER tracks nationally 10 basic benchmarks that constitute a general consensus about the framework for high quality. The states that have established more of these standards since 2000 are Southern.

All told, Southern states constitute two-thirds of the states with the highest standards for quality in Pre-K across America.

One factor that is especially important to ensure the impact of high quality is the length of the Pre-K day. The longer experience in early childhood education of other economically advanced countries tends to confirm the need for full-day programs. While young children require rest and quiet times throughout the school day, gains in child development and education at ages three and four are more likely to occur in full-day programs.

## Top States in Pre-K Quality Standards, 2001-2006

Southern States in Bold

2001	
<b>Arkansas (9)</b>	<b>Georgia (7)</b>
Illinois (9)	<b>Kentucky (7)</b>
New Jersey (9)	Minnesota (7)
<b>Oklahoma (8)</b>	New York (7)
<b>Tennessee (8)</b>	<b>North Carolina (7)</b>
<b>Alabama (7)</b>	<b>South Carolina (7)</b>
Delaware (7)	
2003	
<b>Arkansas (10)</b>	<b>Maryland (8)</b>
<b>North Carolina (9)</b>	<b>South Carolina (8)</b>
New Jersey (9)	<b>Tennessee (8)</b>
Illinois (9)	<b>Louisiana (8)</b>
<b>Alabama (8)</b>	New York (8)
<b>Oklahoma (8)</b>	Minnesota (8)
2005	
<b>Arkansas (9)</b>	<b>Georgia (8)</b>
<b>North Carolina (9)</b>	Minnesota (8)
New Jersey (9)	Delaware (8)
Illinois (9)	<b>South Carolina (8)</b>
<b>Tennessee (9)</b>	<b>Kentucky (8)</b>
<b>Alabama (9)</b>	<b>Louisiana (8)</b>
<b>Oklahoma (8)</b>	
2006	
<b>Alabama (10)</b>	Delaware (8)
<b>North Carolina (10)</b>	<b>Georgia (8)</b>
<b>Arkansas (9)</b>	<b>Kentucky (8)</b>
Illinois (9)	Minnesota (8)
<b>Oklahoma (9)</b>	Nebraska (8)
<b>Tennessee (9)</b>	<b>South Carolina (8)</b>
New Jersey (8.5)	<b>Louisiana (7.8)</b>

All other states with Pre-K programs scored 7 or below.  
Numbers of benchmarks met are indicated in parentheses.

As of the start of 2007, all but 11 states left the length of the Pre-K day to the local provider. Several states allocate funding for nothing more than a half-day and permit local schools and centers to extend the day if they can find the additional resources. The largest New Jersey Pre-K program operates a full day, but the two other state programs do not. Only six states require full-day Pre-K programs to operate throughout their states. All are in the South.

#### State-Established Full-Day Pre-K Programs

Arkansas	Louisiana
Georgia	Alabama
North Carolina	Tennessee

Another factor critical for high-quality and high-impact Pre-K is adequate funding. No state can deliver on high standards without spending a reasonable, necessary amount of money per child to ensure quality. States that spend the most money per child in Pre-K cannot guarantee high quality by that measure alone, but states that underfund Pre-K will rarely, if ever, deliver on high quality.

Southern states have not measured as high on this important indicator as they do in growing enrollment, setting high standards and operating full-day programs. Only three Southern states – Georgia, North Carolina and Alabama – have consistently spent at least \$3,000 per Pre-K child since 2000, and only North Carolina has ranked yearly in the top one-third of the states in terms of per-child expenditures in Pre-K.

#### Southern State Pre-K Per Pupil Expenditures Two-Year Median, 2005–2006



National ranking of state Pre-K per pupil expenditures in parentheses.



This pattern of comparatively low per-pupil funding has a longer, broader history in Southern education, but as it relates to Pre-K, the practice appears to be shifting for the better. Since 2001, the number of Southern states ranking in the top 20 for per-child funding has gradually increased. In 2005-06, eight Southern states were ranked among the nation's top 20 states in terms of per-child funding: Arkansas (6th), North Carolina (7th), West Virginia (11th), Louisiana (14th), Virginia (15th), Alabama (16th), Tennessee (18th) and Georgia (20th). Texas was next in line. In 2001, Arkansas had been ranked 21st among 36 Pre-K programs across the country but increased its funding steadily so that by 2006 it reported the South's highest per-child funding (\$6,022).

Nine Southern states funded Pre-K at a per-child cost in 2006 above the national average. Oklahoma spent nearly \$3,000 per child, and Florida spent \$2,625. South Carolina and Maryland remained far below, ranking next to last and last in the nation among states with programs. Unfortunately, Mississippi spent nothing per child in 2006 since it was the only Southern state without a Pre-K program.

Pre-K developments in late 2006 and early 2007 suggest that the South may be continuing to improve its pre-school financing, although efforts are not uniform within the region. The South Carolina legislature made a special appropriation in 2006 for Pre-K in response to a state court's order on adequate funding of K-12 education. Those extra funds could increase the state's Pre-K per-child expenditure as well as enrollment in its rural areas. While enrolling large numbers of children over the last two years, Florida vastly underfunded its Pre-K program for the number of children it enrolled. Its per-child expenditure was barely more than \$2,500 in 2005-06, but appears to be increasing yearly.

## What is High-Quality Pre-K Today?

There are several ways to define high-quality Pre-K, but essentially all such programs usually will have the following components: a) a healthy, child-friendly and safe environment; b) effective, highly qualified teachers; c) the practice of proven learning and teaching approaches; d) a strong curriculum; e) small classes with a relatively low child-teacher ratio; and (f) meaningful parental involvement.

Currently, most states are ranked for high quality on the basis of the professional standards they established by statute or regulation. National rankings by the National Institute for Early Education Research (NIEER) also include 10 categories of high-quality benchmarks: 1) comprehensive early learning standards; 2) BA degrees for teachers; 3) specialized Pre-K training for teachers; 4) assistant teacher degrees; 5) At least 15 hours per year of in-service training for professionals; 6) a maximum of 20 children per class; 7) a staff-child ratio of no more than one to 10; 8) health screenings and at least one supportive service; 9) at least one meal per day served; and 10) site visits for the regular monitoring of these standards.

At this time, national or regional ranking for high-quality Pre-K do not involve an actual, independent review of how well high-quality standards are being implemented in Pre-K centers across the states. As Pre-K growth approaches a truly universal level, states will face a larger challenge of insuring the common practice of high-quality standards.

## Emerging Pre-K Trends: New Challenges and Possibilities

Individual Southern states lead the nation in Pre-K enrollment and high-quality programs as of 2007, but new trends and developments are emerging that may alter this pattern in and outside the South over the next four to five years. States outside the South like Illinois and New Jersey have emerged in recent years as leaders in Pre-K and are continuing to make large investments each year.

Within the South, Arkansas, Kentucky and West Virginia are increasing Pre-K enrollment, while taking steps to advance quality. Other Southern states like Tennessee, North Carolina and Virginia appear ready to fulfill promises to broaden their state Pre-K systems. Although current legislatures and governors cannot obligate future state governments to appropriate funds and priorities, some states appear on their way to enlarging high-quality Pre-K. Outside the South, several states appear on the move to make Pre-K a cornerstone of their educational systems:

- **Illinois**, with the leadership of Governor Rod R. Blagojevich, has established legislation and substantial funding in order to become the first state in the nation with a system of universal Pre-K for all three- and four-year-old children. (In 1995, Georgia was the first state to establish universal Pre-K for four-year-olds, but enrollment rates have flattened at around 50 percent of eligible children since 2001.) By SEF estimates, Illinois already is ranked 6th in the nation in Pre-K enrollment as of 2007 and is grouped with five other states as leading the nation in meeting Pre-K standards for high quality.
  - **New Jersey** has increased Pre-K funding, especially for low-income children, annually in the last few years. As a result, the state has moved its enrollment percentages for three- and four-year-olds from 16 percent in 2001 to an estimated 23 percent in 2007. New Jersey is also among the states consistently at the top in NIEER's ratings for high quality.
  - **Vermont**, a very small state with a total of less than 13,000 three- and four-year-olds, already has almost one-third of these children in state Pre-K and is currently considering adding more resources to establish universal coverage. Other states such as **Massachusetts**, **New Mexico** and **Iowa** also have governors and legislative leaders pushing to set up broad, high-quality programs.
- In the South, several states appear to be ready to continue making major gains in Pre-K in the next few years.
- **Arkansas'** new Governor, Mike Beebe, made full funding of the current Pre-K program a headline of his recent campaign and in early 2007 proposed an additional, annual \$40 million increase for Pre-K funding, which the Arkansas legislature promptly enacted. By 2008, Arkansas could match the current enrollment rates of Georgia, a long-time Pre-K leader. Arkansas already outranks Georgia and most other states in establishing high-quality Pre-K benchmarks and per-child funding. It also has one of only six statewide, full-day programs. In less than four years, Arkansas has emerged as a national leader in Pre-K.
  - **North Carolina**, with consistent gubernatorial leadership on the issue of early childhood education, is ranked today among the nation's leaders in high-quality Pre-K (1st) and per-child expenditures (7th). Now, with a new state lottery offering additional revenues, Pre-K may be on the verge of expanding by leaps and bounds. North Carolina's Pre-K is one of only six statewide, full-day programs and has grown

more rapidly in the last two years than most other state programs. While only an estimated 8 percent of three- and four-year-olds are covered currently by North Carolina Pre-K, the “More at Four” program is itself an infant ready to grow.

- With a substantial increase in annual Pre-K funding for 2007, **Kentucky** has emerged ahead of Texas, Georgia and most other states in enrollment rates. With an estimated coverage of 32 percent of all three- and four-year-olds, the state holds the distinction of second place in the nation with Florida – and barely behind Oklahoma, the national leader. The state also ranks among the top in benchmarks for high-quality programs.
- **West Virginia** has reaffirmed its statutory goal of creating a universal Pre-K system that includes virtually all four-year-olds in the state by the year 2012. The state is nearly halfway there, and in 2007 has an estimated 21 percent of all three- and four-year-olds in Pre-K. If the state also improves its high-quality benchmarks and per-child expenditures, West Virginia, one of the nation’s poorest states, may emerge as a national leader in advancing Pre-K as a comparative advantage in education.
- **Tennessee** has only an estimated 6 percent of its three- and four-year-old children in state-supported Pre-K programs as of 2007, but Governor Phil Bredesen has pledged to set up universal coverage for all four-year-olds within the next four years. The state legislature increased annual appropriation by \$70 million over the last two years. Tennessee is already a national leader in Pre-K quality and has one of six full-day programs across the country.
- In **Virginia**, Governor Timothy Kaine is working to create a universal Pre-K system by 2011. Currently, the state has a pilot program, and the state’s early childhood education task force in late 2006 released a report outlining the ways and means to establish a universal system.

- Within only two years, **Florida** has created a state Pre-K system that in 2007 serves almost an estimated one-third of all three- and four-year-old children. The state’s estimated enrollment rate ranks second in the nation as of 2007. Yet, Pre-K is suffering from a low per-child spending rate and a vastly uneven quality of schooling and care throughout the state. These problems are, in part, the product of budgetary restraints and a consequence of a program’s phenomenal growth. If Florida successfully improves per-child funding and program quality, the state is posed to become one of the nation’s top states in Pre-K.
- **Oklahoma** has been a national leader in Pre-K for almost 10 years. Governor Brad Henry recently announced his intention to continue the state’s leadership by proposing an increase of \$30 million in Pre-K funding to establish a voluntary pilot program for three-year-olds and to expand enrollment of four-year-olds by financing Pre-K in private centers. If the state maintains high-quality Pre-K and increases enrollment and per-child funding, Oklahoma will remain a national leader.
- **Georgia** has been one of the nation’s leaders in high-quality Pre-K for the last decade. Today the state ranks among the top states for high-quality standards, all-day programs and enrollment. In 2007, an estimated 27 percent of all three- and four-year-olds were enrolled in Georgia Pre-K. This rate has remained virtually flat since 2001 and in 2007 caused the state to fall to fifth in the nation in enrollment of children.

# conclusion



## Going the Distance

Southern states have begun to lead the nation in one critically important area of education: providing young children with the education they need to become good students and good citizens. Over the last two decades, the South has emerged to lead the nation in expanding state-supported Pre-K enrollment to three- and four-year-old children. Several Southern states also now lead the nation in establishing state standards that, when implemented, can assure high-quality Pre-K to every child.

The major beneficiaries of the South's nationally ranked Pre-K programs can be both the region's children and, in the long run, all of the region's people. Southern states will realize significant economic and educational benefits if the states continue to move forward in Pre-K and stay ahead – by building a high-quality universal system of voluntary early childhood education. Today, Pre-K is the South's best comparative advantage in education and arguably one of the most important economic investments for advancing the region's quality of life and improving its economy over the next 30 to 50 years.

To realize the full benefits of Pre-K, the South must do more than make a good, early start. At this juncture, Southern states as a group face significant challenges and choices in the near future in order to continue to lead the nation in Pre-K and to realize its future educational and economic benefits.

First, Southern states must act upon the truth that both quantity and quality matter in education today. Southern states must expand enrollment rates while ensuring that high-quality standards are actually realized in every Pre-K center. This challenge requires more than merely expanding slots with low per-pupil expenditures and adopting high-quality standards. It requires establishing, implementing and sustaining high-quality programs in every Pre-K center across each Southern state. It is not an easy task, but it can be accomplished with consistent, sufficient funding; talented, trained personnel; focused strategies for parental involvement; and an infrastructure that provides support, professional development, monitoring, regulation and program alignment with elementary schools. Currently, no Southern state has in place this infrastructure for sustaining successful Pre-K growth over time.

Second, Southern states must embrace ongoing Pre-K research as a necessity. Every state needs a system for supporting, maintaining and using an unbroken continuum of independent research that tracks Pre-K children's learning and progress, examines teaching methods and curricula, and identifies effective, innovative ways to ensure that Pre-K gains enlarge and continue over time for all students. At the moment, no Southern state has established a system for this kind of continuous, evidence-based analysis and decision making.

Third, Southern states must facilitate meaningful collaboration among federal, state and private entities that provide early childhood care and education, including Head Start and others. There will be a growing need to foster real cooperation and avoid duplication of services and roles on the local level across each state. This cooperation will be necessary to maximize limited community resources and to offer children both safe, nurturing care and early learning opportunities when parents elect to take them outside the home.

## More on Pre-K in the South on the Web

[www.southerneducation.org](http://www.southerneducation.org)

A state-by-state review of Pre-K in the South is available on line at [www.southerneducation.org](http://www.southerneducation.org). Also, SEF's web site provides additional maps, graphs, charts, tables and details about pre-kindergarten in the Southern states.

Pre-K is all-important, but it is not all there is to a child's successful education. Pre-K alone cannot transform the long-standing patterns of inadequate education and depressed personal income that have burdened the South for more than 140 years. The South cannot neglect or shortchange the role of parents nor the necessary improvements and funding in K-12 education and higher education, especially for low-income students. States cannot realistically expect Pre-K programs to produce students who routinely overcome any and all obstacles in otherwise inadequate educational systems. At the same time, if they make the necessary investments and take the right steps, Southern states can expect that, over time, high-quality Pre-K will make a big difference that children can enjoy, researchers can measure, and ordinary people can see through improvements in their communities.

There is in every small child a wonderful human potential that can come alive with a nurturing opportunity to develop lifelong capacities and habits of mind. The South needs to tap that enormous potential for the good of all. Pre-K uniquely holds the promise to help small children create within themselves the human tools necessary for a good life and, in so doing, benefit all people in the South's future. That is a future worth investing in today and in the days to come.

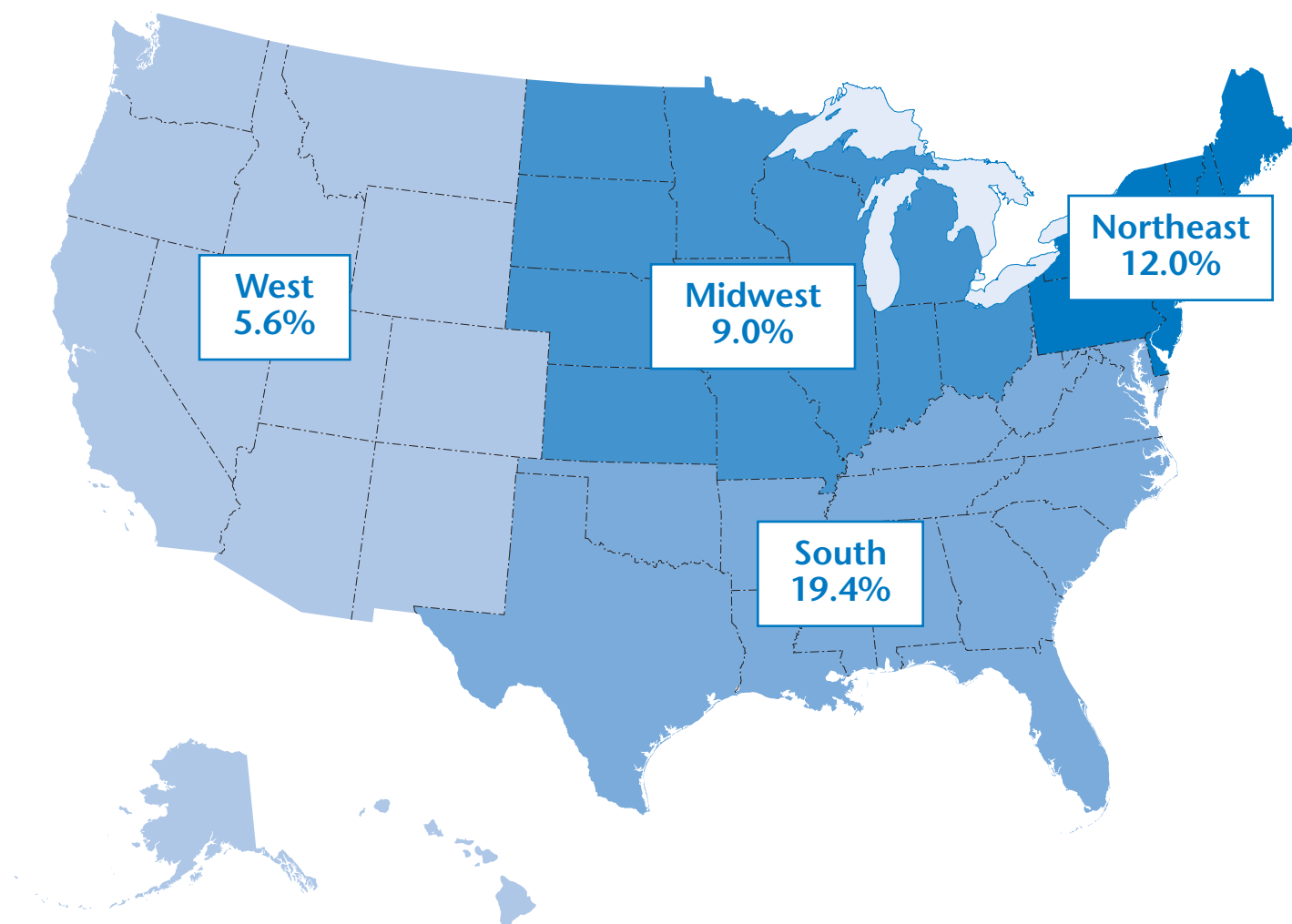


# appendix

## Pre-K Enrollment Rates by Region and State

February 2007

### Percent of 3- and 4-Year-Olds Served by State Pre-K Programs



National	13.1%
South	19.4%
Non-South	8.4%

## State Listing By Region

Percent of 3- & 4-Year-Olds Served by State Pre-K		Percent of 3- & 4-Year-Olds Served by State Pre-K	
<b>NORTHEAST</b>	<b>12.0%</b>	<b>SOUTH</b>	<b>19.4%</b>
Connecticut	9.9%	Alabama	1.0%
Delaware	4.1%	Arkansas	16.8%
Maine	2.3%	Florida	31.7%
Massachusetts	9.3%	Georgia	27.4%
New Hampshire	0.0%	Kentucky	31.9%
New Jersey	23.4%	Louisiana	9.2%
New York	14.8%	Maryland	16.0%
Pennsylvania	3.4%	Mississippi	0.0%
Rhode Island	0.0%	North Carolina	7.7%
Vermont	29.0%	Oklahoma	33.4%
<b>MIDWEST</b>	<b>9.0%</b>	South Carolina	14.1%
Illinois	25.3%	Tennessee	5.7%
Indiana	0.0%	Texas	24.3%
Iowa	4.7%	Virginia	7.0%
Kansas	9.2%	West Virginia	21.4%
Michigan	9.8%	<b>WEST</b>	<b>5.6%</b>
Minnesota	1.7%	Alaska	0.0%
Missouri	3.2%	Arizona	4.7%
Nebraska	0.5%	California	8.0%
North Dakota	0.0%	Colorado	10.6%
Ohio	10.3%	Hawaii	5.2%
South Dakota	0.0%	Idaho	0.0%
Wisconsin	15.2%	Montana	0.0%
		Nevada	1.9%
		New Mexico	4.1%
		Oregon	4.0%
		Utah	0.0%
		Washington	4.0%
		Wyoming	0.0%

# selected bibliography

Aguirre, Elisa; Thomas Gleeson; Amanda McCutchen; et al. "A Cost-Benefit Analysis of Universally-Accessible Pre-Kindergarten Education in Texas," The Bush School of Government & Public Service, Texas A&M University, May 2006.

Arkansas Advocates for Children and Families, "Quality Pre-K Expansion in Arkansas: Lessons Learned," 2005.

Barnett, W. Steven; Jason T. Hustedt; Kenneth B. Robin; and Karen L. Schulman. "The State of Preschool," 2005 State Preschool Yearbook, The National Institute for Early Education Research, 2005.

Belfield, Clive R. "An Economic Analysis of Pre-K in Louisiana," pre[k]now, June 2005.

Committee for Economic Development, "Preschool for All: A Priority for American Business Leaders," 2005.

Dorfman, Lori. "Framing the Economic Benefits of Investments in Early Childhood Development," The Committee for Economic Development, 2005.

Foundation for Child Development, "Getting There: PK-3 as Public Education's Base Camp," October 2005.

Georgetown University Center for Research on Children in the U.S., "The Effects of Oklahoma's Universal Pre-Kindergarten Program on School Readiness," November 2004.

Gormley, Jr., William T.; Ted Gayer; Deborah Phillips; and Brittany Dawson. "Running Head: Effects of Pre-K," The Effects of Universal Pre-K on Cognitive Development, Georgetown University, 2004.

Heckman, James J.; and Dimitriy V. Masterov. "The Productivity Argument for Investing in Young Children," Working Paper 5, Invest in Kids Working Group, Committee for Economic Development, October 4, 2004.

Henry, Gary T.; Dana Rickman; Bentley Ponder; Laura Henderson; Andrew Mashburn; and Craig S. Gordon. "The Georgia Early Childhood Study," Georgia State University, Andrew Young School of Policy Studies, December 2005.

High/Scope Educational Research Foundation, "The High/Scope Perry Preschool Study Through Age 40: Summary, Conclusions, and Frequently Asked Questions," November 2004.

Hustedt, Jason T.; W. Steven Barnett; Kwanghee Jung; and Jessica Thomas. "The Effects of The Arkansas Better Chance Program on Young Children's School Readiness," The National Institute for Early Education Research, Rutgers University, January 2007.

Klein, Lisa; and Jane Knitzer. "Promoting Effective Early Learning: What Every Policymaker and Educator Should Know," National Center for Children in Poverty, Columbia University, January 2007.

Lamy, Cynthia; W. Steven Barnett; and Kwanghee Jung. "The Effects of South Carolina's Early Education Program on Young Children's School Readiness," The National Institute for Early Education Research, Rutgers University, December 2005.

Lamy, Cynthia; W. Steven Barnett; and Kwanghee Jung. "The Effects of West Virginia's Early Education Program on Young Children's School Readiness," The National Institute for Early Education Research, Rutgers University, December 2005.

Louisiana Department of Education; University of Louisiana at Lafayette, The Center for Child Development; University of Alabama at Birmingham, Center for Educational Accountability; Georgetown University, Center on Health and Education, "LA 4 & Starting Points Prekindergarten Program Evaluation 2004-2005."

Opfer, V. Darlene; Margaret H. H. Brackett; and Gary T. Henry. "Impact of Georgia's Pre-K Program on Kindergarten through Third Grade Teachers," Council for School Performance, November 1999.



Oppenheim, Jerrold; and Theo MacGregor. "The Economics of Education: Public Benefits of High-Quality Preschool Education for Low-Income Children," Entergy, October 30, 2002.

Potter, David; Melanie Barton; Jo Anne Anderson; and William Brown. "Results and Related Recommendations of the Inventory and Study of Four-Year-Old Kindergarten Programs in South Carolina," A report from the Education Oversight Committee of the General Assembly of the South Carolina pursuant to the provisions of Concurrent Resolution 4484 of 2006, March 15, 2006.

Rand Education Research Brief, "Scaling Up High-Quality Pre-K: What Can Be Learned from States' Efforts to Date?" 2005.

Rolnick, Art and Grunewald, Rob. "Early Child Development: Economic Development with a High Public Return," Federal Reserve Bank of Minneapolis, FedGazette, March 2003.

Scott, L. Carol; and Jennifer V. Doctors. "Leadership Matters: Governors' Pre-K Proposals Fiscal Year 2007," pre[k]now, May 2006.

Scott, Ph.D., L. Carol. "Votes Count: Legislative Action on Pre-K, Fiscal Year 2006," pre[k]now, November 2005.

Southern Education Foundation, "Miles To Go Arkansas, Beyond High School: Economic Imperatives for Enlarging Equity and Achievement," August 2003.

Southern Education Foundation, "Miles To Go Arkansas Update, Closing the Economic Gap: Education in the Arkansas Economy," November 2003.

Southern Education Foundation, "Miles To Go Arkansas Pre-Kindergarten," February 2006.

Southern Regional Education Board, "Improving Children's Readiness for School: Preschool Programs Make a Difference, But Quality Counts!" 2001.

Southern Regional Education Board, "State-supported Prekindergarten in the SREB Region: Growing in Hard Times," 2003.

U.S. Census Bureau, Summary File 3, Table PCT23 Sex by School Enrollment by Age for the Population 3 Years and Over, Census 2000.

U.S. Census Bureau, Total Number of Children Under the Age of 5, Census 2000.



If you are interested in learning more about  
the Southern Education Foundation, please contact us:

Southern Education Foundation  
135 Auburn Avenue, N.E., Second Floor  
Atlanta, Georgia 30303-2503

(404) 523-0001

[info@southerneducation.org](mailto:info@southerneducation.org)

For easy-to-use information and analysis on the key issues of education  
in the American South please visit our website.



[www.southerneducation.org](http://www.southerneducation.org)



Southern Education Foundation  
135 Auburn Avenue NE, 2nd Floor • Atlanta, GA 30303  
[www.southerneducation.org](http://www.southerneducation.org)