

Chapter 2

Climbing the Mountains: The Journey to Quality Prekindergarten in Tennessee

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Abstract The state of Tennessee was the ideal place to implement Pre-K programs because of the number of children living in poverty, health-care issues, and student's poor performances on academic measures. This chapter will explore the development of Pre-K, the use of pilot programs, the major expansions, and the period of sustainment. The final section will identify lessons learned and recommendations for expansion of quality Pre-K programs for all young children.

Keywords Early childhood education • Prekindergarten • Rural education • Young children

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For over 50 years researchers and scholars have studied the amazing development of children during the first 5 years of their lives. Recently, advances in neuroscience have brought new understanding to the field related to early brain development. Neuroscience has discovered that 85 % of an individual's intellect, personality, and skills are cultivated during the early years. Both long-term studies and new scientific findings agree that the first years of a child's life are critical and set the stage for lifelong development (Edie and Schmid 2007).

During the early years, there is a window of opportunity when a child's experiences will have a real and lasting impact. But it is important to realize that both positive and negative experiences have a tremendous impact on the developing child.

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These experiences will influence a child's learning, social development, and future accomplishments. Many children who live in poverty have experiences that negatively impact their development and learning during these important years. For instance, a young child may not receive adequate nutrition, or may not be exposed to books and reading, or may not have a caring relationship with an adult. In contrast, young children, who experience quality early childhood environments, will have nutritious meals and snacks, listen to stories read, and have a trained professional who interacts with them in appropriate ways. These learning experiences will enhance their development and enrich their literacy and math skills. They will also experience many opportunities to collaborate with peers and learn how to work with them. The development of these skills will not only impact their first years in school but will influence their participation in continued education, working environment, and their conforming to the rules of a society.

Quality programs for young children focus on the "whole child." This means that programs not only work on cognitive and language development but also building character skills. These important character skills include attentiveness, impulse control, persistence, and teamwork. Together cognition and social skills will influence education, career, and life success. In addition, James Heckman, professor of economics, believes that investing in early childhood education is a cost-effective strategy for promoting economic growth. The US economy needs an educated and skilled workforce, and early childhood education is the most effective way to accomplish these goals (Heckman 2010).

Background on Pre-K in the United States

The expanded understanding of the benefits of early childhood development in the past several decades has led to renewed interest in the early years. This has resulted in the expansion of prekindergarten (Pre-K) programs throughout the United States. Support for these Pre-K programs has come from a variety of sources including educators, governors, legislators, parents, economic experts, and business leaders. The Partnership for America's Economic Success published a position paper addressing the positive impact of Pre-K programs in the United States. They concluded that the high levels of return, on an investment in early childhood education, provide evidence that the education of young children should become an economic priority for the nation. The report also cited the calculated return on investment from the Perry Preschools—with every \$1 spent there was a \$17 return. The longitudinal study of participants in the Perry Preschool found that adults who attended this quality preschool program were more likely to stay in school, be working, less involved in crime, and feel more positive about education. Children who attended Perry Preschool program were more likely to graduate from high school (65 %), while similar children who did not attend the program have only a 45 % graduation rate (Schweinhart et al. 2004).

The latest research report, published on quality Pre-K, was conducted as part of the Chicago Child-Parent Center. This was a follow-up study of the children who had attended quality early childhood programs. The study tracked for 25 years, more than 1,000 low-income children who had attended the Chicago Child-Parent Center. They were compared with similar low-income Chicago children, who did not attend a program. A summary of the results indicates that 80 % of the children who attended preschool graduated from high school, they were more likely to have skilled jobs, fewer had abused drugs, and fewer had been incarcerated. Researchers also concluded that these early childhood experiences built intellectual skills, social adjustment, and motivation that helped children better navigate their high-risk environments. The study's lead investigator of the University of Minnesota suggested that the differences between the two groups were very meaningful—and translated into big savings to society for children who attend preschool (Associated Press 2011).

A number of states began establishing Pre-K programs that were designed to provide quality learning environments for young children during their critical period of development. State-funded prekindergarten programs grew steadily with increased participation of young children in these public programs. Georgia, Oklahoma, and Florida offered Pre-K for all 4-year-old children and most of them attended. These programs, open to all children, are identified as universal Pre-K. Other states, including Illinois, New York, and West Virginia, have Pre-K availability to low-income or at-risk 4-year-old children (Barnett 2010). Participation in Pre-K continued to rise until mid-1990 when over 70 % of children attended a preschool program at least the year prior to kindergarten (Barnett 2010). These preschool programs varied in quality with some being very appropriate, while others only offer custodial care. Therefore, the benefits from the programs and the experiences of the children varied greatly.

The Journey Begins

Tennessee was the ideal place to begin to provide quality Pre-K programs because of the poverty, educational, and health problems that existed in this state. For example, Tennessee ranks 44 out of 51 states in percent of babies born at low birth weight with a high instance of infant mortality. A high percentage of children live in poverty (23 %) and an additional 11 % live in extreme poverty. In Tennessee the number of students on free or reduced lunch is 49.3 %. Education in Tennessee is not well supported ranking 47th of the states with an annual expenditure of \$7,004 per child in public school. This expenditure per child can be compared to the cost of keeping a prisoner in confinement for a year at the cost to the state of \$14,827. The evaluations of Tennessee's children in public schools also indicated that 72 % of fourth-grade students are unable to read at grade level or do math at grade level. The graduation rate for students attending Tennessee schools is dismal with 70 % of

white students, 58 % African American, and 52 % of Hispanic students completing their high school education (Editorial Projects in Education Research Center 2011). These indicators, and many others, support the need to increase the availability of early childhood programs to Tennessee's young children. The research clearly supports the benefits of quality early childhood programs showing that this early involvement can positively impact health issues, academic achievement, and graduation rates and improve the skills of the workforce (Children's Defense Fund 2011).

In 1990 a resolution was passed in the Tennessee legislature that directed the State Board of Education and the Department of Education to create a task force "for the purpose of developing a state plan to establish a comprehensive system of state-funded early childhood programs for at-risk children and their parents." The creation of this task force was the first step in the long journey toward the development of quality programs for Pre-K children who were low-income or at risk for academic failure. Members of this task force were from various fields and interests and included early childhood professionals.

This plan for the development of state supported early childhood education was approved by the Tennessee State Board of Education. This plan established the rules and guidelines for Pre-K programs that would serve at-risk 3- and 4-year-old children. This proposal was viewed as a way to assist families in local communities by preparing children for school success and coordinating support services for their families. Pre-K was also viewed as a way to help at-risk children to be more prepared for school and support their academic and social development. Soon after, the legislature approved the creation of pilot programs across the state for economically disadvantaged 3- and 4-year-olds. Governor Sundquist proposed to phase in universal Pre-K, beginning with the most economically disadvantaged children.

Pilot Programs

Ten pilot centers were established to field test the operation and guidelines of these programs. These pilot sites were selected from competitive grant applications that were submitted by public schools, institutes of higher education, Head Start agencies, private childcare agencies, and public housing authorities. The focus was on 4-year-olds who were living in families with incomes below the poverty line. Other children could be included who were at risk such as having a history of abuse or neglect, being in state custody, and having an Individual Education Plan or English Language Learner status. Pilots were located throughout the state and across the three regions of the state that range from urban to rural. Each pilot site was required to have a community advisory council that would assist the local program in being responsive to community needs. This group could also identify local risk factors that could negatively impact young children such as low education level of parents, teen parents, siblings with problems, or parent in active military duty. If space was available in the local program, these at-risk

children could be included. During this pilot period, 3-year-olds could be included if they were identified at risk and space existed in the local program. Later, the number of children in pilot programs was expanded because of a change of the eligibility requirements to include 3- and 4-year-olds who were eligible for free or reduced lunch (Offices of Research and Education Accountability 2009).

National Quality Standards

The National Institute for Early Education Research (NIEER) developed standards that research had shown impacted the quality in Pre-K programs. These standards provided the guidelines for developing a quality program that would have maximum impact on the learning and development of young children. These included teacher qualifications with the recommendations of a bachelor's degree with specialized training in early childhood and for an assistant a minimum of a Child Development Associate (CDA) and continual in-service training provided throughout the year. Another standard was the adult-child ratio with a 1:10 relationship between staff and children. Related to health the standard indicated there should be an intensive screening and referral for children in the program in the areas of vision, hearing, health, and support services. In addition it was suggested that programs should be monitored through site visits. Another aspect considered in the standards was average expenditure per child in the program with the national average of Pre-K students being \$4,711 (Ackerman et al. 2009).

Expansion of Pre-K

In 2005 Governor Phil Bredesen, with support from the Tennessee General Assembly, successfully passed the Voluntary Pre-Kindergarten (VPT) Act and the establishment of an Office of Early Learning (OEL) in the Tennessee Department of Education. This legislation increased Tennessee financial investment in early childhood education from \$10 million to \$35 million. This additional funding partially supported a significant increase in the number of classrooms growing from 148 to 448 and tripled the number of students served increasing from 3,000 to 9,000 low-income and at-risk children. A portion of this increase was financed by \$25 million in excess lottery revenues which was combined with \$10 million state-appropriated money (Offices of Research and Education Accountability 2009; Tennessee Department of Education Office of Early Learning 2010).

Guidelines for the state of Tennessee for their Pre-K programs included an adult-child ratio of 1:10, teacher certification with Pre-K endorsement, a teacher assistant with CDA, and a curriculum that is developmentally appropriate and aligned with Tennessee Early Childhood Education—Early Learning Development Standards

(TN-ELDS). The program requires 5½h of instructional time per day for 5 days a week. These requirements were included because of the well-documented evidence of their impact on the quality of the early childhood programs. Participating school systems were also required to financially support the programs by matching the state funding with local monies.

Currently there are 934 Pre-K classes in the state with 99 % of the state school systems participating. The total number of young children attending these programs is 18,000. This is, however, only 21 % of the total number of 4-year-olds in the state. Since 2007 the number of students served has remained constant due to significant reduction of revenue for the state (Tennessee Alliance for Early Education 2011). The new governor, Bill Haslam, has supported the Pre-K programs seeing them as a way of improve Tennessee's workforce. This is the third Tennessee governor who has understood the positive impact Pre-K can have on young children who live in poverty by providing a quality year for them to grow intellectually and socially. This bipartisan support has allowed Tennessee to have a sustained interest in young children and the development of high-quality programs that will have a powerful impact on the children, community, and state. As economic indicators improve, Pre-K programs will again be expanded to include more young children who are at risk for academic failure (United States Chamber of Commerce 2010).

Support from Many Sources

There have been many different groups, organizations, and leaders who have supported the development of a quality program for young children. The law enforcement leaders and crime survivors created an organization to "Fight Crime: Invest in Kids." They believed that rigorous and tough law enforcement is not enough to curb crime in Tennessee. This group has provided strong support for Pre-K in Tennessee recognizing that high-quality programs have documented evidence that these programs increase graduation rates, cut crime, and save money that supports remediation. Throughout their summary of support, they cited research related to academic improvement of children but even more important for them was the development of social skills that would help children learn to get along with others and be able to persist on difficult tasks. They further explained that low graduation rates contribute to higher crime and a less productive workforce. Preventive steps should be taken so children do not become involve in crime, and Pre-K is an important early preventive measure ([Fight Crime: Invest in Kids n.d.](#)).

Recently, the Chamber of Commerce for Tennessee's largest cities sent a letter to the new governor, Bill Haslam, publicly acknowledging their support for state funding of Pre-K. They recognized that Pre-K plays a vital role in shaping our future workforce. The endorsement by this group of business leaders across the state added another large group of supporters for Pre-K (T. Wilson, M. Edwards, J. Moore, R. Schulz, personal communication, April 18, 2011).

Evaluation of Pre-K in Tennessee

The program quality standards for Pre-K programs were identified by the National Institute for Early Education Research. These criteria included early learning standards, teacher training with specialization in early childhood, and continuous training (at least 15 h per year). In relation to the classroom, the maximum class size was to be not more than 20 and adult-child ratio 1:10, screening/referral, meals, monitoring, and site visits. In their evaluation of all states, Tennessee meets nine of the ten Pre-K quality measures. This places Tennessee in the top group of states in the nation in meeting the guidelines for quality Pre-K programs (Barnett et al. 2009).

In 2008, evaluation and research was conducted on children who attend Pre-K. The results obtained at the beginning and ending of the Pre-K year found that children had made significant gains in reading, language arts, and math. At the end of kindergarten, similar results were found with Pre-K children continuing to outperform similar children who had not attended the state program.

By the 2nd grade, only limited gains were identified for the children who had attended Pre-K. At that time, there was little difference between children who had attended and those who had not been in Pre-K. Many have concluded that this study was flawed in several ways including the following: combining data from two Pre-K programs treating them as one, test data was used from a small and unrepresentative proportion of kindergarteners and first graders, and it provided posttest data only. These procedures limited the validity of the study (Strategic Research Group 2010).

Currently an additional study is being conducted by Vanderbilt University which will be continued for a longer period of time. These evaluations will include appropriate comparison groups, measuring academic and social skills, and following the children for longer periods of time through high school and into adulthood. The initial study individually assessed a randomly selected group of Pre-K students at the beginning and end of the year. Standardized instruments measured the children's early literacy, language, and math skills. These scores were compared to the gains made by children who did not attend Pre-K for the same period of time. The results from the first year of the study show that children who attended Pre-K improved their early literacy, language, and math skills significantly more than comparable children who did not attend. The largest gains of 82 % by Pre-K children were made in literacy and language, and strong gains were made in early math skills. Comparison studies will be conducted for children into third grade and hopefully continue to follow participants into their adult years (Brooks 2010).

Short-Term and Long-Term Benefits

In Tennessee, as in other states, the research supports the gains made by children who attend quality Pre-K programs during the initial years, kindergarten, and first grade. Often, by third grade these initial gains are less distinguishable. Some do not

understand how critically important it is for a child, who lives in poverty, to have a successful beginning to their education. During these first 3 years of school, at-risk children can come to believe that they can learn, they can be successful, and they can move forward. The true measure of the effectiveness of the program, however, is the long-term effects that begin in Pre-K with improved social and academic skills and lead to increased education, better work skills, and positive personal relationships. These results can only be measured in longitudinal research that follows the Pre-K children into adulthood. It can be anticipated that these long-lasting skills, acquired in Pre-K, will produce increased graduation rates, less retention, fewer referrals to special education, and decreased involvement in crime as many studies have found.

The Tough Climb: Funding

The proven academic and social benefits for young children have influenced more states to embrace the addition of Pre-K as the starting point for public education. To do this they need to identify funding strategies that can ensure quality, sustainability, and stability in early childhood programs. States have the possibility of funding Pre-K using different approaches: grant programs that are impacted by legislative appropriations, school funding formulas which are based on state per-pupil support, or other financial support such as lottery money. In states where funding is based on the school formula, the money flows from the state into school districts on a per-pupil basis and can be blended with other state, local, and federal funding. When Pre-K is supported as a part of the formula, the standards and supports are more likely to be available to early childhood programs. This can be seen in Oklahoma's Pre-K program where school districts are required to provide individual screening for vision and hearing. This provides the support for these services to be administered during children's first entrance into the school system. The resources the state contributes to Pre-K determine the number of children served as well as the quality of the program (Boylan and White 2010).

In 1995, Georgia's universal Pre-K was partially supported by state-generated lottery money. When the results from research of the benefits of Pre-K were published, many middle-class parents began asking their state representative to extend the program so their children could be enrolled. The governor later announced that Georgia's program would be open to all 4-year-olds regardless of family income and it would be funded by the state lottery.

In Tennessee, the funding for Pre-K has come from a variety of sources. Grants are submitted by school systems to the state department of education for funding to local districts. The school system can subcontract the service to other agencies such as university-based programs, Head Start, private childcare, or other agencies. The grants must meet the guidelines established by the state to provide quality programs for Pre-K children. The school district must match the amount of monies that the state provides for support of these programs for young children. In addition to state

appropriations, money from the state lottery may be allocated to provide additional fiscal support for the approved Pre-K programs. Both the state allocations and money from the lottery must be approved by the state legislature and are dependent on the economy of the state and the views of the current members of this political group. Most recently, Tennessee leaders voted to protect the funding for the state's voluntary Pre-K programs by paying for the majority of the program with general funds rather than from the dwindling lottery reserve. This is certainly a move that will make the program more sustainable (Dugger 2009).

Things Learned from Tennessee's Pre-K Experiences

It is essential that the development of Pre-K programs have support from a variety of groups, organizations, and businesses. This ensures that the importance of quality early childhood is seen as an issue for all citizens. This requires seeing the big picture by identifying all the groups that will be positively impacted by an appropriate early childhood program and enlisting their support by informing them of the research, studies, statistics, and local families who have benefited from Pre-K education. Parents of children who have attended Pre-K are often overlooked as potential advocates for this first year of education—but they can contribute many personal stories that are very powerful in demonstrating the positive outcomes on an individual level.

It is very important that governors and legislators, in all parties, are knowledgeable and supportive of the importance of quality education for young children who are at risk for academic failure, dropping out of school, and being involved in crime. They can recognize that investment during the early years pays off not only now but in the future when these children are adults contributing to the state economy by being skilled employees who work hard and are able to work effectively with other people. When early childhood programs are identified with one political group or person, it can have detrimental effects on the expansion and funding of Pre-K. The education of the most at-risk young children is not a party issue but rather a moral issue for all leaders, governmental bodies, and citizens of the state.

In the early years of development, Tennessee planned to provide universal Pre-K. The goal was for all children in Tennessee to be able to attend quality Pre-K programs. When the major expansion occurred in 2005, the voluntary Pre-K program was implemented. At the time, this was rationalized by suggesting this provided parents a choice rather than making it a requirement for all children. But what has occurred is that the existing Pre-K primarily serves low-income and at-risk children. New research has questioned this segregation of children and the inclusion of only low-income children in programs designed to raise skills and increase test scores. At-risk children need the opportunity to gain from interaction and collaboration with other children who may have more advanced skills. Higher-functioning young children will also benefit from being in groups composed of diverse children. Several studies have shown that disadvantaged children's achievement is raised

when they attend preschool programs with more advantaged peers (Schechter and Bye 2007; Sylvia et al. 2004). There is a belief, held by some, that educational problems are limited to children in poverty. However, Barnett states that in reality most of the children who enter kindergarten with low skill levels are from middle-income households (Barnett 2010). The peer effect on learning can produce positive benefits that will far exceed the additional cost of the inclusion of all children. For the past 50 years, the United States has targeted children in low-income families for early childhood education.

Making a commitment to quality at the beginning of the program will ensure that young children are in an environment that will support their learning. It will include trained teachers using appropriate curriculum and focusing on the “whole” child recognizing that cognitive, language, math, and social skills are essential to the developing child.

Conclusion

Most Americans agree that children’s success in school is important and support the idea of improving children’s educational outcomes through participation in Pre-K and early childhood programs. However, opinions differ on who is responsible for educating prekindergarten children and whether states should offer Pre-K to all 4-year-old children and their families. Other central issues that must be considered relate to the fiscal, political, and infrastructure needed to provide quality programs that have the maximum benefits.

Policy makers, educators, citizens, and businesses need to determine a way of expanding Pre-K programs and addressing the issues that must be considered for this expansion to occur. Early childhood leadership, stakeholders, advocacy groups, and business leaders must work together to move Pre-K in the public policy. Once the journey begins and throughout the travel, there must be a commitment for quality programs including trained teachers, appropriate curriculum, support for the health and nutrition, and involvement of parents and community into the process. It is essential that funding be sustained and evaluation of Pre-K students is continuous to ensure that both short-term and long-term results are obtained. Perhaps it is time for Tennessee and the nation to offer all children access to Pre-K programs recognizing that it will have a positive impact on all children’s development.

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