

Seven Things Legislators (and Other Policy Makers) Need to Know About School Readiness

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We all know that young children are very important people. Parents have the greatest influence on and responsibility for their children's lives and should be their child's first teacher. Society and government, however, also have a role in ensuring that children are safe and secure and grow up ready to succeed.

The 1st National Education Goal established in 1990, that "all children start school ready to learn," recognizes the parents' primary role but also recognizes the need for community support to ensure young children's growth and development.

In working to meet the 1st National Education Goal, it is important for legislators, other policy makers, and the public to know what makes achieving this goal so important.

The following presentation provides seven points about school readiness that are based upon research, evidence, and common sense about young children and the importance of their learning.

1. The Earliest Years Count

- Brain growth most rapid
- Connection to world, the foundation for all later learning, occurs



The first years of a child's life are extremely crucial to the child's lifelong growth and development. In fact, the first two years of life are when most of the actual growth of the brain occurs and vital connections are made within the brain that will affect future growth.

Brain research further has established that the first few years are especially critical to a child's social and emotional development and how the child will relate to others and handle stress. Basic response patterns to new environments are established during this time.

In addition, the first few years of life are times of astonishing growth in neural networks that form the foundation for language development. The brain is something of a blank slate and is being "wired" through the establishment of neural pathways.

Brain Growth and Child Age



Source: RAND Corporation



In short, while the first years of life do not dictate what a child will become, the first years set the foundation and have a very strong influence on all later learning. This curve is a representation of the brain's actual growth and initial wiring, from birth to age 18. As the graph shows, by age three, roughly 85% of the brain's core structure will be formed.

2. Nurture (as well as Nature) Matters

- Competent, confident parenting
- Basic health and nutrition
- Constant oversight and supervision
- Age-appropriate guidance and instruction



During these earliest years, children respond to the stimuli around them. While children are born as unique beings, they are strongly affected by their environment, with a caring and consistent parent who responds to and nurtures them being the most important element.

In fact, research and common sense confirm that children have essential and universal needs to grow up safe and healthy. Although these may be provided differently in different cultures, as the chart shows, all children need:

- competent and confident parenting that is consistent through the early years (at least one, and preferably two, parent figures who provide nurturing, protection, and stimulation and with whom the child bonds).
- health and nutrition (adequate food and exercise for physical and mental growth, protection against and response to disease and injury, and early identification and treatment of any special health conditions).
- constant oversight and supervision (continuous adult oversight and support that enables the child to safely explore the environment).
- age-appropriate guidance and instruction (help and practice in developing large and small motor skills, language and pre-literacy, cognitive development, and socialization with adults and other children).

Every child needs these things. Most of these are provided by parents most of the time, but there also are societal roles in ensuring that every child has these needs met.

Program/Strategy Areas Corresponding to Elements

<i>Need</i>	<i>Program/Policy Arenas</i>
Parenting confidence and competence	Parenting education, home visiting, family support
Health and nutrition	Health insurance coverage, primary and preventive health care, nutrition services, EPSDT and special education services
Age-appropriate guidance and instruction	Pre-school programs, including enriched pre-school for low-income/disadvantaged children
Constant, appropriate supervision	Quality early care and education (child care), family and medical leave



This slide shows program and policy areas that correspond to ensuring that young children's needs are fully met.

Communities and states have developed effective parenting education, home visiting, and family support programs to assist stressed or unprepared parents in becoming confident and competent. Working with parents of newborns has been identified as one of the greatest opportunities for developing effective prevention programs.

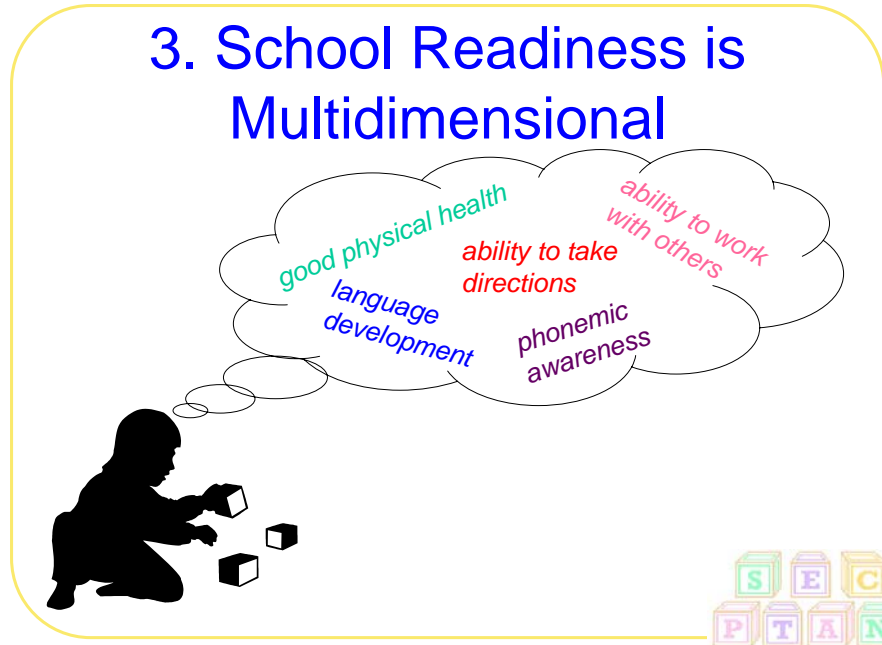
Health insurance coverage, primary and preventive health services, and early detection programs and follow-up services to address developmental delays and disabilities represent ways society can ensure that children's health and nutrition needs are met.

Quality child care arrangements, and subsidies so working families can afford quality care, as well as family and medical leave opportunities, help ensure that young children have constant, appropriate supervision.

Pre-school programs for three- and four-year-olds, including general pre-kindergarten programs and enriched pre-school for low-income or disadvantaged children can ensure that children have rich experiences that enable them to grow – experiences that are age-appropriate and ensure they start kindergarten ready and eager to learn.

Again, while parents remain their child's first and most important teacher, there are roles and responsibilities that society must assume to ensure that all children have the support they need to grow and develop.

3. School Readiness is Multidimensional



Much goes into a child's growth and development during these first years of life. Children grow at different rates and in different areas at different times. The first years of life are particularly dynamic.

Research has shown, however, that there are a number of interrelated dimensions of growth and learning in these early years, all of which must be attended to.

The National Education Goals Panel has identified five separate dimensions of school readiness that relate to:

- physical well-being and motor development
- social and emotional development
- language development (verbal language and emerging literacy)
- approaches to learning (enthusiasm, curiosity, and persistence in completing tasks)
- cognition and general knowledge (including spatial relations and number concepts)

All are important to school success. Each affects later academic success, whether it be in reading, mathematics, or science.

As the bubble shows, this scientific evidence relates back to common sense. A child's health and emotional adjustment, as well as language development and knowledge, are key to learning and growing.

4. School Unreadiness Costs

- Health care costs to address chronic conditions throughout life
- Special education and grade retention costs in early elementary years
- Juvenile delinquency and remediation costs in middle and high school years
- School failure, reduced earnings and taxpaying, and increased dependency costs in early adult years
- Crime and criminal justice system costs in adult years



Most children start school proficient or developing proficiency across all five of these dimensions. Unfortunately, too many do not. When children's basic needs are not met, there are costs -- clearly first to the young child, but to society as well.

Research has shown that these costs can be major and include those listed in the slide:

- health costs to address chronic conditions throughout life
- special education and grade retention costs in early elementary years
- juvenile delinquency and remediation costs in the middle and high school years
- school failure, reduced earnings and taxpaying, and increased welfare costs in early adult years
- juvenile justice and crime costs in the adolescent and adult years

Established Research Links Between Failures to Meet Need and Public Costs

	Parental Abuse/Neglect	Preventable Health Problems	Inadequate Guidance	Poor Quality Supervision
Child Health Costs	√	√	√	√
Child Education Costs	√	√	√	√
Child Human Service Costs	√	√	√	√
Adulthood Costs	√	√	√	√



In fact, there is a wealth of research that has traced many of these costs back to failures to meet child needs in the earliest years. As this slide shows (and again, common sense suggests), failures to meet young children's needs in the early years – as evidenced by parental abuse and neglect, untreated preventable or correctable health problems, poor supervision, and lack of guidance and stimulation – all have been linked to future problems and costs in multiple areas – health care, education and special education, human services, and adult dependency and corrections costs.

5. Parents Work

- Dramatic changes over last thirty years in workforce
- Contributed to country's economic growth
- Majority of families with young children work simply to earn enough to get by



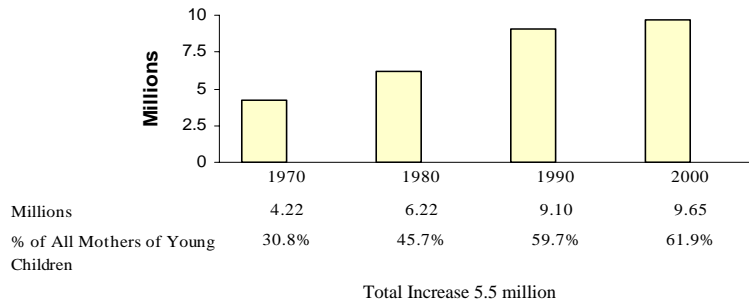
One of the reasons for increased interest in the earliest years of life has been new findings from brain research and child development research. In addition, however, the simple fact is that the raising of young children has changed dramatically over the last several decades.

Since 1970, economics has changed the structure of family life, particularly for families with young children. The percentage of mothers with young children (0-5) who are in the workforce has doubled, largely because it increasingly has required two incomes to economically support a family with young children.

This has dramatically increased the demand for child care and the need for supervision of children by someone outside the home.

Three Decades of Increase

**Mothers of Young Children (0-5) in the Workforce
1970-2000**



Source: U.S. Census



This slide shows the actual growth in the numbers of mothers with young children who are in the workforce – from 1970 to 2000. Over five million more mothers of young children are working outside the home than were working outside the home thirty years ago, which has contributed both to the family's finances and to the country's overall economic growth.

Even with this growth, however, many of these families with young children have very moderate incomes. In 2000, 36% of all families with a child under five earned less than 185% of the federal poverty level, which for a three-person family is \$26,200. Most Americans believe that this is about the minimum amount that families need to get by economically – for this population, it is often not an option to stay at home rather than work.

6. Quality Matters

Research shows quality critical to significant benefits in:

- Health and nutrition services
- Home visiting, parent education, family support programs
- Child care and pre-school programs



One of the biggest contributions that research has made in understanding what society and government can do to support families with young children is in examining early care and education programs.

The results have been clear, across health and nutrition services, home visiting, parent education, family support programs, child care, and pre-school programs. In all of these areas, research has shown that: quality matters.

Health and nutrition programs are most effective when they include primary and preventive, well-child visits that are comprehensive, assessing children's development and providing parents guidance on child development concerns.

Home visiting, parenting education, and family support programs are most effective when staffed by skilled workers who establish relationships with vulnerable families and can respond to the unique needs of families they serve.

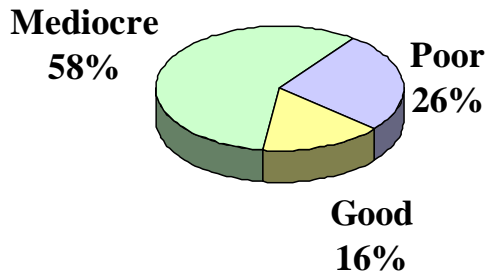
Child care programs support children's development when the staff to child ratios are low and staff are well-trained. Alternatively, poor quality child care programs actually impede children's development and may jeopardize children's safety.

Pre-school programs are effective when staff are skilled, staff to child ratios are low, age-appropriate enriched learning environments exist, and special attention is provided to address individual child and family needs.

Research is clear that quality matters, and it can make a crucial difference in the lives of low-income children and families, in particular.

Status of Quality in Child Care

Center, Family, & Infant Care Combined



Source: *Midwestern Child Care Study 2002*



Unfortunately, not all early care and education programs and services are of high quality. In fact, studies across the country have shown that the quality of care in child care settings often is quite low, with most meeting minimum standards for safety and supervision, but some not even meeting that criteria.

The chart on this slide shows a study in the Midwest of licensed child care centers and registered family day care homes, including centers and homes providing infant care. Less than one-fifth of the care was observed to be of good quality, and over one-fourth was found to be poor. This study is typical of a number of studies that have been done around the country and was selected for this presentation because it is a very recent one.

While there is variation across states, there is no study that has shown that even a majority of the care in a state is of good or excellent quality.

7. Investments Pay Off

Select studies show high rates of return for specific early childhood investments that are:

- High quality
- Comprehensive
- Generally targeted to those with most to gain



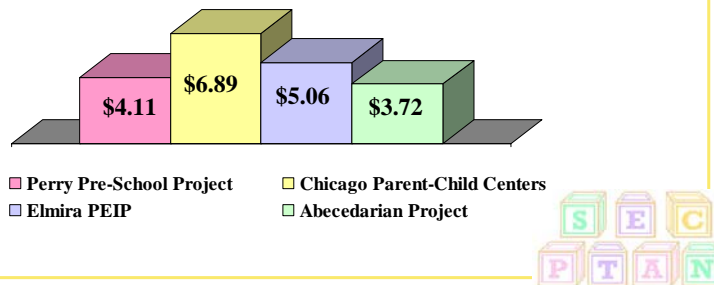
The final point is that there is a value to society – as well as to the individual child – for ensuring that children get the support they need. Investments in the early years to meet children's universal needs can reap large dividends to society.

The business community often uses benefit-cost or return-on-investment analysis to determine where to invest. It calculates what its investment costs are, and what returns (in increased sales and profits) will result.

Several early childhood researchers have adopted a return-on-investment analysis to their own examination of early childhood programs. In particular, four return-on-investment studies of high quality, comprehensive, early childhood programs have been conducted, all showing positive returns from the investments.

Investments and Returns from 4 Programs

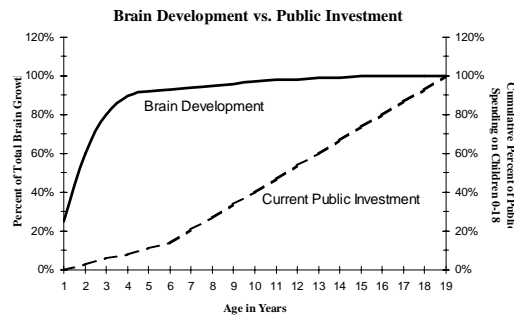
**Established Returns on Investment from
Research-Based Early Childhood
Programs for Every Dollar Invested**



These four programs represent a range of program types. The Perry Pre-School Project is an enriched pre-school program for low-income three- and four-year-olds, with strong parent involvement. The Elmira PEIP program provides a nurse to visit homes of low-income mothers with newborns. The Chicago Child-Parent Centers program involves pre-school through nine-year-olds and after-school activities, with parental involvement. The Abecedarian Project is an infant through pre-school combination of center-based child development services and parenting education, again with low-income families.

Each has shown that the initial investment (which varied from about \$6,000 to more than \$30,000 per child and family) resulted in returns of more than \$3 for every dollar invested. Most of these programs tracked the children into adulthood, examining the impact of these programs on long-term growth and development. These returns included reductions in government spending as the result of reduced use of special education services, reduced involvement in juvenile delinquency, reduced welfare and dependency costs, and reduced criminal justice costs.

Current Priorities in Public Spending Do Not Match Research Evidence



Source: RAND Corporation



While we recognize the importance of the earliest years of life and have identified successful programs that improve results for children in these years that produce lifelong gains, this slide shows that we currently invest very little in these earliest years.

The RAND Corporation, known for its work on defense and its hard-headed approach to research and analysis, has produced the full chart comparing brain growth to public spending in the country, the top line of which was used in an earlier slide. While 85% of the core structure of the brain develops in the first three years of life, only 5% of public investments in children occur during these years.

An Iowa study of its public spending (state, federal, and school district) by child age showed that government invests only one-tenth as much per child on the pre-school years (0-5) as the school-aged (6-18) years. Public spending is four times greater on the post-secondary (19-23) years than on the pre-school years.

Society has not yet developed an early care and education system to meet young children's needs as it has for older children.

Policy Implications

“Invest in the Very Young”

Nobel laureate economist James Heckman



Building such an early childhood system requires new, and significant, public investments. Increasingly, however, people even outside the early childhood field have come to recognize the value and need -- because society's future rests upon it. This has come from both the business community and those involved in economic research and analysis.

The Committee for Economic Development (CED), composed of corporate and educational leaders from around the country, has pressed for such investments, particularly for disadvantaged youth. Brad Butler, CEO of Proctor and Gamble and an early Chair of CED, has campaigned around the country for such attention, saying, "It is not whether we can afford to invest; it is whether we can afford not to invest." Jim Ranier, former CEO of Honeywell, has spearheaded, with Bank of America, the expansion of United Way of America's Success by Six program around the country.

Recently, the Federal Reserve Board Chair for Minnesota recommended establishing a \$1.5 billion endowment for early childhood services in that state, based upon the economic research and analysis. The Chair concluded that, among all opportunities to invest in economic development, investing in early childhood would have the greatest overall returns.

This is the conclusion that was drawn by James Heckman, a Nobel laureate economist, as well. Known for his research on work and training programs and their returns-on-investment, Heckman recently reviewed the literature in early childhood and examined the relative merits of public investments by different ages. His resulting synthesis of research and his modeling led him to conclude that investments in early childhood offered the best rates of return -- for children and for society. His conclusion was: "Invest in the very young."