



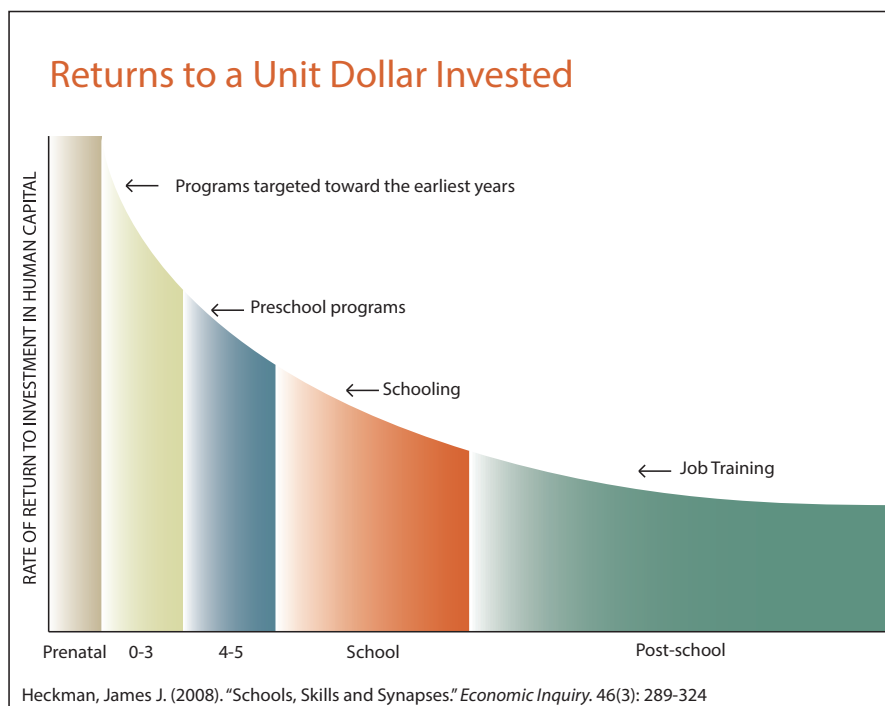
EARLY INVESTMENT

Supporting Equity in Mississippi's Human and Economic Development

In winter 2017-2018, the University of Mississippi's Graduate Center for the Study of Early Learning hosted a three-part series focusing on high-quality early childhood education. The speaker series brought together business leaders, educators, policymakers, and early childhood professionals to discuss the benefits of children having access to high-quality early education. Speakers included Drs. Craig and Sharon Ramey, researchers of the significant and positive long-term effects of a high-quality early childhood education among low-income children; Dr. James Heckman, a Nobel Prize-winning economist who researches how investments in high-quality early childhood programs can yield high economic returns; and Dr. Pat Levitt, a brain scientist and developmental pediatrician who researches brain development in early childhood. Information from this speaker series, along with information specific to Mississippi's current early childhood programs, is discussed in this brief.

INVESTING IN EARLY CHILDHOOD IS IMPORTANT.

Early childhood investments are smart because they promote optimal development in children and also because they yield substantial economic benefits—both short and long term. Investing in comprehensive birth-to-five early childhood services is an effective way to mitigate the negative consequences of child poverty on both child development and adult opportunities.



EARLY CHILDHOOD INVESTMENTS PAY OFF.

Dr. James Heckman's research shows that each dollar invested in high-quality birth-to-five early childhood education for underrepresented children delivers a 13% return on investment per year. This return declines as those enrolled in services get older; this is why investing in early childhood is so important. The greatest chance to produce benefits that support economic and social development is during the earliest years of life.¹

HIGH-QUALITY EARLY CHILDHOOD EDUCATION PRODUCES IMMEDIATE AND LIFELONG EFFECTS.

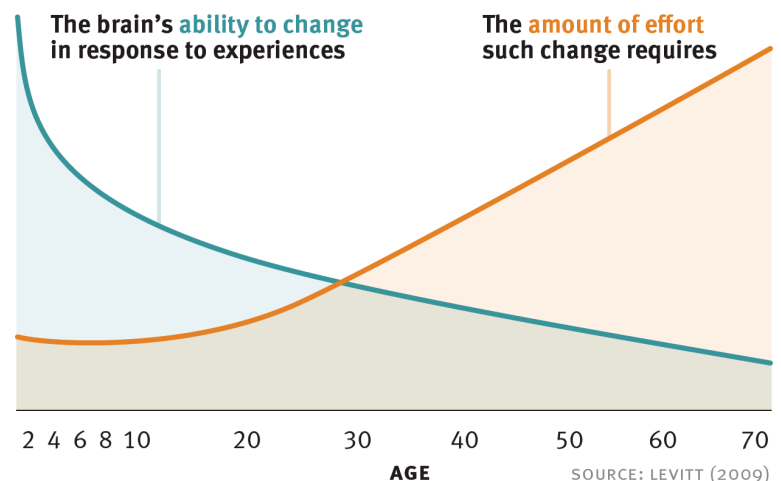
Dr. Pat Levitt's research shows that children's brain architecture can be supported by reducing any excessive or prolonged activation of stress response systems in the body and brain, often referred to as toxic stress. Comprehensive early childhood systems, including services for pregnant mothers, high-quality early education, and wraparound family services can help reduce toxic stress in the lives of children and families. The reduction of stress results in increased participation in higher education and workforce programs and community life for families, increasing opportunities for children.²

Drs. Craig and Sharon Ramey's research also shows that there are lifelong benefits of high-quality early childhood education—both for individuals and for states.³

- Increased levels of higher education and workforce attendance
- Increased IQ scores
- Increased executive function & readiness to learn
- Reduced ER visits
- Reduced placement in special education, which costs 2.5 times as much as mainstream education
- Reduced risk of cardiovascular & metabolic diseases
- Reduced grade retention
- Reduced teen pregnancy
- Reduced use of illegal substances
- Reduced likelihood of utilizing welfare supports

ADULTS CAN BUILD CHILDREN'S BRAINS.

Dr. Pat Levitt's research shows that enriching relationships with consistent back-and-forth interactions are essential for shaping young children's brain architecture. By age six the brain starts to eliminate nerve connections that have not been stimulated, which can happen when interactions are limited. While these parts of the brain can be developed later in life, it is more difficult for brain architecture to shift after early childhood.²



Brain development is affected by:

- Toxic stress
- Access to resources
- Length of gestation
- Number of early life stress events, or Adverse Childhood Experiences (ACES)
- Parents' stress levels and mental health
- Parents' environmental exposures
- Physical health (affected by diet, pollutants, quality and quantity of sleep, and other factors)²
- Income levels (In a 2015 study, the brain surface areas of children in families with incomes of less than \$25K per year were 6% smaller than those in families with incomes of \$150K or more.)⁴

The more adverse young children's circumstances, which can be affected by factors such as inequities based on race, proficiency in English, and family literacy levels, the more likely they are to benefit from intensive, high-quality programs.³

KINDERGARTEN READINESS ASSESSMENT SCORES BY SCHOOL DISTRICT IN MS, FALL 2018

EARLY CHILDHOOD EDUCATION IN MISSISSIPPI NEEDS IMPROVEMENT.

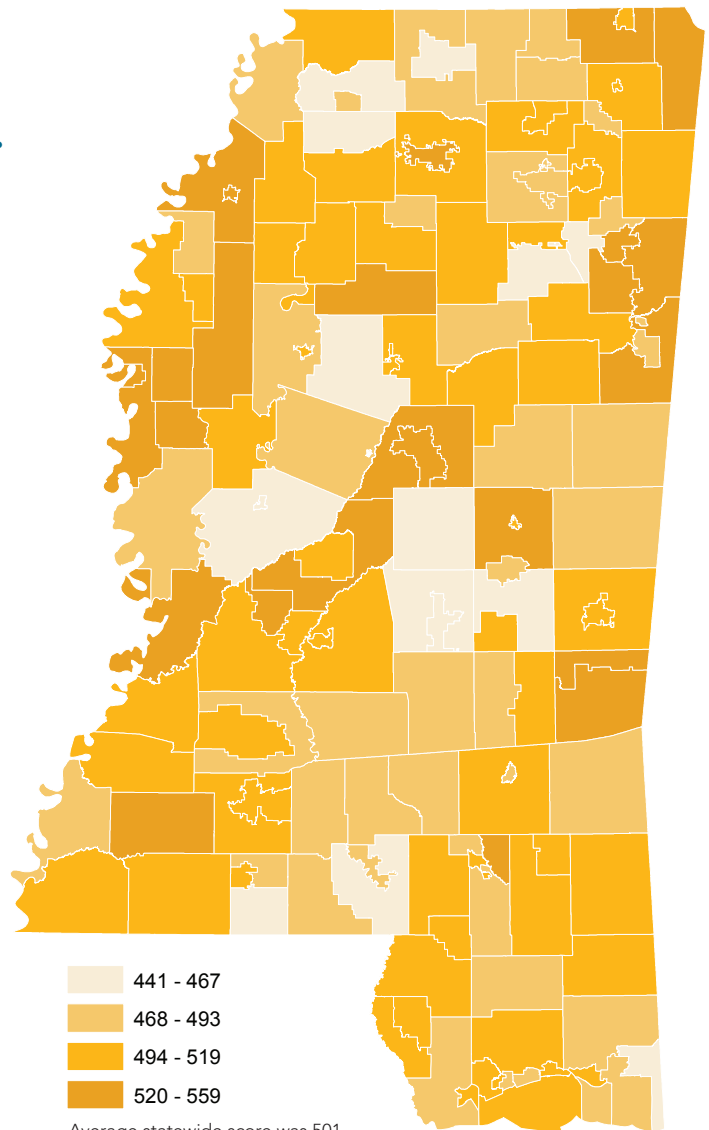
In 2014, Mississippi KIDS COUNT conducted a survey of 425 public kindergarten teachers. In this survey teachers reported:

- 41% of students were not kindergarten ready.
- 71% had at least one child in their classroom repeating kindergarten.
- 71% rated their stress levels as 4 or 5 on a scale of 1 to 5, with 5 being the highest.
- Teachers with higher numbers of students identified as not kindergarten ready reported higher levels of stress.
- The majority of teachers with classes of mostly Black students had larger class sizes.⁵

"We can invest early to close disparities and prevent achievement gaps, or we can pay to remediate disparities when they are harder and more expensive to close."

James Heckman,
Nobel Laureate in Economics
American Educator; "Economics of Inequality:
The Value of Early Childhood Education"

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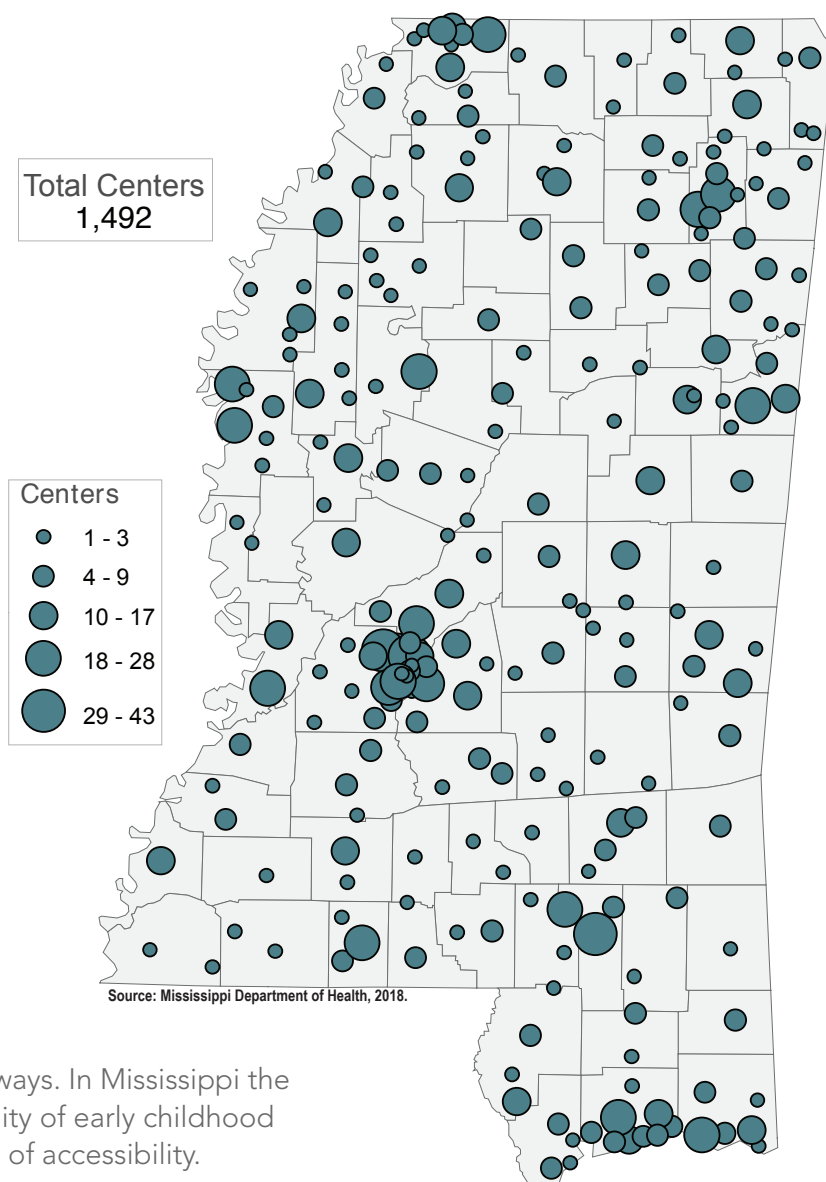
Source: Mississippi KIDS COUNT

MISSISSIPPIANS NEED MORE ACCESS TO HIGH-QUALITY EARLY CHILDHOOD EDUCATION.

The child poverty rate in Mississippi—combined with a limited number of services and providers—results in too many young children without access to services that could help families thrive. Mississippi has the highest rate of child poverty nationwide.⁶

School districts with a higher than average amount of low-income students receive increased federal Title I funding for district Pre-K programs, and federal requirements mandate that at least 90% of Head Start's students be from low-income households. Despite these provisions, in nine school districts with average or above-average poverty levels, most eligible children did not attend publicly funded Pre-K. Access to public Pre-K is greatly dependent on where children live, their transportation options, and cost associated with programs.⁶

LICENSED CHILD CARE CENTERS IN MS, 2018



Poverty affects children's outcomes in many ways. In Mississippi the following factors related to the cost and quality of early childhood education are important to consider in terms of accessibility.

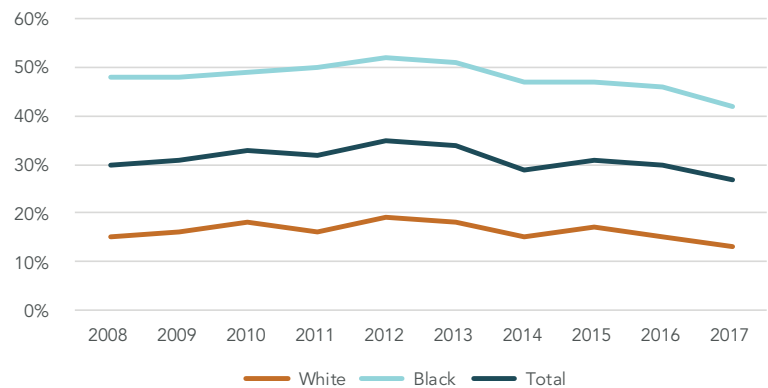
- Infant care costs are typically 32% of minimum-wage income.⁷
- In February 2018, over 16,000 families were on a waiting list for child care assistance.
- In 2018, child care assistance vouchers covered 53% of the market rate of child care for one-year-olds and 52% for four-year-olds. Individual centers determine whether to charge the difference between the child care assistance rate and the market rate.⁸
- Almost 1/4 of the child care centers that receive federal funds from child care vouchers are unlicensed, which means that they are not regulated by the Department of Health Services. About 40% of children attend unlicensed child care centers.⁹
- To qualify for child care assistance vouchers, single parents must take legal action to seek child support payments from the other parent.¹⁰
- From 2015 to 2017, 47% of children ages 3 and 4 years did not attend school.¹¹

SUPPORTS FOR CHILDREN AND FAMILIES AFFECT EDUCATION AND WORKFORCE DEVELOPMENT.

Outcomes of poverty not only affect young children but all family members, as well as our greater education and workforce systems.

- Among 4th graders, 73% scored below proficient in reading in 2017.
- 78% of 8th graders scored below proficient in math in 2017.
- In 2017, 18% of high school students did not graduate on time.
- In 2016, 34% of children lived in families without secure employment.¹¹
- Of people 25 years and older in Mississippi in 2017, 21% had Bachelor's degrees.¹²

CHILDREN LIVING IN POVERTY BY RACE IN MS, 2008-2017



MISSISSIPPI NEEDS AN EFFECTIVE SYSTEM TO ASSESS THE QUALITY OF ALL EARLY CHILDHOOD PROGRAMS IN THE STATE.⁶

Mississippi child care licensure regulations establish minimum requirements for centers, including meeting five of the ten National Institute for Early Education Research (NIEER) quality benchmarks. The Head Start Performance Framework mandates compliance with nine of the ten NIEER benchmarks. Mississippi's state-funded Pre-K collaboratives, in which 5.2% of the state's four-year-olds are enrolled, met nine of the ten NIEER benchmarks during the 2017-2018 school year. Increased opportunities for enrollment in these Pre-K collaboratives are needed in order to serve more of Mississippi's children.

Until December 2016, the Mississippi Department of Human Services (MDHS) implemented a voluntary quality rating and improvement system (QRIS) called Quality Stars. This system rated early childhood education programs on a scale of one to five stars, with five being the highest (exceeding the standards). Thirty-six percent of licensed child care centers serving four-year-olds participated in Quality Stars. More than half of these centers were either not rated or scored one star. In 2016, the Quality Stars program was replaced by the Family-Based Unified and Integrated Early Childhood System. This system categorizes child care centers as either standard or comprehensive but does not provide quality ratings. There is not currently a QRIS in place to assess the quality of all early childhood programs in Mississippi.

ESSENTIAL PRINCIPLES FOR INVESTING IN EARLY CHILDHOOD DEVELOPMENT

- ✓ Focus on disadvantaged families
- ✓ Start at birth
- ✓ Integrate health
- ✓ Develop cognitive and character skills
- ✓ Encourage local innovation in quality programs from birth to five

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HIGH-QUALITY EARLY CHILDHOOD EDUCATION PROGRAMS SHARE KEY COMPONENTS.³

Based on Drs. Craig and Sharon Ramey's research, integrating the following components in early childhood education programs supports young children's opportunities for positive outcomes:

- Safe, secure environments
- Timely, relevant services
- Varied, challenging, encouraging, & individually paced activities
- Positive interactions with adults & peers that foster the development of constructive conversational and coping skills
- Strong effective leadership & management, with a focus on children & families
- High levels of staff education & experience
- Relevant, ongoing professional development & technical assistance
- Educational resources (curriculum, equipment)
- Appropriate class sizes & adult/child ratios
- Strong wages & benefits for staff
- Systems that address diverse needs of families
- Strong administrative, fiscal, & policy supports (active research & evaluation, high standards, interagency coordination, useful information systems)
- Supports for family choices & involvement
- Coordination of early childhood resources and services (home visiting, mental health, nutrition, child care, early learning).

PRESENTING THE HECKMAN EQUATION

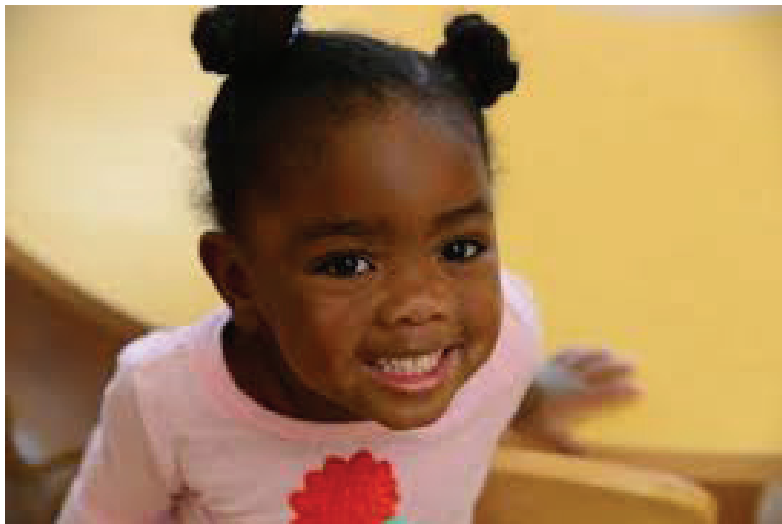
$$\begin{array}{ll} \text{INVEST} & \text{in early education for} \\ & \text{disadvantaged children} \\ + \text{ DEVELOP} & \text{cognitive skills, social abilities} \\ & \text{and healthy behaviors early} \\ + \text{ SUSTAIN} & \text{early development with effective} \\ & \text{education through to adulthood} \\ = \text{ GAIN} & \text{a more capable and productive} \\ & \text{workforce} \end{array}$$

LEARN MORE ABOUT THE BENEFITS OF
QUALITY EARLY CHILDHOOD EDUCATION AT [HECKMANEQUATION.ORG](https://heckmanequation.org)

MISSISSIPPIANS CAN IMPROVE EARLY CHILDHOOD OUTCOMES.

Following the recommendations below could strengthen early learning programs in our state.

- Implement a relevant, research-based quality assessment system for child care centers and preschools.
- Support programs in meeting the NIEER benchmarks.⁶
- Increase state funding for Early Learning Collaborative Pre-K programs to allow the development of these programs in all areas of the state, beginning with the most impoverished areas.⁵
- Provide strong incentives for child care workers.
- Promote family-friendly work places.
- Increase opportunities for communication between preschool and Kindergarten teachers.
- Provide teacher training on executive function development in young children.
- Reduce sources of stress for both early childhood service providers and families with young children by fully funding programs that offer comprehensive supports.
- Provide comprehensive services that strengthen core life skills of children and families.³
- Involve parents as partners, considering their needs and values in program development and implementation.⁶



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