

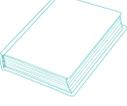
# INCREASING THE ODDS

## PREDICTORS OF ACADEMIC SUCCESS FOR MISSISSIPPI'S CHILDREN

# SUCCESS

### BACKGROUND

In order to improve educational outcomes for Mississippi's children, it is important to determine the pathways that might promote positive effects from state investments. Numerous research studies over the past several decades provide strong evidence that:

|  |  |
|--|--|
|   | Brain development occurs most rapidly prior to kindergarten <sup>1</sup>                               |
|   | Quality early care and education yield higher 3 <sup>rd</sup> grade reading scores <sup>2</sup>        |
|  | Higher 3 <sup>rd</sup> grade reading scores improve probability of high school graduation <sup>3</sup> |

Prior to 2014, only Title I federal funds, and in some cases local funds, were available for Mississippi's Pre-K programs<sup>4</sup>. Out of 151 schools districts, approximately one-third use Title I funds for Pre-K programs. Currently, about 4,100 children are served using Title I and local funds. In 2013, the Early Learning Collaborative Act was passed by the Mississippi legislature, which allotted \$3 million in state funds to 11 Pre-K collaboratives. The implementation of the collaboratives resulted in an additional 1,800 children receiving a Pre-K education<sup>5</sup>.

However, given that this cohort of children (n=1,800) will not complete third grade until the 2018-2019 academic year, we cannot yet evaluate how their Pre-K experience has paved a road for their future success. However, it is critical to determine the outcomes of children who have attended Pre-K prior to the collaborative, to assess the effects that early education can have on future achievement. This report presents findings on Pre-K, early reading achievement, and later success.

### DEFINITIONS

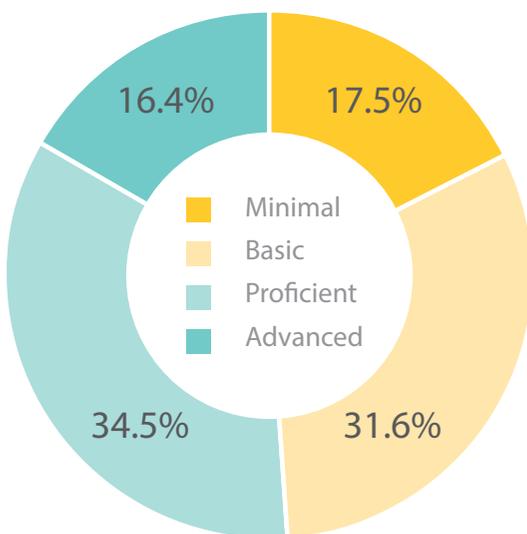
|  |   |
|--|---|
| <i>PRE-KINDERGARTEN:</i>                 | Enrollment in any Title I-funded or locally-funded public preschool program, not including enrollment in the Pre-K Early Learning Collaboratives or Head Start. |
| <i>3<sup>rd</sup> GRADE PROFICIENCY:</i> | Scoring above 150 on the MCT2 3 <sup>rd</sup> grade language arts exam.   |
| <i>8<sup>th</sup> GRADE PROFICIENCY:</i> | Scoring above 150 on the MCT2 8 <sup>th</sup> grade language arts exam.   |
| <i>ON-TIME GRADUATION:</i>               | Graduating within FOUR years of beginning high school   |

## METHODS

The analysis in this report uses de-identified student data from the years 2008-2013 provided by the Mississippi Department of Education (MDE). These files include demographics (e.g., race, gender), MCT2 scores, school district poverty, and attendance. Statistical models that predict academic achievement are based on retrospective cohorts for students who took the 3<sup>rd</sup> grade and 8<sup>th</sup> grade language arts MCT2. For example, in order to study 8<sup>th</sup> grade language proficiency, we can look back in time to analyze how this is associated with their proficiency in 3<sup>rd</sup> grade language arts. For Pre-K, we classified students based on their attendance of a local or Title I funded program. As part of the retrospective cohort analysis, we compared the differences between students who attended this form of Pre-K versus those who did not attend Pre-K or may have attended a private program.

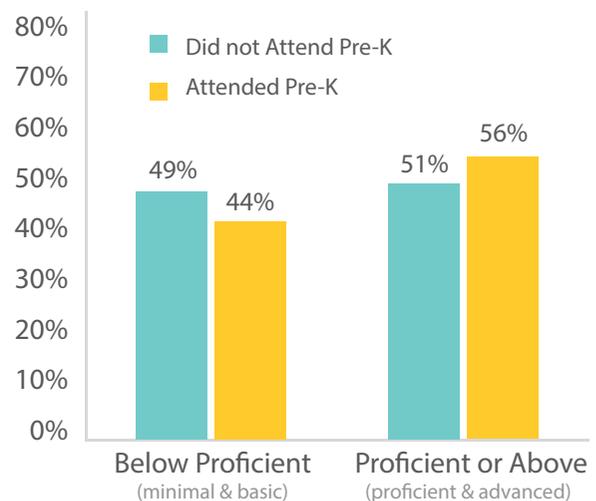
## RESULTS

MCT2, 3<sup>rd</sup> GRADE LANGUAGE ARTS 2013/14



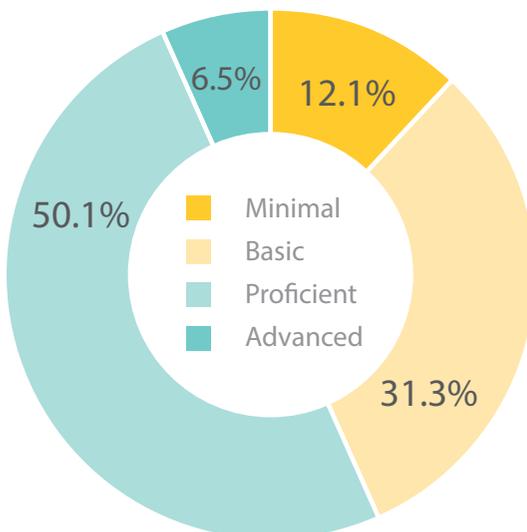
Source: Mississippi Department of Education

3<sup>rd</sup> GRADE MCT2 LANGUAGE ARTS BY PRE-K ATTENDANCE



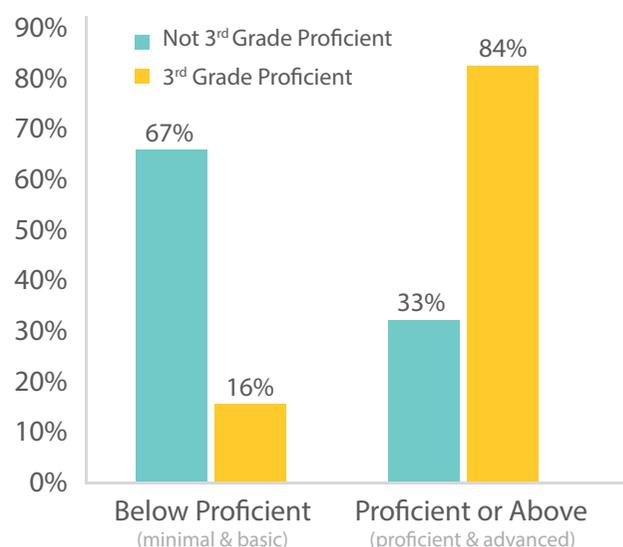
\*Statistically significant difference,  $p < .001$

MCT2, 8<sup>th</sup> GRADE LANGUAGE ARTS 2013/14



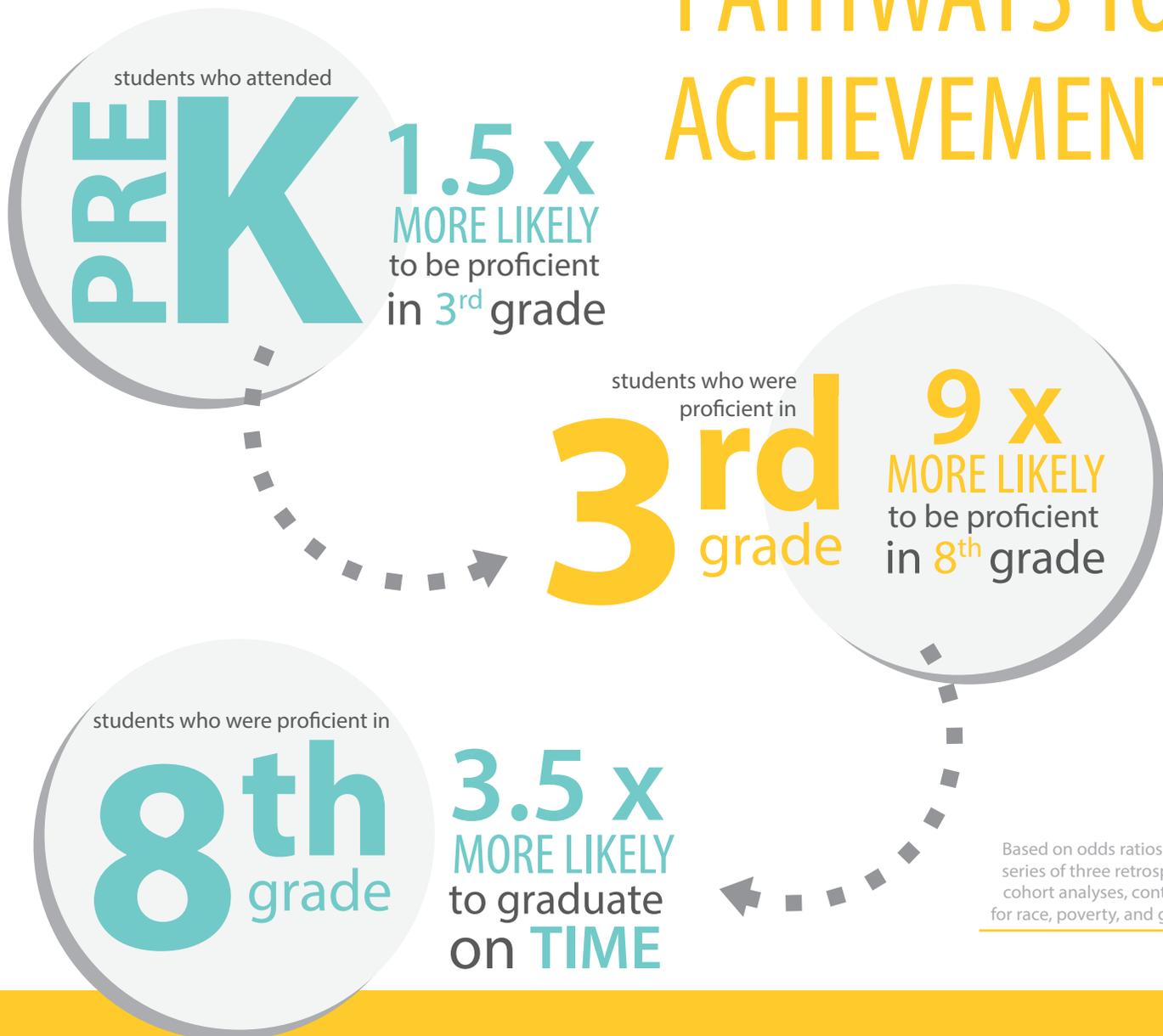
Source: Mississippi Department of Education

8<sup>th</sup> GRADE MCT2 LANGUAGE ARTS BY 3<sup>rd</sup> GRADE PROFICIENCY



\*Statistically significant difference,  $p < .001$

# PATHWAYS TO ACHIEVEMENT



## Strategies to Improve Student Outcomes for Mississippi's Children

- Increase access to high-quality early care and education programs for children, beginning at birth through school entry, with increased participation in quality rating system of child care centers
- Require developmental screenings for all children in child care, Pre-K and Kindergarten programs
- Conduct outreach programs to promote school attendance, beginning with Pre-K
- Increase data-driven decisions for making sound economic investments on behalf of young children and families
- Establish a requirement for mandatory kindergarten
- Increase coordination of the Mississippi State Department of Health's First Step Programs and the Mississippi Department of Education's Special Education Program to increase early identification, appropriate and timely referrals and follow-ups for young children
- Create mechanisms for combination of public-private funding to advance reading programs (e.g., after school and summer reading programs and grade level reading campaigns)

## RESEARCH TEAM MEMBERS

Linda H. Southward, PhD  
Connie Baird-Thomas, PhD

Ben Walker, M.S.  
John McCown, M.S.  
Alison Patev, M.S.

## GRAPHIC DESIGNER

Anna Zollicoffer

**This research was made possible by the W.K. Kellogg Foundation.**

## REFERENCES

1. Bowman, B., Donovan, M., & Burns, M. (2001). Eager to learn: Educating our preschoolers. Washington, DC: National Academy Press.
2. Center for Public Education. (2012). Starting out right: Pre-k and kindergarten. Retrieved from <http://www.centerforpubliceducation.org/Main-Menu/Organizing-a-school/Starting-Out-Right-Pre-K-and-Kindergarten/Starting-Out-Right-Pre-K-and-Kindergarten-full-report.html>.
3. Hernandez, D.J. (2012). Double jeopardy: How third grade reading skills and poverty influence high school graduation. Report prepared for The Annie E. Casey Foundation. Retrieved from <http://gradelevelreading.net/wp-content/uploads/2012/01/Double-Jeopardy-Report-030812-for-web1.pdf>.
4. Canter, R.A., & Schrouf, B. (2014). Title I pre-k in Mississippi: Preliminary report. Report prepared for Mississippi First. Retrieved from [http://1iq0332x28t34od07uajkv11.wpengine.netdna.com/wpcontent/uploads/2014/02/TitleIPreK\\_PreliminaryReport\\_FINAL.pdf](http://1iq0332x28t34od07uajkv11.wpengine.netdna.com/wpcontent/uploads/2014/02/TitleIPreK_PreliminaryReport_FINAL.pdf).
5. Mississippi First. (2015). Early learning in Mississippi. Retrieved from <http://www.mississippifirst.org/education-policy/pre-kindergarten/early-learning-mississippi/>.

## DATA SOURCE

The analysis in this report used de-identified student-level data files provided by the Mississippi Department of Education.

