

# “Early Math and Literacy Instruction: Laying the Foundations for Success”

Central Carolina RESA

March 2, 2018

# Engagement of the NC Business Community

NC companies support the need  
for **increasing 3<sup>rd</sup>-grade reading  
proficiency**

# Industry Growth in North Carolina

- STEM-related jobs: **24% increase**
- Health care professional jobs: **27% increase**
- Finance and insurance jobs: **29% increase**

# BRT Companies' Expected Future Degree Requirements

- **37% increase** in Bachelor's degrees
- **40% increase** in graduate degrees

# Looking Beyond 2020

**65% of jobs** elementary school students will be doing in the future **do not yet exist**

# 3<sup>rd</sup> - Grade Reading Proficiency Drives College Enrollment

9<sup>th</sup> graders who read proficiently in 3<sup>rd</sup>  
grade are:

3 times more likely to go to college

# Failing to Read Proficiently

Students not reading proficiently  
by end of 3<sup>rd</sup> grade are:

**4 times more likely**  
to **drop out** of school.

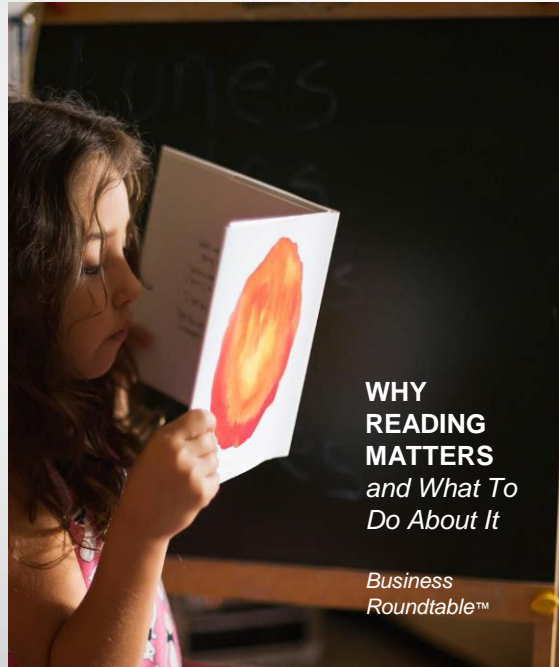
# Reading Proficiency of North Carolina Students

**62%** of North Carolina  
**4<sup>th</sup> graders** are  
**not** reading proficiently



# “Why Reading Matters”

A report by the Business Roundtable



A CEO ACTION PLAN  
To Support Improved U.S. Literacy Rates  
DECEMBER 2016

# Task Force of NC CEOs

- AT&T
- Bank of America
- BB&T
- Biltmore Farms
- Cone Health
- Ingersoll Rand
- Martin Marietta
- Medical Mutual
- National Gypsum
- PNC Financial Services
- Red Hat
- SAS

# North Carolina Policy Recommendations

- Implement a **comprehensive 0-8 system**
- Develop **connected data systems**
- Expand access to **high-quality, full-day pre-K**

# Progress on Recommendations

- Creation of new **Birth-through-3<sup>rd</sup>-Grade (B-3) Interagency Council**
- Council will address **data-driven improvements and outcomes**
- **Access increased** to NC Pre-K:
  - 2017-18: **3,525 students**
  - 2019-20: **3,000 students**

# One Additional Recommendation

- Strengthen **effectiveness** of educators from **pre-K through 3<sup>rd</sup> grade**
- Focus on **early math and literacy**

# Why Early Math?

Research confirms **early math skills** are **as good** – or better – **indicator of 3<sup>rd</sup>-grade reading proficiency**

# The Critical Role of Educators

Increasing reading proficiency requires an understanding of **early childhood development** and **early academic content and pedagogy**

# Misconceptions about “Early Childhood”

- It is NOT just birth to age 5
- How a child learns evolves during their youngest years
- That evolution does not end when a child enters kindergarten



# Knowledge/Skills Pre-K - 3<sup>rd</sup> Grade Teachers Need

- Engage children in high-quality interactions
- Establish positive relationships with students
- Create effective learning environments
- Understand developmental science and learning domains
- Understand and implement play-based, evidence-based instruction
- Understand learning trajectories
- Work with diverse populations of children
- Connect with families
- Use assessment to inform instruction

# Knowledge Elementary Principals Need

- Importance of early childhood development and early academic content
- Understanding of early math and literacy skills
- Understanding of play-based/evidence-based instruction
- Differing instruction between degree programs/licensure

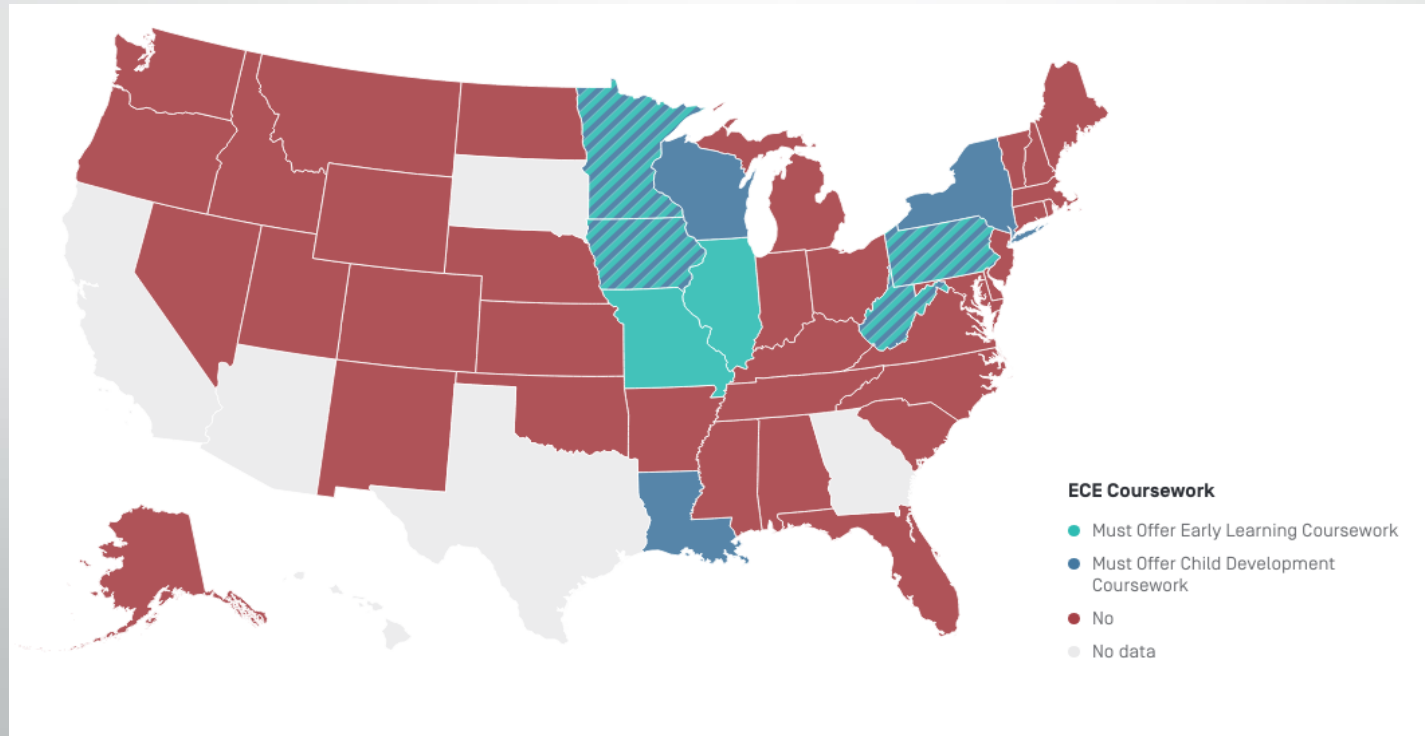
# Teacher Licenses: **Out of Sync**

- Licenses often designed to match educational divisions in the system
  - elementary, middle and high schools
- Licenses are not based on how a child learns

# Divergent Tracks for Prospective Early Grade Teachers

| Early Childhood Preparation                   | Elementary Preparation   |
|---|--|
| Child Development                             | Content Areas: <ul style="list-style-type: none"><li>• Math</li><li>• Social studies</li><li>• Science</li><li>• ELA</li></ul> |
| Identification of children with special needs | Teaching methods-evidence-based instruction  |
| Early literacy/early math                     | Classroom management   |
| Social-emotional learning                     |  |
| Play-based instruction                        |  |

# States Requiring Principal Preparation Programs to Include Early Child Development



# Consequences When Staffing Elementary Schools

## Principals:

- May lack understanding of how early childhood and elementary teacher preparation programs vary
- Often lack of experience as elementary teachers, especially in the early grades
- Move weak teachers to early elementary grades, placing stronger teachers in state-tested grades

# Inherent Friction

- Principals need flexibility to fill teaching positions
  - prefer K-6 license to pre-K-3<sup>rd</sup> grade license
- School and district “report cards” based on testing from grade 3 on
  - forces emphasis on higher elementary grades
- Focus on content of instruction vs. manner of instruction
- Focus on memorization vs. conceptualization



# Tackling the Problem

**SAS is hosting convenings to discuss strengthening early math and literacy instruction in North Carolina**



# Who Is at the Table?

- Teachers
- Principals
- Superintendents
- DPI and DHHS representatives
- Higher education representatives

# What Is the Focus?

## Pre-K through 3<sup>rd</sup> Grade:

- **Cross-pollination** of early childhood development and early academic content/pedagogy in degree programs
- **Licensure modification** to move away from B-K and K-6 licenses
- **Professional development** enhancement to include early childhood development and early academic content/pedagogy



# Questions and Insights?