Untangling the Evidence on Preschool Effectiveness, A Preview
Welcome & Introduction
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Research Presentation
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Discussion
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Marjorie Wechsler, Principal Research Manager, Learning Policy Institute

Question & Answer
Great Expectations
Preschool programs of the ‘60s and ‘70s

The Child Parent Centers
Chicago, IL

The Abecedarian Project
Raleigh/Durham, NC

The Perry Preschool Program
Ypsilanti, MI
Delivered benefits in the short term…

- Improved cognitive development
- More prepared for school
- Less likely to be placed in special education and retained in grade
...and improved outcomes into adulthood

- More likely to graduate high school and attend college
- Less likely to become teen parents
- Less likely to commit crimes
- Less likely to depend on welfare as adults
- Higher earnings in adulthood
These benefits pay off

Return on every dollar spent

$2 $17

Even a $1 return means the program pays for itself
The Public Preschool Boom
State investments skyrocketed

By 2017

- 43 states provided preschool
- States invested $7.6 billion
- More than 1.5 million children enrolled

Many evaluations of new efforts create a more complex research landscape.
Our Review
**Evaluations included in our review**

**At School Entry:**

**Arkansas Better Chance Program**  
Husted, Barnett, Jung, & Thomas (2007)

**Boston Public Schools K1**  
Weiland & Yoshikawa (2013)

**California Transitional Kindergarten**  
Manship, Holod, Quick, Ogut, Brodziak de los Reyes, et al. (2017)

**Connecticut School Readiness Program**  
The Connecticut Academy of Science and Engineering (2016)

**Georgia’s Pre-K Program**  
Peisner-Feinberg, Schaaf, LaForett, Hildebrant, & Sideris (2014)

**Head Start**  

**Michigan Great Start Readiness Program**  
Wong, Cook, Barnett, & Jung (2008)

**New Jersey Abbott Preschool Program**  

**New Mexico Pre-K**  
Hustedt, Barnett, Jung, & Friedman (2010)

**North Carolina Pre-K**  
Peisner-Feinberg & Schaaf (2011)

**Oklahoma 4-Year-Old Program**  
Wong, Cook, Barnett, & Jung (2008)

**San Francisco Preschool for All**  
Applied Survey Research (2013)

**South Carolina 4K and First Steps to Success**  
Wong, Cook, Barnett, & Jung (2008)

**Tennessee Voluntary Pre-K**  
Lipsey, Farran, & Durkin (2018)

**Tulsa ECE Programs: CAP Tulsa Head Start**  
Gormley, Phillips, & Gayer (2008)

**Tulsa ECE Programs: Universal Pre-K**  
Gormley, Phillips, & Gayer (2008)

**Virginia Preschool Initiative**  
Huang (2017)

**West Virginia Pre-K**  
Wong, Cook, Barnett, & Jung (2008)
Evaluations included in our review

Throughout School:

Arkansas Better Chance Program
Jung, Barnett, Husted, & Francis (2013)

California Transitional Kindergarten
Manship, Holod, Quick, Ogut, Brodziak de los Reyes, et al. (2017)

Florida Pre-Kindergarten Early Intervention
Figlio & Roth (2009)

Florida Voluntary Pre-K
Miller & Bassok (in press)

Georgia’s Pre-K Program
Cascio & Schanzenbach (2013)

Head Start
Deming (2009)

New Jersey Abbott Preschool Program
Barnett, Jung, Youn, & Frede (2013)

North Carolina Pre-K
Peisner-Feinberg, Mokrova, & Anderson (2017); Dodge, Bai, Ladd, & Muschkin (2016)

Oklahoma 4-Year-Old Program
Cascio & Schanzenbach (2013); Smith (2016)

Tennessee Voluntary Pre-K
Lipsey, Farran, & Durkin (2018)

Tulsa ECE Programs: CAP Tulsa Head Start
Phillips, Gormley, & Anderson (2016)

Tulsa ECE Programs: Universal Pre-K

Virginia Preschool Initiative
Virginia University Research Consortium on Early Childhood (2015)

Washington ECEAP
Bania, Kay, Aos, & Pennucci (2014)
Findings
Early benefits are clear

Most studies examined children’s early literacy and mathematics outcomes and found benefits.

• 17 out of 18 found clear benefits for children’s early literacy.

• 14 out of 16 found clear benefits for children’s early mathematics skills.
Early benefits are clear

Fewer studies examined children’s social-emotional skills and executive function.

- 4 out of 6 found benefits for at least one measure.
Preschool prepares children for school

Impacts of Preschool at School Entry

Each box represents a separate evaluation of a preschool program.

- Green: Participants had better outcomes than comparison group children.
- Gray: No difference between participants and comparison group children.
- Red: Participants had worse outcomes than comparison group children.

<table>
<thead>
<tr>
<th>Domain</th>
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<td>Mathematics</td>
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<tr>
<td>Social-Emotional Learning</td>
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Note: Evaluations usually include many measures of child outcomes across different domains. Additional domains not included here are described in the full report.
School progress benefits often last

Several studies examined special education placements and grade retention throughout school.

- 4 out of 7 found reductions in special education placements in elementary school.
- 6 out of 10 found a reduction in grade retentions.

Early learning experiences of comparison children can make a difference.
These benefits pay off

• School districts spend an average of $13,119 per child per grade.

• Costs double whenever a student is retained.

• Retaining a child increases the likelihood of future retentions, compounding costs.

• Providing special education services can cost more than twice that of general education.
Academic benefits can persist

Most studies examined children’s literacy and mathematics outcomes throughout school.

- **About half** of the studies found significant benefits for children’s **reading performance**—up to 5th grade.
- **10 out of 13** studies found significant benefits for children’s **mathematics performance** throughout school.

Study methods can make a difference.
Preschool *can* have lasting impacts

### Impacts of Preschool Throughout School

Each box represents a separate evaluation of a preschool program.

- **Participants had better outcomes than comparison group children.**
- **No difference between participants and comparison group children.**
- **Participants had worse outcomes than comparison group children.**

<table>
<thead>
<tr>
<th>Category</th>
<th>Participants had better outcomes</th>
<th>No difference between participants and comparison group children</th>
<th>Participants had worse outcomes than comparison group children</th>
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<td><strong>Grade Retention</strong></td>
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<td><strong>Special Education Placements</strong></td>
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Note: Evaluations usually include many measures of child outcomes across different domains. Additional domains not included here are described in the full report.
What about “fade out”?

Many studies found little impact on children’s reading performance into elementary school.

- A finding of “no difference” does not mean children stagnate or lose skills or knowledge over time.

- Preschool participants and comparison group children continue to learn, but over time the difference between them diminishes.

- Their performance converges.
What about ‘fade out’?

The bulk of the evidence points to the overall effectiveness of pre-k, but findings from Head Start and Tennessee have sparked questions about whether that evidence should be trusted.

- Both studies found evidence that preschool participants did less well than comparison group children in mathematics in the early elementary grades.

- The Tennessee evaluation found that children were more likely than comparison group children to be placed in special education in elementary school.
Research points to three key questions

To understand how the evidence fits together, we need to consider:

1. What are the early learning experiences of comparison group children?
2. What is the quality of the program?
3. What is the quality of instruction in the early elementary years?
What did the Head Start evaluation find?

At school entry—

- Benefits for literacy and math skills at school entry.

Throughout school—

- No benefits for children’s literacy or grade retention in 3rd grade.
- Head Start participants did worse than comparison children on math tests in elementary school.
(1) What are the early learning experiences of comparison group children?

Many children attended other early learning programs (including other Head Start programs).

A re-analysis found larger, longer lasting benefits for participating children without access to ECE alternatives.
(2) What is the quality of the program?

Head Start program quality is highly variable.

Program performance standards that set out quality guidelines were recently overhauled.

One study found that programs with higher quality had larger, longer lasting benefits.
(3) What is the quality of instruction in the early elementary years?

Head Start children are more likely to attend low-quality and low-performing elementary schools.

Benefits of Head Start are larger when investments are also made in k-12 education.
What do the Head Start findings mean?

Head Start prepares children for school.

Whether long-lasting benefits are noted depends on

• what **alternatives** are available to both comparison group and participating children,

• the **quality** of individual programs, and

• the quality of **elementary school instruction**.
What did the Tennessee Pre-K evaluation find?

At **school entry**—

- Benefits for literacy and math skills.

By **3rd grade**—

- No benefits, relative to the comparison group, for children’s literacy in third grade.
- Program participants did worse than the comparison group on math skills.
(1) What are the **early learning experiences** of comparison group children?

Tennessee’s evaluators **have not accounted for** the early learning experiences of comparison group children in their analysis. There is evidence that comparison group children may have been **more advantaged** than the pre-k participants.
(2) What is the quality of the program?

Tennessee earns a 5 out of 10 on NIEER’s revised preschool quality quality metric.

An evaluation of Tennessee classroom environments found substantial variation in the quality of teacher-child interactions, with some scoring extremely low.
(3) What is the quality of instruction in the early elementary years?

We don’t know the quality of instruction that Tennessee’s participants received in the early elementary years.

But a recent national study found sustained benefits of preschool only when children subsequently attend high-quality elementary schools.
What do the Tennessee findings mean?

The program may be more effective for children without early learning alternatives.

Program quality and later school experiences may be responsible.
Is Preschool Effective?
It can be

1. High-quality preschool is an effective strategy for improving children’s school readiness.

2. It is clearly possible for the benefits of preschool to persist into elementary and middle school.

3. Researchers and policymakers should focus on how to ensure preschool is effective.
How Can States Support Effective Programs?
Building blocks of high-quality early learning systems

- Strong **program structure**
- Engaging and meaningful **learning experiences**
- Highly skilled and well-supported **workforce**
- **Comprehensive services** for children and families
- **Continuous quality improvement**
Learning from successful states
Lessons from the states

QUALITY

- Program Quality
- Workforce
- Coordination
- Funding
- Political Support
Prioritize quality and continuous improvement

- Standards and assessments
- Quality rating and improvement systems
- Funding linked to quality ratings
- Local infrastructure
Invest in training and coaching

- High requirements
- Accessible training
- Scholarships and salary supplements
- Coaching
Coordinate the administration of birth-through-grade three programs

- Coordinated program administration
- Shared data
- Aligned curriculum and instruction
Combine multiple funding sources to increase access and improve quality

- Combined funding sources
- Short-term funds
- Public-private partnerships
Create broad-based coalitions and support

- Broad-based coalition
- Choice
- Political champion