



# **TN VPK Effectiveness Evaluation**

## **What has been found so far?**

## **Summary and Context**

# Research Team

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- **Supervisors, Principals, Teachers, Secretaries across TN**

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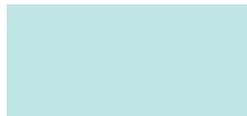
# Controversy about PK and the study

- **The Tennessean: Pre-K gains may not stick, Vanderbilt study finds**
- **WBIR Channel 10: Knoxville reps' views on pre-k vary from 'hype' (Dunn) to 'great' (Johnson)**
- **Governor Haslam: Wait and see!**
- **Comments from Steve Barnett, director of National Institute of Early Education Research (NIEER) at US DOE: Focus on quality (which takes more funding) and expanded access**

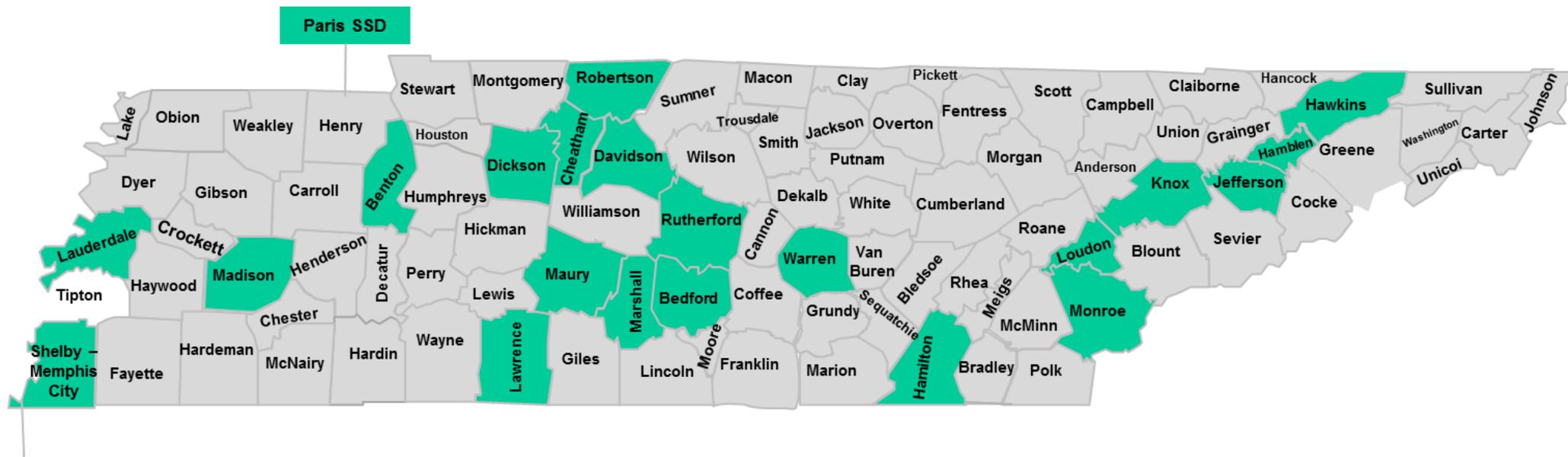


# Summary of Findings

- Part 1 of the Vanderbilt study of Tennessee Voluntary Pre-K (TN-VPK) involves more than 3000 children randomly assigned to attend or not attend Pre-K.
- Over 1000 were assessed individually from the beginning and end of pre-k through kindergarten and first grade, with more follow-up underway.



# Districts Involved in the RCT

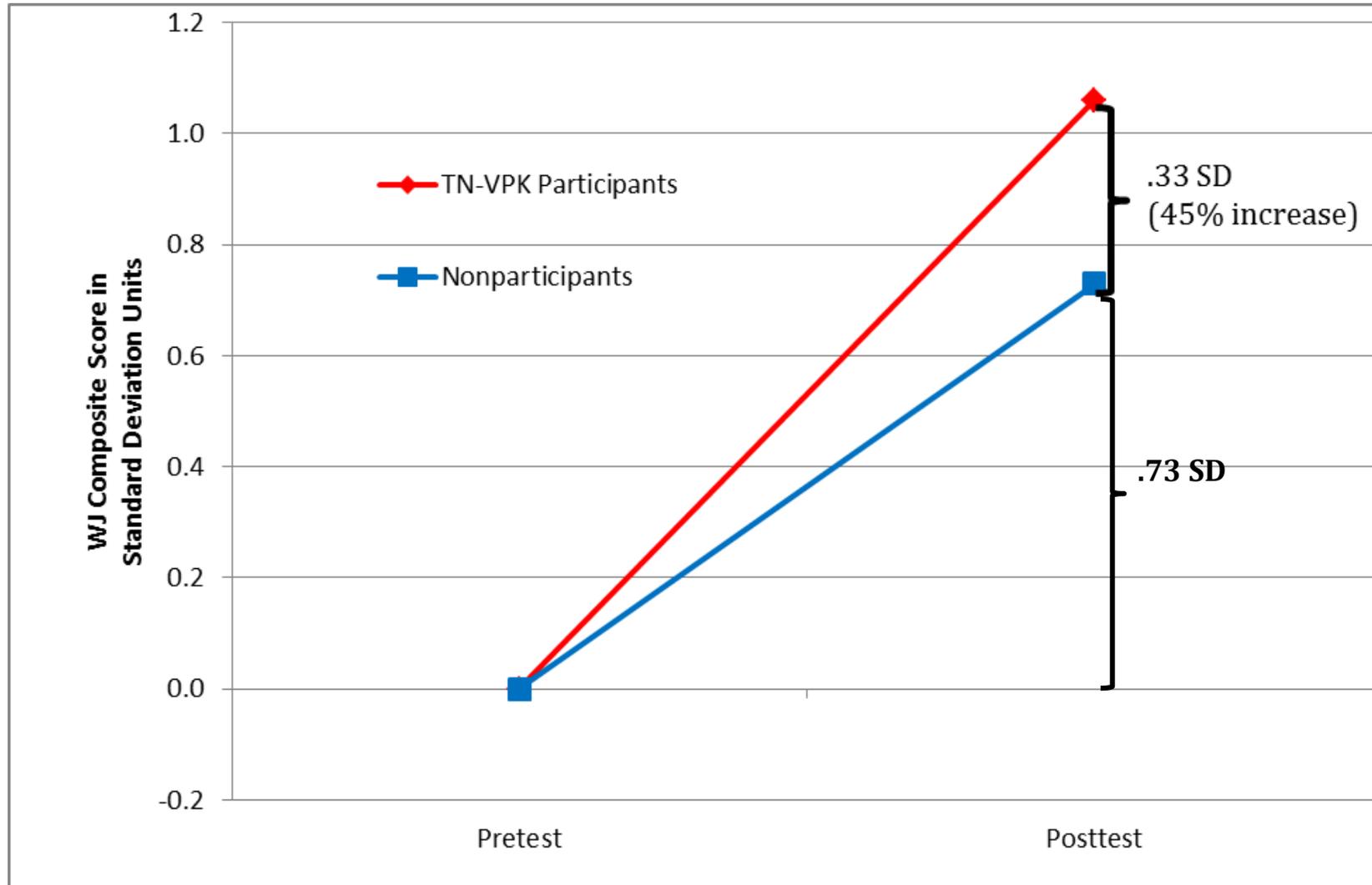


# The major findings to date: PK Year

- TN-VPK children made significantly **greater gains** on measures over the pre-k year
  - Literacy – Letter Word Identification and Spelling
  - Math – Applied Problems and Quantitative Concepts
  - Language – Oral Comprehension and Picture Vocabulary
- They were **rated higher by their teachers** in comparison to similar children who did not attend
  - Better prepared for kindergarten
  - Having better social skills
  - Having better work-related skills



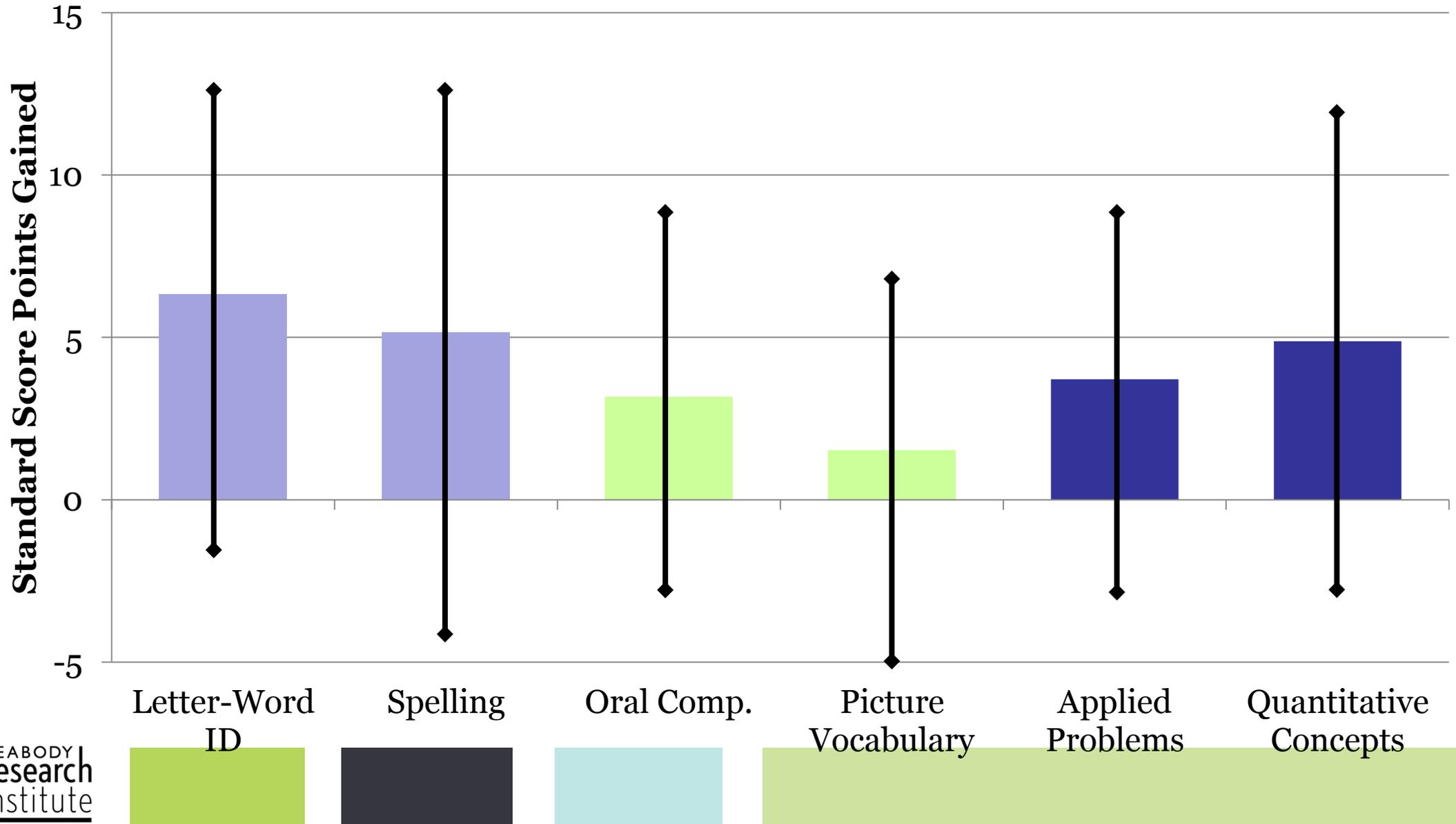
# Pre-K Gain – Composite WJ



# Effects of TN-VPK: Pre-K Gain on Teacher Reports

Measure	TN-VPK Effect		
	Estimate	p-value	Effect Size
Cooper-Farran Social Behavior	0.33 <sup>†</sup>	.099	.34
Cooper-Farran Work-Related Skills	0.35 <sup>†</sup>	.056	.30
ACBR Preparedness for Kindergarten	0.45 <sup>*</sup>	.013	.31
ACBR Peer Relations	0.12	.203	.12
ACBR Behavior Problems	-0.34	.115	.26
ACBR Feelings About School	0.04	.510	.13

# WJ Standard Scores Gain in Pre-K for students attending Pre-K

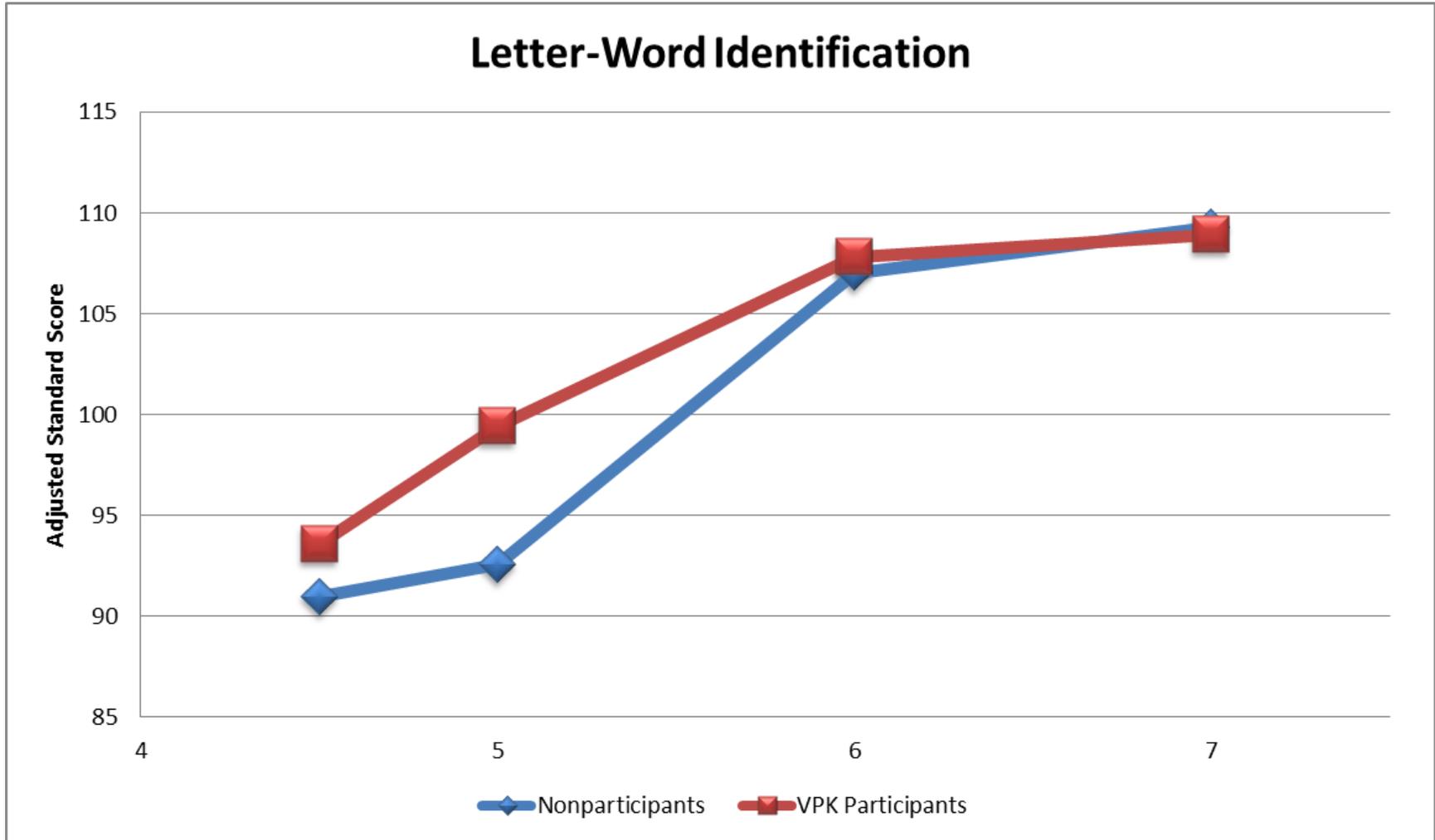


# End of Kindergarten & Grade 1

- By the end of the kindergarten and first grade years, the **academic achievement differences** between children who attended TN-VPK and those who did not **had diminished** and were no longer statistically significant.
- Similarly, **ratings of academic preparedness and classroom behavior** by the first grade teachers **showed no differences** between TN-VPK participants and nonparticipants.



# Example

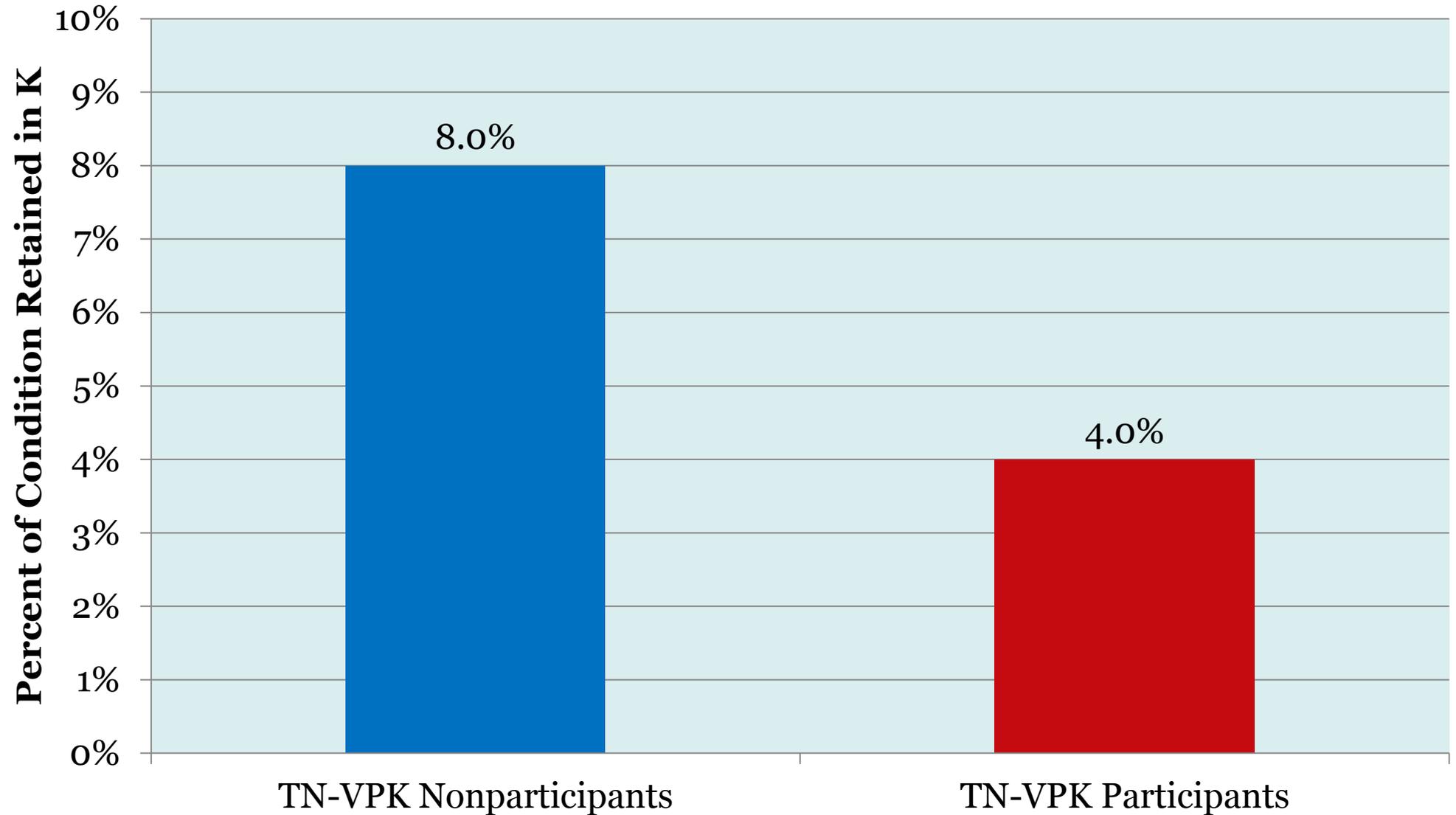


# K & Grade 1: Other Measures

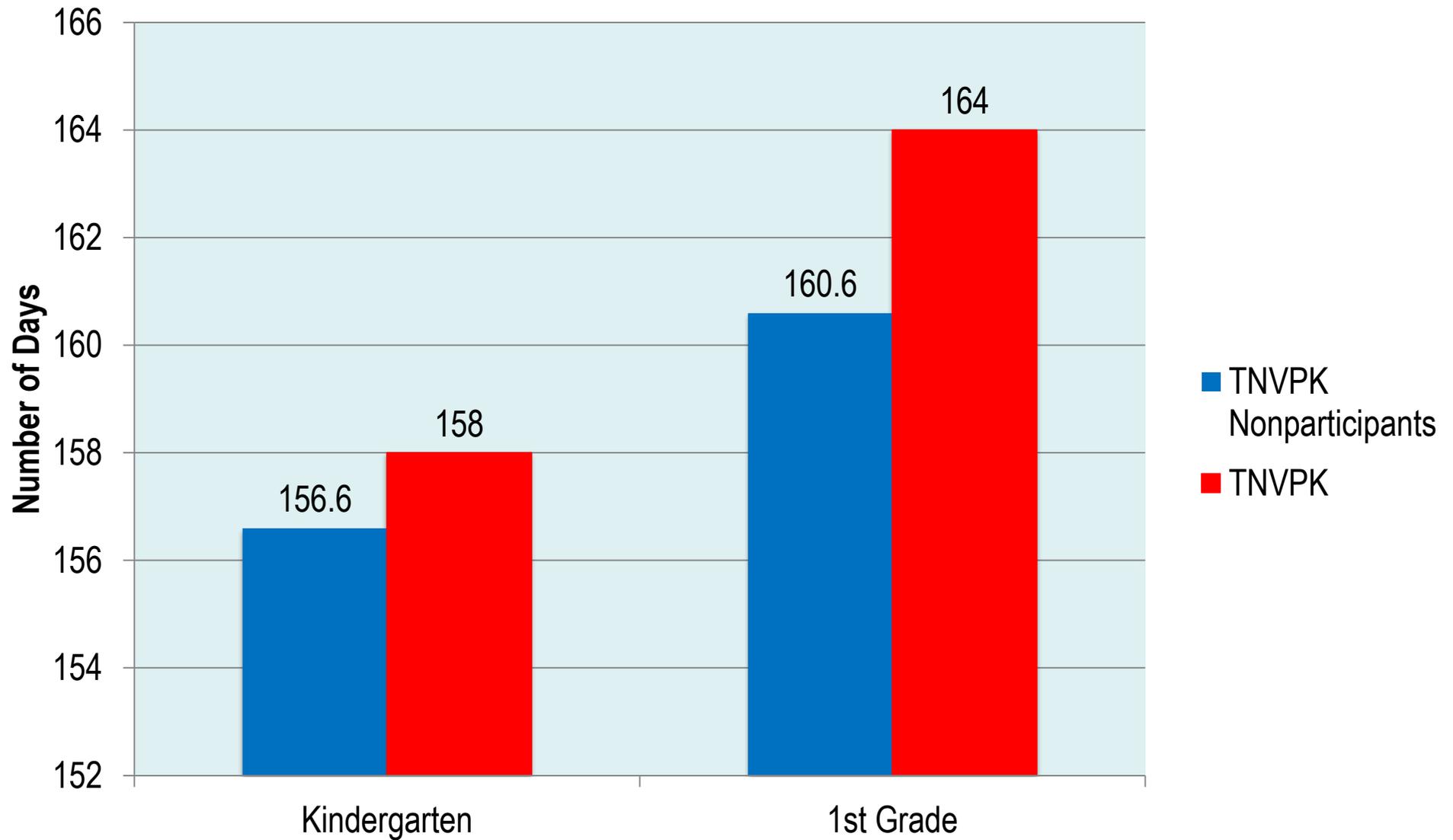
- Significant TN-VPK effects were found on some important “**non-cognitive**” aspects of performance at the end of the kindergarten and first grade years:
  - **Fewer** TN-VPK participants were **retained in kindergarten** than nonparticipants
  - **School attendance** in first grade was somewhat **better**.



# Full Sample: Grade Retention in Kindergarten



# Full Sample: Attendance (Cohort 1 only)



# Putting these Findings into Context



# **The effects found for TN-VPK are similar to those found in other studies**

- Studies of preschool programs have typically found gains in cognitive skills immediately following the program and then diminish in later years.
- Those same studies have also often found long-term impacts on other indicators of performance such as grade retention, attendance, disciplinary actions, special education referrals, and graduation rates.



- Though it is too early to determine if TN-VPK will have such long-term effects, differences favoring TN-VPK participants have already been found on grade retention at the end of kindergarten and attendance during first grade.
- This study will continue to follow these children to assess a full range of outcomes as they progress through school.



# Different expectations for TN-VPK

- There is no apparent consensus about what TN-VPK is expected to accomplish.
- If the expectation is that the economically disadvantaged children who attend TN-VPK will enter kindergarten better prepared, this research shows that TN-VPK fulfills that expectation.
- TN-VPK children gained more on early achievement measures during the pre-k year than children who did not attend and were rated as better prepared by their kindergarten teachers.



- If the expectation is that one year of TN-VPK will make these children perform better throughout their school careers, it is too early to tell how effective the program is.
- Though the early achievement measures show diminished effects, we do not yet know
  - how these children will perform on the state achievement tests in third grade or
  - the long-term effects on other aspects of school performance, early indications of which have already appeared.



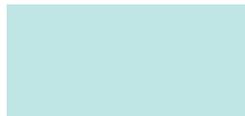
# Continuity between pre-k, kindergarten, and beyond

- Kindergarten and later classrooms that include TN-VPK children also have disadvantaged children who have not attended TN-VPK.
- This research has not examined these classrooms so we do not know how teachers handle this diversity—in particular, whether they
  - attempt to build on the gains the TN-VPK children have made or
  - repeat much of the instruction those children have already received.

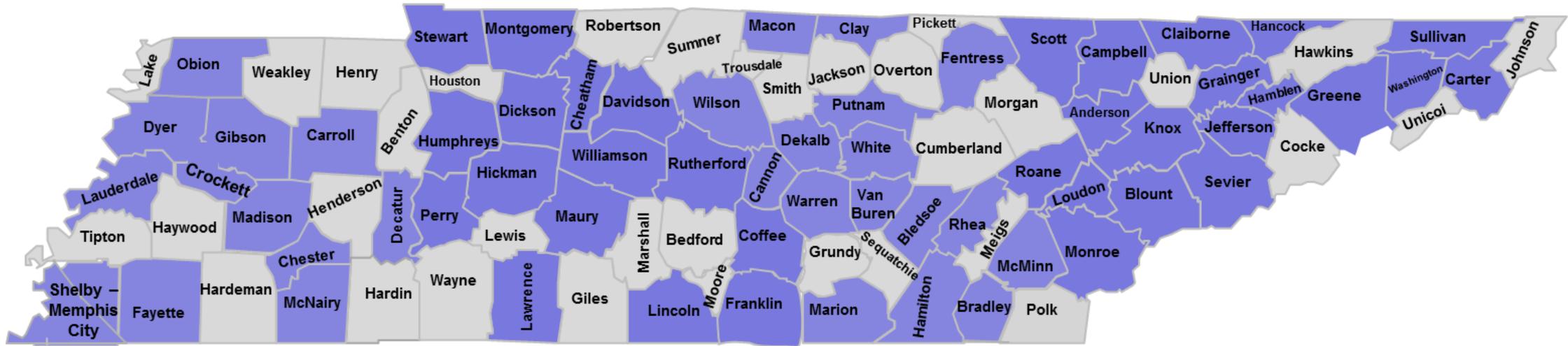


# Guidance for improving the quality of the TN-VPK program

- Children's achievement gains depend on the quality of the TN-VPK program.
- In this study, observations and interviews have been conducted for 160 representative TN-VPK classrooms across the state.



# Districts Involved in the RDD Classroom Observations



- The data so far reveal **great variation** in:
  - Teacher experience,
  - Time management,
  - Classroom environment,
  - Instructional interactions with students, and
  - Support and management across systems
- When these data are complete, they will help
  - Identify the characteristics of classrooms and structural factors of support that affect gain.
  - Provide guidance for program improvement.



Reports on the end of pre-k, and end of kindergarten and first grade outcomes can be found at:

<https://my.vanderbilt.edu/tnprekevaluation/reports>



**Thanks!**

**Questions & Comments**

