Alignment of early childhood policy and classroom processes and practices in a large, diverse, public school district

Jessica Whittaker, Robert Pianta, Virginia Vitiello, Erik Ruzek, & Arya Ansari

Center for Advanced Study of Teaching and Learning
University of Virginia

**2018 Biennial Meeting, National Research Conference on Early Childhood
Washington, DC**

Today's Talk

- Early Learning Network Overview

- Fairfax Pre-k to 3rd Grade (FP3) Study Overview

- Programs and Policies that Promote Student Learning

- Alignment of Policy and Observed Data

- Discussion and Next Steps

Early Learning Network Overview

- In 2016, IES formed the Early Learning Network comprised of:
  - 5 assessment teams (OSU, MDRC, UNL, UNC-Chapel Hill & UVA)
  - 1 assessment team (UC Irvine)

- Network Mission: To improve the academic success of children by identifying research-proven policies and practices that narrow the achievement gap and ensure early learning success is maintained as children transition from preschool to elementary school and beyond.

Fairfax Pre-k to 3rd Grade Study

- **Policy Study:** Examine policies and programs designed to support learning from Pre-K through third grade in Fairfax County

- **Observational Study**: Across PK-3 classrooms, describe the nature and level, in each grade, of teacher-child interactions, content of instruction, children's classroom engagement

- **Longitudinal Study**: Examine the effect of early educational experiences on children's learning through 3rd grade by tracking a*ll* children who entered public Pre-K in 2016-2017 and a *random sample* of children with no center-based Pre-K who entered K in 2017-2018

FP3

FAIRFAX PREK TO 3RD GRADE

Pathways to early school success

Programs and policies that promote student learning

- Recent evaluations of successful state and city early learning models suggest policies and program design features that are effective in improving outcomes for low-income children.

- Key factors include:
  - **Clear articulation of school readiness goals and aligned strategies to achieve them**
  - Use of educationally focused curricula
  - Professional development focused on teachers' classroom interactions and implementation
  - Use of data to inform instruction

FP3

FAIRFAX PREK TO 3RD GRADE
Pathways to early school success

Alignment between policies, classroom practice, and child outcomes

- This study uses a mixed method approach to:
  - Analyze the district's school readiness goals
  - Examine (mis)alignment with observed classroom data and child outcomes.

FP3

FAIRFAX PREK TO 3RD GRADE

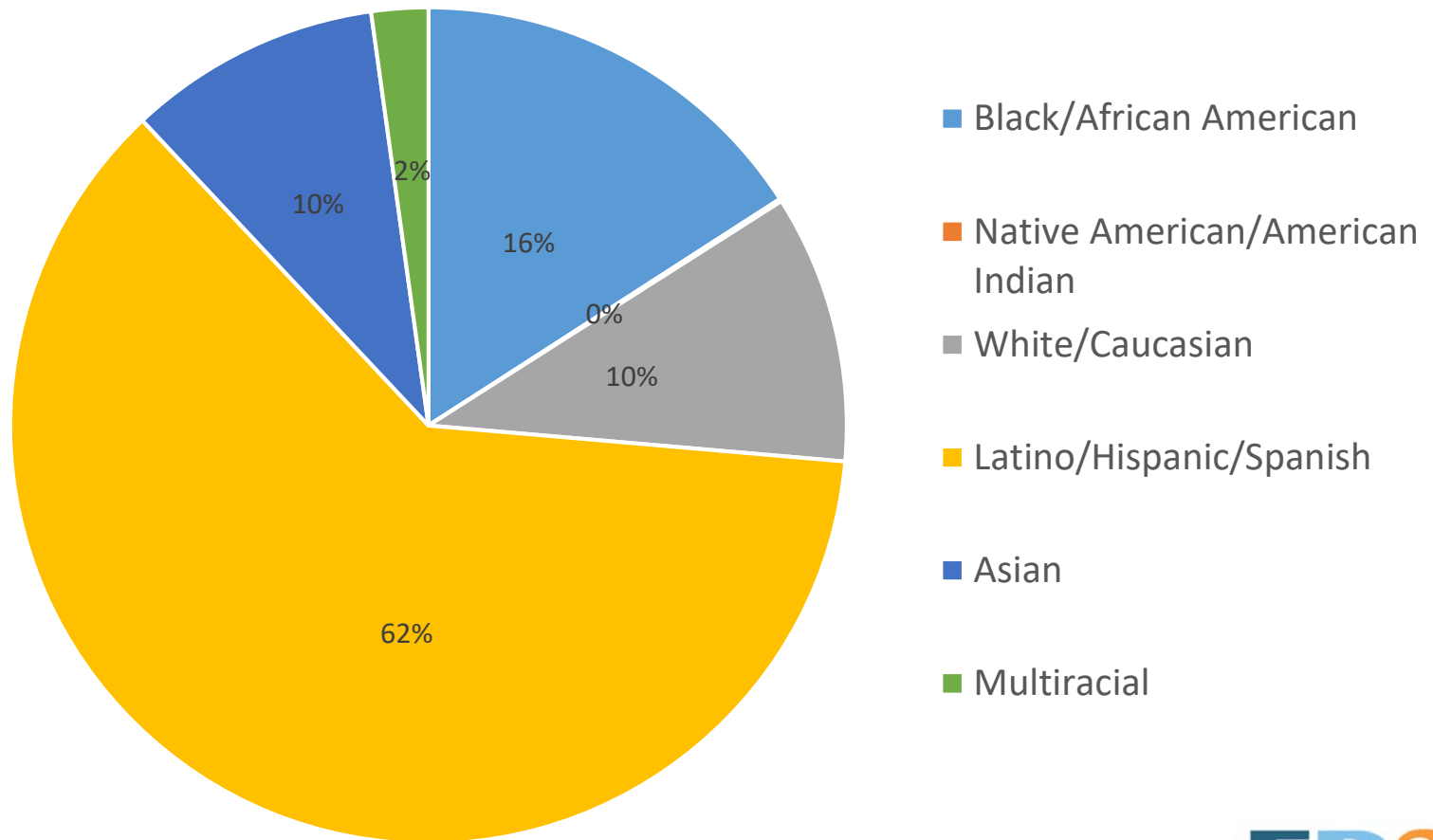*Pathways to early school success*

Setting and Study Partners

- Fairfax County Public Schools and Office for Children

- 11th largest school district in U.S.

- One of fastest-growing, most diverse regions
  - Serves more than 2,000 low income children in publicly funded preschool

FP3
FAIRFAX PREK TO 3RD GRADE
Pathways to early school success

Participants

- Pre-kindergarten (2016-2017)
  - 1,431 students
  - 117 school and community-based pre-k classrooms
    - Funded by VPI (state-funded), Head Start, Title I, Child Care Subsidies, or other public funding
- Kindergarten (2017-2018)
  - 2,437 students
    - 1,261 who attended public pre-k and participated in pre-k year
    - 1,176 who have similar demographic characteristics but had no center-based pre-k experience
  - 351 kindergarten classrooms

FP3
FAIRFAX PREK TO 3RD GRADE
Pathways to early school success

A Very Diverse Population

Legend:
- Black/African American — 16%
- Native American/American Indian — 0%
- White/Caucasian — 10%
- Latino/Hispanic/Spanish — 62%
- Asian — 10%
- Multiracial — 2%

Data Collected Across Years

	Pre-K All pre-k students		K Random sample of no pre-k and pre-k		Grades 1-3 Random sample of no pre-k and pre-k	
	fall	spring	fall	spring	fall	spring
Policy focus groups (Administrators, teachers, parents)		X	X			
Administrator surveys		X		X		
Parent surveys	X		X	X		X (3rd)
Teacher surveys/ratings	X	X	X	X	X	X
Observations	X	X	X	X	X	X
Direct Assessments	X	X	X	X		X
FCPS Data	X	X	X	X	X	X

FP3
FAIRFAX PREK TO 3RD GRADE
Pathways to early school success

What are FCPS school readiness goals?

- Reviewed policy documents with a focus on learning more about school readiness goals

- Surveyed administrators about school readiness goals

- Conducted focus groups with parents and teachers, asking about school readiness goals. Data analyzed using a four-stage coding process to identify themes.

School Readiness Goals – FCPS Strategic Plan

- School Readiness Goal: All children have the social, emotional, physical and intellectual skills they need to succeed in kindergarten and beyond.

- School Readiness Strategy: "Provide quality early childhood experiences aligned with . . . outcomes that are designed to prepare students to successfully enter Kindergarten."

FP3
FAIRFAX PREK TO 3RD GRADE
Pathways to early school success

School Readiness Goals - Administrators

- Pre-k administrators reported on how much emphasis they placed on school-readiness goals:
  - % reporting strong or major emphasis
    - 77.2% - pre-reading
    - 77.2% - number concepts
    - 100% - social skills

School Readiness Goals – Parents and Teachers

- In focus groups, parents and teachers noted the importance of pre-k in supporting children's behavioral and emotional readiness for kindergarten, with some also mentioning the importance of academic readiness.

Are Goals Aligned with How Programs Use Time?

- Trained observers visited classrooms 2-3 mornings during the pre-K year

- Used time sampling to code <u>activity setting</u> and <u>instructional content</u> using the *Behavioral Coding System* (adapted from the NICHD SECCYD Classroom Observation System and Observational Record of the Caregiving Environment; McCartney et al., 2007; Pianta et al., 2008)

- Estimated descriptive statistics to present a picture of pre-K classrooms

Are Goals Aligned with How Programs Use Time?
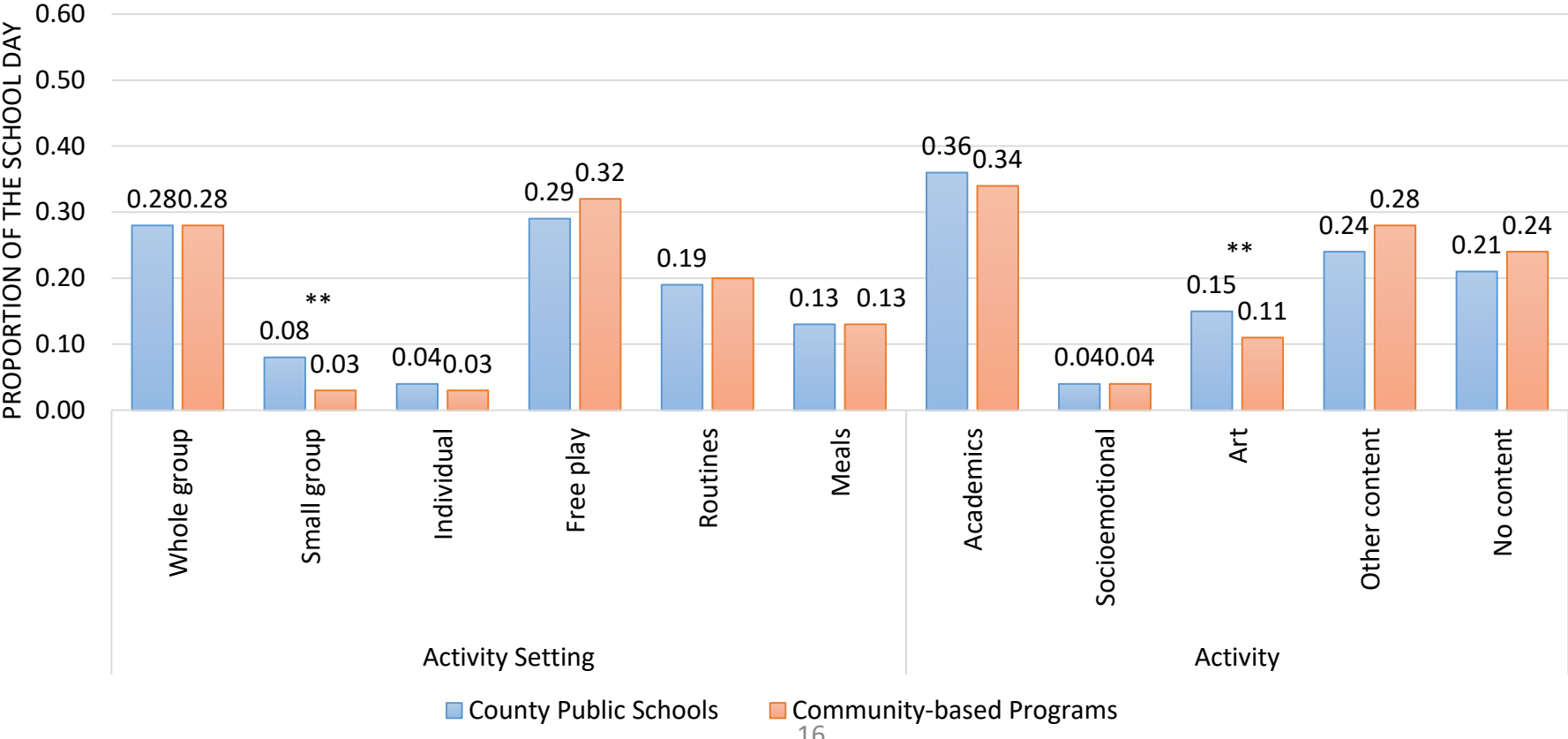
Are Goals Aligned with How Programs Use Time?

- To some extent. . .
  - Children are engaged in learning-focused activities about 75% of the morning in free play or teacher-directed settings
  - Exposed to academic content 35% of the morning
    - More time spent in literacy and social studies (70%) than math or science
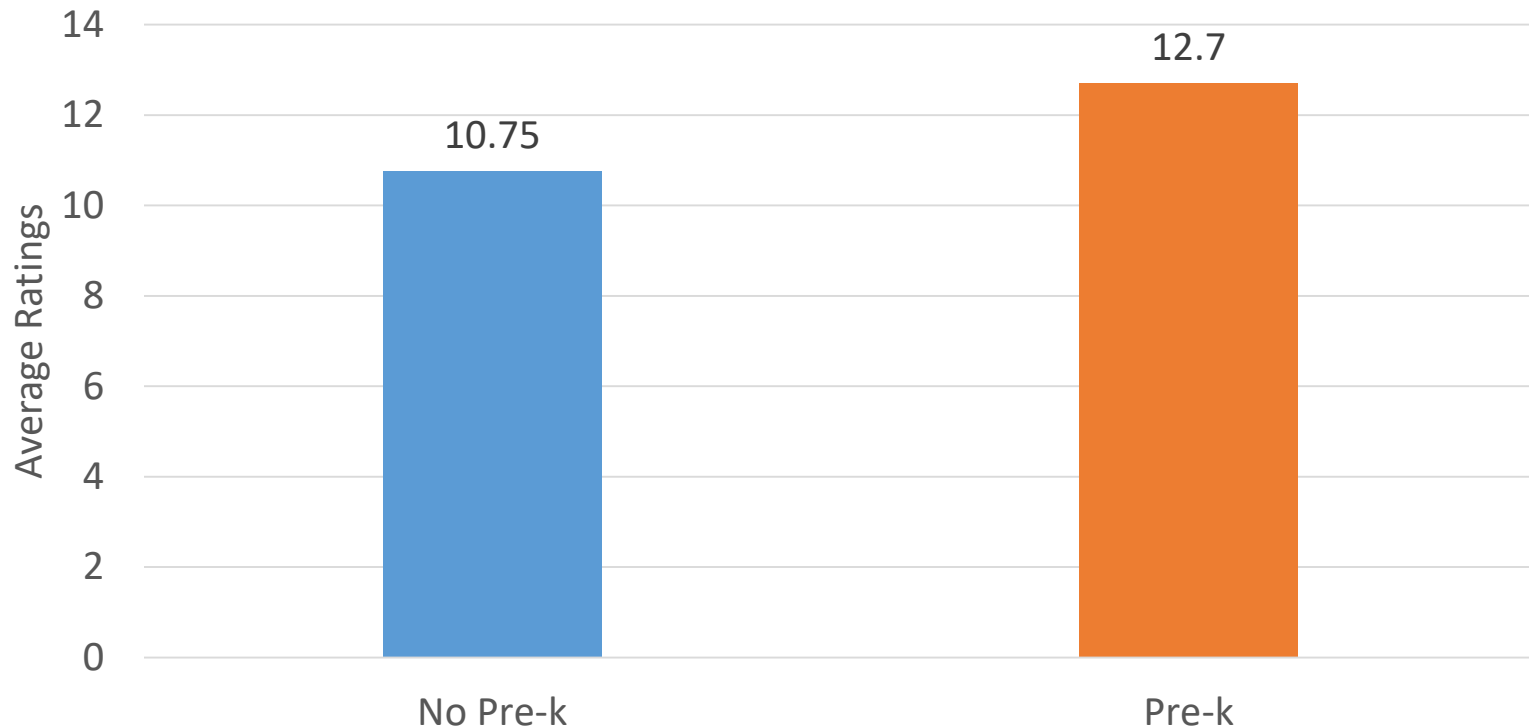 - Only exposed to social-emotional content 4% of the morning

Are Goals Aligned with Child Outcomes?

- Children assessed in fall of K

- *Woodcock-Johnson III Tests of Achievement* - Early Reading Skills, Mathematics (WJ-III; Woodcock, McGrew, & Mather, 2001)

- Executive Function
  - *Backward Digit Span* (Carlson,2005)
  - *Head, Toes, Knees, Shoulders* (McClelland et al., 2007)
  - *Pencil Tap* (Smith-Donald, Raver, Hayes, & Richardson, 2007)

- Social Skills and Conduct Problems – *Teacher Child Rating Scale* (Hightower et al., 1986)

- Regression models tested for significant differences at kindergarten entry between FP3 students who attended pre-k and those who did not

Academic Skills – Early Reading Skills

Bar chart comparing Average Ratings. No Pre-k: 10.36; Pre-k: 12.32.

Note: Signficant mean difference; PreK students score higher

FP3 FAIRFAX PREK TO 3RD GRADE
Pathways to early school success
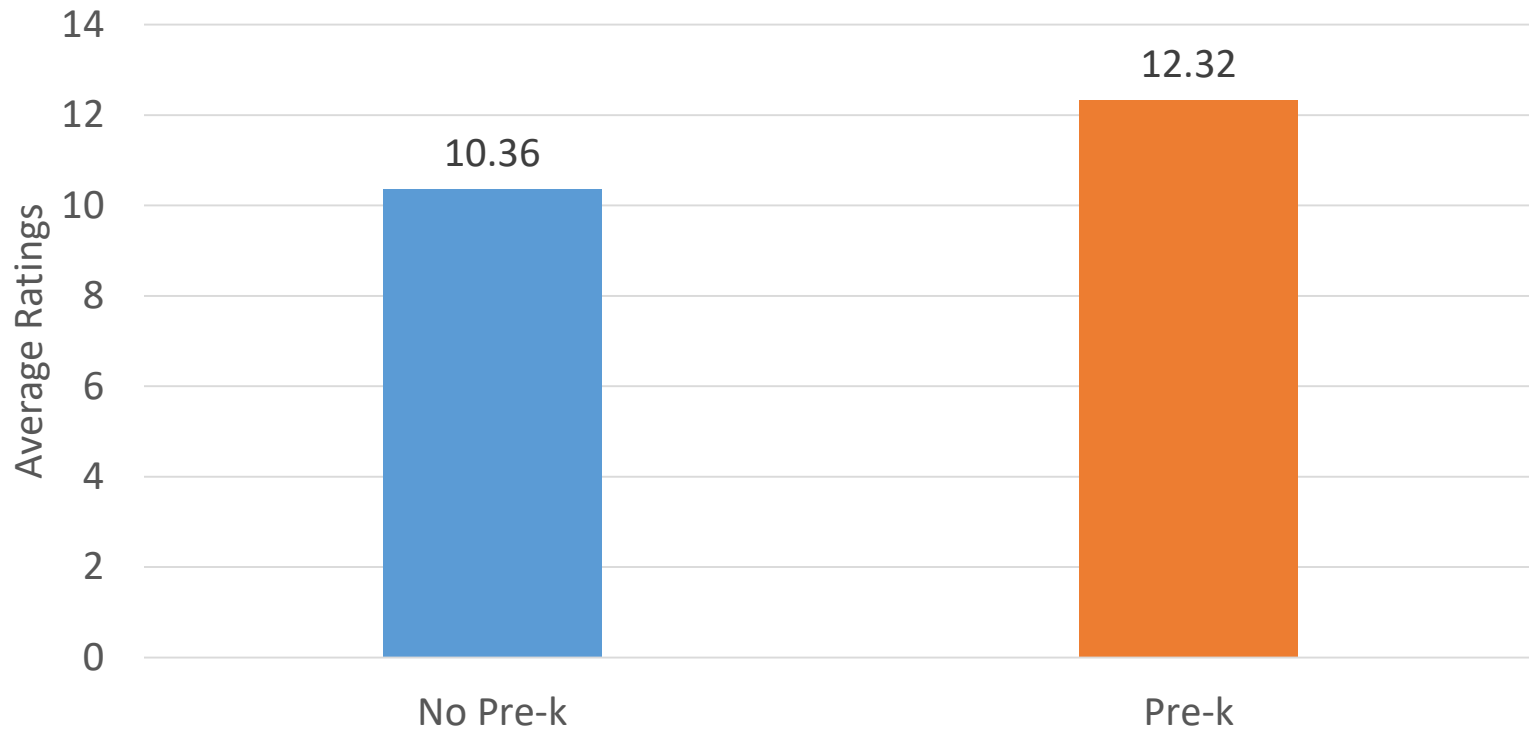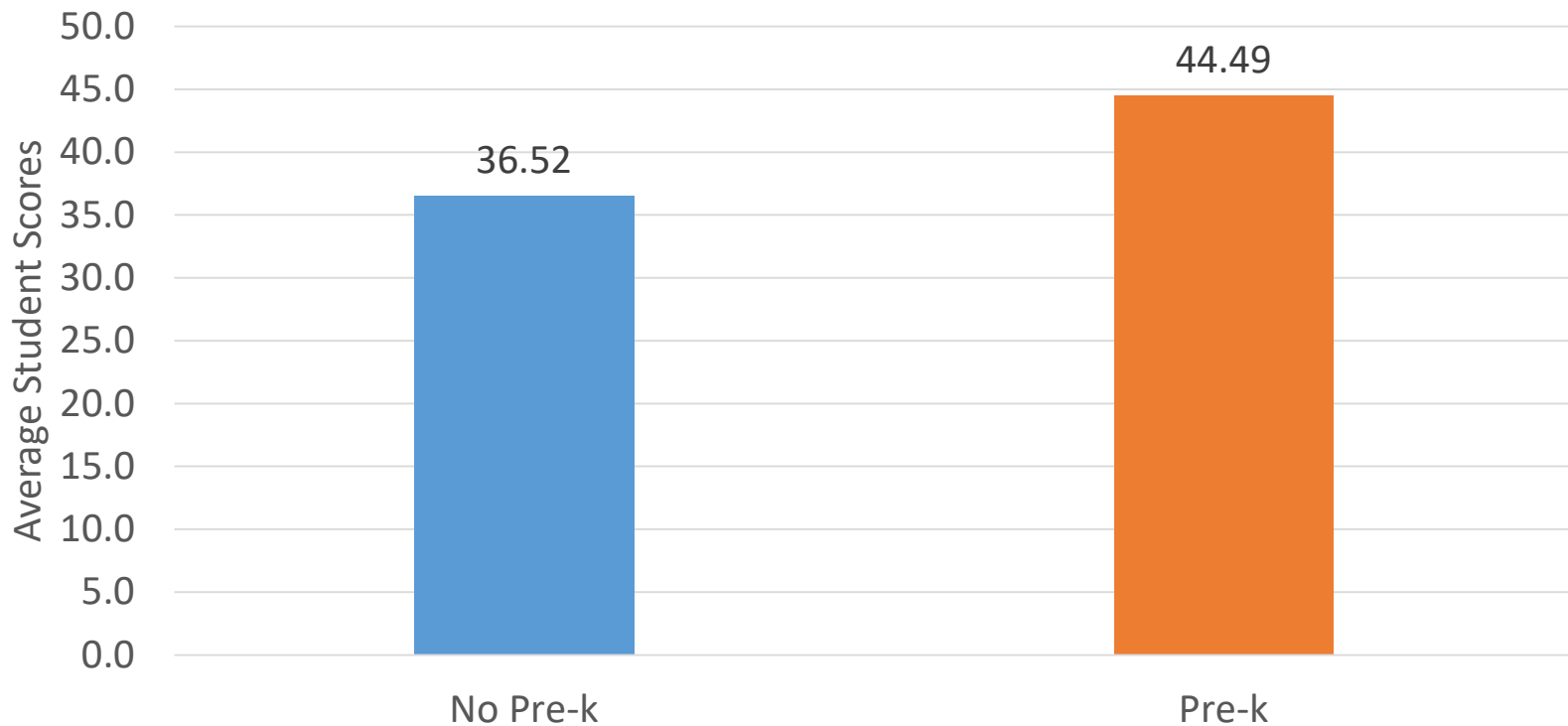
Academic Skills – Mathematics Reasoning

Note: Signficant mean difference; PreK students score higher

Executive Function – Backward Digit Span
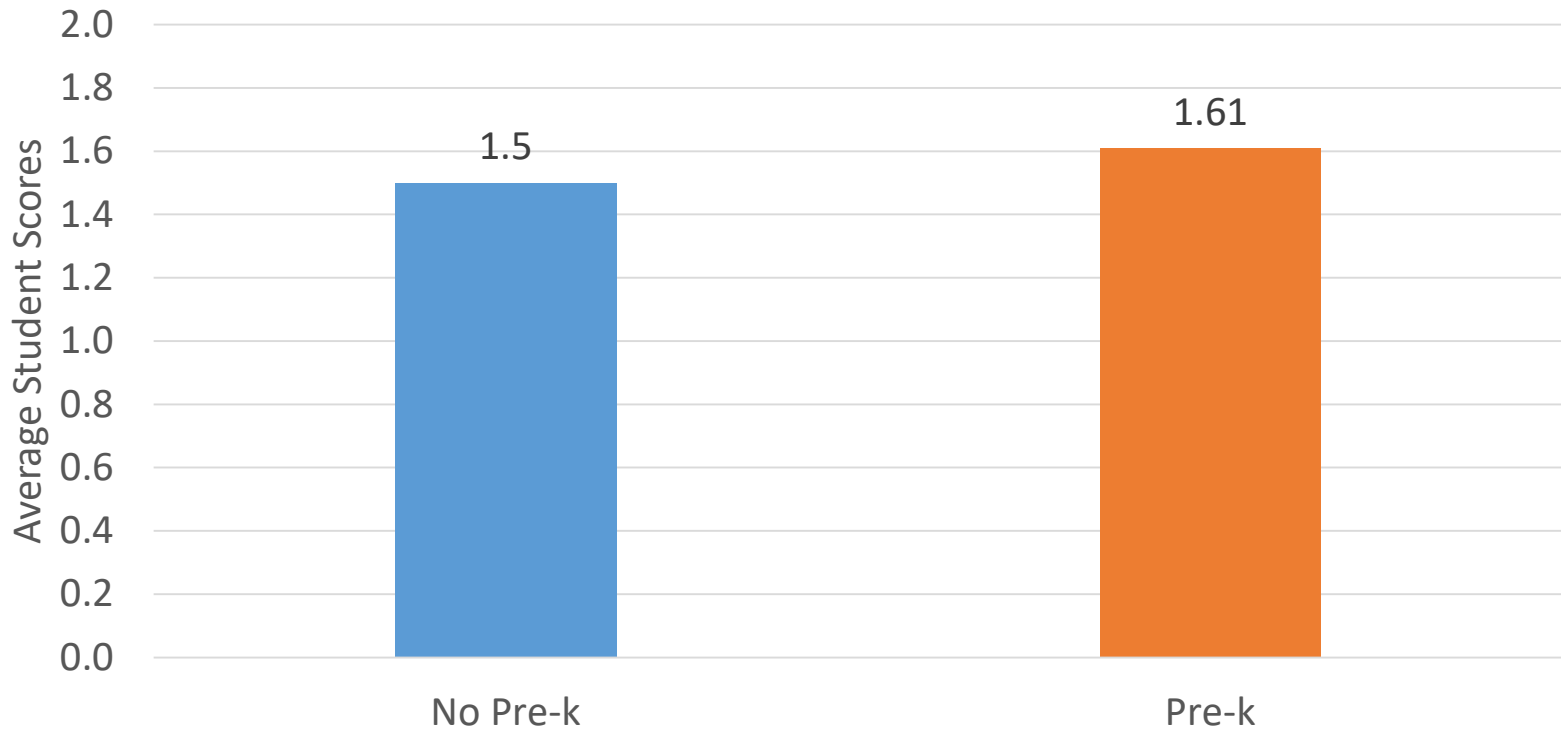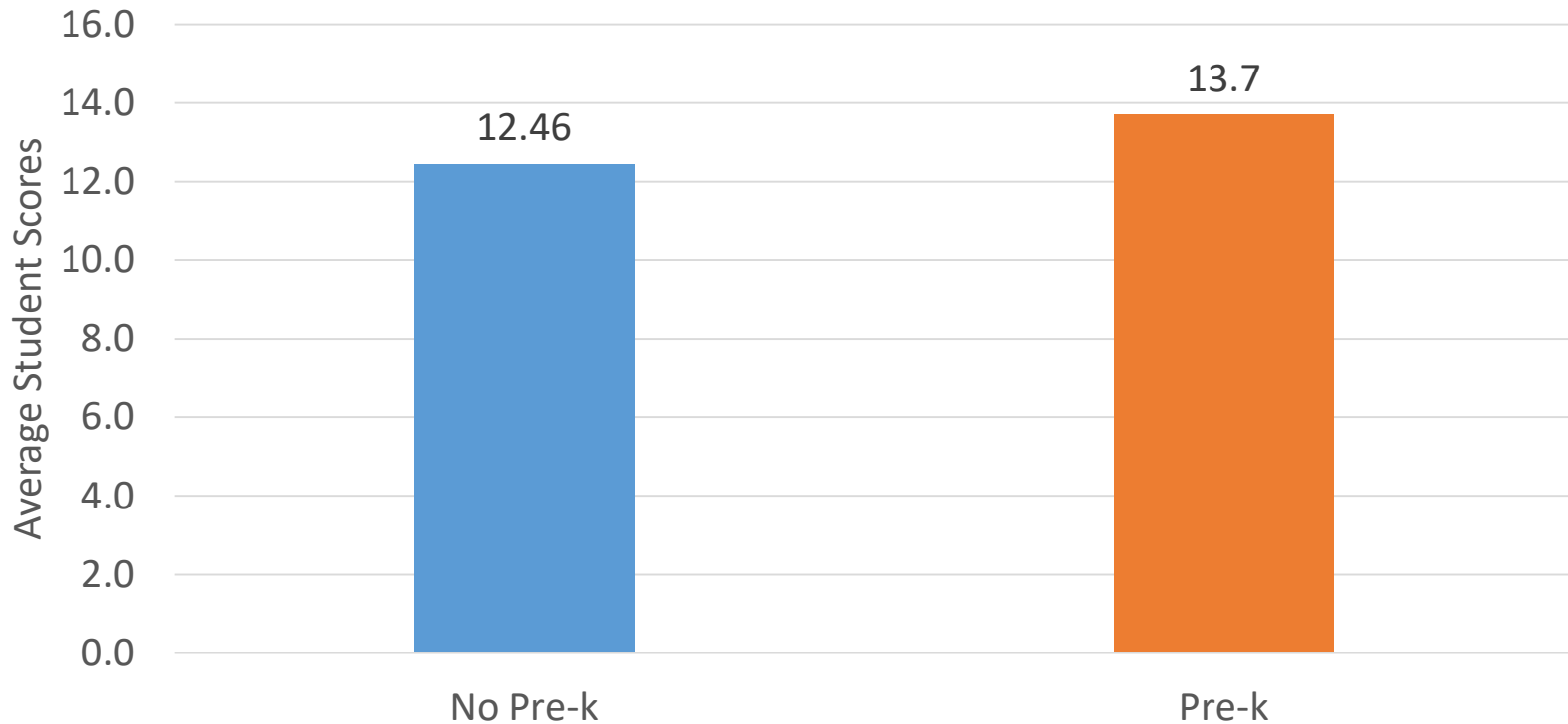

Note: Signficant mean difference; PreK students score higher
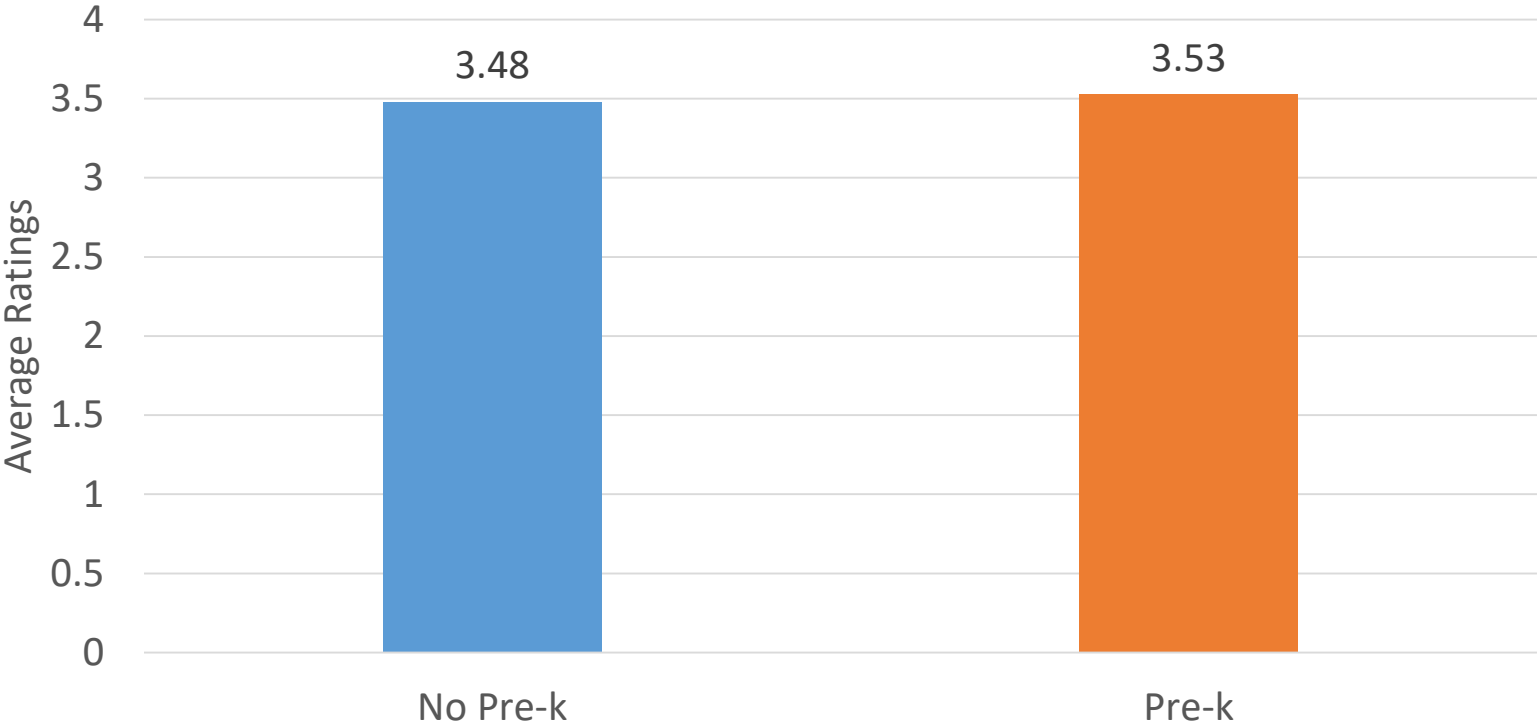
Executive Function – Head, Toes, Knees, Shoulders

Note: Signficant mean difference; PreK students score higher

Executive Function –Pencil Tap

Note: Signficant mean difference; PreK students score higher

Social-Emotional Skills

Note: Non-signficant mean difference

Are School Readiness Goals Aligned with Child Outcomes?

- To some extent. . .
  - Children with pre-k experience show significantly greater academic and EF skills at kindergarten entry, as compared with those who did not attend pre-k
  - Consistent with large-scale national studies, pre-k did *not* result in benefits for children's social-emotional skills

Discussion

- Goal of preparing students to be academically ready for kindergarten supported both in teachers' pre-k instruction and evidenced in academic readiness of children with pre-k experience

- Preparing students to be socially and emotionally ready for kindergarten one of highest priorities for school readiness goals, but not reflected in pre-k classroom practice and children's entering skills at kindergarten

FP3
FAIRFAX PREK TO 3RD GRADE
Pathways to early school success

Next Steps

- Examine whether patterns of findings in classroom process and child outcomes continue as we collect data in grades 1 – 3
  - Are positive effects of pre-k on academic outcomes maintained, or do our findings replicate national studies that find "fade out" effects?

- Continue to examine alignment between district policies and practice (transitions, data use, support for diverse families)

Acknowledgements

- FCPS and OFC
- UVA
  - Brittany Kerr
  - Marianna Lyulchenko
  - Laura Helferstay
  - Jamie DeCoster
  - Tara Hofkens

And, the program directors, classroom teachers, parents, and children who through their participation make this study possible.

FP3
FAIRFAX PREK TO 3RD GRADE
Pathways to early school success
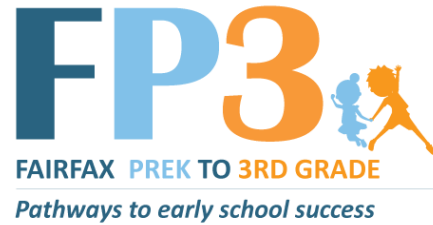
Thank You

jwhittaker@virginia.edu