

# Early Childhood Education: What Works and What Doesn't

Greg J. Duncan

University of California, Irvine

# What problems do we want preschool programs trying to address?

- Some would say
  - school readiness gaps
- Others would say
  - lifetime disadvantage

# Have I got some programs for you!

- Short run:

Boston pre-K eliminates short-run achievement gaps between low- and middle-income children

- Long-run:

Perry Preschool, Abecedarian and Head Start have generated large long-run benefits

# Outline for talk

- Short run:

Best bets for policies that promote school readiness

*For short-run impacts, worry about curriculum and less about classroom structure*

*Go for a play-based academically-oriented curriculum that also develops socioemotional skills.*

# Outline for talk

- Longer-run:

Can today's programs repeat the long-run successes of past programs?

*Not by themselves.*

*For longer-run impacts, scale up pre-K and integrate it with K-12 so that it becomes another (quite differently structured) year of school.*

# Policy Levers for School Readiness

- Process quality regulation (e.g., QRIS)
- Curriculum requirements and coaching

# Process Regulation Policy Lever

- Star-type ratings for quality based on structural characteristics and classroom observations (ECRS, CLASS)
- No strong evidence that process quality improves school readiness substantially

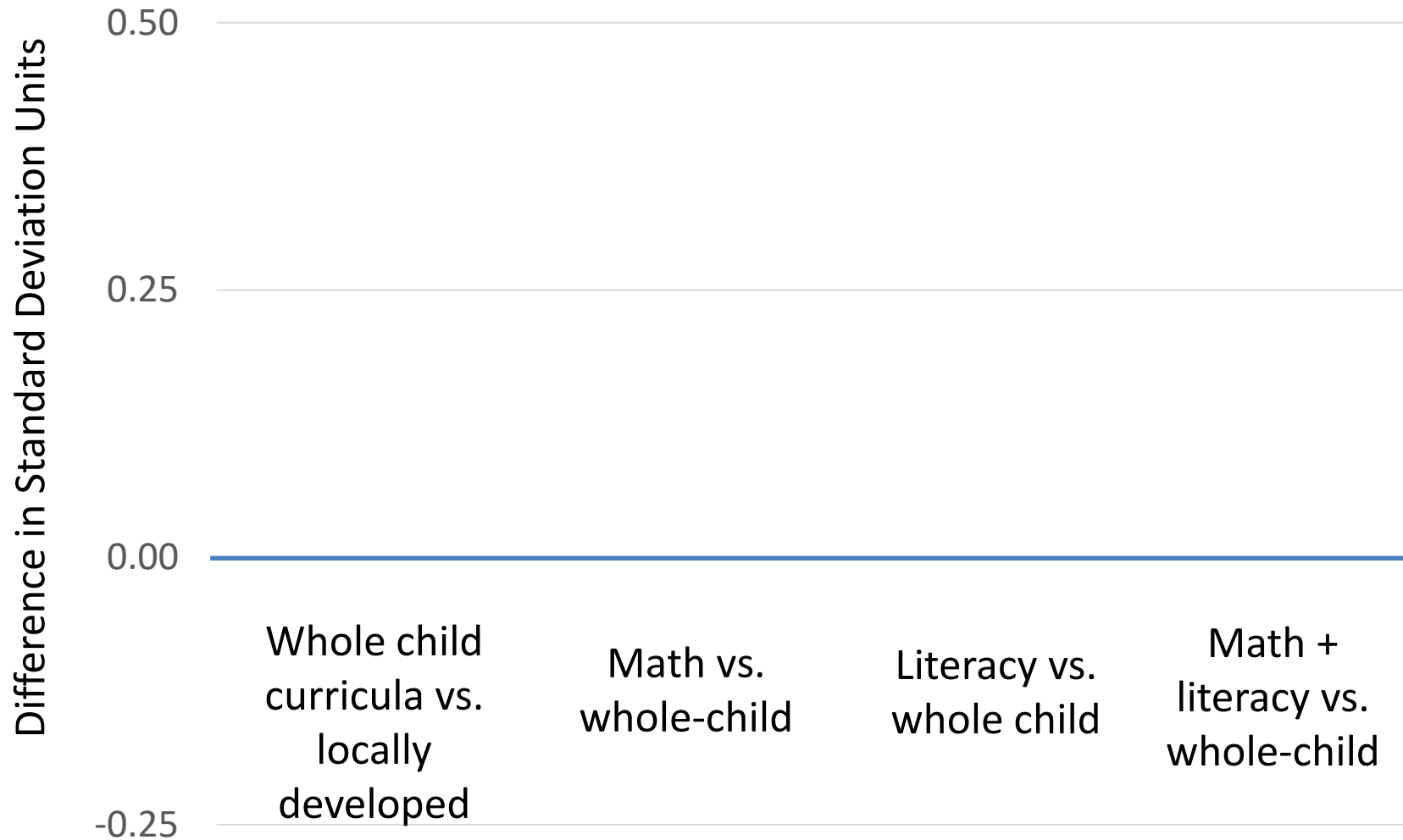
# Curriculum Policy Lever

## Types of curricula

- **Whole-child** (used in 75% of Head Start and 40% of pre-K classrooms; called “Constructivist” by some)
- **Content-specific (e.g., math or literacy)** (used in ~20% of Head Start and pre-K classrooms; not “Direct Instruction”)
- **Locally-developed**

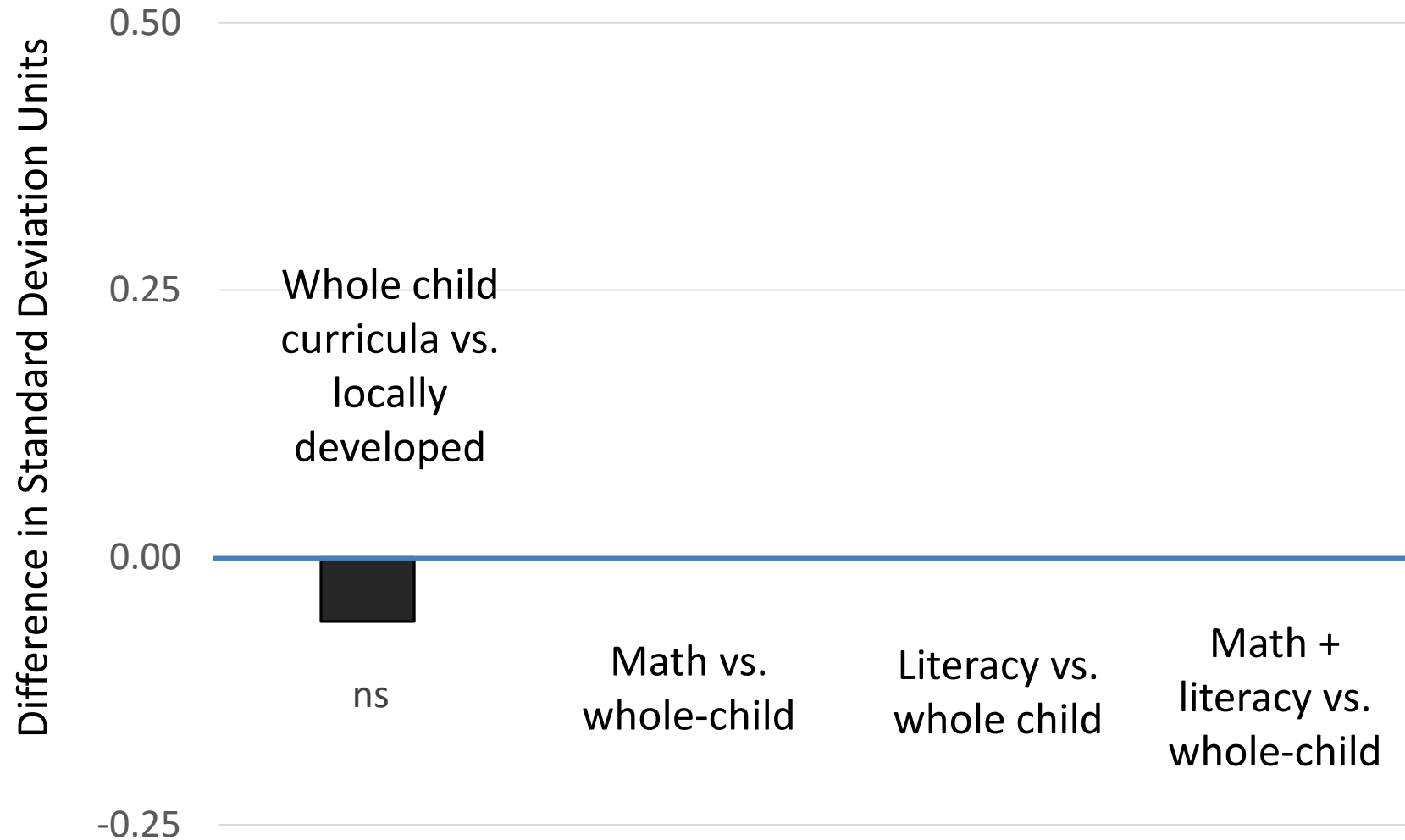


# Impacts of Various Curricula on Academic Outcomes



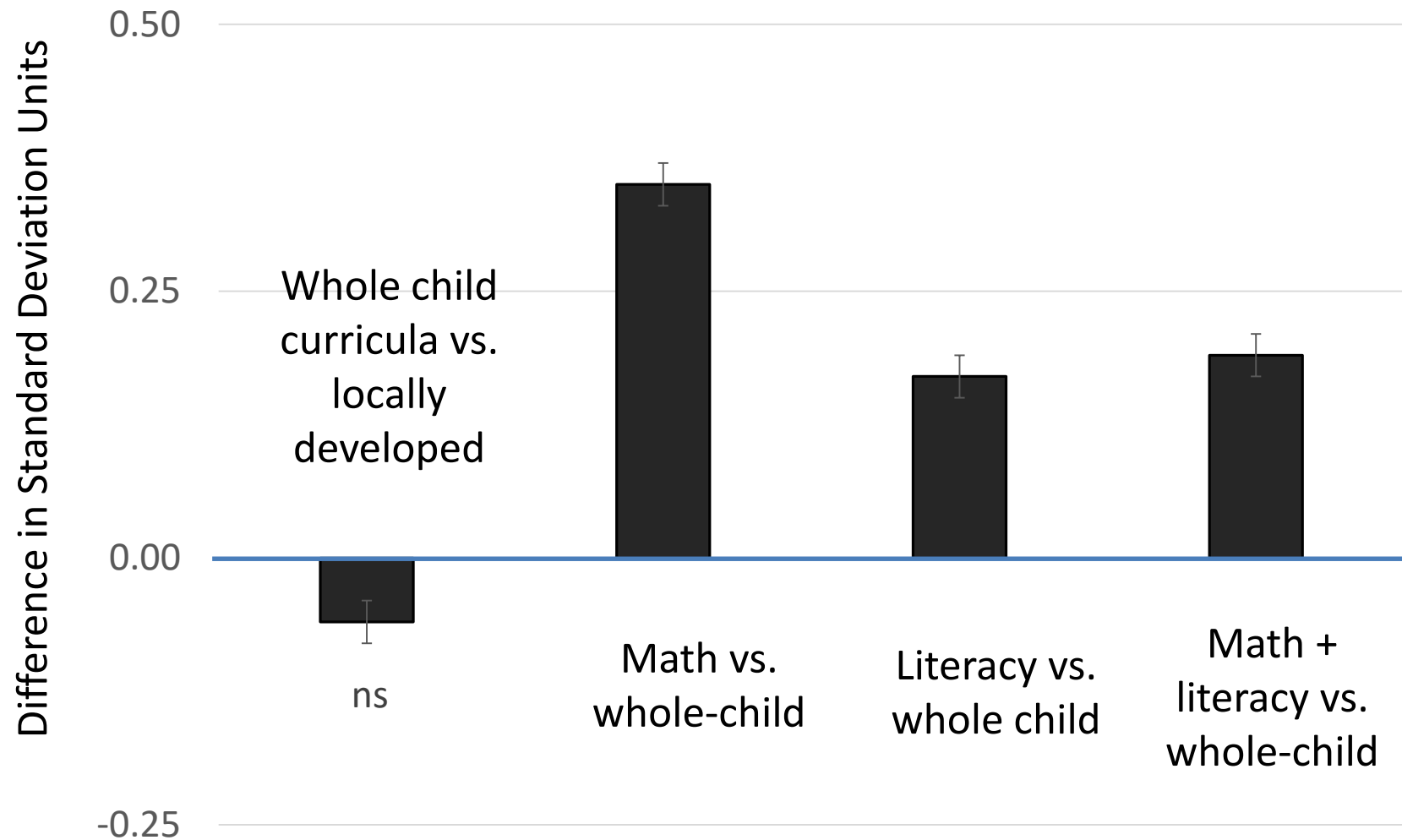
Source: Nguyen's (2016)

# Impacts of Various Curricula on Academic Outcomes



Source: Nguyen's (2016)

# Impacts of Various Curricula on Academic Outcomes



Source: Nguyen's (2016)

- Short run:

Best bets for policies that promote school readiness

*For short-run impacts, worry about curriculum and less about classroom structure*

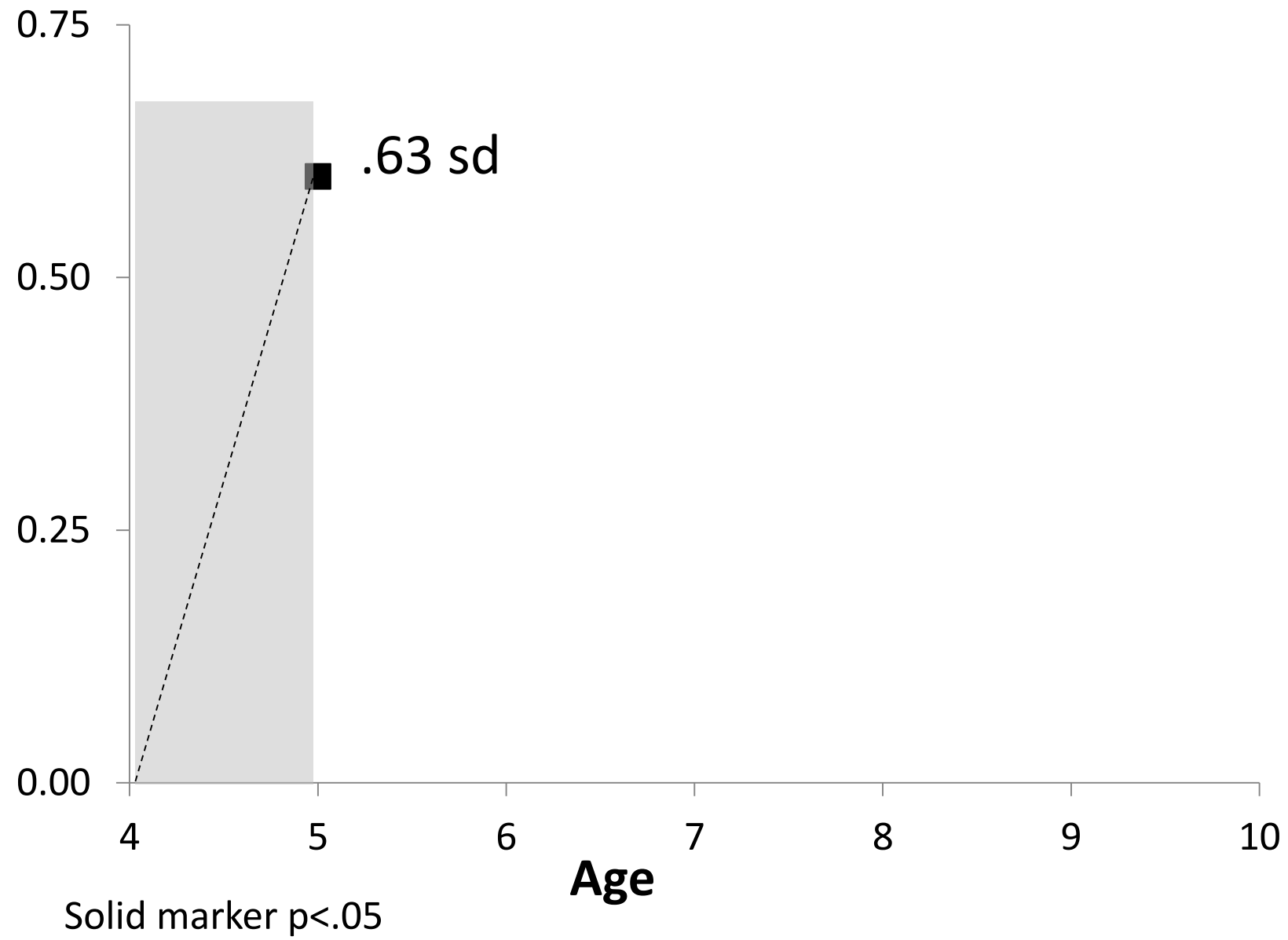
*Go for a play-based academically-oriented curriculum that also develops socioemotional skills.*

Short- vs. Long-run Effectiveness:

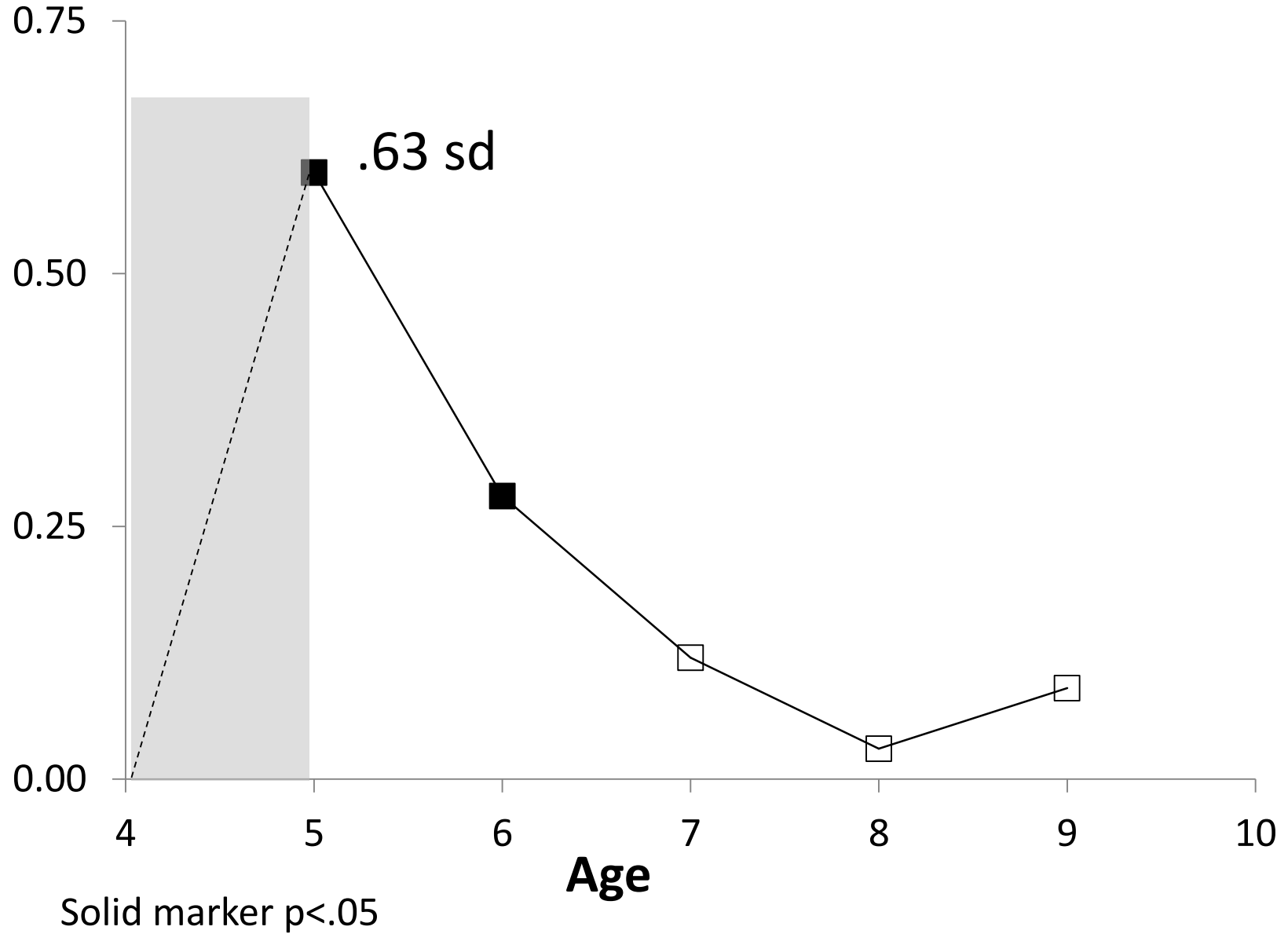
Can today's programs produce  
long-run gains???

Probably not without close  
coordination with K-12 schooling

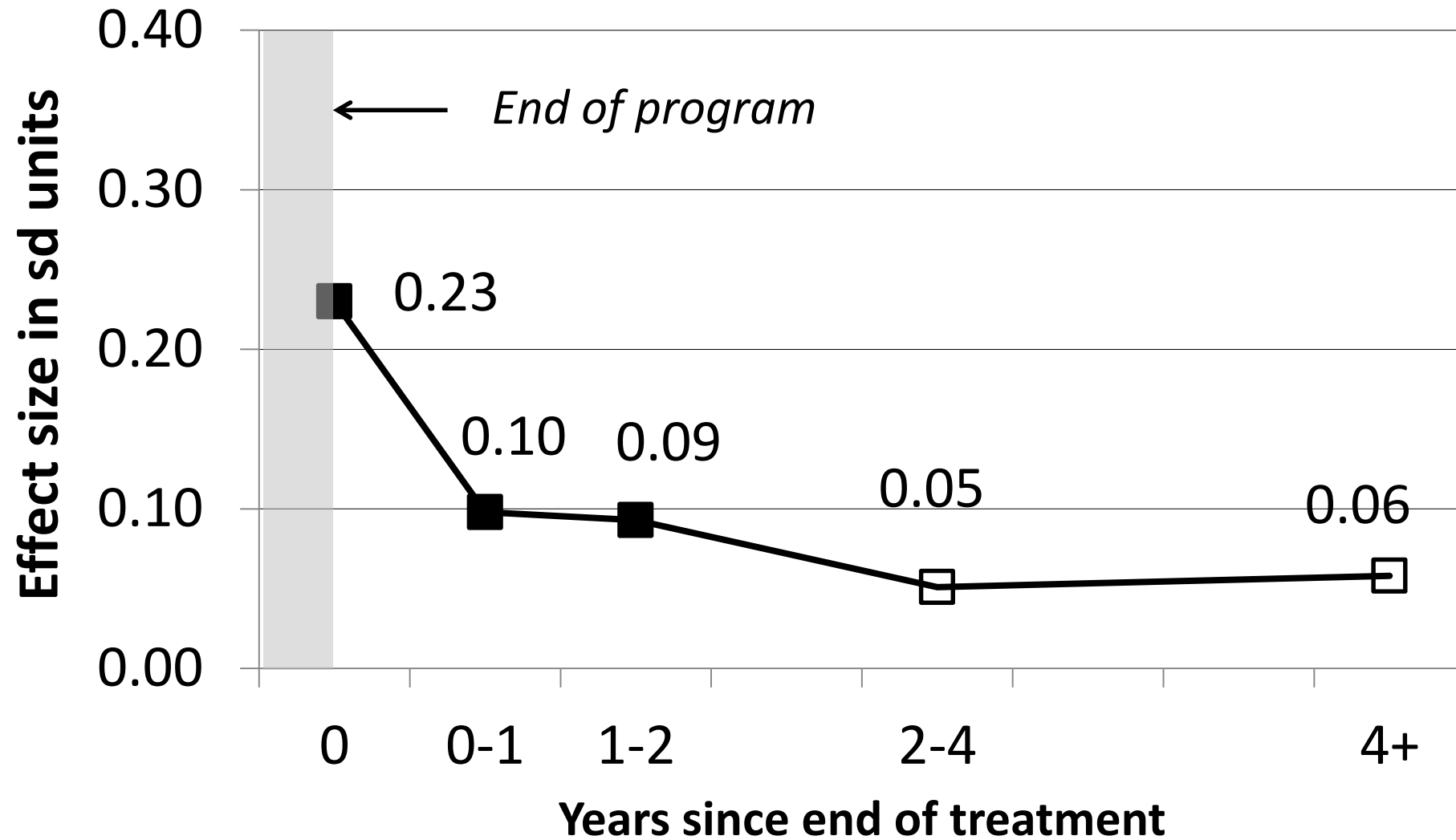
# Building Blocks Math Impacts



# Building Blocks Math Impacts



# Fade out in cognitive impacts in 67 ECE studies



Solid marker denotes  $p < .05$ . Source: Li et al. (2017)



# Huge disappointment

## Why the fadeout/catch-up?

- Academic skills taught in pre-K are quickly learned in K
- Need to teach basic skills AND be a “charging station” for pre-K skills
- Need curriculum alignment and coaching how to teach children with different math skills

# Non-solutions:

- Turn preschool into a stressful, worksheet-laden, regimented mini-elementary school

# Possible ways of sustaining pre-K impacts:

- Train preschool and early-grade teachers to teach numeracy and literacy
- Use proven play-based pre-K curricula
- Integrate and (co-locate?) preschool and K-3 instruction
- Focus on Common Core-type learning goals and use preschool to prepare children for them

Greg J. Duncan

gduncan@uci.edu

School of Education  
University of California, Irvine