Read to Lead Development Council: Supporting Early Literacy

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UNIVERSITY OF
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WILSON SHEEHAN
LAB FOR ECONOMIC
OPPORTUNITIES

About LEO and our projects

Early childhood and parenting

Evaluation discussion

Vision for LEO

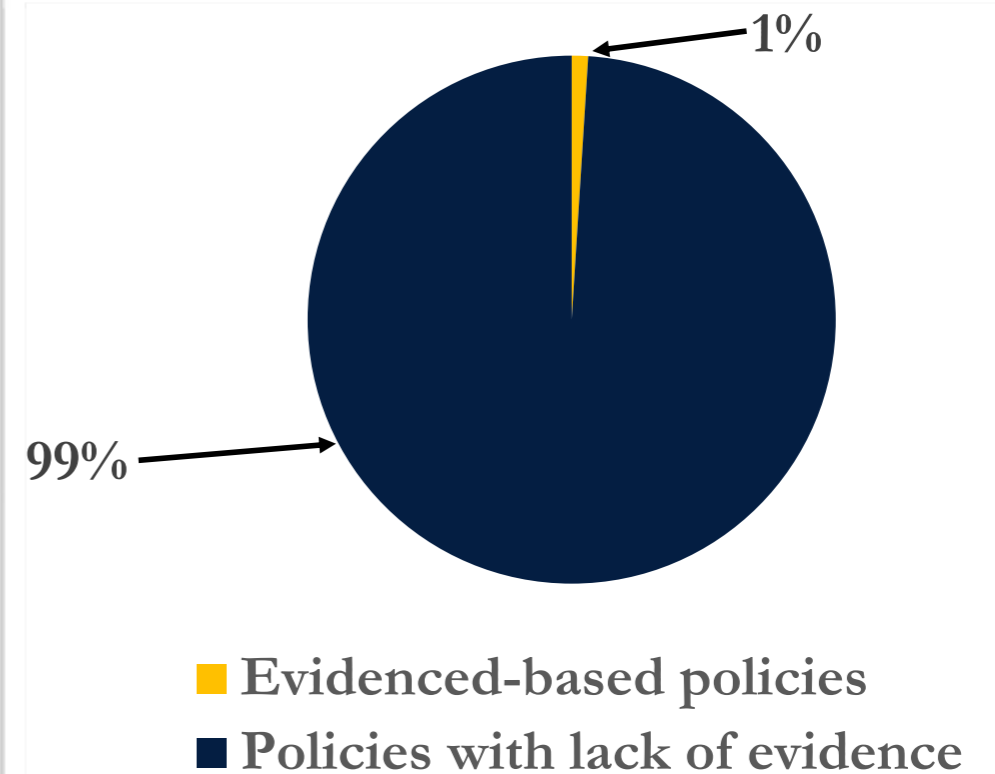*Reduce poverty and improve lives through evidence-based programs and policies*

What We Do

* **Partner** with social services agencies

* Conduct academic-quality **evaluations**

* **Inform** policymakers and service providers

1 in 5 children in poverty

$800 billion

1%

99%

■ Evidenced-based policies
■ Policies with lack of evidence

What We've Learned

Poverty is complicated, multi-dimensional, and persistent

There is growing recognition that addressing *immediate needs* does not promote self-sufficiency

There is a shift towards comprehensive approaches:

  Improve decision-making

  Strengthen self-sufficiency

Intervention early in life has the potential to give people the assets to never be in poverty

Why Early Childhood?

Motivation

✤ Early emergence and persistence of achievement gaps

  ✤ Average cognitive score of children in highest SES group is 60% higher than average score of lowest SES group prior to kindergarten entry (Lee & Burkam 2002)

✤ Importance of early skill development for subsequent skills, educational attainment, and labor market success (Currie 2001, Chetty et al. 2011, Duncan et al. 2007, Heckman 2000, Carneiro & Heckman 2003)

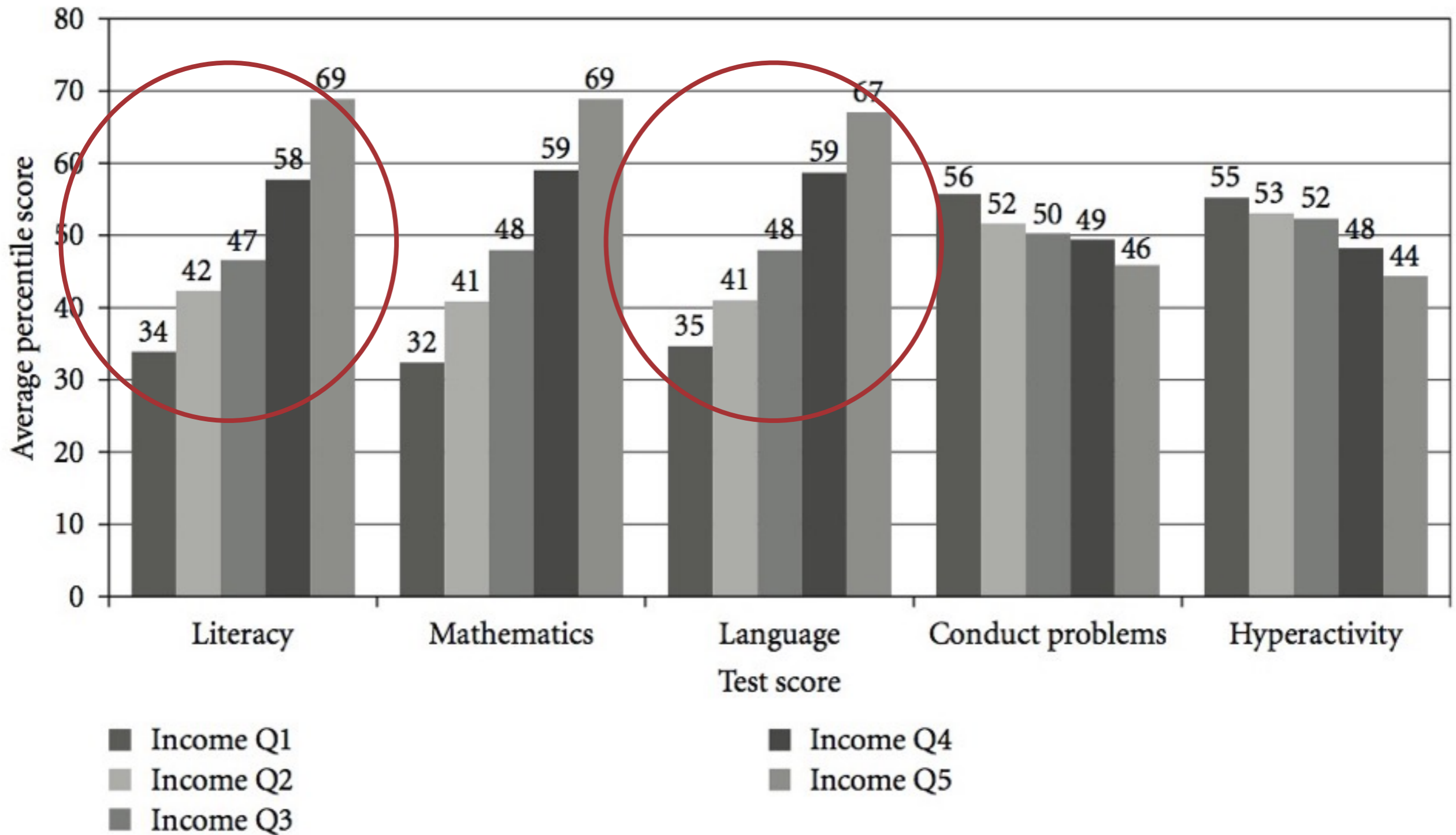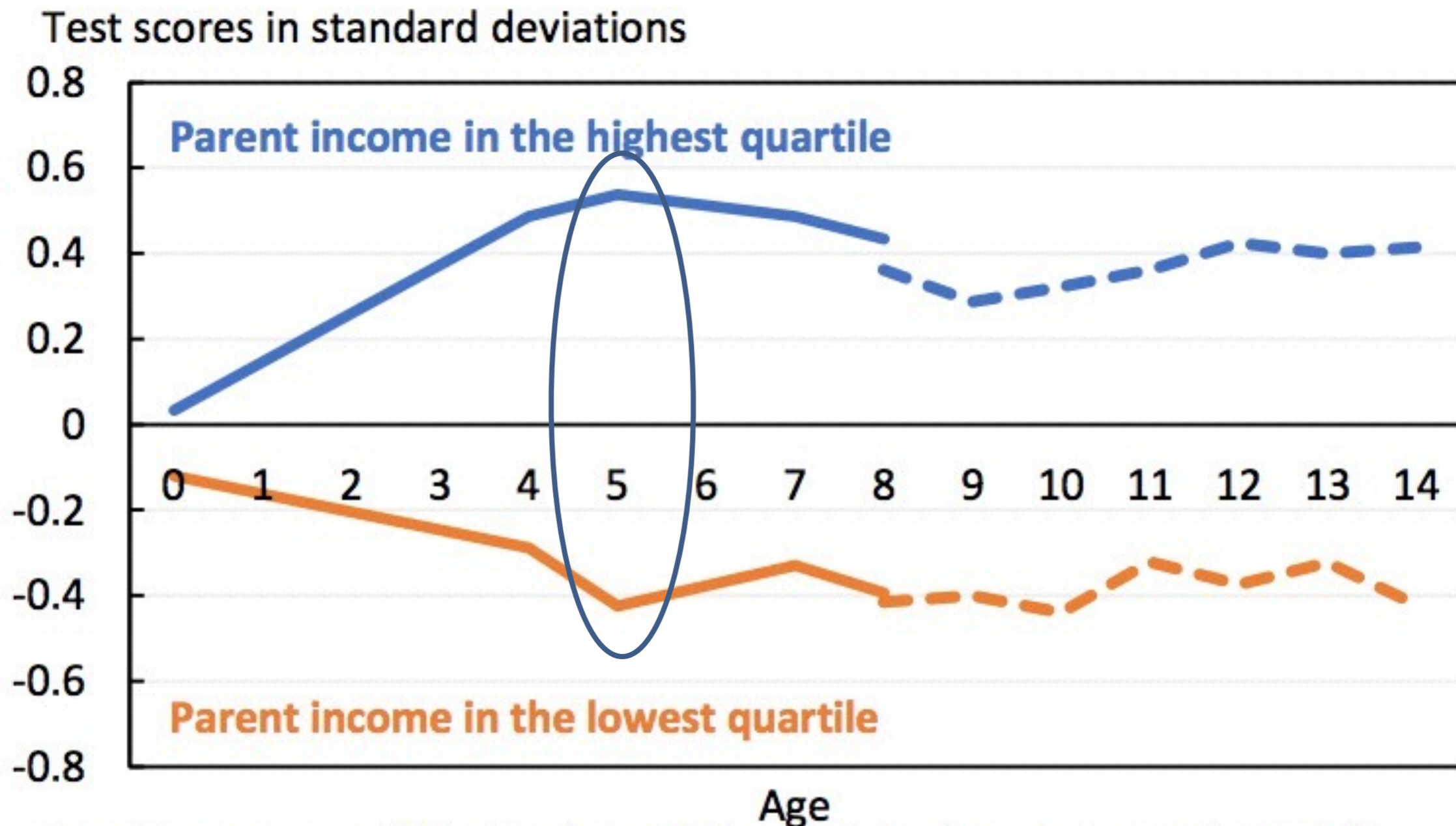✤ Declining developmental plasticity (Knudsen et al. 2006, Shonkoff & Phillips 2000)

FIGURE 1: Mean school readiness scores in the ECLS-B (US) cohort at age 4, by income quintile ($N = 7950$).

Test scores in standard deviations

Note: IQ scores are available through age 8. After age 8, math test scores are shown. A three year moving average is used for math scores.
Sources: 2013 U.S. Collaborative Perinatal Project (solid lines); NLSY79 Child and Young Adult Supplement (dashed lines).

*Source*: Council of Economic Advisers (2014)

Socioeconomic Gaps

* Two key points:

    * Gaps are present in early childhood — at school entry — suggesting the importance of early investments, home environment, and parenting

    * Schooling is not closing gaps (though we do not know what gaps would look like otherwise)
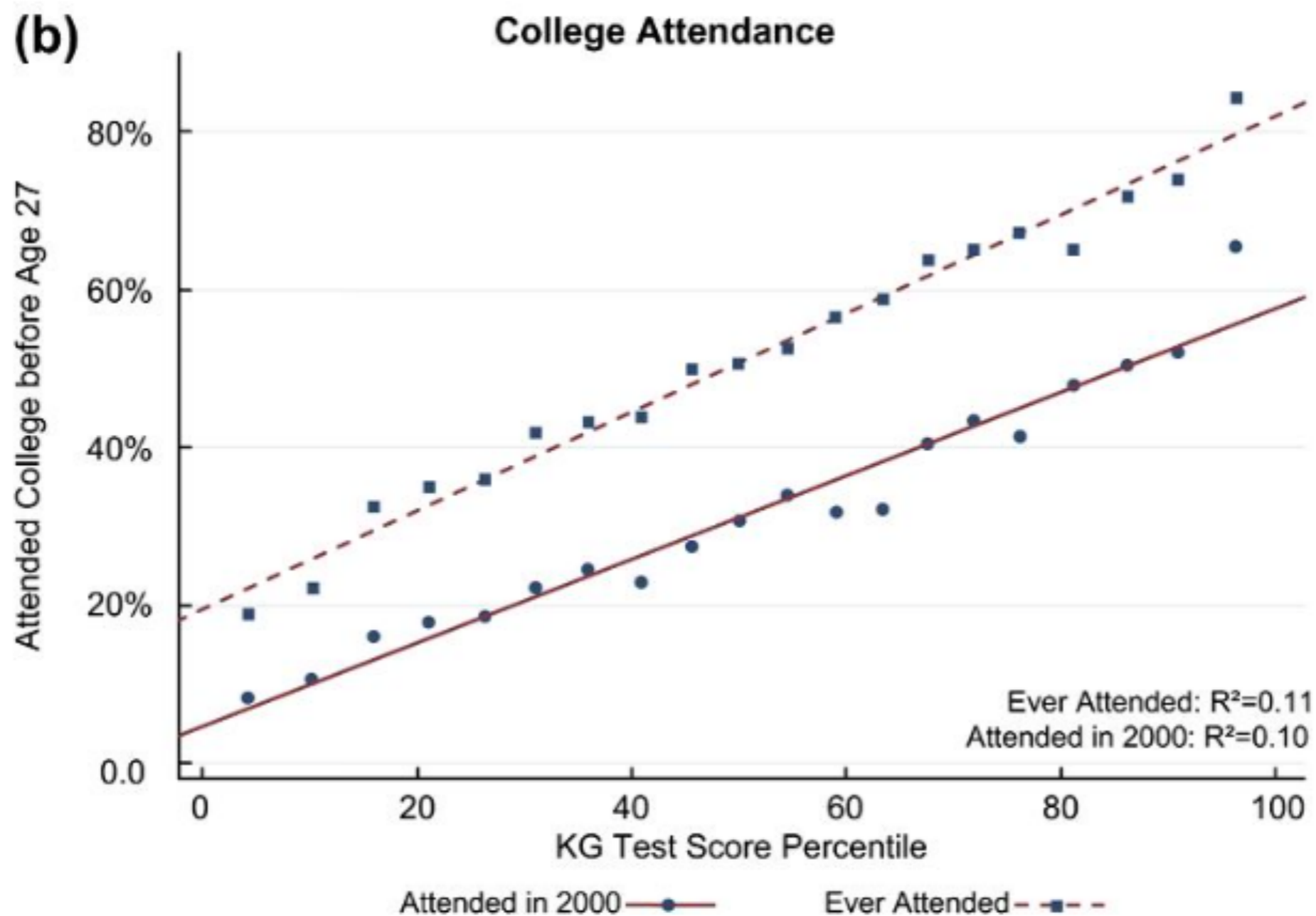
—> Early childhood as a critical period for intervention

K Test Scores and Earnings

(a) Wage Earnings

Mean Wage Earnings from Age 25-27 vs KG Test Score Percentile. $R^2=0.05$
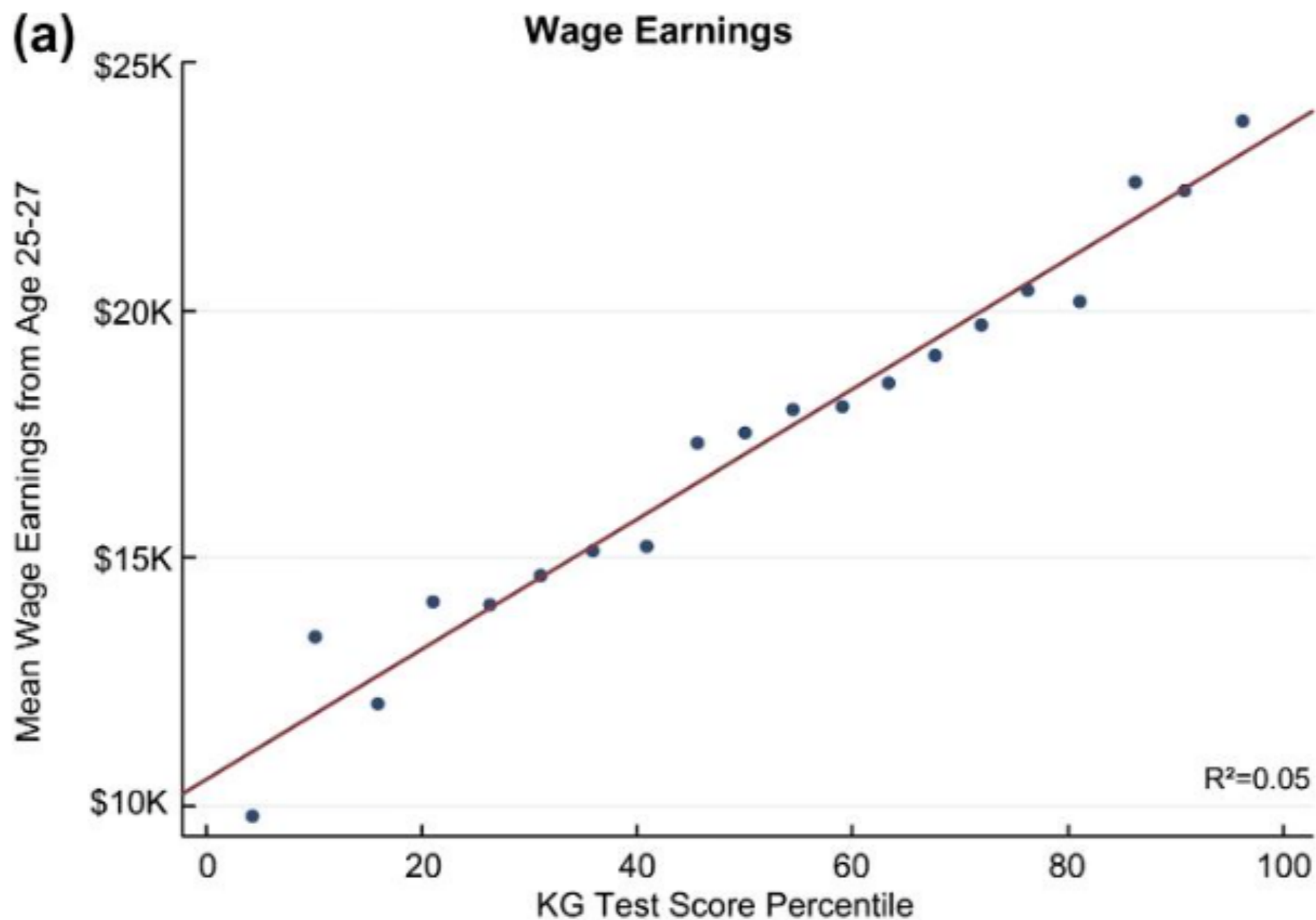
K Test Scores and College

Source: Chetty et al. (2011)

Motivation

✤ Evidence of long-term effects for participants in early childhood programming

    ✤ Perry Preschool (Heckman et al. 2010, Heckman et al. 2013, Schweinhart et al. 2005) and the Abecedarian Project (Campbell et al. 2014)

    ✤ Project STAR (Chetty et al. 2011, Dynarski et al. 2013)

    ✤ Head Start (Carneiro & Ginja 2014, Deming 2009, Garces, Currie & Thomas 2002, Johnson & Jackson 2017, Ludwig & Miller 2007, Thompson 2017)
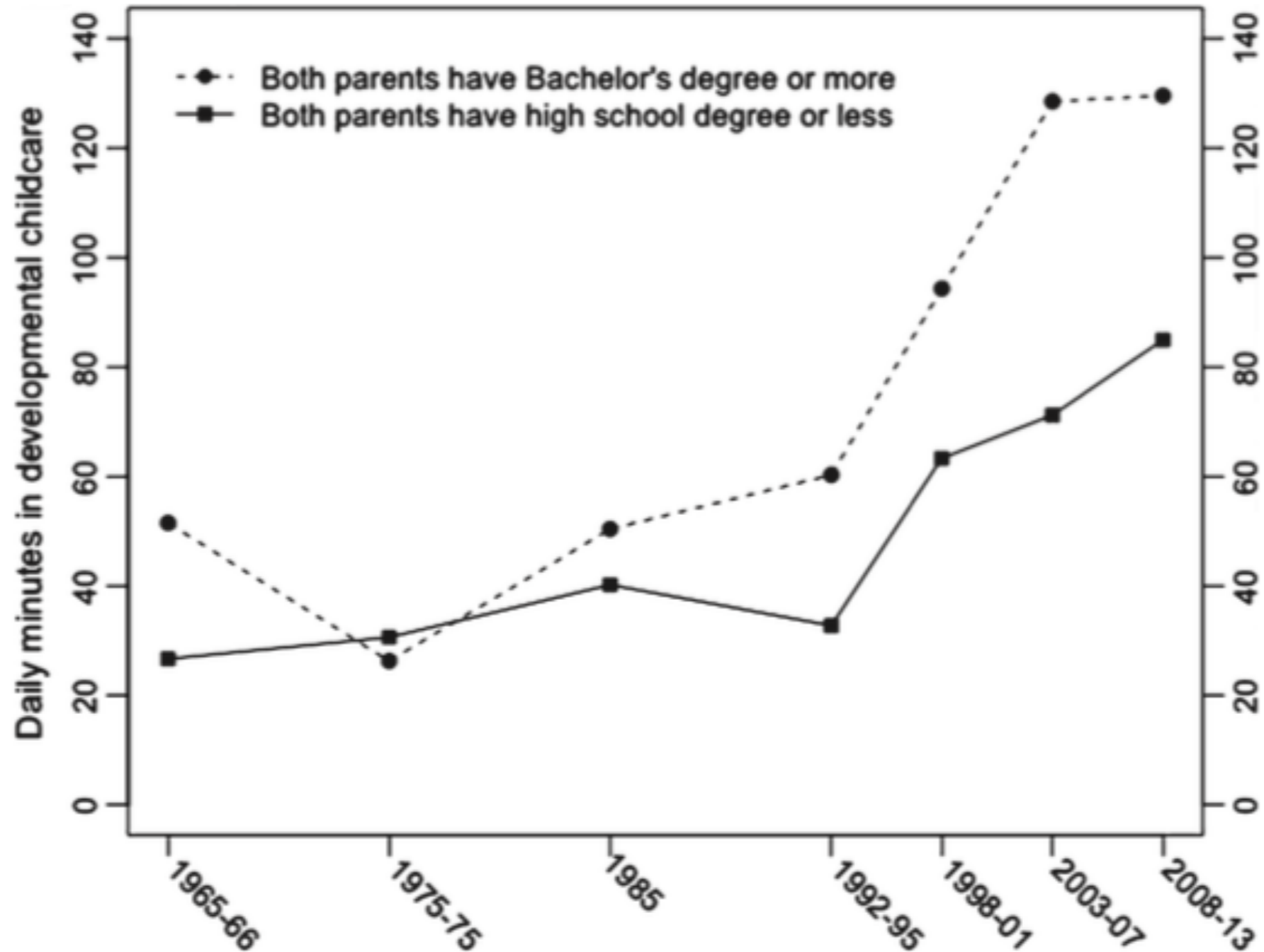
The Word Gap

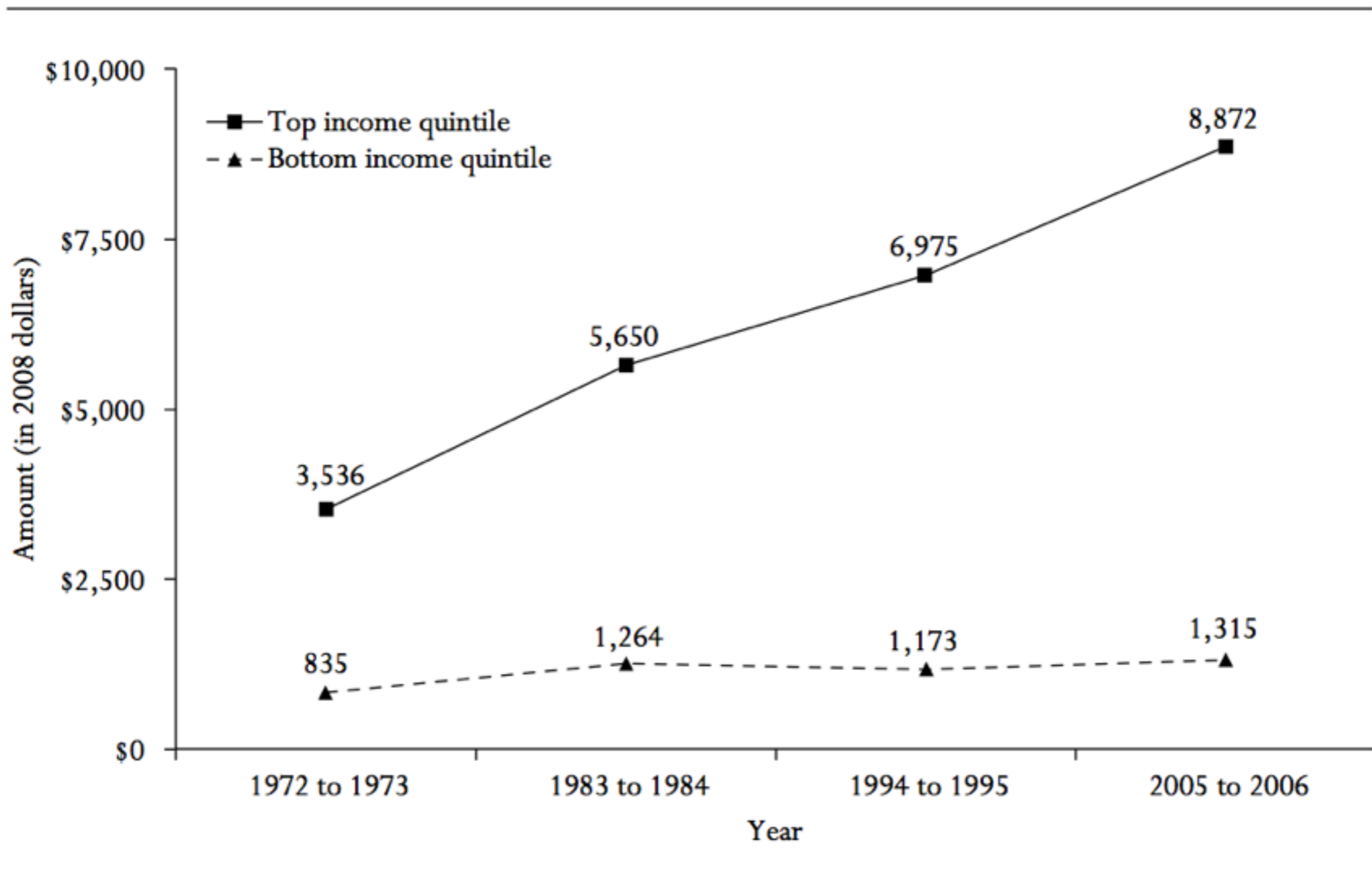Early Childhood Word Exposure (Hart & Risley 1995)
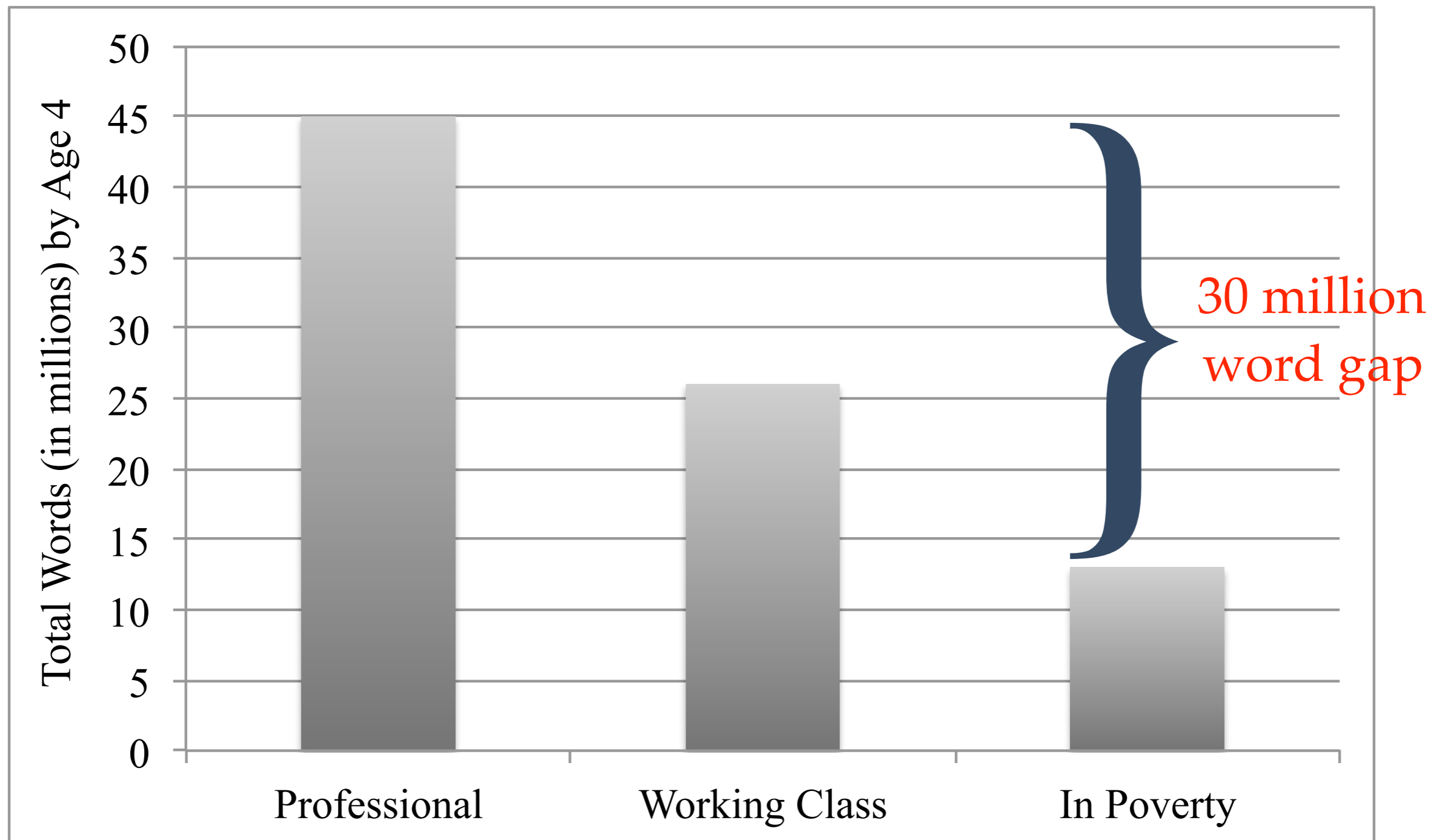
The Parenting Gap

Time Spent on Developmental Childcare (Altintas 2016)

The Parenting Gap

Enrichment Expenditures (Duncan & Murnane 2011)

Outside of the Classroom

Parent Engagement and Education

Jump-starting Early Childhood Education at Home: Early Learning, Parent Motivation & Public Policy

Maloney et al. (2015)

✤ ***Awareness into action***: Parent–child interactions are critical in the early childhood years, but parents may not be aware of the many simple opportunities they have for educational interaction.

✤ ***Motivational sinkholes***: Parents want to do what is best for their children, but follow-through can be undermined by a lack of self-efficacy, failure to make specific plans, or insufficient feedback.

  ✤ The efficacy sinkhole: low efficacy limits goal-setting

  ✤ The planning sinkhole: missed opportunities for interaction

  ✤ The feedback sinkhole: lack of connection between efforts and outcomes

Thirty Million Words (TMW)

Suskind et al. (2013)

✤ Motivation: Children's early language environments are unequal and those differences may be key to the early emergence of the achievement gap.

✤ Question: Can a behavior-change intervention promote parent-child interactions and enrich a child's early language environment?

✤ Intervention: Language ENvironment Analysis (LENA) technology (language pedometers) plus a one-time educational curriculum provided in the home about:

  1) enriching a child's home language environment,

  2) interpreting feedback from baseline recordings of adult word count and conversational turn count, and

  3) setting language goals.

✤ Design: Baseline and post-intervention measures were obtained from non-parental caregivers of 10 to 40 month old children (n=17 families)
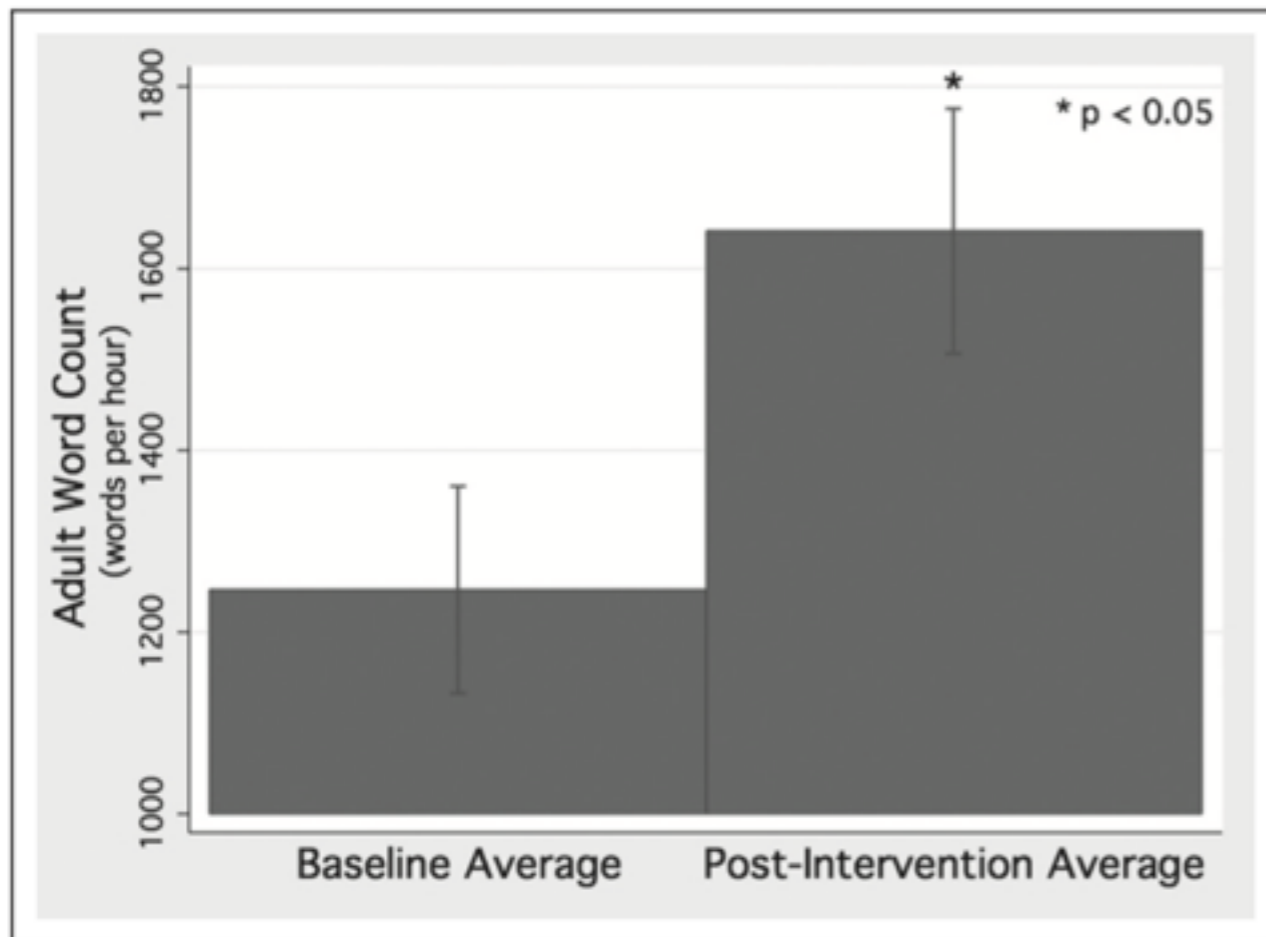
Thirty Million Words (TMW)

Suskind et al. (2013)

Figure 1. Adult word count baseline and postintervention averages in words per hour.
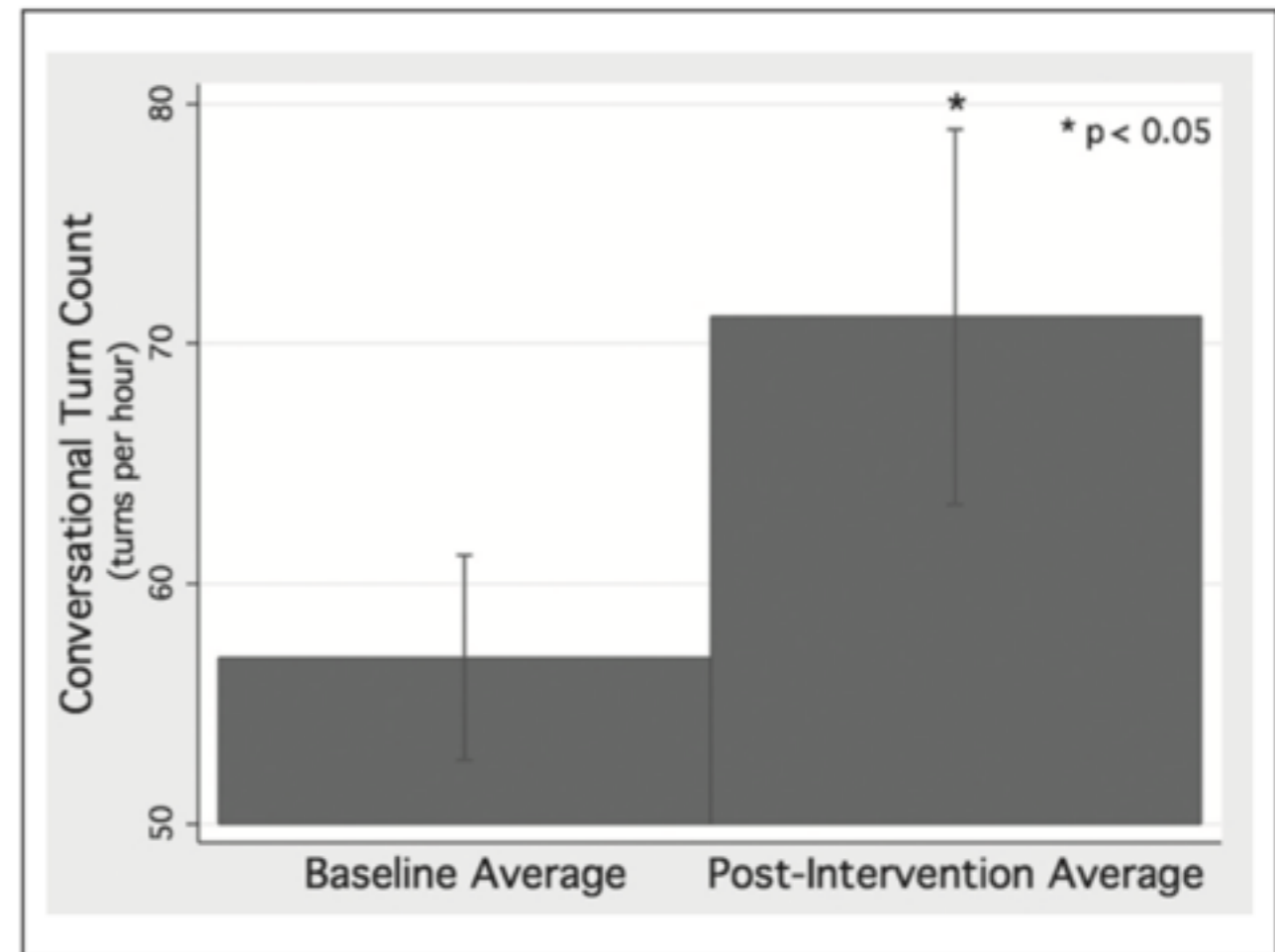
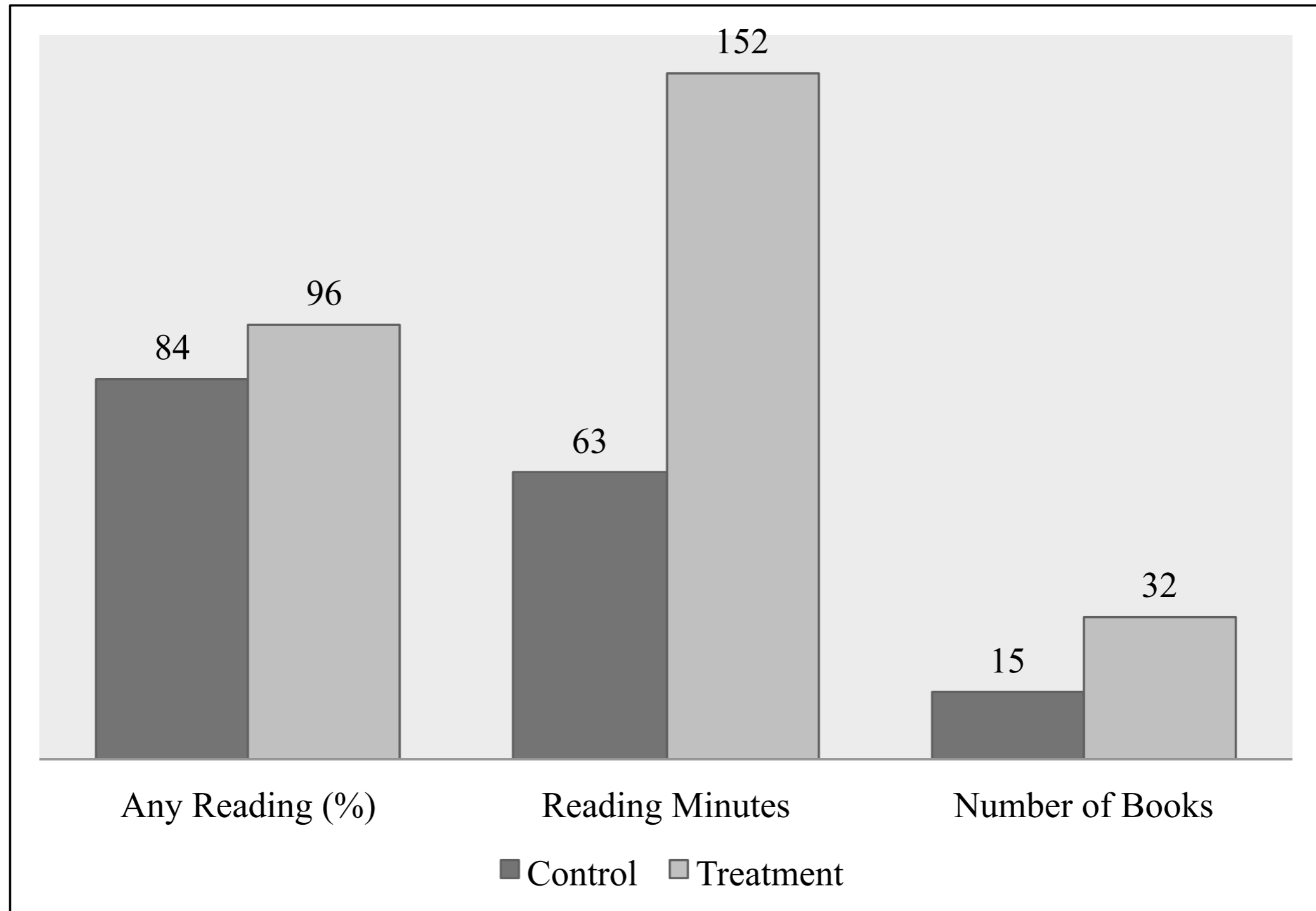**Figure 3.** Conversational turn count baseline and postintervention averages in turns per hour.

Parents and Children Together

Mayer et al. (2015)

✤ Motivation: There are large gaps in parent engagement and investment by socioeconomic status, perhaps due to ignoring or discounting the future.

✤ Question: Can behavioral tools help parents engage in the practices they want to do and know they should do, specifically increased time spent reading with their children?

✤ Intervention: Tablet with reading materials coupled with behavioral tools: commitment, reminders, and immediate incentives

✤ Design: Parents of 3-5 year old children enrolled in Head Start (n=84 treatment families, n=85 control families) were randomly assigned to the behavioral tools or not; everyone received the iPad with materials

Parents and Children Together

Mayer et al. (2015)

Parents and Children Together

Mayer et al. (2015)

Reading Minutes

All Parents — Control: 63, Treatment: 152

Less Patient Parents — Control: 68, Treatment: 193

More Patient Parents — Control: 97, Treatment: 140

■ Control   ■ Treatment
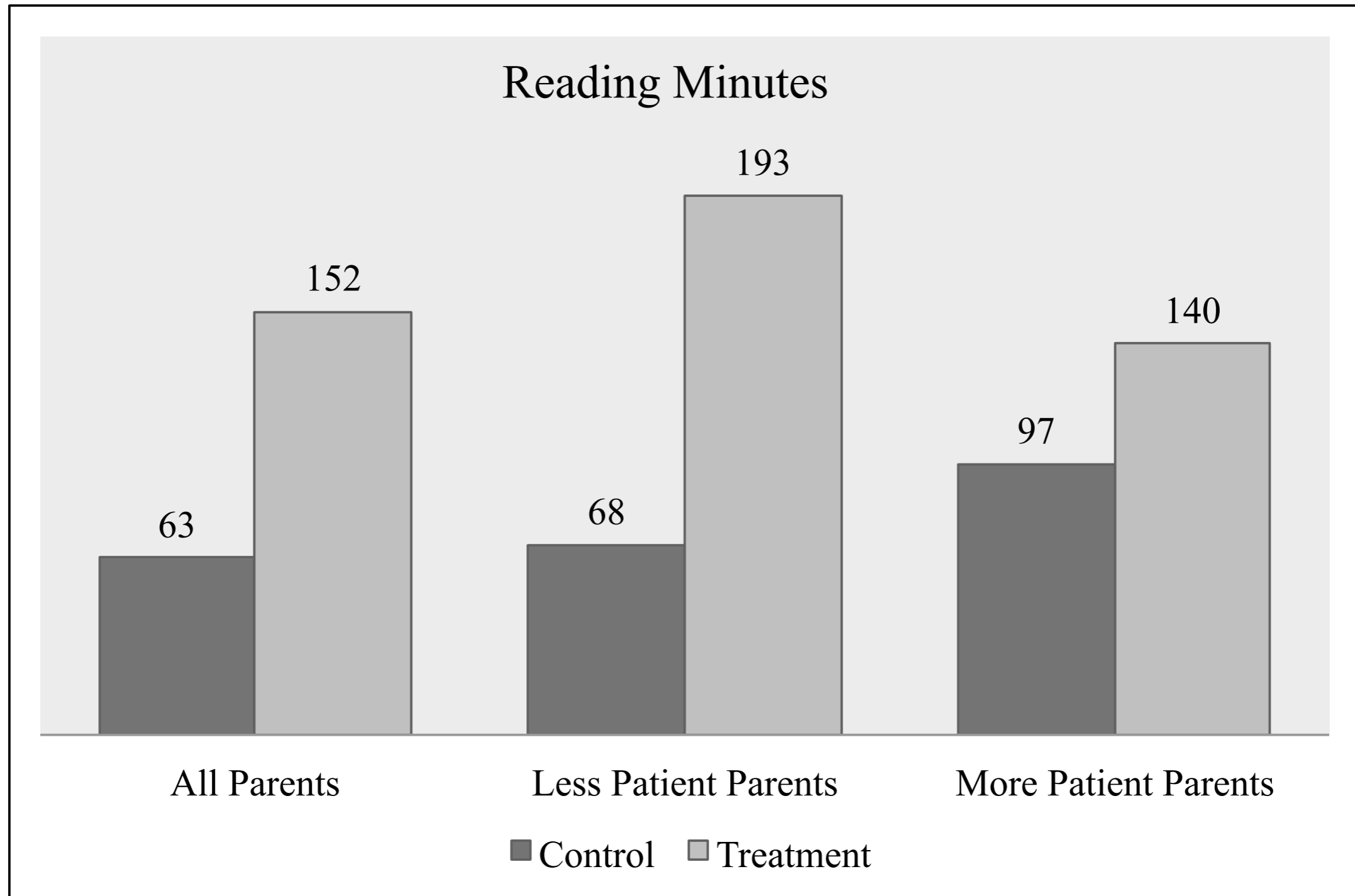
READY4K!

York & Loeb (2014)

- ✤ Motivation: Substantial differences in home learning environments and inputs exist by socioeconomic status.

- ✤ Question: Can a literacy program break down the complexities of parenting and investment into achievable small steps to improve children's literacy skills?

- ✤ Intervention: Text messaging program to help parents of preschoolers support their children's literacy development (Fact, Tip, Growth)

- ✤ Design: Parents of 4 year old children enrolled in SFUSD preschools (n=440 families) were randomly assigned to the text messaging program or "placebo" texts

READY4K!

FACT: Beginning word sounds are essential for reading. You can help your child learn to read by saying the beginning sound of words. "Read" starts w/ "rrr."

TIP: Say two words to your child that start with the same sound, like happy & healthy.

Ask: can you hear the "hhh" sound in happy & healthy?

GROWTH: By saying beginning word sounds, like "ttt" in taco & tomato, you're preparing your child 4K. Now, have your child make the "ttt" sound.

READY4K!

York & Loeb (2014)

FACT: Bath time is great for teaching your child important skills for K. Start by asking your child: what are the things we need for bath time? Why?

TIP: When you're bathing your child, point out the letters on the shampoo bottles. Ask your child to name them & tell you the sounds that they make.

GROWTH: By teaching at bath time, you're preparing your child for K. Next time, ask questions about body parts. Where are your elbows? What do they do?

READY4K!

York & Loeb (2014)

✤ Findings:

   ✤ Positive effects on parents' engagement in home literacy activities with their children (0.22-0.34 sd)

   ✤ Positive effects on parental involvement at school (0.13-0.19 sd)

   ✤ Student learning gains in some areas of early literacy (0.21-0.34 sd), particularly letter sounds and letter identification

Kindergarten Follow-up

Doss et al. (2017)

* Three experimental groups:

  * "placebo" texts

  * general literacy skills

  * differentiated literacy skills

* Positive effects — on both children's literacy skills and parents' literacy activities — for the differentiated/personalized group

  * Concentrated among children further from average levels of baseline performance

Evaluation

Remaining Questions

* Can parenting nudges work at broader scale and in diverse places?

* Do intervention effects differ across early childhood settings?

* Do intervention effects differ by parents' beliefs or prior practices?

* Are intervention effects persistent?

Secrets to a Good Match

What providers are looking for	What researchers are looking for
Programs that help those in need	Programs that help those in need
Ways to improve programming	Ways to improve programming
Evidence of program impact	Evidence of program impact
	Excess demand for services
	Measurable outcomes
	Scalable and replicable

Conducting an Evaluation

* **Scale**

  * Are there enough centers, and enough families, to run a rigorous study?

* **Design**

  * Can we randomly assign families within centers (or grantees or geographic areas) to the text-message curriculum?

* **Data**

  * Can we identify families for participation from administrative records?

  * Is it possible to link to outcomes data, including kindergarten entry or readiness assessments?

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