

# Success By 6

# Early Childhood Policy Briefing

March 19, 2013



United Way for Greater Austin

# Today's agenda



- High-level overview of the President's early education proposal
- Review of the research
- Q & A

- **High quality voluntary preschool**
  - Care for all four year olds from low- to moderate-income homes
    - 200% of poverty and below (\$44,700/year for a family of four)
    - Full-day care would put more parents back in the workforce
  - Expanded care for middle-class families
    - States could choose how to best serve these families
    - Options could include sliding-scale payment plans

# Early Education for All Americans

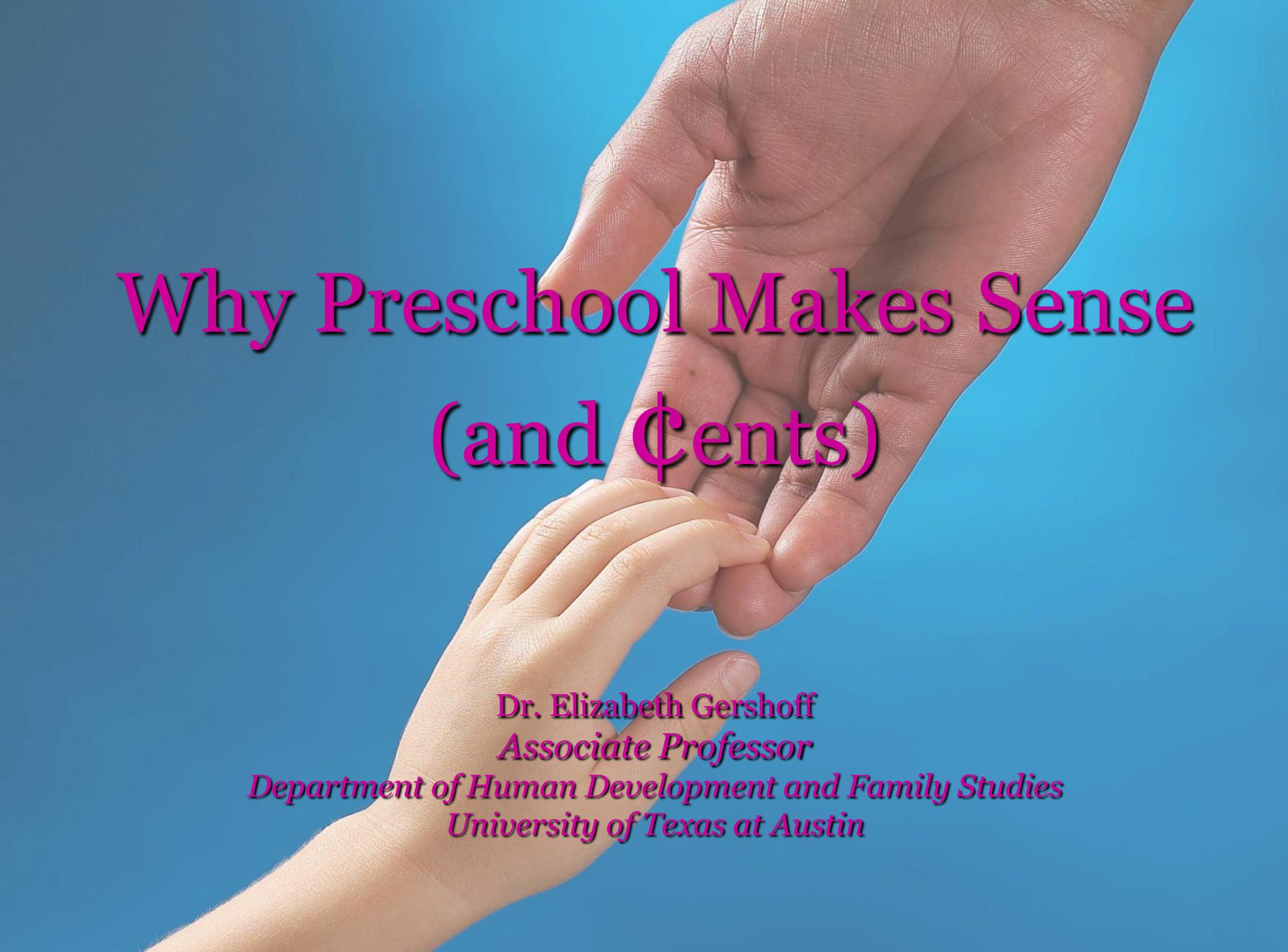
- Programs must meet quality standards that are correlated with positive child outcomes
  - Qualified teachers
  - Favorable adult to child ratios
  - Smaller classes
  - Rigorous curriculum that meets state-level early learning standards
  - Evaluation and assessment

# Early Education for All Americans

- Cost sharing model: Department of Education dollars would be distributed to states based on need then allocated to school districts and other providers
  - Care would be offered in public and private settings
  - Parents would retain choice
- States would be offered incentives to provide full-day kindergarten
  - 4 out of 10 students do not have access to a full day of learning
  - This would be provided only after ensuring that low- to moderate-income four year olds have access to preschool

- **Expansion of Early Head Start**
  - More four year olds would be served in publicly funded PreK settings
  - Head Start could focus more on quality care for children ages zero through three
  - Partnerships with providers who meet the highest standards of care
  - Funds awarded through a competitive process

- **Commitment to improving Head Start**
  - More children served, particularly our youngest
  - Low performing grantees must re-compete and meet new benchmarks
- **Evidence-based home visiting**
  - Expanding voluntary in-home services for children ages zero through three
  - Designed to improve school readiness as well as health outcomes

A large, light-skinned hand is shown from the top right, reaching down to hold the hand of a smaller child. The child's hand is positioned in the lower left. The background is a solid, bright blue. The text is overlaid on this image.

# Why Preschool Makes Sense (and Cents)

*Dr. Elizabeth Gershoff  
Associate Professor*

*Department of Human Development and Family Studies  
University of Texas at Austin*

# Children Learn from Birth— Not Just When They Turn 5



- Countless studies have shown that many American children, particularly low income children, start school without the necessary skills to do well in kindergarten (and beyond).
- Universal preschool extends the learning experiences we as a society promote for 5 year olds (as Kindergarten) to 4 year olds.

# Parents Want (and Need) Full-day Preschool



- More and more parents, across income groups, appreciate the value of high quality preschool.
- At the same time, more and more families need some kind of child care for their preschoolers: nearly two-thirds of all mothers of children under 6 work outside the home.



# Parents Want (and Need) Full-day Preschool



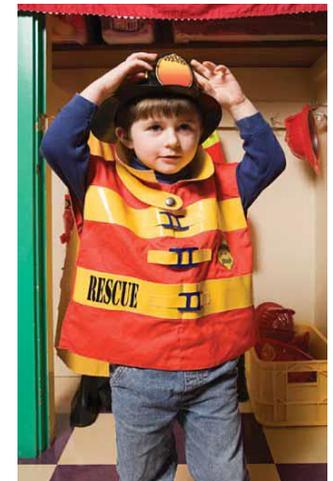
- When a program is made universal, most families of all income levels use and benefit from the program.
  - 74% of all families with age-eligible four year olds enrolled in **Oklahoma's** universal (and voluntary) preschool program.
  - 76% of all families with age-eligible four year olds enrolled in **Florida's** universal (and voluntary) preschool program.

# Lessons from State Pre-K Programs



High quality preschool programs, including “universal” (offered to everyone) state pre-K programs, have been shown positive impacts

on literacy skills, math skills, and social behavior among children from both low income and middle class families, and these gains extend into elementary school.



# Lessons from State Pre-K Programs



However, the programs need to be high quality:

- Run, and funded, as an education program
- Staffed with highly educated and well-paid teachers
- Low teacher-to-child ratios
- Evidence-based curriculum
- When states have tried to do universal preschool programs “on the cheap” (e.g., Florida), they have not seen positive impacts on children.

# High Quality Preschool has a Strong Return on Investment



- President Obama cited a \$7 return on investment for preschool. What does this mean?
- Nobel Prize winner James Heckman compared the costs of the Perry Preschool enriched program with the benefits to the participants (earnings) and society (decreased costs of crime, welfare, and increased taxes) over the course of 40 years.
- For every \$1 invested in the preschool program, society and the individual saw a \$7 return in benefits and saved costs.

# What about the Head Start “fade out”?



- Much attention has been paid in the media to the recent final report of the national Head Start evaluation. The evaluation found that children in Head Start showed greater improvements in language and literacy (3 & 4 year olds), math skills (3 year olds), and behavior problems (3 year olds) than did the control group.
- However, most of these impacts had “faded” by first grade.



What does this mean??

# What about the Head Start “fade out”?



Head Start gives the low income children in these programs an initial boost in their academic and social-emotional skills...

...but something is happening when these children get to elementary school.

# What about the Head Start “fade out”?



## Some possible explanations for fade out:

- Head Start children are going to under-resourced schools with less experienced teachers who cannot build adequately on these “head starts.”
- They are going into classrooms with peers who did not experience Head Start and so the teachers have to teach to the lowest common denominator.

Implication: If *all* children had access to enriched preschool, *all* children would have the chance to benefit from early elementary school.

# The Promise of Preschool in Reducing Achievement Gaps

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Assistant Professor



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United Way for Greater Austin

“The President is proposing a new federal-state partnership to ***provide all low- and moderate-income four-year old children with high-quality preschool***, while also expanding these programs to reach additional children from middle class families and incentivizing full-day kindergarten policies. This investment – financed through a cost-sharing model with states – ***will help close America's school readiness gap and ensure that children have the chance to enter kindergarten ready for success.***”

# Evaluating the Evidence

- To what extent does preschool boost the school readiness of low- and moderate-income four-year old children?
- To what extent does preschool help to reduce school readiness gaps?

*Research Article*

# Preschools Reduce Early Academic-Achievement Gaps: A Longitudinal Twin Approach

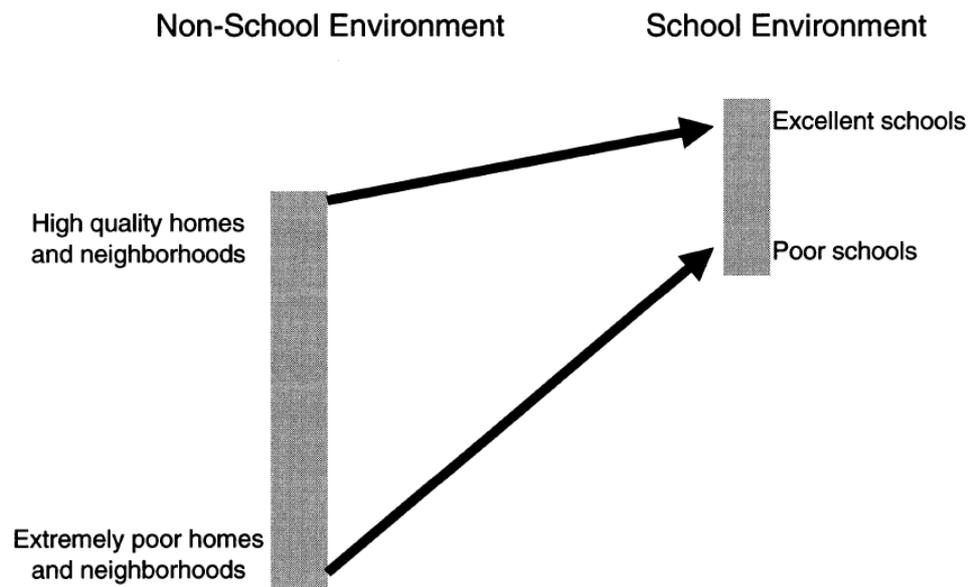
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Psychological Science  
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DOI: 10.1177/0956797611426728  
<http://pss.sagepub.com>  


# How Schools Can Serve as Equalizers

“some children may have relatively poor school experiences, but the disadvantages in their non-school environments may be even more severe . . . In this way schools can favor advantaged students, yet still serve as equalizers” (Downey et al., 2004, pp. 613–614).



**Figure 1.** How Unequal Schools Can Serve as Equalizers

From Downey, von Hippel, & Broh (2004)

# Early Childhood Longitudinal Study – Birth Cohort



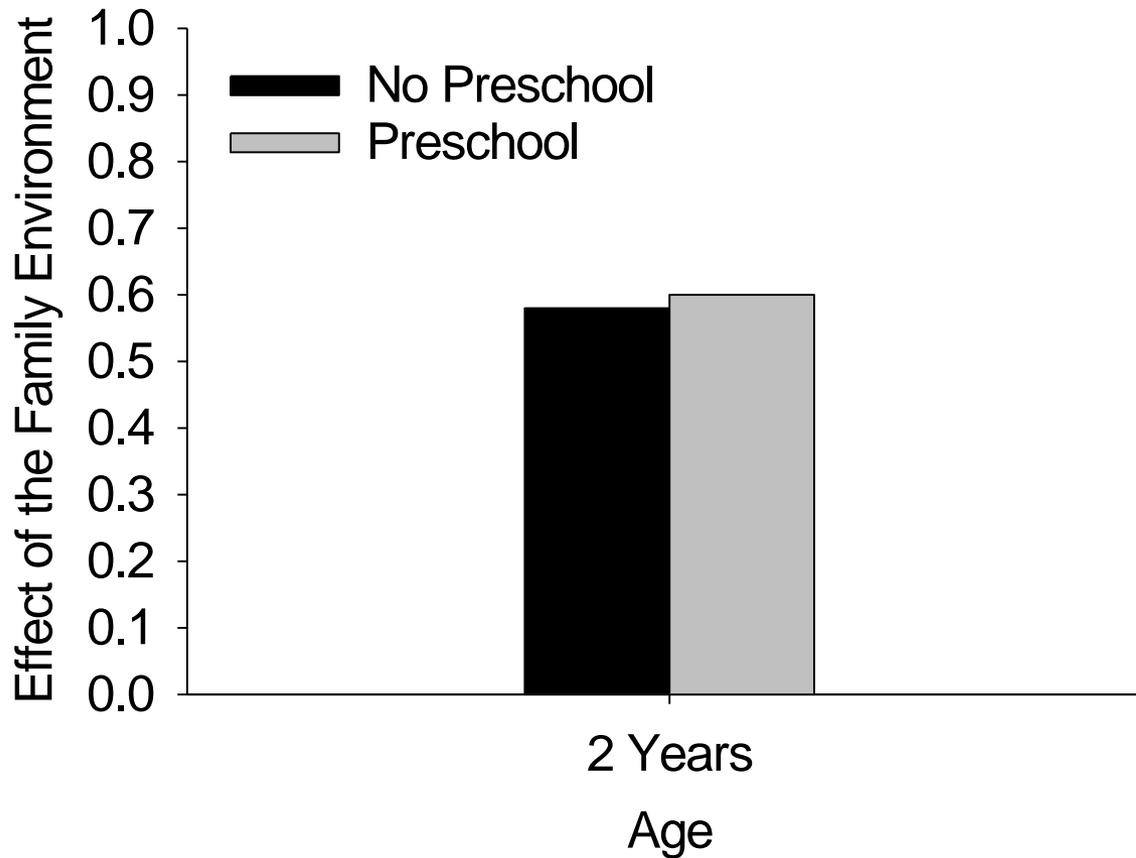
- Nationally representative sample of children born in America in 2001.
- 61% White, 16% African-American, 16% Hispanic, 2% Asian, 4% Mixed Race
- 25% lived below poverty line at study entry
- Approximately 1,200 twins (400 identical, 600 fraternal)
- 15% enrolled in Head Start, 61% enrolled in other center-based care, and 26% were not enrolled in any center-based care at age 4.

# The Logic Behind the Twin Method

- We can calculate the effect of the family environment by calculating the extent to which children raised in the same family have similar test scores.
- We can also calculate the effect of genes by calculating whether more genetically similar children (e.g. identical twin siblings) have more similar test scores than less genetically similar children (e.g. fraternal twin siblings)

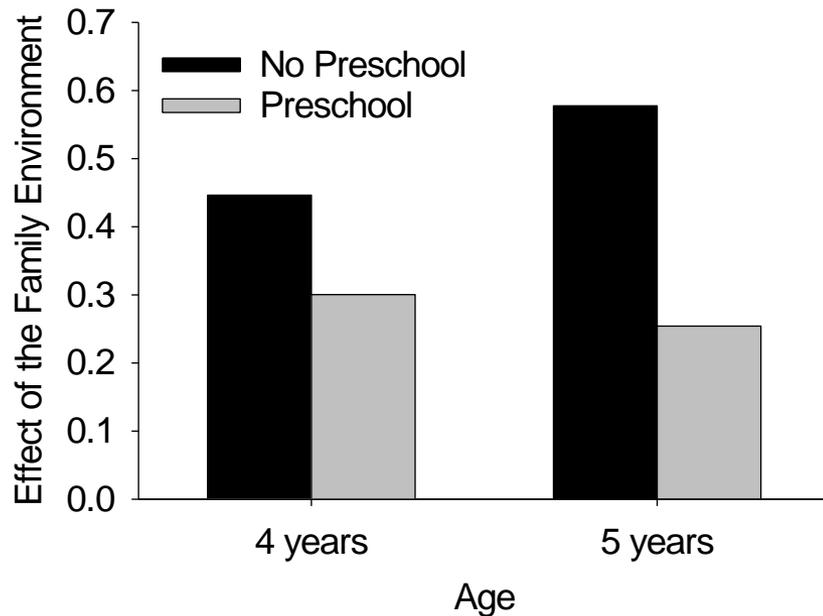
- If preschools reduce achievement gaps, the family environment should account for a smaller percentage of variation in achievement amongst preschool enrollees compared to non-enrollees
- This effect should only occur prospectively

# How much does the family environment matter for test scores at age 2?

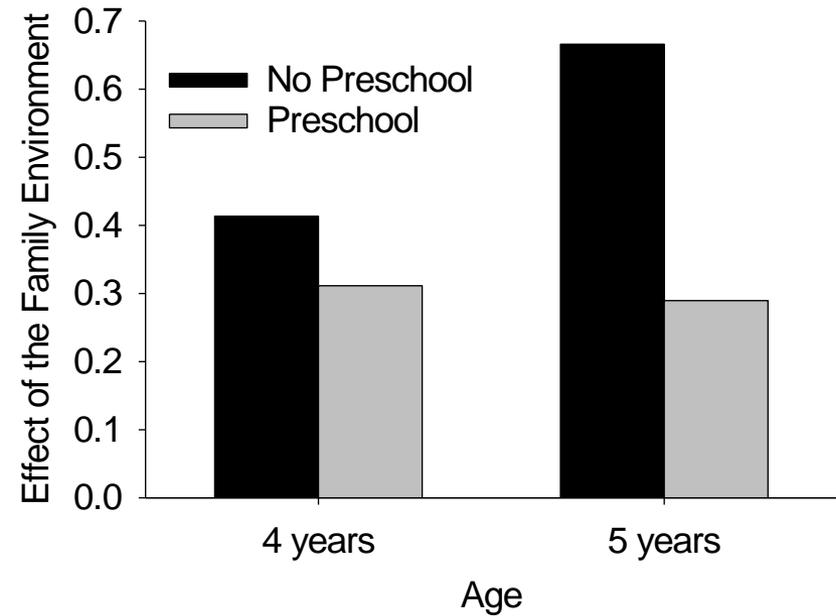


# How much does the family environment matter for test scores at ages 4 and 5?

## Mathematics

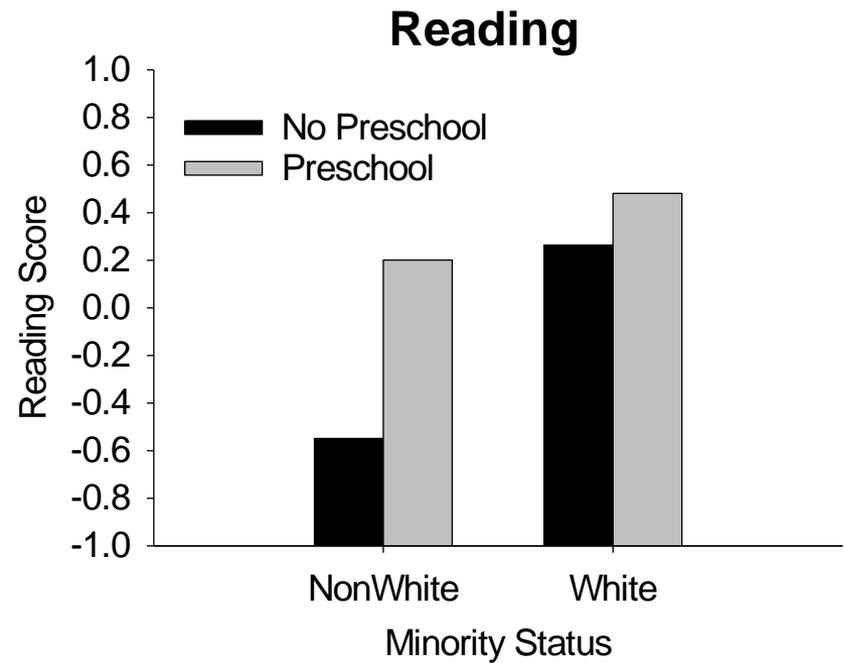
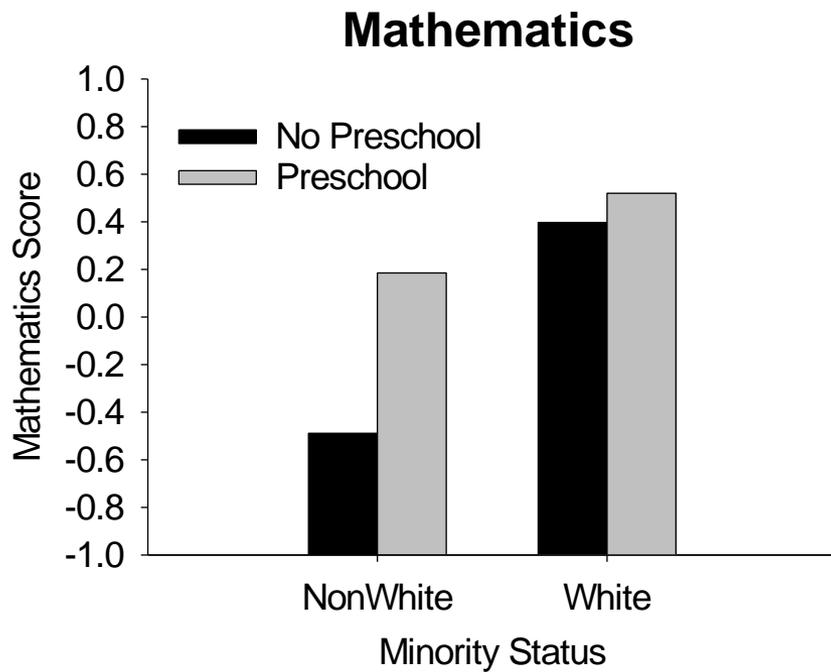


## Reading



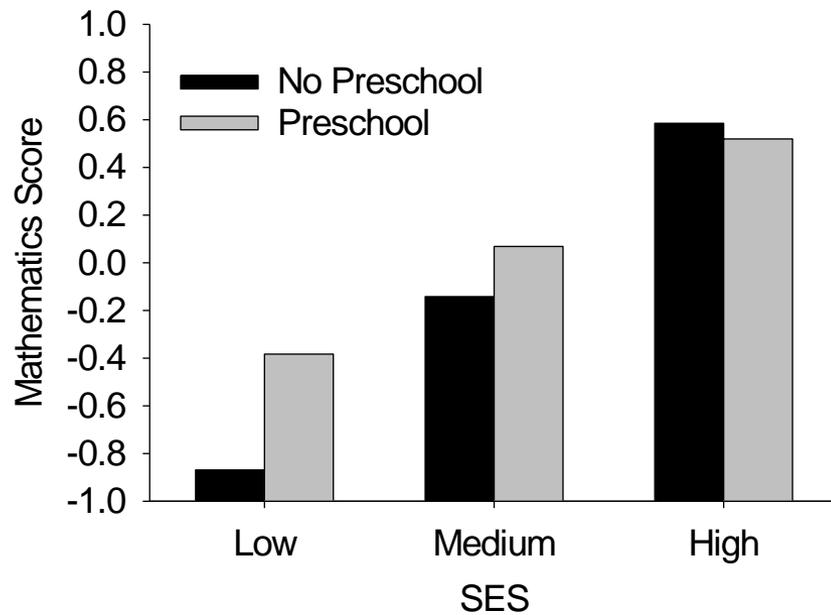
- Racial/Ethnic Minority Status
- Social Class
  - Indexed from Parental Educational Attainment, Parental Occupational Prestige, and Family Income
- Parental Stimulation
  - A rating of the extent to which the parent demonstrates effortful teaching of the child to enhance cognitive, language, and perceptual development. The topic and method of teaching must be matched to both the child's developmental level and his or her level of interest
  - Based on videorecorded 10 interactions between the parent and each child during a semi-structured task
  - Raters are trained and highly reliable

# Preschools and Racial Achievement Gaps at Age 5

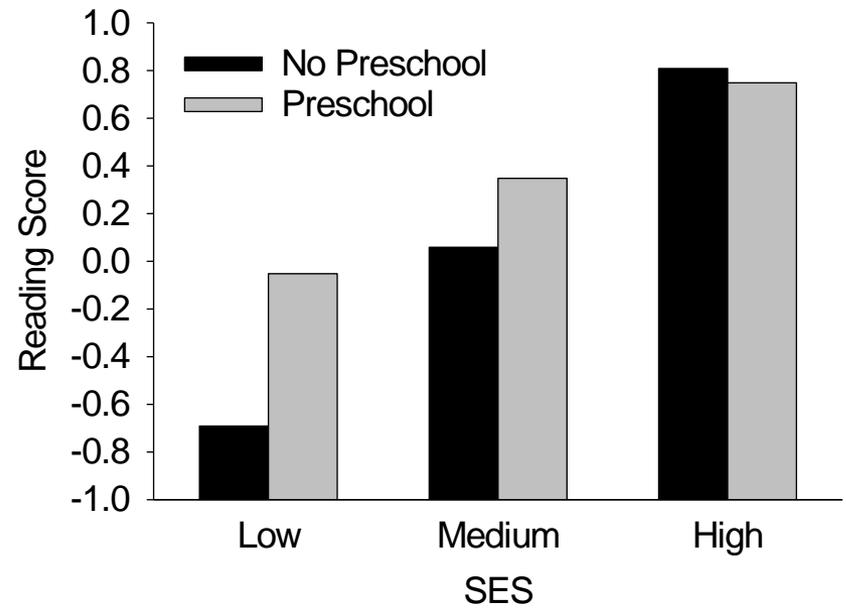


# Preschools and Social Class Achievement Gaps at Age 5

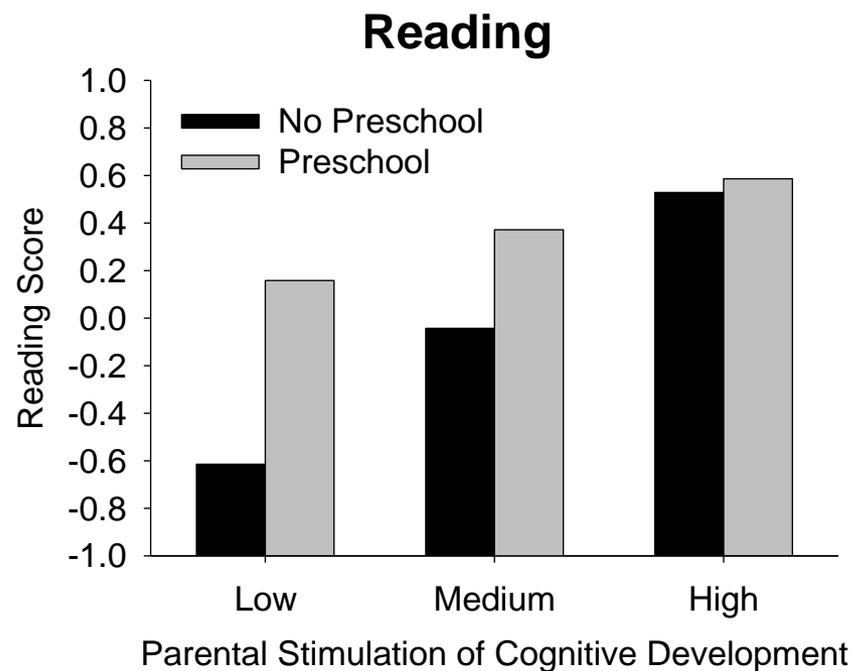
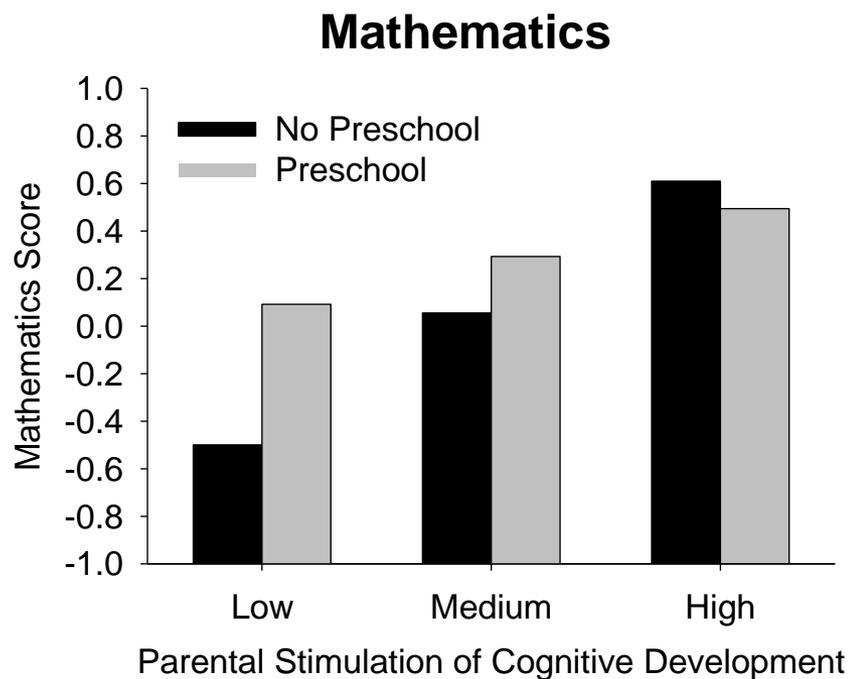
## Mathematics



## Reading



# Preschools and Achievement Gaps Associated with Parental Stimulation at Age 5



# Who goes to preschool?

- Children from middle class families were more than twice as likely to attend preschool than children from impoverished families.

# Conclusions based on the Evidence

- The effects of preschools on academic achievement and kindergarten readiness are largest for children from underprivileged backgrounds. Children from privileged backgrounds tend to be prepared for kindergarten regardless of whether they attended preschool.
- Because poorer families are less likely to send their children to preschool, the benefits of preschools may not be fully realized in US.
- Providing high quality preschool access to children from low and moderate income families is therefore a promising avenue towards both increasing overall academic achievement of American children, and reducing achievement gaps at kindergarten entry.

# Thank you



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# What does the research say?



## Effective Interventions for Infants and Toddlers

**Aletha C. Huston, Ph.D.**

**Human Development and Family Sciences**

**The University of Texas at Austin**

- Architecture of brain develops in first years
  - Depends on interaction of genetics and environment
  - Cognitive, social and emotional competencies are related to one another
- Critical elements of environment
  - Nurturing, loving caregivers
  - Good nutrition
  - Safe, clean physical environment

# Nurse Home Visiting

- Who is served? First-time mothers who are at risk for child abuse and neglect (e.g, adolescents, low-income, unmarried)
- Who provides service? Trained nurses who make regular visits during pregnancy and after child is born

# 3 Components of Home Visiting

- Prenatal health behavior
  - Reduce smoking, alcohol, drugs
  - Good diet
- Sensitive, competent care of baby
  - Respond to distress
  - Play and talk with baby
- Change parent life course
  - Get education and work
  - Delay subsequent pregnancies
  - Involve child's father

- Controlled experiments in several cities show positive effects. In families that had nurse home visiting
  - Mothers were less punitive and more appropriate with baby
  - There was less child abuse; fewer child injuries
  - Mothers had fewer subsequent pregnancies
  - Mothers more likely to have jobs
  - Family less likely to receive welfare and food stamps

- Serves infants from zero to 3 years old
- Different models:
  - Services in home
  - Quality early care and education
  - Combination of home and early care setting

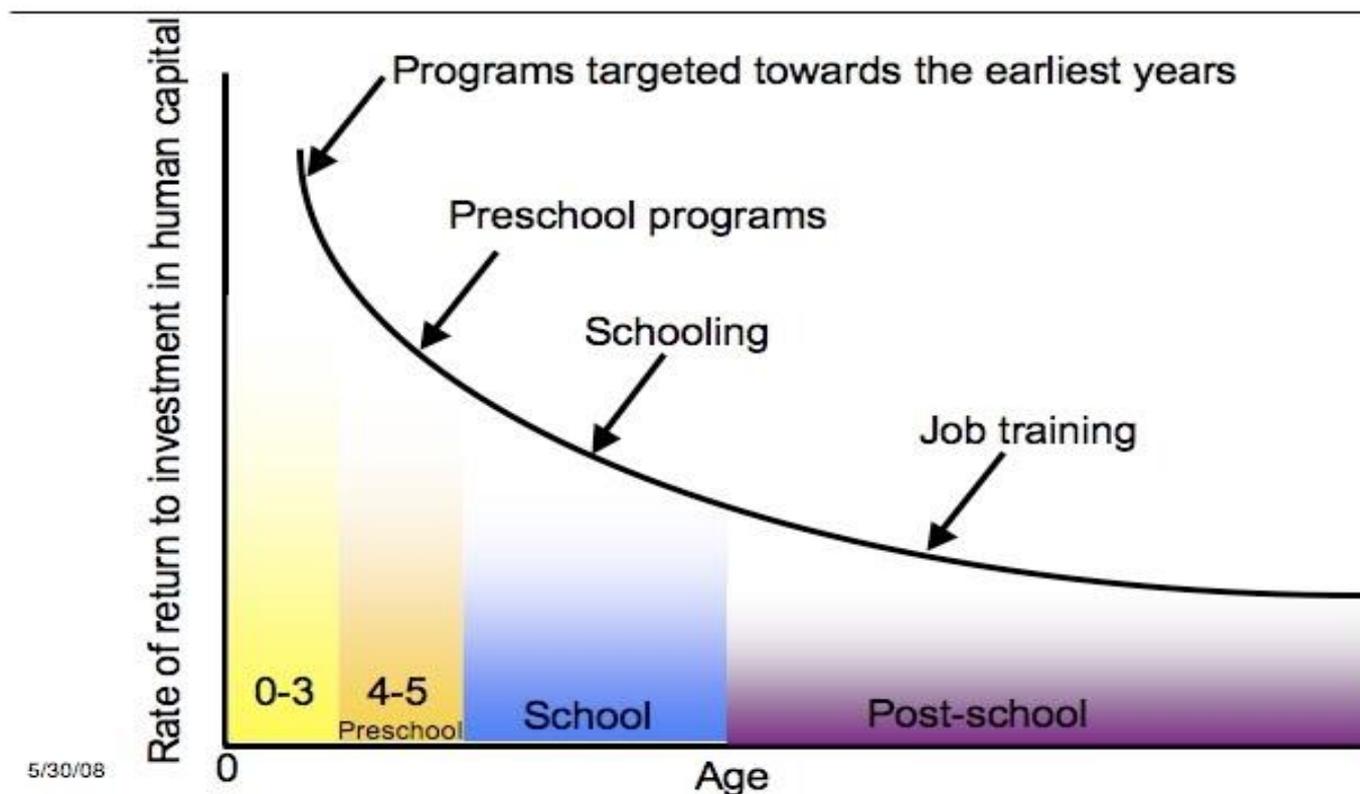
- Controlled experiment in 17 sites around U.S.
- Different models used – local option
- At age 3, children who received Early Head Start were
  - Less aggressive
  - Better able to sustain attention
  - More positive with parent
- Some effects lasted until age 5

# Return on Investment

- ROI is greater the earlier the intervention
- Nurse home-visiting for mothers who are not married and have low incomes,  
\$1 invested = \$4 in savings to government and society

# Return on Investment

Figure 9: Rates of Return to Human Capital Investment at Different Ages: Return to an Extra Dollar at Various Ages



# Conclusion

- President's proposals to increase nurse home visiting and Early Head Start services are supported by rigorous research showing
  - Improved life chances for children and parents
  - Economic benefits for government and society

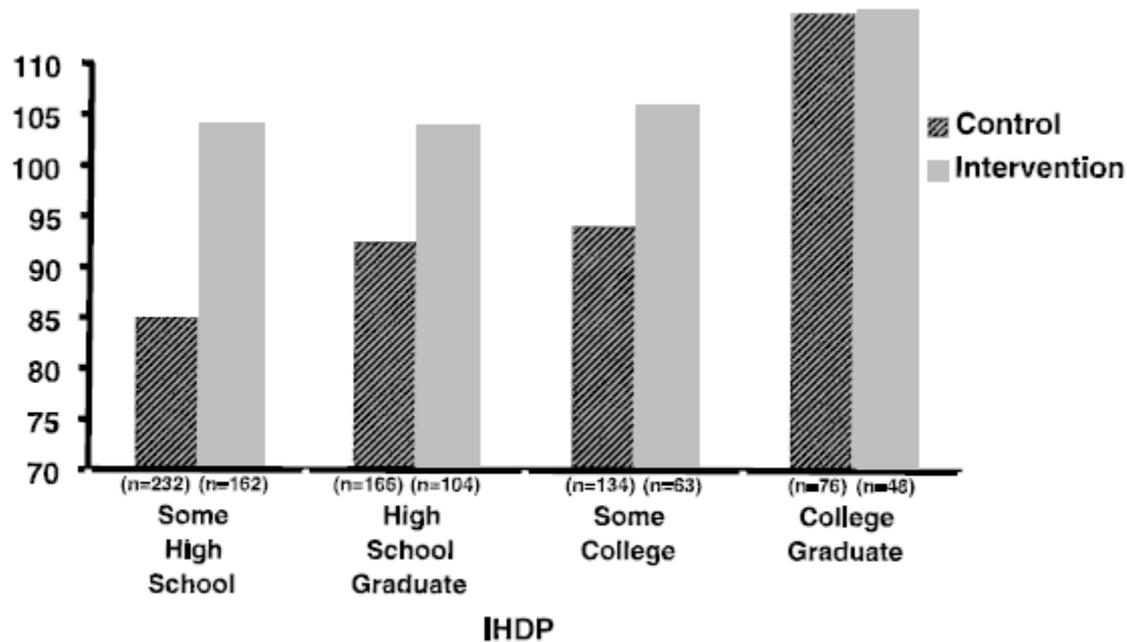
# Thank you for joining us



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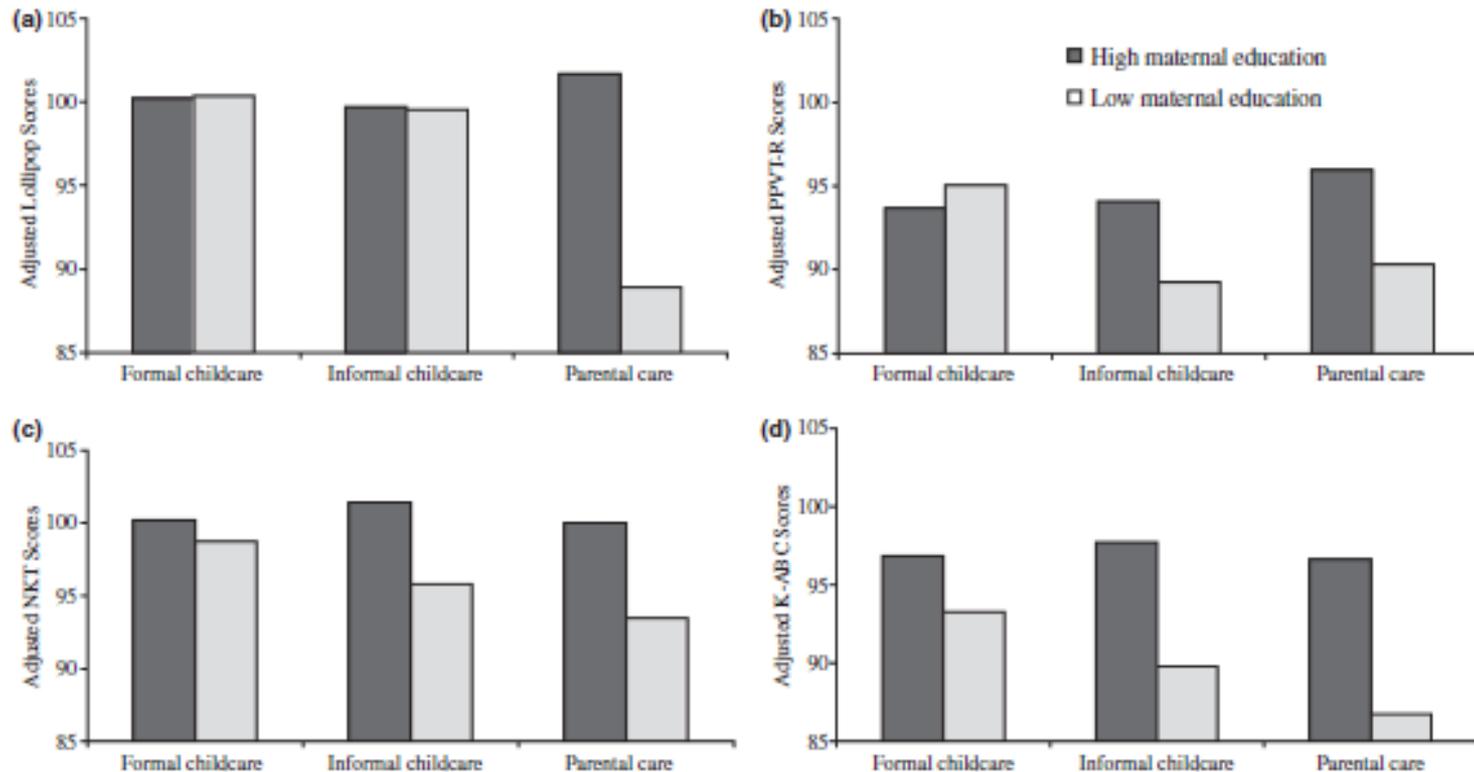
# Randomized Controlled Study of Center-Based Care for Low Birthweight Infants



**FIG. 6.** Children's IQ at 36 months as a function of maternal education level and early intervention of control group status from the Infant Health and Development Program.

Ramey, C. T., & Ramey, S. L. (1998). Prevention of intellectual disabilities: early interventions to improve cognitive development. *Preventive medicine*, 27(2), 224-232.

# Formal, Informal, and Parental Care in Canadian Children



**Figure 1** Academic readiness and achievement outcomes according to maternal education and childcare groups

Geoffroy, M. C., Côté, S. M., Giguère, C. É., Dionne, G., Zelazo, P. D., Tremblay, R. E., ... & Séguin, J. R. (2010). Closing the gap in academic readiness and achievement: The role of early childcare. *Journal of Child Psychology and Psychiatry*, 51(12), 1359-1367.

# Child Care Quality in American Children

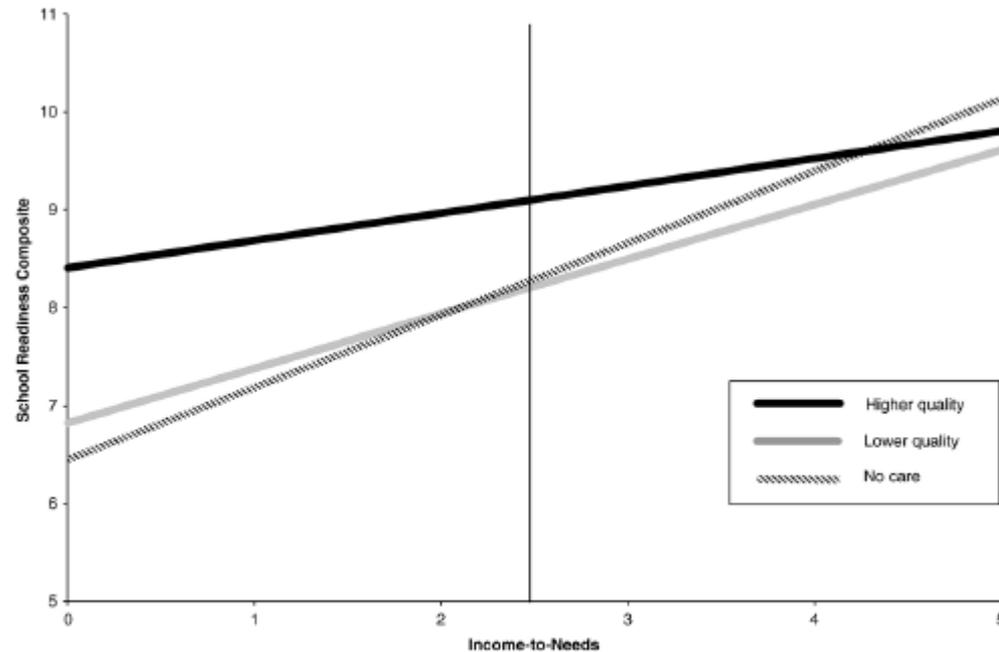


Fig. 1. Estimated associations between income-to-needs and School Readiness for the three child care groups. The slope of this association was significantly different ( $p < .01$ ) for children in higher quality child care compared with children not in child care (see Table 4). The vertical line represents the upper threshold for the region of significant difference in School Readiness scores for children in higher quality child care compared with those not in child care.

McCartney, K., Dearing, E., Taylor, B. A., & Bub, K. L. (2007). Quality child care supports the achievement of low-income children: Direct and indirect pathways through caregiving and the home environment. *Journal of Applied Developmental Psychology, 28*(5), 411-426.