

Quality Early Care and Education System: Implications for Children's School Readiness

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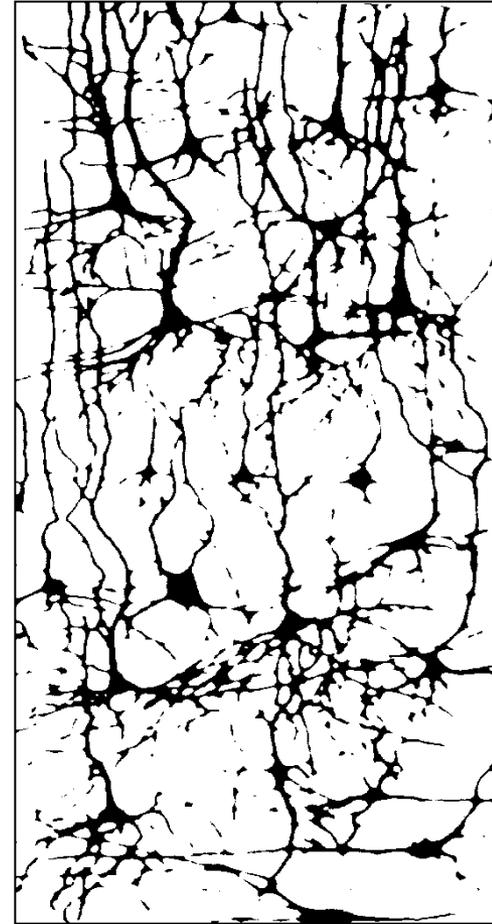
Brain Development in the Early Years



Birth



6 Years Old



14 Years Old

What is School Readiness?

- School readiness is a measure of how prepared a child is to succeed in school, cognitively, socially and emotionally

- Language & Literacy
- Early Math
- Creative Arts
- Nature & Science
- Fine & Gross Motor Development
- Physical Health
- Socio-emotional Development
- Approaches to Learning



Evidence for Early Care and Education System: How do we know it matters?

- * Carolina Abecedarian Program
- * Perry Preschool Program
- * Chicago Child-Parent Centers
- * Head Start Transitions & Impact Studies
- * Early Childhood Longitudinal Study Data
- * State Evaluations of Pre-k



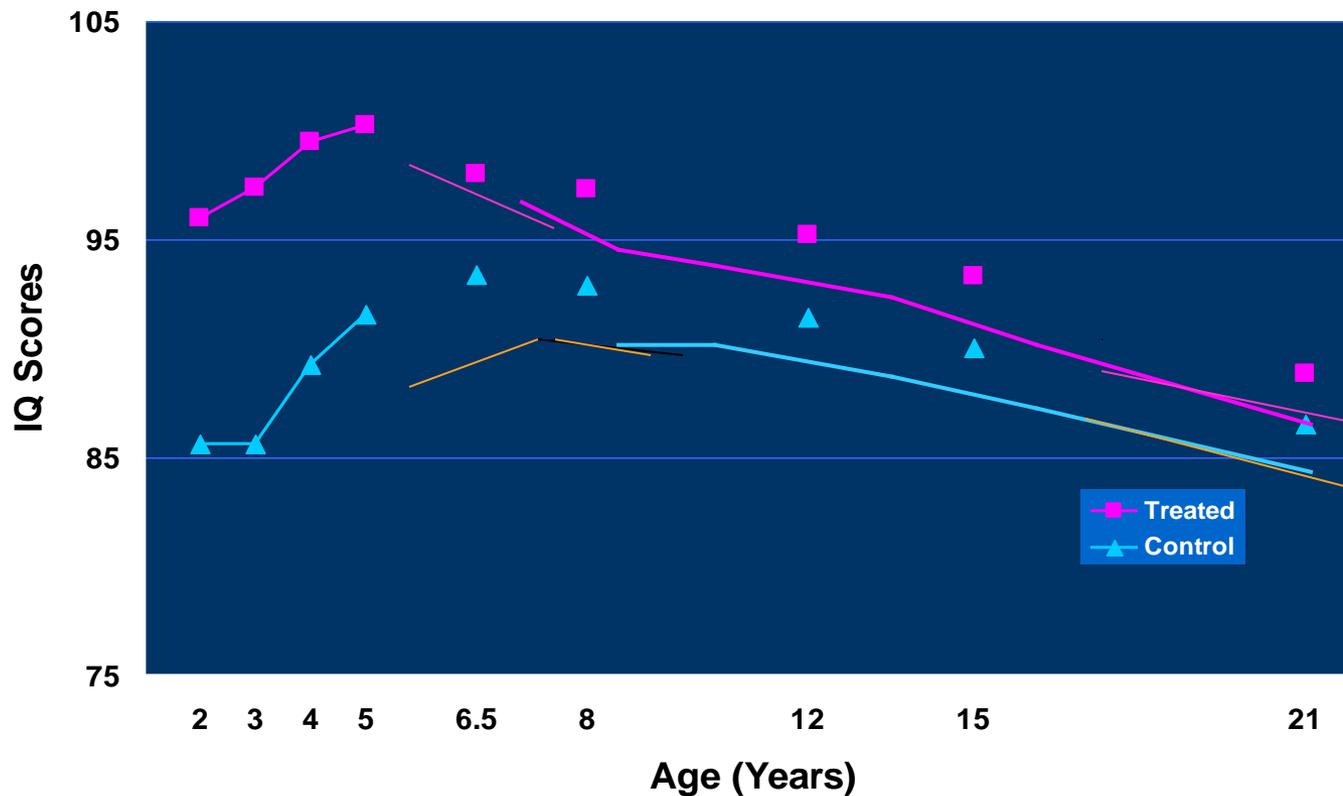
Example: Abecedarian Program (ABC)

An RCT of 4 cohorts of 176 individuals, born between 1972 and 1977, were randomly assigned as infants to either the early educational intervention group or the control group.

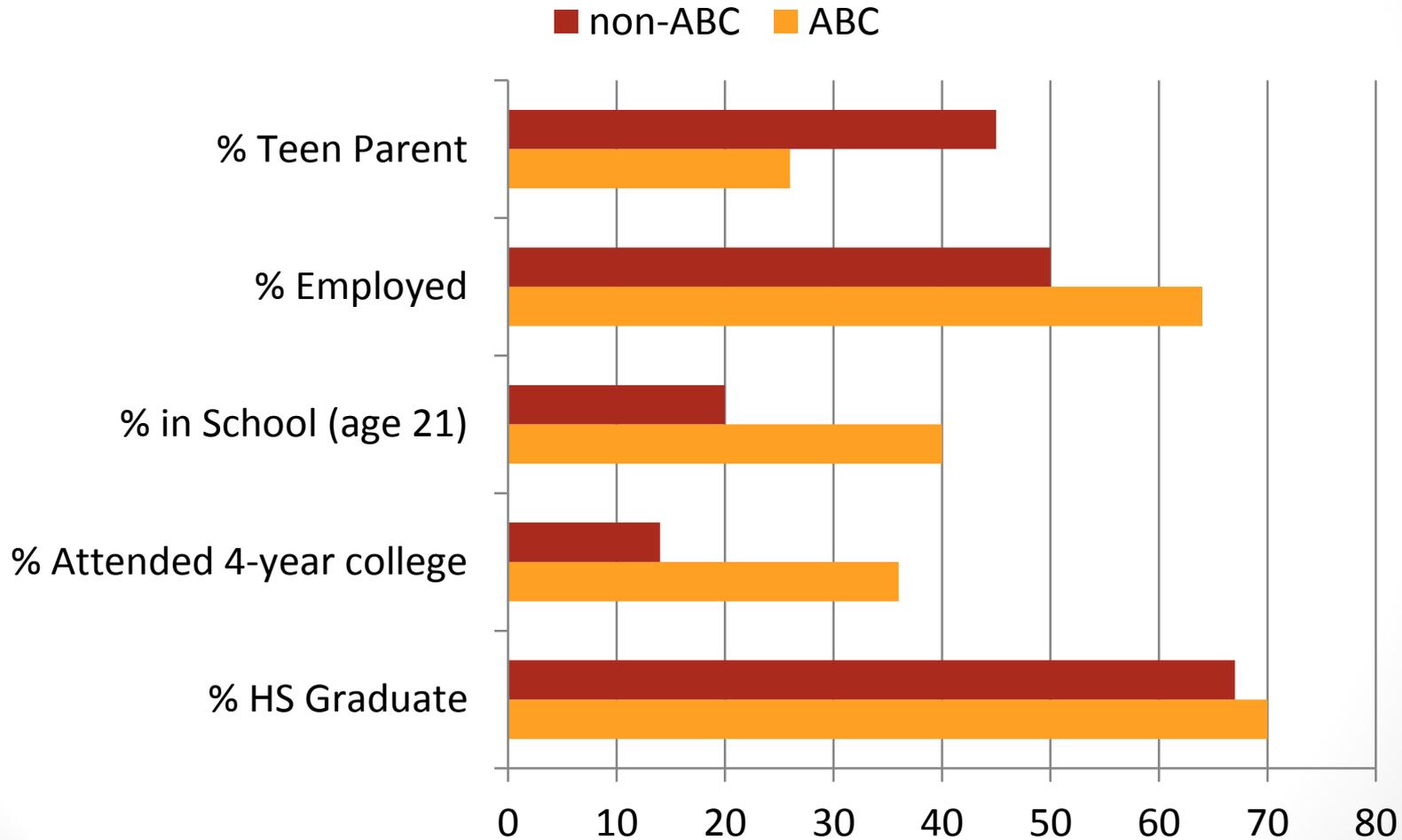
- Children from low-income families received full-time, high-quality educational intervention in a childcare setting from infancy through age 5
- Each child had an individualized prescription of educational activities.
- Educational activities consisted of "games" incorporated into the child's day.
- Activities focused on social, emotional, and cognitive areas of development but gave particular emphasis to language.
- Children's progress was monitored over time with follow-up studies conducted at ages 12, 15, and 21.

Long-Term Effects on intellectual development

Adjusted IQ Trajectory, Ages 2 to 21 Years



ABC: Age 21 Findings



ABC Major Findings

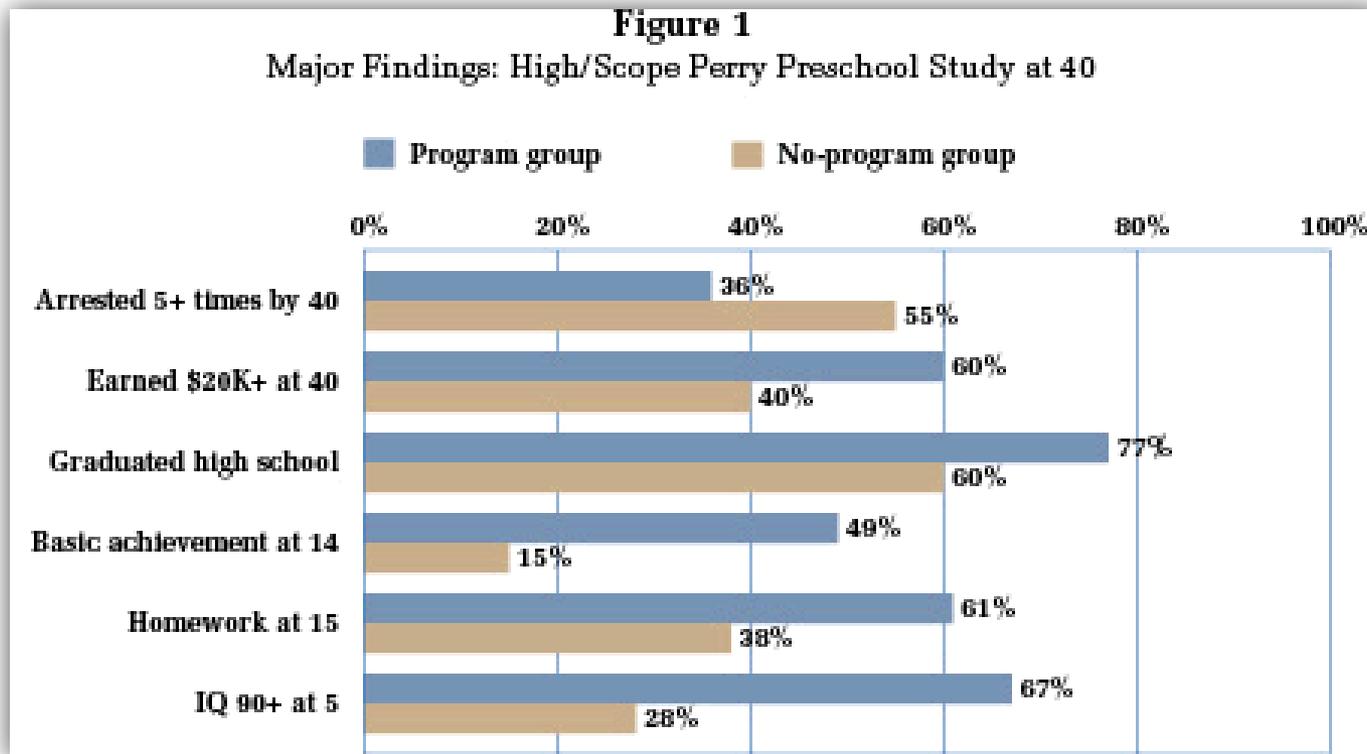
- Children who participated in the early intervention program had higher cognitive test scores from the toddler years to age 21.
- Academic achievement in reading and math was higher from the primary grades through young adulthood.
- Intervention children completed more years of education and were more likely to attend a four-year college.
- Intervention children were older, on average, when their first child was born.

ABC Major Findings (Cont'd)

- The cognitive and academic benefits from this program are stronger than for most other early childhood programs.
- Enhanced language development appears to have been instrumental in raising cognitive test scores.
- Mothers whose children participated in the program achieved higher educational and employment status than mothers whose children were not in the program. These results were especially pronounced for teen mothers.

PPP Major Findings

- Adults at age 40, who participated in the preschool program, had higher earnings, were more likely to hold a job, committed fewer crimes, and were more likely to have graduated from high school than adults who did not have preschool.



Source: <http://www.highscope.org/content.asp?contentid=219>

Head Start Impact Study

- 4,667 newly entering children
 - 2,559 3-year olds
 - 2,108 4-year olds
- Major Findings in 1st grade
 - Few findings beyond Head Start year
 - Cognitive → Receptive $d=.09$ and Oral Language $d=.08$
 - Socio-emotional → Hyperactive $d=.12$, Withdrawn $d=.13$, Positive Relationship $d=.10$, Shy $d=.19$, and Problems w/ Teacher $d=.13$
 - Health → Health Insurance Coverage $d=.11$

HS Impact Study: Comparison to National Standards

- PPVT Percentile – Receptive Language

	3-year-old	4-year-old
Head Start	29%	31%
Control	32%	27%

- Letter Identification

	3-year-old	4-year-old
Head Start	65%	55%
Control	64%	58%
National (ECLS-K)	95%	

Quality of Care During Head Start

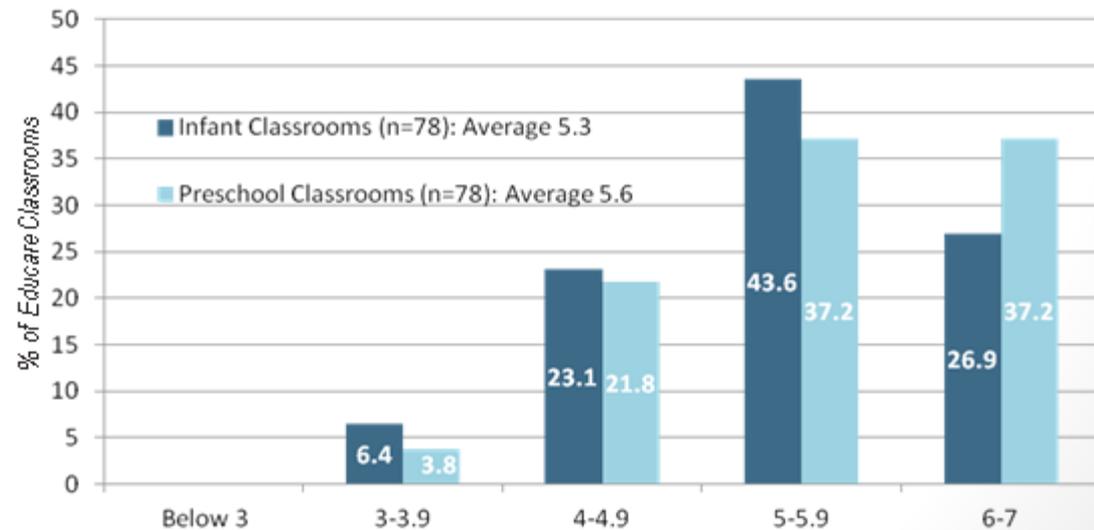
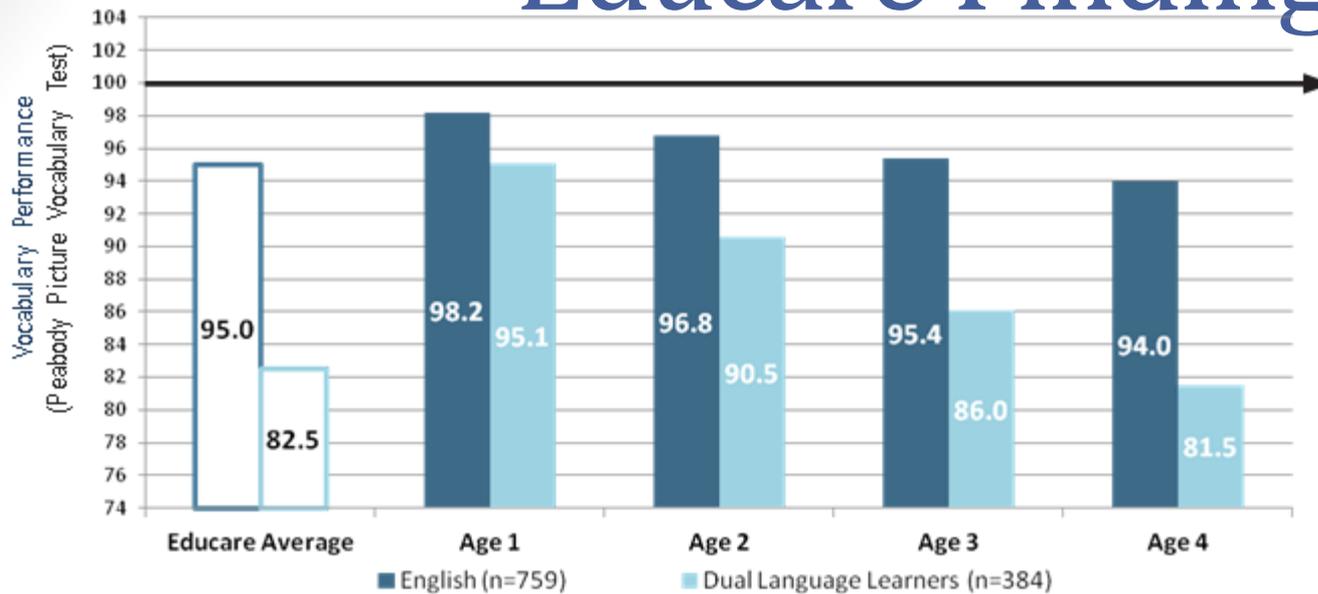
- 70% of Head Start children in programs of high quality (5 or higher on ECERS-R)
- 60% of Head Start children in programs that emphasized language and math activities
- 60% of children had teachers with AA or BA degree
- 35% of children had teachers who have received 25 hours or more to training in previous year

What is Educare?

- **Partnership:** Blends funds from Head Start, state and local education funds, Title I, child care, and private funding and has commitment from many community partners
- **Place:** Educare programs are creative, attractive, developmentally appropriate schools for children 0-5 that demonstrate a community commitment to investing in early education
- **Program:** Educare programming includes 12 core components reflecting best practice in educating children ages birth to 5
- **Platform for Policy Change:** Educare informs and promotes the importance of high quality early education

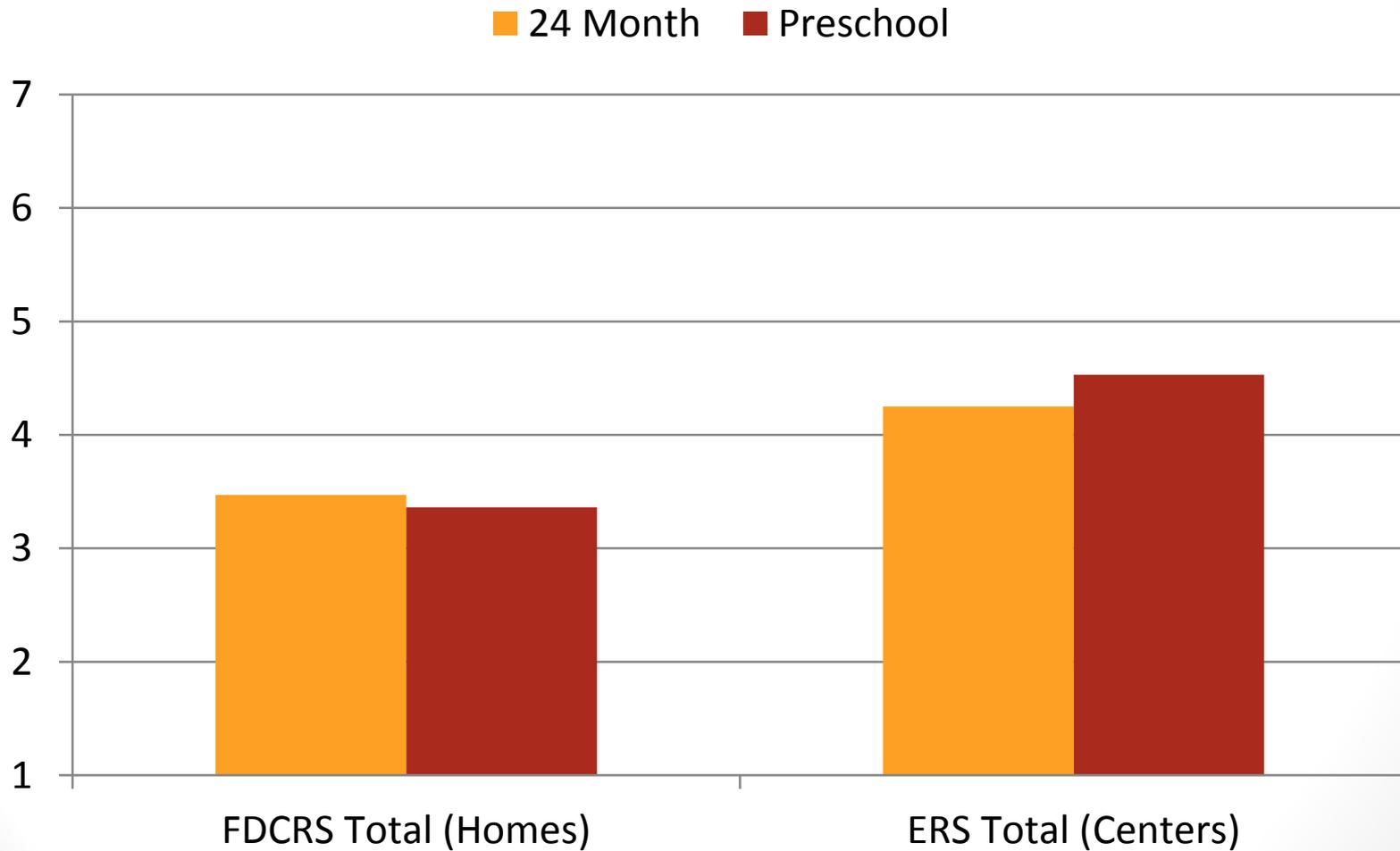


Educare Findings



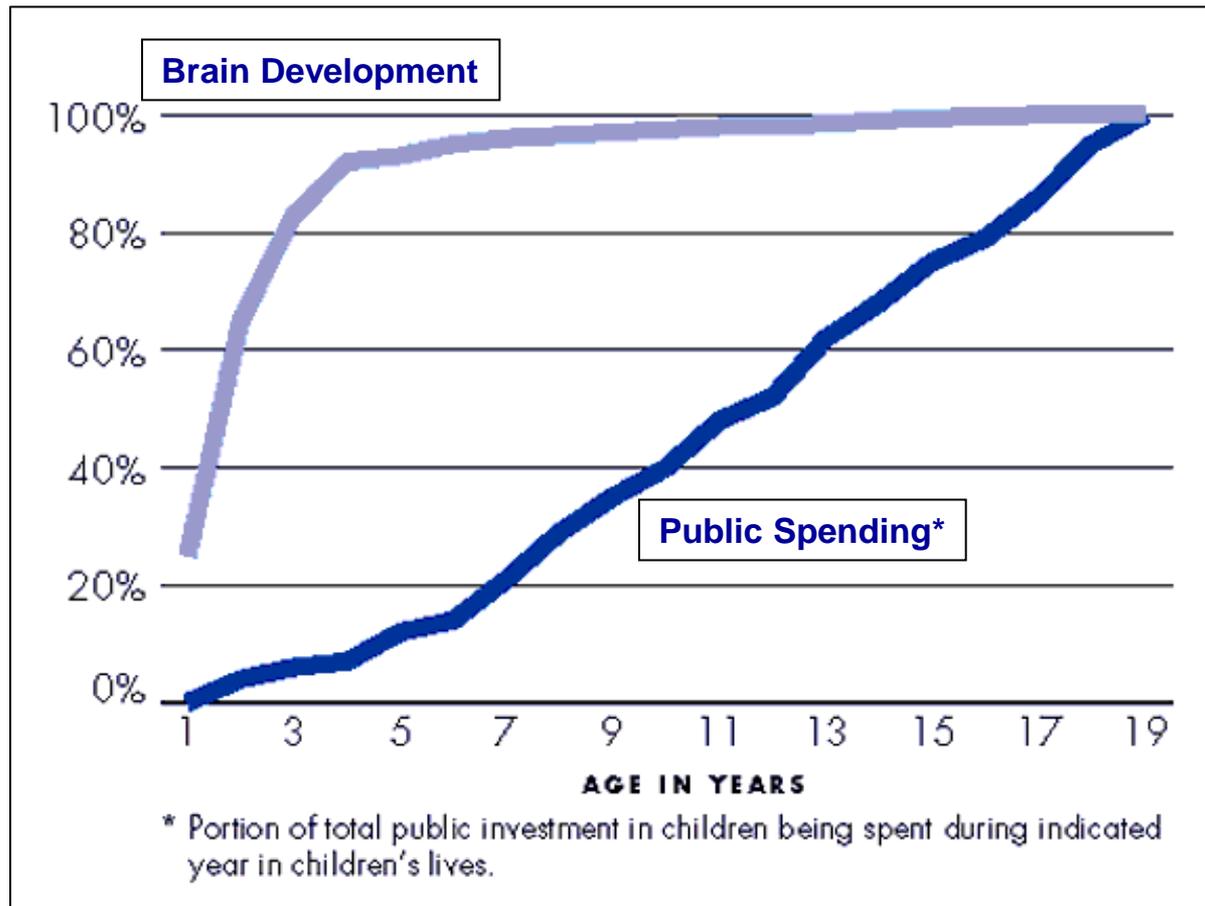
Yazejian, N., & Bryant, D. M. (2012).
 Educare Implementation Study
 Findings—August 2012. Chapel Hill:
 Frank Porter Graham Child Development
 Institute, UNC-CH.

Quality of Care – Home & Center



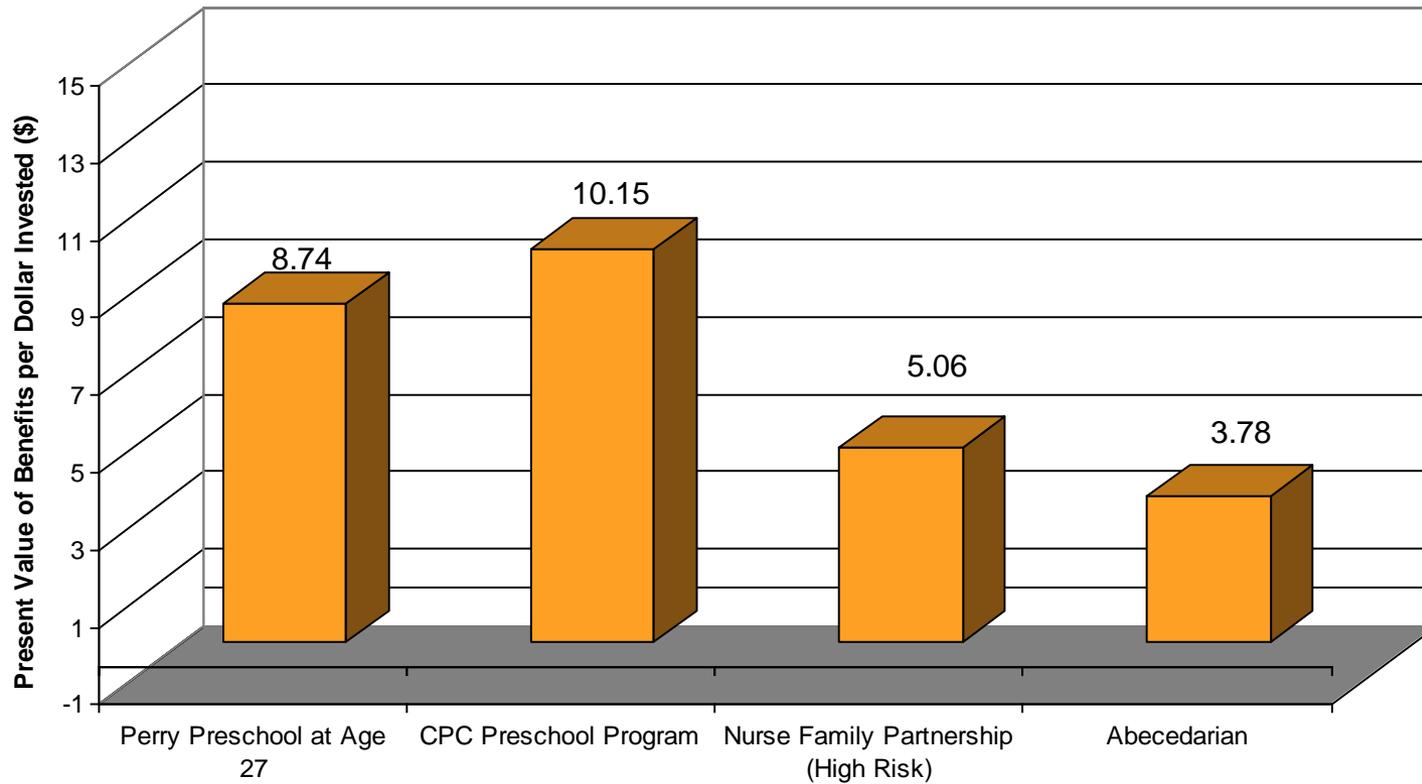
Source: ECLS-B

Public Spending Priorities Do Not Match Research Findings



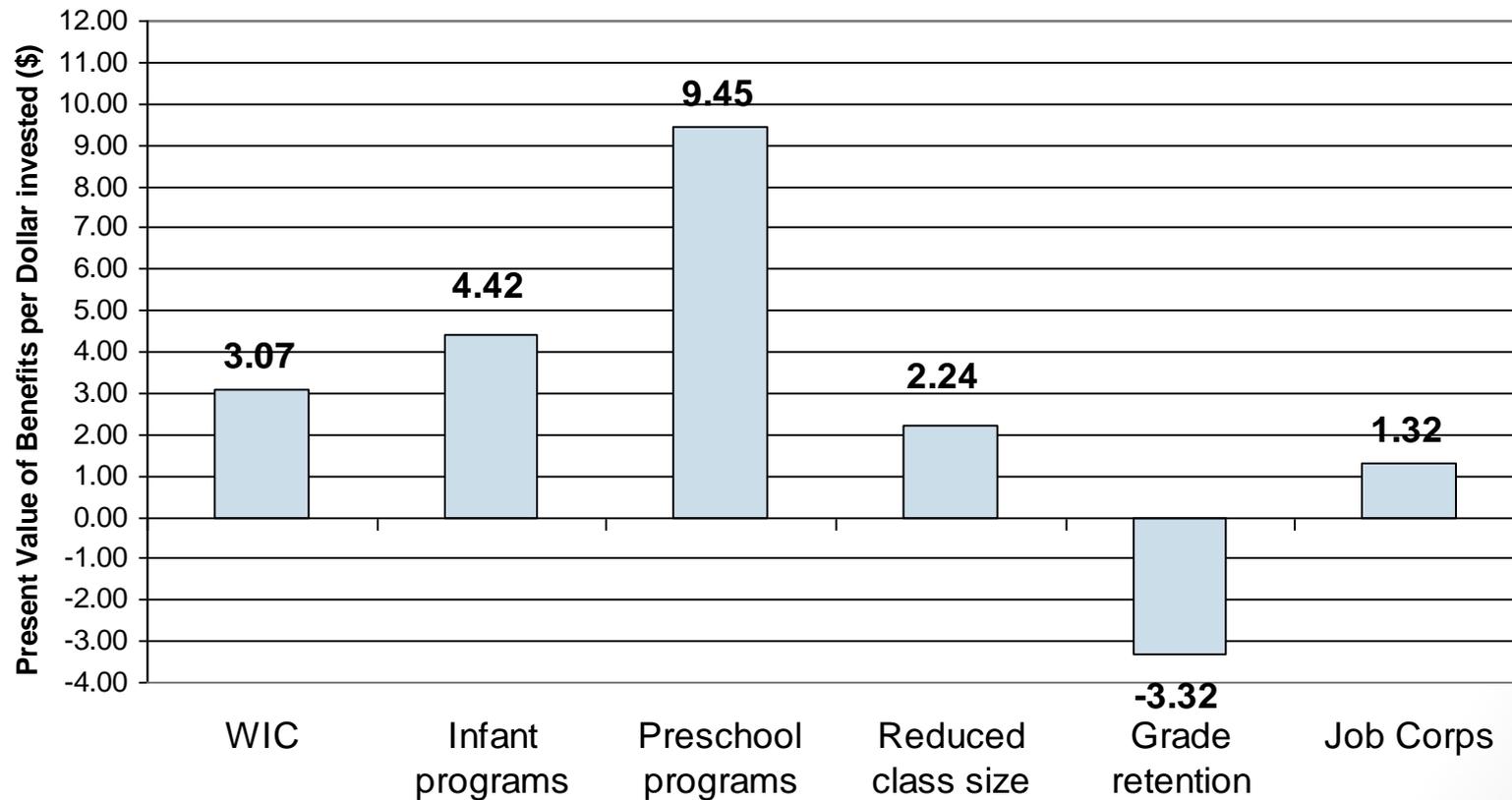
Source: RAND Corporation

Benefit-Cost Ratios for Total Benefit of 4 Programs



From Arthur Reynolds, University of Minnesota

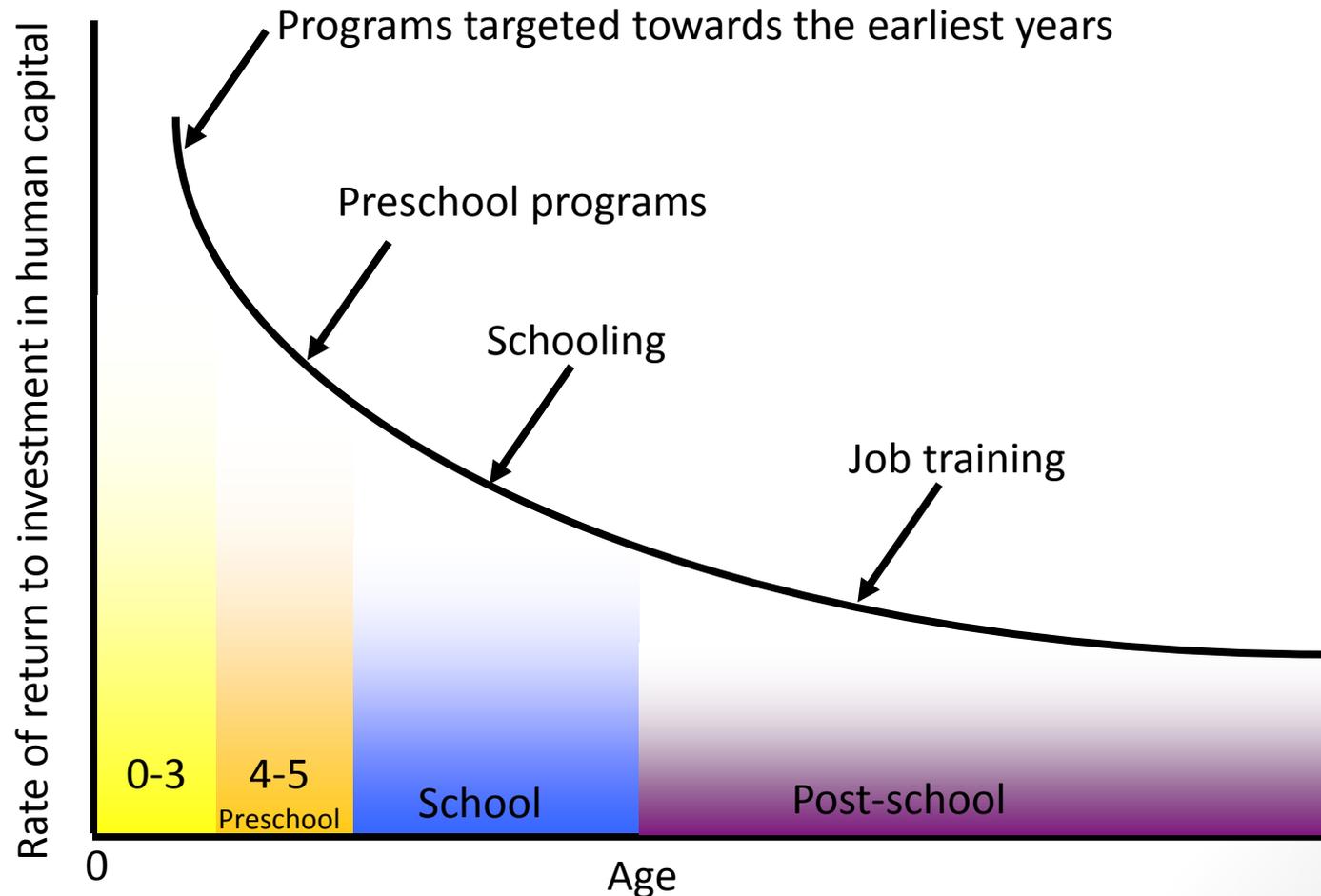
Benefit-Cost Ratios for Child Programs



From Arthur Reynolds, University of Minnesota

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

(James Heckman, University of Chicago)



2/25/2014

Summary: Long-term Effects of ECE

- IQ
- Achievement
- Grade Retention
- Special Education Placement
- High School Graduation
- Positive Socialization
 - Delinquency and crime
 - Adult economic success
 - Fewer out-of-wedlock births

What does high quality program entail?

- High quality continuous programming between the ages of 0-5, full-day and full-year
- High staff qualifications
- Low staff-child ratios
- Emphasizing early literacy and numeracy skills
- Promoting positive social development
- Implementing reflective supervision
- Individualization and data utilization
- Family engagement

Why do we need quality ECE system?

- Numerous studies show the importance of high quality ECE programming for children, especially children in poverty
- However, not all children are in high quality programs
- We see a “fadeout” effect of ECE, but need to consider whether ALL poor and disadvantaged children are experiencing **high quality** care prior to formal schooling (i.e., 0-5 years old)
- Need to consider children’s experiences after early education experiences – quality of public schools
- We cannot close the achievement/opportunity gap without a strong ECE system focused on quality

Thank You!

Comments? Questions?

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