

# Early Care and Education: Closing the Achievement Gap



# Early Education and The Achievement Gap



Clear evidence links high-quality early childhood care and education to better health as well as emotional and cognitive development. However, many children are not given the necessary opportunities to thrive.\*



# Why are experiences in early childhood so important?

- 🍎 Human brain is relatively undeveloped at birth
- 🍎 Brain organization depends on early experiences
- 🍎 Brain structures developed in first years form foundation for complex feeling, thinking, and behaving

# Brain development during Early Childhood

- 🍎 By age 2, the brain is as active as an adult's brain.
- 🍎 By age 3, the brain is 2 ½ times more active than an adult's brain.
- 🍎 Gradual decline in the rate of brain growth by age 10.
- 🍎 Brain development is a “use it or lose it” process

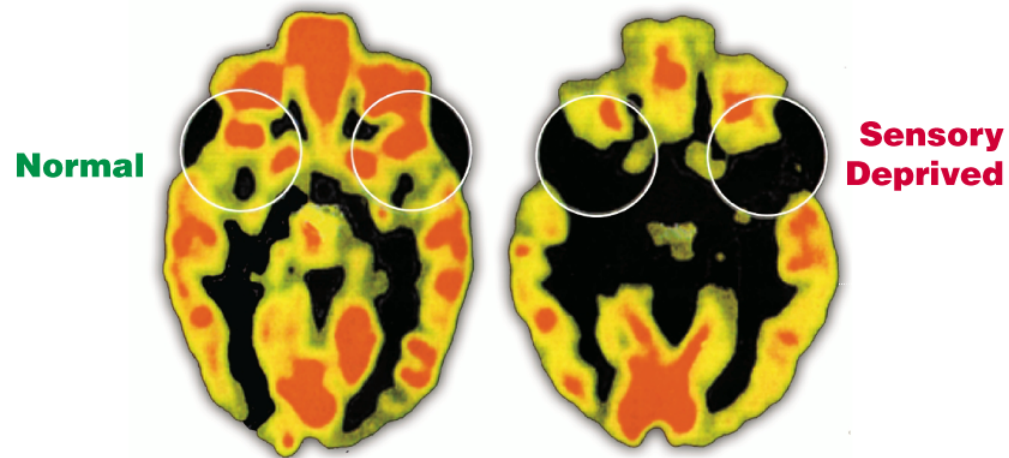
# Children who face the following hardships in the first years of life are more prone to developmental delays and long-term deficits in school achievement:

- Lack of stable, consistent and nurturing relationships with parents and caregivers
- Poor access to healthcare and proper nutrition
- Little or no exposure to age-appropriate learning activities\*



\**Closing the Achievement Gap*, NGA Center for Best Practices.  
[www.subnet.nga.org/educlear/achievement/index.html](http://www.subnet.nga.org/educlear/achievement/index.html)

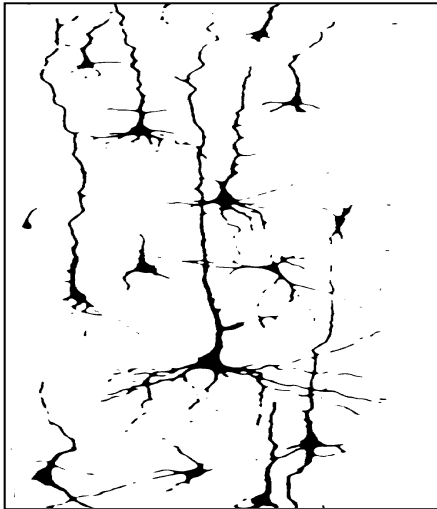
## Normal vs. Deprived Brain of a Three Year Old Child



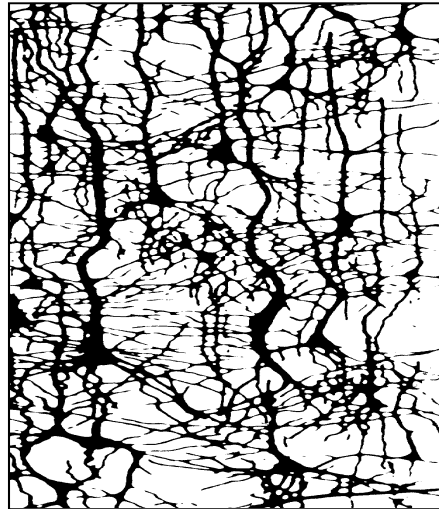
Source: Newsweek, Spring/Summer 1997 Special Edition:  
"Your Child: From Birth to Three", pp. 30-31.

Deprived of a stimulating environment, a child's brain suffers. Children who don't play much or are rarely touched develop brains 20% to 30% smaller than normal for their age.

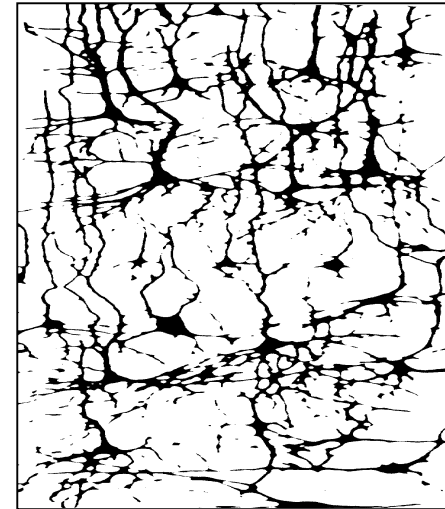
Human Brain at Birth



6 Years Old



14 Years Old  
Old



# Development Gap Among Preschoolers

Before entering preschool, the average cognitive scores of preschool-aged children in the highest socioeconomic group (SEG) are 60% above the average scores of children in the lowest SEG.

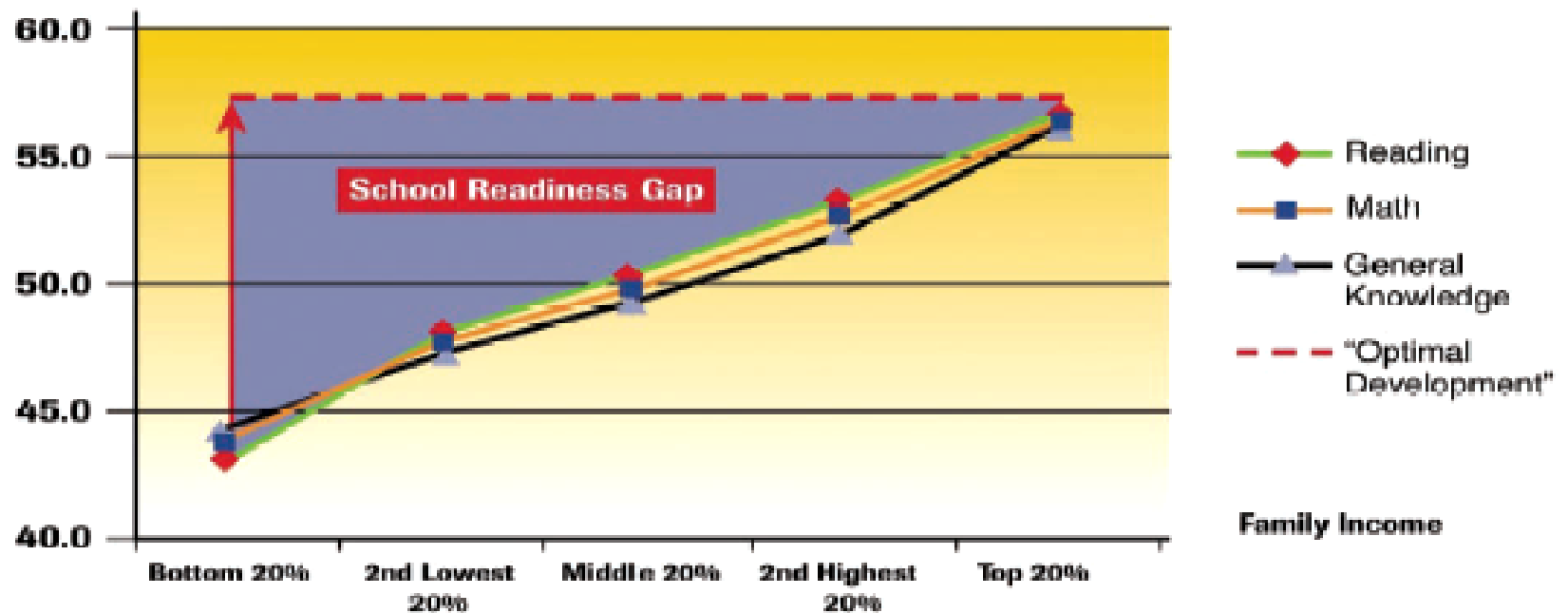
– *Inequality at the Starting Gate: Social Background Differences in Achievement as Children Begin School.* Economic Policy Institute, 2002.



# School Readiness Gap at 5

## Achievement Gap as Children Begin Kindergarten

Academic Ability Scores



Source: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998-99, Fall 1998. In Barnett, W. S.; Hustedt, J. T.; Robin, K. B.; & Schulman, K. L. (2004). *The state of preschool: 2004 state preschool yearbook*. Washington, DC: National Education Association <[nieer.org/yearbook2004/pdf/yearbook.pdf](http://nieer.org/yearbook2004/pdf/yearbook.pdf)>.

# Vocabulary Gap at Age Three

- High socio-economic status (SES) children have average vocabularies of 1100 words at age 3
- Middle SES children have average vocabularies of 750 words at age 3
- Low SES children have average vocabularies of 480 words at age 3
- Studies show children who got quality child care before entering kindergarten had better vocabulary scores in the fifth grade than did youngsters who received lower quality care.\*

\* National Institutes of Health



# Achievement Gap Research

- Early Childhood Educational Longitudinal Study
- 23,000 kindergarteners
- Nationally representative sample
- Black and Hispanic children scored substantially below white children on math and reading

# Achievement Gap Research

- Family and Child Experiences Survey (FACES) tests children entering Head Start
- Show low-income, minority children score substantially lower on early reading, math, vocabulary, and letter recognition
- As much as 15 points lower on I.Q. test



# “Brain-Building Experiences”

Nurturing, consistent & enriching experiences provided in a safe environment result in brains that are organized for learning & building relationships



Studies show that children exposed to nurturing, stimulating environment in the first five years of life achieve higher results in elementary and secondary education:

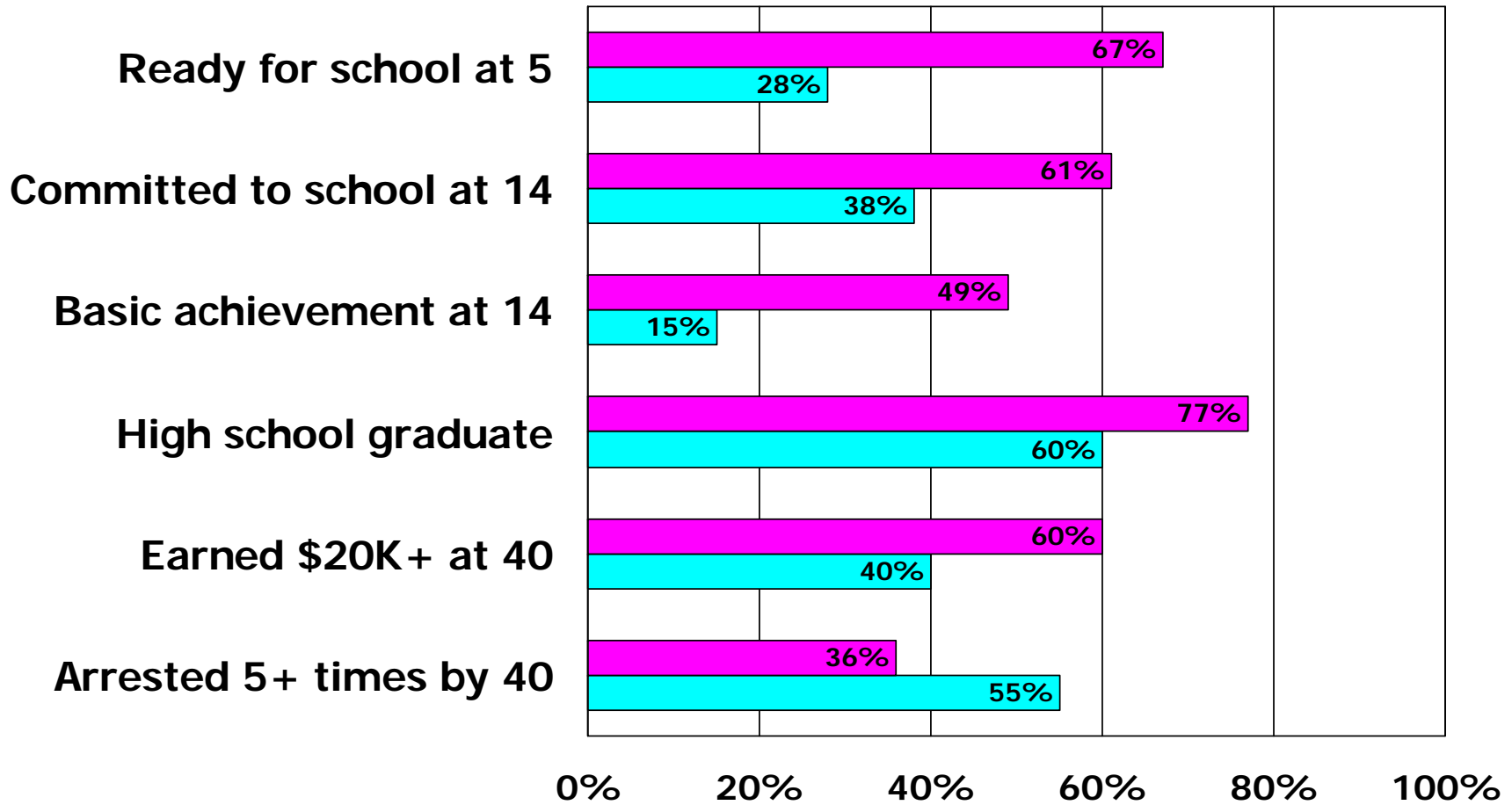
- 🍎 High-Scope/Perry Preschool Project
- 🍎 Abecedarian Project
- 🍎 Chicago Child-Parent Center Longitudinal Study

# High-Scope/Perry Preschool Project

- 🍎 Tracked 123 low-income, minority children over 25 years
- 🍎 High-quality program with home visits
- 🍎 Included self-direction from children
- 🍎 Report at age 5, 14, 27 and age 40

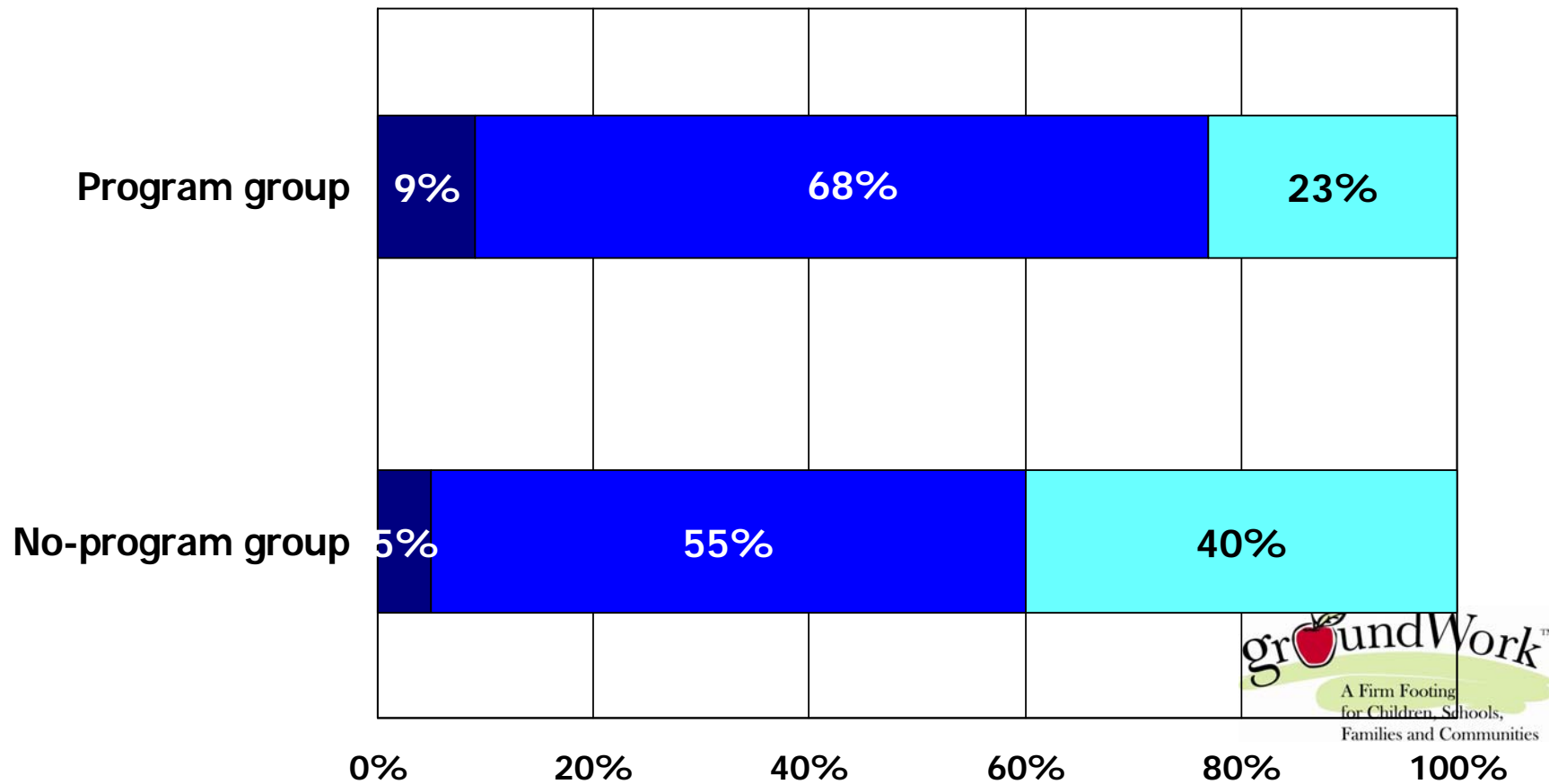


■ No-program group ■ Program group

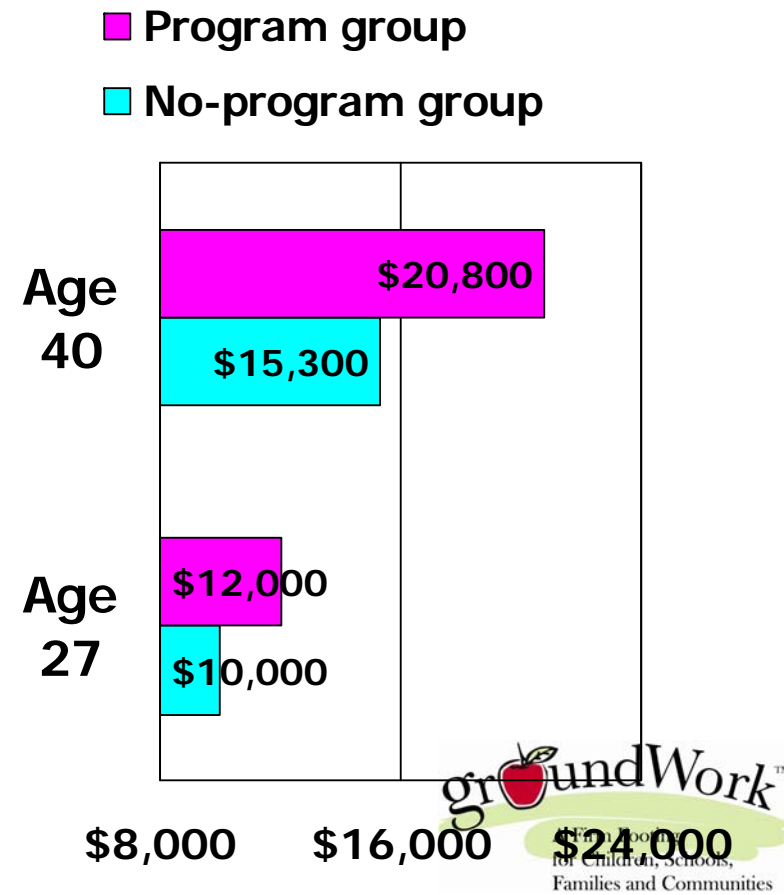
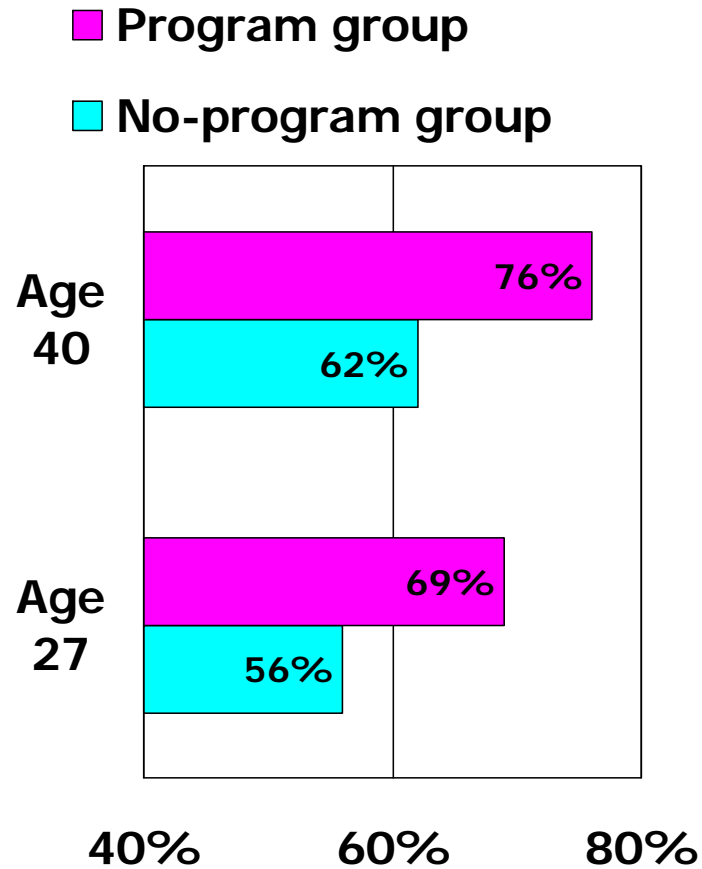


# More high school graduates

- Associate+ degree
- Graduated from high school
- High school dropout



# More employed, higher earnings



# Abecedarian Project

- Low-income children
- Full-time, high-quality educational intervention birth to five.
- Individualized education plan; activities focused on social, emotional, and cognitive areas of development.
- Progress monitored with follow-up studies at ages 12, 15, and 21.

# Abecedarian Preschool Program

## Treatment Group

- Adequate nutrition
- Supportive social services
- Free primary health care
- Preschool treatment:  
Intensive (full day, 5 days/week, 50 weeks/year, 5 years)  
“Learning games” Curriculum  
Cognitive / Fine Motor  
Social / Self  
Motor  
Language  
Individualized pace

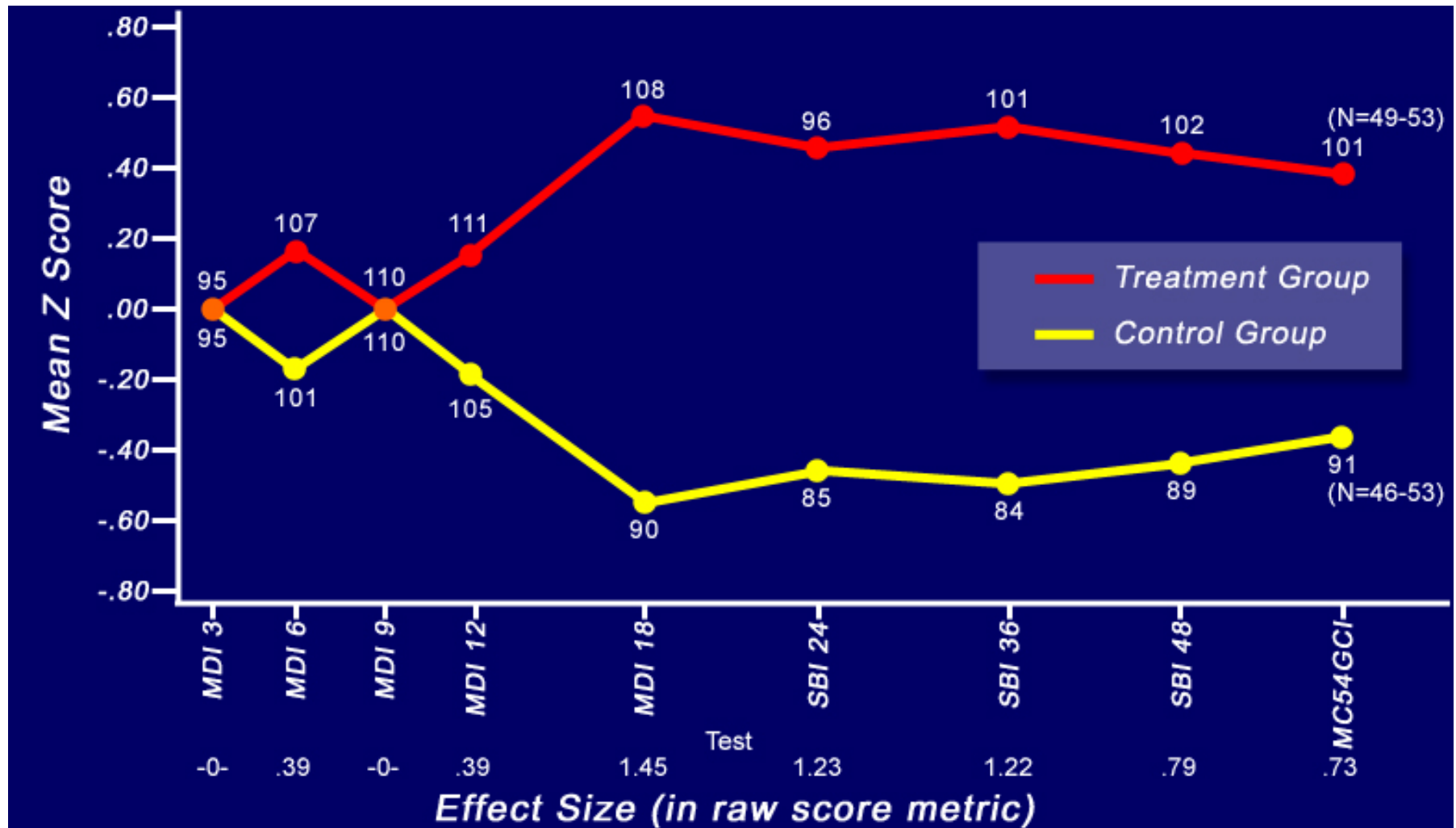
## Control Group

- Adequate nutrition
- Supportive social services
- Low-cost or free primary health care

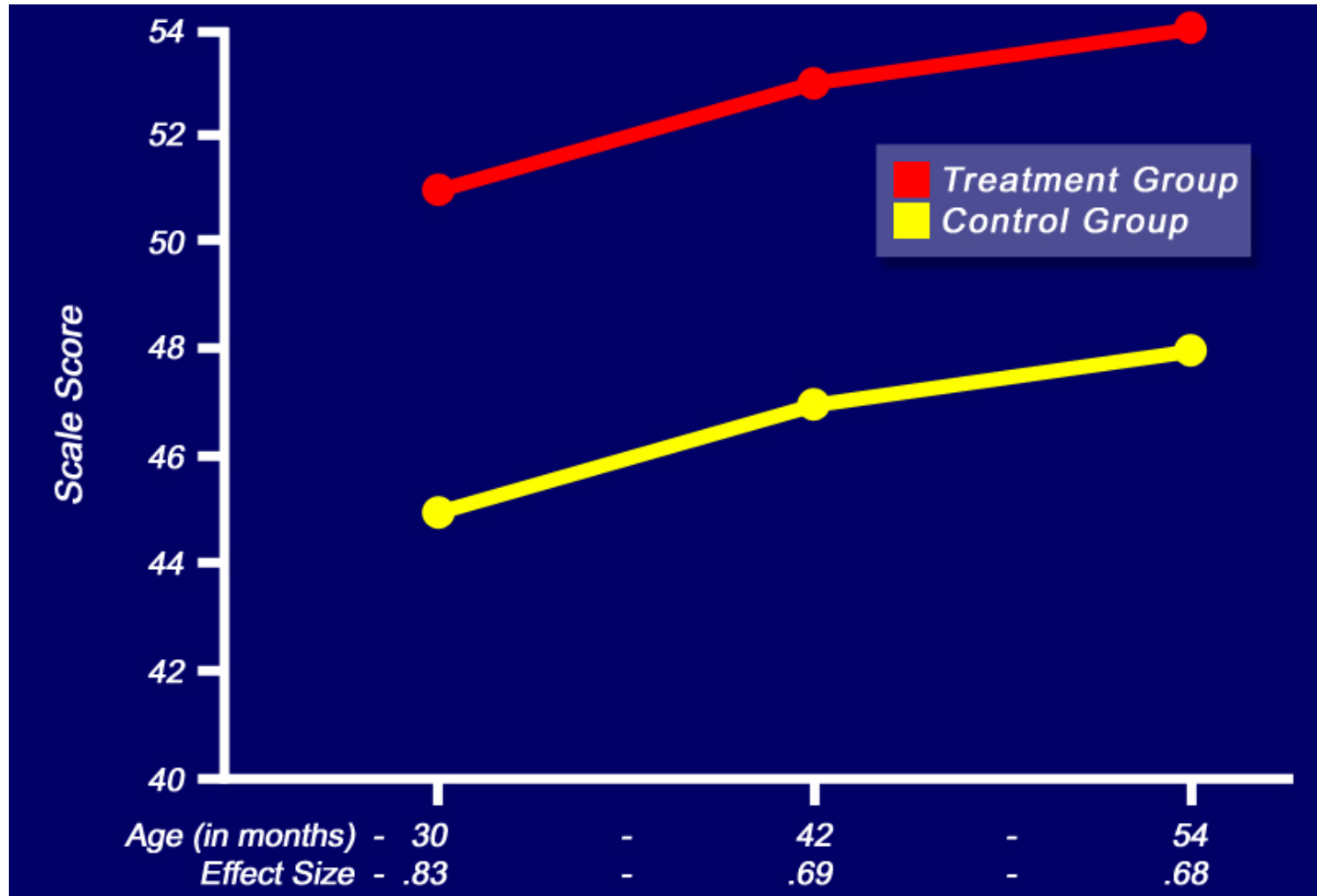
*Campbell & Ramey, 1995*  
*American Educational Research Journal*



## Mean Standardized Scores for High-Risk Preschool Treatment and Control Children in the Abecedarian Project at Nine Preschool Measurement Occasions

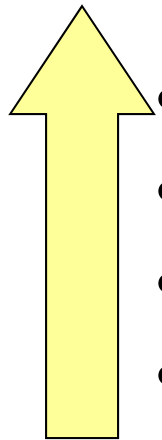


# Verbal Scale Scores (McCarthy) for Abecedarian (ABC) Project



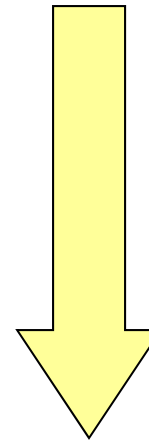
# Key Findings from Abecedarian Project

## Kindergarten to 21 Years Old



### Intelligence (IQ)

- Reading and math skills
- Academic locus-of-control
- Social Competence
- Years in school, including college
- Full-time employment



### Grade Repetition

- Special Education placement
- Teen Pregnancies
- Smoking and drug use

# The Chicago Longitudinal Study

- Began in 1986
- 1,539 low-income children in the Chicago Public Schools.
- High-quality, publicly-funded program



# Findings

- Children who attended preschool significantly outperformed those in the comparison group.
- Preschool participants were retained less often and had lower rates of special education placement through age 13.
- Preschool participation was associated with lower rates of official juvenile arrests.\*



\*The Chicago Longitudinal Study. [www.waisman.wisc.edu/cls/NEWSLETN.PDF](http://www.waisman.wisc.edu/cls/NEWSLETN.PDF)

# Summary of Findings

High quality early childhood education improves a child's classroom, social and thinking skills; language ability and math skills.

## Long term effects include:

- Significantly higher high school graduation rates
- Higher employment rates
- Lower teen pregnancy rates\*



\*The Chicago Longitudinal Study. [www.waisman.wisc.edu/cls/NEWSLETN.PDF](http://www.waisman.wisc.edu/cls/NEWSLETN.PDF)

# The Whole Child Approach

Looks at what children need for healthy development from the outset rather than reacting when problems arise. It promotes strong families, access to health care, high quality learning environments, and access to behavioral health services.



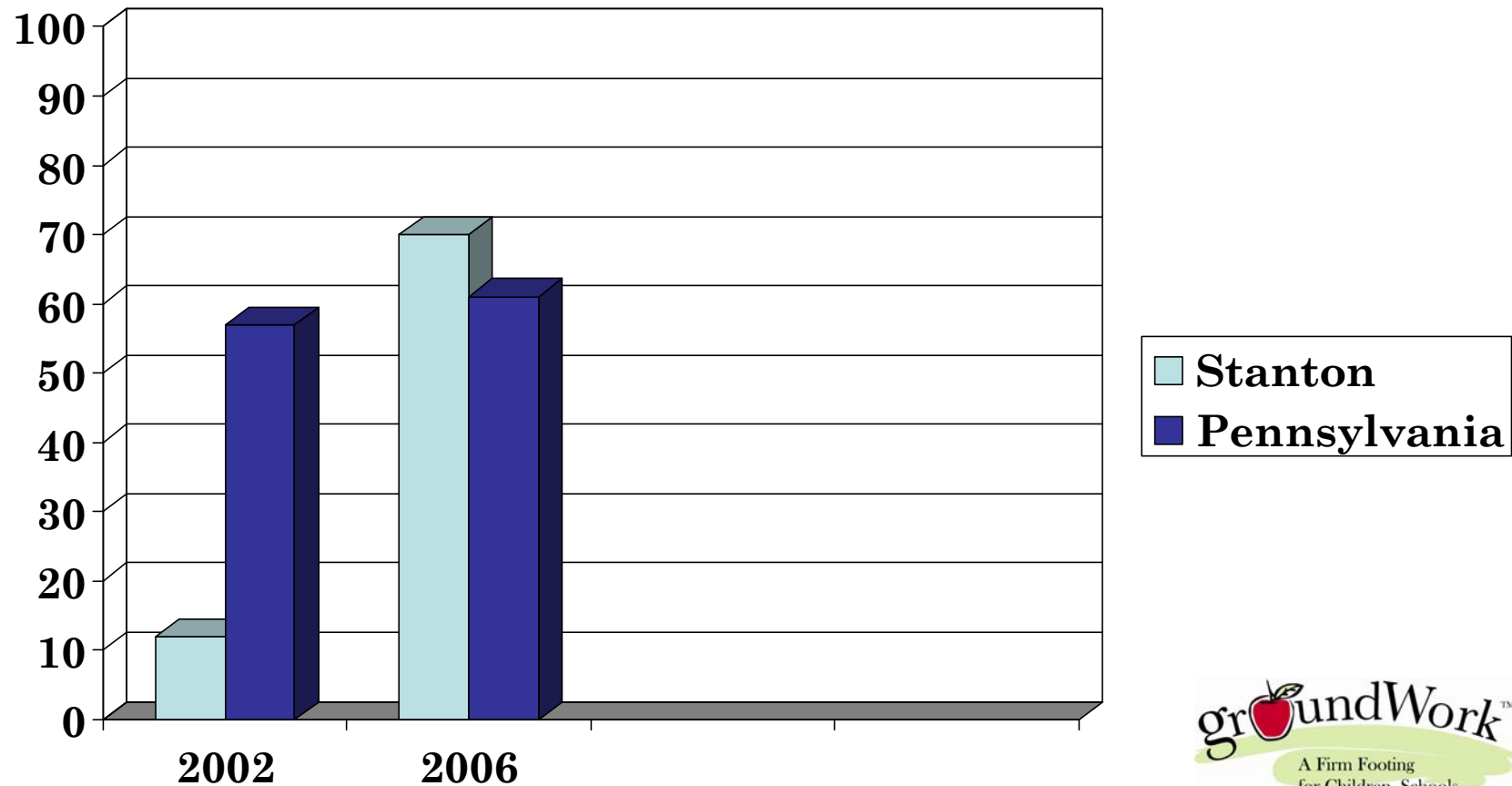
# The Whole Child Approach at Work

- M. Hall Stanton Elementary, Philadelphia, PA
- Capitol View Elementary, Atlanta, GA

# Stanton Elementary

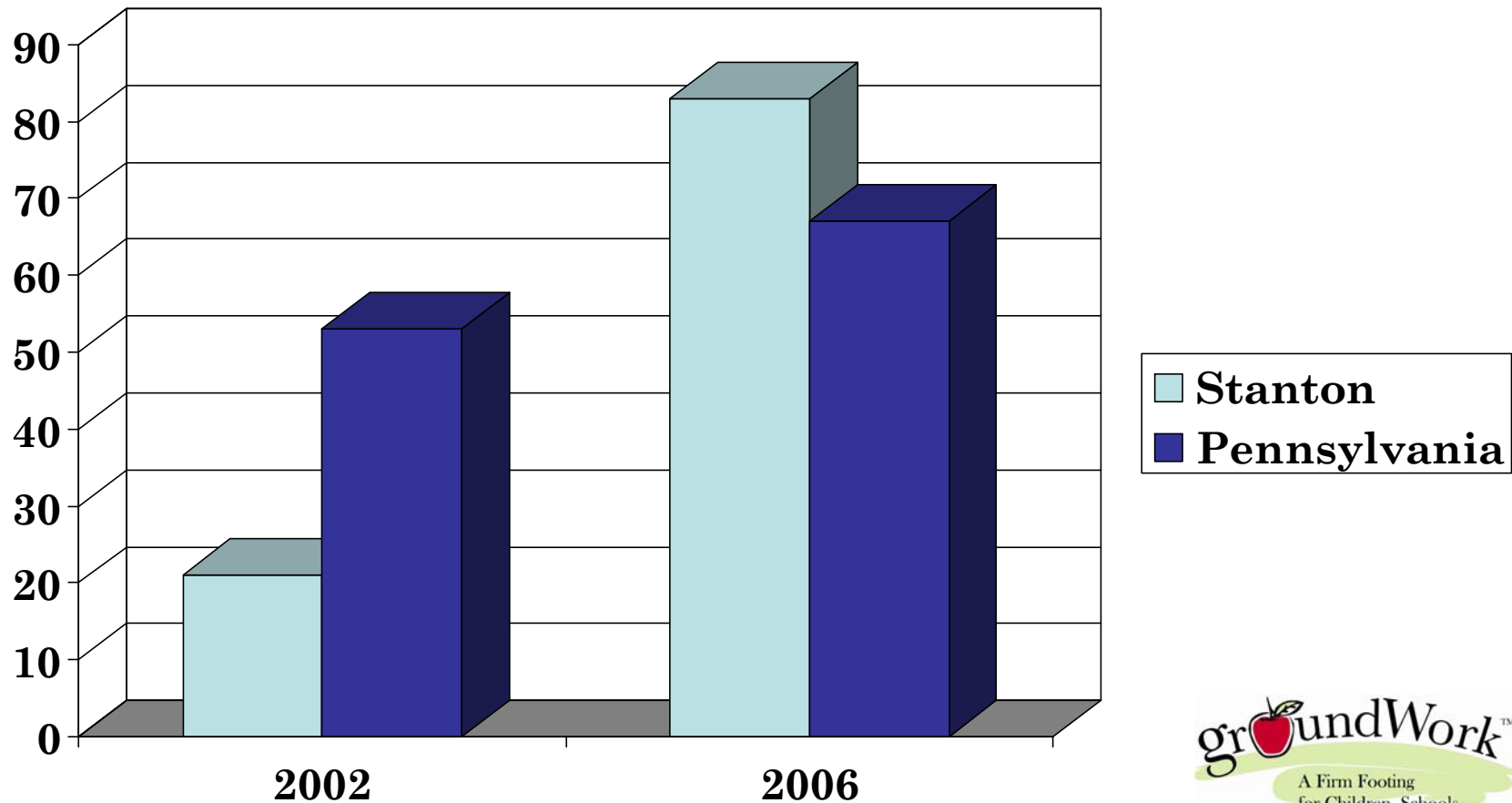
- 487 Students in K-6
- 100 percent African American
- 86 percent low income

# Rapid Improvement at Stanton Elementary in Grade 5 Reading\*



\*School Information Partnership. [www.schoolmatters.com](http://www.schoolmatters.com)  
Pennsylvania Department of Education [www.pde.state.pa.us](http://www.pde.state.pa.us)

# Rapid Improvement at Stanton Elementary in Grade 5 Math\*

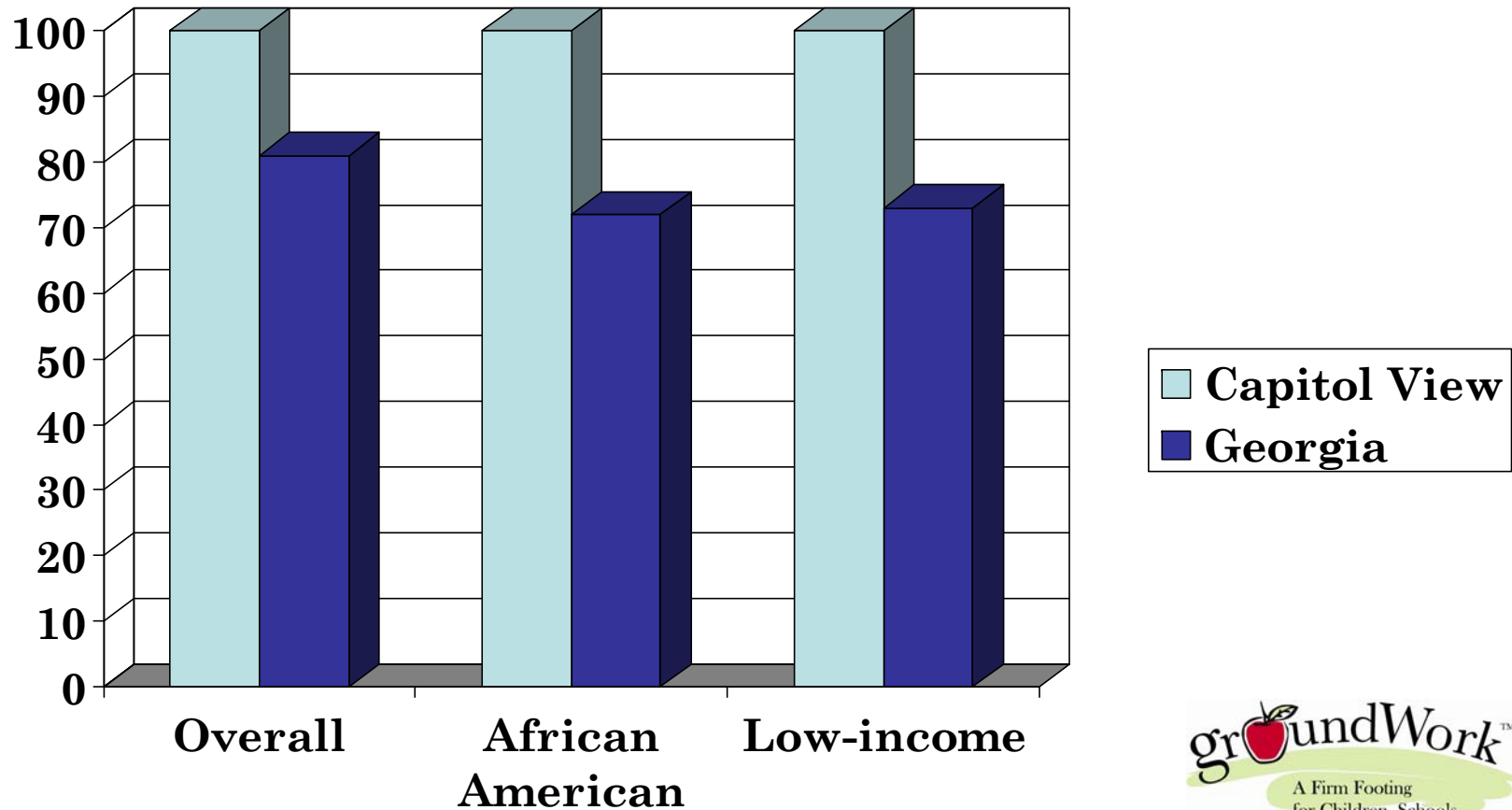


\*School Information Partnership. [www.schoolmatters.com](http://www.schoolmatters.com)  
Pennsylvania Department of Education [www.pde.state.pa.us](http://www.pde.state.pa.us)

# Capitol View Elementary

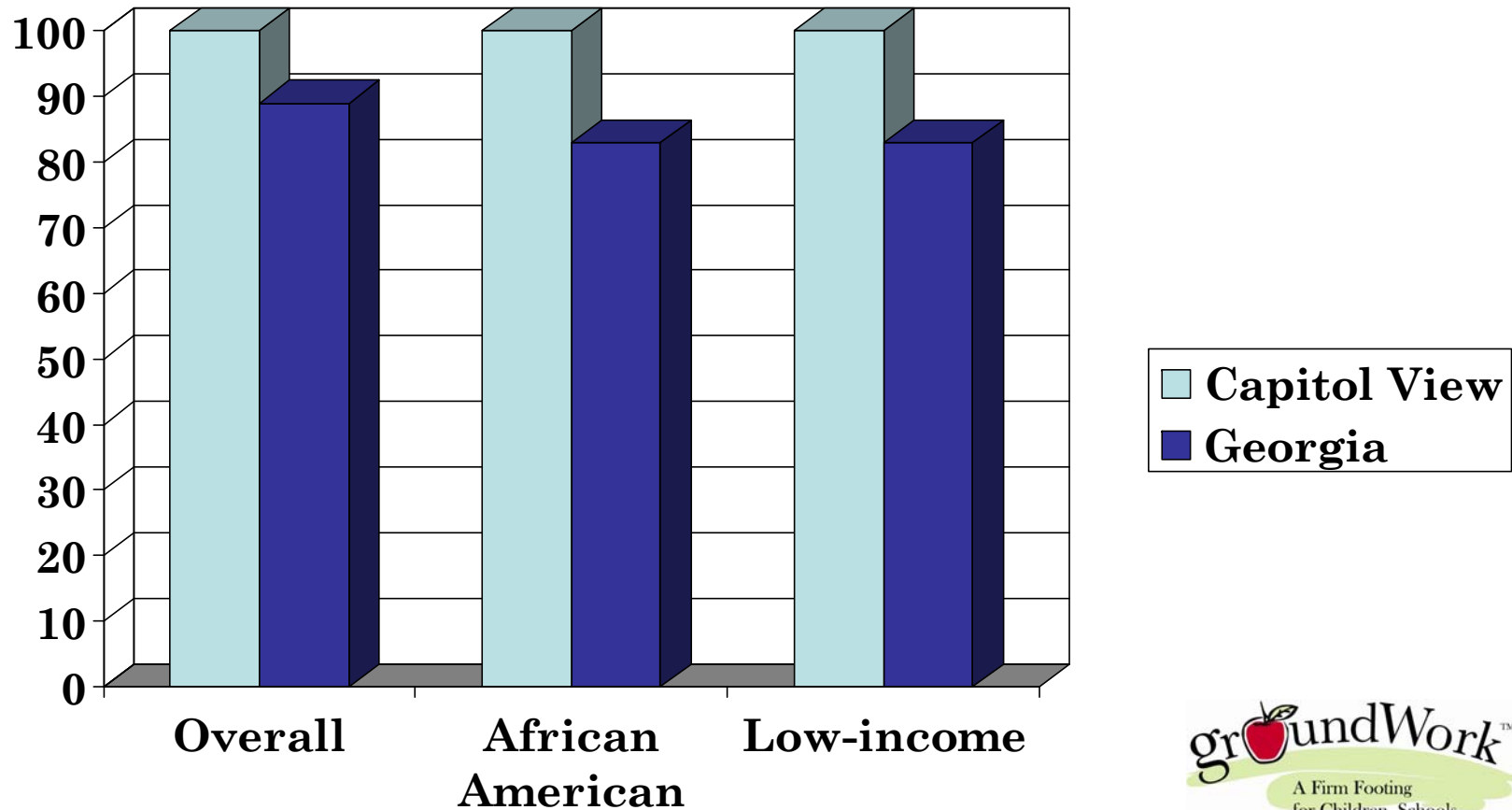
- 252 students K-5
- 95 percent African American
- 88 percent low income

# Capitol View Improvement in Grade 5 Reading\*



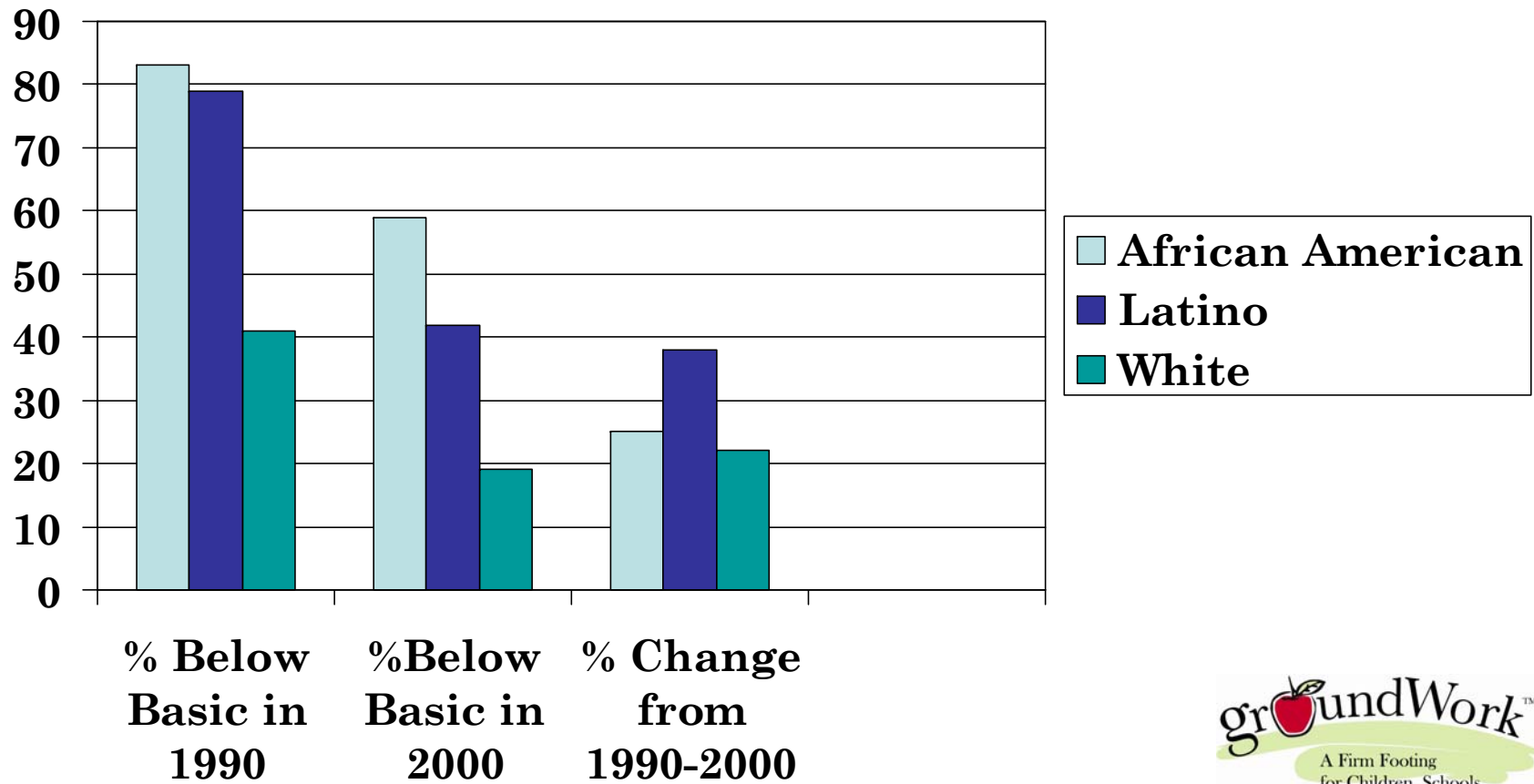
\*Georgia's Governor's Office of Student Achievement. [www.reportcard2006.gaosa.org/](http://www.reportcard2006.gaosa.org/)

# Capitol View Improvement in Grade 5 Math\*



\*Georgia's Governor's Office of Student Achievement. [www.reportcard2006.gaosa.org/](http://www.reportcard2006.gaosa.org/)

# Achievement Gains in Ohio for 4<sup>th</sup> Grade Math Scores\*



\*[www2.edtrust.org/EdTrust/Press+Room/NAEP+2005.htm](http://www2.edtrust.org/EdTrust/Press+Room/NAEP+2005.htm)

# Policy Implications

- Steps must be taken to ensure that quality early childhood education and kindergarten is available and affordable for all families.
- Childcare officials should be aware of the importance of comprehensive system building taking the the whole child approach.



- Effective early care and education can change a child's future and this can make a difference for Ohio's education system. When classrooms are filled with children who have the tools and skills they need to start school, they will be much better able to learn.

# groundWork Ohio

## Good Choices to Build Readiness

- Quality early experiences birth-6
- Full day kindergarten
- Behavioral health screening and treatment as needed
- Primary health care access and utilization



# Ohio Early Care and Education Campaign

- Nonpartisan statewide effort to increase state investment in ECE
- Educate Ohio's leaders about the importance of early care and education
- Cultivate champions
- Field effort to build the advocacy skills of ECE providers



# GOAL

To build the necessary political will for a statewide birth to six system of high quality early care and education



OHIO EARLY CARE & EDUCATION CAMPAIGN

# Birth to Six Approach

- 🍎 Many valid definitions of “early” including:
  - Birth or pre-natal to 5
  - Focus on 4/5 year olds
- 🍎 A continuum of care
- 🍎 Planks based on early learning research
- 🍎 Opinion research in Ohio and national

# Pre-Kindergarten Access in Ohio

- 🍎 Just 40 % of 3-5 year-olds below 200% of the FPL have access to state-funded pre-K
- 🍎 Ohio ranks 27th in pre-K access
- 🍎 Parents need choices with dependable quality
  - Public preschool
  - Head Start and Early Learning Initiative
  - Child Care (nonprofit, for-profit, faith-based, etc.)



# All Day Kindergarten

- 🍎 Kindergarten is mandatory in Ohio
- 🍎 324 districts offer full-day kindergarten
- 🍎 Full-day is funded by Poverty-Based Assistance (unstable),
- 🍎 General fund (unstable), parent co-pays
- 🍎 (unstable)
- 🍎 45% of children attend full-day K
- 🍎 Critical to school readiness

# Access to Behavioral Health Care

- 🍎 Only half of the 240,000 children under 18 years of age who need behavioral health treatment receive it.
- 🍎 Ohio's ranking among states in terms of per capita spending for behavioral health services, from 17th in 1981 to 35th in 2002, indicates erosion in the amount of state funding

# Access to Physical Health

- Help Me Grow
- SCHIP
- EPSDT
- Medicaid

# Help Any Way You Can

- Endorse the Campaign
- Play a Role/Make a Difference
- Call or write a letter to your legislator
- Write a letter to the editor of your local newspaper
- Suggest campaign speaking opportunities
- Visit the media or elected officials
- Talk to others about the importance of early care and education!



# [www.groundWorkohio.org](http://www.groundWorkohio.org)

The screenshot shows the homepage of the groundWorkohio.org website. At the top, the logo features a red apple with a green leaf, with the text "groundWork" in a stylized font. To the right of the logo is a search bar with the text "Home search our site, research and resources" and a "FIND IT!" button with a green arrow. Below the logo is a navigation menu with the following items: "ABOUT THE CAMPAIGN", "RESOURCES", "PRESS", "FAQS", "GET INVOLVED!", "LINKS", and "CONTACT US".

The main content area is divided into several sections:

- Partners with...**: This section features two logos. On the left is the "School Readiness SOLUTIONS GROUP" logo, and on the right is the "BUILD Strong Foundations for Our Youngest Children" logo. Below the logos, it says "SUPPORTED BY... United Way of Greater Cincinnati" and includes a link for a "FULL LIST OF SUPPORTERS".
- Every child deserves a chance to succeed in life.**: This section includes a photograph of a woman holding a baby. To the right of the photo, it states: "A campaign to make voluntary, high-quality early care and education available to all Ohio children, ages birth through six." Below this, it says: "The research is in: high-quality early education, health care, and social/emotional development services lay the groundwork for children to be more successful in school, more likely to graduate from college and have higher overall lifetime earnings. That's why making high-quality early care and education available to every family makes sense for Ohio." Below this text, it says: "The Ohio Early Care and Education Campaign (OECEC) was established to build on Ohio's existing commitment to young children. The goal of the OECEC is to make early care and education a priority for Ohio's elected leadership and community leaders across the state." At the bottom of this section, it says: "In mid-2006, the completed recommendations of the School Readiness".
- SIGN UP!**: This section features a photograph of four children sitting on a bench. Below the photo, it says "SIGN UP!" and "Updates. Special Events. News." There are three input fields for "Name:", "Organization:", and "Email:". Below the fields is a "SUBMIT" button with a pencil icon. Below the button, it says "Your information is safe. Click here for our Privacy Statement."
- What's New?**: This section is titled "What's New? Events and Important Dates." It lists two events:
  - 11.28.06** Youngstown informational and advocacy planning meeting, 1:00-2:30pm. A "READ" link is provided.
  - 11.29.06** Lorain informational and advocacy planning meetings, 10:30-12:00.
- RESEARCH LINKS**: This section features a clipboard icon and the text "RESEARCH LINKS Read it. Pass it on!". Below this is a link for "High-Quality Pre-Kindergarten".

  
A Firm Footing  
for Children, Schools,  
Families and Communities