Effects of the New Mexico PreK Initiative on Children's School Readiness: Results from 2006-07

Jason T. Hustedt and W. Steven Barnett
National Institute for Early Education Research
Rutgers University

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SOURCE: Dr. Jason T. Hustedt, Assistant Research Professor, and Dr. W. Steven Barnett, Director, National Institute for Early Education Research, Rutgers University

Summary of Main Topics

- Context for NIEER New Mexico PreK study
- Goals and data sources
- Results: language, math, literacy
- Preliminary results: classroom quality
- Interpretation, and plans for next 2 years

National Trends

- Continued growth in percentages of 3- and 4-year-olds who attend across the U.S.
- Increased state investments, with majority of state pre-K initiatives starting in 1990 or later
- Over 940,000 children in voluntary, state-funded pre-K ’05-’06

New Mexico PreK in Context

- 38 U.S. states have state-funded pre-K, including New Mexico
- State pre-K expanding in general, with some states moving toward voluntary pre-K for all 4-year-olds
- As more children participate, important to understand how effective programs are in improving kindergarten readiness

New Mexico PreK Study

- New Mexico is 1 of 8 states in which NIEER has conducted state pre-K evaluations
- In-depth 4-year study that began during first year of PreK initiative
- Earlier (Spring '06) results described children's skills at the end of that first year
- New prekindergarten initiatives develop over time; this is the first look at effects

Current Research Questions

- Compared to children who did not attend, do New Mexico PreK participants benefit in these areas:
  - * Language development?
  - * Math skills?
  - * Literacy skills?
- What is classroom quality like during year two of New Mexico PreK?

Data Sources

- Data collected by NIEER-trained assessors based in New Mexico
  - * Child assessment measures Fall '06
  - * Classroom quality measures Spring '07

Fall 2006 Sample

- 504 4-year-olds from 86 PED and CYFD New Mexico PreK sites across the state ("No PreK group")
- 382 5-year-olds from 179 kindergarten classrooms across New Mexico ("PreK group")

Describing the Sample

- Children's ethnicities:
  - * 56% Hispanic
  - * 28% Native American
  - * 10% White
  - * 4% Other ethnicities
- Children's home languages:
  - * 80% spoke English
  - * 14% spoke Spanish

Child Assessment Measures

- Vocabulary knowledge: Peabody Picture Vocabulary Test, 3rd Edition (PPVT-III)
- Math skills: Woodcock-Johnson Tests of Achievement, 3rd Edition, Subtest 10 (WJ-III)
- Print awareness: Preschool Comprehensive Test of Phonological and Print Processing (Pre-CTOPPP)
- Spanish-language versions, as appropriate

Estimating the Effects of PreK

- Start with two groups of New Mexico PreK children
- One group of children already attended PreK and the other group now attending
- Child assessments early in school year
- Comparisons rely on the state's cut-off date for kindergarten enrollment
- Children's ages distributed around the cut-off date and differences between groups are calculated

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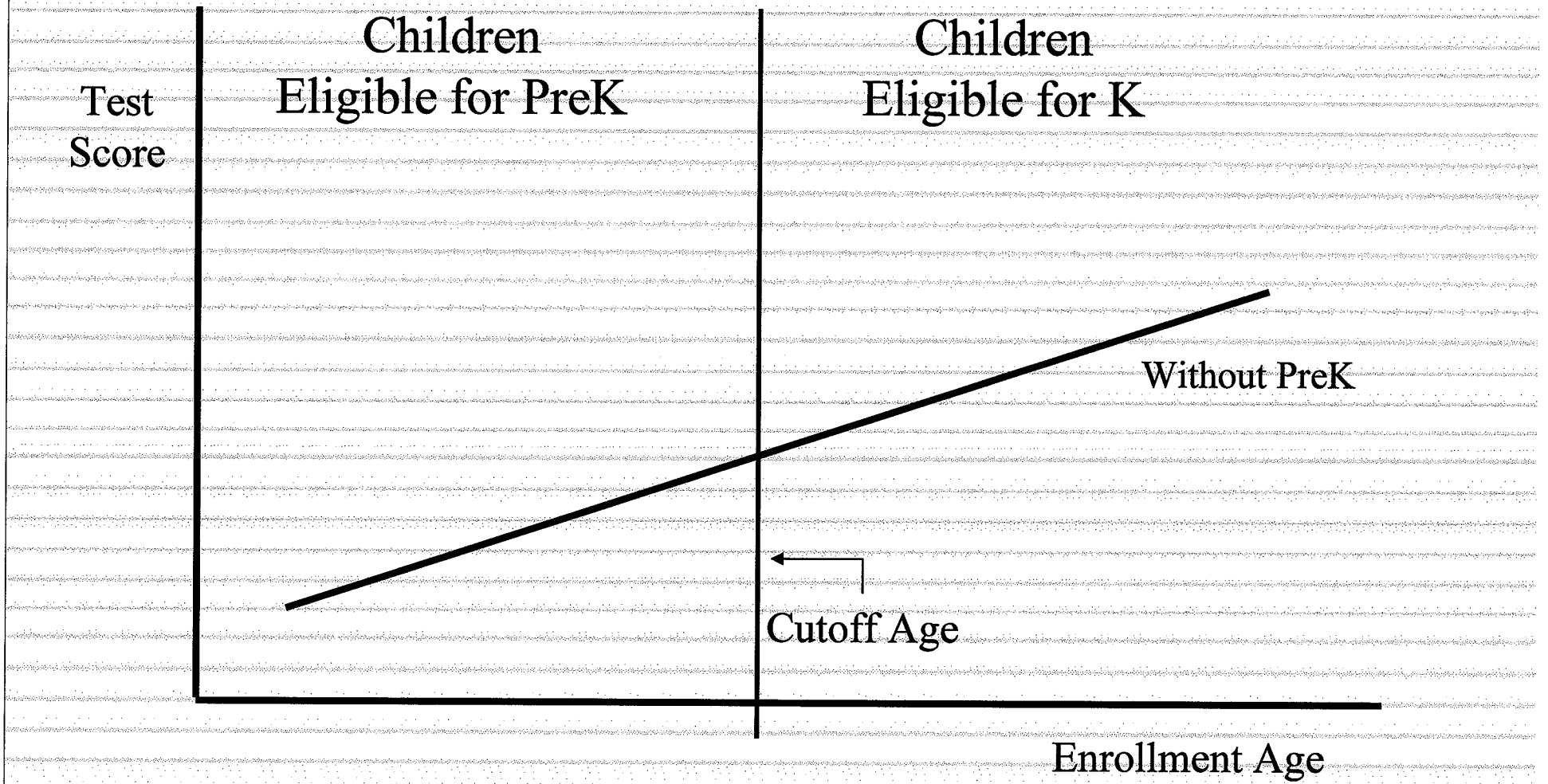
Preschool

Birthday: 9/1/03

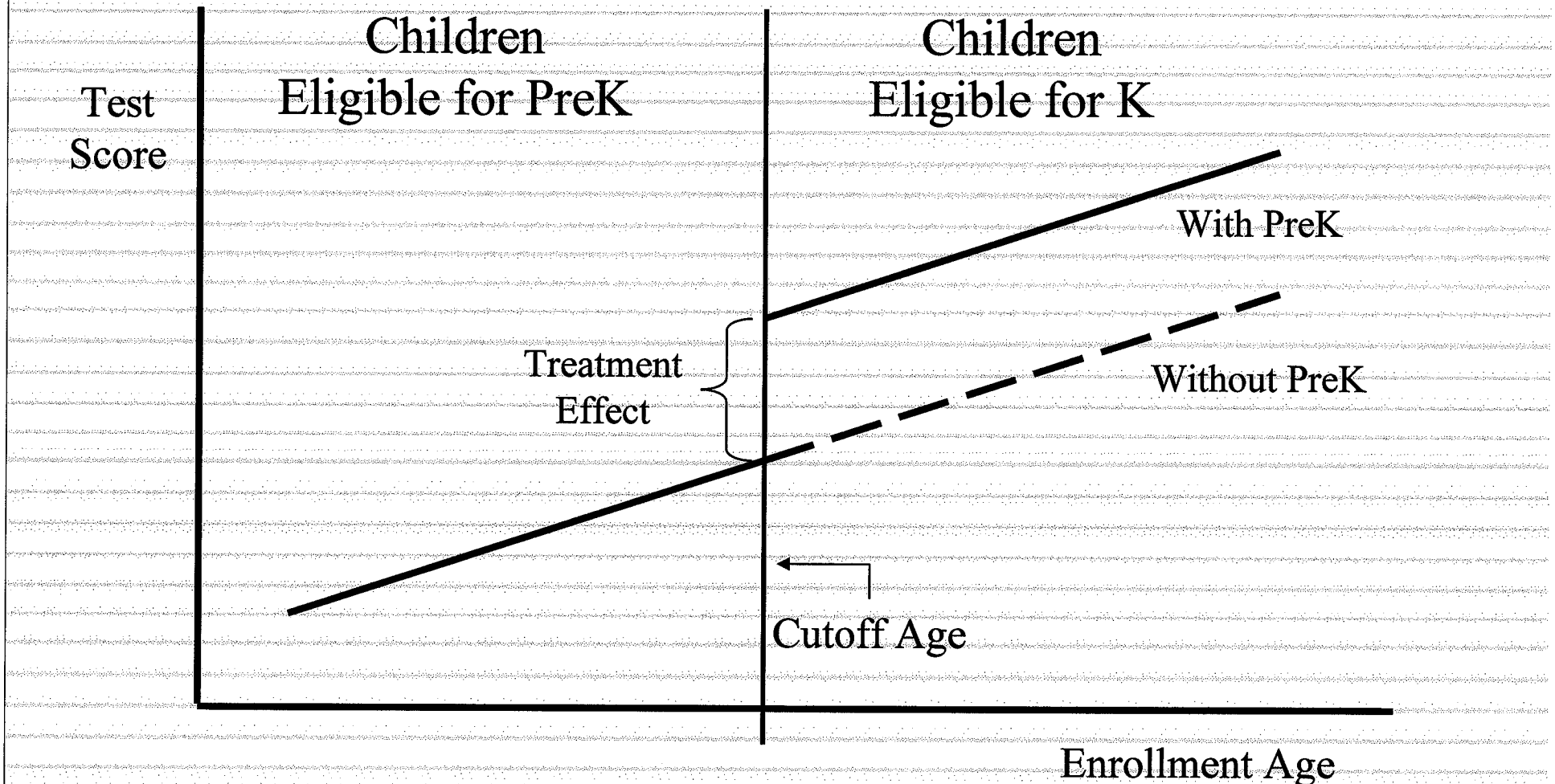
Kindergarten

Birthday: 8/31/03

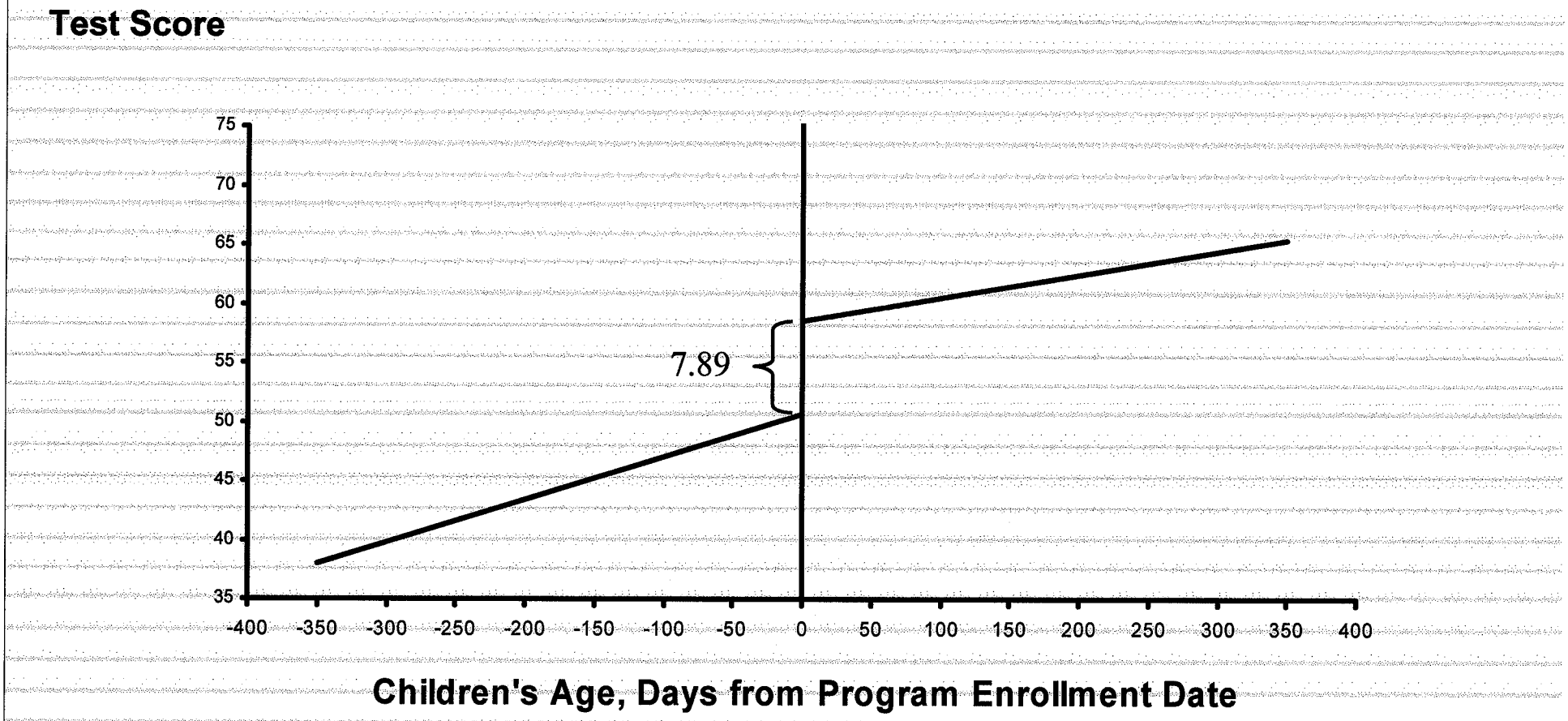
Test Scores by Age



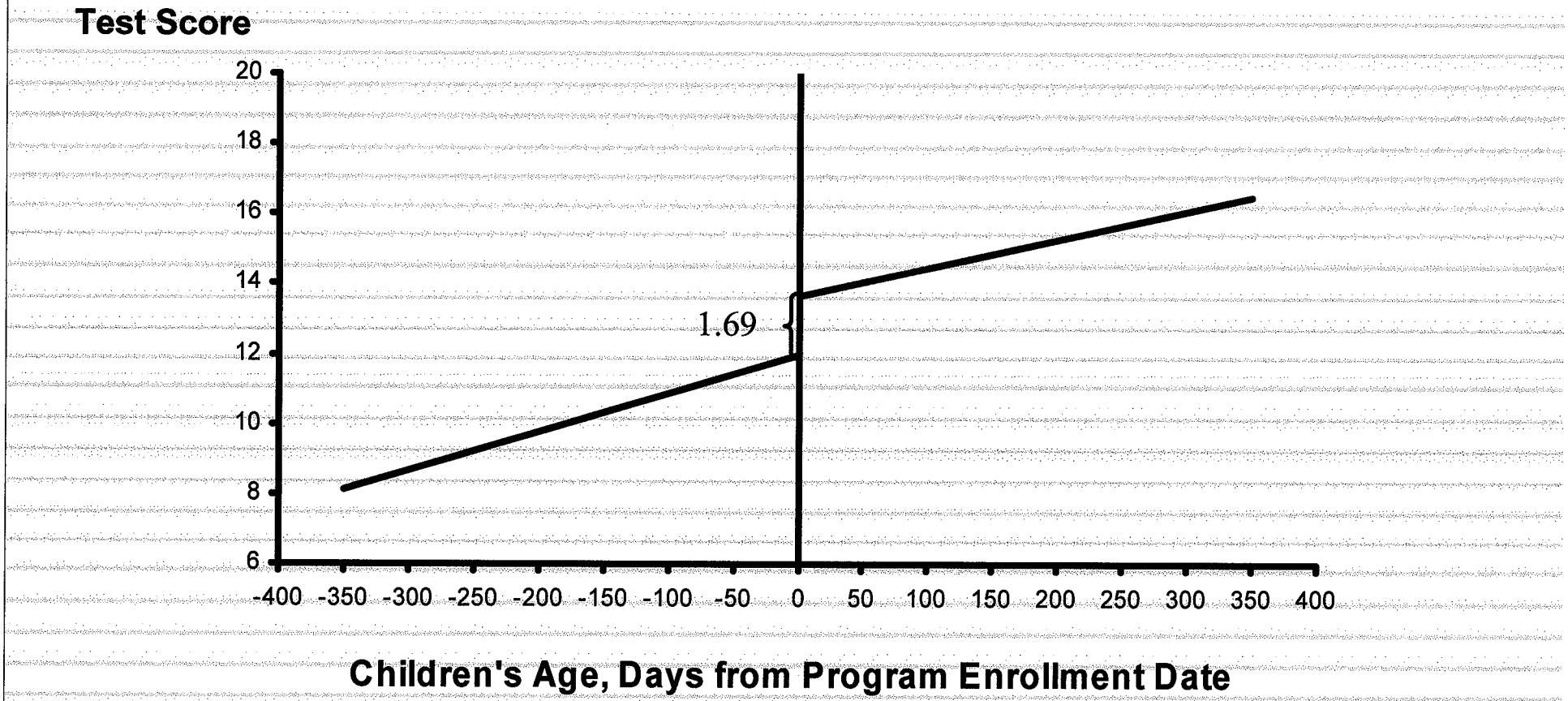
The Effect of PreK



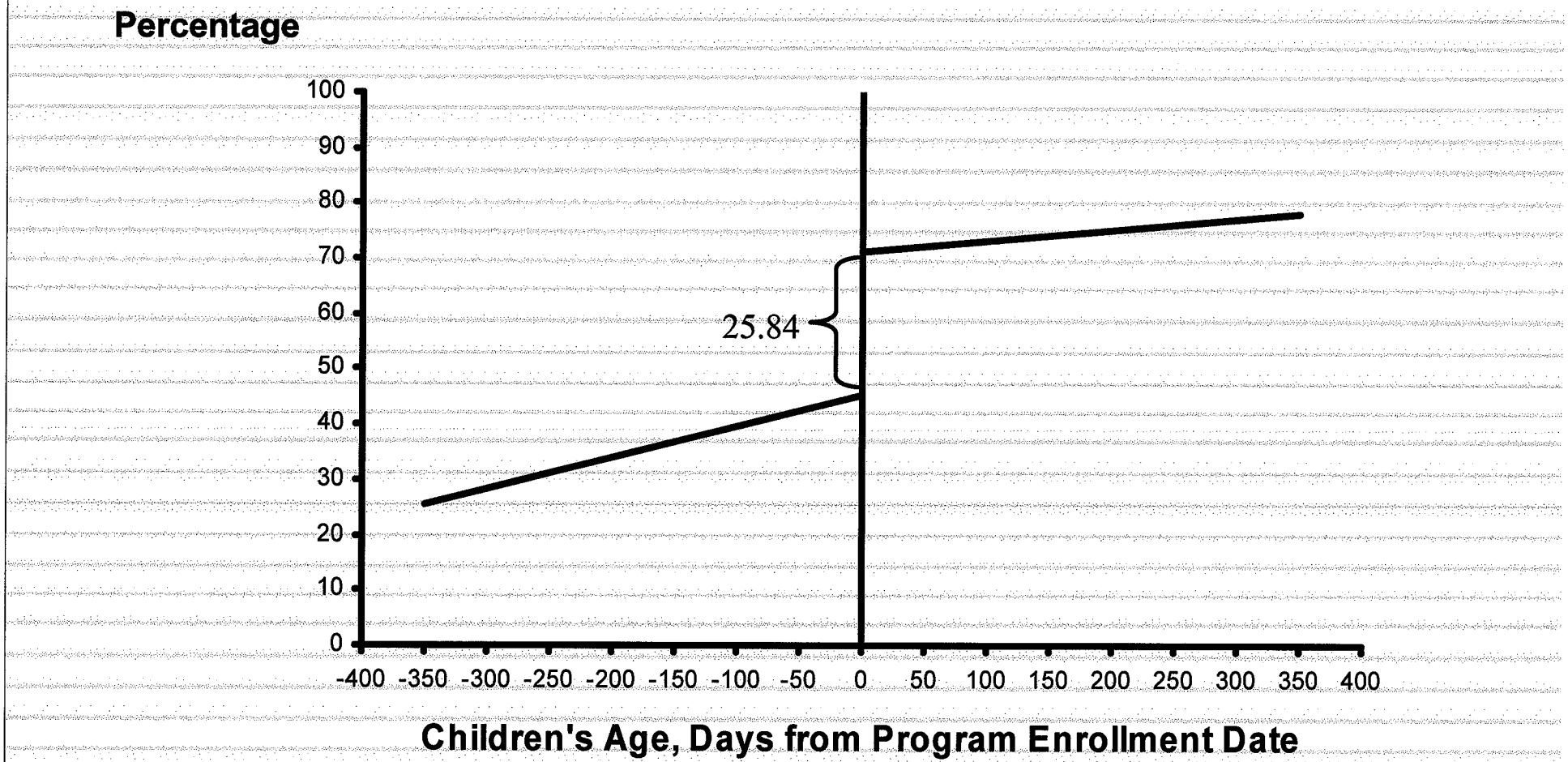
Effects on Vocabulary Knowledge



Effects on Math Skills



Effects on Print Awareness



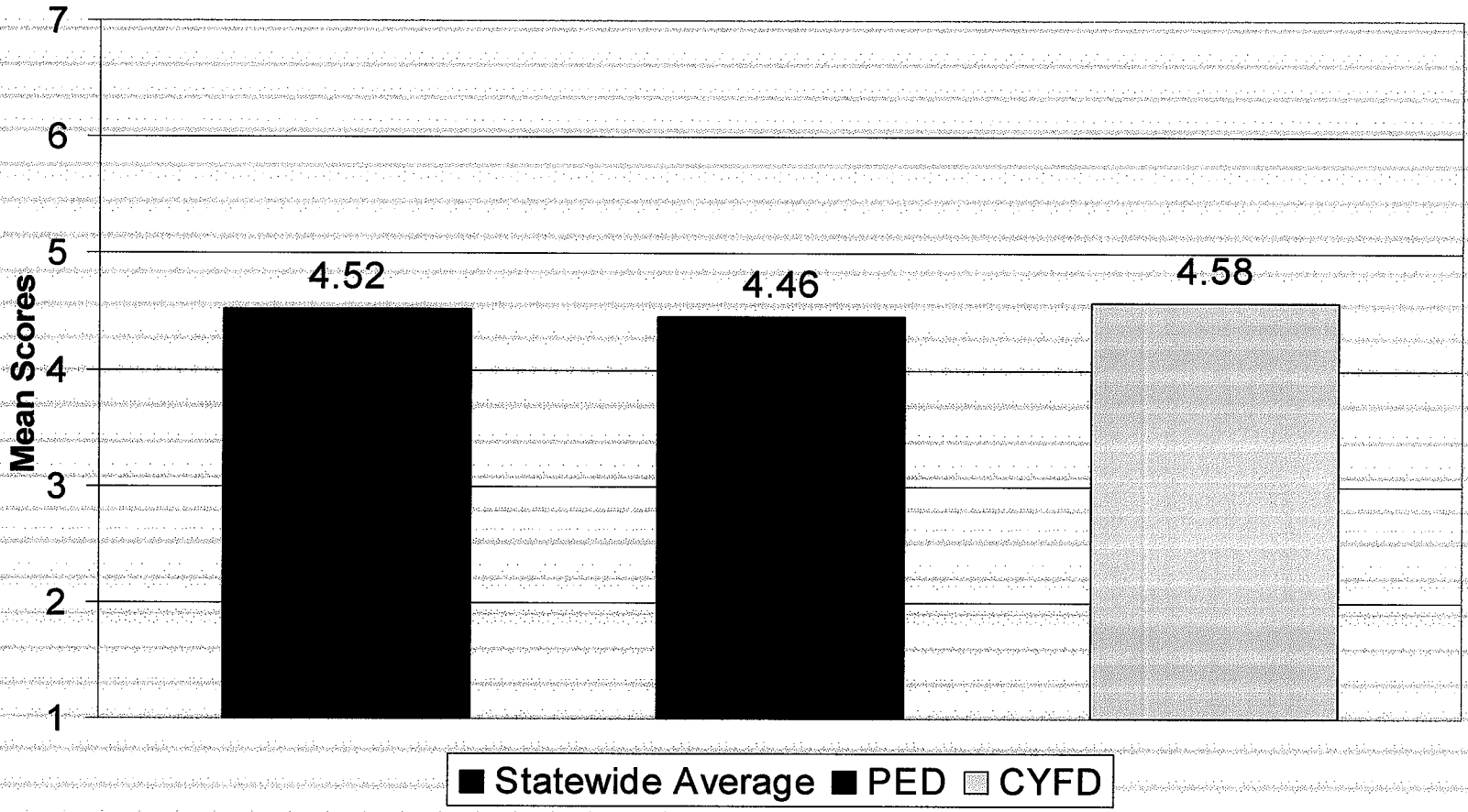
Classroom Quality Measures

- Overall classroom quality: Early Childhood Environment Rating Scale-Revised (ECERS-R)
- Early language and literacy support: Support for Early Literacy Assessment (SELA)
- Mathematics support: Preschool Classroom Mathematics Inventory (PCMI)

Preliminary Classroom Findings

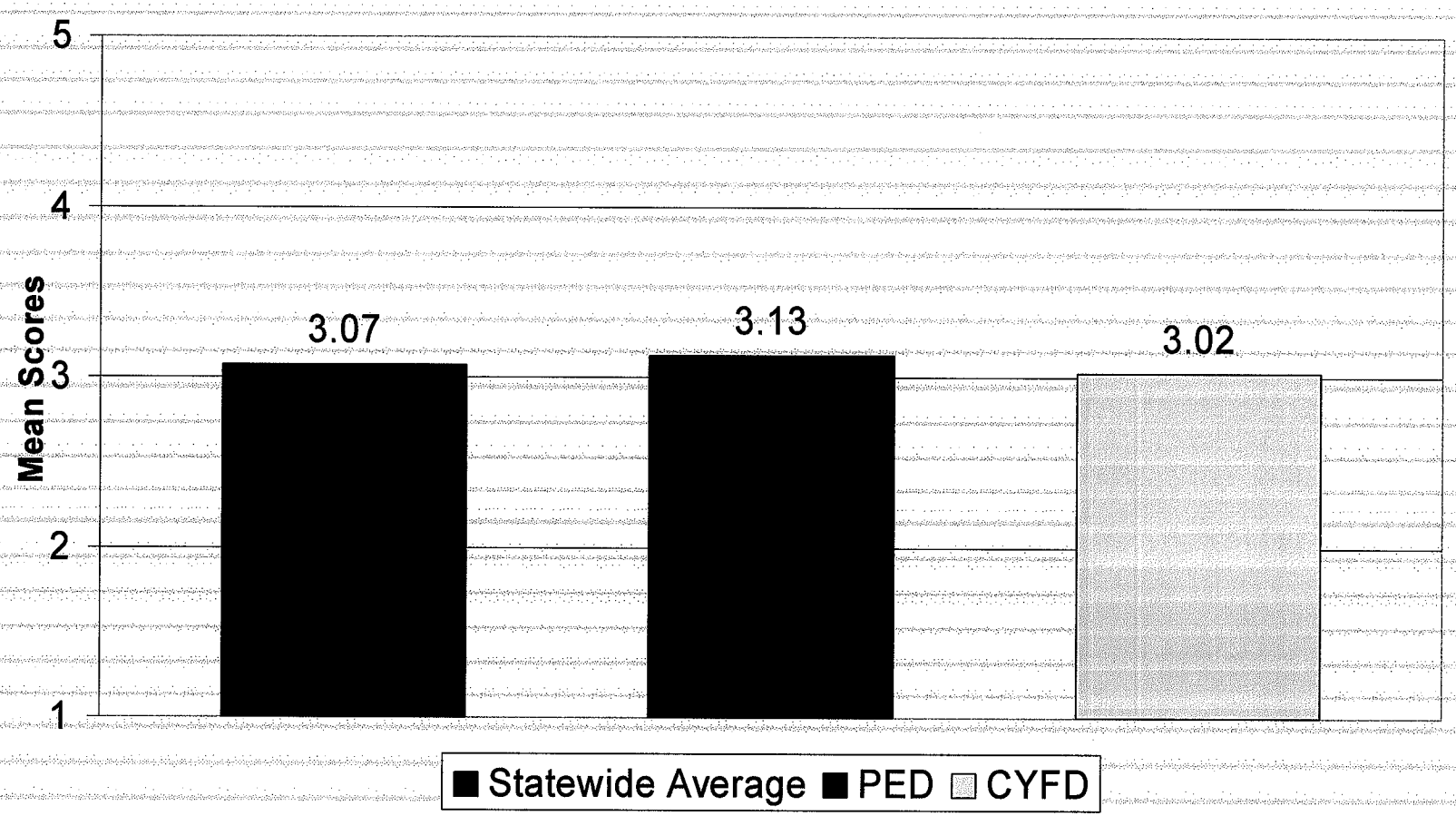
- Mean ECERS-R score = 4.52 of a possible 7; a score of 5 indicates good quality
- Mean SELA score = 3.07 of a possible 5; a score of 3 indicates fair/mediocre quality
- Mean PCMI score = 2.09 of a possible 5, an indication of limited quality

Preliminary ECERS-R, by Setting



Differences between PED and CYFD are not statistically significant.

Preliminary SELA, by Setting



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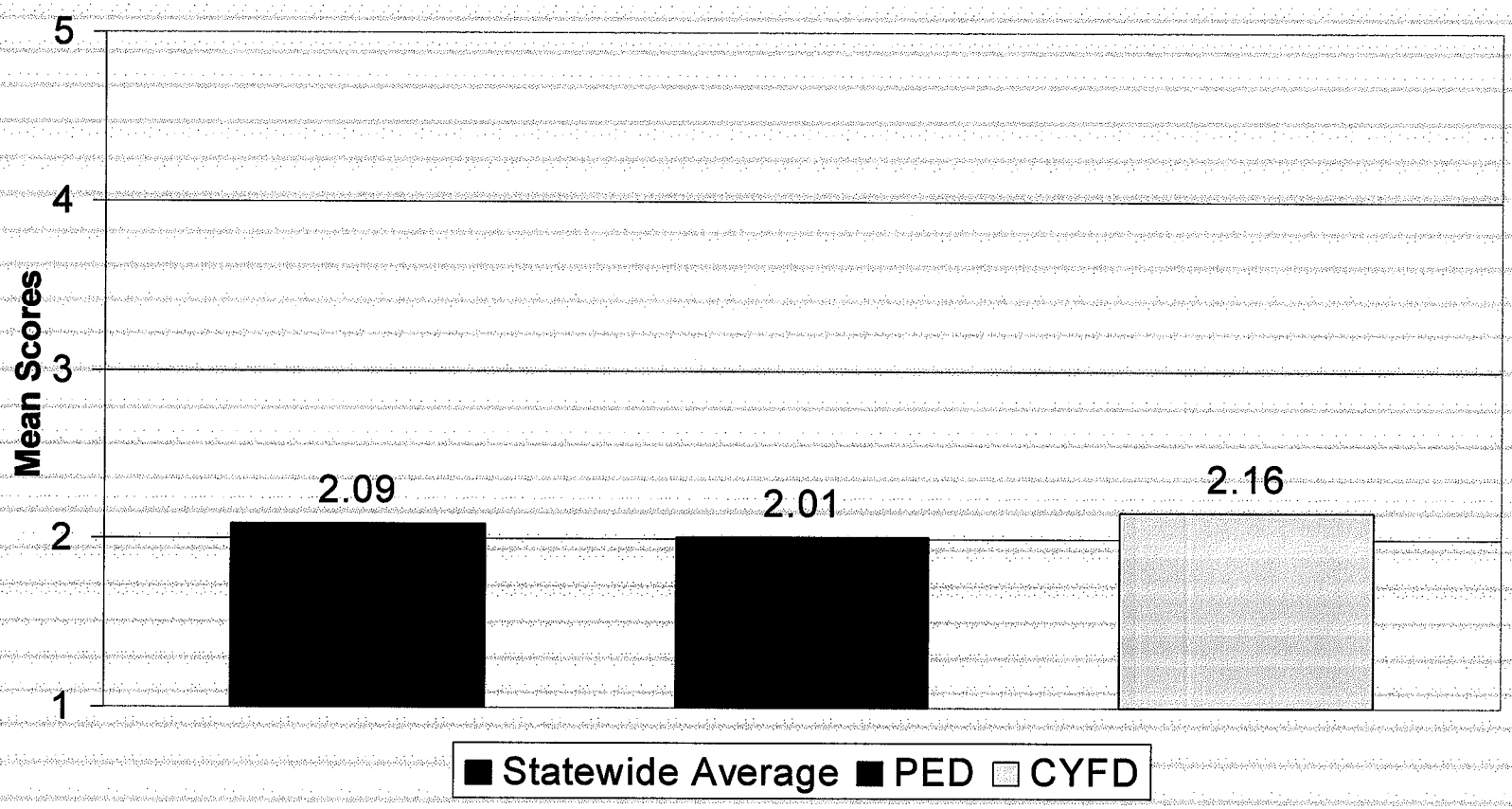
Preliminary PCMI, by Setting



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Interpreting the Findings

- Data from the '06-'07 school year allow us to study **impacts** of New Mexico PreK for the first time
- In its first year, the New Mexico PreK produced meaningful impacts on early language, literacy, and math development
- Future years' data will allow us to examine whether impacts change as New Mexico PreK expands to serve more children

Future Work

- Continue with new groups of 4-year-olds and 5-year-olds in Fall 2007 and Fall 2008
- Continue collecting classroom quality data
- Document progress by New Mexico PreK over time