Reforming Early Education

Brookings Institution
Washington, DC
August 22, 2011
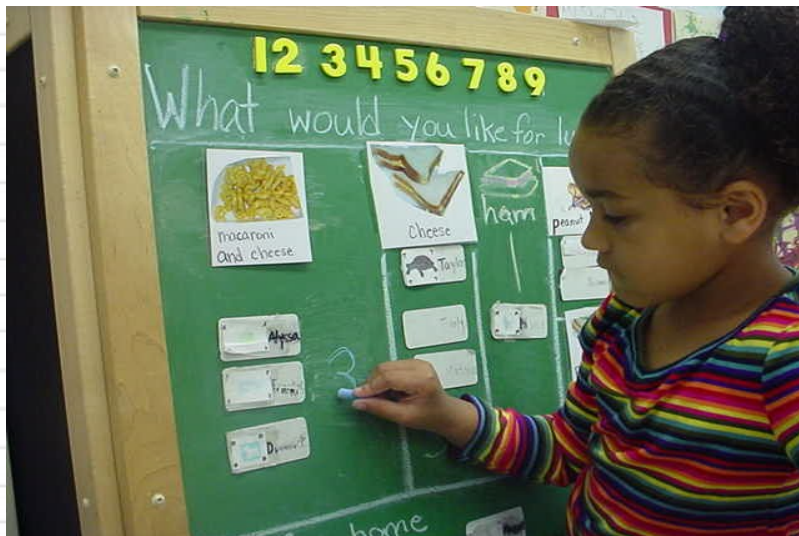
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Effects of early education by age and research design quality (all v. high)
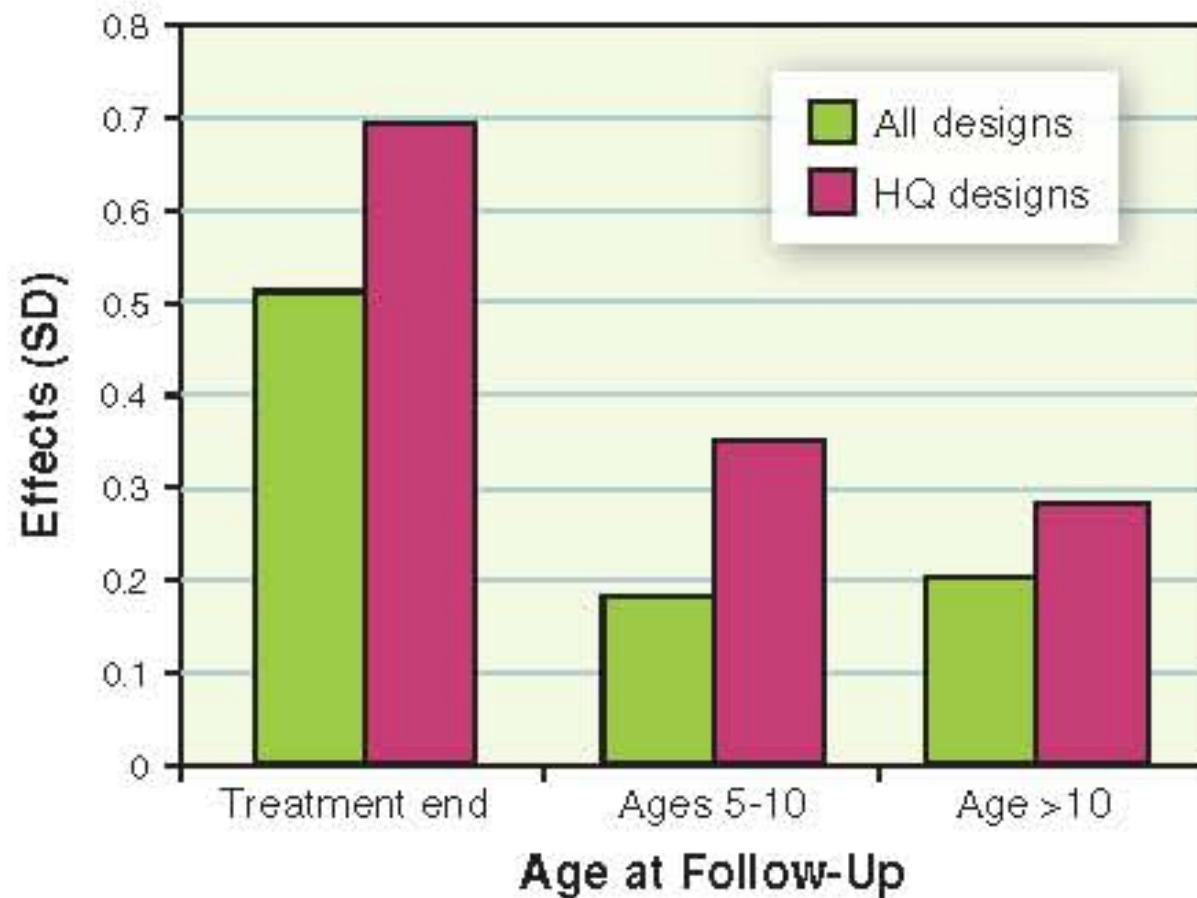
Influences on Effect Size

Time of Follow-Up	**Negative**
Research Design Quality	**Positive**
Direct Instruction	**Positive**
Individualization	**Positive**
Comprehensive Services	**Negative**

n= 123 Studies

HS and EHS Studies

- Modest initial gains across multiple domains
  - 1 year of HS .18sd for 13 measures (9 others ns)
  - 2+ years of EHS .10-.15sd for some measures
- Substantive gains do not last to K
- EHS no effects at Grade 5 on 45 measures
- Very small gains may persist but be undetectable

Achievement Gains from Pre-K

	CPC	Tulsa	OK	NJ	Head Start
Language	na	na	.28	.32	.09 (.13)
Math	.33	.36	.34	.30	.12 (.18)
Literacy	na	.99	.42	.44	.25 (.34)

Effects in standard deviations. Figures in parentheses are adjusted for noncompliance.

Sources: CPC (27), Tulsa (22), OK (21), NJ (average of two estimates 21, 23), HS (14)

Most Recent Studies of Pre-K

	TN RT	TN RD	8 State RD	Head St RT
Cog/Lang	NA	NA	23%	9%
Math	28%	34%	31%	12%
Print	42%	67%	79%	25%

Effect sizes as percent of 1 standard deviation.

- RT is randomized trial, more affected by control participation in other programs than is RD (e.g., Head Start, child care).
- RD is regression discontinuity design, may give better treatment v. no-treatment estimates.

Second Grade Effects

- **Chicago CPC Effects**
  - Math   ES = .30 1 yr, .40 2 yr
  - Reading   ES = .22 1 yr, .46 2 yr
  - Grade repetition = -5.8% 1 yr, -10.7% 2 yr

- **NJ Abbott Pre-K Effects**
  - Math   ES = .24 1yr, .44 2yr

  - Language   ES = .22 1yr, .40 2yr

  - Grade repetition = 10% no pre-K, 7.5% 1 yr, 5% 2 yr

How Do HS and EHS Differ from more effective programs?

- Less explicit teaching and academic emphasis
- Lower teacher qualifications
- Lower teacher compensation
- Lack connection to the public schools
- More comprehensive services

Tulsa Public Schools and Head Start v. National Head Start

	TPS	THS	NHS (adj.)
Math	.36	.37	.12 (<.18)
Letter-Word	.99	.51	.22 (.34)
Spelling	.74	.33	.16 (.22)

Effects in standard deviation units for comparison across studies.

Tulsa Public Schools (TPS) has largest effects. Tulsa Head Start (THS) which uses public school teachers has larger effects than Head Start nationally (NHS). Even adjusting for problems with the national Head Start study (in parentheses) effects are still smaller in regular Head Start than with public school teachers.

New Jersey's Abbott Pre-K: Effects of a Policy Change

- BA plus ECE certification within 5 years

- Research-based curricula & coaches (master teacher)

- Maximum class size of 15

- High standards and accountability

- Continuous Improvement System

Percentage of Classrooms Scoring 1 - 7 on the ECERS-R
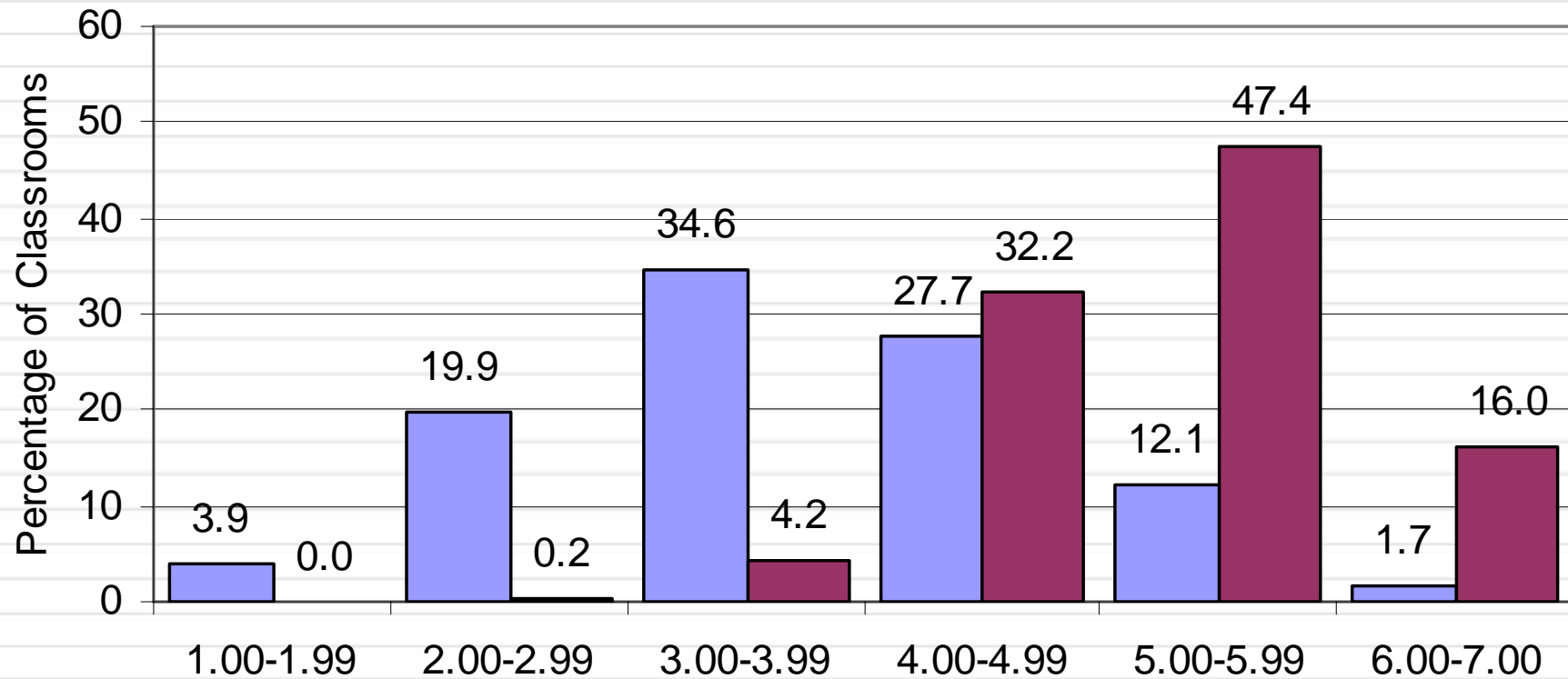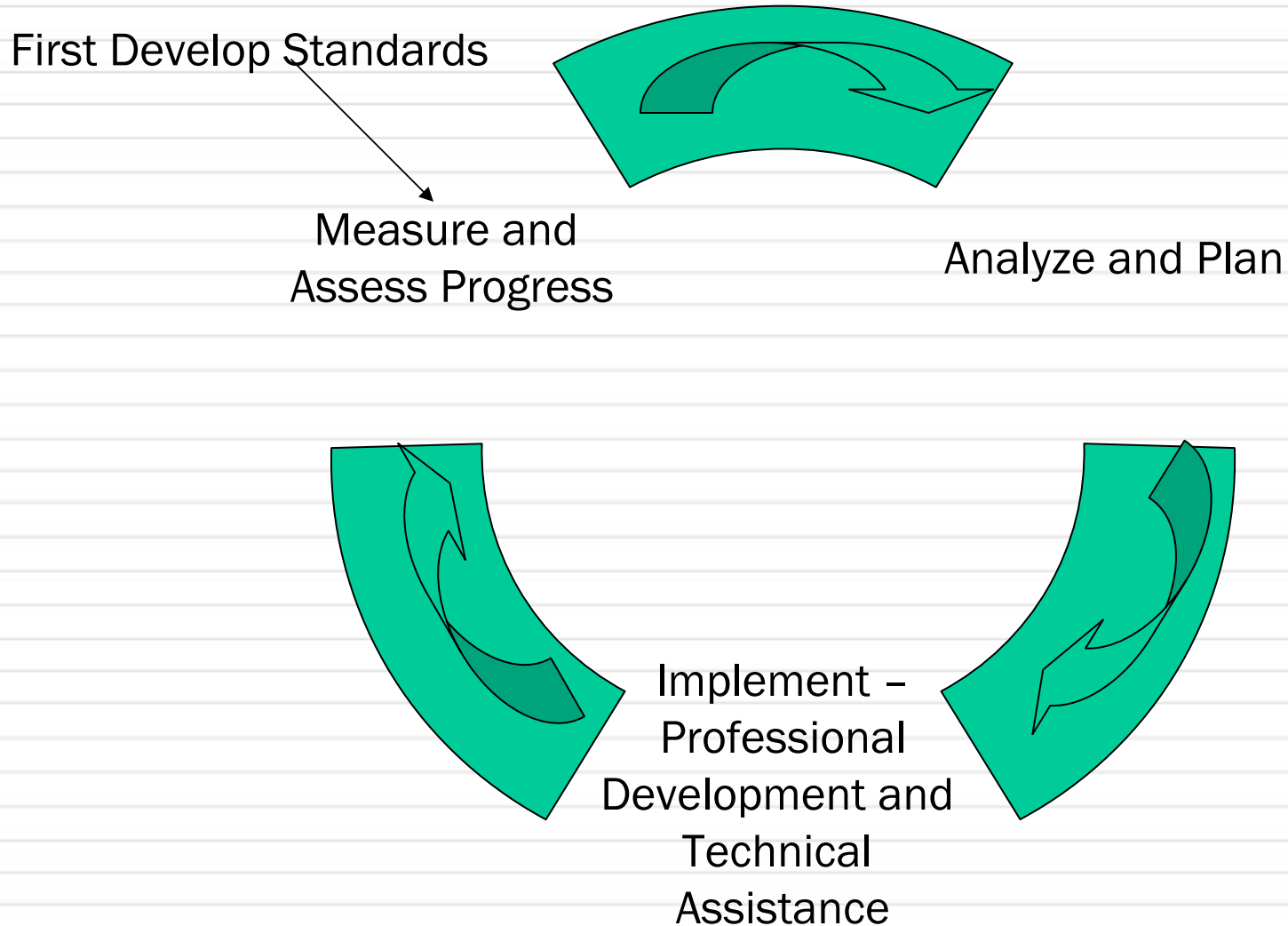1999-2000 vs 2007-2008

Figure 3. ECERS-R Score

Continuous Improvement Cycle

First Develop Standards

Measure and
Assess Progress

Analyze and Plan

Implement –
Professional
Development and
Technical
Assistance

Conclusions

- Early Education *can* be a strong public investment

- Head Start, EHS & state programs need improvement

  - Richer educational experiences

  - More resources in the classroom

  - Parenting education more specific models

  - Develop and test new models "outside" regulations

- Continuous improvement cycle—class & systems levels

- A new program of experimental studies to inform policy