Research and Use of Evaluation to Influence ECEC Policy
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What does research tell us about effectiveness?
Look at all the research, not just particular studies—meta-analysis
Include research globally, not just from the US
Consider studies that compare alternative programs or policies
Pay particularly close attention to studies that help us understand variations in outcomes
ECEC 0-5 Produces Long-Term Gains in Learning and Cognitive Development

![Bar chart showing effects of ECEC 0-5 on learning and cognitive development at different ages and follow-up periods.](chart.png)
Exhibit A2
Estimation of Test Score Fadeout:
Meta-Analytic Results and Power Curve Model

Effect size modeled with power curve
Meta-analytic effect sizes

Years since the preschool intervention

0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.309
0.152
0.097
0.085
0 2 4 6 8 10 12 14 16
What did we learn from the US meta-analyses?

1. Cognitive effects are positive and decline after children enter school but do not disappear.
2. More rigorous studies have bigger effects.
3. Higher quality programs have bigger effects, those with:
   • Intentional teaching
   • Individualization & small groups
   • Less emphasis on comprehensive services (possibly trying to do too much with too little in one program)
4. Effects on socialization and school success persist
5. Short-term gains must be large for substantive long-term gains
Meta-Analysis for ECEC in Middle and Low Income Countries

- Median effect size of intervention = .24
- Median effect size for quality improvement = .28
- Enrollment in higher quality or improved preschool programs compared to standard programs “was associated with better learning outcomes in all studies”

Effects of ECEC Globally

OECD test scores higher & more equal as participation approaches 100%

FR, UK, AR, UY: universal preschool education improves long-term education outcomes and earnings (earlier is better)

Multiple German studies find gains for immigrant children

NO: increased access to child care improves education outcomes and equalizes earnings

CA (Quebec): universal low cost child care had negative effects on cognitive development and social behavior

DK: higher quality universal child care increased long-term test scores in some studies, but not others—quality matters

US: disadvantaged children may gain more from universal programs, dual language can be implemented in UPK
Key Lessons

Children from low-income and migrant family background have larger gains than others

Language minority children have the largest gains among disadvantaged children

Some programs are more effective than others

– Details of initial design matter--but research provides incomplete guide
– Quality matters a great deal
– Quality depends on a continuous improvement and evaluation system at every level

Evaluation should serve as a GPS--not what works, but what takes us to our goal
US Policy and Evaluation

• After 50 years still do not serve most poor children
  – Capacity is too limited
  – Many children in targeted programs are not poor (a moving target and incentive to “cheat”)

• Most ECE--public and private--is not good
  – Most public programs have small effects
  – Even advantaged families lack access to good ECE

• Some states move from targeted to universal for pre-K
• Quality rating systems developed by all states
• Will US use evaluation like a GPS?
NIEER State of Preschool Yearbook

- Annual report on state pre-K
  - Enrollment (doubled nationally in 10 years)
  - Quality standards (improved)
  - Spending (increased, but not keeping up with enrollment)
- Media coverage enables public to reward and punish
  - Extensive release coverage through TV, radio, print
  - Continues to be used year-round by media and others
  - Emphasizes competition among states
- Skilled policy makers use both good news and bad
  - Good news favors expansion and continued support
  - Bad news favors policy reform and additional resources
Head Start Evaluation and Response

- Randomized trial of the effects of 1 year in 2002-2003
- Modest positive initial gains
- Lasting effects of Head Start were small to nil
- Partly this is catch-up or convergence
- Head Start reforms introduced
  - Increased focus on language and literacy
  - Increased requirements for teacher qualifications
  - Program approval now depends on teaching quality
  - *But* very small increases in teacher salaries
  - Performance standards still too broad and detailed
Head Start Gains Increased after Reforms

Language Gains, Average for 3- and 4-year-olds

- White
- Black
- Hispanic

- 2003
- 2006
- 2009
NJ’s Urban ECCE Transformation

- Teacher with 4-year college degree and specialized training in each class;
- Full school day (6 hours) 180-days, plus extended day, full-year wrap around (required two agencies);
- Maximum class size of 15 students;
- Evidence-based curriculum
- Early learning standards and program guidelines;
- Tools to measure teacher and child progress
- In-class coaching for all teachers
- Part of systemic reform of primary education
- 31 cities with high poverty and many immigrants
NJ Raised ECCE Quality Over 8 Years

ECERS-R Score (1=minimal, 3=poor 5= good 7=excellent)

00 Total (N = 232) 08 Total (N = 407)
NJ Effects on Achievement for 1 and 2 Years ECCE
(Average gains for all children, but most are low-income)
NJ ECCE Effects on Retention and Special Education

- Retention: 12% Abbott pre-K, 19% no Abbott pre-K
- Special Education: 12% Abbott pre-K, 17% no Abbott pre-K
Conclusions

• High quality ECEC *can* have strong positive impacts
  – Larger impacts on disadvantaged children generally
  – Greatest benefits may be for immigrants with another language and parents with much lower levels of education

• Quality matters but cannot be fully specified by policy

• Evaluation in many forms can inform and motivate policy change regarding access and quality

• Uncertainties require a continuous improvement system to guide practice and policy—a GPS that tells us what changes move us toward our goals