Securing the Social Benefits from ECCE
Asia-Pacific Forum on ECCE
Seoul, Republic of Korea
10 September, 2013

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Why Invest Public Resources in ECE?

- First 5 years lay foundations for language, academic abilities, habits & socio-emotional development
- The window for change does not close after age 5, but “catch up” is costly
- High quality ECCE can enhance learning & development producing high long-term economic returns
- Many of the benefits have large “externalities” so that private and public (national) interests are not aligned
- Access to high quality ECCE remains limited and highly unequal across and within nations
Potential Gains from ECCE

Educational Impacts on Children
- Increased achievement test scores
- Decreased special education and grade repetition
- Increased educational attainment

Impacts on Parents
- Increased maternal employment and earnings

Impacts on Society
- Decreased schooling costs of failure (may increase costs from more persistence)
- Decreased social services, crime, and health care costs
- Increased productivity and economic growth
- Decreased social and economic inequality
ECCE 0-5 Produces Long-Term Gains in Learning and Cognitive Development
What determines cognitive gains?

Long-term gains are dependent on the size of short-term gains—must begin with large gains.

High quality adult-child interactions are essential for large cognitive gains.

Interaction between ECCE and later education—*fade out* can be catch up, and need to build on early success.
Effects of ECCE on Cognitive, Social, Schooling, and Health Outcomes by Type of Program

Nores and Barnett, 2009.
Effects of Universal ECE Globally

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

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

UK, AR, UY: universal preschool raises long-term achievement

US: state and municipal UPK improves test scores and executive function, reduces grade repetition

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 in others—quality matters
Meta-Analysis for ECCE 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”

Source: Engle et al., The Lancet, Volume 378, 8 October 2011
Economic Returns in Middle and Low Income Countries

- Estimated returns are 6:1 to 18:1 from increased earnings alone.

- 25% increase in preschool education would yield an estimated return of US $10.6 billion worldwide.

Source: The Lancet, Volume 378, p. 1276, 8 October 2011
Key Lessons

Immediate impact should be at least twice the size of desired long-term impact

Multiple approaches to early intervention are effective, but education is a key element

Quality enhancements produce gains as large as intervention *per se*

Some programs are more effective than others

- Scale up is difficult and requires a continuous improvement and accountability system
- Details of initial design matter—*but* research provides incomplete guide
Current Issues

- East Asia and Pacific have clear need for intervention: less growth stunting than some other regions, but enough to raise concerns about impaired cognitive development
- Large income gradients in cognitive abilities found prior to primary school in some countries in the region
- Most countries in region invest relatively little in ECCE
- Supports for development at home and in ECCE vary by family income
- ECCE enrollment rates vary from about 10% to universal
- ECCE quality likely to be highly variable
Quality in the Region

- *Economist* magazine rated quality in 45 countries
- In East Asia and Pacific only Republic of Korea rated in the top 10
- Hong Kong, Japan, Taiwan also rated above average, and above the USA, which was at median
- *Economist* rating scale not necessarily valid and reliable, *but* training & pay often are low for ECCE staff in region
- Lack of rigorous systematic data on quality in region
- Lack of data on learning and development prior to school
- Across countries in region there are models to learn from
Policy Determinants of Quality: USA Example

- Low levels of public funding
- Limited regulation of educational quality
- Quality somewhat higher in public than private
- Quality is lowest where vouchers are used
- Low-quality is rare in public and regulated ECCE, more common in home-based infant-toddler sector
- Even many well-educated high-income families do not have high quality ECCE
USA Center Access and Quality (ECERS >5) by Income at Age 4
Challenges in Raising Quality

- With dual goals to support employment and child development it is expensive
- Disagreements over evidence regarding elements necessary for quality
- Requires coordination across agencies
  - Child care and education
  - Health and education
  - ECCE and later education
How to Proceed Based on the Evidence

- Begin with a *proven* model
- Balanced—cognitive, social, emotional
- Implement the model as designed
- Well-trained, adequately paid staff (relative to parents & other professionals)
- Strong supervision and monitoring
- Use data to inform and reform practice
Continuous Improvement Cycle

First Develop Standards

Measure and Assess Progress

Analyze and Plan

Implement – Professional Development and Technical Assistance
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
NJ Raised ECCE Quality Over 8 Years

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

- 00 Total (N = 232)
- 08 Total (N = 407)
NJ Effects on Achievement for 1 and 2 Years ECCE

LAL 4th: 0.12, 0.26
LAL 5th: 0.18, 0.22
Math 4th: 0.17, 0.37
Math 5th: 0.14, 0.29
Science 4th: 0.17, 0.37

1 year Abbott pre-k, 2 year Abbott pre-k
NJ ECCE Effects on Retention and Special Education

Retention

- Abbott pre-K: 12%
- No Abbott pre-K: 19%

Special Education

- Abbott pre-K: 12%
- No Abbott pre-K: 17%
Conclusions

- High quality ECCE *can* be a wise public investment
  - Increased human capital and productivity
  - Decreased social problems, inequality, & costs to government
- More research needed on required elements to produce strong outcomes in specific contexts
  - Understanding the processes
  - Developing models--at least as starting places
  - Taking models to scale with fidelity and refining them
- Quality is relative--raise inputs to child development beyond what individual family can currently afford
- Uncertainties require continuous improvement and accountability system to guide policy--can’t just adopt from elsewhere & what is required will change
References


