As the Twig is Bent…Sustained Effects of Contemporary Public PreK Programs

Arthur Reynolds, Chair

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Effects of Tulsa’s Universal PreK Program on Middle School Outcomes, William Gormley & Sara Anderson

Long-Term Effects of Michigan’s State Funded Preschool Program Tomoko Wakabayashi, Lawrence Schweinhart, & Zongping Xiang

Sustained Effects of the Child-Parent Centers: Chicago Public Schools and the Midwest Expansion, Arthur Reynolds, Suh-Ruu Ou, Brandt Richardson, & Sangyoo Lee

SRCD Conference, March 21, 2019
Why Sustaining Gains are More Important than Ever

1. Enhance impact of existing programs.

2. Reduce the risk of drop-off in effects.

3. Reduce 3rd grade and later gaps.

4. Increase ROI.
History of ECE Program (1960s to today)

1960s  New models of early education
1970s  Does ECE work?
1980s  Cognition to competence and long-term effects
1990s  Expansion and growing evidence
2000s  ROI, for whom, what, how?
2010s  Preschool for all but all do not benefit
2020s?: Universal Participation, Quality, Continuity

Building and maintaining systems of support, leadership, training, and financing

Key drivers of effectiveness
Cornell Consortium for Longitudinal Studies (1983)

“As the Twig is Bent...Lasting effects of Preschool Programs”

11 projects of diverse programs including 3,676 children and followed from early childhood to adulthood
Projects

Early Training Project  Gray
Perry Preschool Program  Weikert
Parent Education Program  Gordon
U of IL Early Interv. Study  Karnes
Louisville Experiment  Miller
Harlem Study  Palmer
Projects

Mother-Child Home Program  Levenstein
Micro social learning environ.  Woolman
New Haven Head Start/
    Follow Through  Zigler
Philadelphia Study  Beller
IDS Program  Deutsch
Findings in summary

“The low-income mostly black children who participated in this diverse range of programs and curricula were more likely to succeed in school than were similar children [control groups]. They also felt better about themselves, had more realistic vocational expectations and were prouder of their achievements than were the nonparticipants” (Lazar, 1983).
Findings in summary

“The data suggest that program effectiveness can be enhanced by a combination of the following characteristics:

1. Intervention begun as early as possible.
2. Services provided to the parents as well as to the child.
3. Frequent home visits.
4. Involvement of the parents in the instruction of the child.
5. As few children per teacher as possible” (Royce et al., 1983).
Common Elements in Landmark Studies

1. Child to Staff Ratios no higher than 17:2

2. Intensive focus on readiness skills within a developmental philosophy

3. Comprehensive family services

4. Teachers with at least BAs or compensation competitive with public schools

5. Frequent monitoring and feedback for improvement

6. Well-supported organizational context
Process explained

“There begins a system of mutual reinforcement between the parent and child, the teacher and child, and the combination that ‘teaches’ that academic success is valuable. It is this continuing mutual reinforcement that could be responsible for the long-term effects: a reinforcement system that is started by the child’s participation….and that changes parent aspirations for the child. This ‘feedback’ loop can be initiated as easily in a home-based program as at a center-based preschool” (Lazar, 1983).
Common Paths of Influence Across Three Studies

Program Participation → Readiness Skills at Age 5 → Achievement Motivation at Ages 5-6 → Special ed/Retain by Age 14 → School Achievement at Age 14/15

Note. Perry, Abecedarian, and CPC studies. Covariates include mothers’ education and gender.
2013 SOTU

“...I propose working with states to make high-quality preschool available to every child in America. Every dollar we invest in high-quality early education can save more than seven dollars later on – by boosting graduation rates, reducing teen pregnancy, even reducing violent crime.” (President Obama)
## Sources for Economic Returns

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<tr>
<td>Public Ret.</td>
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<td>Total Ret.</td>
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<td>Scale</td>
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Reviews on Sustained Effects

1. McCoy et al. (2017) in Educational Researcher
   “Impacts of early childhood education...”

2. Cannon et al. (2017) in RAND Corp. volume
   “Investing early: Taking stock of outcomes and economic returns...”

   “Untangling the evidence on preschool effectiveness...”
Public Programs with Sustained Gains

Oklahoma PreK
Michigan Great State Readiness Program
Child-Parent Centers (Original & Current Expansion)
Boston PreK
New Jersey Abbott Preschool
North Carolina PreK
PSID Head Start
First book on sustaining gains

15 chapters

Cambridge, 2019
“We adopt a broad definition of early childhood as the entire first decade of life... This would include through the 3rd grade year as a general endpoint. The historical convention of the preschool period from ages 3 to 5 as defining early childhood has encouraged an unfortunate separate classification of programs and experiences that limit integration. The focus on the continuum of experiences supports a more complete spectrum of services and research approaches.”

“As an operationalization of this continuum, P-3 reinforces the need to optimize learning environments as children grow.” (p. 13)
Examples

Program
Dosage and duration matter (Wasik)

School
Teacher collaboration across grades (Stipek)

Family
Improved parenting through home visits

Progress since “Eager to Learn” (Bowman)
Continuity Model

Early Ed

Collaborative Leadership
Aligned Curriculum
Continuity and Stability

P

PK

1-3

Effective Learning Experiences
Professional Development
Parent Involvement & Engagement

Well-Being

Achievement
Paths of Influence from Early Childhood to Adult Well-Being

Early Childhood
Ages 3-9

Program Participation
Timing
Duration
Intensity

Background Attributes
Gender
Socio-Environmental Risk
Neighborhood Attributes

Early Childhood to Adolescence
Ages 5-15

Motivation
Self-efficacy
Perceived competence
Persistence in learning

Developed Abilities
Cognitive development
Literacy skills
Pre-reading/numeracy skills

Social –Emotional Adjustment
Classroom adjustment
Peer relations
Self-regulating skills

Family Support
Parent-child interactions
Home support for learning
Participation in school
Parenting skills

School Support
Quality of school environment
Classroom environment
School-level performance

Competence Behaviors
School Achievement and Performance
School Remediation
Delinquency and Crime
Child Maltreatment
Participation in Social Services
Health & Mental Health
Educational Attainment
Economic Well-Being
Family Circumstances

Adolescence to Adulthood
Ages 15+

MA= Motivational Advantage
CA = Cognitive Advantage
SA = Social Adjustment
FS = Family Support
SS = School Support