Success at an Early Age: Improving Outcomes for Young Children with Disabilities

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Urban Special Education Leadership Collaborative
Chicago, IL
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Vocabulary Growth (Hart & Risley, 1995)

Cumulative vocabulary words vs Age of child in months

- 13 higher-SES children (professional)
- 23 middle/lower-SES children (working class)
- 6 welfare children
Basic architecture of the brain is built in early childhood
Experience shapes the architecture of the brain
The early years matter because, in the first few years of life, 700 new neural connections are formed every second. Neural connections are formed through the interaction of genes and a baby’s environment and experiences, especially “serve and return” interaction with adults, or what developmental researchers call contingent reciprocity. These are the connections that build brain architecture – the foundation upon which all later learning, behavior, and health depend.

Poverty and Brain Development

• Poverty reduces brain volume.
• Poverty was associated with smaller white and cortical gray matter and hippocampal and amygdala volumes in children.
• The effects of poverty on brain volume were mediated by caregiving support/hostility and stressful life events.

(JAMA Pediatrics, October 2013)
Poverty
Caregiver mental illness
Single parent
Low maternal education
Child maltreatment
Scores at Entry to Kindergarten for U.S. by Socioeconomic Level

(From Lee & Burkam, 2002)
The term ‘specific learning disability’ means…

… (C) Disorders not included.--Such term does not include a learning problem that is primarily the result of visual, hearing, …., or of environmental, cultural, or economic disadvantage.
The Importance of Developmental Trajectories

The graph shows the relationship between age in months and score. The data points are scattered across the graph, and three lines of different colors represent different developmental trajectories. The x-axis represents age in months, ranging from 0 to 70, while the y-axis represents score, ranging from 0 to 70.
The Importance of Developmental Trajectories
The Importance of Developmental Trajectories

Score vs. Age in Months

Early Childhood Outcomes Center
Differences Not So Clear

- There are children in programs for children from low income families whose skills are lower than children receiving early intervention and early childhood special education.
- The difference between these two groups of children is not so clear cut.
  - Early Head Start, FACES, State data
- Study in CA: Many entering kindergartens in low performing schools had skills in the 3 - 4 year old range.
Why do we intervene?

Age in Months

Score
What We Know about Intervening with Young Children
It Works
What we know

• High quality early childhood programs improve developmental outcomes
• Large body of evidence to support the effectiveness of a number of intervention practices for children birth to age 5 including those with delays and disabilities

Conclusion: We know enough to know how to change trajectories.
“Large-scale public preschool programs can have substantial impacts on children’s early learning.”

October 2013
“What’s missing in the current debate over economic inequality is enough serious discussion about investing in effective early childhood development from birth to age 5…."

James Heckman
Sept. 13, 2013
Red Jahnke: The 'Universal Pre-K' Fallacy

Free school for 4-year-olds? Sounds great. Too bad it is of no educational value and the cost would be staggering.
“Preschool is neither partisan nor ineffective…”
M. Brian Maher, Former Chairman and CEO, Maher Terminals LLC

“…it’s time our policymakers in Washington take seriously the overwhelming evidence that early childhood education works.”
John Pepper, Former CEO, Procter & Gamble and Jim Zimmerman, Former CEO, Macy's

“…high-quality early childhood education strengthens our economy and society by giving children the strong start they need…”
Philip A. Peterson, Partner, Aon Hewitt and Maxine Clark, Founder, Build-A-Bear Workshop
Why business cares about preschool

http://www.investinginkids.info/your-taxes-preschool/
Number of Children Served in Early Intervention and Special Education by Age Year, 2011

- Age under 1: 41,378
- Age 1: 103,812
- Age 2: 191,329
- Age 3: 177,834
- Age 4: 265,293
- Age 5: 302,222

Total: 1,081,868
Disability Categories, 3 to 5 year olds, 2011

- Speech or language impairments: 46%
- Developmental delay: 37%
- Autism: 7%

Other health impairments: 2.8%
Intellectual disabilities: 1.6%
Hearing impairments: 1.3%
Specific learning disabilities: 1.2%
Multiple disabilities: 1.1%
Orthopedic impairments: 1.0%
Visual impairments: 0.5%
Emotional disturbance: 0.4%
Traumatic brain injury: 0.1%
Deaf-blindness: 0.0%
Number of Children Served in Early Intervention and Special Education by Age Year, 2011
National Early Intervention Longitudinal Study

• Longitudinal. NEILS followed 3,338 children and families from initial entry into early intervention (1997-98) through kindergarten.

• Data collected from families, early intervention service providers and directors, and kindergarten teachers.
How many former EI recipients did not have an IEP in kindergarten?

a) 0 – 15%
b) 16 – 30%
c) More than 30%
d) I have no idea
Kindergarten Outcomes:
Former EI Participants’ Receipt of Special Education and Disability Status

- IEP: 54%
- No disability: 35%
- Disability, No IEP: 11%
Kindergarten Outcomes:
Former EI recipients without IEPs were performing comparably to peers

Percentage of Children Rated by Kindergarten Teachers as Intermediate or Proficient in Language and Literacy Skills, By IEP Status Compared with General Kindergarten Population (ECLS-K data)
Disability and delay in young children can be transitory.
Realizing the Potential of Early Childhood Intervention
Percent of Population Served in ECSE, 2008
Implications of Developmental Trajectories

![Graph showing developmental trajectories](image)
Programs only help the children who receive them.

- What percent of the population in your district is receiving...
  - Early intervention?
  - Early childhood special education?
  - Head Start?
  - Early Head Start?
  - Home visiting?
Some important distinctions

Early childhood programs can work (potential)
≠
Early childhood programs in my district work
≠
Early childhood programs in my district are working as effectively as they could be
Average Observational Ratings of Classroom Quality (N=65)

(From Greenwood, Carta et al, 2012)
Building Quality ECSE Programs

• Foundation: Developmentally appropriate practices
• DEC (Division of Early Childhood of the Council for Exceptional Children) Recommended Practices – Currently being revised
• The RPs were developed in 2005 to provide guidance on practices related to better outcomes for young children with disabilities, their families, and the personnel who serve them.

• 240 Recommended Practices
• 5 Direct Service Strands
• 2 Indirect Support Strands
Welcome to DECRecPractices.org!

The DEC Recommended Practices were developed to provide guidance on practices related to better outcomes for young children with disabilities, their families, and the personnel who serve them. However, as the field continues to evolve and new research emerges about how best to serve children with disabilities, it is important that the Recommended Practices are revisited and revised to remain current and relevant. Starting in 2012, DEC created a Recommended Practices Commission which was tasked with updating and revising the Recommended Practices. In addition, the Commission was asked to develop an process by which the Recommended Practices will continue to be updated.

While the Commission serves as the entity that leads this process, the Recommended Practices are driven by the needs of the children and those who serve them. Therefore, it is critical that there is ongoing input, guidance, and feedback from the field. This website is a platform used to share information related to the revisions of the practices, gather stakeholder input, and engage DEC members and key leaders in the field.

For more information about the DEC Recommended Practices Comission, contact: Dale Epstein, ECTA Center
Early childhood inclusion embodies the values, policies, and practices that support the right of every infant and young child and his or her family, regardless of ability, to participate in a broad range of activities and contexts as full members of families, communities, and society.
Key features of EC inclusion

• **Access** to a wide range of learning opportunities, activities, settings, environments

• Individualized accommodations and supports to **participate** fully in play and learning activities with peers and adults.

• **System-level supports** for individuals and institutions providing inclusive services.
The Not So Good News

• 24% of 3-5 year olds receive services in separate classes.
• Another 40% attend a regular EC program but receive their special education services somewhere else.
• Only 45% of center based general EC teachers have a college degree.
• Their average pay is $11.90/hour.
Measuring Outcomes: What We Know Nationally
Critical Events in Accountability for Programs for Young Children with Disabilities

1992 – Osborne and Graebler, *Reinventing Government*
1993 – GPRA (Government Performance and Results Act) passed

*Time passes…..no progress on outcomes measurement….*

2002 – OMB review finds there are no data on outcomes for Part C or 619; Scored 0 for accountability
2003 – OSEP funds the ECO Center
2005 – ECO submits recommendations of stakeholder process for what to measure
2005, 2006 – OSEP releases revisions to the reporting requirements
“To enable young children to be active and successful participants during the early childhood years and in the future in a variety of settings – in their homes with their families, in child care, preschool or school programs, and in the community.”

Based on the ECO stakeholder process when identifying 3 child outcomes
Three Child Outcomes

- Children have positive social-emotional skills (including social relationships)
- Children acquire and use knowledge and skills (including early language/communication [and early literacy])
- Children use appropriate behaviors to meet their needs
Child Outcomes Step by Step

• Available at:

http://projects.fpg.unc.edu/~eco/pages/videos.cfm
Outcomes Are Functional

Functional outcomes:

• Refer to using skills to accomplish things that are meaningful to the child in the context of everyday life

• Refer to an integrated series of behaviors or skills that allow the child to achieve the important everyday goals
Children Have Positive Social Relationships

• Involves:
  – Relating with adults
  – Relating with other children
  – For older children, following rules related to groups or interacting with others

• Includes areas like:
  – Attachment/separation/autonomy
  – Expressing emotions and feelings
  – Learning social rules and expectations
  – Social interactions and play
Children Acquire and Use Knowledge and Skills

- Involves:
  - Thinking
  - Reasoning
  - Remembering
  - Problem solving
  - Using symbols and language
  - Understanding physical and social worlds

- Includes:
  - Early concepts—symbols, pictures, numbers, classification, spatial relationships
  - Imitation
  - Object permanence
  - Expressive and receptive language and communication
  - Early literacy
Children Take Appropriate Action to Meet Their Needs

• Involves:
  – Taking care of basic needs
  – Getting from place to place
  – Using tools (e.g., fork, toothbrush, crayon)
  – In older children, contributing to their own health and safety

• Includes:
  – Integrating motor skills to complete tasks
  – Self-help skills (e.g., dressing, feeding, grooming, toileting, household responsibility)
  – Acting on the world to get what one wants
Appropriate Measurement Strategies

• Recurring theme in EC community about evils of assessing young children
• Good vs. bad assessment strategies
• Good vs. bad uses of the information
• Developmentally appropriate assessment should be a component of every EC program.
OSEP Reporting Categories

Percentage of children who:

a. Did not improve functioning
b. Improved functioning, but not sufficient to move nearer to functioning comparable to same-aged peers
c. Improved functioning to a level nearer to same-aged peers but did not reach it
d. Improved functioning to reach a level comparable to same-aged peers
e. Maintained functioning at a level comparable to same-aged peers
Illustration of 5 Possible Paths

- Maintained functioning comparable to age peers
- Achieved functioning comparable to age peers
- Moved nearer functioning comparable to age peers
- Made progress; no change in trajectory
- Did not make progress
The Summary Statements

1. Of those children who entered or exited the program below age expectations in each outcome, the percent who substantially increased their rate of growth by the time they turned 3 [6] years of age or exited the program.

2. The percent of children who were functioning within age expectations in each outcome by the time they turned 3 [6] years of age or exited the program.
Early Childhood Special Education: Greater Than Expected Growth, 2011-12

Percentage of children in social relationships, knowledge and skills, and action to meet needs.
Early Childhood Special Education: Greater Than Expected Growth, 2008-09 to 2011-12

Social Relationships
- 2008-09: 83%
- 2009-10: 83%
- 2010-11: 81%
- 2011-12: 81%

Knowledge and Skills
- 2008-09: 83%
- 2009-10: 82%
- 2010-11: 81%
- 2011-12: 81%

Action to meet needs
- 2008-09: 82%
- 2009-10: 82%
- 2010-11: 81%
- 2011-12: 80%
Early Childhood Special Education: Exited within Age Expectations, 2011-12

- Social Relationships: 59%
- Knowledge and Skills: 53%
- Action to meet needs: 66%
Early Childhood Special Education:
Exited within Age Expectations,
2008-09 to 2011-12

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Early Intervention: Greater than Expected Growth, 2008-09 to 2011-12

Social Relationships:
- 2008-09: 70%
- 2009-10: 71%
- 2010-11: 68%
- 2011-12: 66%

Knowledge and Skills:
- 2008-09: 76%
- 2009-10: 74%
- 2010-11: 73%
- 2011-12: 72%

Action to meet needs:
- 2008-09: 76%
- 2009-10: 78%
- 2010-11: 73%
- 2011-12: 73%
Outcomes for Children Served Through IDEA’s Early Childhood Programs: 2011-12

In 2011-12, children with delays or disabilities who received services under the Individuals with Disabilities Education Act (IDEA) showed greater than expected developmental progress. Many children exited the program functioning within age expectations, and most made progress.

States’ Part C and Part B preschool programs report data annually on three outcomes:

1. Social relationships, which includes getting along with others, children and adults
2. Use of knowledge and skills, which refers to thinking, reasoning, problem solving, and early literacy and math skills
3. Taking action to meet needs, which includes feeding, dressing, self-care, and following rules related to health and safety

In 2011-12, for Part C (birth through age 2),

- The percentage of children who showed greater than expected growth was between 56% and 70% across all three outcomes. These children were acquiring skills at a faster rate than when they entered the program than when they exited.
- The percentage of children who exited the program functioning within age expectations ranged from 52% for social relationships and skills to 56% for social relationships.

In 2011-12, for Part B-Preschool (ages 3 through 5),

- Across the three outcomes, 60-85% of children showed greater than expected growth.
- The percentage of children who exited within age expectations ranged from 50% for knowledge and skills to 65% for taking action to meet needs.

IDEA-funded programs serve young children with the full range of delays and disabilities including children with severe disabilities and other conditions. Individualized goals are established for each child. Children with severe disabilities may acquire skills very slowly, and some may never develop skills. For other children, interventions help them catch up with children their age. While these data were collected, it was not known that such a high percentage of children in both programs grew at a faster rate than expected during their time in the program.

Additional data reported by states showed that nearly all children acquired new skills during their time in the programs (88% for all outcomes for both programs). Additional data revealed that the vast majority of children who entered the programs showed more than expected growth during their time in the programs. As states increasingly use these child outcomes data to improve IDEA-funded programs, we can expect even better results.
Is anyone looking at these numbers?

YES
…..on behalf of the President and the White House…

We know that state collection of data is very complicated and can be very difficult related to infants and toddlers with disabilities. But the rewards far outweigh any complications because that data, that information that we gain, demonstrates that early intervention works and that Part C program can be a model for state coordination of statewide services.

And so what we know from these data, what we know from the data that everybody is collecting under the Part C program, which is vital, is that 74% of infants and toddlers with disabilities who receive Part C services show increases in their rate of development. And we also know that 60% of infants and toddlers with disabilities who receive the Part C services exit the program at the age of three or earlier with the skills expected, or that are expected, for their age. These are good numbers but we all know that we need to and we must do better and these percentages must go up.

These Part C regulations that we are releasing today support the development of high-quality state and local data so that we can collect the valid and reliable information that we need related to Part C Early Intervention, including data on early childhood outcomes.

Kareem Dale, Special Assistant to the President for Disability Policy
Part C Final Regulations Conference Call, September 6, 2011
Early intervention and early childhood special education are the only federal early childhood programs routinely collecting data on child outcomes.
Footnote: We need to improve data quality

Number of States that Met Criteria for Inclusion in the National Analysis

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Using Data to Drive Program Improvement
Building measurement system

Using data to improve programs

Implementing and sustaining quality practices
Working Assumptions for Program Improvement

• There are high quality services and programs.
• There are [a few/some/many] children who are not getting the most appropriate services and programs for their needs.
• If we can identify problems and find ways to improve their services/programs, these children will experience better outcomes.
Do you know….

– Who is being served in your EI and ECSE program?
– How they differ from who was served last year?
– The average age at entry this year? Last year?
– The average length of time in program?
– The % of children who do not need special education after they leave the program?
• Which group of children in your program has the best outcomes? The poorest outcomes?

• Among children with similar characteristics at entry, which children did especially well? Were there program characteristics associated with their good outcomes?
• Who is looking at your district data on 3-5 years?
• What do you know about their outcomes?
• How can you use data to improve their services and programs?
Continuous Program Improvement

Reflect
Are we where we want to be?

Plan (vision)

Check (Collect and analyze data)

Implement

Are we where we want to be?
Find more resources at:

http://www.the-eco-center.org
The Center for IDEA Early Childhood Data Systems (DaSy)

- A new 5-year Center funded by OSEP to assist states with improving Part C and Part B preschool data by:
  - Building better data systems
  - Coordinating data systems across early childhood programs
  - Building longitudinal data systems
  - Building the capacity of states to use data

http://dasycenter.org/
What You Can Do

Prevention

Work to support high quality early intervention (Part C) services

Prevention

Work to support high quality early care and learning programs in your community
What You Can Do

Prevention/Intervention
Evaluate your child find activities. Work to find and serve every eligible child.

Prevention/Intervention
Use data to monitor and improve the quality of your ECSE programming and child outcomes.
What You Can Do

Prevention/Intervention

Provide ECSE in high quality inclusive setting (See Recommendation #2*)

*Work to support high quality early care and learning programs in your community.
The Importance of Developmental Trajectories

We can change trajectories