Investments in Young Children: The Economic Case and How to Fund

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Investments in Young Children: Economic Case and How to Fund

• Early childhood development is economic development

• Early investments yield a high public return

• States use a variety of funding sources

• Education chiefs play key role in moving agenda forward
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U.S. Population Projections, Ages 15 to 64

Source: U.S. Census Bureau, Population Division
Occupation Growth by Primary Source of Education and Training, 2008 to 2018

- Bachelor's degree or higher
- Associate degree
- Postsecondary vocational award
- Work experience in related occupation
- Long-term OTJ training
- Moderate-term OTJ training
- Short-term OTJ training

Average annual percent change

Average Annual Wages of New Jobs by Primary Source of Education and Training, 2008 to 2018

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Human Brain Development
Synapse Formation Dependent on Early Experiences

Sensory Pathways (Vision, Hearing)
Language
Higher Cognitive Function

Human Brain at Birth

6 Years Old

14 Years Old

Source: Chugani, Phelps & Mazziotta (1987)
Barriers to Social Mobility Emerge at a Very Young Age

Cumulative Vocabulary (Words)

Child’s Age (Months)

High/Scope Study of Perry Preschool

- In early 1960s, 123 children from low-income families in Ypsilanti, Mich.

- Children randomly selected to attend Perry or control group.

- High-quality program with well-trained teachers, daily classroom sessions and weekly home visits.

- Tracked participants and control group through age 40.
Perry: Educational Effects

- Age 14 achievement at 10th percentile+
- Graduated from high school on time
- Didn't require special education

Source: Schweinhart, et al. (2005)
Perry Preschool
Costs and Benefits Over 62 Years

Source: Schweinhart, et al. (2005)
Perry Preschool —
Estimated Return on Investment

• Benefit-Cost Ratio = $16 to $1
• Annual Rate of Return = 18%
• Public Rate of Return = 16%
• Heckman Reanalysis = 10%

Sources: Schweinhart, et al. (2005); Author’s calculations; Heckman, Moon, Pinto, Savelyez, & Yavitz (2010)
Benefit-Cost Ratios for Other Longitudinal Studies

- Abecedarian Educational Child Care
  - $4 to $1

- Chicago-Child Parent
  - $7 to $1

- Elmira Prenatal/Early Infancy Project
  - $5 to $1

Sources: Masse & Barnett (2002); Reynolds, Temple, Robertson, & Mann (2002); Karoly, et al. (1998)
Five-State Pre-K Evaluation
Estimated size of intent-to-treat effect

- Michigan
- New Jersey
- South Carolina
- West Virginia
- Oklahoma

Vocabulary (PPVT)  Math  Print Awareness

*Significant at 5%  
Lessons Learned from Research

- Invest in quality
- Involve parents
- Start early
- Reach at-risk population
- Bring to scale
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Funding Pre-K

- General revenue

- School funding formula
  - At least 11 states and D.C.
  - Community programs can provide preschool

- Designated sales or excise tax
  - South Carolina and Denver: Sales tax
  - California and Arizona: Cigarette tax

- Lottery
  - Georgia raises about $300 million
Funding Prenatal to Age 3

- Set aside Pre-K funds for ages 0 to 3
  - Illinois and Kansas

- Endowment
  - Nebraska, $60 million

- Public-Private Partnerships
  - Smart Start (North Carolina)
  - Smart Beginnings (Virginia)
  - Minnesota Early Learning Foundation
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Roles for Education Chiefs

- Advocate for early childhood funding
- Partner with Human Services and Health Departments to improve program quality
- Encourage schools to partner with child care, Pre-K and Head Start to improve transition to kindergarten
- Apply for Early Learning Challenge funds to build a stronger state early learning system
- Promote partnerships with the private sector
Sources


Minnesota Early Learning Foundation. [www.melf.us](http://www.melf.us).


minneapolisfed.org