NC Trends, Inequities, Patterns & Gaps

ELLEN PEISNER-FEINBERG, PH.D.
KIDONOMICS
EMERGING ISSUES FOCUS FORUM
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Why Do Data Matter?

• Key economic and social indicators have been tied to school readiness and success for children

• Important to understand this context when designing and evaluating ECE initiatives

• Will discuss a few major indicators and their associations with effects of ECE initiatives in NC
How Does NC Measure Up?
Number of Children in Poverty
Growth in NC Children in Immigrant Families
Children in Poverty by Race and Ethnicity

[Bar chart showing percentages of children in poverty by race and ethnicity in North Carolina.]
How Are NC Children Performing in School?
NAEP Scores at Grade 4
4th Grade Below Proficient Reading Levels by Family Income
4\textsuperscript{th} Grade Below Proficient Reading Levels by ELL Status

![Graph showing 4th grade reading levels by ELL status from 2007 to 2015. The graph compares English language learners (green line) with those not English language learners (red line). The green line shows a steady increase in the percentage of students below proficient levels, while the red line shows a decrease.](image-url)
PPE Expenditures Adjusted For Regional Cost Differences
ECE Initiatives – Efforts to Address Inequities in NC
Why ECE PROGRAMS?

• Higher reading & math achievement scores
• Less likely retained in grade or in special education
• Lower rates of teen pregnancy
• Greater educational attainment as adults
• Better physical health

• ROI = Up to $7.00 for every $1.00 spent
What Are the Policy Implications?

• Findings based on small-scale, comprehensive, birth-5 programs
  • Abecedarian, Perry Preschool, Chicago Parent Child Centers

• Show the range of what can be done

• Not feasible to implement statewide on large-scale
Key Statewide ECE Initiatives in NC

• NC has been a forerunner for the US in this area – models for other states

• 3 major initiatives in past 2 decades
  • Smart Start
  • QRIS / Star-rated licensing system
  • NC Pre-K Program (More at Four)
Smart Start
Smart Start

• Established in 1993 by Governor Hunt’s administration
• Birth – 5 initiative to improve ECE system to ensure all children enter school healthy and ready to succeed
• Child care, health, and family support components
• Public-private partnership with focus on local control
• Numerous statewide and local evaluation studies since it began
Smart Start & Child Outcomes

Statewide Evaluation Studies – key findings

• Significant increases in child care quality during 1st 9 years of Smart Start

• Participation in more SS-funded activities related to better child care quality

• Children had better language & cognitive skills at kindergarten entry in centers receiving SS quality-improvement efforts than children in other centers

(Bryant et al., 2003; Maxwell et al., 1999)
Secondary Data Analysis

• Counties with more SS funding over time, 3rd – 5th graders had
  • higher EOG reading and math scores
  • less special education placement
  • less grade retention

(Dodge et al, 2016)
Quality Rating and Improvement System
NC QRIS (Star-rated License)

• Established in 1999
• Overseen by DCDEE (NC DHHS)
• NC 5-star licensed rating
• One of 1st tiered licensing systems in US – precursor to the QRIS movement
• Ties subsidy rates to quality of program

Continue to modify in line with current evidence –
Research underway to examine associations with child outcomes
Current NC Star-license Distributions (Jan 2017)

- 5.2%
- 3.0%
- 21.7%
- 26.5%
- 35.7%
NC Pre-K Program
NC Pre-K Program

- Established in 2001-2002 – statewide pre-k
- Targeted for low-income / at-risk 4-year-olds
- Designed to enhance school readiness skills
- Moderately high to high quality
  - 95% 4- to 5- star licensed centers
  - Avg ECERS-R score ≥ 4.5
NC Pre-K Characteristics

• Classroom-based – Public school, Private, Head Start
• School schedule - 6.5 hours/day, 180 days/year
• Qualified teachers –
  ~85% B-K license (~15% working toward)
• 1:9 teacher-child ratios, 18 children per class
• Developmental screening & ongoing assessment
• Approved curriculum
Effects of NC Pre-K Program Participation on Children’s School Readiness Skills
Regression Discontinuity Results
(Peisner-Feinberg & Schaaf, 2011)
Long-term Effects of NC Pre-K Program Participation
NC 3rd–Grade Comparison Study

Statewide Evaluation of NC Pre-K (More at Four) Program

Participants
◦ 2 cohorts of all 3rd-graders in NC
◦ Qualified for free/reduced price lunch (90% NC Pre-K)
◦ NC Pre-K (treatment) vs no NC Pre-K (comparison)

Measures
◦ 3rd-grade EOG math & reading assessments

(Peisner-Feinberg & Schaaf, 2010)
NC 3rd-grade EOG Effect sizes

![Bar chart showing effect sizes for Reading and Math in 2006-2007 and 2007-2008]
NC Pre-K is Even More Effective for Some Groups than Others
Receptive Vocabulary Growth by English Proficiency Level – PK – K

(Peisner-Feinberg, et al., 2015)
Math Skills Growth by English Proficiency Level – PK - K

(Peisner-Feinberg, et al., 2015)
Conclusions

• Children in NC face a number of economic & social inequities leading to educational gaps
• These gaps are evident from a young age & continue throughout the school years
• Investments in high-quality ECE Programs may help to address these gaps...........but we still need to better understand the active ingredients leading to better outcomes, especially for different groups of learners
Thank You

For more information:  http://fpg.unc.edu