

# Rurality and Reading Readiness: The Longitudinal Effects of Setting on Parent Engagement and Children's Early Literacy

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# Introduction

- Early family engagement in language and literacy activities is important for preschoolers' overall learning and school readiness.
- Parents' engagement in young children's early literacy and learning is linked to many important language and literacy skills (e.g., vocabulary size, alphabet knowledge, and learning behaviors).



# Introduction

- Early reading experiences in the home predict later language and literacy readiness in Kindergarten.
- Thus, early parent engagement in home literacy practices has a longitudinal effect on children's skill development.



# Introduction

- Parent engagement takes many forms, and as defined here concerns parental practices and provisions that support early language and literacy skills for preschoolers.
- This may include reading books together, telling stories, singing songs, reciting nursery rhymes, and going to libraries.



# Introduction

- Little is known about how setting (i.e., rurality) influences parents' engagement in these activities and the effect of their engagement on children's school readiness.
- What research is available suggests parent involvement in rural settings benefits children, just as it does in urban and suburban settings.
  - Studies limited to traditional forms of involvement in school-based activities during the elementary years.
  - Lack of comparison group so can't directly compare to non-rural counterparts.



# Introduction

- Conditions in rural areas may differentially impact parent engagement and its impact on school readiness.
  - Diminished resources and income potential may negatively impact parent engagement, and in turn, children's skill development.
  - Conversely, parents may provide more experiences in the home to make up for limited community resources; thus, parent engagement may have a greater impact in rural settings.



# Research Questions

- What is the relationship between setting (city, suburban, town, rural) and children's Kindergarten literacy?
- What is the relationship between setting and parents' preschool literacy engagement?
- Does parent literacy engagement during preschool mediate the relationship between setting and children's Kindergarten literacy?



# ECLS-B Database

- This study was a secondary analysis of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B).
  - A study sponsored by the National Center for Education Statistics (NCES), U.S. Department of Education.
  - Followed a nationally representative sample of children born in the United States in 2001.
  - Examined the systemic interactions of the child, family, childcare, health care, educational system, and community on children's overall health, social-emotional development, and intellectual capacity that influence children's school readiness





# Materials and Methods

- Participants
  - $N = 6,550$  children entering Kindergarten in 2006 or 2007
- Procedure
  - Structured parent interview
  - Direct child assessment



## Unweighted Descriptive Statistics for the Study Sample

Study Variable	Percentage/Mean (SD)
<b><u>Child</u></b>	
Male	51.1%
<b>Race/Ethnicity</b>	
White	40.5%
Black	16.0%
Hispanic	20.6%
Asian	11.5%
American Indian or Alaska Native	3.1%
More than 1 race	8.4%
Kindergarten assessment age in months	68.2 (4.3)
<b><u>Parent</u></b>	
Primary respondent is biological mother	95.4%
<b><u>Family</u></b>	
<b>Highest parent education level</b>	
Less than a high school degree	9.8%
High school degree or equivalent	22.0%
Vocational or technical program degree	5.3%
Some college	26.5%
Bachelor's degree	17.4%
Advanced schooling beyond Bachelor's	18.9%
At or above 100% poverty threshold	75.4%
2 or more adults in the home	86.9%
Primary language in home is English	79.2%



# Study Variables and Measures

- Geographic Setting (predictor variable)
  - Household zip combined with American Community Survey to create locations defined by National Center for Education Statistics and U.S. Census Bureau
  - We collapsed locations into four groups:
    - *city* ( $n = 1,950$ )
    - *suburban* ( $n = 2,550$ )
    - *town* ( $n = 850$ )
    - *rural* ( $n = 1,100$ )



# Study Variables and Measures

- Parental Preschool Literacy Engagement (mediating variables)
  - Home literacy materials (number of books in the home)
  - Children's exposure to the library (take child to public library, borrow books from library, borrow other materials, take child to story hour)
  - Parental language and literacy behaviors (read books, tell stories, sing songs)



# Study Variables and Measures

- Children's Kindergarten Literacy (outcome variable)
  - Broad measure of early child language and literacy skills using newly developed items and existing items from well established measures
    - PreLas 2000
    - PPVT-III
    - Pre-CTOPPP



# Study Variables and Measures

- Covariates (control variables)
  - Child age
  - Child sex
  - Child race/ethnicity (proxy for family race/ethnicity)
  - Family SES



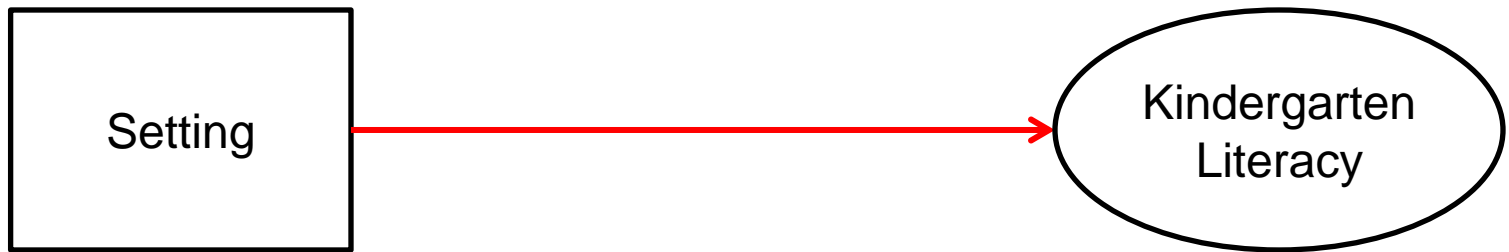
# Analysis

- Structural equation modeling in *Mplus*
  - Multiple pathways examined simultaneously
  - Confirmatory technique
  - Two models tested to evaluate research questions



# Model 1

- What is the relationship between setting and children's Kindergarten literacy?

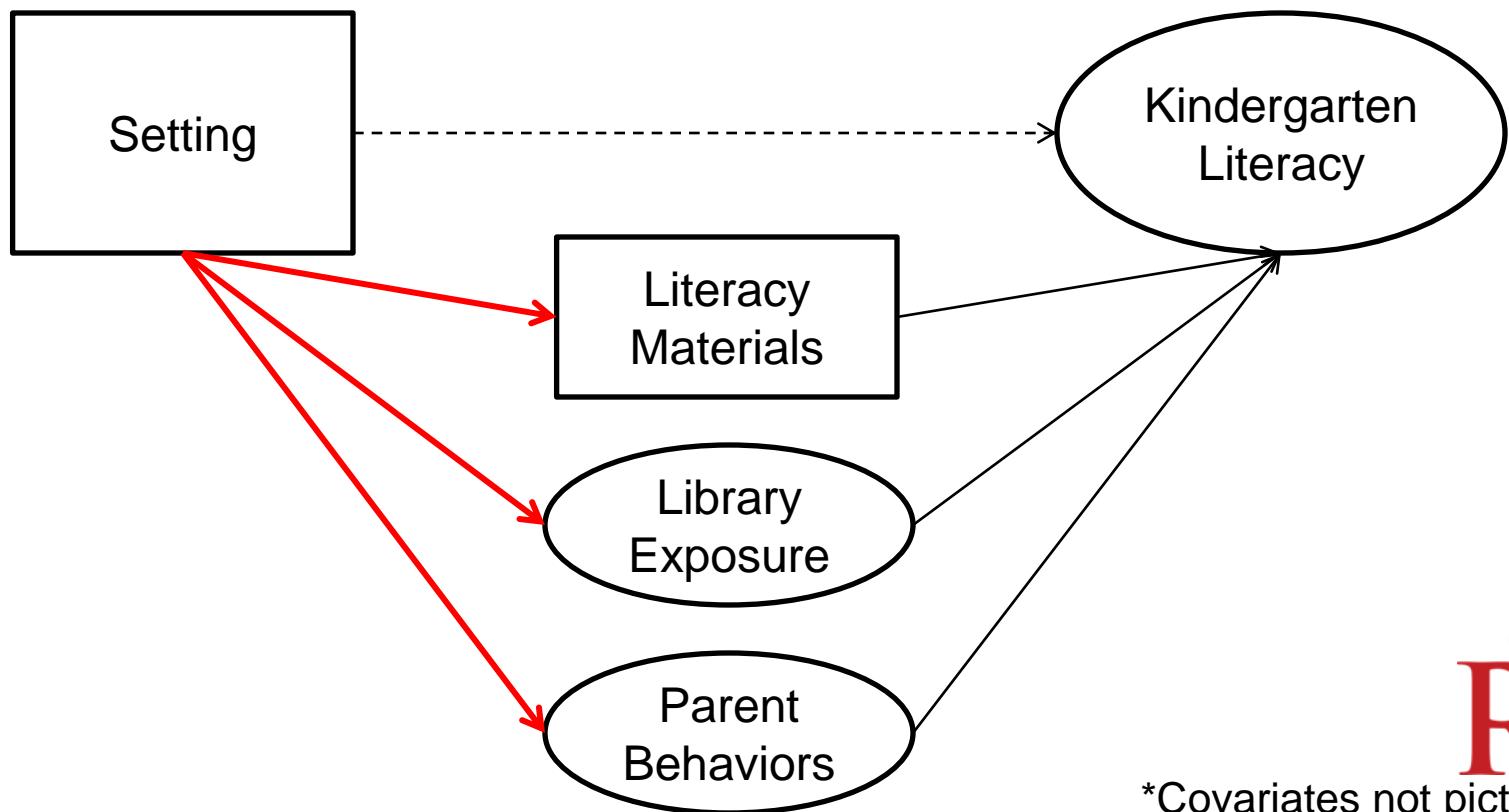


\*Covariates not pictured



# Model 2

- What is the relationship between setting and parents' preschool literacy engagement?

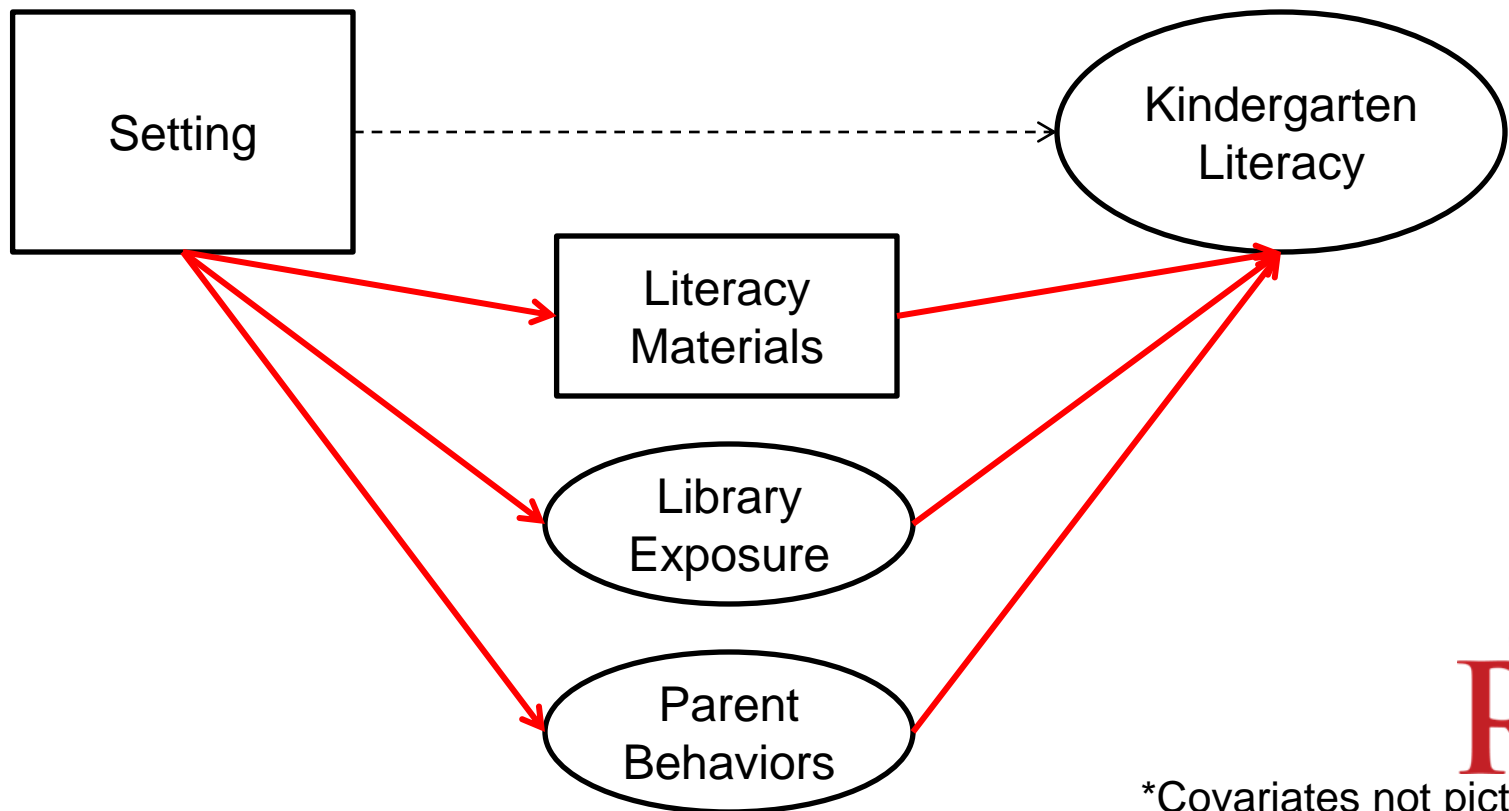


\*Covariates not pictured



# Model 2

- Does parent literacy engagement during preschool mediate the relationship between setting and children's Kindergarten literacy?



\*Covariates not pictured



# Findings

- What is the relationship between setting and children's Kindergarten literacy?
  - Suburban children had higher reading scores when entering Kindergarten than rural children
  - No differences in Kindergarten reading scores between rural children and city and town children



# Findings

- What is the relationship between setting and parents' preschool literacy engagement?
  - Setting predicted library exposure
    - City and suburban children were exposed to the library more than rural children
    - No differences in library exposure between rural and town children
  - Setting did not predict literacy materials nor parent language and literacy behaviors



# Findings

- Does parent literacy engagement during preschool mediate the relationship between setting and children's Kindergarten literacy?
  - Library exposure mediated the relationship between setting and children's Kindergarten literacy
    - Setting indirectly predicted Kindergarten literacy through library exposure: City and suburban children were exposed to the library more than rural children, and library exposure positively predicted children's Kindergarten literacy



# Discussion

- Cognitively stimulating resources, (e.g., libraries and museums) may be limited in rural communities due to financial resources, population density, and proximity to metropolitan areas.
- Further research is needed to better understand the structural characteristics of rural communities and how they influence young children's learning and development.



# Discussion

- Differences in family engagement and home learning environments are not due to the influence of rural settings, but family demographic characteristics (i.e., SES and race/ethnicity).
- Rurality does not appear to depress parents' engagement in language and literacy behaviors, nor prevent them from creating a stimulating home literacy environment.



# Discussion

- Differences in Kindergarten literacy still exist between suburban and rural children even after accounting for differences in parent literacy engagement
  - Suggests additional mediating variables for which suburban children are advantaged
- No overall differences in Kindergarten literacy between city and rural children despite city children's greater exposure to the library
  - Suggests additional mediating variables for which rural children are advantaged





# Limitations

- Inferences limited to children born in the U.S. in 2001 when they were in preschool and Kindergarten
- Select number of parent engagement variables
- Use of self-report rather than observational data
- Other mediating factors need to be considered



# Future Directions

- Conditions in rural settings need to be better understood to determine what factors promote strong literacy skills.
- Distinctive features of rural contexts need to be examined to identify important mediating factors that can be manipulated to promote optimal learning outcomes for children in rural communities.



# Thank You!

For questions or comments  
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