



Moderation of the Cognitive Impacts of Head Start by Children's Absenteeism

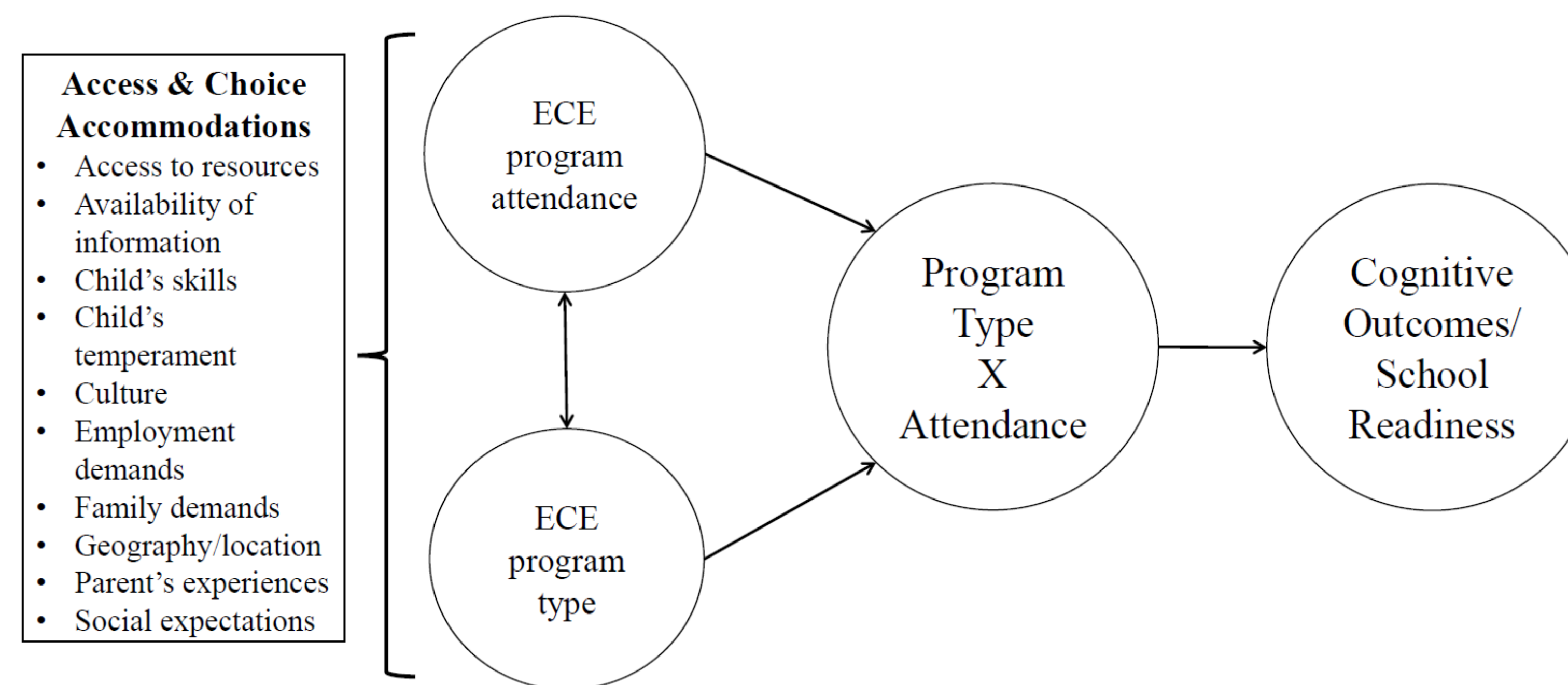
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Background

- There is a significant gap in school readiness by family SES.
- There are discrepancies by family income level in the types and quality of ECE programs that children are enrolled in.
- Children from low-SES backgrounds have the highest chronic absenteeism rates in early schooling.
 - 12% of Head Start children are chronically absent every year, missing an average of 22 days of the school year.
- Studies have found negative associations between chronic absenteeism and learning outcomes.
- However, models that seek to understand absenteeism in relation to children's outcomes are subject to endogeneity bias.
 - Using an RCT and a form of propensity score matching for this analysis may address some of these issues.

Theoretical Model



Preliminary Results

Baseline Balance Results will go here

Research Question

Do children who attend fewer days of Head Start on average have lower cognitive outcomes than children who attend more frequently?

Analytic Plan

- Regression-based subgroup approach that will identify subgroups of children based on their likelihood of being absent.
 - 1) Examine baseline balance between the Head Start group and the control group.
 - 2) Conduct multiple regression analyses predicting absenteeism rates from all of the variables used in Studies 1 & 2, for the control group only.
 - 3) Use the parameters estimated from the control group to create a likelihood of absenteeism index for the Head Start children.
 - 4) Estimate the cognitive impact of Head Start for children with different likelihoods of absenteeism.

$$Outcome = \beta_0 + \beta_1(treat) + \beta_2(pretest) + \beta_3(absenteeism\ likelihood\ index) + \beta_4(absenteeism\ likelihood\ index * treat) + \beta_5(covariates) + \epsilon$$

Sample

- The data come from the Head Start Impact Study (HSIS), a multi-site RCT that tested the impacts of Head Start on measures of children's school readiness.
- 4,440 3- and 4-year-old children from 351 oversubscribed Head Start centers across 81 Head Start grantees in 22 states.
 - Data utilized for this study will be limited to the 2,781 children who have available attendance data
- Children were randomly assigned to Head Start ($n = 2,644$), or to control ($n = 1,796$).
- Data collection included parent/primary caregiver interviews, child direct assessments, and direct observations of quality of care settings.

Preliminary Results

Correlation Matrix will go here

Measures

- Children's cognitive outcomes
 - Receptive vocabulary: Peabody Picture Vocabulary Test-III
 - Early vocabulary: Woodcock-Johnson Letter-Word Identification
 - Oral comprehension: Woodcock-Johnson Oral Comprehension
 - Early numeracy: Woodcock-Johnson Applied Problems
- Parent-reported absenteeism.
 - "In the past month, about how often has your child been absent from their primary ECE program?"

Implications

- May provide the field with a more nuanced estimate of the true impact of center-based preschool programs like Head Start.
- Advocates for low-SES families by framing their ECE enrollment and attendance as the most optimal choices for their situations.
- May demonstrate that if higher-quality programs were better matched with parents' preferences and constraints, we may be able to narrow the SES gap in school readiness.

Selected References

- Arbour, M., Yoshikawa, H., Willett, J., Weiland, C., Snow, C., Mendive, S., ... & Treviño, E. (2016). Experimental impacts of a preschool intervention in Chile on children's language outcomes: Moderation by student absenteeism. *Journal of Research on Educational Effectiveness*, 9(1), 117-149.
- Bloom, H. S., & Weiland, C. (2015). Quantifying variation in Head Start effects on young children's cognitive and socio-emotional skills using data from the National Head Start Impact Study.
- Meyers, M. K., & Jordan, L. P. (2006). Choice and accommodation in parental child care decisions. *Community Development*, 37(2), 53-70.