

THE DENVER PRESCHOOL PROGRAM: CHILD OUTCOMES

Vi-Nhuan Le and Diana Schaack May 19, 2020





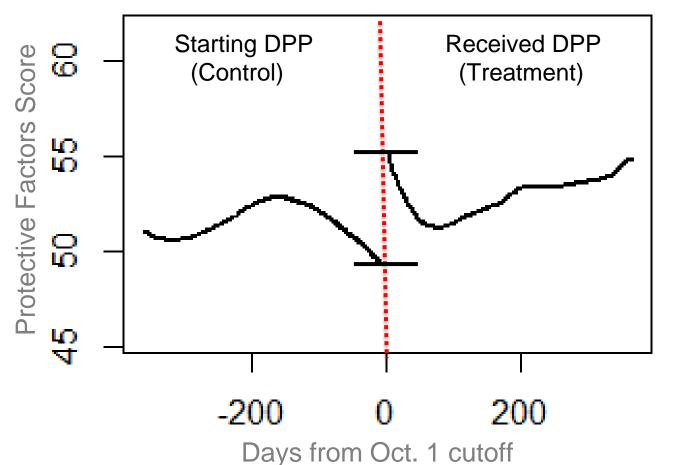


What are the goals of our analysis?

- Does the Denver Preschool Program (DPP) increase participants' cognitive, social-emotional, and executive functioning outcomes?
 - Cognitive: receptive vocabulary, letter word identification, applied problems
 - Executive functioning: working memory and inhibitory control
 - Social skills: protective factors and behavioral concerns
- How can we be sure any observed gains are due to the DPP?
 - Relies on an age criteria (October 1) for eligibility to the DPP
 - Advantage is that we are delaying services, not denying services outright



How does our analysis support causal inferences?



- Black curves represent student scores
- Red line denotes the Oct. 1 cut-point
- Children to the right of the cut-point received a year's worth of tuition credit (treatment)
- Children to the left of the cut-point are just starting to receive the credit (control)
- Distance between the horizontal bars along the red line represents the DPP effect



How do we interpret the DPP gains?

- Statistical significance –the likelihood that the observed differences are not due to chance
- Effect sizes (ES) emphasizes magnitude of the difference
 - ES of 0.20 to 0.25 considered substantively important
 - Typical ES for interventions at the pre-k level are approximately 0.11 for both math and reading



How large are the DPP effects?

Measure	Significance	Effect Size
Receptive vocabulary		.27
Letter word identification		.26
Applied problems		.09
Working memory: parents		.58
Working memory: teachers		.34
Inhibitory control: parents		.54
Inhibitory control: teachers		.03
Protective factors: parents		.30
Protective factors: teachers		.72
Behavioral concerns: parents		.10
Behavioral concerns: teachers		.08



What are the implications of our findings?

DPP is the first known study in the nation that can provide *causal evidence* for the effectiveness of a tuition credit on children's school readiness outcomes.



What are next steps?

- Communicating Results
- Understanding Subgroups
- Answering the Question: We know it works but why?



Questions? Please email us at: le-vinhuan@norc.org

Thank You!



