



EFFECTS OF THE DENVER PRESCHOOL PROGRAM ON HISTORICALLY DISADVANTAGED STUDENT GROUPS

Vi-Nhuan Le, Diana Schaack,
and Lisa Setlak

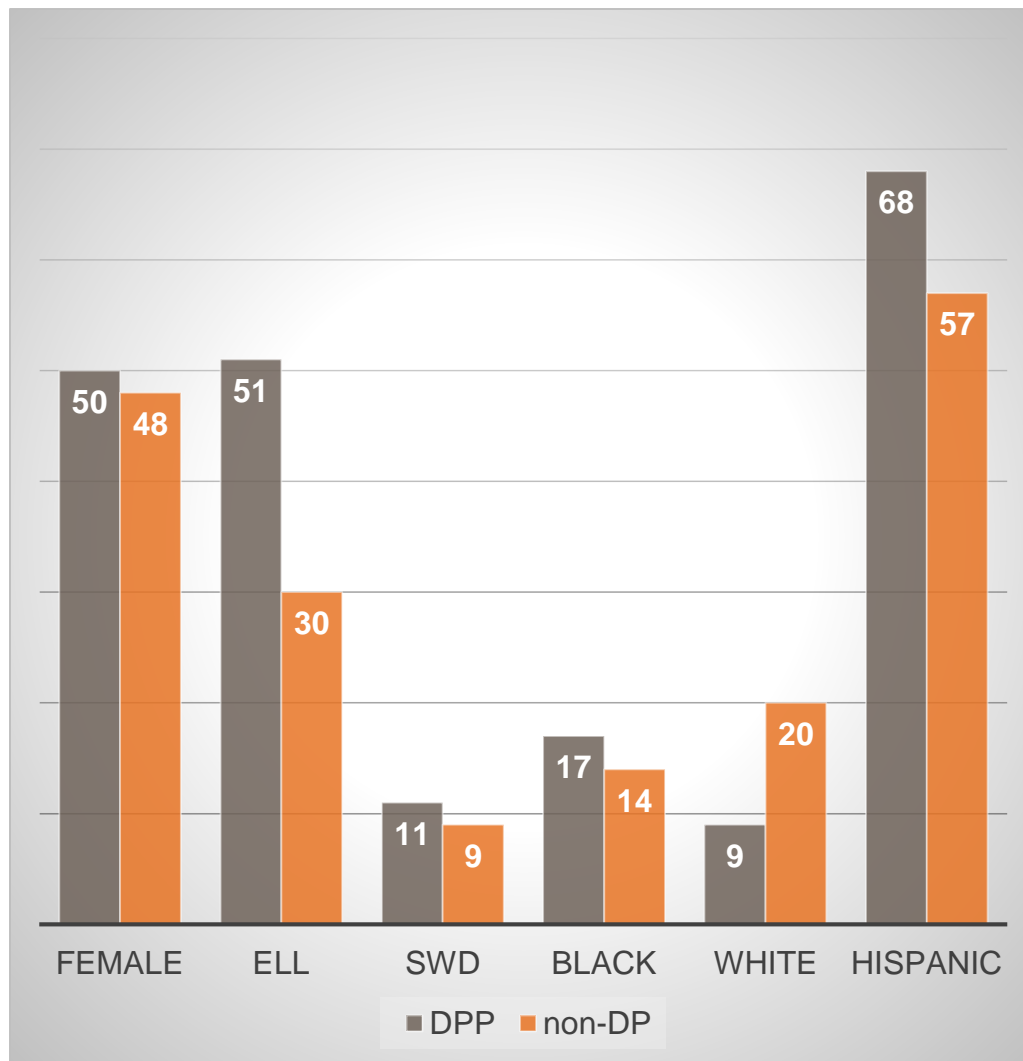
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Goals of subgroup analysis

- Which student groups are we examining?
 - Hispanic children
 - Black children
 - Children eligible for free or reduced-price lunch
 - Spanish-speaking English language learners
 - Children with disabilities
- How do the kindergarten outcomes of DPP participants compare to non-participants?
 - Reading performance (direct assessments)
 - Social-emotional and physical skills (teacher reports)
 - Chronic absence (district records)
 - Retention (district records)

How do we make the two groups “equal”?

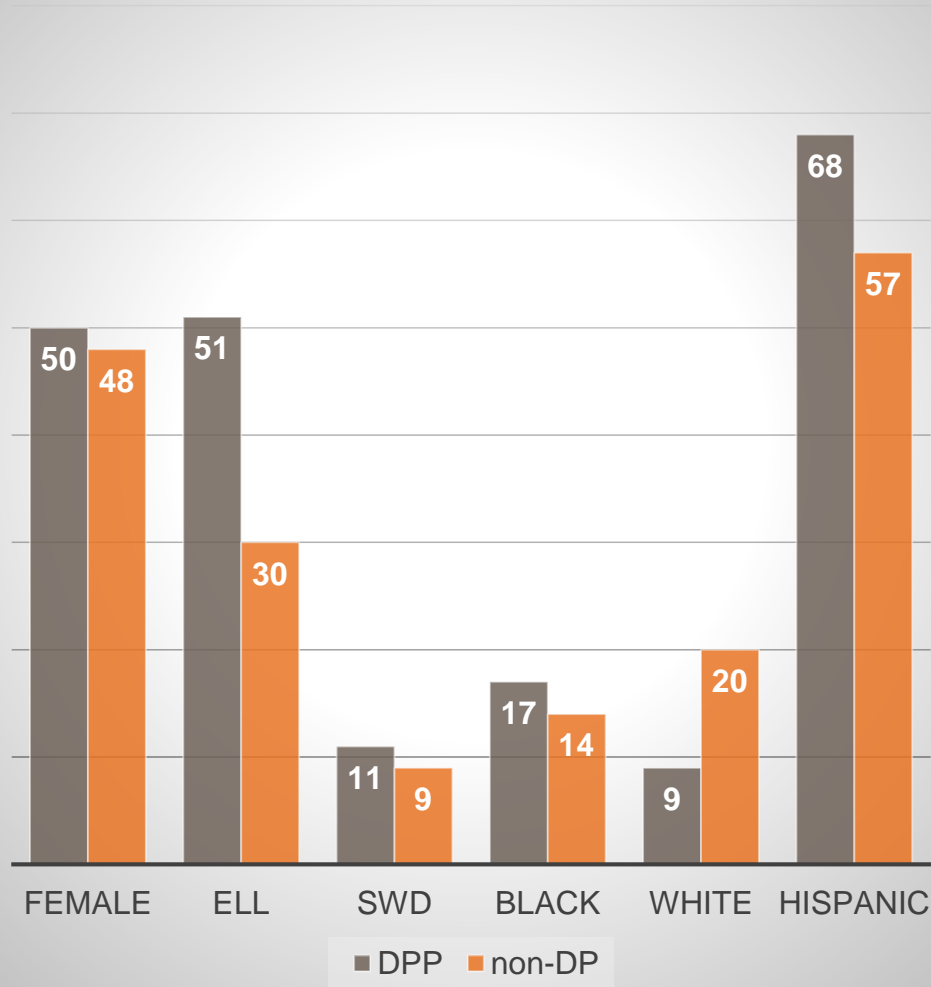


There can be substantial variation, even within the same subgroup

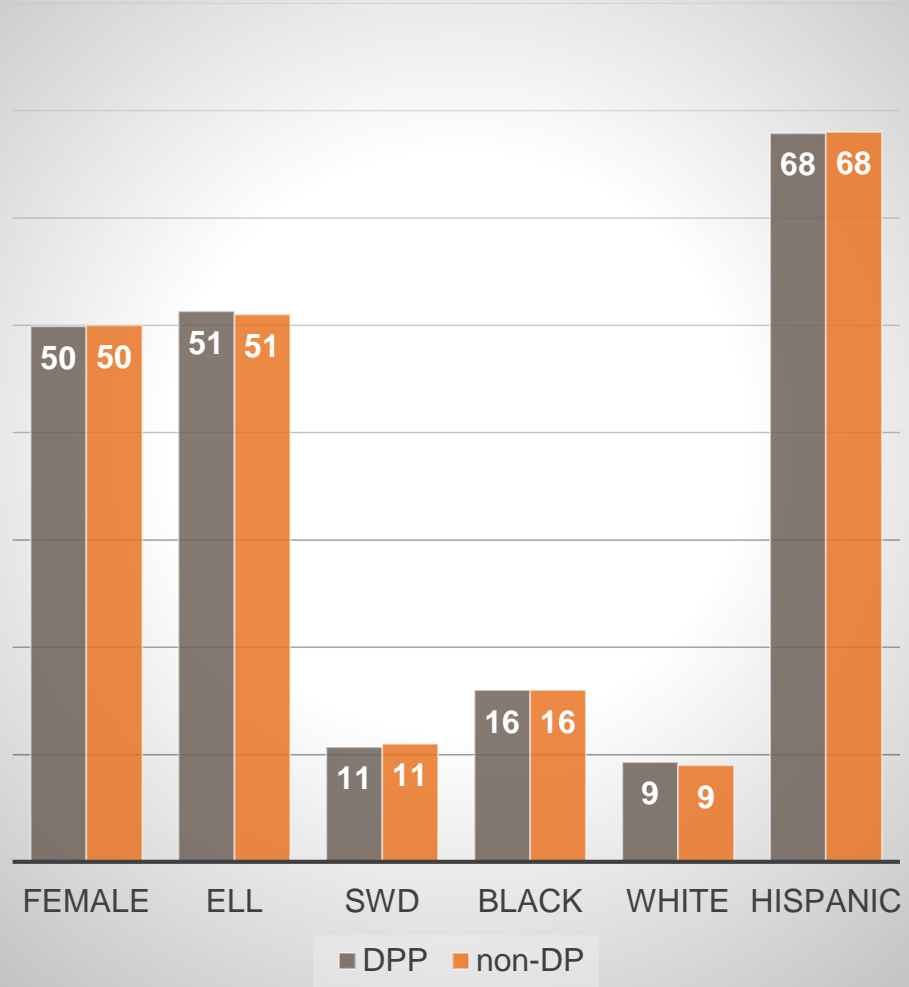
Among children who were eligible for free or reduced-price lunch, DPP children were significantly more likely to be ELL or Hispanic

Use statistical weights to “balance” the two groups

Before Weighting



After Weighting



Laying the groundwork to interpret the findings

- Effect sizes (ES) – emphasize magnitude of the difference between two groups
- ES of 0.20 and larger are considered substantively important and denote an approximately 10-percentage point difference between two groups
- Example of ES in early childhood education interventions
 - Duncan and Magnuson (2013) meta-analysis of high-quality preschool (ES = 0.21)
 - Grindal et al. (2016) meta-analysis of ECE programs with parent education, modeling, and home visits (ES = 0.29)

Large ES were Observed

Table 1. Summary of ES across Outcomes and Subgroups

Outcome	Median ES	Range of ES
Reading	0.26	0.21-0.37
Social-emotional skills	0.15	0.04-0.24
Physical skills	0.20	0.15-0.21
Chronic absence	0.24	0.17-0.30
Retention	0.09	0.03-0.12

Our study is the first-known research to examine the effects of a preschool tuition credit on the kindergarten outcomes of historically disadvantaged children.

What are our next steps?

- Conduct a cost-effectiveness analysis to understand the return on investment
- Explore longer-term outcomes
 - National Student Clearinghouse: on-track for graduation, graduation rates, college enrollment, college persistence, transfers to 4-year colleges
 - Collaboration with the Colorado Department of Education to obtain data from the Departments of Corrections, Labor and Employment, and Human Services

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

Thank You!



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