

The Tennessee Voluntary Pre-Kindergarten Program (TN-VPK)

Extract taken from “Early Childhood Education” by Sneha Elango,
Jorge Louis Garcia, James J. Heckman, and Andres Hojman (2016,
pp. 235-298). *University of Chicago Press*.

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This version February 1, 2022

A recent evaluation of a means-tested local program in the US (The Tennessee Voluntary Pre-kindergarten Program) has recently captured public attention. This program is not a Head Start program. However, like Head Start, it is large-scale and targets children on the basis of socio-economic status. A handful of sites affiliated with the program are Head Start centers, although it is not clear whether any of these are included in the program’s evaluation. This program is used as evidence against the effectiveness of large-scale preschool programs like Head Start (see Barshay and The Hechinger Report, 2015). The Tennessee Voluntary Pre-kindergarten Program (TN-VPK) is a statewide kindergarten program, targeting disadvantaged 4 year-old children one year before kindergarten. It began as a pilot

program in 1998 and became statewide in 2005. More details on its implementation, quality, and funding are reported in Appendix B.

The program is evaluated by a randomized control trial. However, the evaluation has major flaws and the interpretation of its results is clouded by the presence of control contamination. Program implementers requested parental consent *after* performing the randomization, causing substantial selective attrition from the study. The subsample for whom they received consent is called the Intensive Substudy. For the first cohort of participants, only 46% of the parents in the treatment group consented to enter the study and 32% of the parents in the control group consented. The rates of consent for the second cohort were 74% for the treatment group and 68% for the control group. This sampling plan creates a major problem of selective attrition. Experimental methods to evaluate this program become invalid, so the evaluators rely on non-experimental methods (Lipsey et al., 2013, 2015).¹

The evaluation of TN-VPK does not account for control contamination. In their sample, 27% of the children in the control group attended Head Start or a private, center-based preschool program (Lipsey et al., 2015). The evaluation of this program does not address these confounds and does not identify a clear counterfactual.

A reduced set of measures were reported for the full sample, including

¹To correct the selection problem caused by differential consent across control and treatment groups, the authors match on observable covariates. However, differential consent changed the composition of each group, and this methodology does not account for the resulting differences in unobserved characteristics.

grade repetition, attendance, disciplinary action, and special education. Estimates of these outcomes do not rely on flawed non-experimental methodology. The authors find that the treatment group was .77 percentage points less likely to repeat kindergarten. Short-term effects on cognition for the intensive substudy sample fade out or become negative as children age. The treatment group was 4 percentage points less likely to repeat a school grade. Short-term effects on cognition fade out. This evaluation does not represent strong evidence against the effectiveness of early childhood education programs. Instead, it illustrates that interpreting effects without accounting for flaws in experimental design or estimating clear counterfactuals produces misleading policy conclusions. It cautions against the use of randomized control trials as a gold standard. Evidence from non-experimental studies should not be outweighed by evidence from a randomized control trial without serious consideration of the methodologies of the individual studies.