

# CONSIDER ALL THE EVIDENCE ON PreK

## Why randomized controlled trial results must not dictate public policy

Randomized controlled trials (RCTs) are a popular research tool that compare control and treatment groups to establish causal relationships.<sup>1-2</sup> However, one study should not outweigh decades of early childhood education research. In response to the discourse inspired by Durkin et al.'s<sup>3</sup> RCT of Tennessee's Voluntary Pre-Kindergarten program, **Drs. Wu and Akaeze<sup>4</sup> highlight five common limitations of RCTs and how they affect the implication of Tennessee study. By understanding these limitations, stakeholders will be better equipped to evaluate the results and applicability of RCT studies of PreK programs.**



- 1. Inability to 'Blind' Participants:** Unlike traditional RCTs, families know whether they are a part of the treatment or control group. Children in the control group may receive additional support from their families or teachers for not receiving the treatment.<sup>5</sup>
- 2. Assignment Noncompliance:** Children in the control group can enroll in an RCT's PreK program when spots are available, just as children in the treatment group can leave the program.<sup>6</sup>
- 3. Spillover Effects:** Families in control and treatment groups often live in the same community and their children interact with one another, which can positively impact the outcomes of children in the control group.<sup>7</sup>
- 4. Lack of Representativeness of the Sample:** RCT findings can only be generalizable outside of its sample when the study's sample is representative of a larger population. Samples must be appropriately randomized so each group has equal representation. Both are difficult to achieve in real settings.
- 5. Inability to Control for Post-Randomization Influences:** Factors influencing students' education outcome change overtime, such as the quality of sequent schools or teachers. Researchers are often unable to track these influences in large-scale RCT PreK studies, limiting what inferences can be made from the results.

Knowing the limits of any research tool is necessary to understanding the impacts of PreK. A blend of results from qualitative and quantitative studies, including RCTs, should be used to form policies that support children served by state-funded PreK programs. PreK findings must be contextualized when considering equitable child outcomes, especially for programs serving children from under-served communities. More research, with a variety of populations represented and methods used, is needed to discover how to make state-funded PreK more effective for all children. **Future research should look into what practices are most effective in specific contexts to build a more impactful and equitable PreK program structure.**



**Read the full manuscript: Wu, J. H. & Akaeze, H. O. (2024). Consider All the Evidence on Pre-K Programs for Low-Income Children: Why Randomized Controlled Trial Results Must not Dictate Public Policy. *Planning and Changing*, 51 (3/4), 74-87.**

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<sup>1</sup> Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth/Cengage Learning.

<sup>2</sup> Sullivan, G. M. (2011). Getting off the "gold standard": Randomized controlled trials and education research. *Journal of Graduate Medical Education*, 3(3), 285-289. <https://doi.org/10.4300/JGME-D-11-00147.1>

<sup>3</sup> Durkin, K., Lipsey, M. W., Farran, D. C., & Wiesen, S. E. (2022). Effects of a statewide pre-kindergarten program on children's achievement and behavior through sixth grade. *Developmental Psychology*, 58(3), 470-484.

<sup>4</sup> Wu, J. H. & Akaeze, H. O. (2024). Consider All the Evidence on Pre-K Programs for Low-Income Children: Why Randomized Controlled Trial Results Must not Dictate Public Policy. *Planning and Changing*, 51 (3/4), 74-87.

<sup>5</sup> Conrad, K. M., & Conrad, K. J. (2005). Compensatory rivalry. In B. Everitt & D. Howell (Eds.), *Encyclopedia of Statistics in Behavioral Science* (pp. 338-339). Wiley.

<sup>6</sup> Keogh-Brown, M. R., Bachmann, M. O., Shepstone, L., Hewitt, C., Howe, A., Ramsay, C. R., Song, F., Miles, J. N. V., Torgerson, D. J., Miles, S., Elbourne, D., Harvey, I., & Campbell, M. J. (2007). Contamination in trials of educational interventions. *Health Technology Assessment*, 11(43), iii-107.

<sup>7</sup> Williams, B. J. (2019). The spillover benefits of expanding access to preschool. *Economics of Education Review*, 70(1), 127-143.