

CAPS Seminar

Comparing Experimental and Nonexperimental Methods: What Lessons Have We Learned Four Decades After Lalonde?

Abstract: In 1986, Robert LaLonde published an article comparing nonexperimental estimates to experimental benchmarks (LaLonde 1986). He concluded that the nonexperimental methods at the time could not systematically replicate experimental benchmarks, casting doubt on their credibility. Following LaLonde's critical assessment, there have been significant methodological advances and practical changes, including (i) an emphasis on the unconfoundedness assumption separated from functional form considerations, (ii) a focus on the importance of overlap in covariate distributions, (iii) the introduction of propensity score-based methods leading to doubly robust estimators, (iv) methods for estimating and exploiting treatment effect heterogeneity, and (v) a greater emphasis on validation exercises to bolster research credibility. To demonstrate the practical lessons from these advances, we reexamine the LaLonde data. We show that modern methods, when applied in contexts with sufficient covariate overlap, yield robust estimates for the adjusted differences between the treatment and control groups. However, this does not imply that these estimates are causally interpretable. To assess their credibility, validation exercises (such as placebo tests) are essential, whereas goodness-of-fit tests alone are inadequate. Our findings highlight the importance of closely examining the assignment process, carefully inspecting overlap, and conducting validation exercises when analyzing causal effects with nonexperimental data.

Date: January 30, 2026

Time: 12:00 – 1:30 PM

Virtual: <https://syracuseuniversity.zoom.us/j/98214815213>



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