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ExtrapoLATE-ing : external validity and overidentification in the LATE framework

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This paper develops a covariate-based approach to the external validity of instrumental variables (IV) estimates. Assuming that differences in observed complier characteristics are what make IV estimates differ from one another and from parameters like the effect of treatment on the treated, we show how to construct estimates for new subpopulations from a given set of covariate-specific LATEs. We also develop a reweighting procedure that uses the traditional overidentification test statistic to define a population for which a given pair of IV estimates has external validity. These ideas are illustrated through a comparison of twins and sex-composition IV estimates of the effects childbearing on labor supply.

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