Concave-Monotone Treatment Response and Monotone Treatment Selection: With an Application to the Returns to Schooling

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Abstract

This paper identifies the sharp bounds on the mean treatment response under concave monotone treatment response (concave-MTR) and monotone treatment selection (MTS) assumptions. Empirical application to the mean returns to schooling shows that the estimates of our bounds are substantially narrower than (1) the estimates using only the concave-MTR assumption of Manski (1997) and (2) the estimates using only MTR and MTS assumptions of Manski and Pepper (2000). Our estimates are close to the point estimates from the previous empirical studies.

JEL: C14, J24

Keywords: Partial Identification, Sharp Bounds, Treatment Response, Return to Schooling

Reference:

Manski, C.F. (1997), "Monotone Treatment Response," *Econometrica* 65, 1311-34.

Manski, C. F. and J. Pepper (2000), "Monotone Instrumental Variables: With an Application to the Returns to Schooling," *Econometrica* 68, 997-1010.

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