## Supplementary Material for "A Comparison of Methods for Estimating the Average Treatment Effect on the Treated for Externally Controlled Trials"

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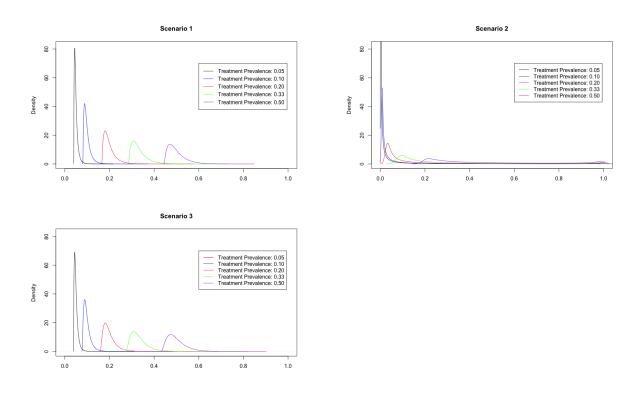


Figure S1: Distribution of PS values under different scenarios

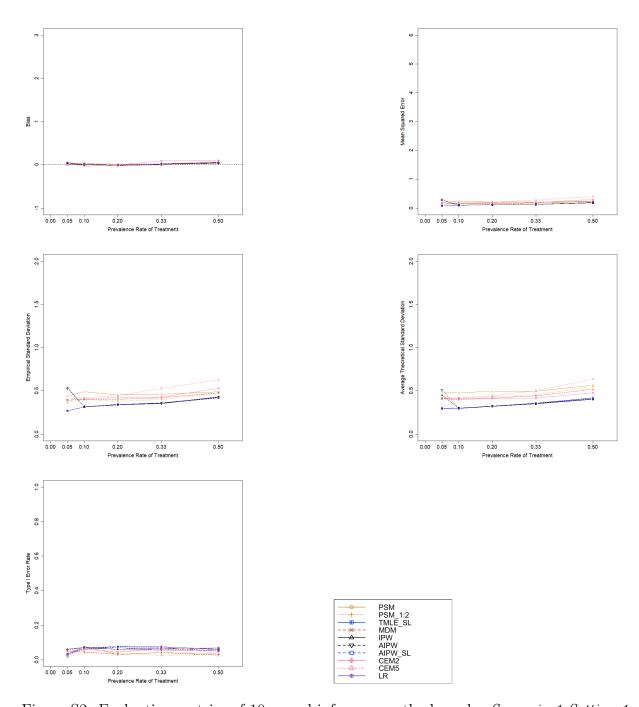


Figure S2: Evaluation metrics of 10 causal inference methods under  $Scenario\ 1\ Setting\ 1$ 

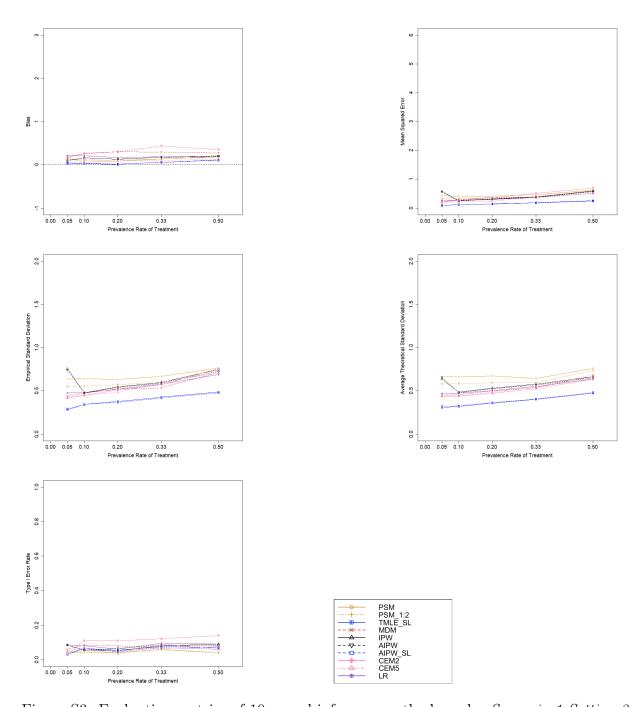


Figure S3: Evaluation metrics of 10 causal inference methods under  $Scenario\ 1\ Setting\ 2$ 

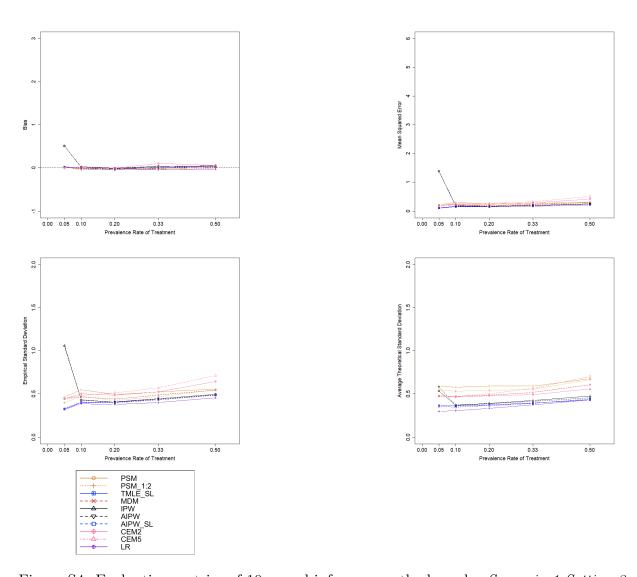


Figure S4: Evaluation metrics of 10 causal inference methods under  $Scenario\ 1\ Setting\ 3$ 

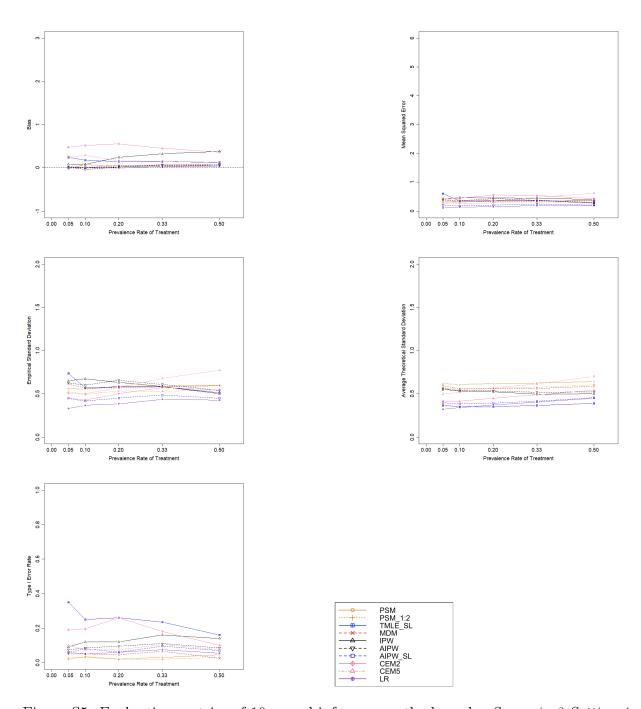


Figure S5: Evaluation metrics of 10 causal inference methods under  $Scenario\ 2\ Setting\ 1$ 

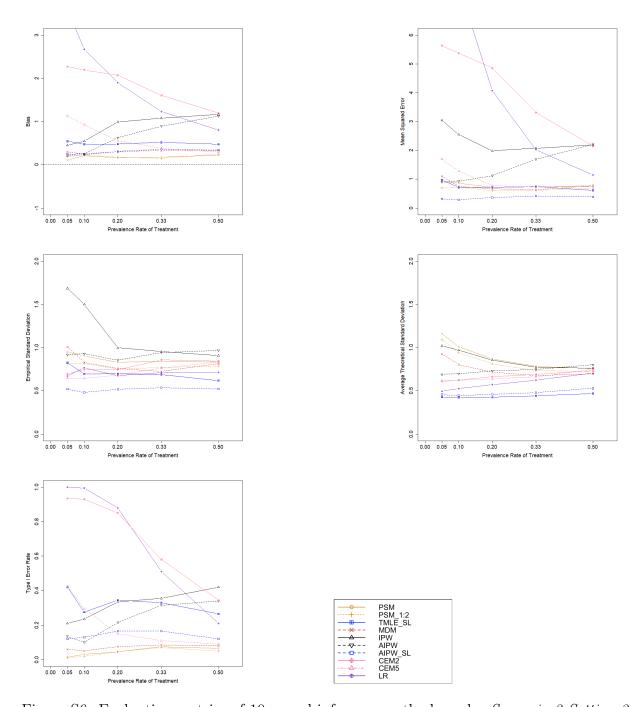


Figure S6: Evaluation metrics of 10 causal inference methods under  $Scenario\ 2\ Setting\ 2$ 

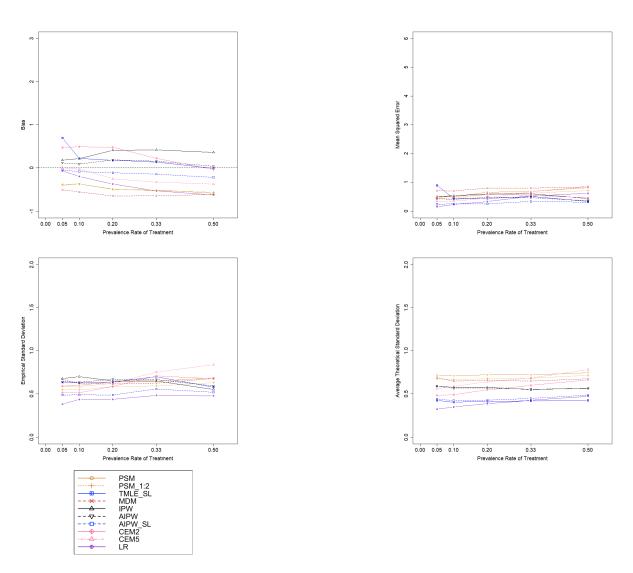


Figure S7: Evaluation metrics of 10 causal inference methods under  $Scenario\ 2\ Setting\ 3$ 

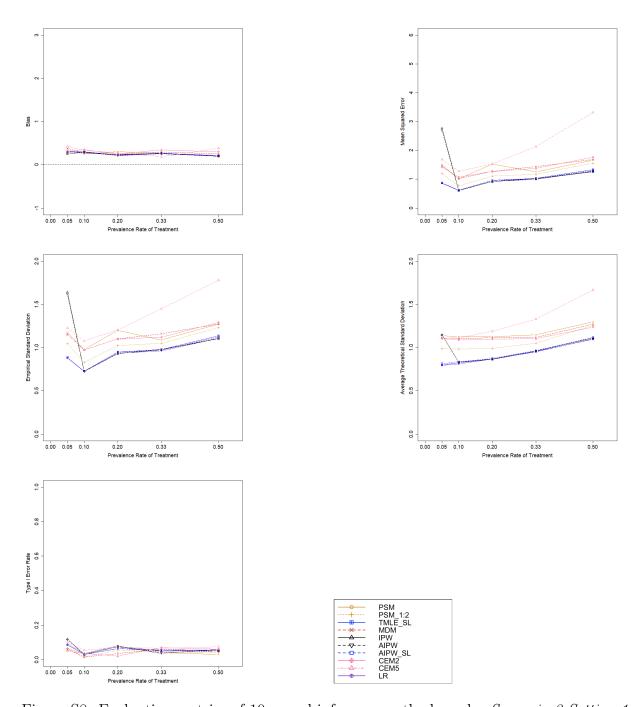


Figure S8: Evaluation metrics of 10 causal inference methods under  $Scenario\ 3\ Setting\ 1$ 

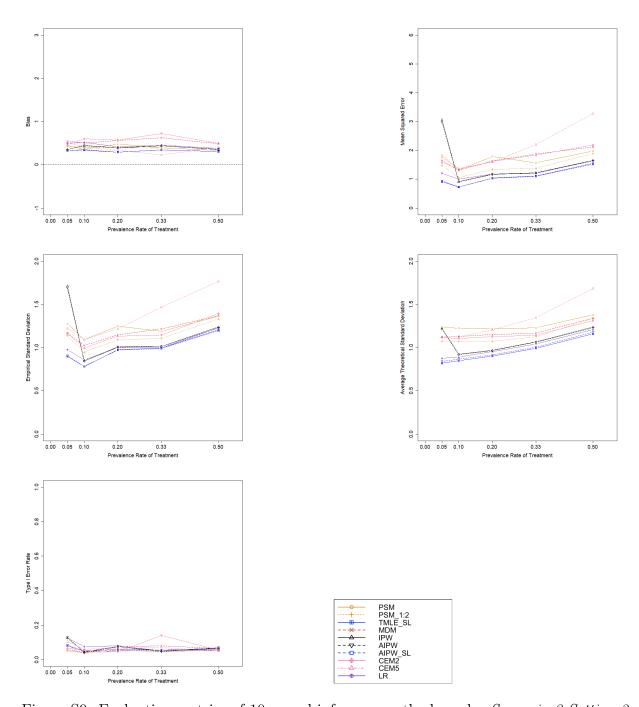


Figure S9: Evaluation metrics of 10 causal inference methods under  $Scenario\ 3\ Setting\ 2$ 

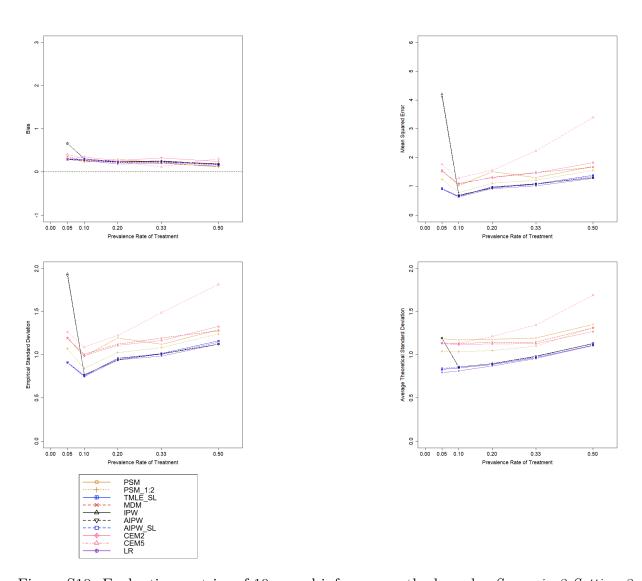


Figure S10: Evaluation metrics of 10 causal inference methods under  $Scenario\ 3\ Setting\ 3$