

\mathcal{D}^1 : Small but unconfounded



$$n \ll N$$

\mathcal{D}^2 : Large but confounded



Assumptions:

(Consistency) $A = a \Rightarrow Y = Y^a$

(Overlap) $\pi_1(x) > 0$

(Unconfoundedness) $Y(0), Y(1) \perp A \mid X$

Assumptions:

(Consistency) $A = a \Rightarrow Y = Y^a$

(Overlap) $\pi_2(x) > 0$

CI for ATE in \mathcal{D}^1