

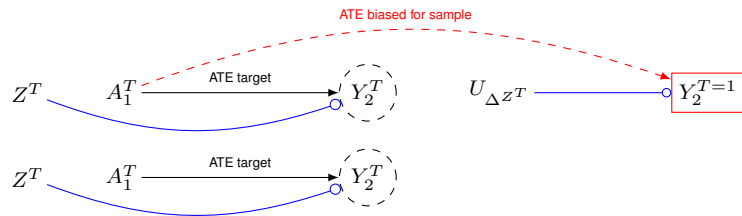
Bias

Causal Graph

1

Problem: sample is too restrictive. Sample ATE does not transport to target population.

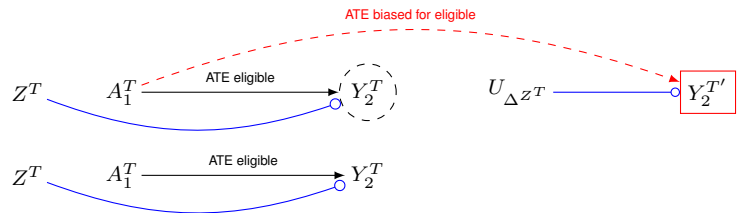
Response: sample from targeted (unrestricted) population.



2

Problem: absence of eligibility criteria.

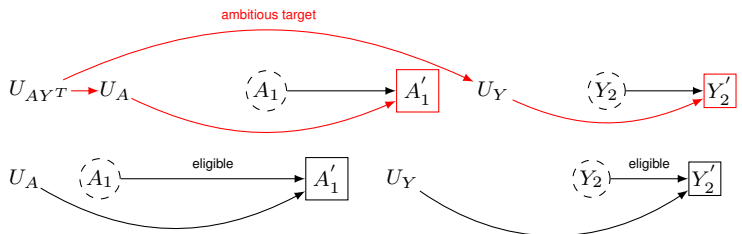
Response: eligibility criteria.



3

Problem: unmeasured correlated treatment/outcome errors in a heterogeneous target sample.

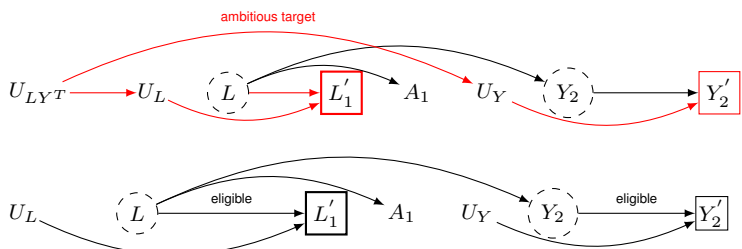
Response: eligibility criteria.



4

Problem: unmeasured correlated control/treatment errors in a heterogeneous target sample.

Response: eligibility criteria.



Key:

A denotes the treatment;

Y denotes the outcome;

L denotes a confounder;

\rightarrow asserts causality

$Z \rightarrow \circ Y$ indicates effect modification of $A \rightarrow Y$ by Z ;

\rightarrow indicates a pathway for bias linking A to Y absent causation

$(X) \rightarrow [X']$ indicates a latent variable X measured by proxy X' .

$U_X \rightarrow [X']$ denotes an unmeasured source of measurement error for the true X ;

$[X]$ indicates that conditioning on X introduces bias.

$U_{\Delta Z} \rightarrow \circ Y$ indicates effect modification of $A \rightarrow Y$ by $U_{\Delta Z}$