

$$\begin{array}{c} Y_A = 21 \\ A \quad T_A = 1 \end{array}$$

$$\begin{array}{c} Y_B = 11 \\ B \quad T_B = 0 \end{array}$$



$$\begin{array}{c} Y_C = 9 \\ C \quad T_C = 0 \end{array}$$

$$\begin{array}{c} Y_D = 5 \\ D \quad T_D = 1 \end{array}$$

I don't know about the individual causal effects. BUT I can help you ESTIMATE the AVERAGE causal effect!

i	T	Y	$Y(T=1)$	$Y(T=0)$	Effect(τ)
A	1	21	21	?	$21 - ? = \tau_A$
B	0	11	?	11	$? - 11 = \tau_B$
C	0	9	?	9	$? - 9 = \tau_C$
D	1	5	5	?	$5 - ? = \tau_D$

Define: $\bar{\tau} = (\tau_A + \tau_B + \tau_C + \tau_D) / 4$ (The avg. causal effect)

Notice: $\tau_A = Y_A(1) - Y_A(0)$, $\tau_B = Y_B(1) - Y_B(0)$, ...

$$\begin{aligned} \bar{\tau} &= ((Y_A(1) - Y_A(0)) + \dots + (Y_D(1) - Y_D(0))) / 4 \\ &= (Y_A(1) + \dots + Y_D(1)) / 4 - (Y_A(0) + \dots + Y_D(0)) / 4 \end{aligned}$$