

$$\begin{matrix} Y_A = 21 \\ A \\ T_A = 1 \end{matrix}$$

$$\begin{matrix} Y_B = 11 \\ B \\ T_B = 0 \end{matrix}$$



$$\begin{matrix} Y_C = 9 \\ C \\ T_C = 0 \end{matrix}$$

$$\begin{matrix} Y_D = 5 \\ D \\ T_D = 1 \end{matrix}$$

I don't know about the individual causal effects. BUT I can help you TEST your ideas / HYPOTHESES about them.

① Idea/ H_0 : $Y_i(1) = Y_i(0)$

② H_0 implies $Y_i = Y_i(0)$

③ H_0 implies that a test statistic

summarizing $T \rightarrow Y$

$$t(T, Y) = \left(\frac{21+5}{2} \right) - \left(\frac{11+9}{2} \right) = 3$$

But also these other possible $t(T, Y)$ s :

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

i	\tilde{T}_1	\tilde{T}_2	\tilde{T}_3	\tilde{T}_4	\tilde{T}_5	\tilde{T}_6
A	1	1	1	0	0	0
B	0	1	0	1	1	0
C	0	0	1	1	0	1
D	1	0	0	0	1	1
	3	9	7	-3	-7	-9