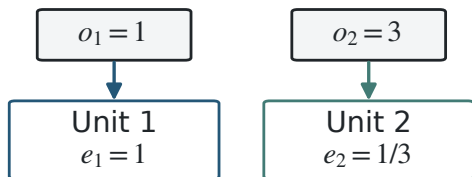


Same marginals, different mean output

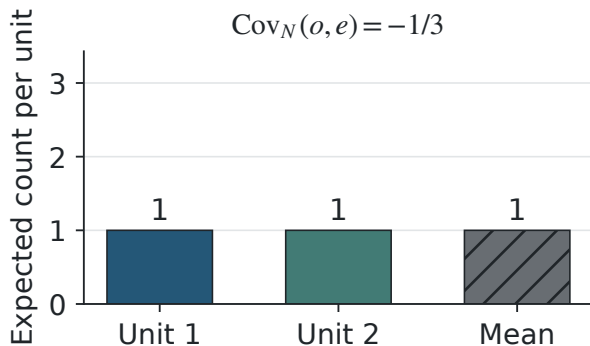
$$o \in \{1, 3\} \quad e \in \{1, 1/3\} \quad y_i = o_i e_i$$

Pairing 1

Assigned opportunities

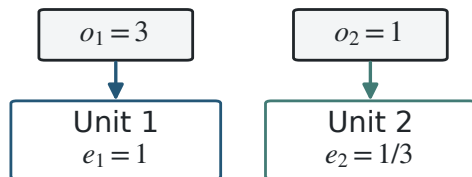


$$\text{Cov}_N(o, e) = -1/3$$

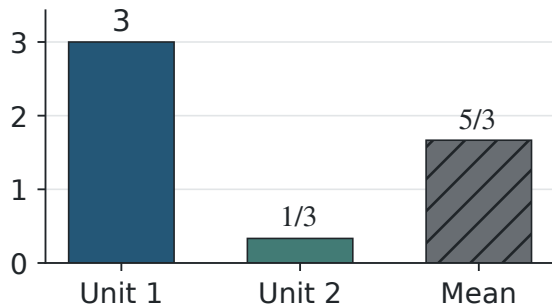


Pairing 2

Assigned opportunities



$$\text{Cov}_N(o, e) = +1/3$$



$$\bar{y} = \bar{o}\bar{e} + \text{Cov}_N(o, e)$$

Constructed values · same time window · fixed efficiencies · no interaction