Modern Statistical Learning Methods for
Observational Biomedical Data

Lab 0:
Identification of an average treatment effect

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MODULE 8

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Contents of this Lab

1. Computing an ATE using the G-computation and IPTW formulas by hand

For the population described in the table below, calculate $E(Y \mid A = a)$ and $E[Y(a)]$ corresponding to treatment $(a = 1)$ and control $(a = 0)$ using:

(i) the G-computation formula;

(ii) the IPTW formula.

(Green and orange values provide counts of individuals with $Y = 1$ and $Y = 0$, resp.)

	$W = 0$	$W = 1$	$W = 2$	
$A = 1$	20 + 12	49 + 11	89 + 7	
$A = 0$	94 + 34	30 + 30	6 + 18	