

# Data Generating Mechanism Testing

We create a single instantiation of the simulation in this block:

```
df <- make_regions(global_params)
head(df, 2)

##   region_id S      b W X1 X2      U delta A Yb.pre Yb.post Yb.post0 Yb.post1
## 1         1 1 0.295 2  0  1 0.985 0.296 0    109    109    109    110
## 2         1 1 0.293 3  1  0 0.879 0.287 0    114    114    114    114

dim(df)

## [1] 500  13

df <- tibble::as_tibble(df)
```

Here, I test our ability to estimate the PATT (using 3 estimators) and also calculate the true PATT:

```
estimate_patt(df)

## [1] 0.268 0.268 0.268

true_patt(df)

## [1] 0.0348
```

Below, I print out simulated results of probabilities we have from the literature that we can use to help calibrate our parameters.

Table 1: B, SSP, System, and A by CPC+ or non-CPC+ region

S	P(B=1   S)	P(SSP   S)	P(system   S)	P(A   S)
0	0.297	0.359	0.356	0.203
1	0.277	0.394	0.472	0.206

Table 2: Race by CPC+ Participation

A	P(B=1   S=1,A)
0	0.278
1	0.274

Table 3: Proportion of CPC+ Participation (in SSP, System, and Overall)

P(A=1   SSP=1, S=1)	P(A=1   sys=1, S=1)	P(A=1)
0.155	0.176	0.204