DGP Variations

For Loop Over DGPs

```
## [1] "aa_high_acf"
```
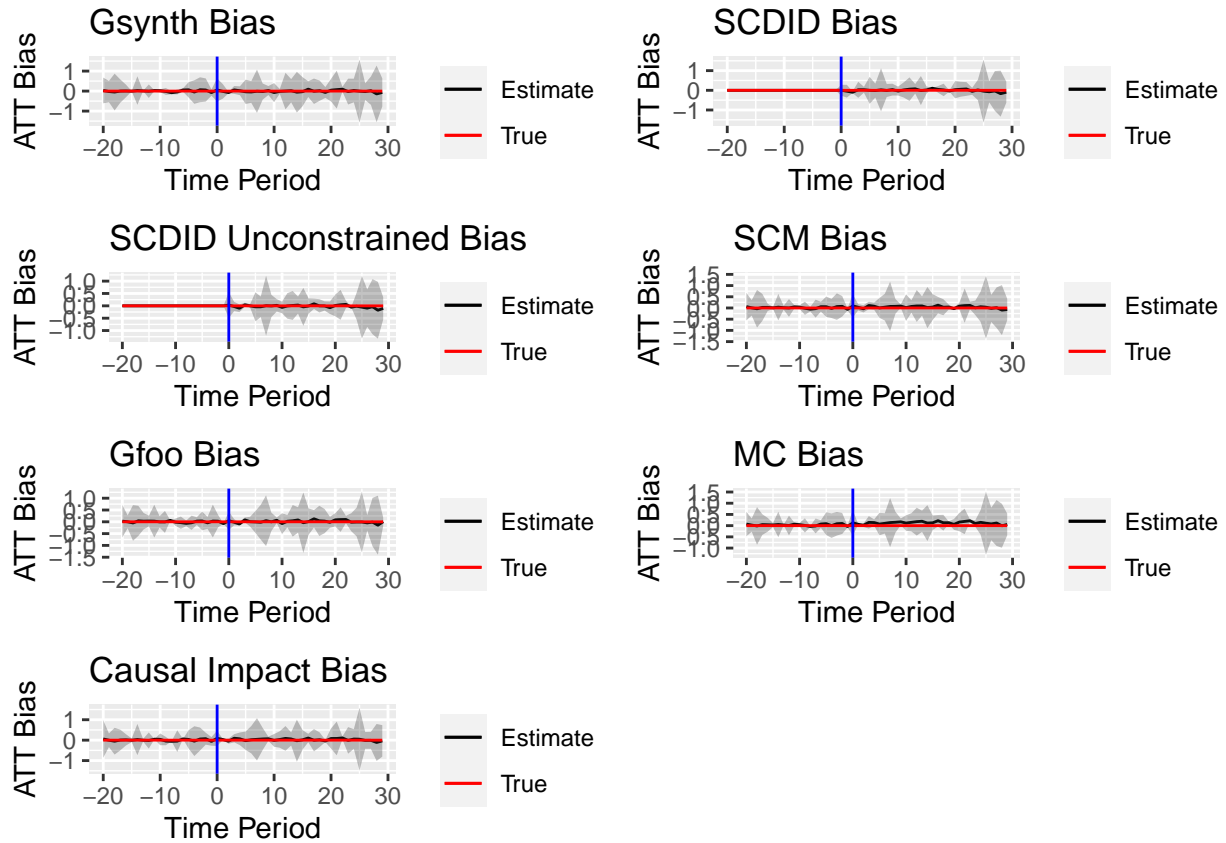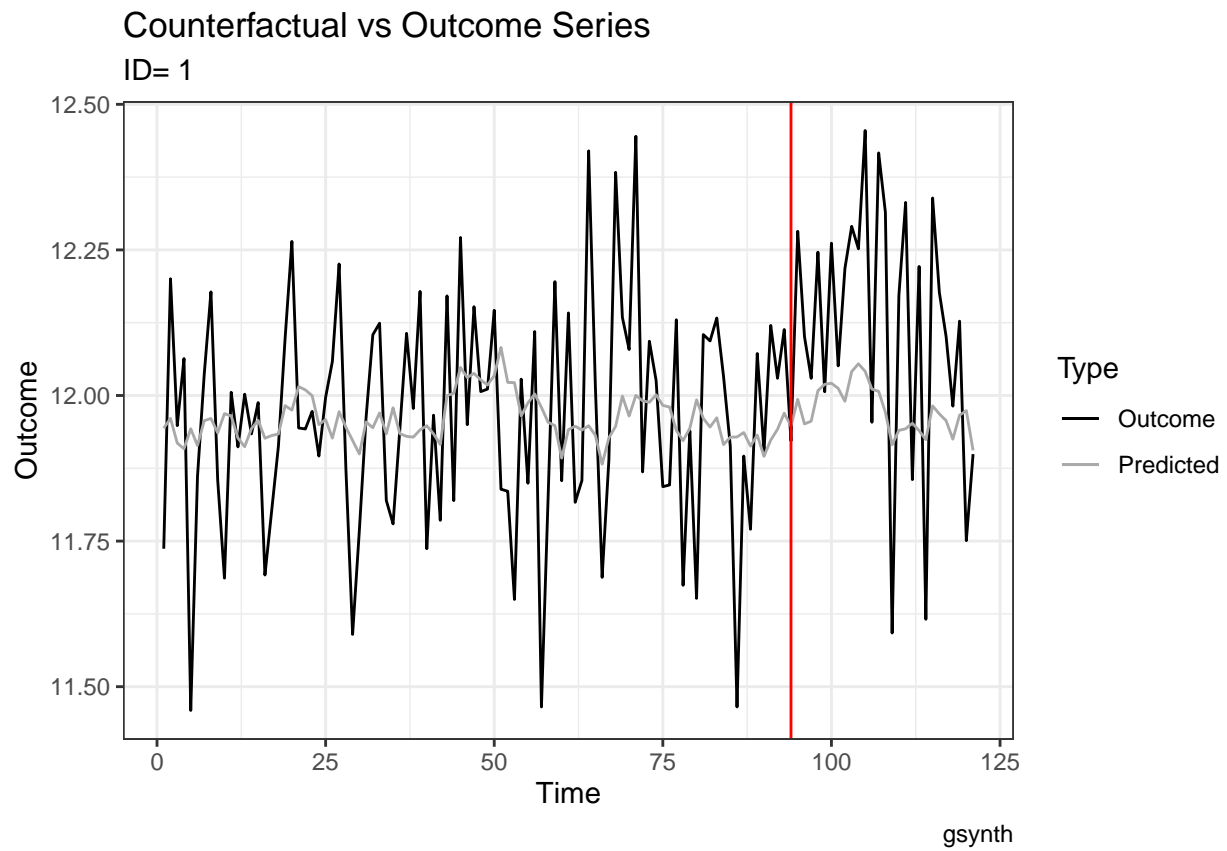
Gsynth Bias

SCDID Bias

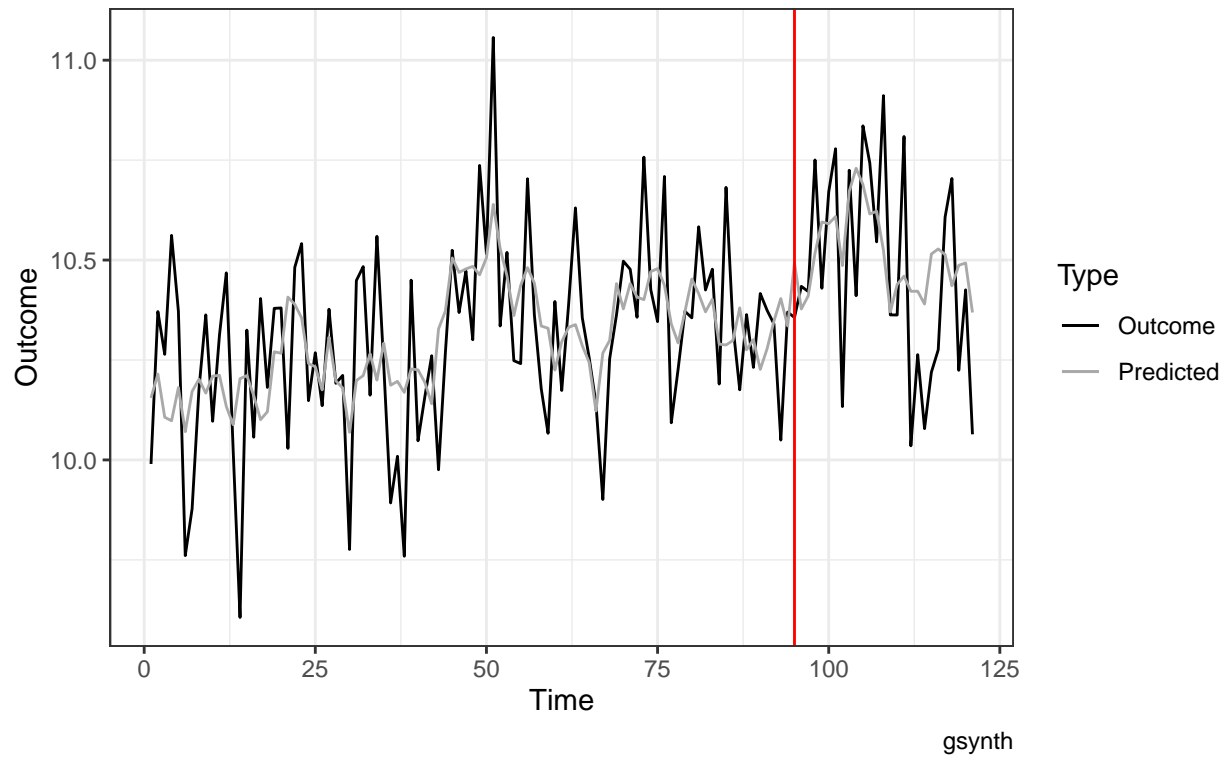### SCDID Unconstrained Bias

SCM Bias

Gfoo Bias

MC Bias

Causal Impact Bias


```
## [[1]]
```

Counterfactual vs Outcome Series

ID= 1

```
## 
## [[2]]
```

Counterfactual vs Outcome Series
ID= 11

gsynth

```
##
## [[1]]
```

Counterfactual vs Outcome Series
ID= 1

scdid

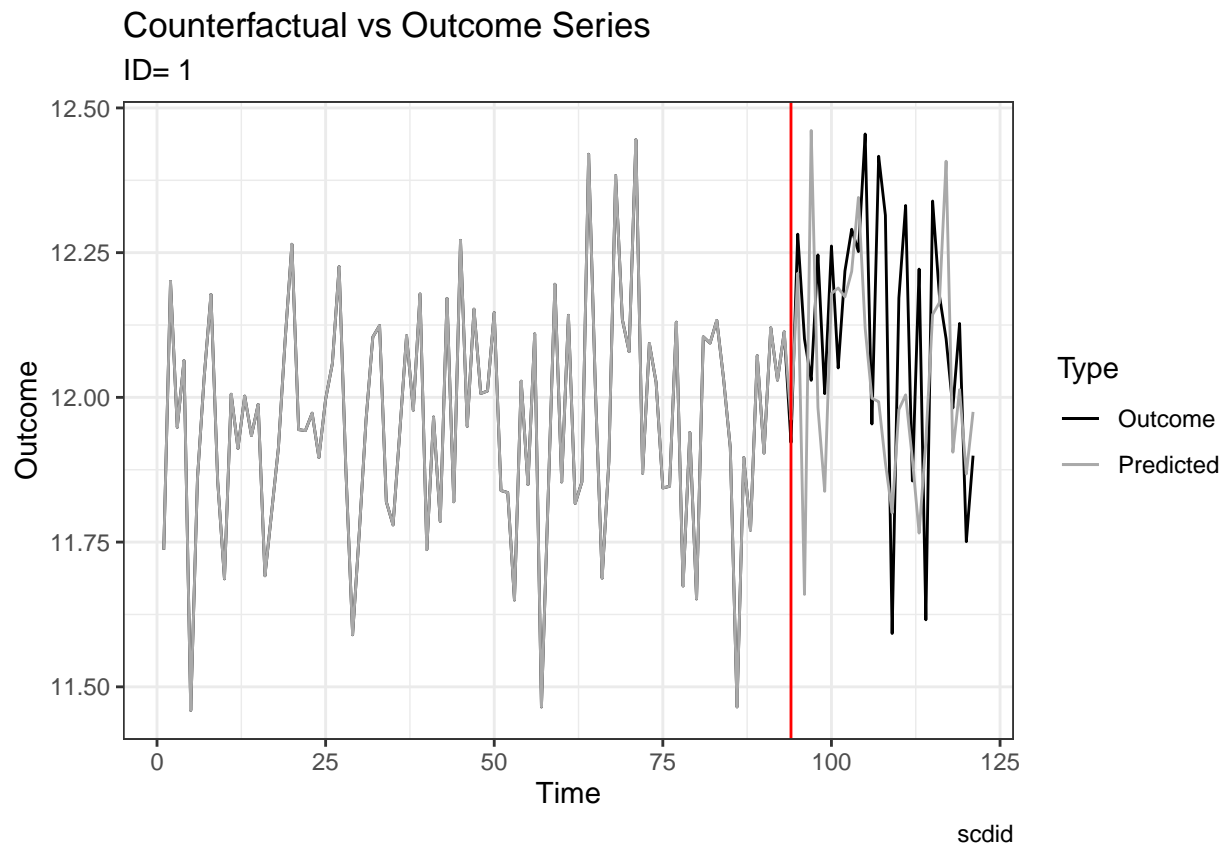```

[[2]]
```

Counterfactual vs Outcome Series
ID= 19

scdid

```
##
## [[1]]
```

Counterfactual vs Outcome Series

ID= 1

scdid_uncon

```
##
## [[2]]
```

Counterfactual vs Outcome Series
ID= 11

scdid_uncon
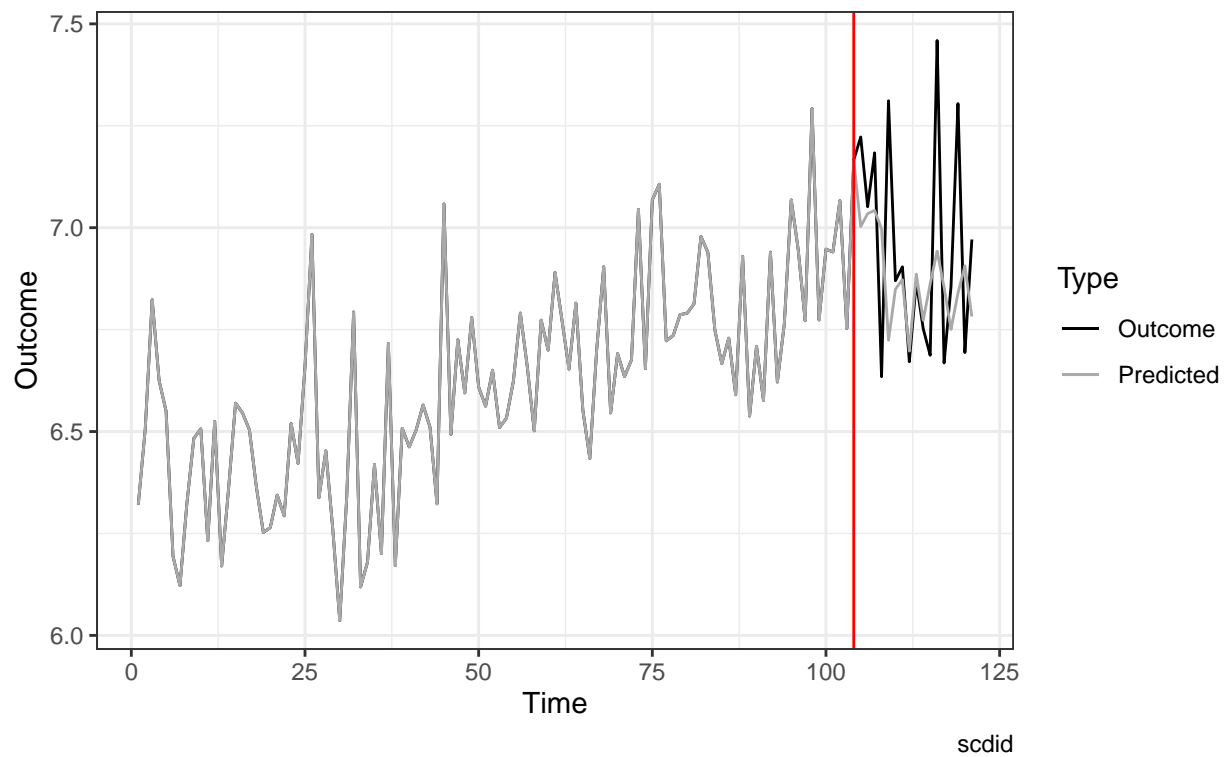
```
##
## [[1]]
```

Counterfactual vs Outcome Series
ID= 1

scm

```
## 
## [[2]]
```
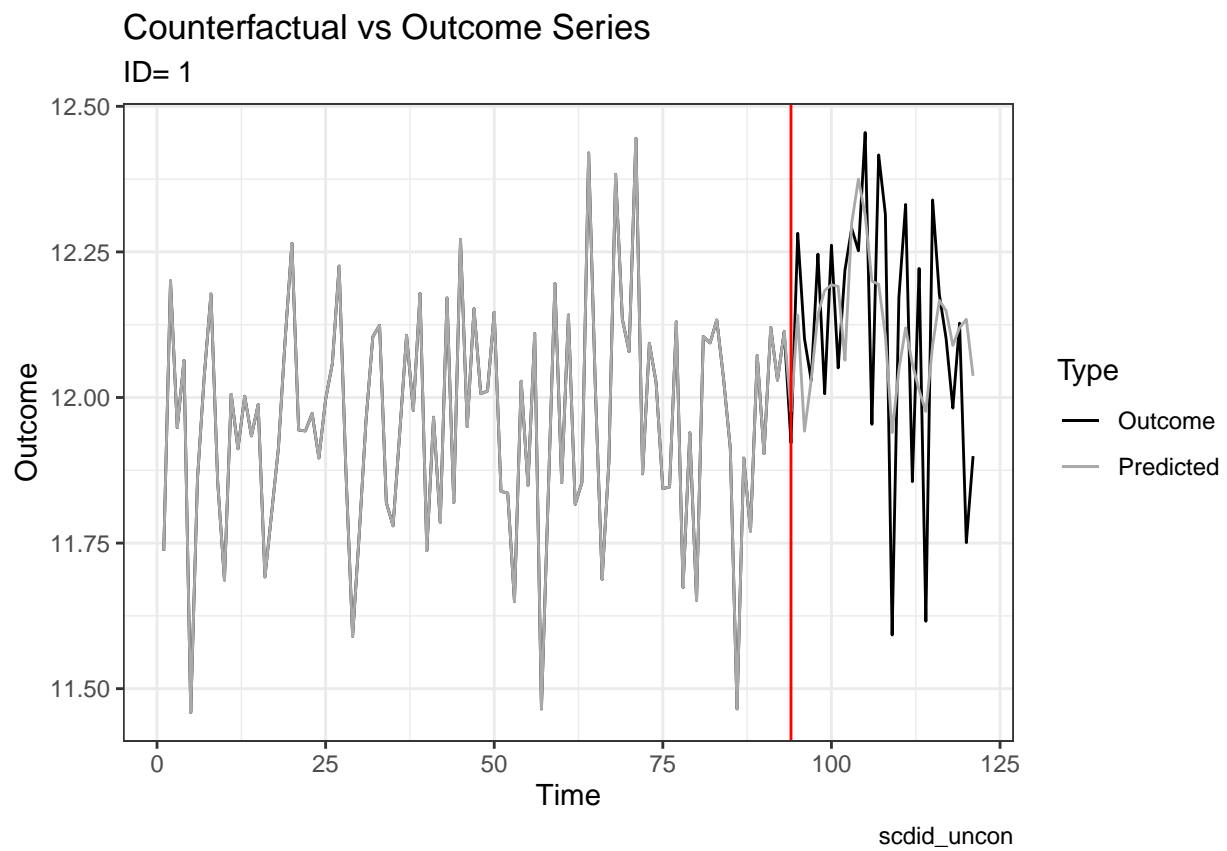
Counterfactual vs Outcome Series

ID= 46

```
##
## [[1]]
```

Counterfactual vs Outcome Series
ID= 1

gfoo

```
## 
## [[2]]
```

Counterfactual vs Outcome Series

ID= 12

gfoo

```
##
## [[1]]
```

Counterfactual vs Outcome Series
ID= 1

[[2]]

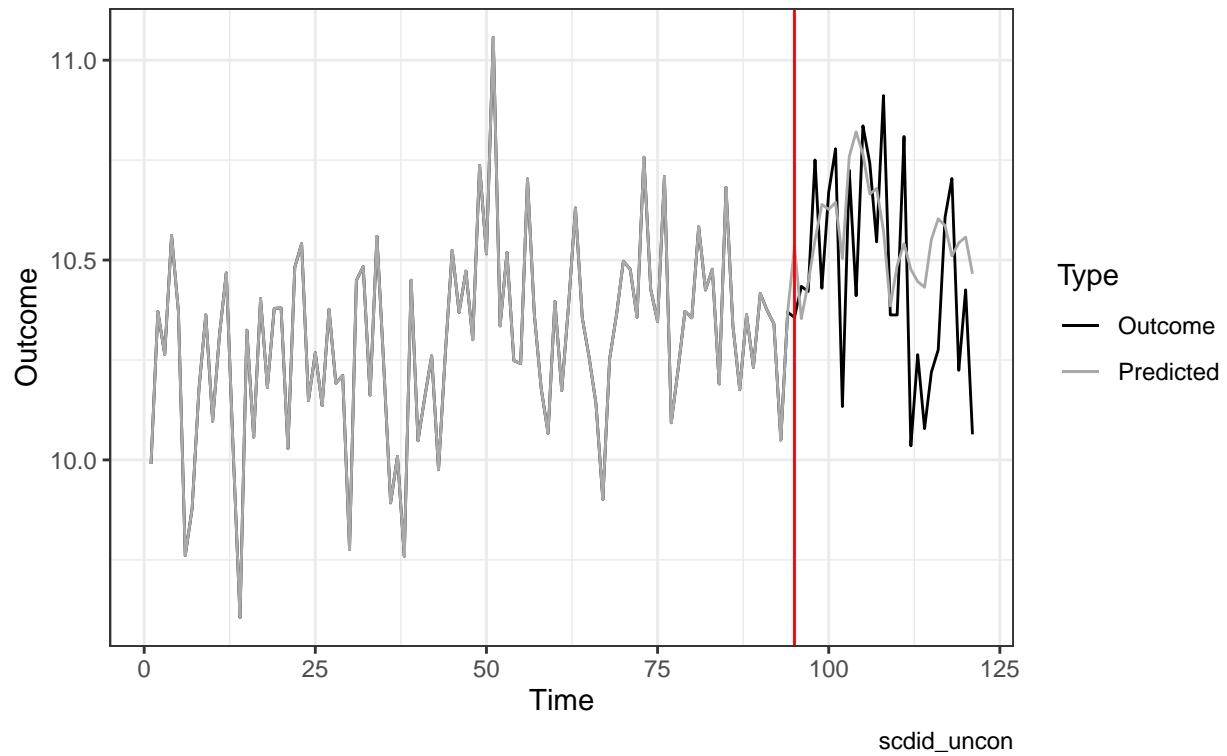## Counterfactual vs Outcome Series
ID= 14

mc
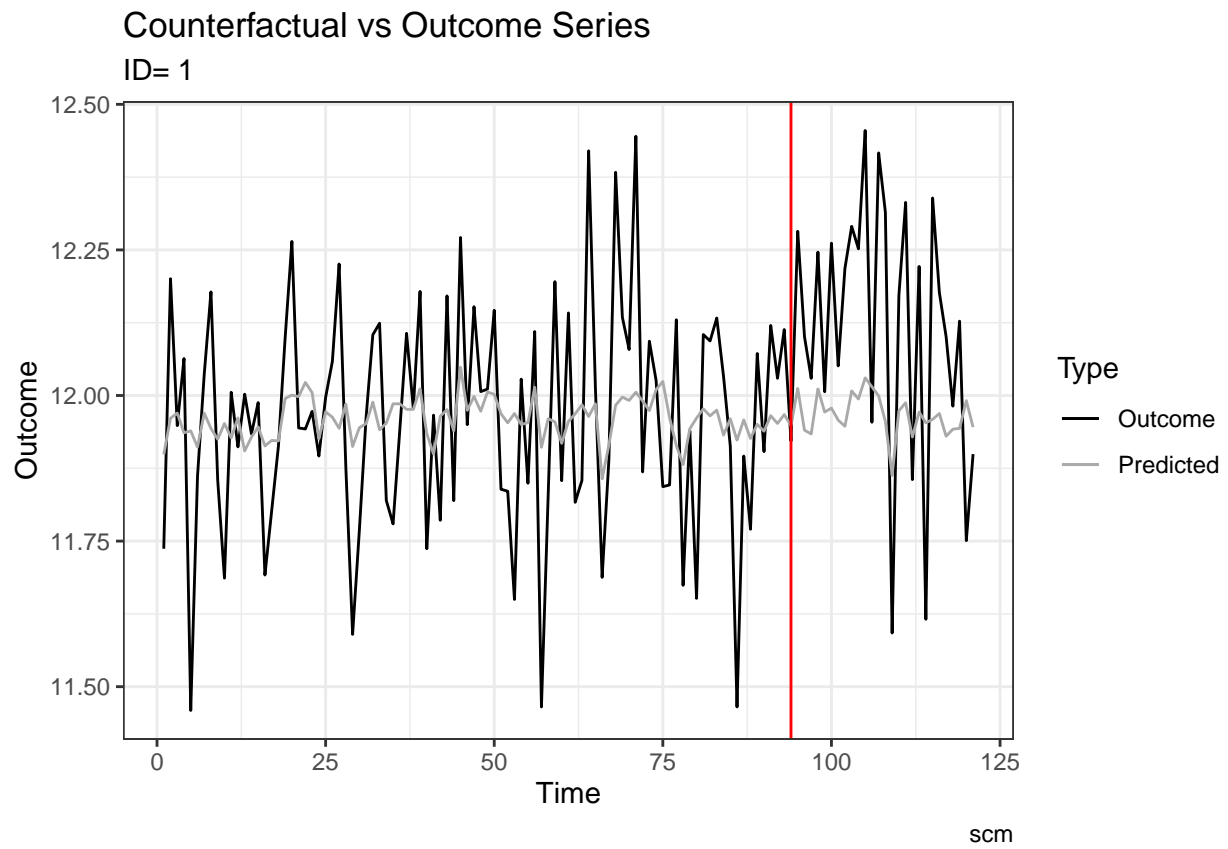
```
##
## [[1]]
```

Counterfactual vs Outcome Series
ID= 1


```
##
## [[2]]
```
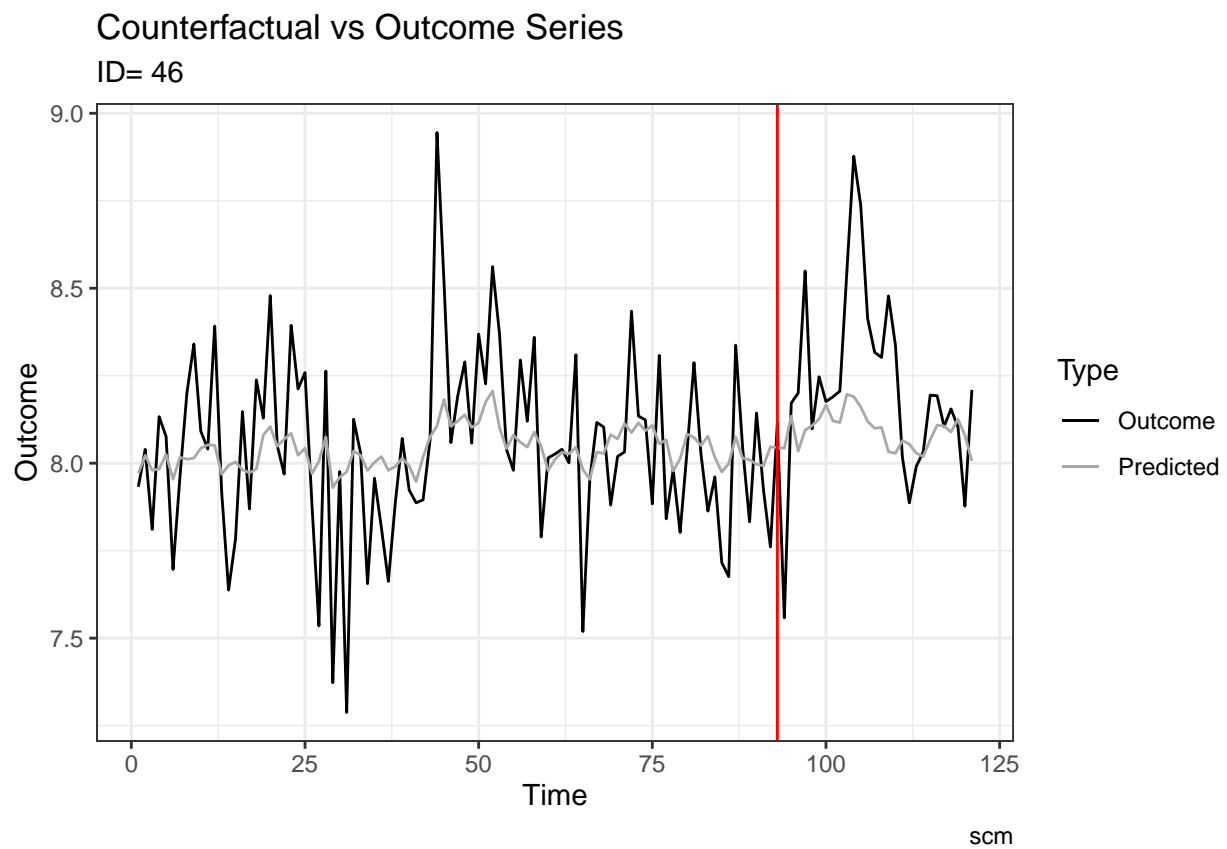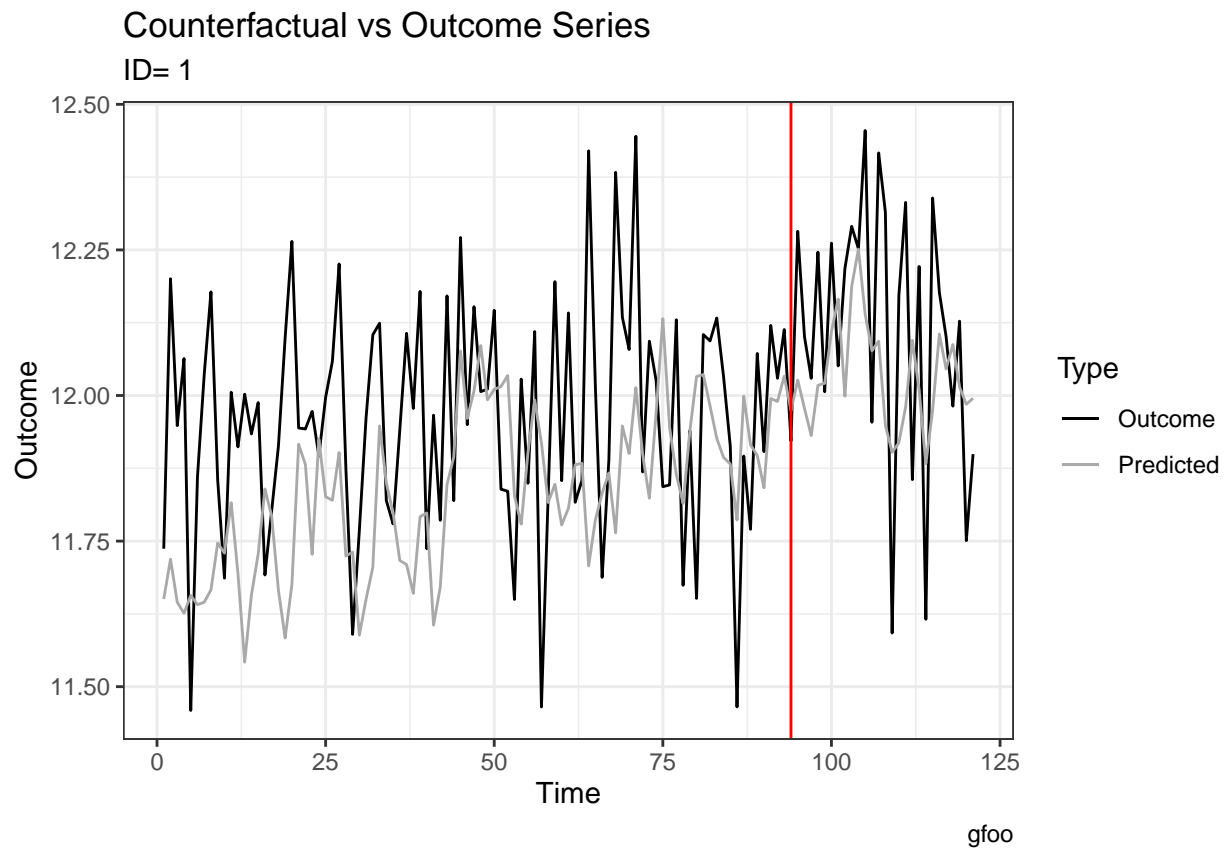
Counterfactual vs Outcome Series

ID= 29

causalimpact
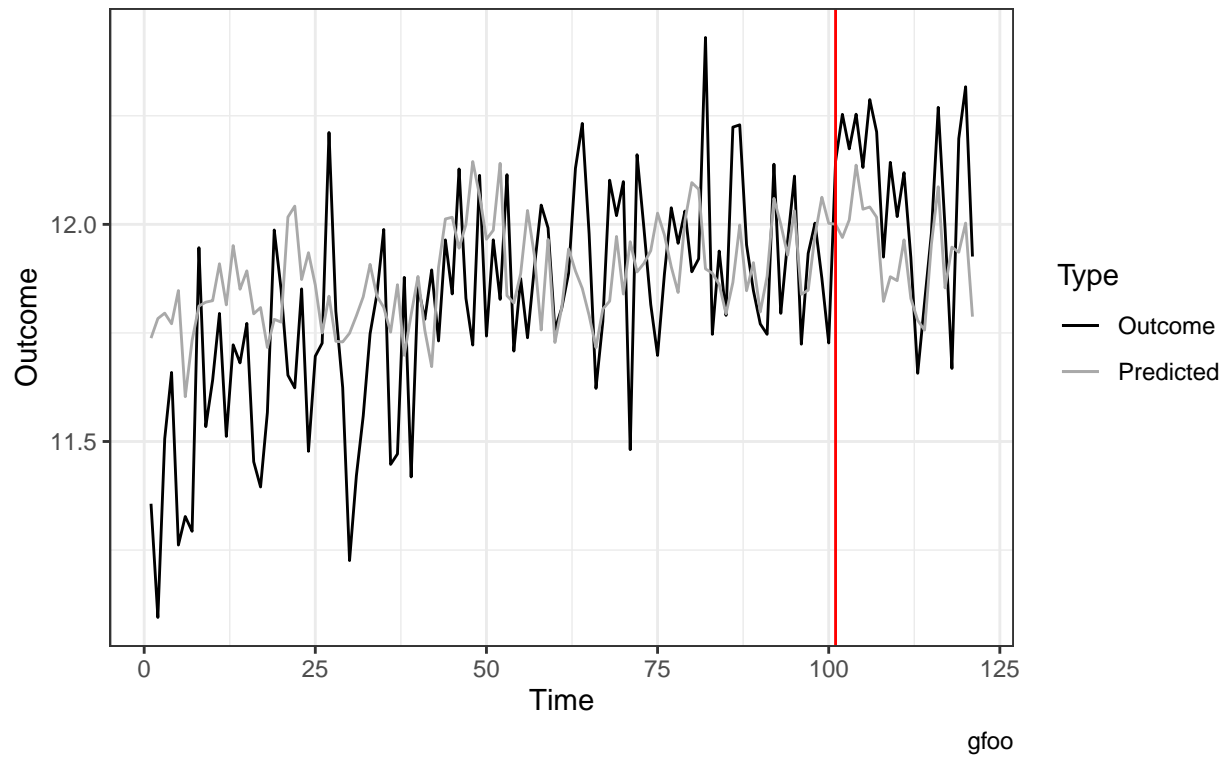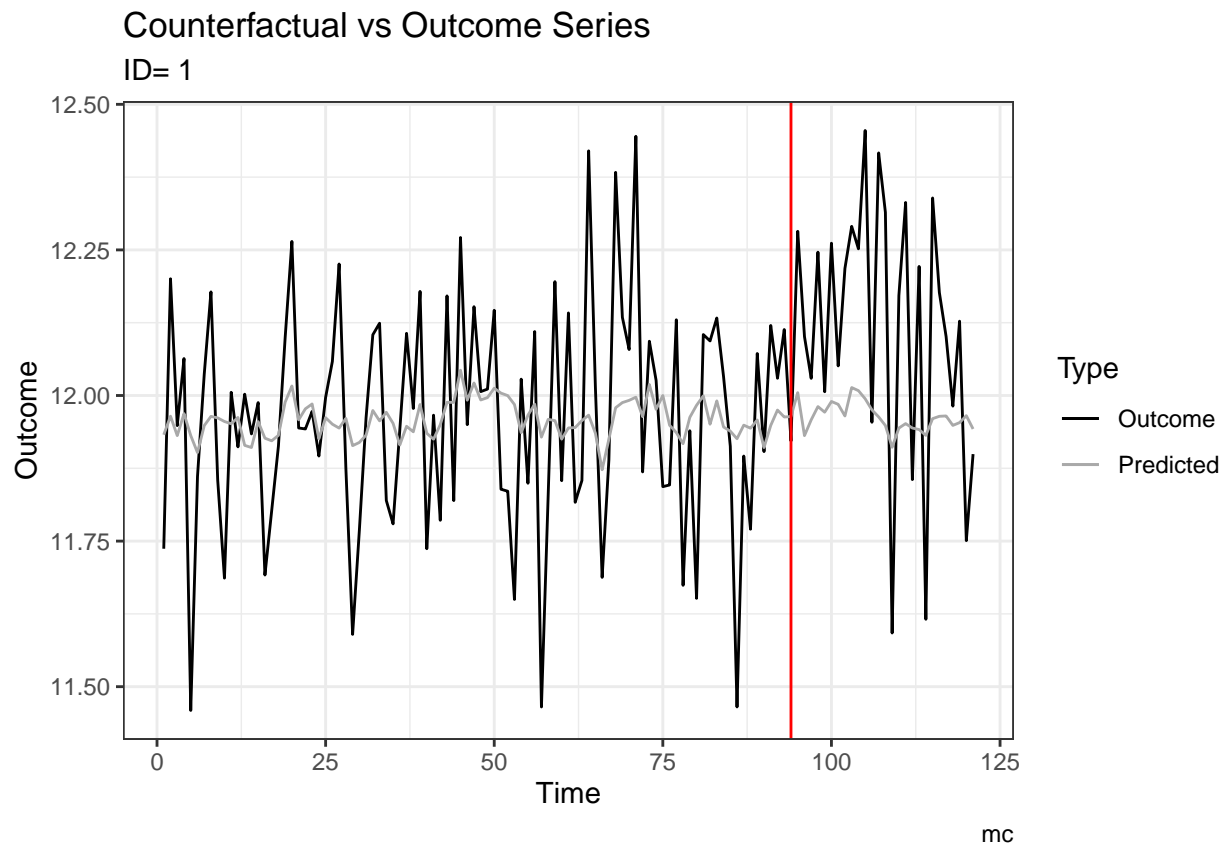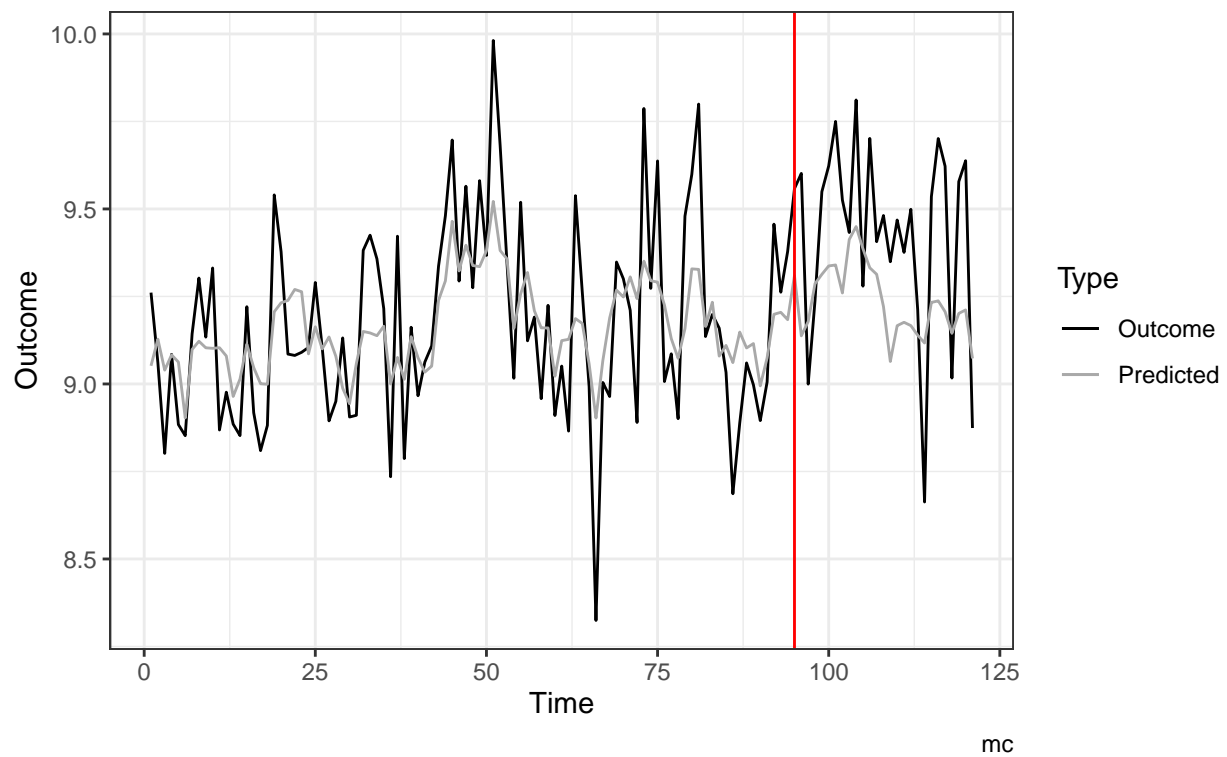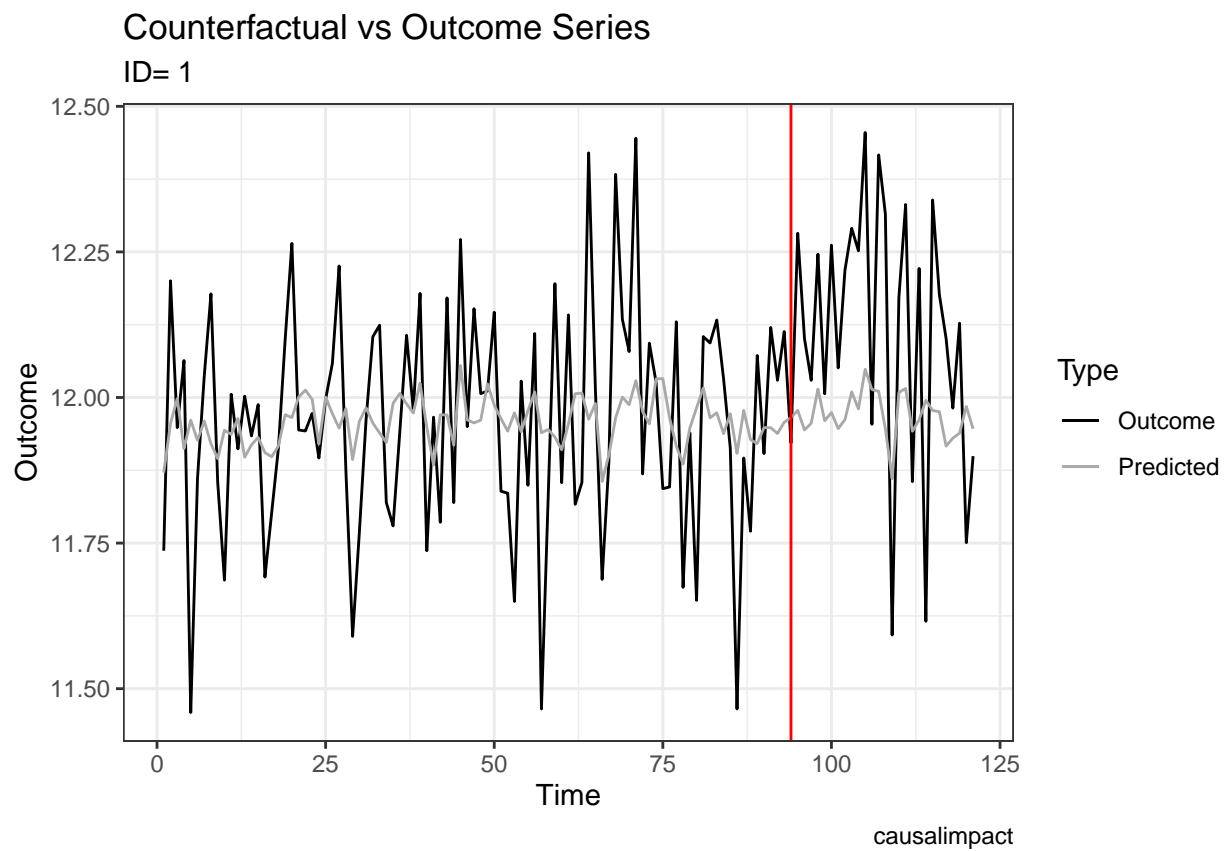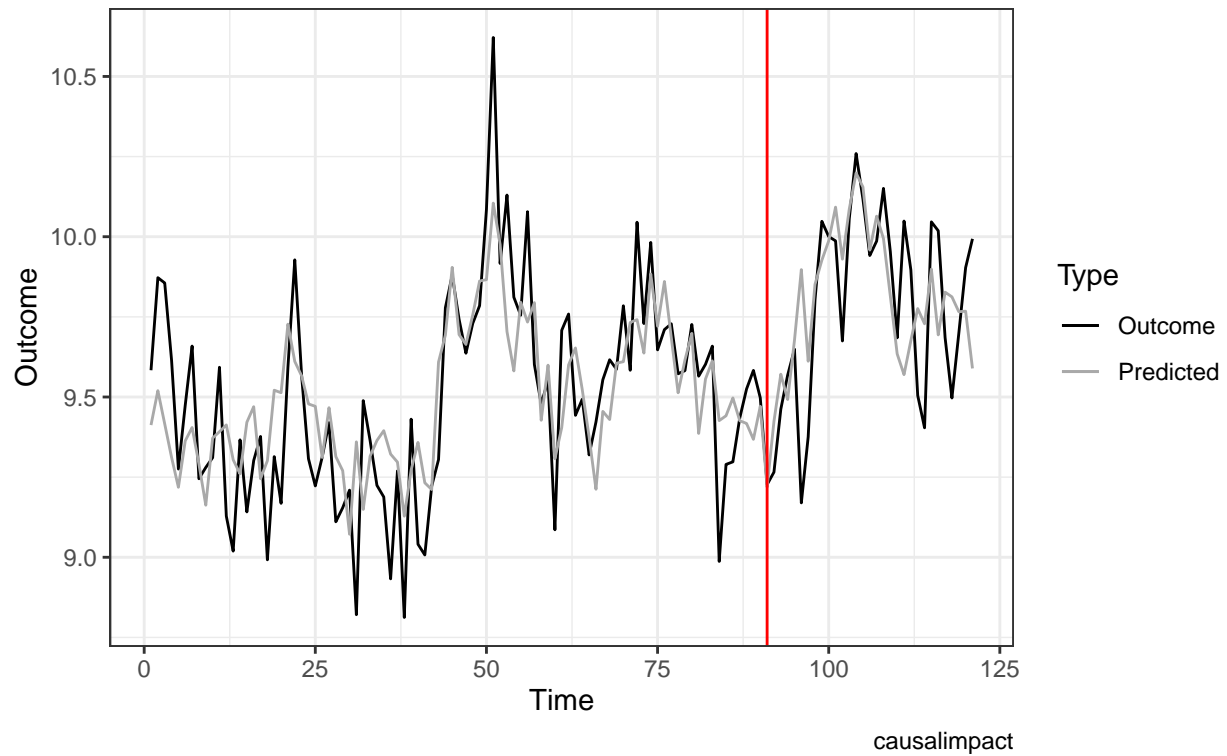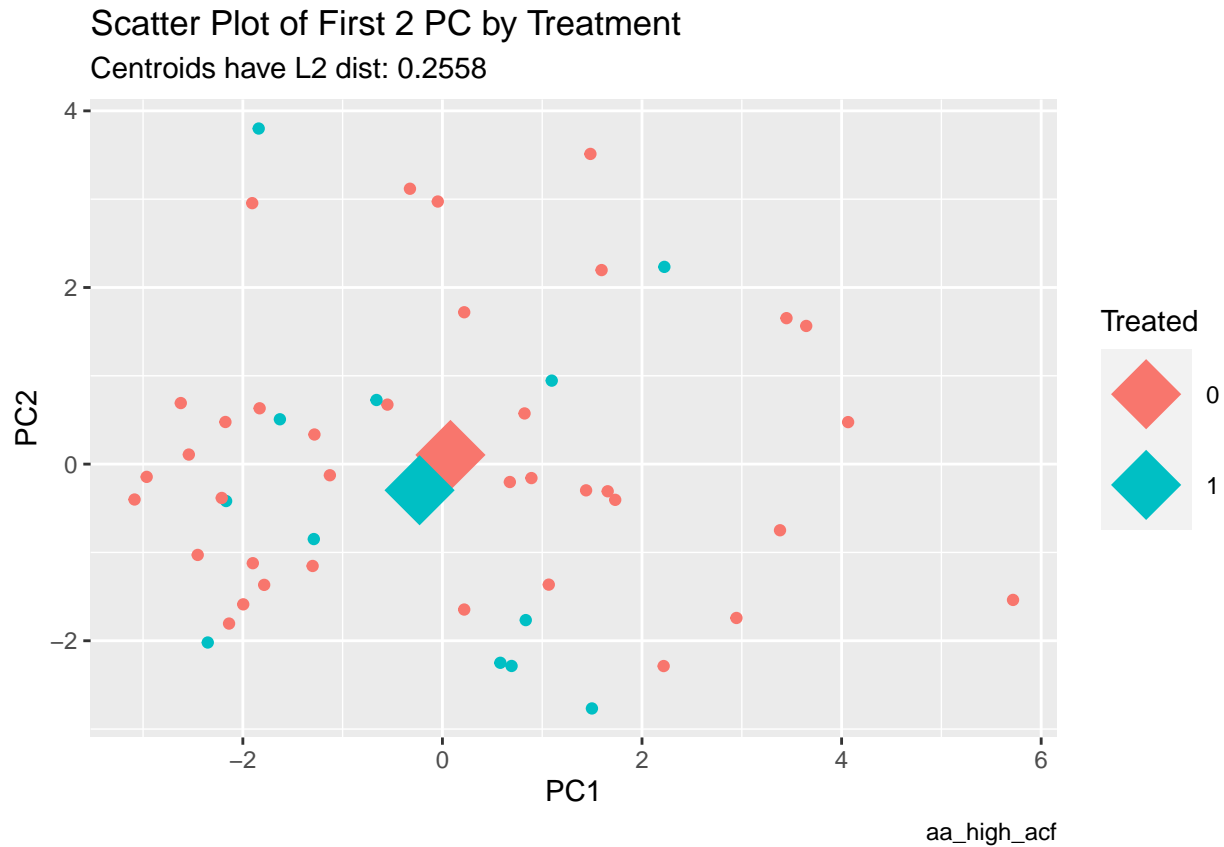
```
## Registered S3 method overwritten by 'quantmod':
##   method              from
##   as.zoo.data.frame zoo

## `summarise()` ungrouping output (override with `.groups` argument)
```

Scatter Plot of First 2 PC by Treatment
Centroids have L2 dist: 0.2558

aa_high_acf

```
## # A tibble: 9 x 8
##   vars          n1    n2 statistic    df      p p.adj p.adj.signif
##   <chr>      <int> <int>     <dbl> <dbl>  <dbl> <dbl> <chr>
## 1 curvature     37    13   -0.738   25.9 0.467 0.956 ns
## 2 diff1_acf1    37    13    1.01    18.6 0.324 0.956 ns
## 3 diff2_acf1    37    13    1.27    19.8 0.219 0.956 ns
## 4 e_acf1        37    13   -0.0982  16.3 0.923 0.956 ns
## 5 entropy       37    13   -1.25    47.1 0.219 0.956 ns
## 6 linearity     37    13   -0.0563  26.9 0.956 0.956 ns
## 7 spike         37    13   -0.369   23.4 0.716 0.956 ns
## 8 trend         37    13    0.495   28.1 0.625 0.956 ns
## 9 x_acf1        37    13    0.326   31.0 0.746 0.956 ns
```

Metrics by Method
aa_high_acf

Method	gsynth	scdid	scdid_uncon	scm	gfoo	mc	causalimpact
coverage							
0	1.000	1.000	1.000	0.500	1.000	0.500	1.000
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3	1.000	1.000	1.000	1.000	1.000	0.000	1.000
4	1.000	1.000	1.000	1.000	1.000	1.000	1.000
rmse							
0	0.222	0.241	0.234	0.222	0.224	0.247	0.218
1	0.257	0.287	0.271	0.274	0.281	0.290	0.280
2	0.212	0.270	0.229	0.213	0.250	0.209	0.231

3	0.194	0.215	0.198	0.226	0.197	0.245	0.214
4	0.247	0.245	0.227	0.239	0.260	0.273	0.243
bias							
0	0.058	0.004	0.031	0.091	0.047	0.126	0.090
1	−0.014	−0.045	−0.027	0.033	−0.018	0.059	0.031
2	−0.075	−0.097	−0.099	−0.037	−0.093	0.017	−0.050
3	0.059	0.027	0.040	0.111	0.083	0.145	0.093
4	0.018	0.028	−0.000	0.079	0.005	0.137	0.065

Notes: