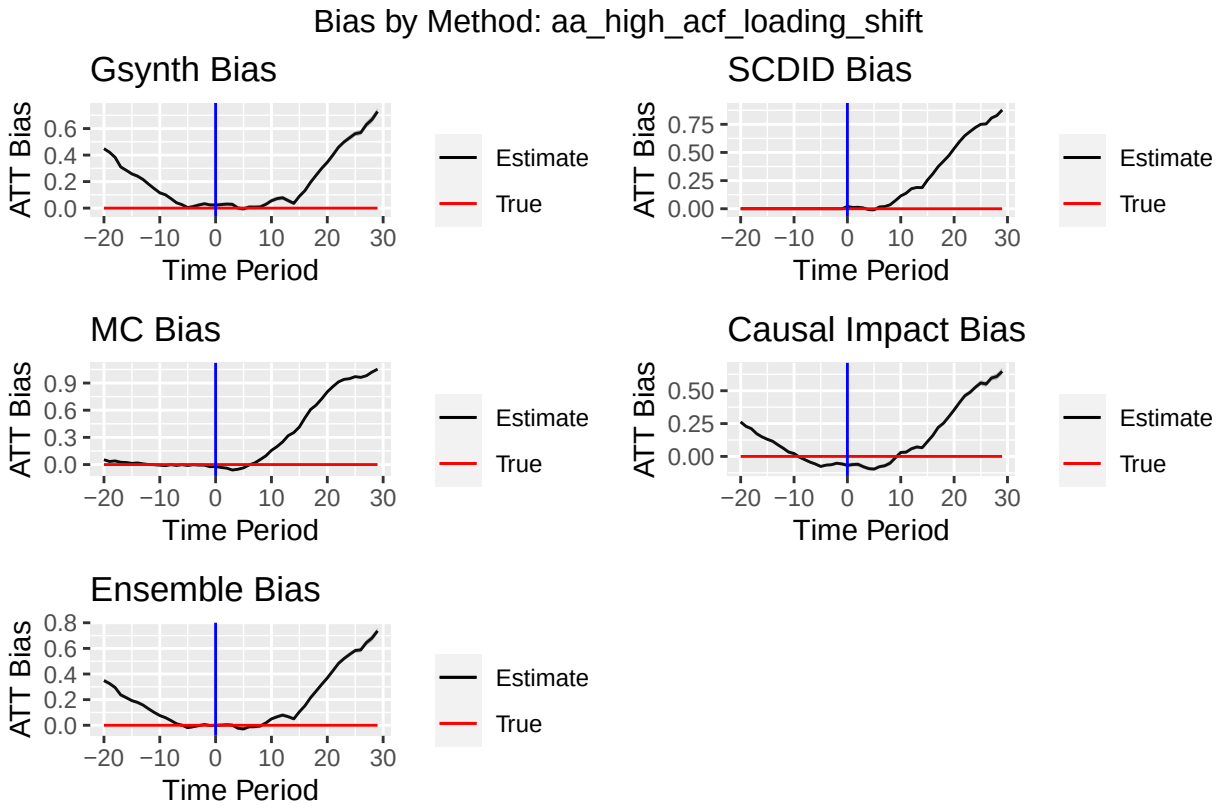
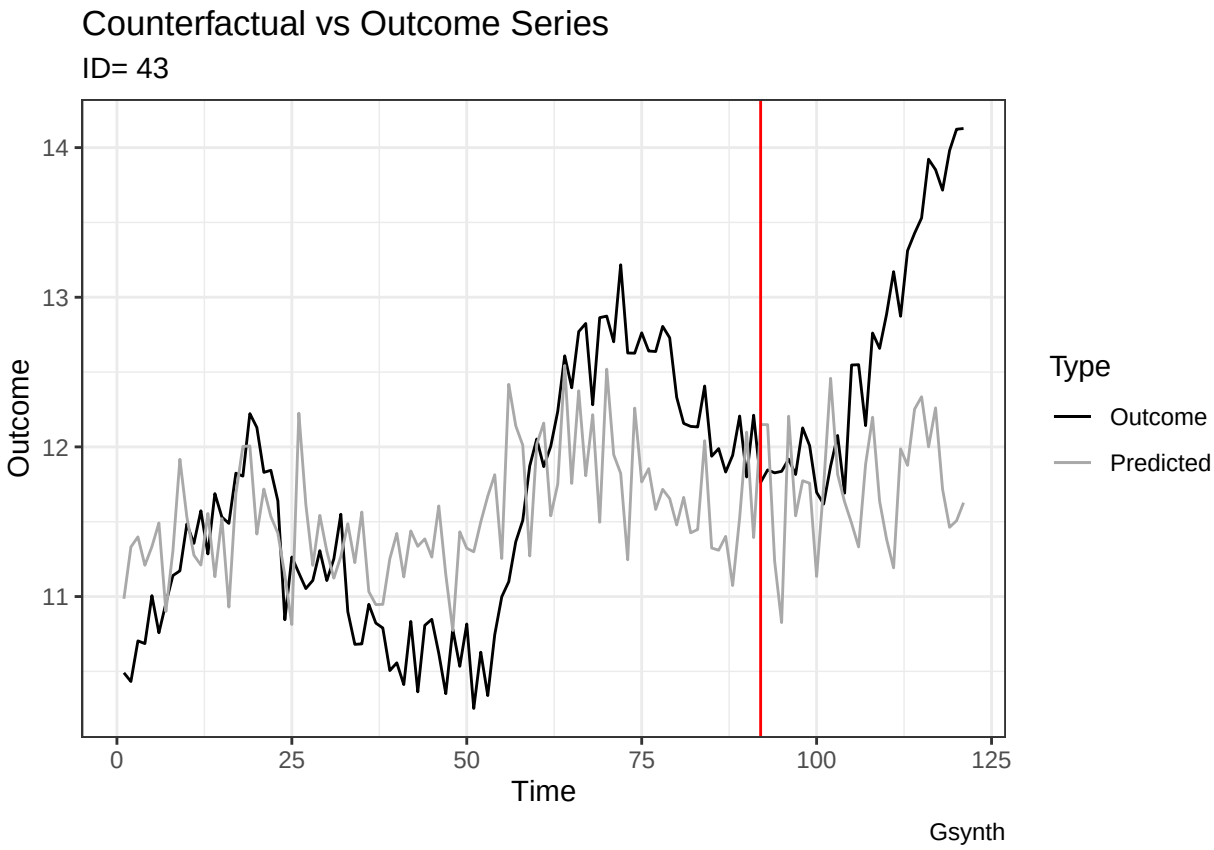
DGP Variations

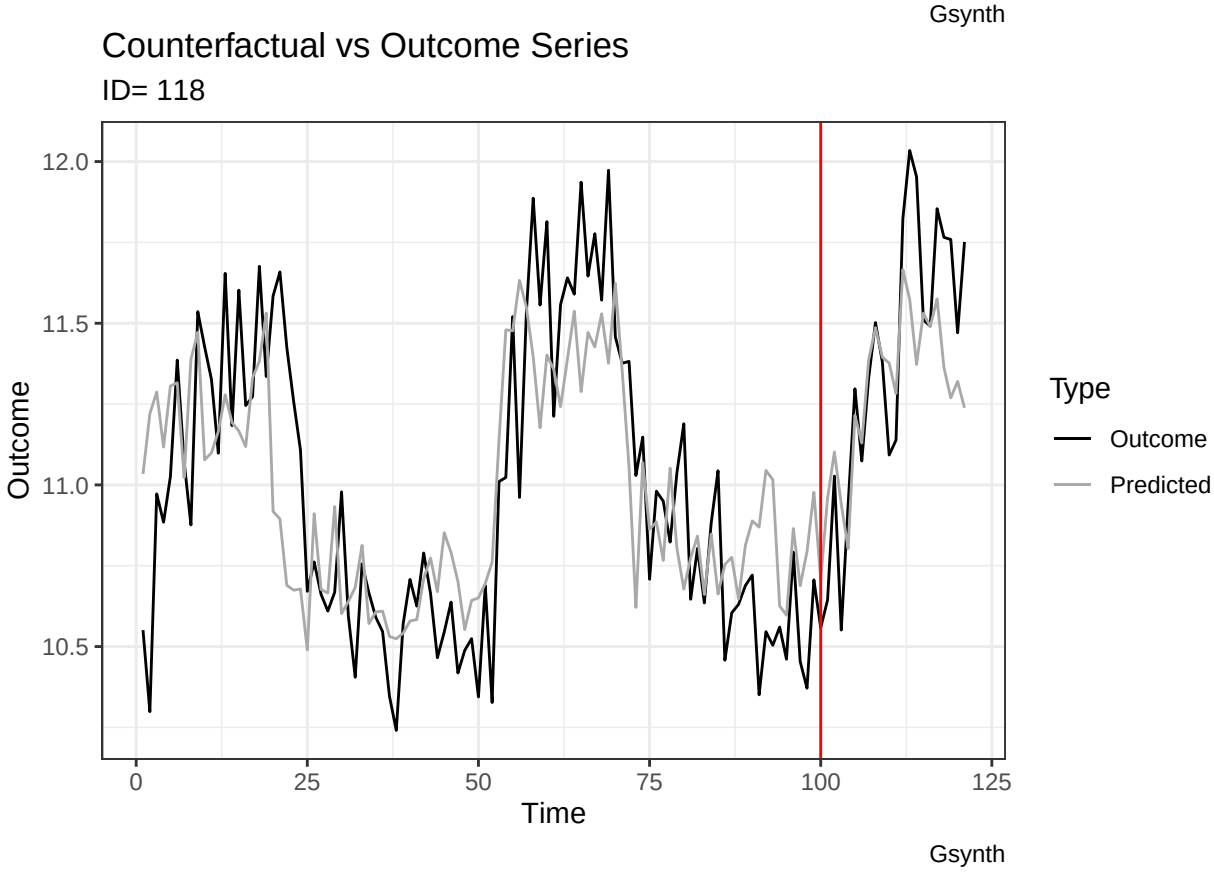
For Loop Over DGPs

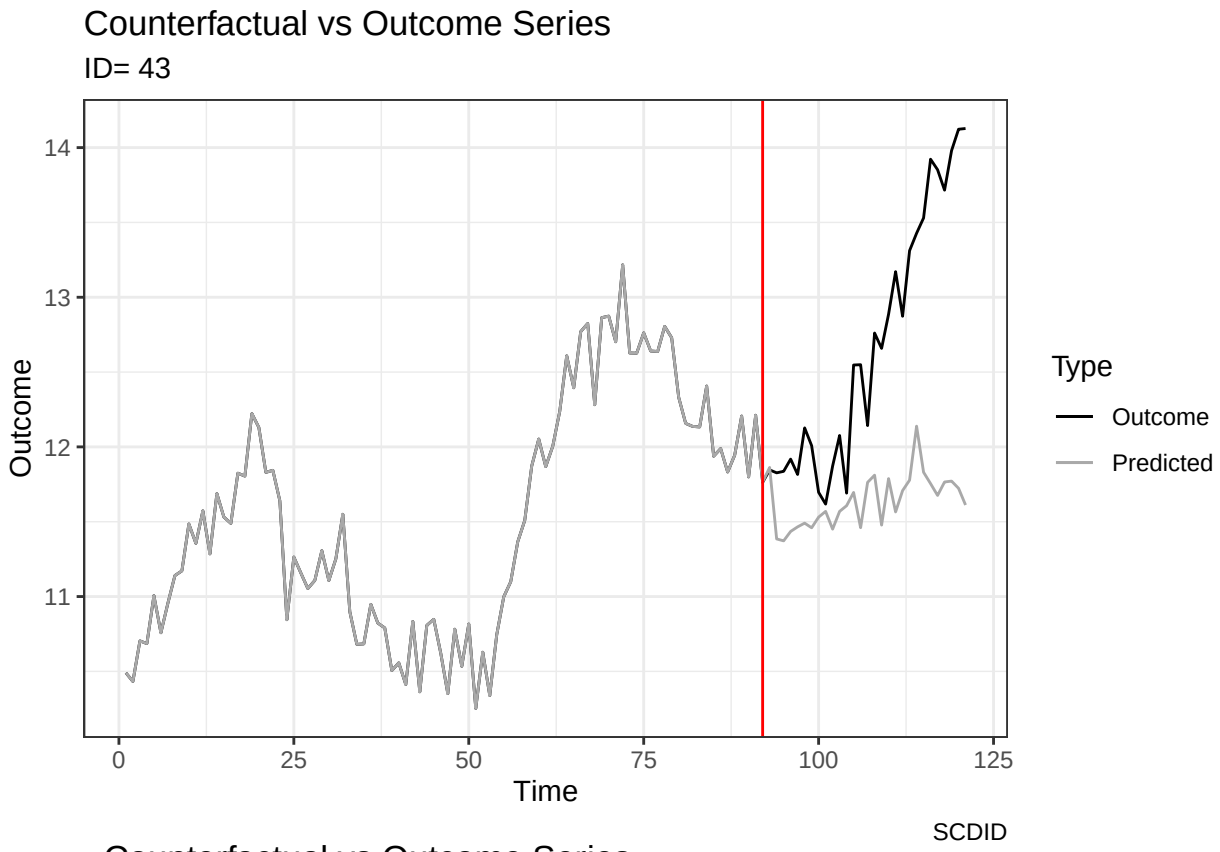
```
## [1] "aa_high_acf_loading_shift"
## [1] "aa_high_acf"
```

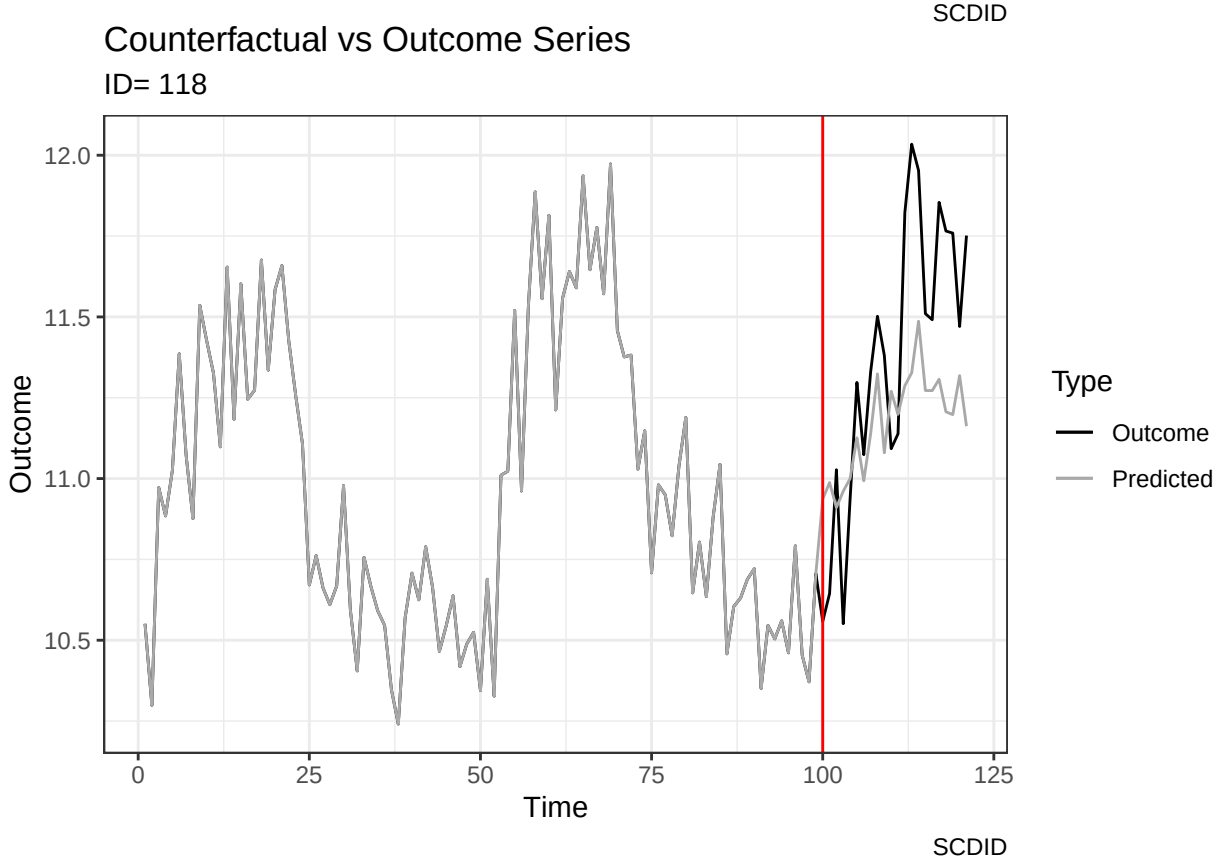


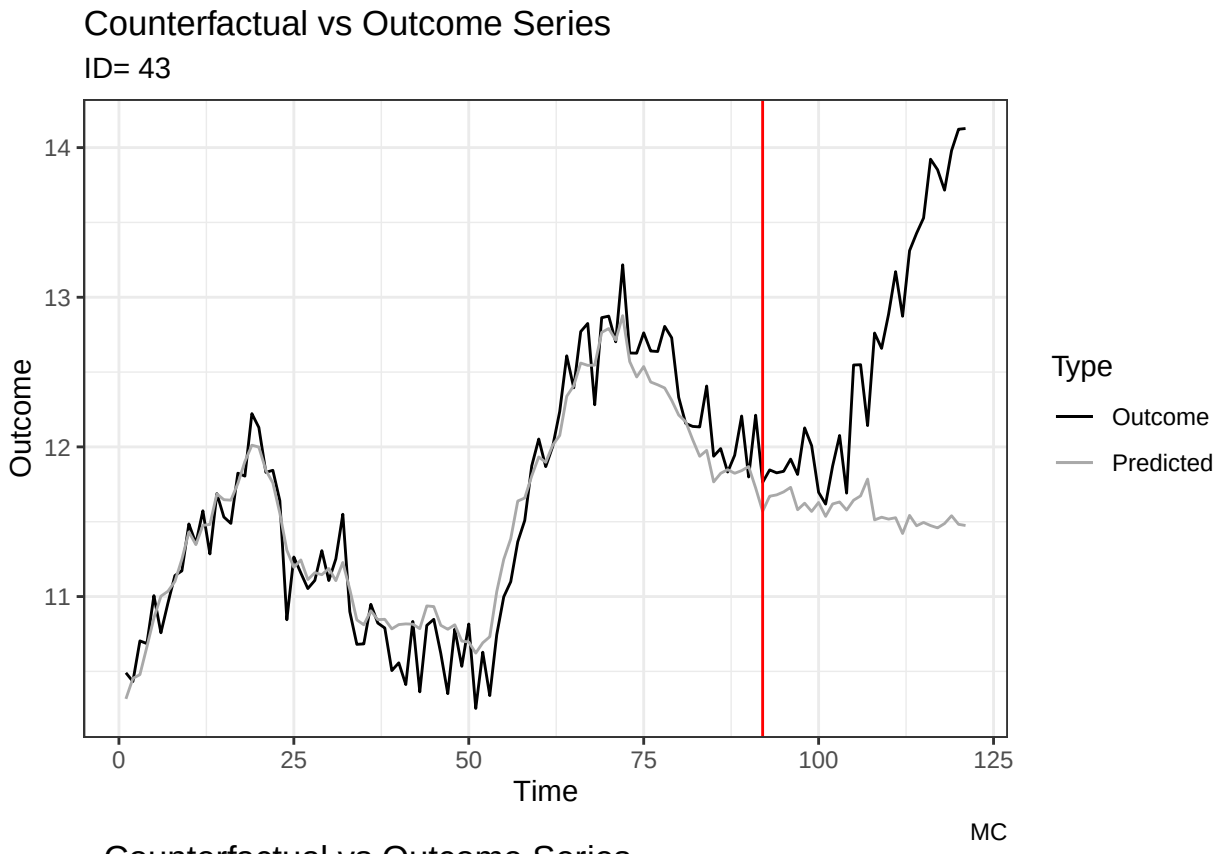
Notes:

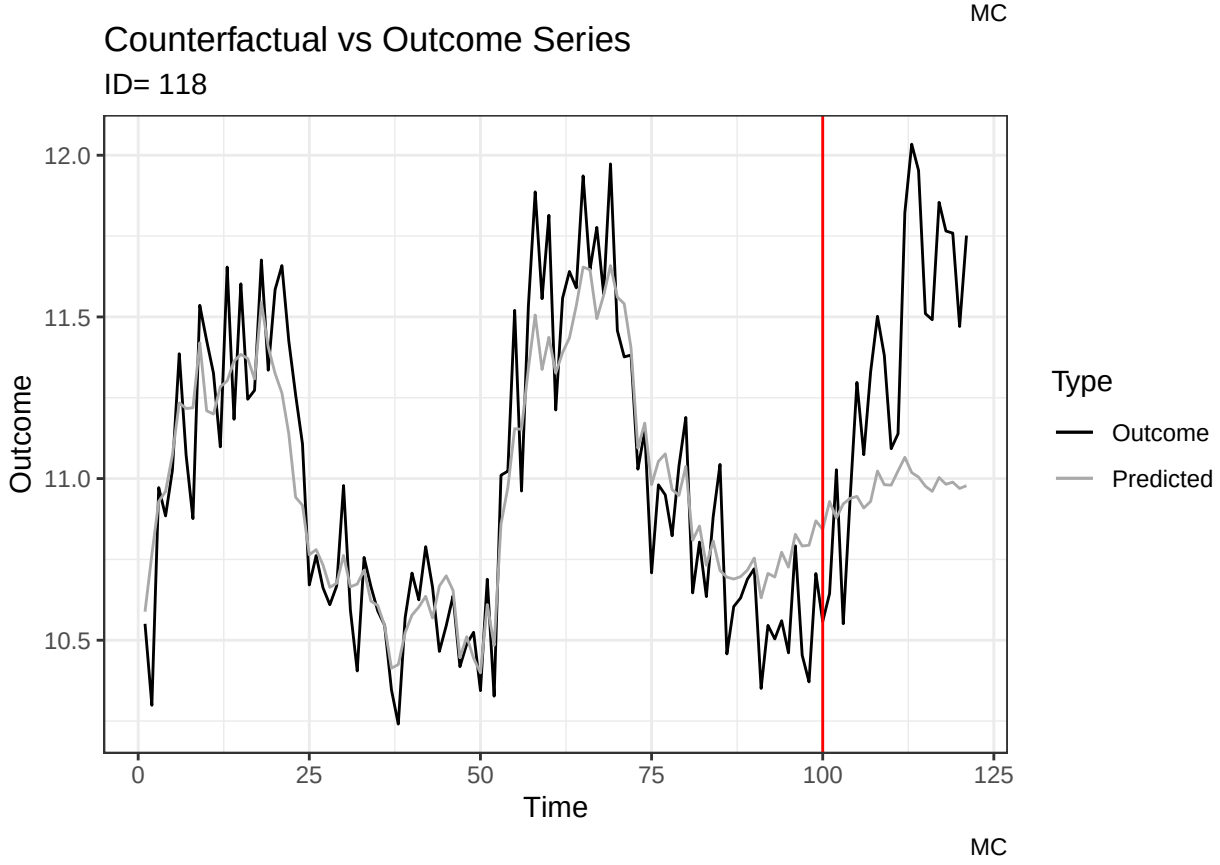

Counterfactual vs Outcome Series
ID= 43
Outcome
Time
Type
Outcome
Predicted
Gsynth

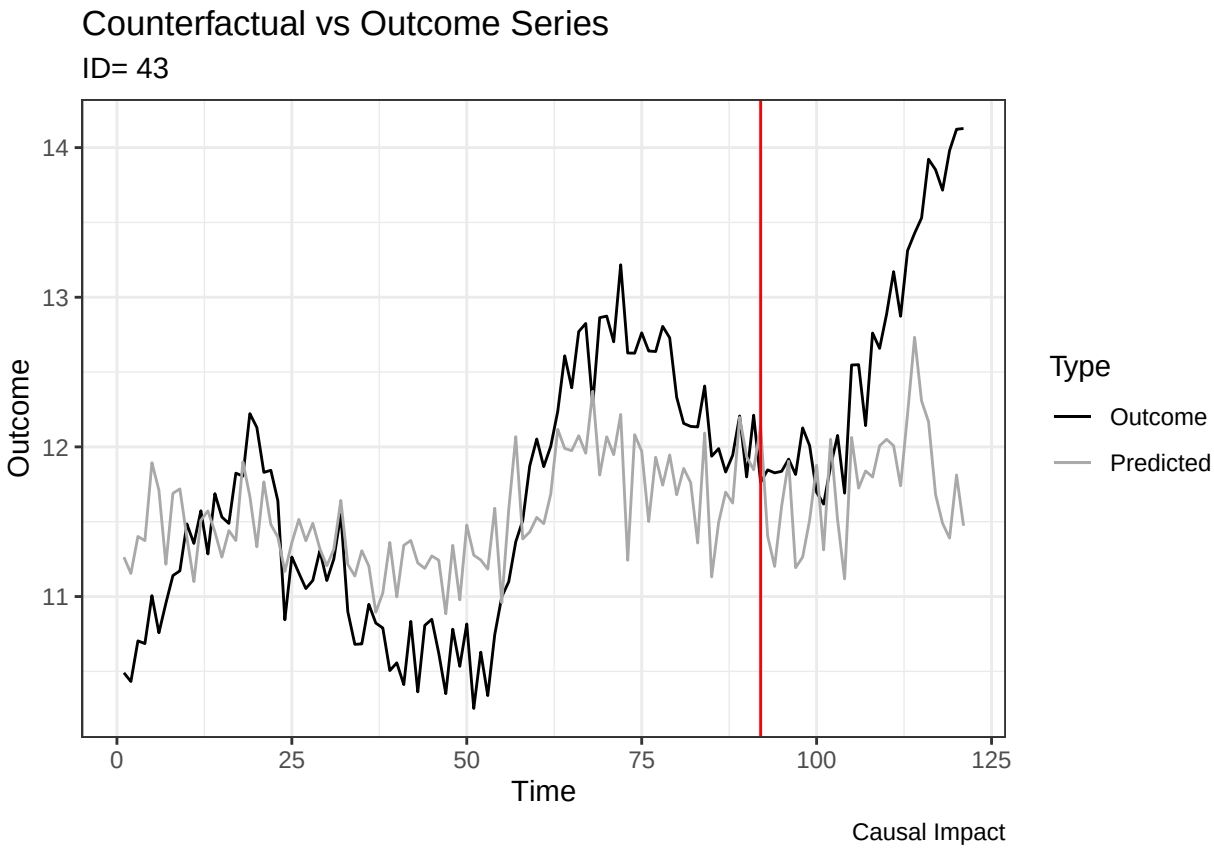

Counterfactual vs Outcome Series
ID= 118
Outcome
Time
Type
Outcome
Predicted
Gsynth

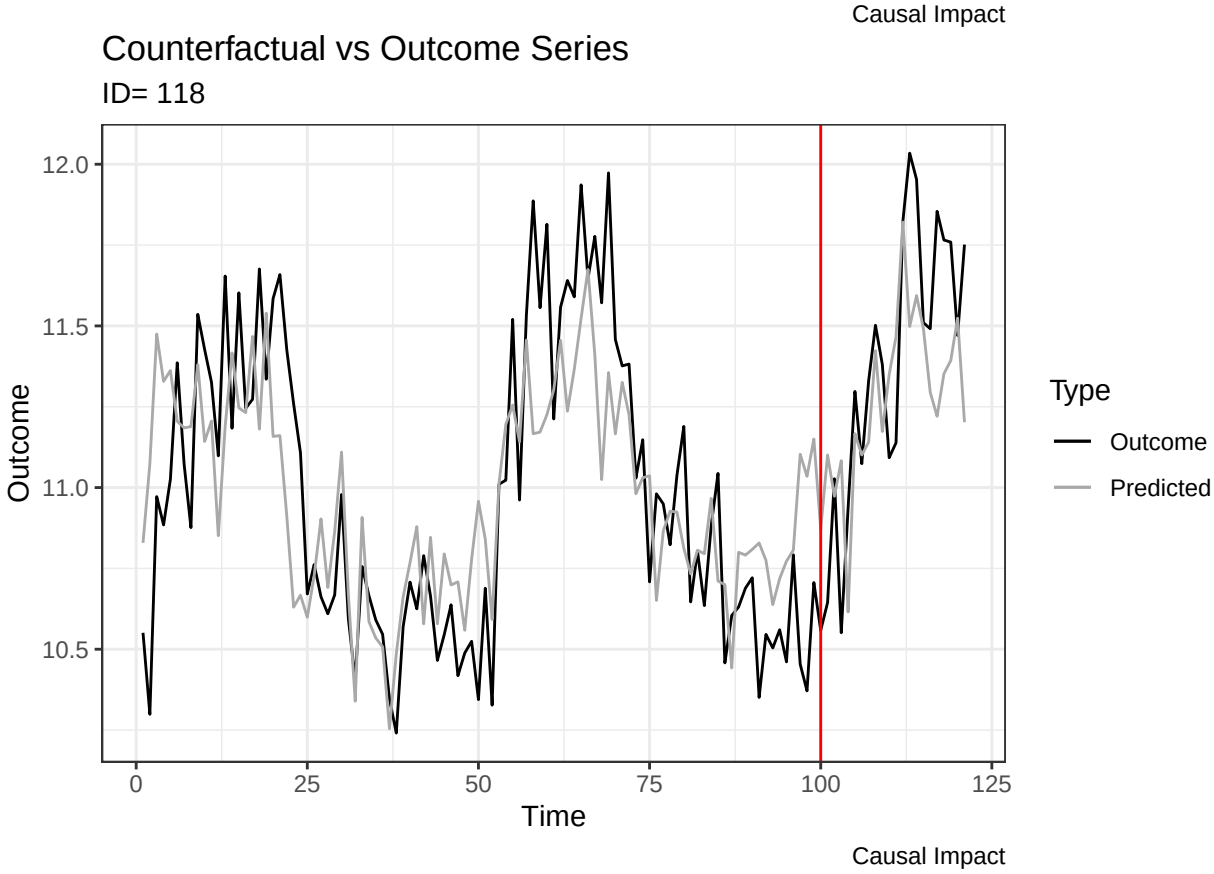

Counterfactual vs Outcome Series
ID= 43
Outcome
Time
Type
Outcome
Predicted
SCDID

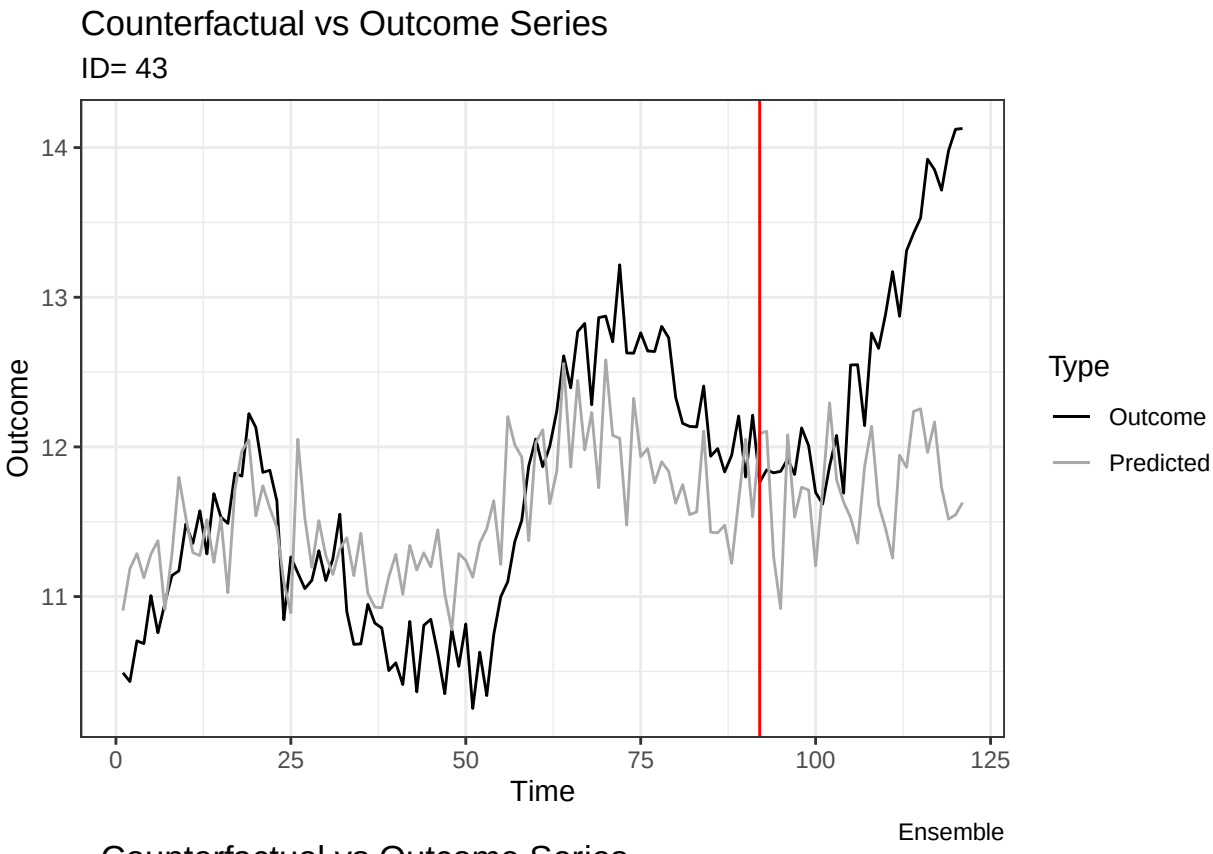

Counterfactual vs Outcome Series
ID= 118
Outcome
Time
Type
Outcome
Predicted
SCDID

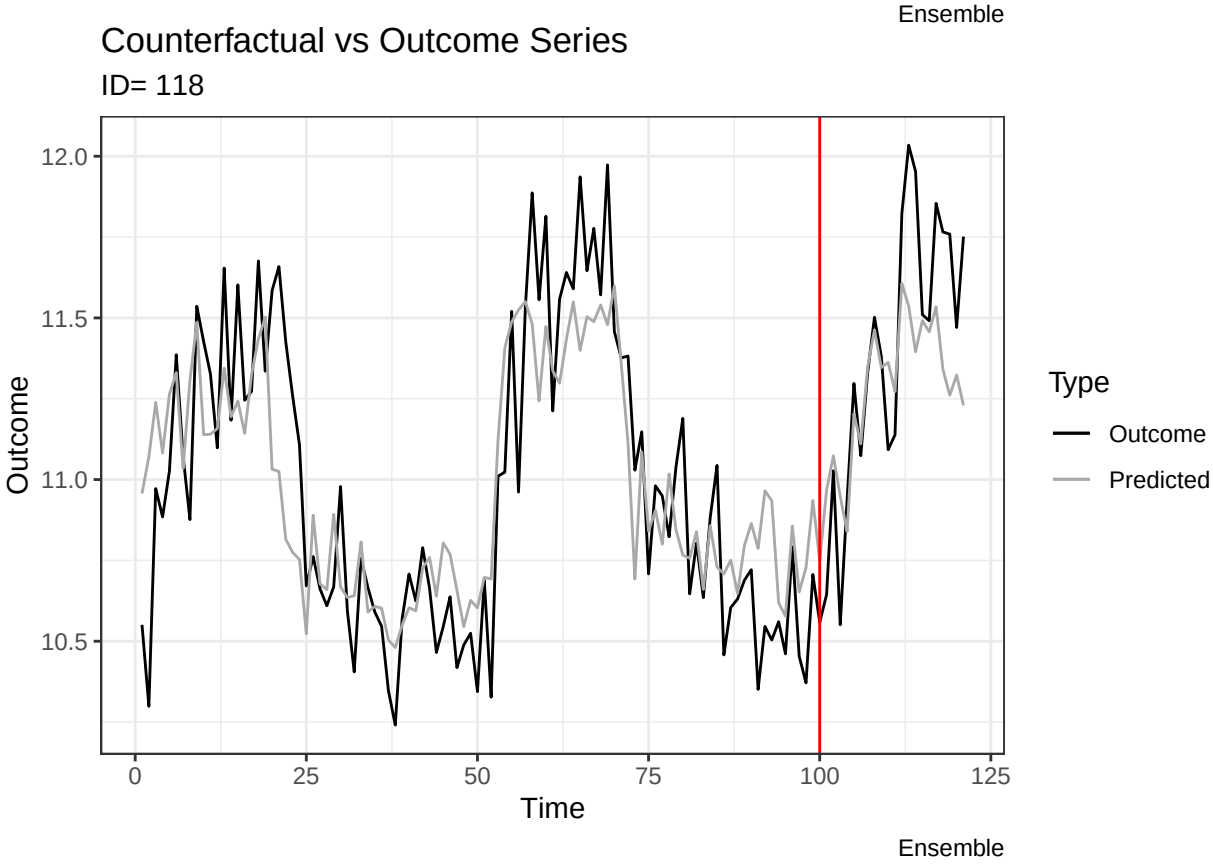

Counterfactual vs Outcome Series
ID= 43
Outcome
Time
Type
Outcome
Predicted
MC


Counterfactual vs Outcome Series
ID= 118
Outcome
Time
Type
Outcome
Predicted
MC


Counterfactual vs Outcome Series
ID= 43
Outcome
Time
Type
Outcome
Predicted
Causal Impact


Counterfactual vs Outcome Series
ID= 118
Outcome
Time
Type
Outcome
Predicted
Causal Impact

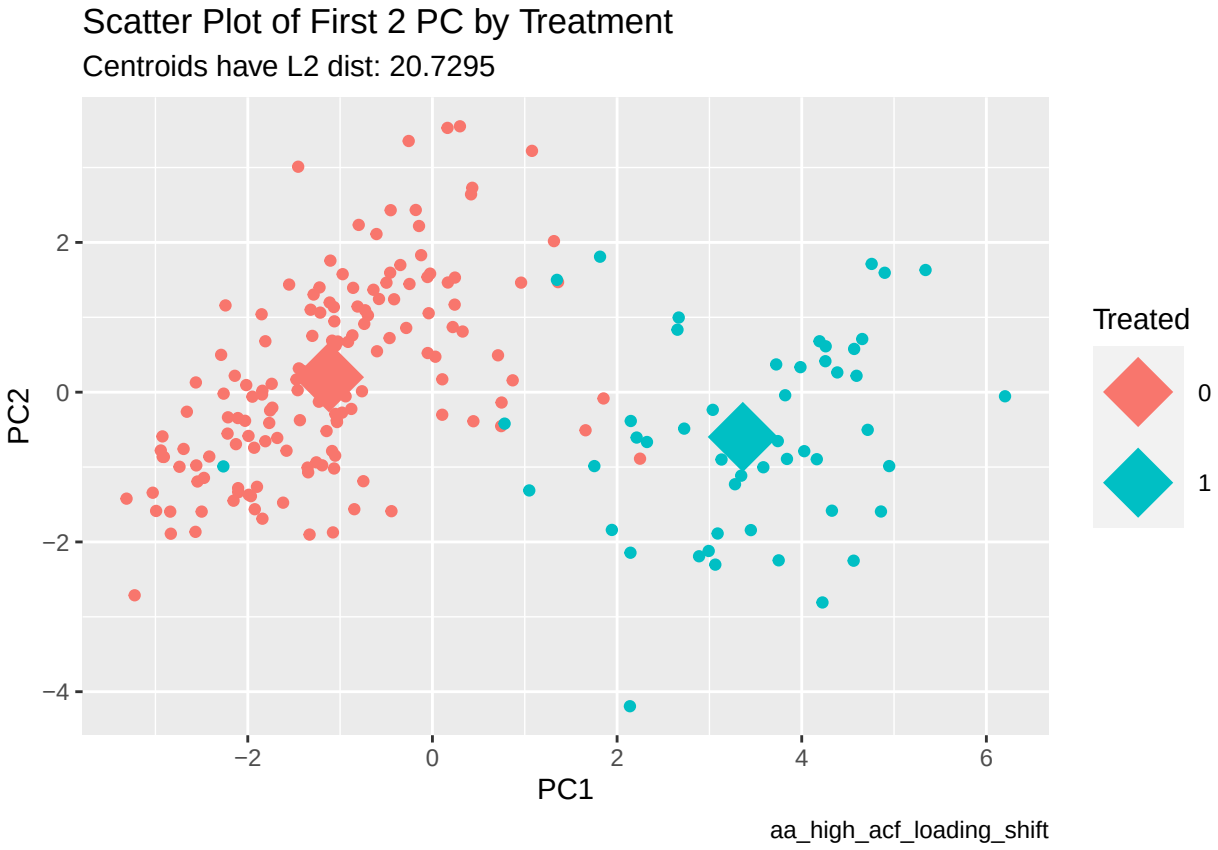





```
## Registered S3 method overwritten by 'quantmod':
```

```
##   method            from
##   as.zoo.data.frame zoo
```

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




```
## # A tibble: 9 x 11
##   vars  .y.   group1 group2    n1    n2 statistic    df        p    p.adj
##   <chr> <chr> <chr>  <chr>  <int> <int>     <dbl> <dbl>    <dbl>    <dbl>
## 1 curv~ val   0      1        150    50     -5.15  65.8 2.53e- 6 3.25e- 6
## 2 diff~ val   0      1        150    50     -8.91  74.6 2.30e-13 4.14e-13
## 3 diff~ val   0      1        150    50     -3.36  81.6 1.19e- 3 1.19e- 3
## 4 e_ac~ val   0      1        150    50     -4.47  92.4 2.24e- 5 2.52e- 5
## 5 entr~ val   0      1        150    50     15.2   50.2 1.85e-20 4.16e-20
## 6 line~ val   0      1        150    50     -6.74  54.5 1.05e- 8 1.57e- 8
## 7 spike val   0      1        150    50     24.6  146.  1.16e-53 1.04e-52
## 8 trend val   0      1        150    50    -23.4   65.2 2.14e-33 6.42e-33
## 9 x_ac~ val   0      1        150    50    -22.3   70.5 1.17e-33 5.26e-33
## # ... with 1 more variable: p.adj.signif <chr>
```

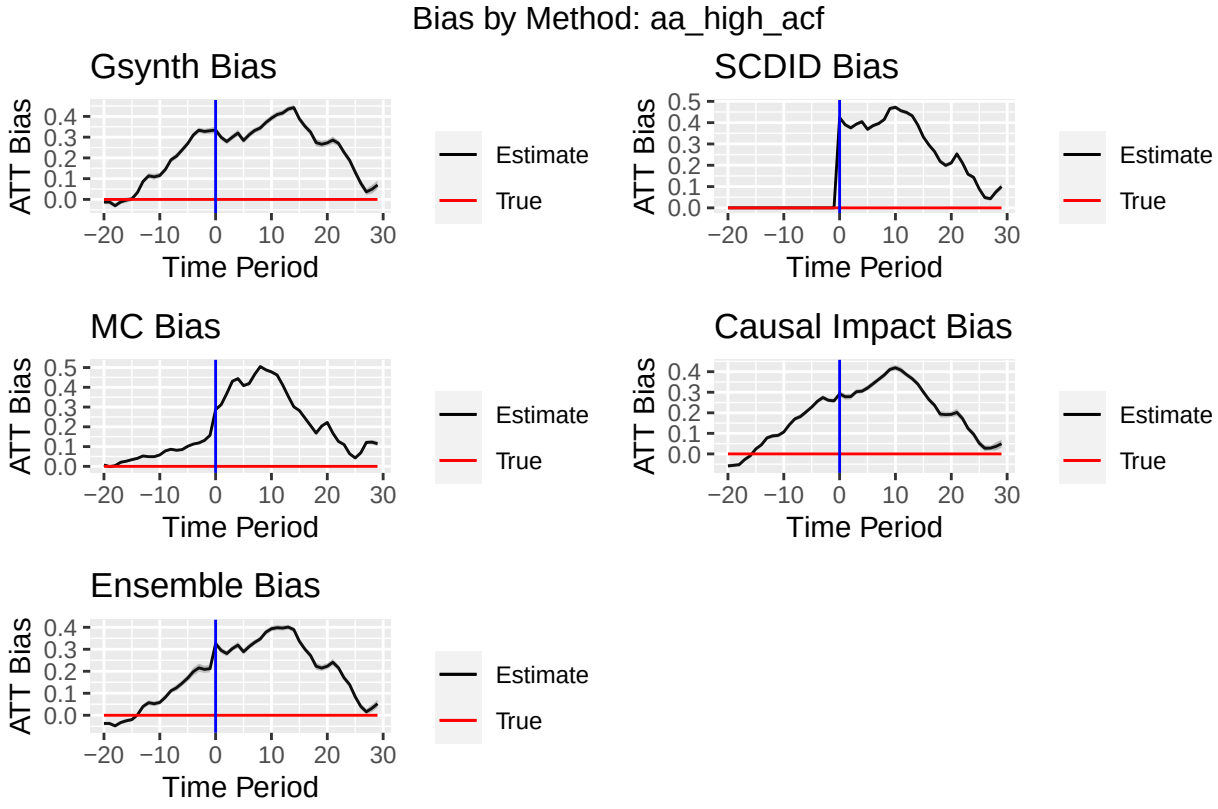
Metrics by Method

aa_high_acf_loading_shift

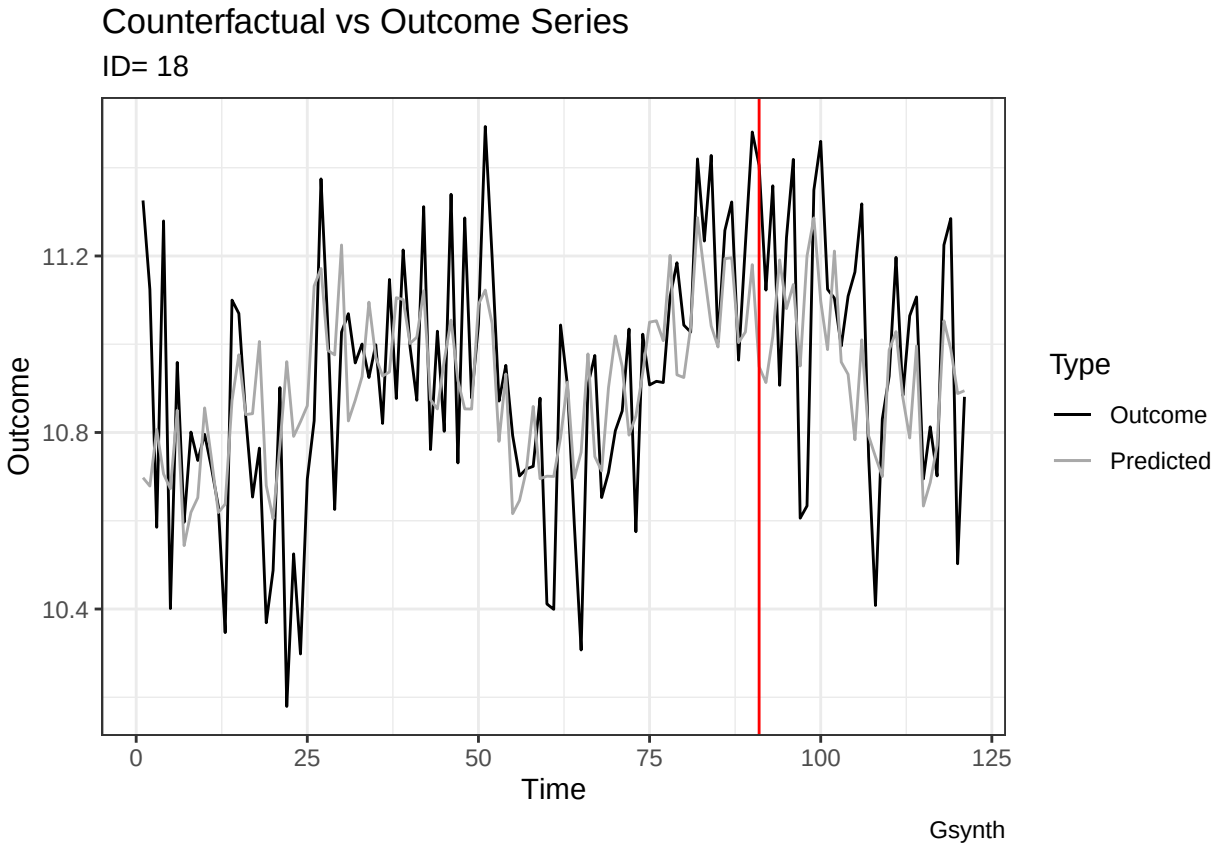
Method	gsynth	scdid	mc	causalimp	ensemble
coverage					
0	0.920	1.000	1.000	0.560	0.980
1	0.960	1.000	1.000	0.700	1.000
2	1.000	1.000	0.980	0.660	1.000
3	1.000	1.000	1.000	0.720	0.980

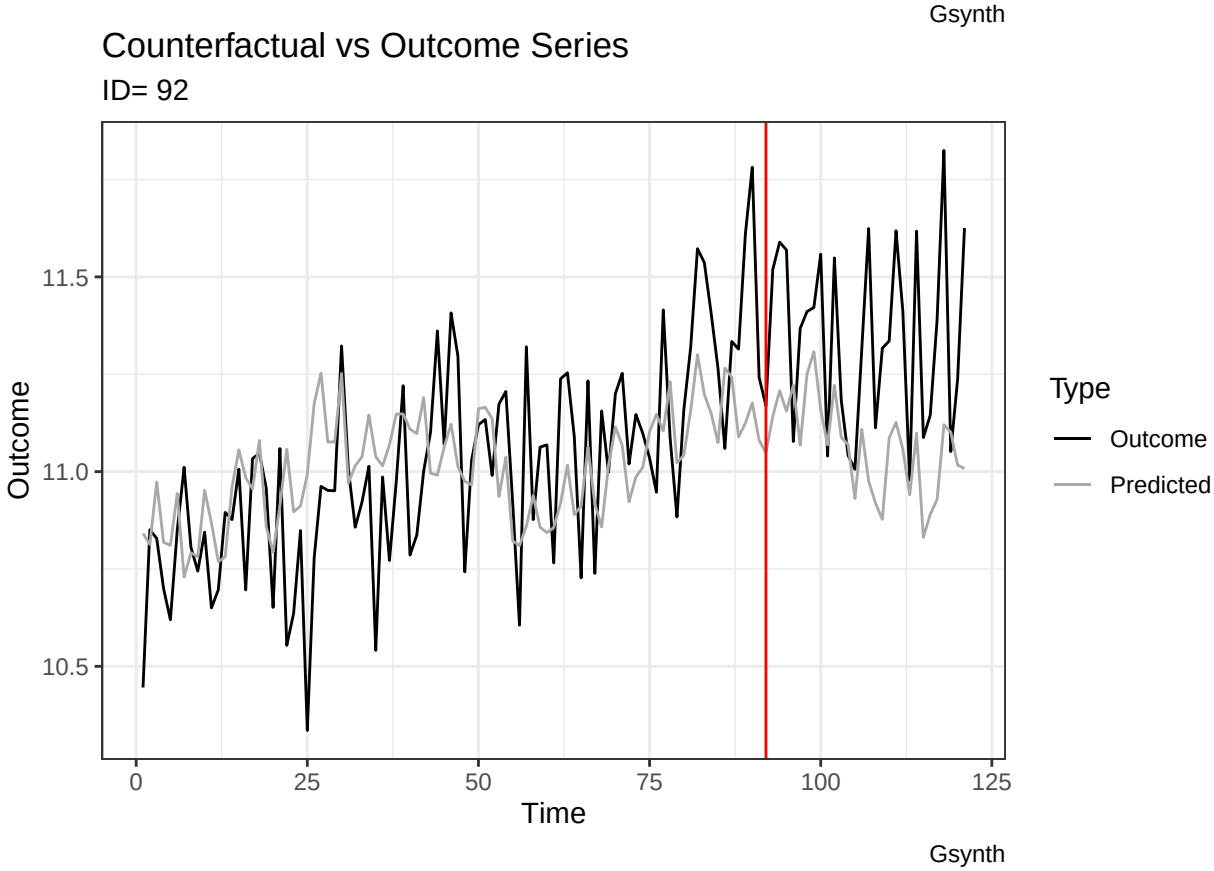
4	0.980	1.000	1.000	0.580	0.980
rmse					
0	0.374	0.427	0.377	0.315	0.368
1	0.410	0.437	0.404	0.318	0.398
2	0.435	0.463	0.431	0.336	0.422
3	0.444	0.467	0.454	0.347	0.430
4	0.440	0.483	0.478	0.370	0.433

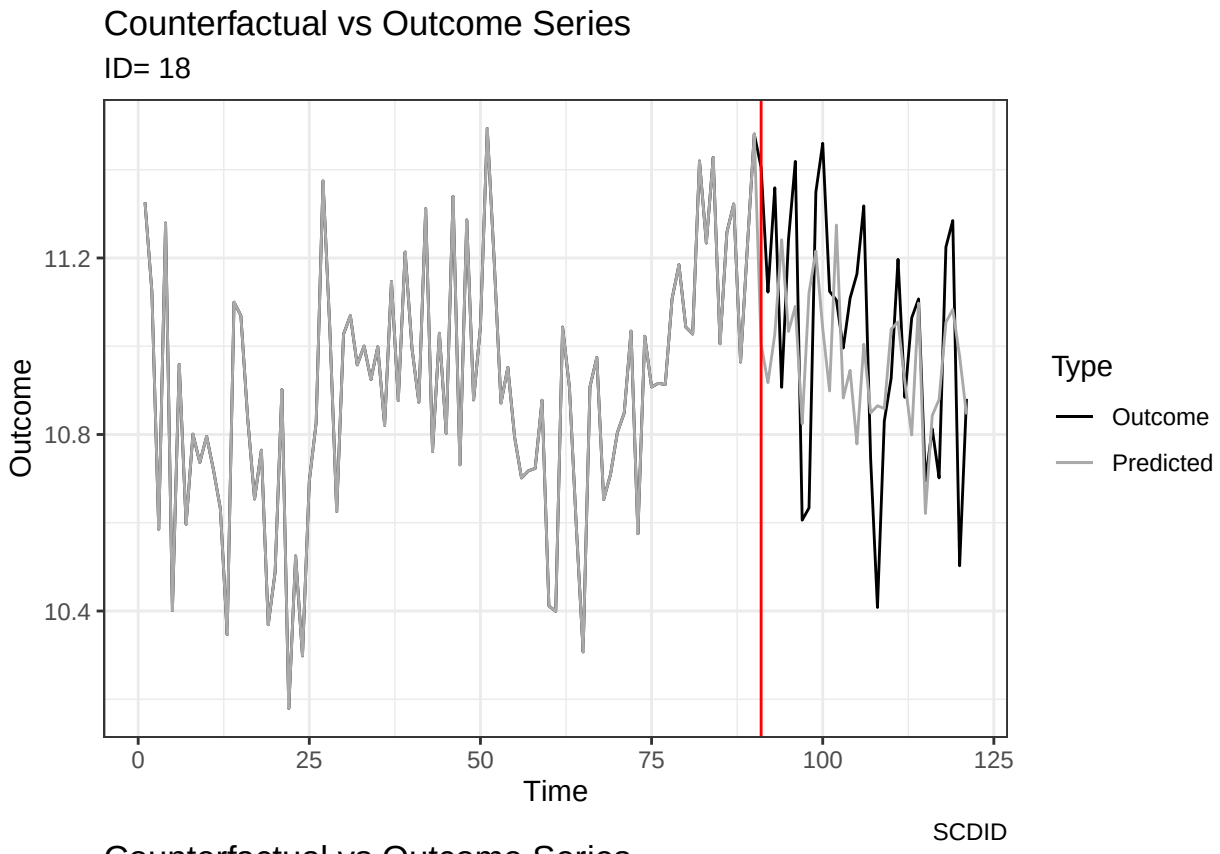
Notes:

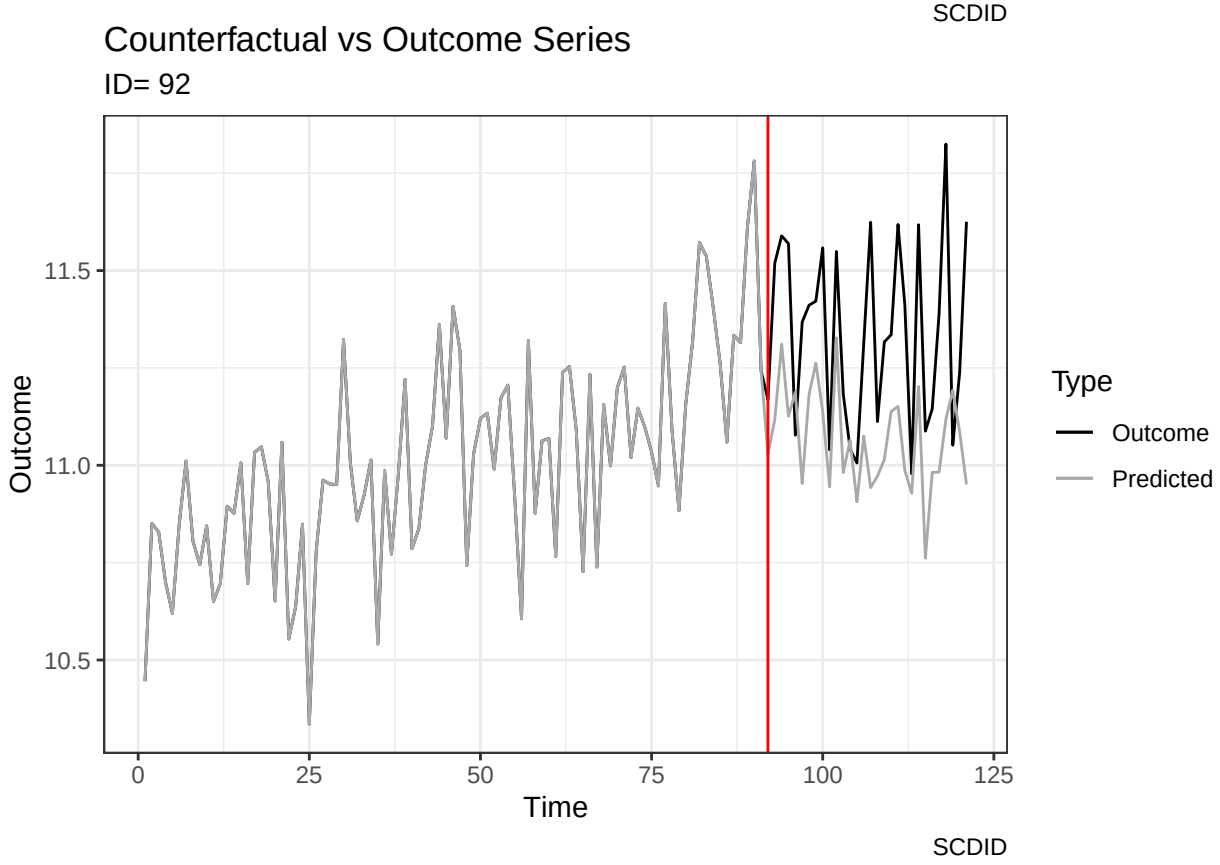


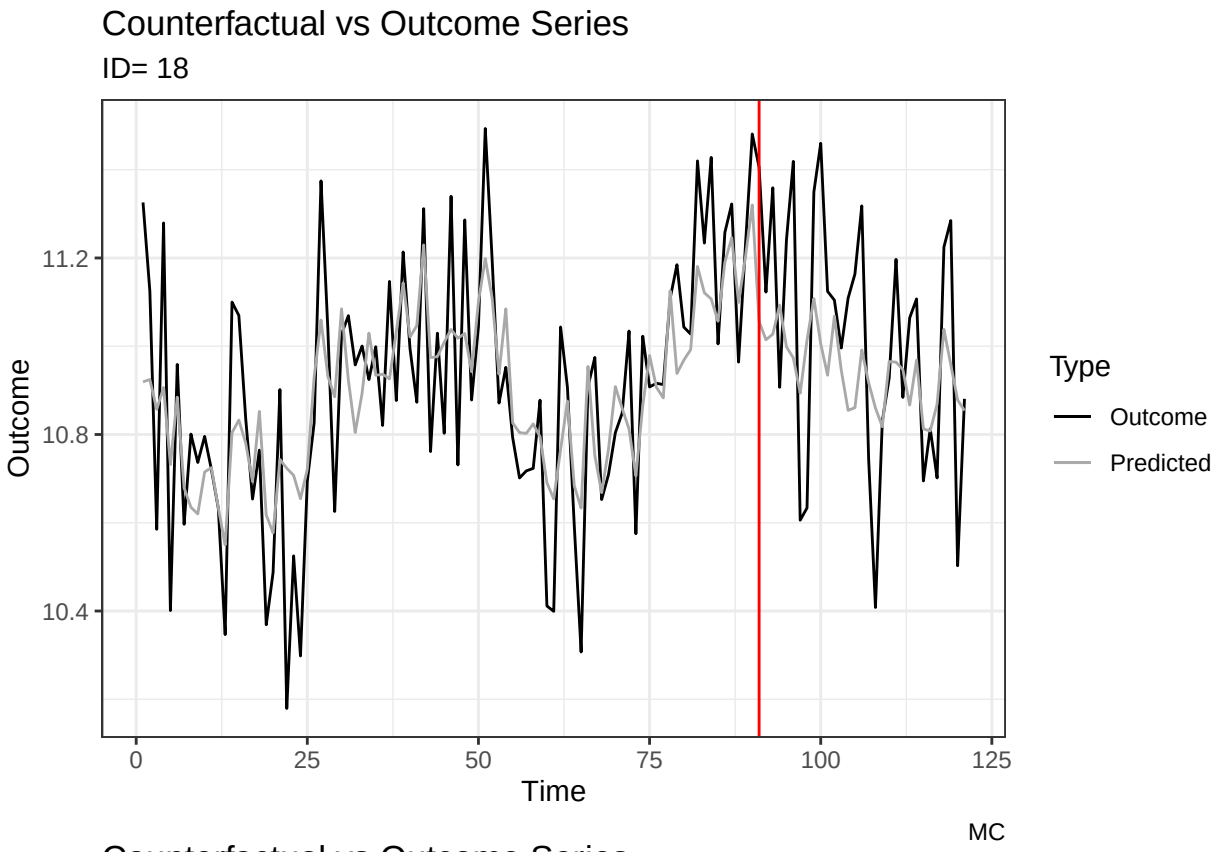
Notes:

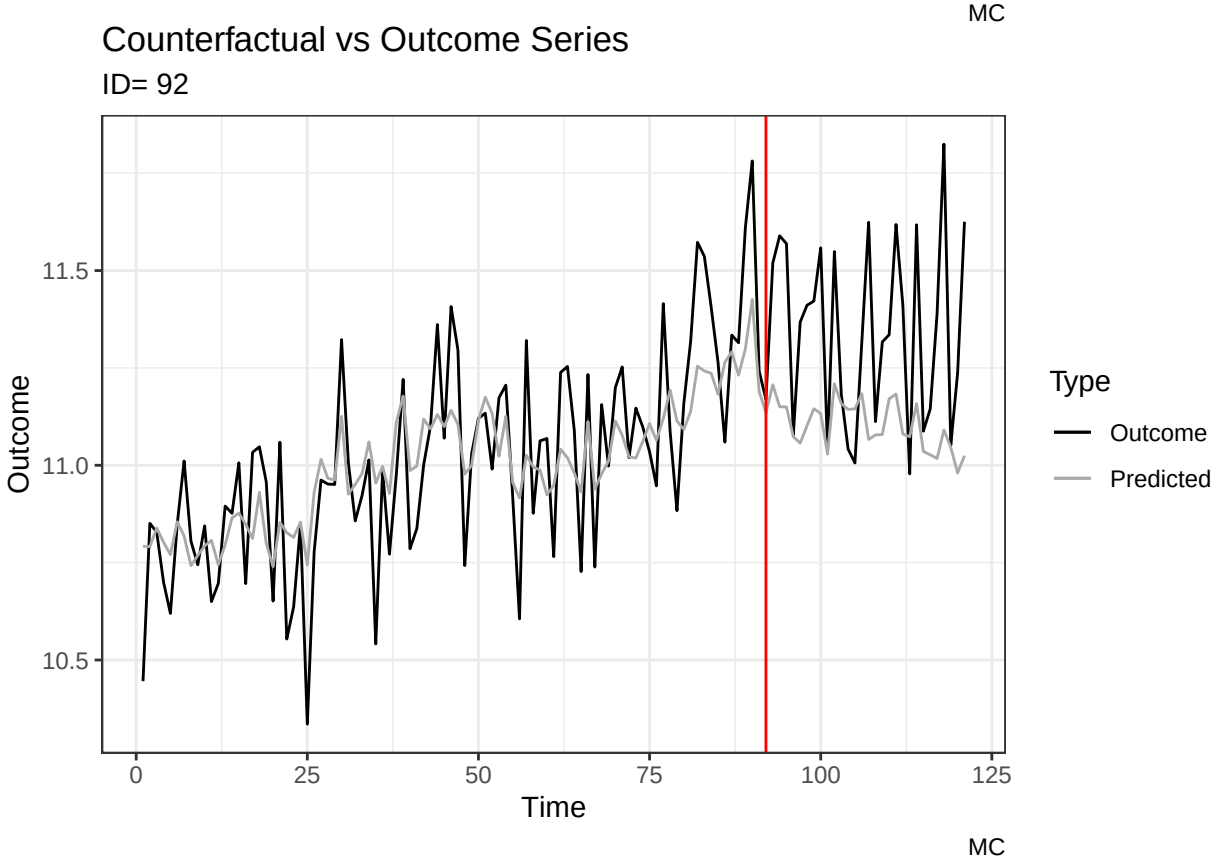

Counterfactual vs Outcome Series
ID= 18
Outcome
11.2
10.8
10.4
0
25
50
75
100
125
Time
Type
Outcome
Predicted
Gsynth

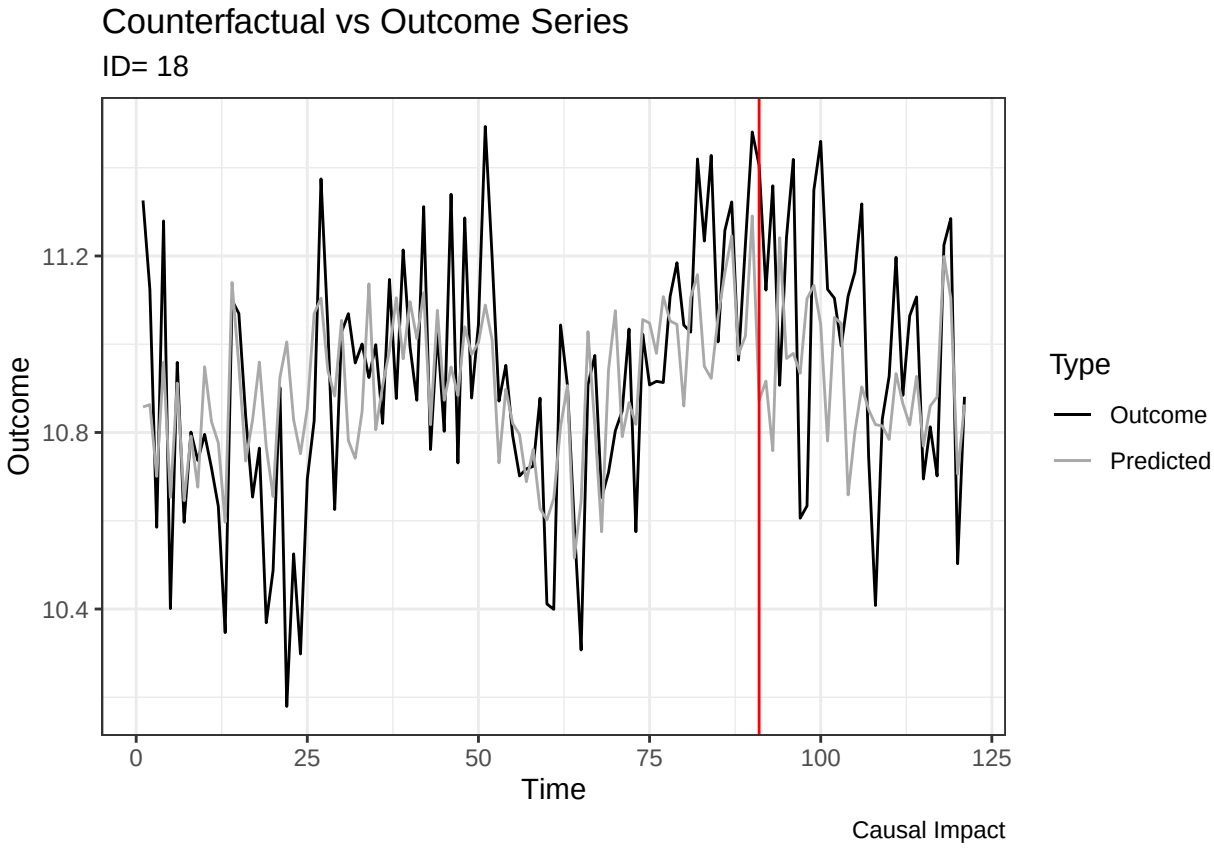

Counterfactual vs Outcome Series
ID= 92
Outcome
11.5
11.0
10.5
0
25
50
75
100
125
Time
Type
Outcome
Predicted
Gsynth

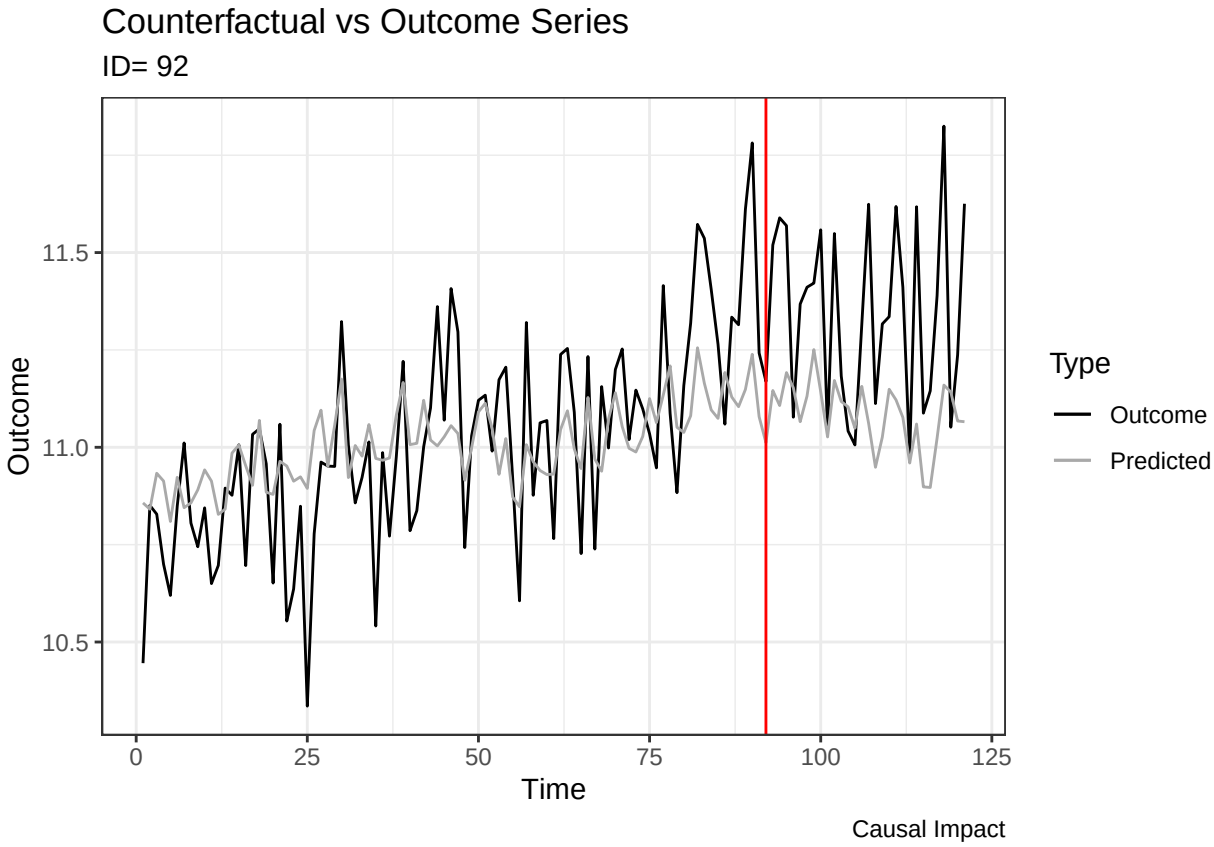

Counterfactual vs Outcome Series
ID= 18
Outcome
11.2
10.8
10.4
0
25
50
75
100
125
Time
Type
Outcome
Predicted
SCDID

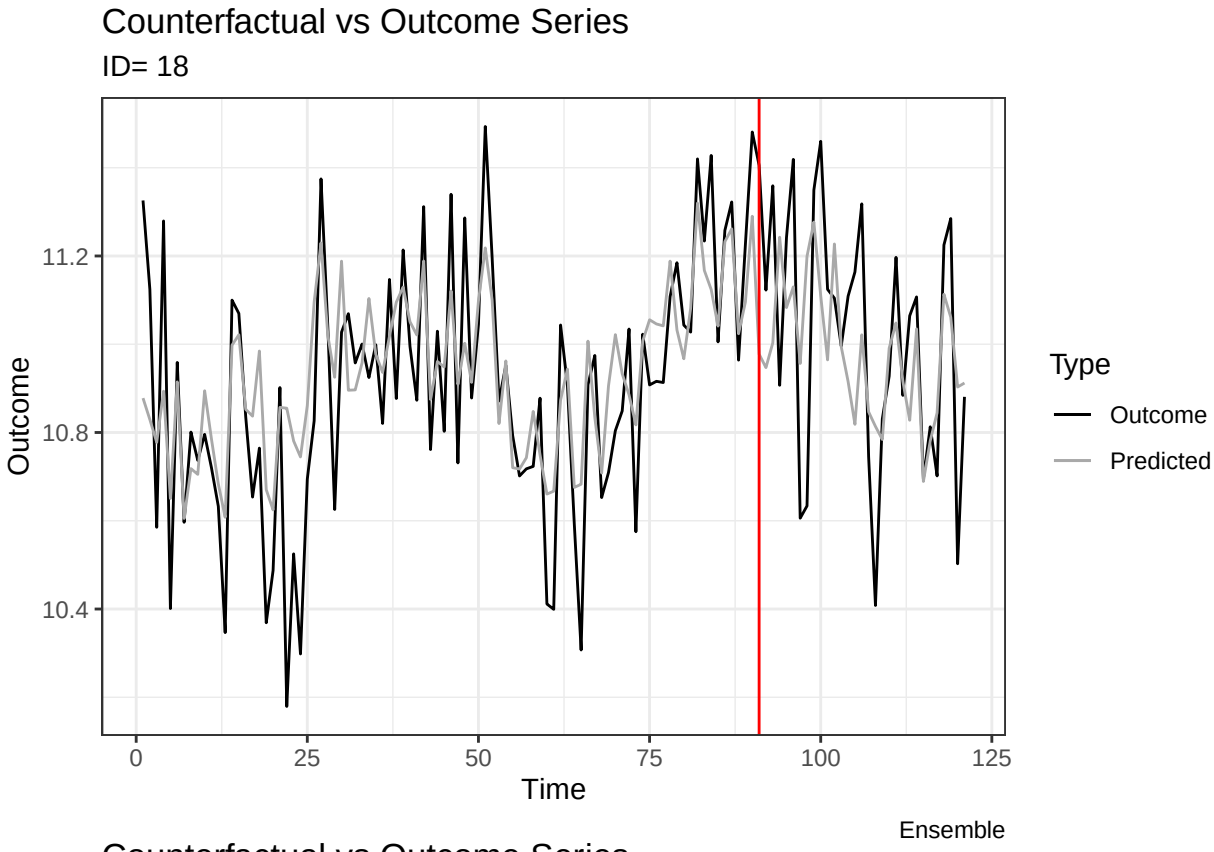

Counterfactual vs Outcome Series
ID= 92
Outcome
11.5
11.0
10.5
0
25
50
75
100
125
Time
Type
Outcome
Predicted
SCDID

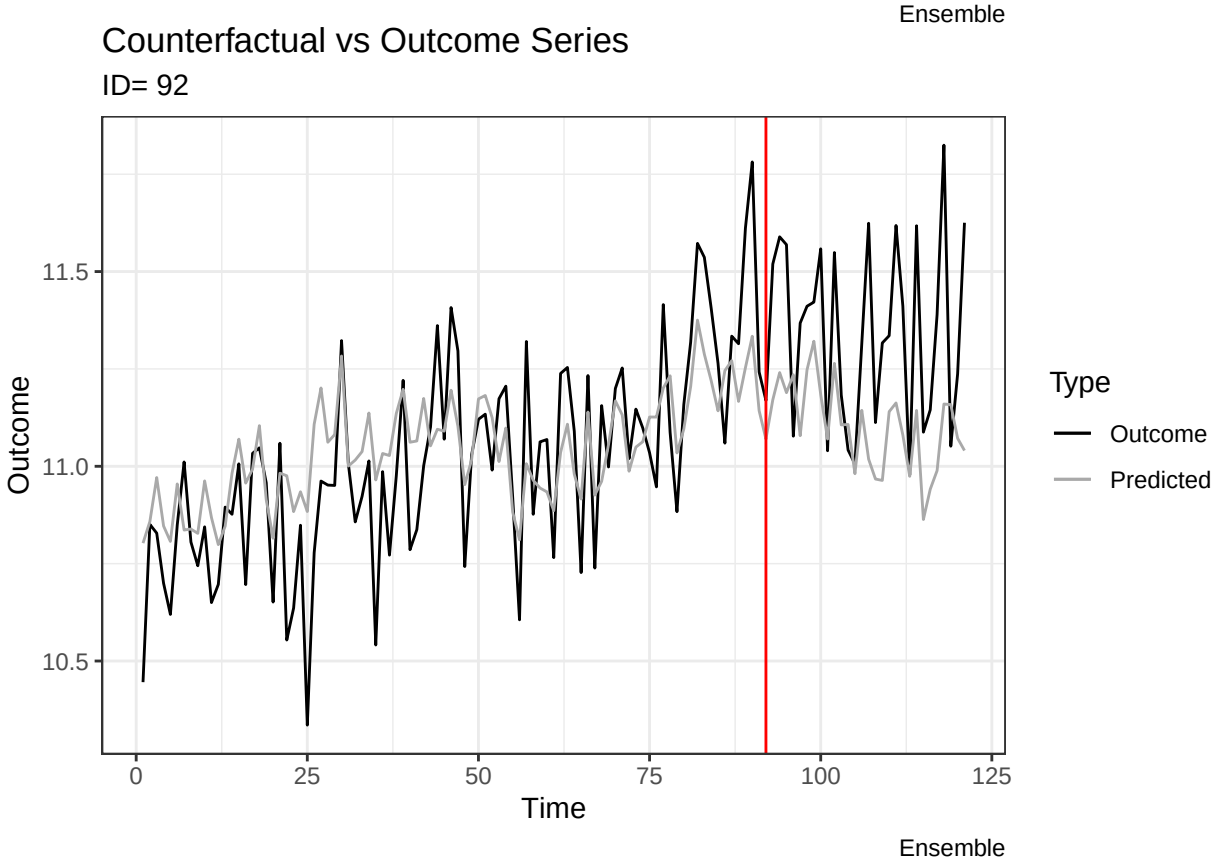

Counterfactual vs Outcome Series
ID= 18
Outcome
11.2
10.8
10.4
0
25
50
75
100
125
Time
MC
Type
Outcome
Predicted


Counterfactual vs Outcome Series
ID= 92
Outcome
11.5
11.0
10.5
0
25
50
75
100
125
Time
MC
Type
Outcome
Predicted

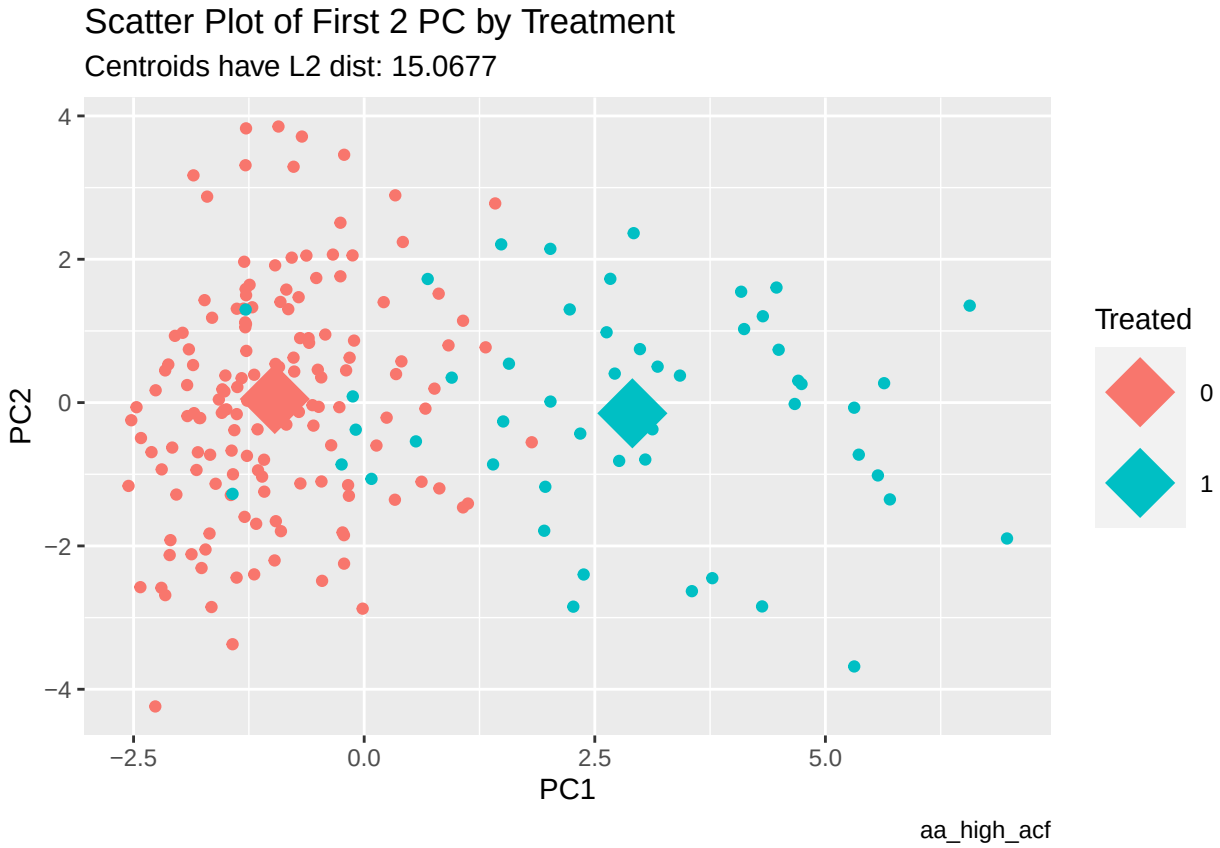

Counterfactual vs Outcome Series
ID= 18
Outcome
11.2
10.8
10.4
0
25
50
75
100
125
Time
Causal Impact
Type
Outcome
Predicted


Counterfactual vs Outcome Series
ID= 92
Outcome
11.5
11.0
10.5
0
25
50
75
100
125
Time
Causal Impact
Type
Outcome
Predicted






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



aa_high_acf

```
## # A tibble: 9 x 11
##   vars  .y.   group1 group2    n1    n2 statistic    df        p    p.adj
##   <chr> <chr> <chr>  <chr>  <int> <int>     <dbl> <dbl>    <dbl>    <dbl>
## 1 curv~ val   0      1        150    50     2.21   63.0 3.09e- 2 3.97e- 2
## 2 diff~ val   0      1        150    50    -3.15   93.5 2.20e- 3 3.30e- 3
## 3 diff~ val   0      1        150    50     0.451  94.8 6.53e- 1 6.53e- 1
## 4 e_ac~ val   0      1        150    50    -1.17   79.1 2.44e- 1 2.74e- 1
## 5 entr~ val   0      1        150    50     8.43   50.1 3.54e-11 6.37e-11
## 6 line~ val   0      1        150    50    -8.51   56.5 1.08e-11 2.43e-11
## 7 spike val   0      1        150    50    16.2    99.1 1.64e-29 1.48e-28
## 8 trend val   0      1        150    50   -14.0    55.5 8.50e-20 2.55e-19
## 9 x_ac~ val   0      1        150    50   -14.5    58.6 4.42e-21 1.99e-20
## # ... with 1 more variable: p.adj.signif <chr>
```

Metrics by Method

aa_high_acf

Method	gsynth	scdid	mc	causalimp	ensemble
coverage					
0	0.000	0.000	0.000	0.000	0.000
1	0.000	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000
rmse					
0	0.624	0.667	0.525	0.500	0.585
1	0.545	0.623	0.546	0.498	0.531

2	0.534	0.623	0.588	0.497	0.526
3	0.581	0.647	0.640	0.517	0.564
4	0.583	0.649	0.664	0.509	0.566

Notes: