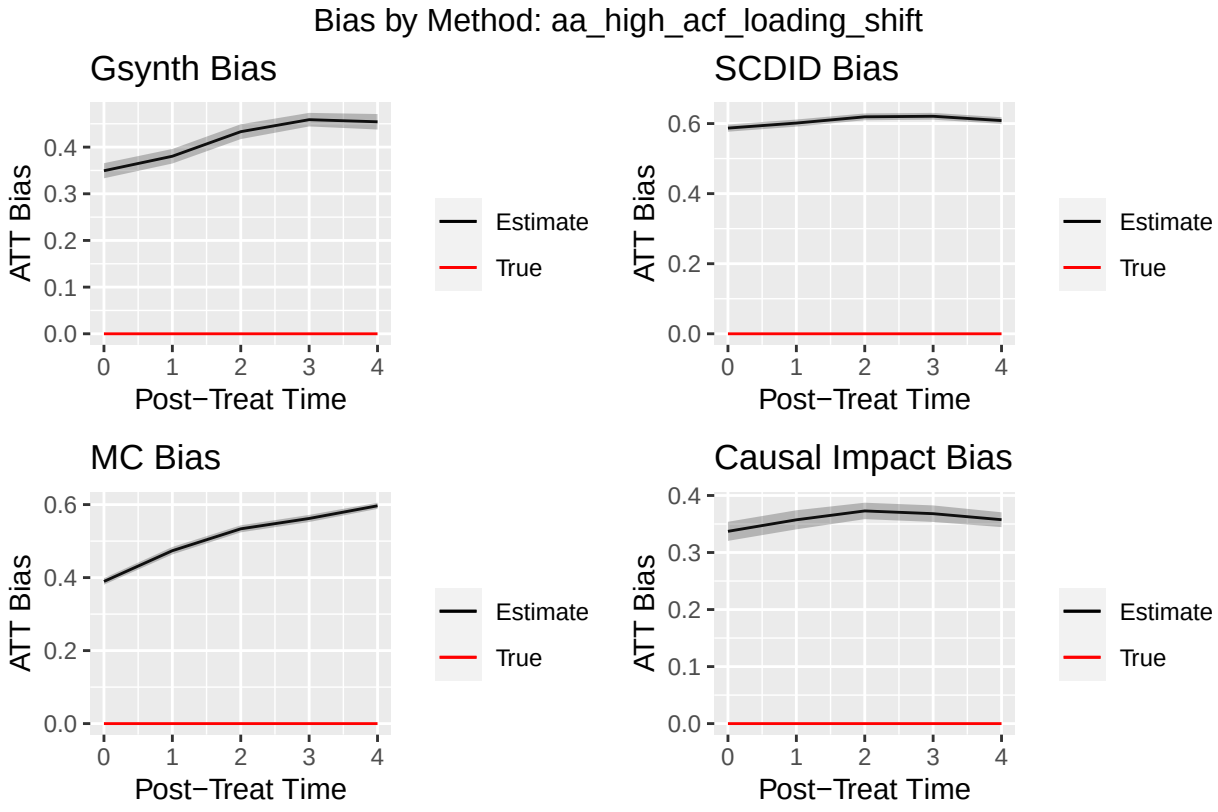
DGP Variations

For Loop Over DGPs

```
## [1] "aa_high_acf_loading_shift"
## [1] "aa_high_acf"
## [1] "aa_low_acf_sel_covariate_shift"
## [1] "aa_low_acf"
## [1] "aa_noisy_factors_load_shift_lowacf"
## [1] "aa_noisy_factors_load_shift"
## [1] "aa_noisy_factors_lowacf"
## [1] "aa_noisy_factors"
## [1] "ab_decay_het_loading_shift"
## [1] "ab_decay_het"
## [1] "ab_decay_impact_het_loading_shift"
## [1] "ab_decay_impact_het"
## [1] "ab_impact_het_loading_shift"
## [1] "ab_impact_het"
## [1] "ab_no_het_loading_shift"
## [1] "ab_no_het"
```



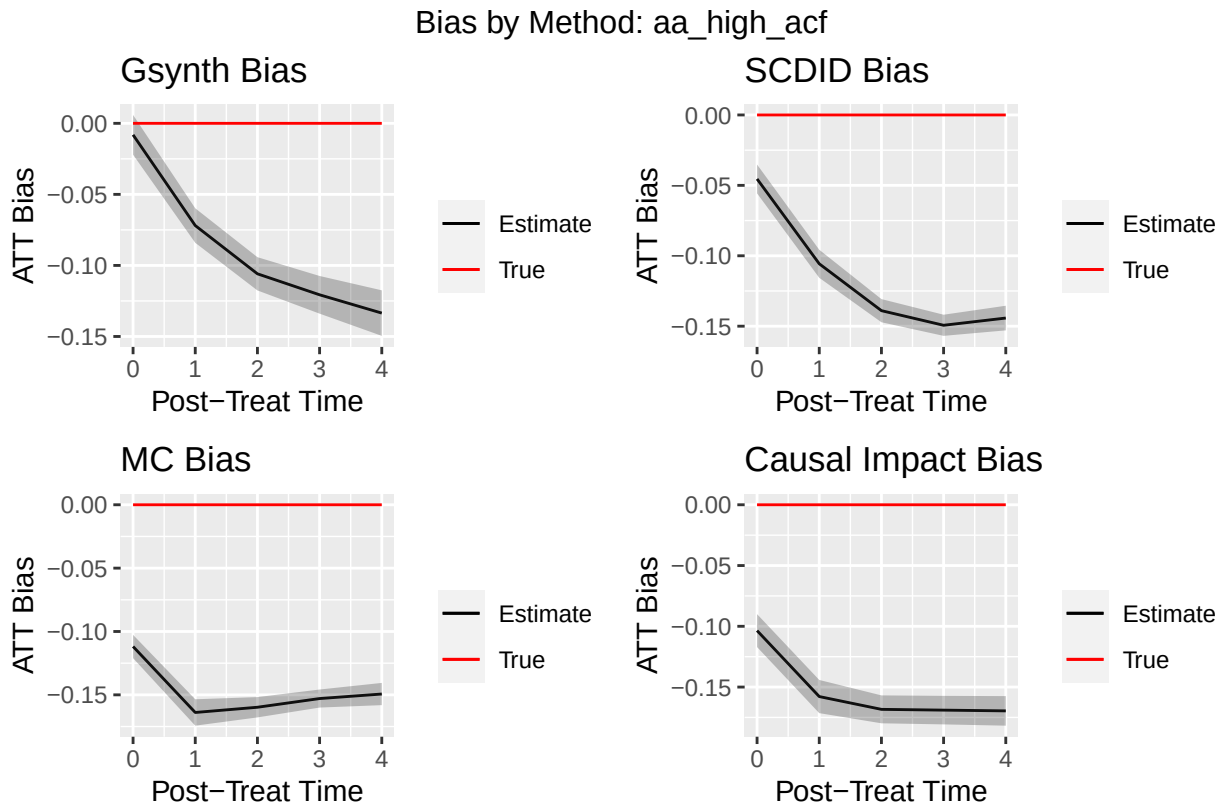
Notes:

Metrics by Method

aa_high_acf_loading_shift

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.000	0.000	0.000	0.000
1	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000
rmse				
0	0.532	0.735	0.539	0.468
1	0.578	0.770	0.622	0.504
2	0.633	0.792	0.688	0.521
3	0.660	0.804	0.724	0.524
4	0.658	0.792	0.760	0.509
bias				
0	0.349	0.587	0.389	0.337
1	0.380	0.601	0.474	0.357
2	0.433	0.619	0.534	0.373
3	0.459	0.621	0.562	0.368
4	0.454	0.608	0.597	0.358

Notes:



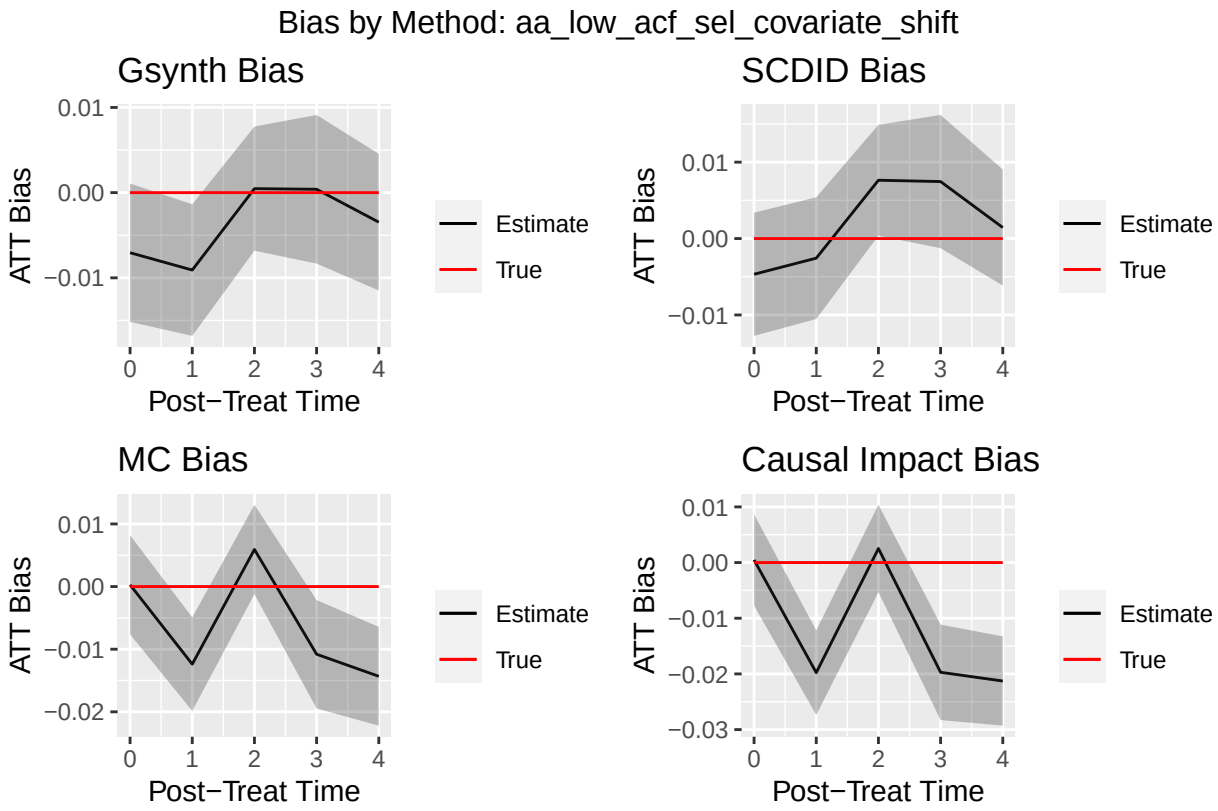
Notes:

Metrics by Method

aa_high_acf

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.980	0.980	0.500	0.300
1	0.780	0.600	0.060	0.020
2	0.520	0.200	0.100	0.040
3	0.480	0.220	0.280	0.020
4	0.540	0.420	0.440	0.040
rmse				
0	0.429	0.429	0.418	0.312
1	0.386	0.409	0.437	0.332
2	0.402	0.435	0.468	0.351
3	0.431	0.482	0.504	0.377
4	0.478	0.504	0.523	0.385
bias				
0	−0.008	−0.045	−0.112	−0.104
1	−0.072	−0.106	−0.164	−0.158
2	−0.106	−0.139	−0.160	−0.168
3	−0.121	−0.149	−0.153	−0.169
4	−0.134	−0.144	−0.149	−0.170

Notes:



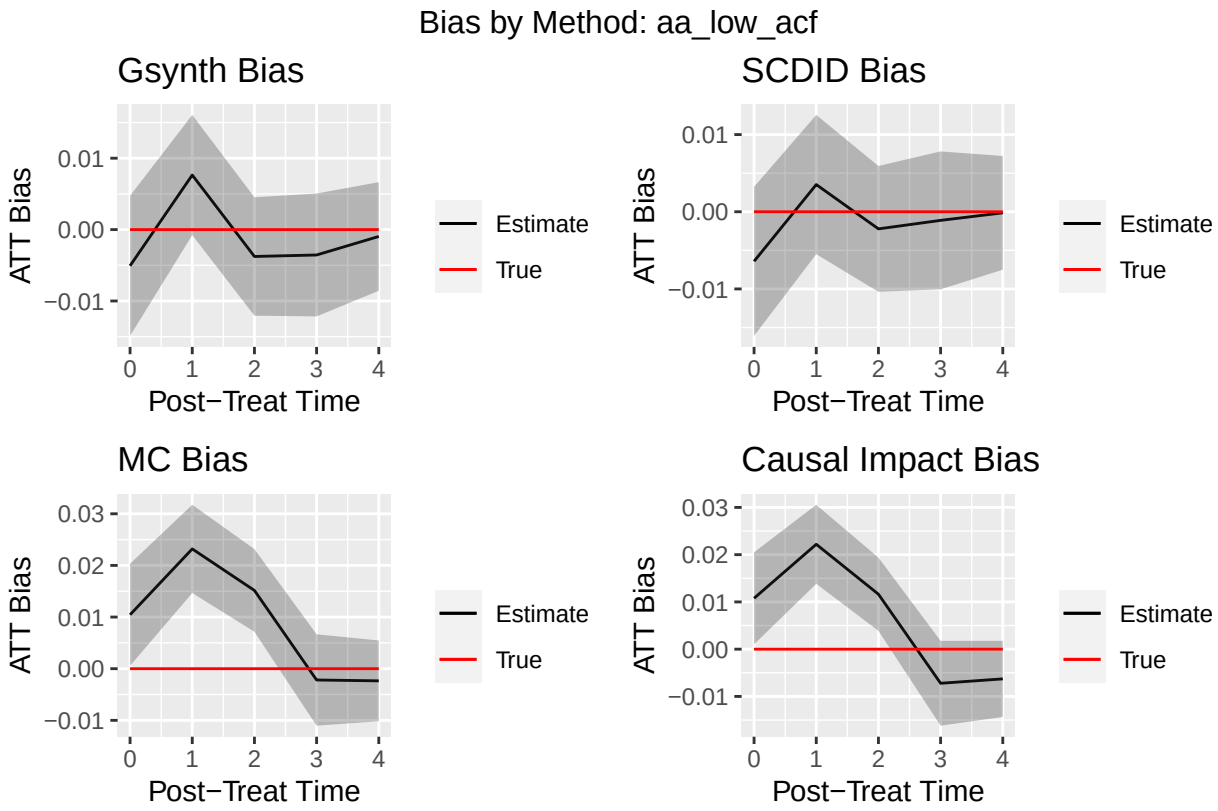
Notes:

Metrics by Method

aa_low_acf_sel_covariate_shift

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.920	0.920	0.900	0.900
1	0.940	0.960	0.940	0.920
2	0.980	0.960	0.960	0.960
3	0.920	0.940	0.900	0.900
4	0.940	0.960	0.960	0.960
rmse				
0	0.199	0.201	0.202	0.208
1	0.204	0.206	0.206	0.212
2	0.203	0.204	0.206	0.213
3	0.198	0.200	0.200	0.206
4	0.206	0.207	0.209	0.217
bias				
0	−0.007	−0.005	0.000	0.000
1	−0.009	−0.003	−0.012	−0.020
2	0.000	0.008	0.006	0.003
3	0.000	0.007	−0.011	−0.020
4	−0.003	0.001	−0.014	−0.021

Notes:



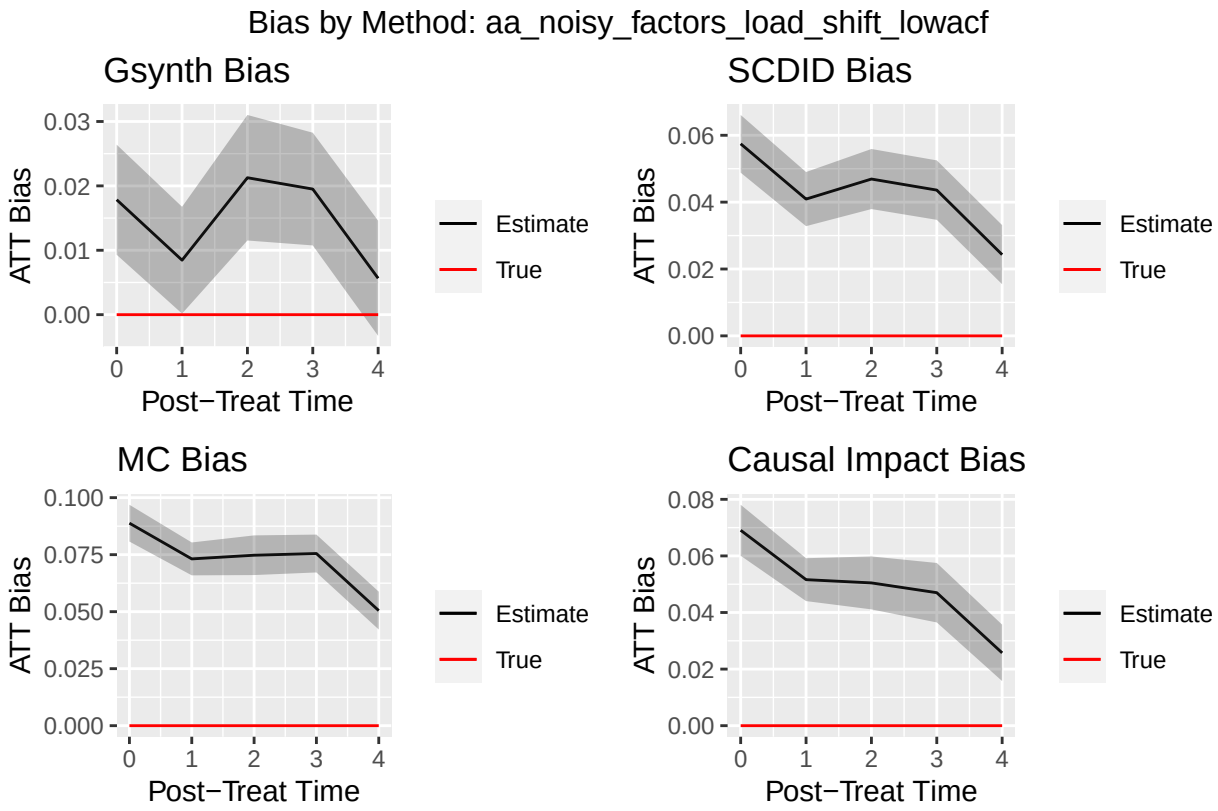
Notes:

Metrics by Method

aa_low_acf

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.940	0.940	0.920	0.960
1	0.940	0.940	0.900	0.920
2	0.940	0.960	0.960	1.000
3	0.920	0.940	0.940	0.960
4	0.960	1.000	0.960	0.940
rmse				
0	0.210	0.213	0.214	0.220
1	0.209	0.211	0.215	0.221
2	0.203	0.204	0.210	0.217
3	0.205	0.208	0.211	0.218
4	0.204	0.205	0.212	0.220
bias				
0	−0.005	−0.006	0.010	0.011
1	0.008	0.004	0.023	0.022
2	−0.004	−0.002	0.015	0.012
3	−0.004	−0.001	−0.002	−0.007
4	−0.001	−0.000	−0.002	−0.006

Notes:



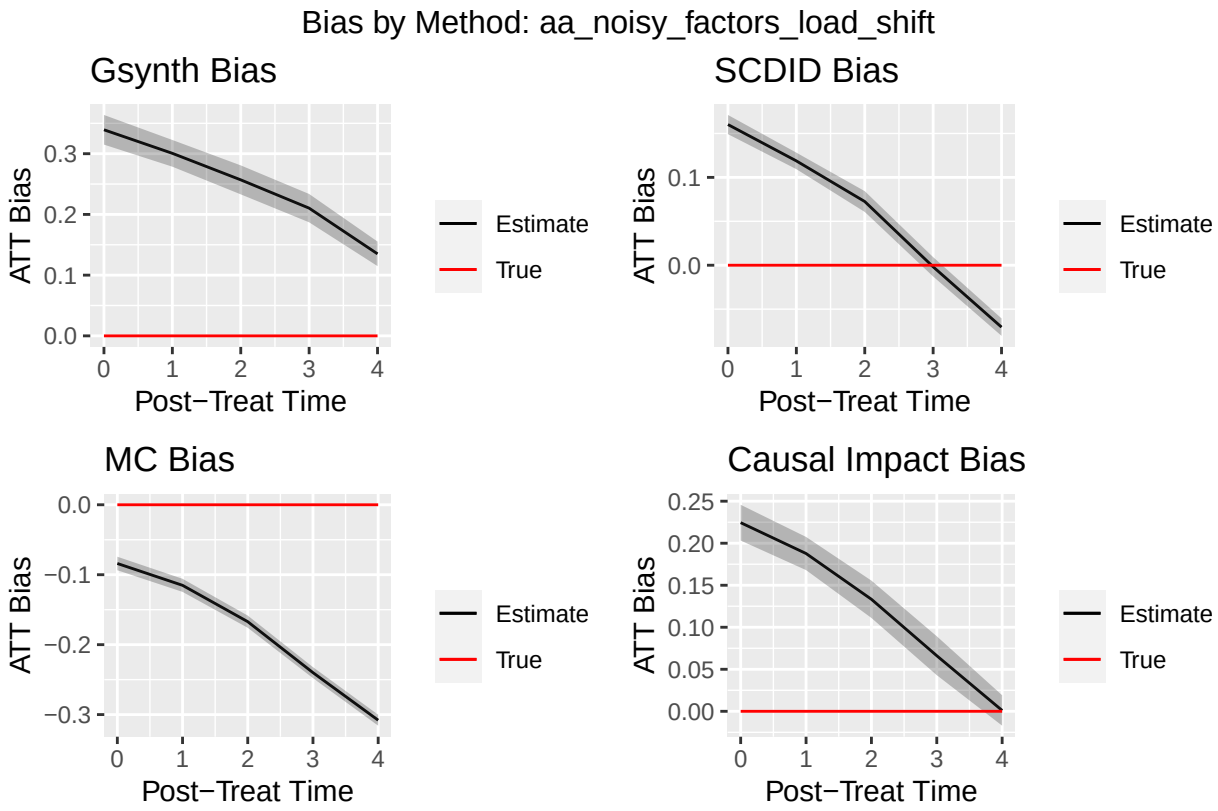
Notes:

Metrics by Method

aa_noisy_factors_load_shift_lowacf

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.880	0.500	0.140	0.500
1	0.940	0.720	0.260	0.700
2	0.800	0.660	0.340	0.680
3	0.860	0.740	0.280	0.700
4	0.980	0.900	0.700	0.900
rmse				
0	0.214	0.224	0.234	0.245
1	0.207	0.215	0.225	0.233
2	0.216	0.222	0.232	0.241
3	0.211	0.217	0.229	0.238
4	0.210	0.216	0.225	0.234
bias				
0	0.018	0.057	0.089	0.069
1	0.008	0.041	0.073	0.052
2	0.021	0.047	0.075	0.050
3	0.020	0.044	0.075	0.047
4	0.006	0.024	0.050	0.026

Notes:



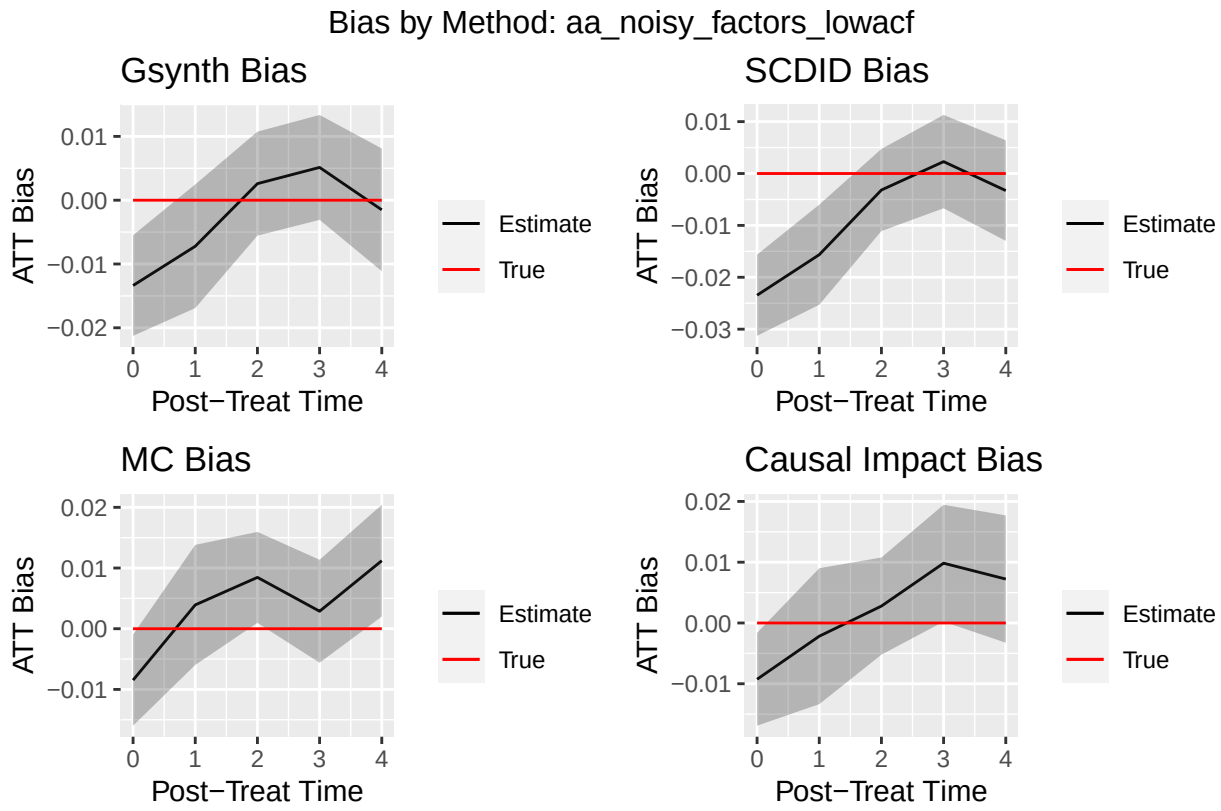
Notes:

Metrics by Method

aa_noisy_factors_load_shift

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.020	0.360	0.860	0.060
1	0.020	0.820	0.760	0.220
2	0.080	0.960	0.220	0.600
3	0.280	1.000	0.000	0.880
4	0.640	1.000	0.000	1.000
rmse				
0	0.675	0.531	0.443	0.542
1	0.676	0.540	0.496	0.539
2	0.657	0.550	0.534	0.525
3	0.602	0.543	0.559	0.527
4	0.568	0.542	0.601	0.534
bias				
0	0.339	0.160	−0.084	0.224
1	0.301	0.119	−0.115	0.188
2	0.257	0.073	−0.167	0.133
3	0.210	−0.002	−0.240	0.066
4	0.135	−0.070	−0.308	0.001

Notes:



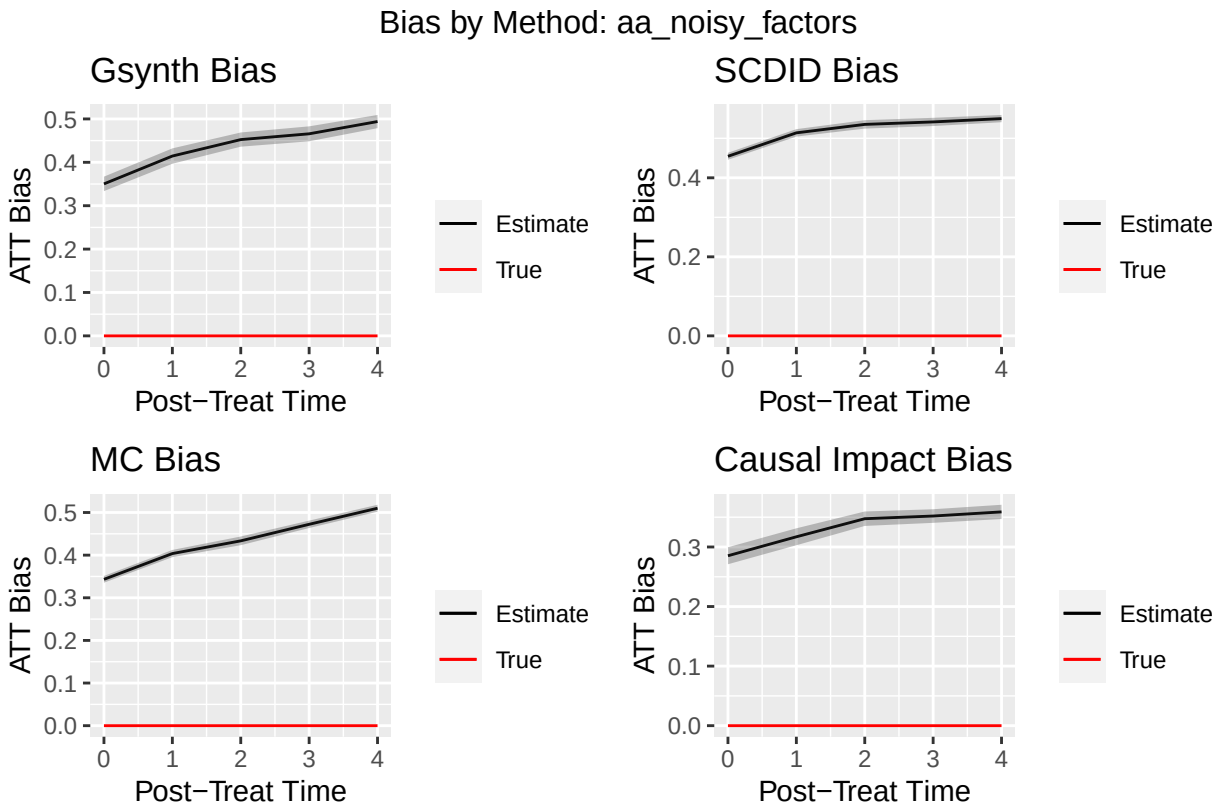
Notes:

Metrics by Method

aa_noisy_factors_lowacf

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.940	0.900	0.980	0.980
1	0.920	0.920	0.940	0.940
2	1.000	0.940	1.000	1.000
3	0.960	0.980	1.000	0.980
4	0.940	0.920	0.940	0.920
rmse				
0	0.217	0.217	0.222	0.228
1	0.214	0.216	0.235	0.234
2	0.217	0.216	0.243	0.232
3	0.220	0.222	0.245	0.238
4	0.218	0.224	0.250	0.240
bias				
0	−0.013	−0.023	−0.008	−0.009
1	−0.007	−0.016	0.004	−0.002
2	0.003	−0.003	0.008	0.003
3	0.005	0.002	0.003	0.010
4	−0.002	−0.003	0.011	0.007

Notes:



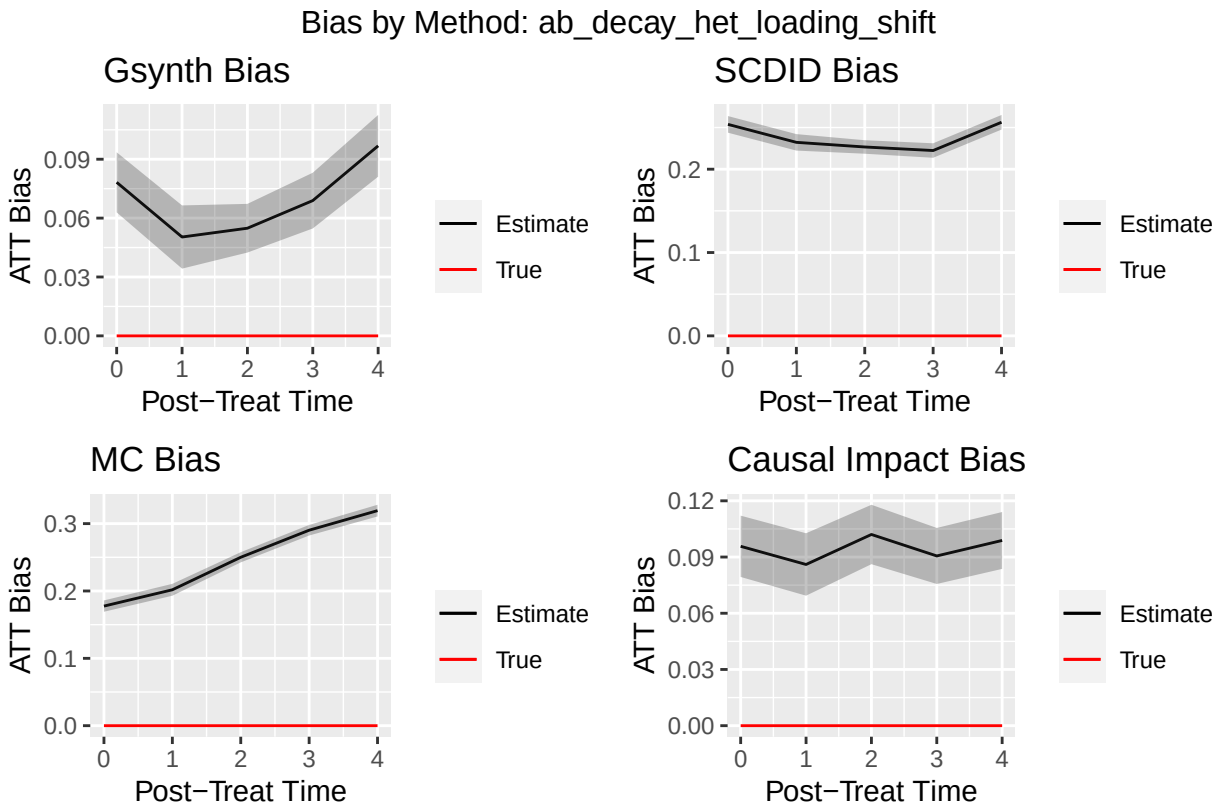
Notes:

Metrics by Method

aa_noisy_factors

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.000	0.000	0.000	0.000
1	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000
rmse				
0	0.717	0.770	0.651	0.500
1	0.811	0.845	0.674	0.533
2	0.830	0.833	0.659	0.558
3	0.814	0.802	0.676	0.565
4	0.827	0.817	0.724	0.599
bias				
0	0.350	0.454	0.343	0.285
1	0.414	0.514	0.404	0.317
2	0.452	0.535	0.434	0.347
3	0.466	0.541	0.472	0.352
4	0.494	0.550	0.510	0.359

Notes:



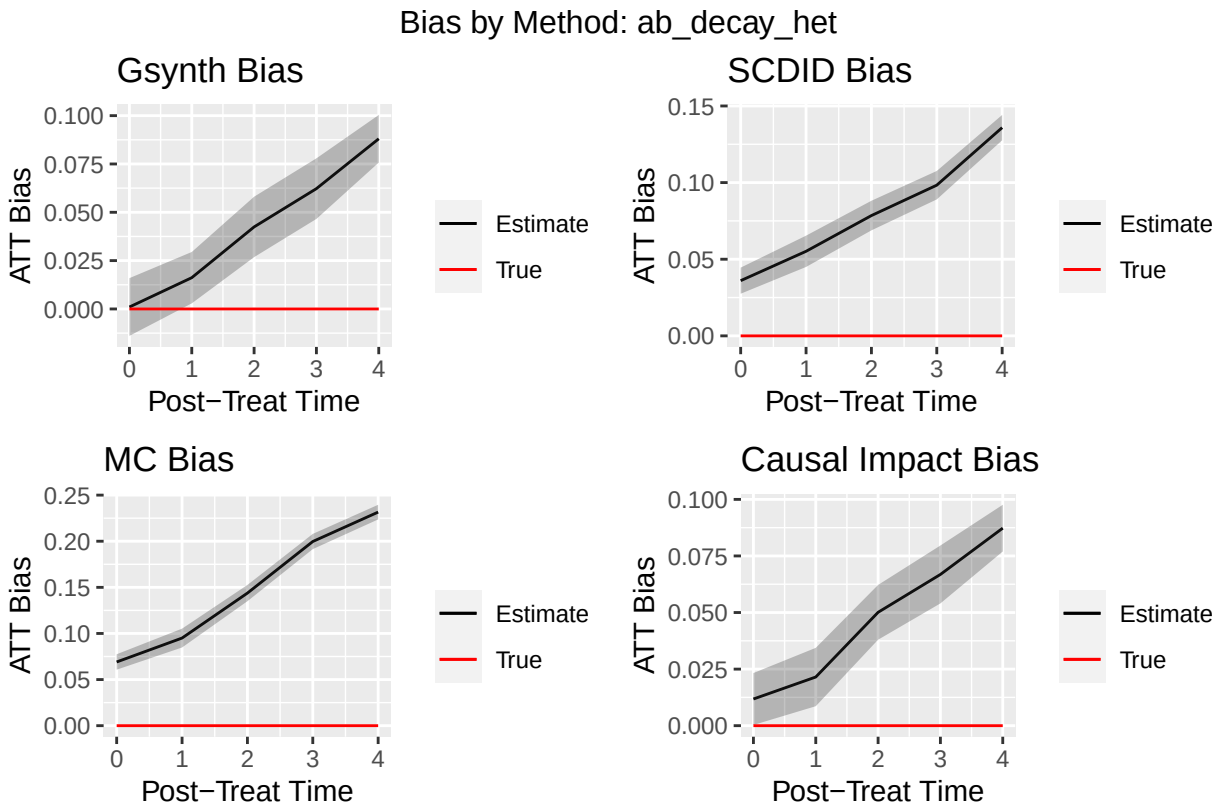
Notes:

Metrics by Method

ab_decay_het_loading_shift

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.660	0.000	0.000	0.420
1	0.760	0.000	0.000	0.560
2	0.820	0.000	0.000	0.380
3	0.660	0.000	0.000	0.520
4	0.440	0.000	0.000	0.420
rmse				
0	0.334	0.454	0.367	0.346
1	0.327	0.445	0.392	0.342
2	0.336	0.441	0.438	0.344
3	0.345	0.437	0.466	0.332
4	0.348	0.448	0.488	0.335
bias				
0	0.078	0.254	0.178	0.096
1	0.050	0.232	0.202	0.086
2	0.055	0.227	0.250	0.102
3	0.069	0.222	0.290	0.091
4	0.097	0.256	0.319	0.099

Notes:



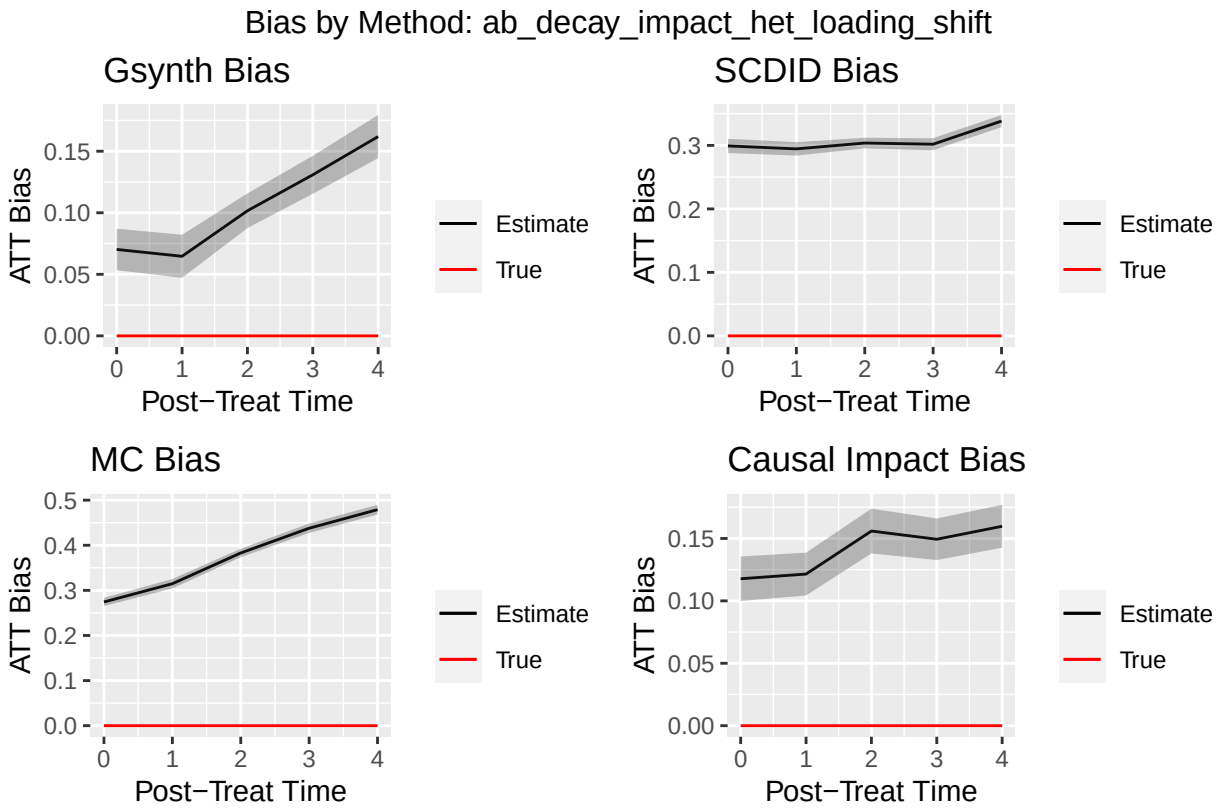
Notes:

Metrics by Method

ab_decay_het

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.900	0.920	0.580	0.900
1	0.880	0.680	0.300	0.860
2	0.740	0.520	0.040	0.680
3	0.640	0.360	0.000	0.560
4	0.400	0.020	0.000	0.360
rmse				
0	0.265	0.256	0.264	0.243
1	0.252	0.273	0.285	0.252
2	0.269	0.288	0.314	0.258
3	0.284	0.307	0.348	0.264
4	0.290	0.323	0.377	0.269
bias				
0	0.001	0.036	0.069	0.012
1	0.016	0.055	0.095	0.022
2	0.042	0.078	0.144	0.050
3	0.062	0.098	0.200	0.067
4	0.088	0.136	0.232	0.087

Notes:



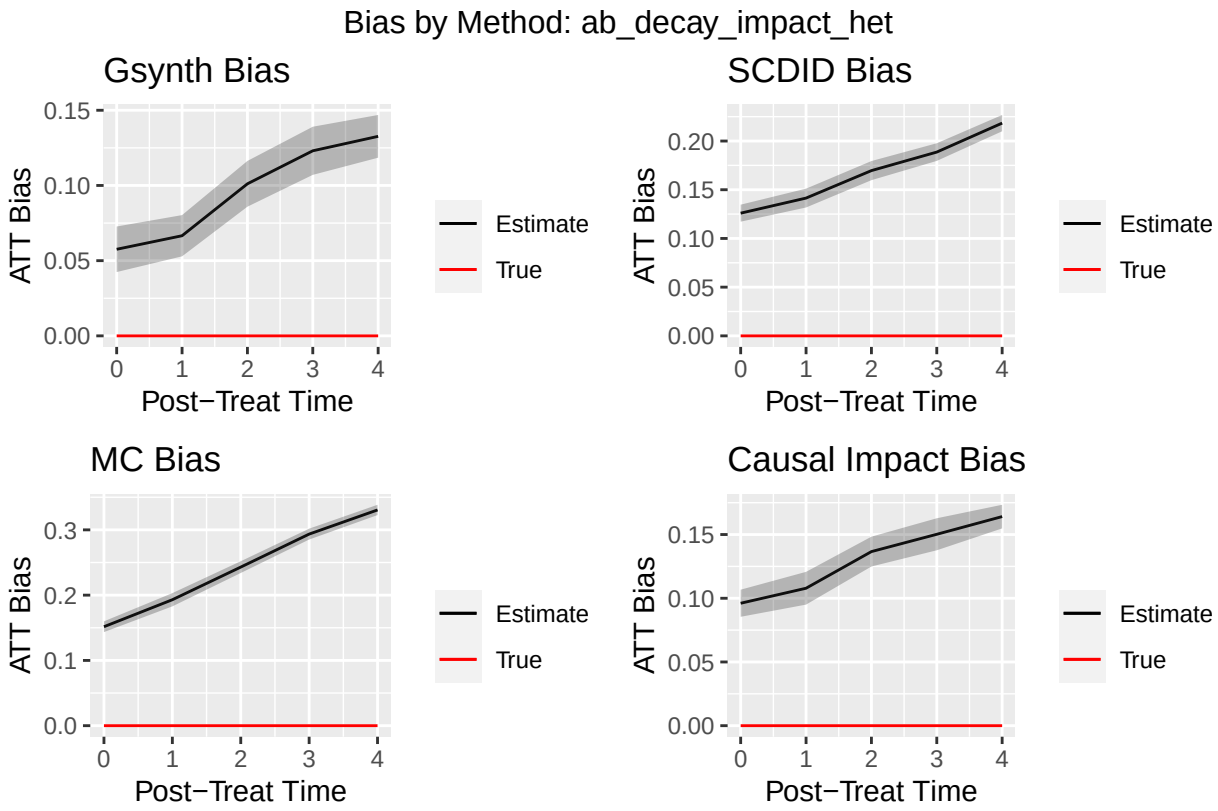
Notes:

Metrics by Method

ab_decay_impact_het_loading_shift

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.700	0.000	0.000	0.420
1	0.700	0.000	0.000	0.300
2	0.460	0.000	0.000	0.240
3	0.240	0.000	0.000	0.220
4	0.100	0.000	0.000	0.200
rmse				
0	0.341	0.483	0.454	0.378
1	0.353	0.497	0.490	0.393
2	0.381	0.512	0.554	0.416
3	0.397	0.510	0.597	0.402
4	0.401	0.528	0.635	0.411
bias				
0	0.070	0.299	0.274	0.118
1	0.065	0.295	0.315	0.121
2	0.102	0.304	0.383	0.156
3	0.131	0.302	0.438	0.149
4	0.162	0.338	0.479	0.160

Notes:



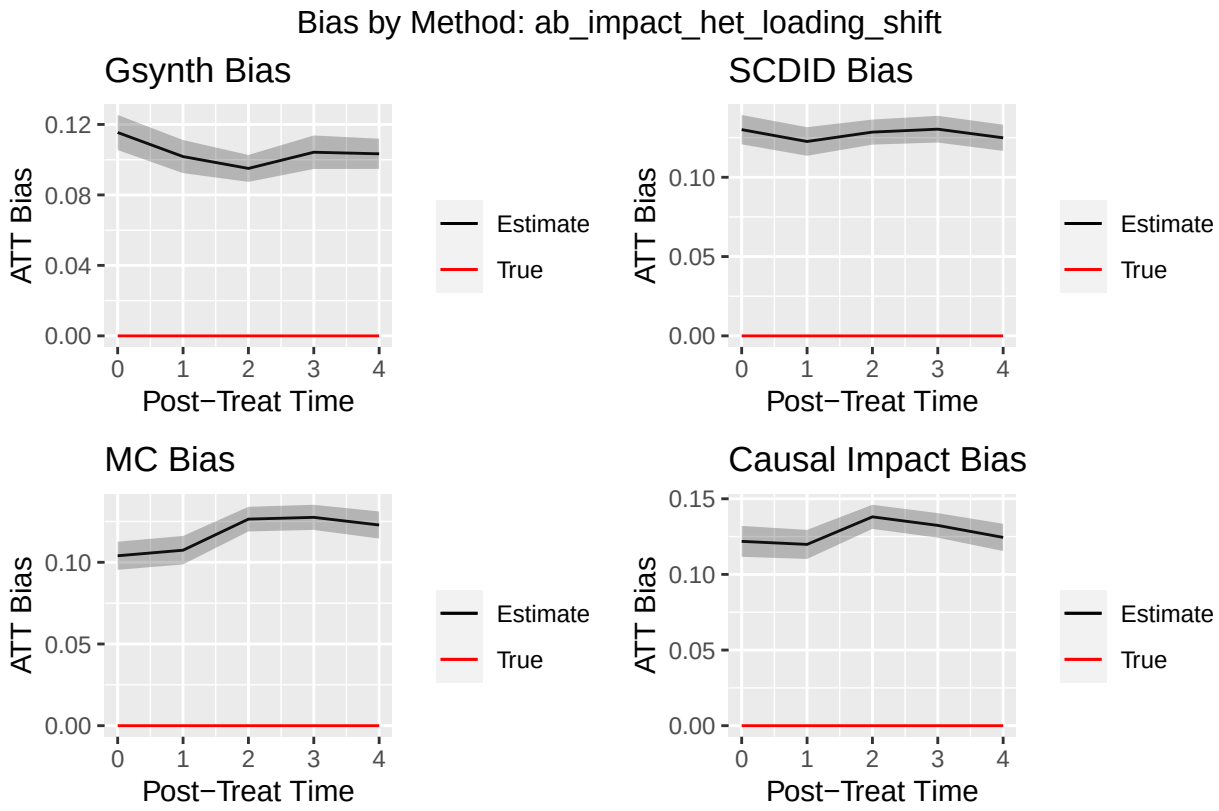
Notes:

Metrics by Method

ab_decay_impact_het

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.660	0.000	0.000	0.180
1	0.360	0.020	0.000	0.160
2	0.300	0.000	0.000	0.040
3	0.280	0.000	0.000	0.020
4	0.120	0.000	0.000	0.000
rmse				
0	0.263	0.283	0.295	0.258
1	0.256	0.302	0.329	0.269
2	0.284	0.325	0.367	0.288
3	0.303	0.341	0.410	0.299
4	0.307	0.366	0.453	0.306
bias				
0	0.058	0.126	0.152	0.096
1	0.067	0.141	0.193	0.108
2	0.101	0.170	0.243	0.137
3	0.123	0.189	0.294	0.150
4	0.133	0.218	0.331	0.164

Notes:



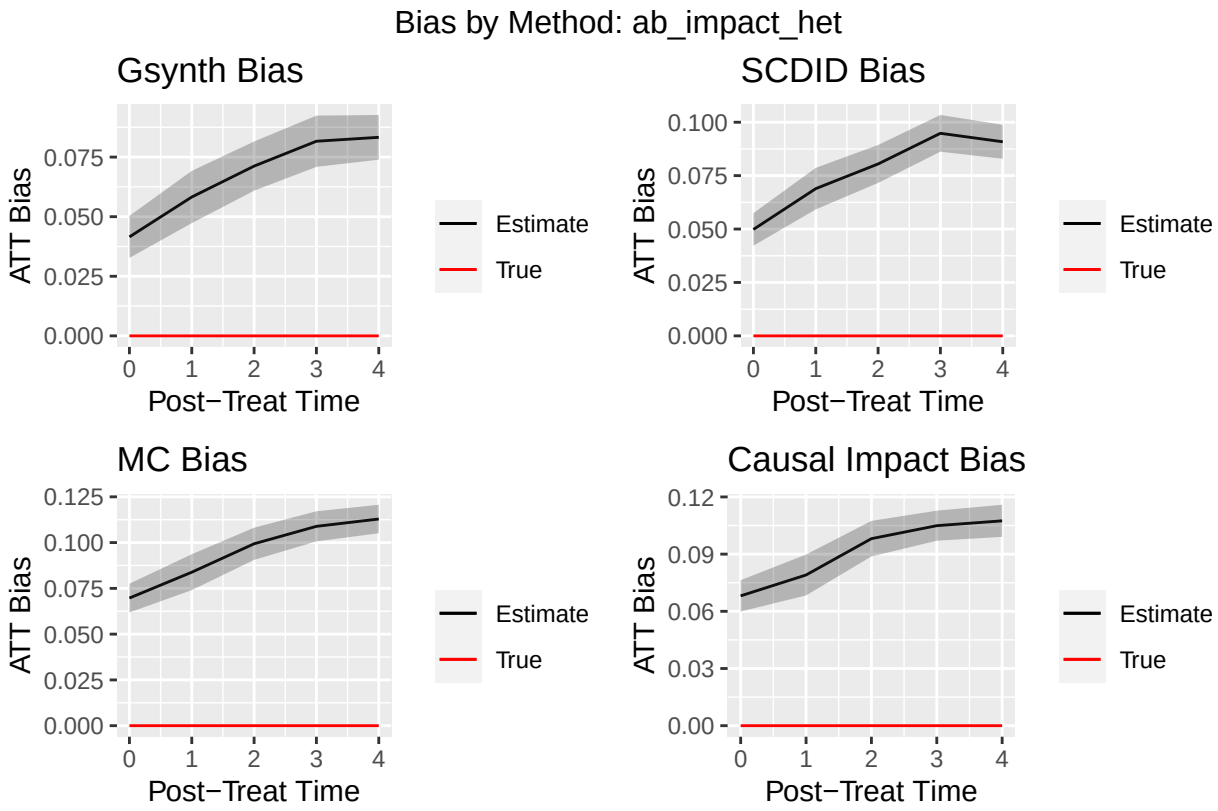
Notes:

Metrics by Method

ab_impact_het_loading_shift

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.040	0.000	0.060	0.060
1	0.140	0.000	0.080	0.040
2	0.140	0.020	0.000	0.000
3	0.140	0.000	0.000	0.000
4	0.160	0.020	0.020	0.020
rmse				
0	0.259	0.263	0.244	0.258
1	0.254	0.263	0.250	0.260
2	0.248	0.266	0.260	0.269
3	0.255	0.269	0.262	0.270
4	0.259	0.270	0.264	0.270
bias				
0	0.115	0.130	0.104	0.122
1	0.102	0.123	0.107	0.120
2	0.095	0.128	0.126	0.138
3	0.104	0.130	0.128	0.132
4	0.103	0.125	0.123	0.124

Notes:



Notes:

Metrics by Method

ab_impact_het

Method	gsynth	scdid	mc	causalimp
coverage				
0	0.860	0.780	0.500	0.460
1	0.580	0.480	0.240	0.420
2	0.440	0.240	0.120	0.220
3	0.320	0.140	0.040	0.080
4	0.300	0.200	0.020	0.080
rmse				
0	0.222	0.224	0.229	0.233
1	0.232	0.235	0.237	0.242
2	0.230	0.234	0.241	0.247
3	0.237	0.241	0.246	0.253
4	0.239	0.243	0.255	0.256
bias				
0	0.042	0.050	0.070	0.068
1	0.058	0.069	0.084	0.079
2	0.071	0.080	0.099	0.098
3	0.082	0.095	0.109	0.105
4	0.083	0.091	0.113	0.107

Notes: