

```
Basic setting:[T, rep_times, sd_0, sd_D, sd_R, sd_u_0, w_0, w_A,  
one, 96, 10, 10, None, 0.3, 0.5, 1, [True, False, True, False, 10
```

```
-----  
[pattern_seed, day, sd_R] = [2, 7, 10]
```

```
max(u_0) = 197.9
```

```
0_threshold = 80
```

```
means of Order:
```

```
87.8 97.8 52.4 162.7 58.1
```

```
77.3 115.7 68.5 72.4 75.7
```

```
117.4 197.9 100.7 71.1 116.9
```

```
83.2 98.9 141.5 79.5 99.8
```

```
76.4 94.9 107.4 73.9 89.9
```

```
target policy:
```

```
1 1 0 1 0
```

```
0 1 0 0 0
```

```
1 1 1 0 1
```

```
1 1 1 0 1
```

```
0 1 1 0 1
```

```
number of reward locations: 15
```

```
0_threshold = 90
```

```
target policy:
```

```
0 1 0 1 0
```

```
0 1 0 0 0
```

```
1 1 1 0 1
```

```
0 1 1 0 1
```

```
0 1 1 0 0
```

```
number of reward locations: 12
```

```
O_threshold = 100
```

```
target policy:
```

```
0 0 0 1 0
```

```
0 1 0 0 0
```

```
1 1 1 0 1
```

```
0 0 1 0 0
```

```
0 0 1 0 0
```

```
number of reward locations: 8
```

```
O_threshold = 110
```

```
target policy:
```

```
0 0 0 1 0
```

```
[0] 0:[tmux]*
```

```
-----
Value of Behaviour policy:60.786
```

```
O_threshold = 80
```

```
MC for this TARGET:[70.884, 0.141]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
```

```
bias:[[-2.71, -4.34, -1.01]][[1.0, -36689.38, -10.1]]
```

```
std:[[0.39, 0.41, 0.38]][[0.35, 230353.71, 0.23]]
```

```
MSE:[[2.74, 4.36, 1.08]][[1.06, 233257.24, 10.1]]
```

```
MSE(-DR):[[0.0, 1.62, -1.66]][[-1.68, 233254.5, 7.36]]
```

```
=====
```

```
O_threshold = 90
```

```
MC for this TARGET:[69.371, 0.133]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
```

```
bias:[[-2.33, -3.78, -1.07]][[-0.68, -26825.5, -8.59]]
```

```
std:[[0.44, 0.45, 0.41]][[0.33, 184055.81, 0.23]]
```

```
MSE:[2.37, 3.81, 1.15]][[0.76, 186000.4, 8.59]]
MSE(-DR):[[0.0, 1.44, -1.22]][[-1.61, 185998.03, 6.22]]
```

```
=====
```

```
0_threshold = 100
```

```
MC for this TARGET:[68.94, 0.132]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
bias:[[-3.93, -4.96, -3.34]][[-4.8, -56800.13, -8.15]]
std:[[0.43, 0.45, 0.39]][[0.32, 295712.03, 0.23]]
MSE:[3.95, 4.98, 3.36]][[4.81, 301117.68, 8.15]]
MSE(-DR):[[0.0, 1.03, -0.59]][[0.86, 301113.73, 4.2]]
```

```
**
```

```
=====
```

```
0_threshold = 110
```

```
MC for this TARGET:[70.484, 0.135]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
bias:[[-7.46, -8.44, -6.74]][[-8.7, -93159.03, -9.7]]
std:[[0.53, 0.56, 0.43]][[0.32, 688277.61, 0.23]]
MSE:[7.48, 8.46, 6.75]][[8.71, 694553.58, 9.7]]
MSE(-DR):[[0.0, 0.98, -0.73]][[1.23, 694546.1, 2.22]]
```

```
**
```

```
=====
```

```
[[2.7400e+00 4.3600e+00 1.0800e+00 1.0600e+00 2.3326e+05 1.0100e+0
[2.3700e+00 3.8100e+00 1.1500e+00 7.6000e-01 1.8600e+05 8.5900e+0
[3.9500e+00 4.9800e+00 3.3600e+00 4.8100e+00 3.0112e+05 8.1500e+0
[7.4800e+00 8.4600e+00 6.7500e+00 8.7100e+00 6.9455e+05 9.7000e+0
```

```
time spent until now: 219.3 mins
```



```
-----
[pattern_seed, day, sd_R] = [2, 10, 10]
```

```
max(u_0) = 197.9
```

```
O_threshold = 80
```

```
means of Order:
```

```
87.8 97.8 52.4 162.7 58.1
```

```
-----
Value of Behaviour policy:60.792
```

```
O_threshold = 80
```

```
MC for this TARGET:[70.887, 0.092]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
```

```
bias:[[-2.73, -4.36, -1.07]][[1.06, 52184.68, -10.09]]
```

```
std:[[0.45, 0.5, 0.3]][[0.27, 357274.38, 0.21]]
```

```
MSE:[[2.77, 4.39, 1.11]][[1.09, 361065.4, 10.09]]
```

```
MSE(-DR):[[0.0, 1.62, -1.66]][[-1.68, 361062.63, 7.32]]
```

```
=====
```

```
O_threshold = 90
```

```
MC for this TARGET:[69.373, 0.094]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
```

```
bias:[[-2.26, -3.73, -1.05]][[-0.6, -13503.74, -8.58]]
```

```
std:[[0.38, 0.4, 0.31]][[0.29, 399490.87, 0.21]]
```

```
MSE:[[2.29, 3.75, 1.09]][[0.67, 399719.03, 8.58]]
```

```
MSE(-DR):[[0.0, 1.46, -1.2]][[-1.62, 399716.74, 6.29]]
```

```
=====
```

```
O_threshold = 100
```

```
MC for this TARGET:[68.936, 0.097]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
```

```
bias:[[-3.91, -4.95, -3.31]][[-4.72, -65705.02, -8.14]]
```

```
std:[[0.38, 0.41, 0.33]][[0.3, 983876.31, 0.21]]
```

```
MSE:[[3.93, 4.97, 3.33]][[4.73, 986067.82, 8.14]]
```

```
MSE(-DR):[[0.0, 1.04, -0.6]][[0.8, 986063.89, 4.21]]
```

```
**
```

```
=====
```

```
U_threshold = 110
```

```
MC for this TARGET:[70.474, 0.102]
```

```
[DR/QV/IS]; [DR_NO_MARL, DR_NO_MF, V_behav]
```

```
bias:[[-7.35, -8.34, -6.67]][[-8.65, 23268.17, -9.68]]
```

```
std:[[0.44, 0.46, 0.4]][[0.3, 187838.64, 0.21]]
```

```
MSE:[[7.36, 8.35, 6.68]][[8.66, 189274.3, 9.68]]
```

```
MSE(-DR):[[0.0, 0.99, -0.68]][[1.3, 189266.94, 2.32]]
```

```
**
```

```
=====
```

```
[2.7400e+00 4.3600e+00 1.0800e+00 1.0600e+00 2.3326e+05 1.0100e+
2.3700e+00 3.8100e+00 1.1500e+00 7.6000e-01 1.8600e+05 8.5900e+
3.9500e+00 4.9800e+00 3.3600e+00 4.8100e+00 3.0112e+05 8.1500e+
7.4800e+00 8.4600e+00 6.7500e+00 8.7100e+00 6.9455e+05 9.7000e+
```

```
[2.7700e+00 4.3900e+00 1.1100e+00 1.0900e+00 3.6107e+05 1.0090e+
2.2900e+00 3.7500e+00 1.0900e+00 6.7000e-01 3.9972e+05 8.5800e+
3.9300e+00 4.9700e+00 3.3300e+00 4.7300e+00 9.8607e+05 8.1400e+
7.3600e+00 8.3500e+00 6.6800e+00 8.6600e+00 1.8927e+05 9.6800e+
```

```
time spent until now: 477.4 mins
```

```
-----
[pattern_seed, day, sd_R] = [2, 14, 10]
```