Result table for data with continuous outcome

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Package | Method | ATE\* | Standard error | 95% Confidence interval |
| gfoRmula | G computation | -3.111391 | 0.09248469 | (-3.297456, -2.9325170) |
| ltmle | ltmle without superlearner | -3.1168 | 0.094379 | (-3.3017, -2.9318) |
| ltmle with superlearner | -3.1145 | 0.093139 | (-3.297, -2.9319) |
| G computation | -3.1099 | 0.09438 | (-3.2949, -2.9249) |
| ipw | Inverse probability weights from package | -3.11381 | 0.10492 | (-3.319455, -2.908170) |

Result table for data with binary outcome

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Package | Method | Odds ratio | Standard error | 95% Confidence interval |
| gfoRmula | G computation | 0.6858715 | 0.1083072 | (0.4735894, 0.8981535) |
| ltmle | ltmle without superlearner | 0.62759 | 0.1934 | (0.42958, 0.91685) |
| ltmle with superlearner | 0.61071 | 0.19009 | (0.42075, 0.88642) |
| G computation | 0.60287 | 0.19547 | (0.411, 0.88431) |
| ipw | Inverse probability weights using ipwpoint | 0.6279525 | 0.141497 | (0.4311674, 0.9052870) |

Result table for data with continuous outcome and right censoring

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Package | Method | ATE\* | Standard error | 95% Confidence interval |
| gfoRmula | G computation | -3.106183 | 0.09302382 | (-3.283173, -2.9226587) |
| ltmle | ltmle without superlearner | -3.1087 | 0.094579 | (-3.2941, -2.9234) |
| ltmle with superlearner | -3.1064 | 0.094255 | (-3.2912, -2.9217) |
| G computation | -3.1044 | 0.09458 | (-3.2898, -2.919) |
| ipw | Inverse probability weights using ipwpoint | -3.09786 | 0.10309 | (-3.300158, -2.895562) |

\*ATE: average treatment effect between always treated and never treated (parallelized contrast)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Continuous outcome | Binary outcome | Continuous outcome with censoring |
| gfoRmula | Mean difference: 1.045441; -2.065950  MD SE: 0.05920947; 0.08984448  95% CI: (0.9729556, 1.212822); (-2.1908774, -1.849893) | OR: 0.6858715  OR SE: 0.1083072 | Mean difference: 1.045726; -2.060457  MD SE: 0.05929578; 0.09065693  95% CI: (0.9755746, 1.211048); (-2.1852542, -1.844802) |
| ltmle | Without superlearner  Treatment Estimate:  Parameter Estimate: -0.77947  Estimated Std Err: 0.082995  p-value: <2e-16  95% Conf Interval: (-0.94214, -0.6168)  Control Estimate:  Parameter Estimate: 2.3373  Estimated Std Err: 0.048907  p-value: <2e-16  95% Conf Interval: (2.2414, 2.4332)  Additive Treatment Effect:  Parameter Estimate: -3.1168  Estimated Std Err: 0.094379  p-value: <2e-16  95% Conf Interval: (-3.3017, -2.9318) | Treatment Estimate:  Parameter Estimate: 0.31049  Estimated Std Err: 0.036731  p-value: <2e-16  95% Conf Interval: (0.2385, 0.38248)  Control Estimate:  Parameter Estimate: 0.41777  Estimated Std Err: 0.021687  p-value: <2e-16  95% Conf Interval: (0.37526, 0.46027)  Additive Treatment Effect:  Parameter Estimate: -0.10728  Estimated Std Err: 0.042667  p-value: 0.01193  95% Conf Interval: (-0.1909, -0.023649)  Relative Risk:  Parameter Estimate: 0.74322  Est Std Err log(RR): 0.12922  p-value: 0.02164  95% Conf Interval: (0.57693, 0.95743)  Odds Ratio:  Parameter Estimate: 0.62759  Est Std Err log(OR): 0.1934  p-value: 0.016005  95% Conf Interval: (0.42958, 0.91685) | Treatment Estimate:  Parameter Estimate: -0.77484  Estimated Std Err: 0.08267  p-value: <2e-16  95% Conf Interval: (-0.93686, -0.61281)  Control Estimate:  Parameter Estimate: 2.3339  Estimated Std Err: 0.049718  p-value: <2e-16  95% Conf Interval: (2.2365, 2.4314)  Additive Treatment Effect:  Parameter Estimate: -3.1087  Estimated Std Err: 0.094579  p-value: <2e-16  95% Conf Interval: (-3.2941, -2.9234) |
| With superlearner  Treatment Estimate:  Parameter Estimate: -0.77835  Estimated Std Err: 0.081843  p-value: <2e-16  95% Conf Interval: (-0.93876, -0.61794)  Control Estimate:  Parameter Estimate: 2.3364  Estimated Std Err: 0.048561  p-value: <2e-16  95% Conf Interval: (2.2413, 2.4316)  Additive Treatment Effect:  Parameter Estimate: -3.1148  Estimated Std Err: 0.093217  p-value: <2e-16  95% Conf Interval: (-3.2975, -2.9321)  if use default, results different everytime  if use SL.mean, results not identical to no SL | Treatment Estimate:  Parameter Estimate: 0.30549  Estimated Std Err: 0.035655  p-value: <2e-16  95% Conf Interval: (0.23561, 0.37538)  Control Estimate:  Parameter Estimate: 0.41869  Estimated Std Err: 0.021625  p-value: <2e-16  95% Conf Interval: (0.37631, 0.46108)  Additive Treatment Effect:  Parameter Estimate: -0.1132  Estimated Std Err: 0.041698  p-value: 0.0066325  95% Conf Interval: (-0.19493, -0.031474)  Relative Risk:  Parameter Estimate: 0.72963  Est Std Err log(RR): 0.12763  p-value: 0.013523  95% Conf Interval: (0.56815, 0.93701)  Odds Ratio:  Parameter Estimate: 0.61071  Est Std Err log(OR): 0.19009  p-value: 0.0094804  95% Conf Interval: (0.42075, 0.88642)  if use SL.glm, results identical to no SL | Treatment Estimate:  Parameter Estimate: -0.77302  Estimated Std Err: 0.081865  p-value: <2e-16  95% Conf Interval: (-0.93347, -0.61256)  Control Estimate:  Parameter Estimate: 2.3326  Estimated Std Err: 0.049347  p-value: <2e-16  95% Conf Interval: (2.2359, 2.4293)  Additive Treatment Effect:  Parameter Estimate: -3.1056  Estimated Std Err: 0.093673  p-value: <2e-16  95% Conf Interval: (-3.2892, -2.922)  if use SL.mean, results identical to no SL |
| g-computation  Treatment Estimate:  Parameter Estimate: -0.77406  Estimated Std Err: 0.082997  p-value: <2e-16  95% Conf Interval: (-0.93673, -0.61139)  Control Estimate:  Parameter Estimate: 2.3359  Estimated Std Err: 0.048907  p-value: <2e-16  95% Conf Interval: (2.24, 2.4317)  Additive Treatment Effect:  Parameter Estimate: -3.1099  Estimated Std Err: 0.09438  p-value: <2e-16  95% Conf Interval: (-3.2949, -2.9249) | Treatment Estimate:  Parameter Estimate: 0.30314  Estimated Std Err: 0.036743  p-value: <2e-16  95% Conf Interval: (0.23112, 0.37515)  Control Estimate:  Parameter Estimate: 0.41913  Estimated Std Err: 0.021687  p-value: <2e-16  95% Conf Interval: (0.37663, 0.46164)  Additive Treatment Effect:  Parameter Estimate: -0.11599  Estimated Std Err: 0.042678  p-value: 0.00657  95% Conf Interval: (-0.19964, -0.032347)  Relative Risk:  Parameter Estimate: 0.72325  Est Std Err log(RR): 0.13182  p-value: 0.013977  95% Conf Interval: (0.55858, 0.93648)  Odds Ratio:  Parameter Estimate: 0.60287  Est Std Err log(OR): 0.19547  p-value: 0.0096268  95% Conf Interval: (0.411, 0.88431) | Treatment Estimate:  Parameter Estimate: -0.77195  Estimated Std Err: 0.082671  p-value: <2e-16  95% Conf Interval: (-0.93398, -0.60992)  Control Estimate:  Parameter Estimate: 2.3324  Estimated Std Err: 0.049718  p-value: <2e-16  95% Conf Interval: (2.235, 2.4299)  Additive Treatment Effect:  Parameter Estimate: -3.1044  Estimated Std Err: 0.09458  p-value: <2e-16  95% Conf Interval: (-3.2898, -2.919) |
| ipw | Using package weight  Estimate -3.11596  Std. Error 0.10018  t value -31.10  Pr(>|t|) <0.0000000000000002 \*\*\* | OR  0.6136018  (0.4222277, 0.8917159) |  |
| Using correct weights  Estimate -3.11648  Std. Error 0.10248  t value -30.41  Pr(>|t|) <0.0000000000000002 \*\*\* | OR  0.6159072  (0.4210002, 0.9010488) |  |