

ONLINE APPENDIX

TABLE O1. Estimated Policy Advantage, Tree-based Policy Class (SD)

Panel A: Normal Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
DML	-0.337 (0.045)	-0.304 (0.033)	-0.274 (0.015)	-0.254 (0.048)	-0.203 (0.034)	-0.141 (0.016)	-0.251 (0.048)	-0.197 (0.034)	-0.138 (0.016)
NDR	-0.334 (0.044)	-0.301 (0.032)	-0.274 (0.015)	-0.250 (0.046)	-0.198 (0.034)	-0.140 (0.016)	-0.245 (0.047)	-0.193 (0.034)	-0.137 (0.016)
CF	-0.335 (0.044)	-0.302 (0.032)	-0.274 (0.015)	-0.249 (0.047)	-0.199 (0.033)	-0.139 (0.016)	-0.247 (0.047)	-0.193 (0.033)	-0.137 (0.016)
CFTT	-0.334 (0.044)	-0.302 (0.032)	-0.274 (0.015)	-0.249 (0.046)	-0.199 (0.033)	-0.139 (0.016)	-0.246 (0.046)	-0.193 (0.033)	-0.137 (0.016)
BART	-0.307 (0.040)	-0.292 (0.031)	-0.274 (0.016)	-0.230 (0.043)	-0.195 (0.033)	-0.140 (0.017)	-0.231 (0.043)	-0.189 (0.033)	-0.138 (0.017)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
DML	-0.366 (0.057)	-0.326 (0.044)	-0.295 (0.027)	-0.297 (0.059)	-0.238 (0.046)	-0.173 (0.028)	-0.291 (0.059)	-0.233 (0.046)	-0.173 (0.028)
NDR	-0.350 (0.052)	-0.313 (0.039)	-0.283 (0.021)	-0.277 (0.054)	-0.219 (0.040)	-0.157 (0.022)	-0.270 (0.054)	-0.213 (0.040)	-0.157 (0.022)
CF	-0.348 (0.053)	-0.313 (0.040)	-0.279 (0.022)	-0.279 (0.054)	-0.222 (0.041)	-0.154 (0.022)	-0.275 (0.054)	-0.220 (0.041)	-0.160 (0.022)
CFTT	-0.347 (0.052)	-0.312 (0.040)	-0.279 (0.022)	-0.280 (0.054)	-0.223 (0.041)	-0.154 (0.022)	-0.277 (0.054)	-0.220 (0.041)	-0.160 (0.022)
BART	-0.295 (0.046)	-0.292 (0.040)	-0.303 (0.035)	-0.233 (0.048)	-0.208 (0.042)	-0.179 (0.034)	-0.236 (0.047)	-0.208 (0.041)	-0.181 (0.034)
Panel B: Rare Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.046 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
DML	-0.069 (0.015)	-0.061 (0.010)	-0.054 (0.005)	-0.037 (0.011)	-0.032 (0.008)	-0.020 (0.004)	-0.037 (0.011)	-0.032 (0.008)	-0.020 (0.004)
NDR	-0.071 (0.015)	-0.062 (0.010)	-0.054 (0.005)	-0.038 (0.011)	-0.032 (0.008)	-0.020 (0.004)	-0.038 (0.011)	-0.032 (0.008)	-0.020 (0.004)
CF	-0.069 (0.015)	-0.061 (0.010)	-0.053 (0.005)	-0.036 (0.011)	-0.031 (0.008)	-0.020 (0.004)	-0.036 (0.011)	-0.031 (0.008)	-0.020 (0.004)
CFTT	-0.071 (0.015)	-0.062 (0.010)	-0.054 (0.005)	-0.036 (0.011)	-0.032 (0.008)	-0.020 (0.004)	-0.036 (0.011)	-0.031 (0.008)	-0.020 (0.004)
BART	-0.061 (0.013)	-0.056 (0.010)	-0.052 (0.005)	-0.034 (0.010)	-0.031 (0.008)	-0.020 (0.004)	-0.034 (0.010)	-0.030 (0.008)	-0.020 (0.004)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.051 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.117 (0.000)	-0.117 (0.000)	-0.047 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
DML	-0.087 (0.016)	-0.065 (0.011)	-0.056 (0.006)	-0.038 (0.012)	-0.033 (0.009)	-0.024 (0.005)	-0.037 (0.012)	-0.033 (0.009)	-0.023 (0.005)
NDR	-0.089 (0.015)	-0.067 (0.011)	-0.056 (0.005)	-0.038 (0.012)	-0.033 (0.009)	-0.023 (0.005)	-0.037 (0.012)	-0.033 (0.009)	-0.023 (0.005)
CF	-0.081 (0.015)	-0.060 (0.011)	-0.051 (0.006)	-0.036 (0.011)	-0.032 (0.009)	-0.022 (0.005)	-0.035 (0.011)	-0.031 (0.009)	-0.022 (0.005)
CFTT	-0.087 (0.015)	-0.062 (0.011)	-0.051 (0.006)	-0.037 (0.011)	-0.032 (0.009)	-0.023 (0.005)	-0.036 (0.011)	-0.032 (0.009)	-0.023 (0.005)
BART	-0.063 (0.012)	-0.052 (0.010)	-0.054 (0.007)	-0.032 (0.010)	-0.029 (0.008)	-0.024 (0.006)	-0.032 (0.010)	-0.029 (0.008)	-0.023 (0.006)

^a This table reports Normalized RMSE of estimated depth-two optimal policy for settings with moderate overlap. RMSE is normalized by the mean advantage of the oracle policy. The top panel depicts normal outcome prevalence, and the bottom panel shows rare outcome prevalence.

TABLE O2. True Policy Advantage, Tree-based Policy Class (SD)

Panel A: Normal Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
DML	-0.211 (0.011)	-0.232 (0.007)	-0.247 (0.003)	-0.057 (0.006)	-0.069 (0.004)	-0.097 (0.001)	-0.053 (0.006)	-0.064 (0.004)	-0.094 (0.001)
NDR	-0.212 (0.011)	-0.234 (0.007)	-0.247 (0.003)	-0.060 (0.006)	-0.072 (0.004)	-0.097 (0.001)	-0.052 (0.006)	-0.065 (0.004)	-0.094 (0.001)
CF	-0.212 (0.011)	-0.232 (0.007)	-0.247 (0.003)	-0.059 (0.006)	-0.071 (0.004)	-0.098 (0.001)	-0.054 (0.006)	-0.066 (0.004)	-0.094 (0.001)
CFTT	-0.213 (0.011)	-0.231 (0.007)	-0.247 (0.003)	-0.058 (0.006)	-0.071 (0.004)	-0.098 (0.001)	-0.053 (0.006)	-0.067 (0.004)	-0.095 (0.001)
BART	-0.213 (0.011)	-0.232 (0.007)	-0.247 (0.003)	-0.058 (0.006)	-0.069 (0.004)	-0.095 (0.002)	-0.055 (0.006)	-0.063 (0.004)	-0.092 (0.001)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
DML	-0.193 (0.011)	-0.217 (0.007)	-0.238 (0.003)	-0.049 (0.006)	-0.059 (0.004)	-0.082 (0.002)	-0.048 (0.006)	-0.059 (0.004)	-0.084 (0.002)
NDR	-0.193 (0.011)	-0.227 (0.007)	-0.243 (0.003)	-0.054 (0.006)	-0.065 (0.004)	-0.086 (0.002)	-0.049 (0.006)	-0.062 (0.004)	-0.087 (0.002)
CF	-0.193 (0.011)	-0.212 (0.008)	-0.238 (0.003)	-0.052 (0.006)	-0.061 (0.004)	-0.083 (0.002)	-0.053 (0.006)	-0.065 (0.004)	-0.087 (0.002)
CFTT	-0.194 (0.011)	-0.214 (0.007)	-0.239 (0.003)	-0.051 (0.006)	-0.063 (0.004)	-0.083 (0.002)	-0.052 (0.006)	-0.065 (0.004)	-0.086 (0.002)
BART	-0.200 (0.011)	-0.214 (0.007)	-0.234 (0.003)	-0.052 (0.006)	-0.062 (0.004)	-0.080 (0.002)	-0.056 (0.006)	-0.060 (0.004)	-0.079 (0.002)
Panel B: Rare Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.046 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
DML	-0.031 (0.005)	-0.035 (0.003)	-0.043 (0.002)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)	-0.003 (0.001)	-0.004 (0.000)	-0.006 (0.000)
NDR	-0.032 (0.005)	-0.036 (0.003)	-0.043 (0.002)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)
CF	-0.031 (0.005)	-0.035 (0.003)	-0.043 (0.002)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)	-0.003 (0.001)	-0.004 (0.000)	-0.006 (0.000)
CFTT	-0.032 (0.005)	-0.036 (0.003)	-0.043 (0.002)	-0.003 (0.001)	-0.004 (0.000)	-0.006 (0.000)	-0.003 (0.001)	-0.004 (0.000)	-0.006 (0.000)
BART	-0.031 (0.005)	-0.035 (0.003)	-0.043 (0.002)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.051 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
DML	-0.040 (0.005)	-0.036 (0.003)	-0.042 (0.002)	-0.002 (0.001)	-0.004 (0.000)	-0.007 (0.000)	-0.003 (0.001)	-0.005 (0.000)	-0.006 (0.000)
NDR	-0.042 (0.005)	-0.036 (0.003)	-0.042 (0.002)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)	-0.002 (0.001)	-0.004 (0.000)	-0.006 (0.000)
CF	-0.041 (0.005)	-0.036 (0.003)	-0.042 (0.002)	-0.003 (0.001)	-0.005 (0.000)	-0.007 (0.000)	-0.003 (0.000)	-0.005 (0.000)	-0.006 (0.000)
CFTT	-0.041 (0.005)	-0.036 (0.003)	-0.042 (0.002)	-0.002 (0.001)	-0.005 (0.000)	-0.006 (0.000)	-0.003 (0.001)	-0.005 (0.000)	-0.006 (0.000)
BART	-0.033 (0.005)	-0.035 (0.003)	-0.042 (0.002)	-0.000 (0.001)	-0.004 (0.000)	-0.006 (0.000)	-0.001 (0.001)	-0.004 (0.000)	-0.006 (0.000)

^a This table reports the true advantages of estimated depth-two optimal policy for both overlap settings. Advantage is calculated using the learned policies with the true CATE. The top panel depicts normal outcome prevalence, and the bottom panel shows rare outcome prevalence.

TABLE O3. Estimated Policy Advantage, Plug-in Policy Class (SD)

Panel A: Normal Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
NDR	-0.225 (0.046)	-0.242 (0.032)	-0.264 (0.015)	-0.108 (0.047)	-0.110 (0.034)	-0.112 (0.016)	-0.095 (0.048)	-0.101 (0.034)	-0.111 (0.016)
CF	-0.231 (0.046)	-0.245 (0.032)	-0.265 (0.015)	-0.119 (0.048)	-0.115 (0.034)	-0.113 (0.016)	-0.102 (0.048)	-0.111 (0.034)	-0.113 (0.016)
CFTT	-0.232 (0.045)	-0.246 (0.032)	-0.265 (0.015)	-0.112 (0.047)	-0.114 (0.034)	-0.113 (0.016)	-0.101 (0.047)	-0.105 (0.034)	-0.113 (0.016)
BART	-0.250 (0.041)	-0.265 (0.031)	-0.283 (0.016)	-0.125 (0.044)	-0.125 (0.033)	-0.120 (0.017)	-0.125 (0.044)	-0.118 (0.033)	-0.118 (0.017)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
NDR	-0.197 (0.053)	-0.233 (0.039)	-0.257 (0.021)	-0.095 (0.055)	-0.103 (0.041)	-0.108 (0.022)	-0.087 (0.055)	-0.089 (0.041)	-0.109 (0.022)
CF	-0.208 (0.055)	-0.224 (0.041)	-0.246 (0.022)	-0.107 (0.056)	-0.113 (0.042)	-0.111 (0.022)	-0.117 (0.055)	-0.110 (0.042)	-0.117 (0.022)
CFTT	-0.208 (0.054)	-0.223 (0.041)	-0.246 (0.022)	-0.103 (0.055)	-0.106 (0.042)	-0.109 (0.022)	-0.107 (0.055)	-0.104 (0.041)	-0.117 (0.022)
BART	-0.222 (0.046)	-0.244 (0.040)	-0.278 (0.035)	-0.114 (0.049)	-0.116 (0.042)	-0.120 (0.034)	-0.121 (0.048)	-0.114 (0.042)	-0.119 (0.034)
Panel B: Rare Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.046 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
NDR	-0.042 (0.015)	-0.041 (0.010)	-0.045 (0.005)	-0.005 (0.011)	-0.006 (0.008)	-0.007 (0.004)	-0.006 (0.011)	-0.006 (0.008)	-0.007 (0.004)
CF	-0.043 (0.015)	-0.041 (0.010)	-0.045 (0.005)	-0.008 (0.011)	-0.008 (0.008)	-0.010 (0.004)	-0.009 (0.011)	-0.009 (0.008)	-0.010 (0.004)
CFTT	-0.044 (0.015)	-0.042 (0.010)	-0.046 (0.005)	-0.005 (0.011)	-0.007 (0.008)	-0.008 (0.004)	-0.007 (0.011)	-0.007 (0.008)	-0.008 (0.004)
BART	-0.038 (0.013)	-0.037 (0.010)	-0.047 (0.005)	-0.013 (0.010)	-0.011 (0.008)	-0.011 (0.004)	-0.015 (0.010)	-0.012 (0.008)	-0.011 (0.004)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.051 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
NDR	-0.062 (0.016)	-0.042 (0.011)	-0.044 (0.005)	-0.005 (0.012)	-0.008 (0.009)	-0.007 (0.005)	-0.006 (0.012)	-0.006 (0.009)	-0.006 (0.005)
CF	-0.059 (0.015)	-0.037 (0.011)	-0.041 (0.006)	-0.007 (0.011)	-0.008 (0.009)	-0.010 (0.005)	-0.010 (0.011)	-0.009 (0.009)	-0.010 (0.005)
CFTT	-0.063 (0.015)	-0.038 (0.011)	-0.041 (0.006)	-0.007 (0.011)	-0.008 (0.009)	-0.008 (0.005)	-0.008 (0.011)	-0.008 (0.009)	-0.008 (0.005)
BART	-0.040 (0.013)	-0.035 (0.010)	-0.046 (0.007)	-0.013 (0.010)	-0.012 (0.008)	-0.011 (0.006)	-0.014 (0.010)	-0.013 (0.008)	-0.012 (0.006)

^a This table reports raw estimated Ai of estimated plug-in optimal policy for both overlap settings. Advantage is calculated using the learned policies with the learned CATE. The top panel depicts normal outcome prevalence, and the bottom panel shows rare outcome prevalence.

TABLE O4. True Policy Advantage, Plug-in Policy Class(SD)

Panel B: Rare Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
NDR	-0.229 (0.010)	-0.246 (0.006)	-0.264 (0.003)	-0.101 (0.004)	-0.103 (0.003)	-0.109 (0.001)	-0.095 (0.048)	-0.101 (0.034)	-0.111 (0.016)
CF	-0.241 (0.009)	-0.248 (0.006)	-0.264 (0.003)	-0.108 (0.004)	-0.108 (0.003)	-0.110 (0.001)	-0.102 (0.048)	-0.111 (0.034)	-0.113 (0.016)
CFTT	-0.239 (0.009)	-0.247 (0.006)	-0.264 (0.003)	-0.106 (0.004)	-0.106 (0.003)	-0.111 (0.001)	-0.101 (0.047)	-0.105 (0.034)	-0.113 (0.016)
BART	-0.229 (0.010)	-0.247 (0.006)	-0.269 (0.002)	-0.104 (0.004)	-0.105 (0.003)	-0.109 (0.001)	-0.125 (0.044)	-0.118 (0.033)	-0.118 (0.017)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.280 (0.007)	-0.280 (0.005)	-0.281 (0.002)	-0.119 (0.004)	-0.118 (0.003)	-0.119 (0.001)	-0.117 (0.003)	-0.117 (0.002)	-0.117 (0.001)
NDR	-0.207 (0.011)	-0.240 (0.007)	-0.259 (0.003)	-0.091 (0.005)	-0.097 (0.003)	-0.103 (0.001)	-0.089 (0.005)	-0.093 (0.003)	-0.103 (0.001)
CF	-0.215 (0.010)	-0.227 (0.007)	-0.243 (0.003)	-0.098 (0.004)	-0.105 (0.003)	-0.109 (0.001)	-0.099 (0.004)	-0.106 (0.003)	-0.110 (0.001)
CFTT	-0.212 (0.011)	-0.227 (0.007)	-0.244 (0.003)	-0.093 (0.005)	-0.099 (0.003)	-0.108 (0.001)	-0.093 (0.004)	-0.100 (0.003)	-0.109 (0.001)
BART	-0.204 (0.011)	-0.231 (0.007)	-0.259 (0.003)	-0.093 (0.004)	-0.101 (0.003)	-0.107 (0.001)	-0.096 (0.004)	-0.101 (0.003)	-0.109 (0.001)

Panel B: Rare Outcomes									
Moderate Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.046 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
NDR	-0.042 (0.015)	-0.041 (0.010)	-0.045 (0.005)	-0.005 (0.000)	-0.006 (0.000)	-0.007 (0.000)	-0.005 (0.000)	-0.006 (0.000)	-0.007 (0.000)
CF	-0.043 (0.015)	-0.041 (0.010)	-0.045 (0.005)	-0.006 (0.000)	-0.008 (0.000)	-0.010 (0.000)	-0.006 (0.000)	-0.008 (0.000)	-0.010 (0.000)
CFTT	-0.044 (0.015)	-0.042 (0.010)	-0.046 (0.005)	-0.005 (0.000)	-0.006 (0.000)	-0.008 (0.000)	-0.005 (0.000)	-0.007 (0.000)	-0.008 (0.000)
BART	-0.038 (0.013)	-0.037 (0.010)	-0.047 (0.005)	-0.004 (0.000)	-0.006 (0.000)	-0.008 (0.000)	-0.004 (0.000)	-0.006 (0.000)	-0.008 (0.000)
Weak Overlap	SETTING 1			SETTING 2			SETTING 3		
	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000	N = 500	N = 1000	N = 5000
OR	-0.051 (0.005)	-0.047 (0.003)	-0.047 (0.001)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)	-0.010 (0.000)
NDR	-0.044 (0.005)	-0.040 (0.003)	-0.043 (0.002)	-0.005 (0.000)	-0.006 (0.000)	-0.007 (0.000)	-0.005 (0.000)	-0.006 (0.000)	-0.006 (0.000)
CF	-0.044 (0.005)	-0.039 (0.003)	-0.043 (0.002)	-0.004 (0.000)	-0.006 (0.000)	-0.009 (0.000)	-0.005 (0.000)	-0.007 (0.000)	-0.009 (0.000)
CFTT	-0.045 (0.005)	-0.040 (0.003)	-0.043 (0.002)	-0.004 (0.000)	-0.006 (0.000)	-0.007 (0.000)	-0.005 (0.000)	-0.006 (0.000)	-0.007 (0.000)
BART	-0.045 (0.005)	-0.039 (0.003)	-0.042 (0.002)	-0.003 (0.000)	-0.005 (0.000)	-0.007 (0.000)	-0.003 (0.000)	-0.006 (0.000)	-0.007 (0.000)

^a This table reports true Ai of estimated plug-in optimal policy for both overlap settings. Advantage is calculated using the learned policies with the true CATE. The top panel depicts normal outcome prevalence, and the bottom panel shows rare outcome prevalence.