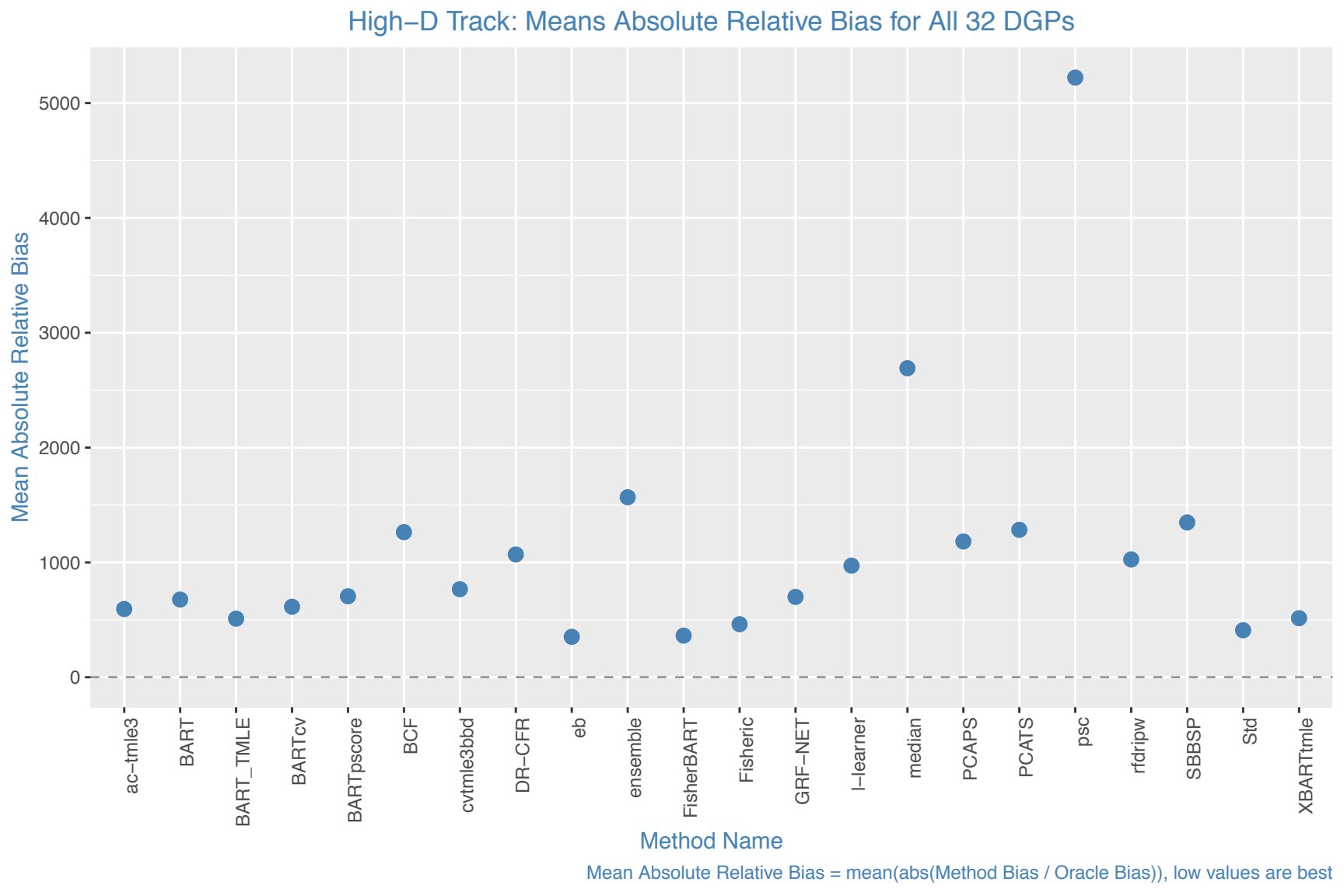
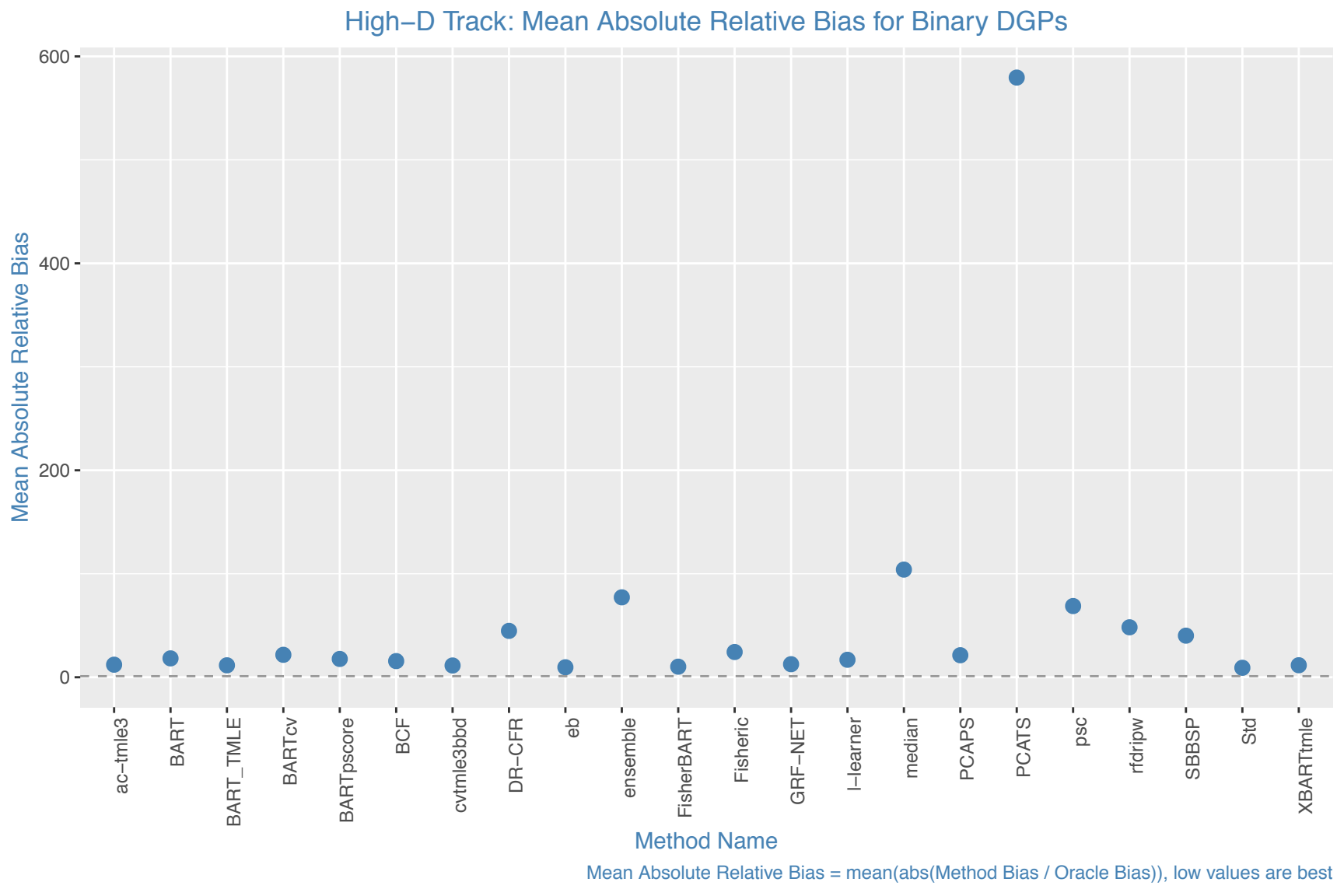
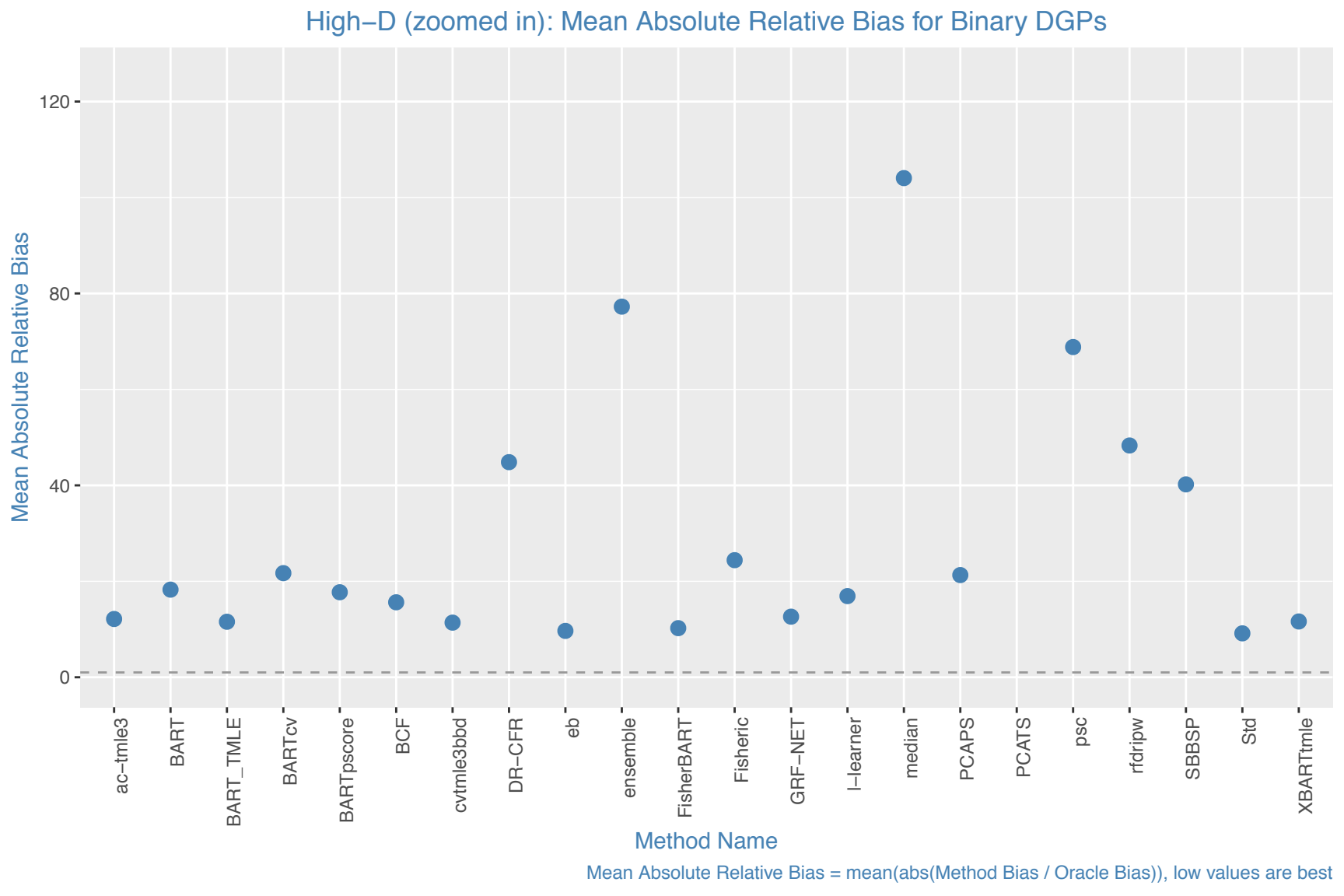
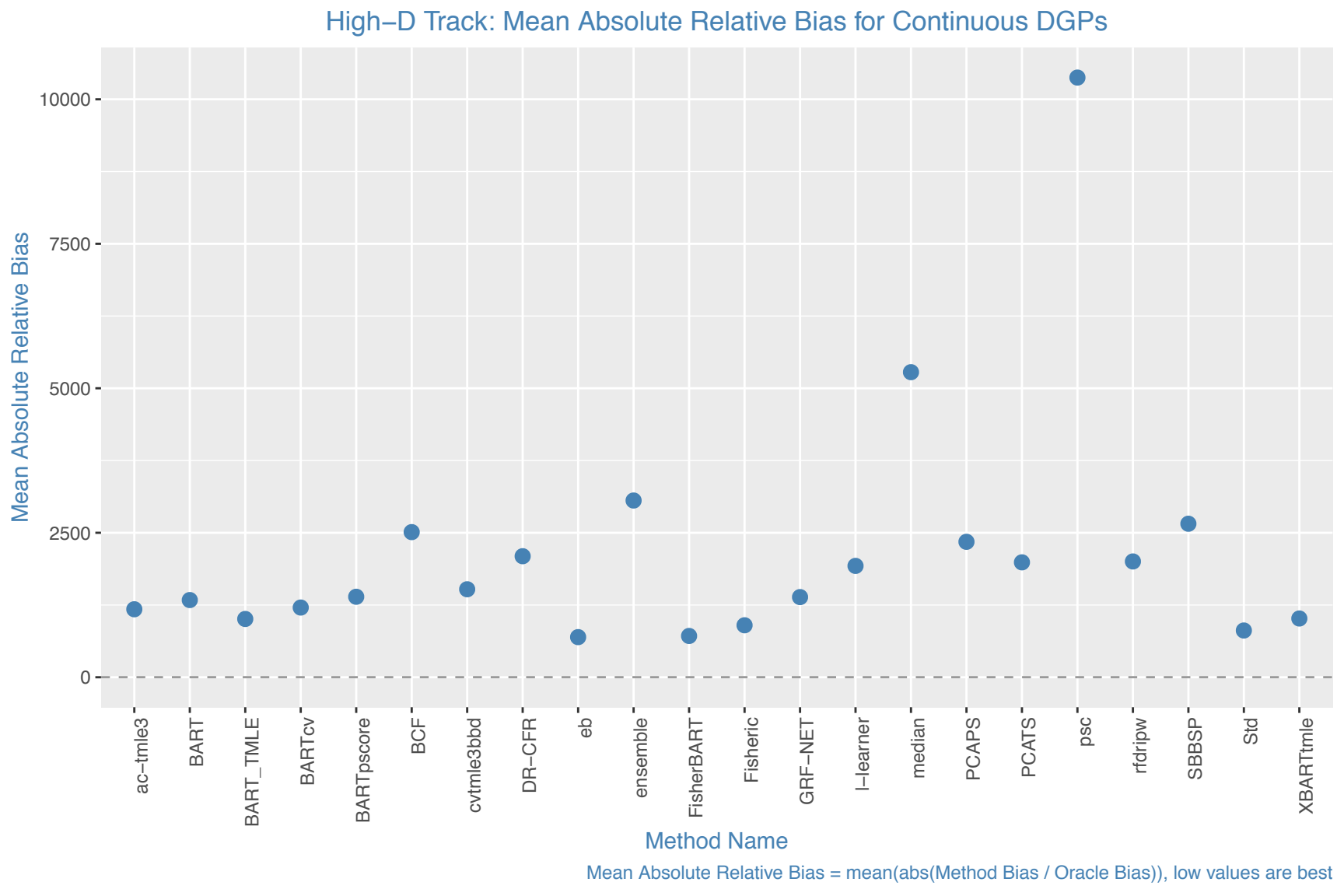
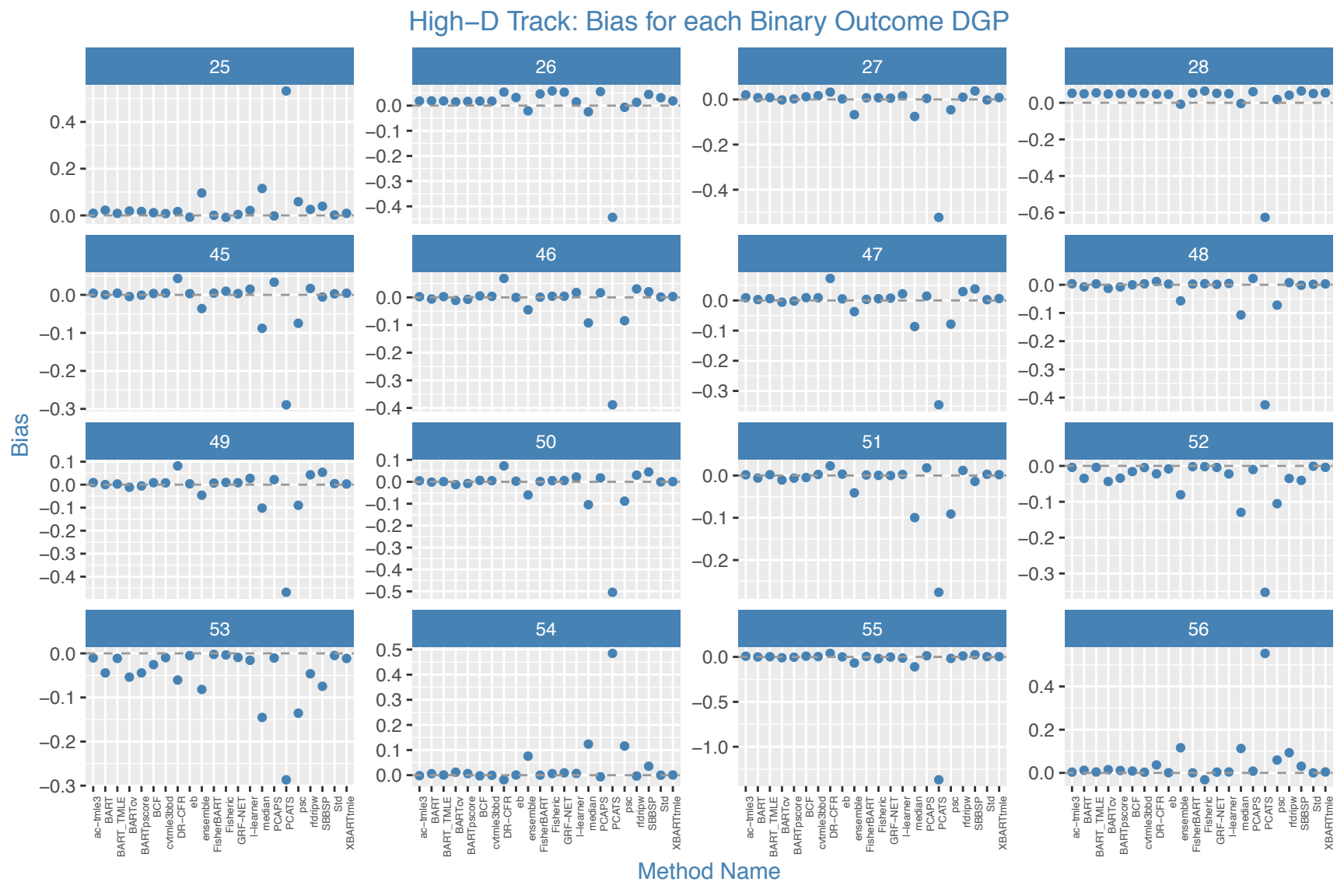
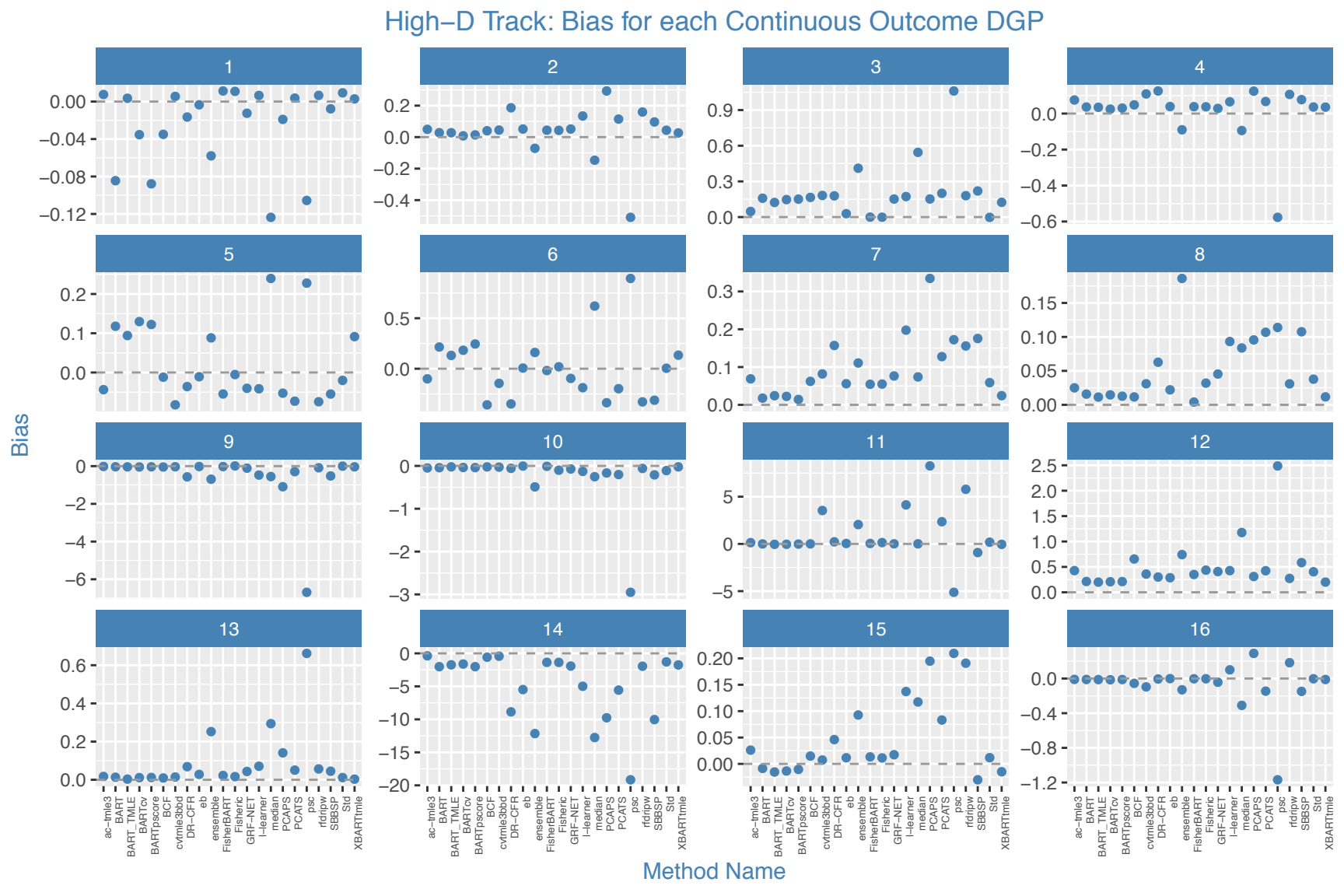

High−D Track: Means Absolute Relative Bias for All 32 DGPs
Mean Absolute Relative Bias
5000
4000
3000
2000
1000
0
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Mean Absolute Relative Bias = mean(abs(Method Bias / Oracle Bias)), low values are best

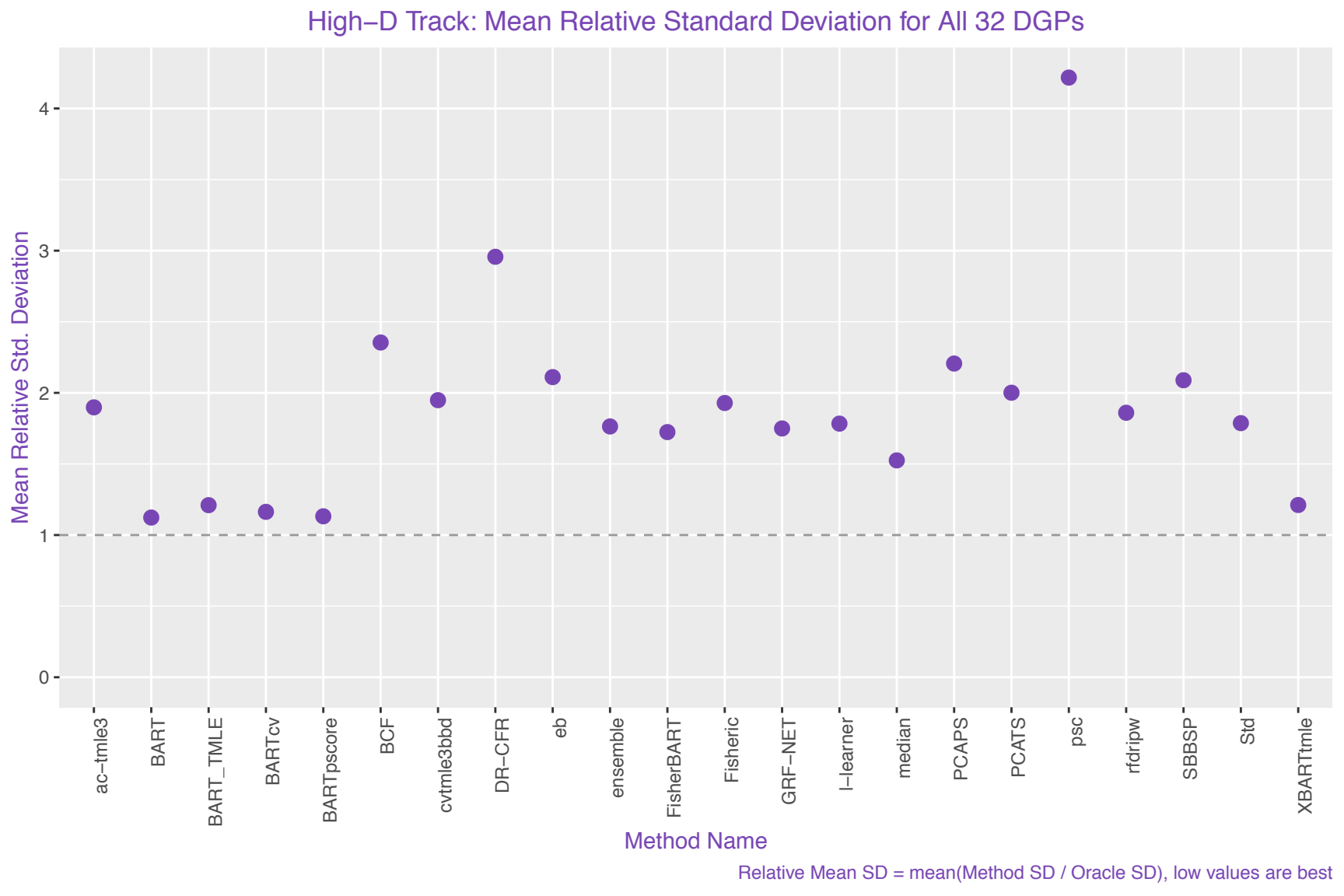

High−D Track: Mean Absolute Relative Bias for Binary DGPs
Mean Absolute Relative Bias
600
400
200
0
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Mean Absolute Relative Bias = mean(abs(Method Bias / Oracle Bias)), low values are best

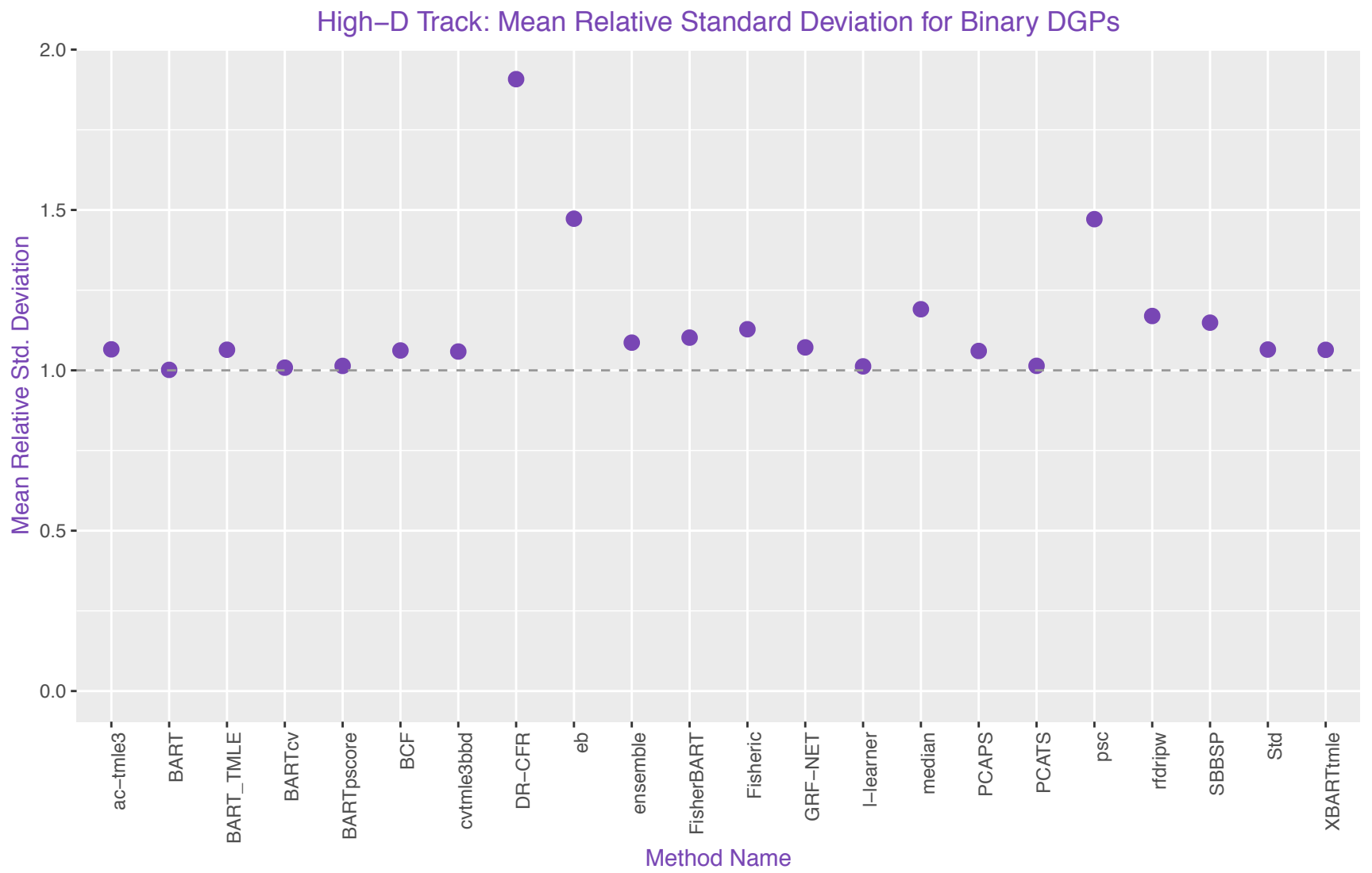

High–D (zoomed in): Mean Absolute Relative Bias for Binary DGPs
Mean Absolute Relative Bias
120
80
40
0
ac–tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR–CFR
eb
ensemble
FisherBART
Fisheric
GRF–NET
l–learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Mean Absolute Relative Bias = mean(abs(Method Bias / Oracle Bias)), low values are best

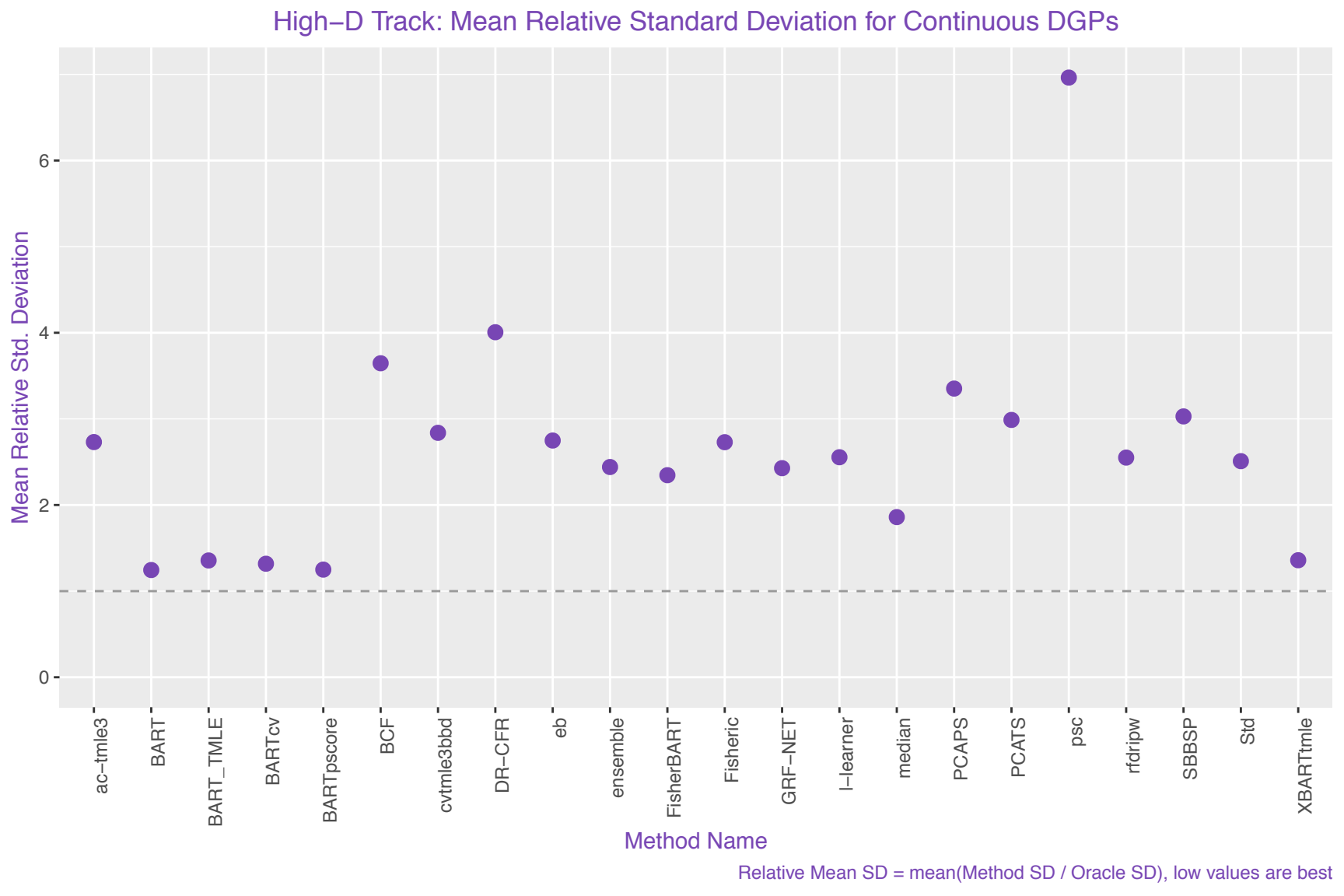

High–D Track: Mean Absolute Relative Bias for Continuous DGPs
Mean Absolute Relative Bias
10000
7500
5000
2500
0
ac–tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR–CFR
eb
ensemble
FisherBART
Fisheric
GRF–NET
l–learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Mean Absolute Relative Bias = mean(abs(Method Bias / Oracle Bias)), low values are best

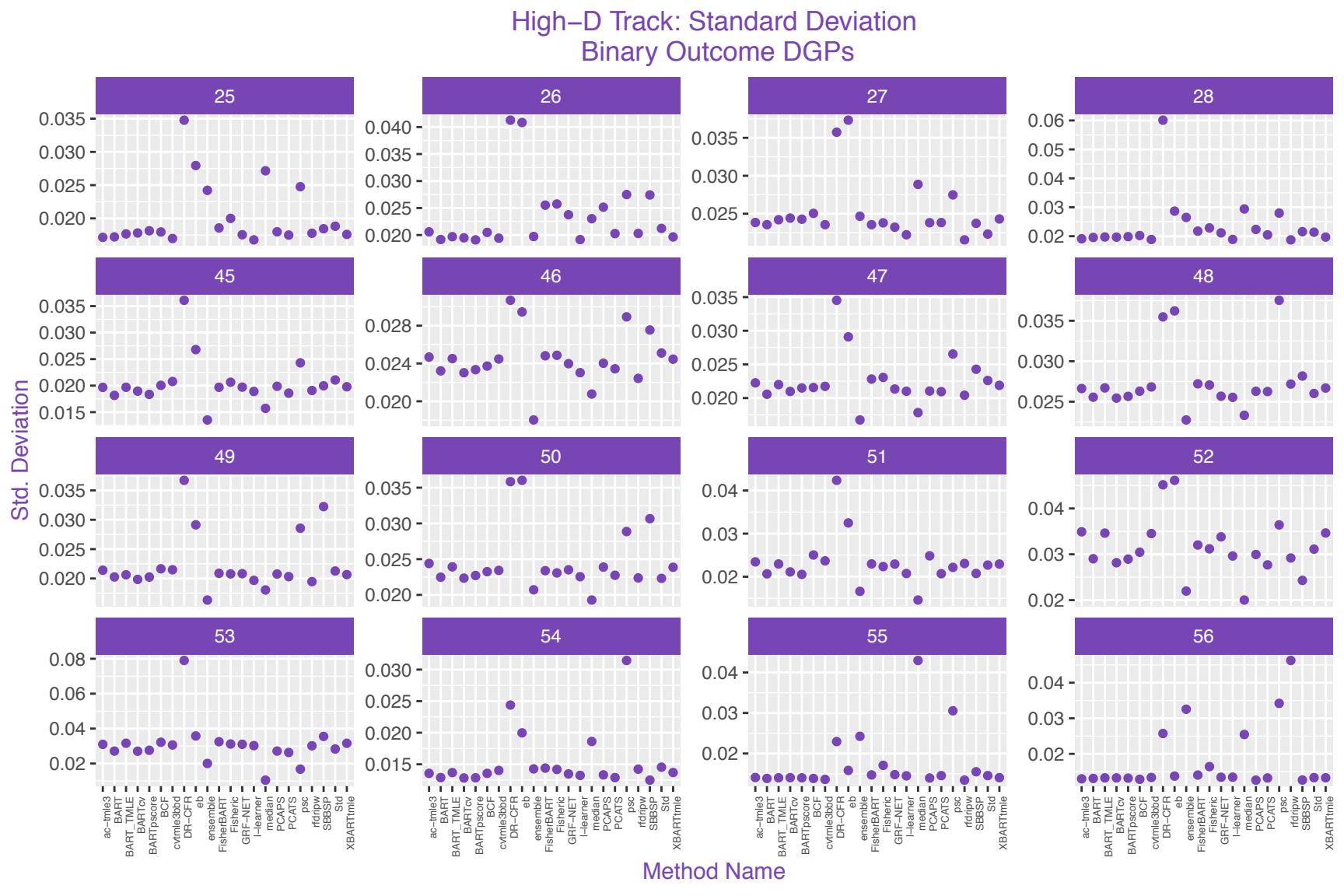

High−D Track: Bias for each Binary Outcome DGP
25
26
27
28
45
46
47
48
49
50
51
52
53
54
55
56
Bias
Method Name
ac_tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisherc
GRF−NET
I−learner
median
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle

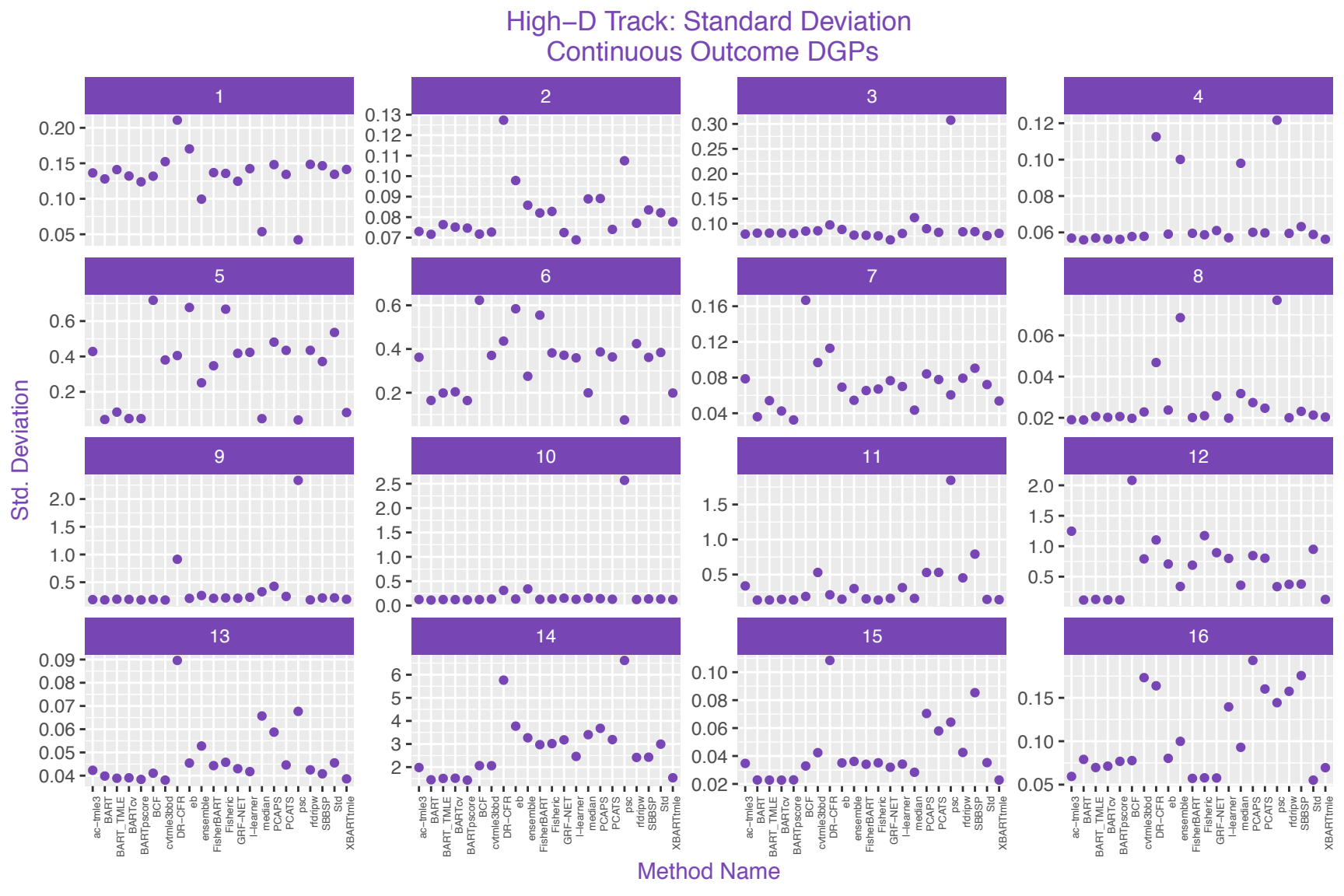

High−D Track: Bias for each Continuous Outcome DGP
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Bias
Method Name
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
I−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle

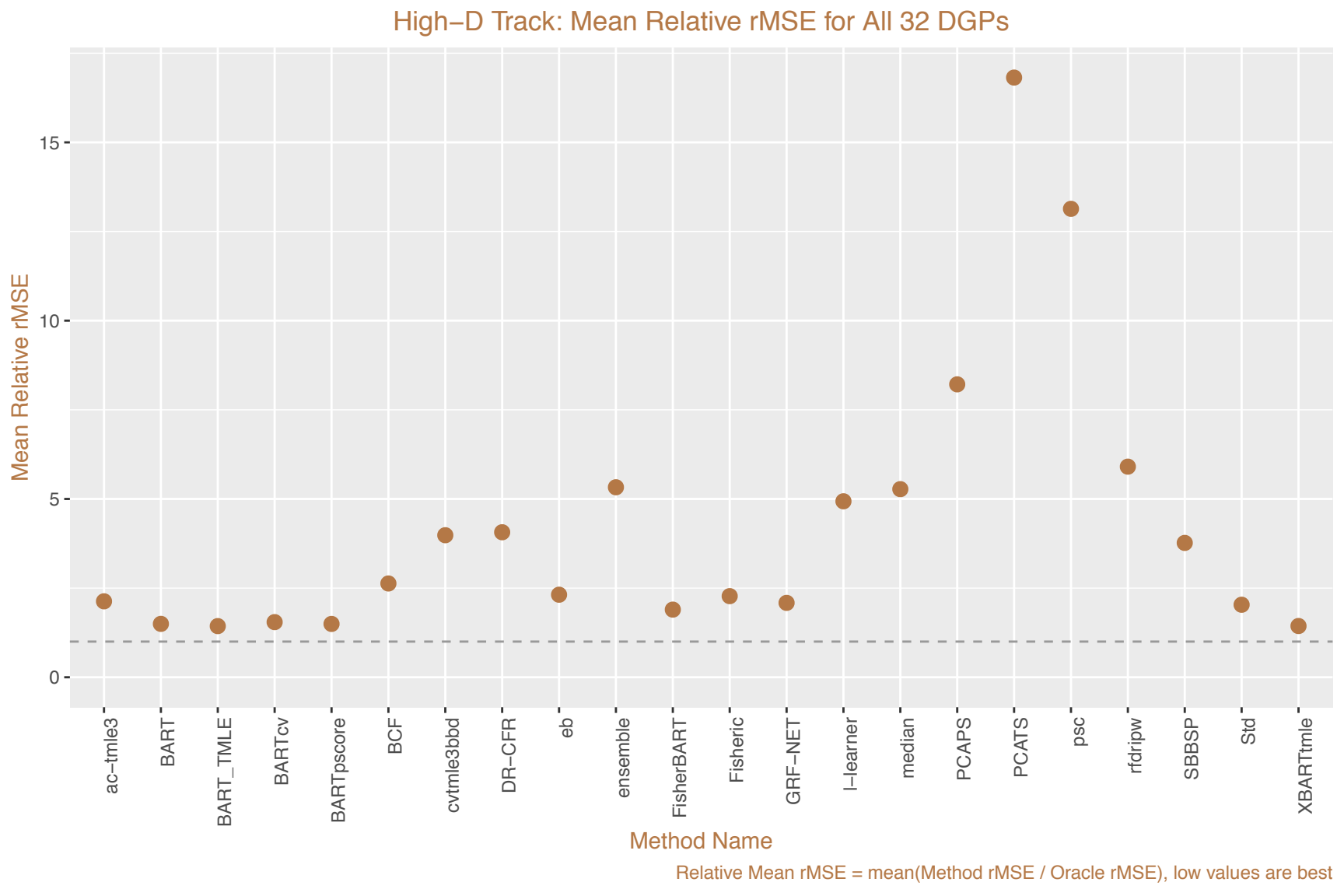

High−D Track: Mean Relative Standard Deviation for All 32 DGPs
Mean Relative Std. Deviation
0
1
2
3
4
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Relative Mean SD = mean(Method SD / Oracle SD), low values are best

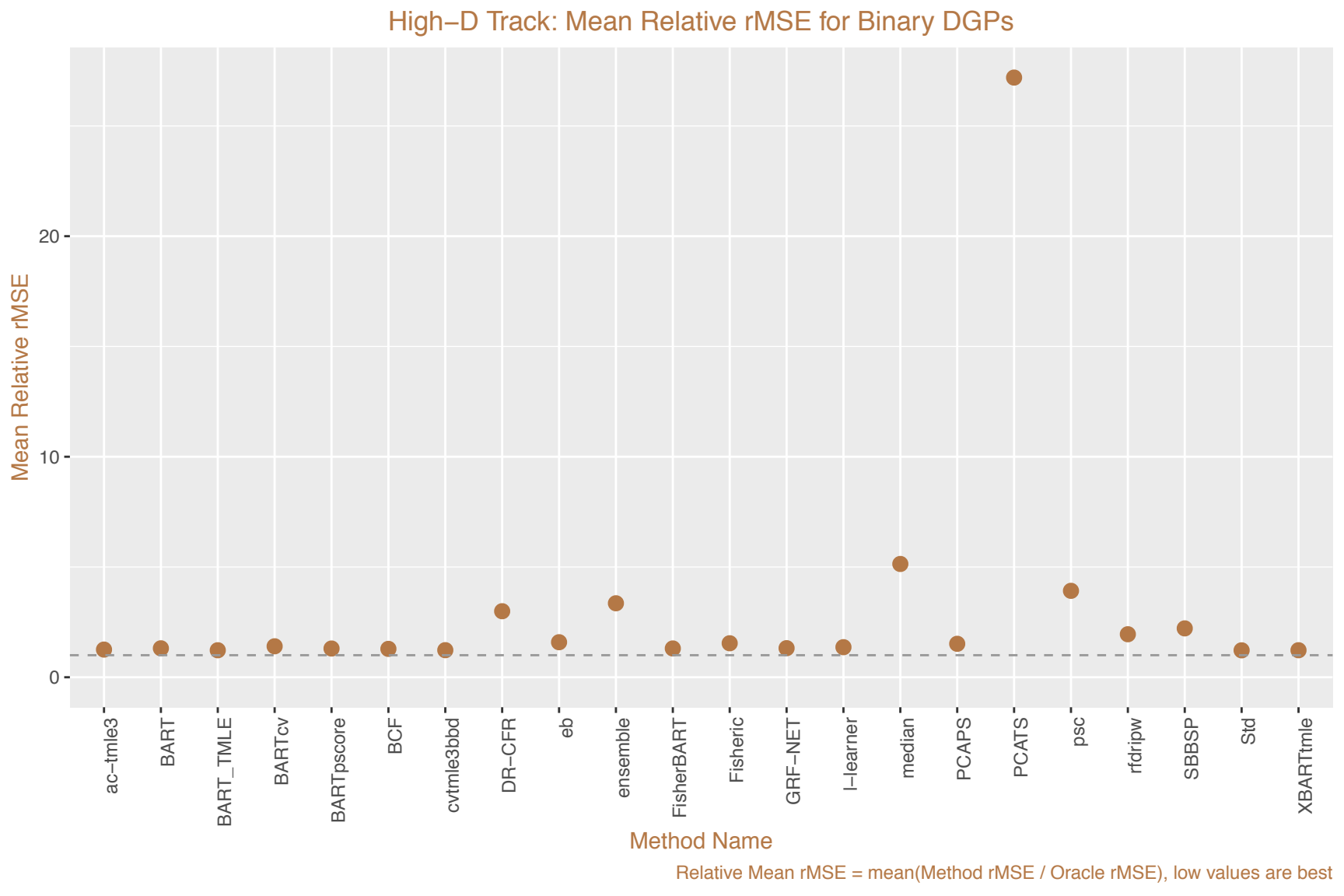

High−D Track: Mean Relative Standard Deviation for Binary DGPs
Mean Relative Std. Deviation
2.0
1.5
1.0
0.5
0.0
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Relative Mean SD = mean(Method SD / Oracle SD), low values are best

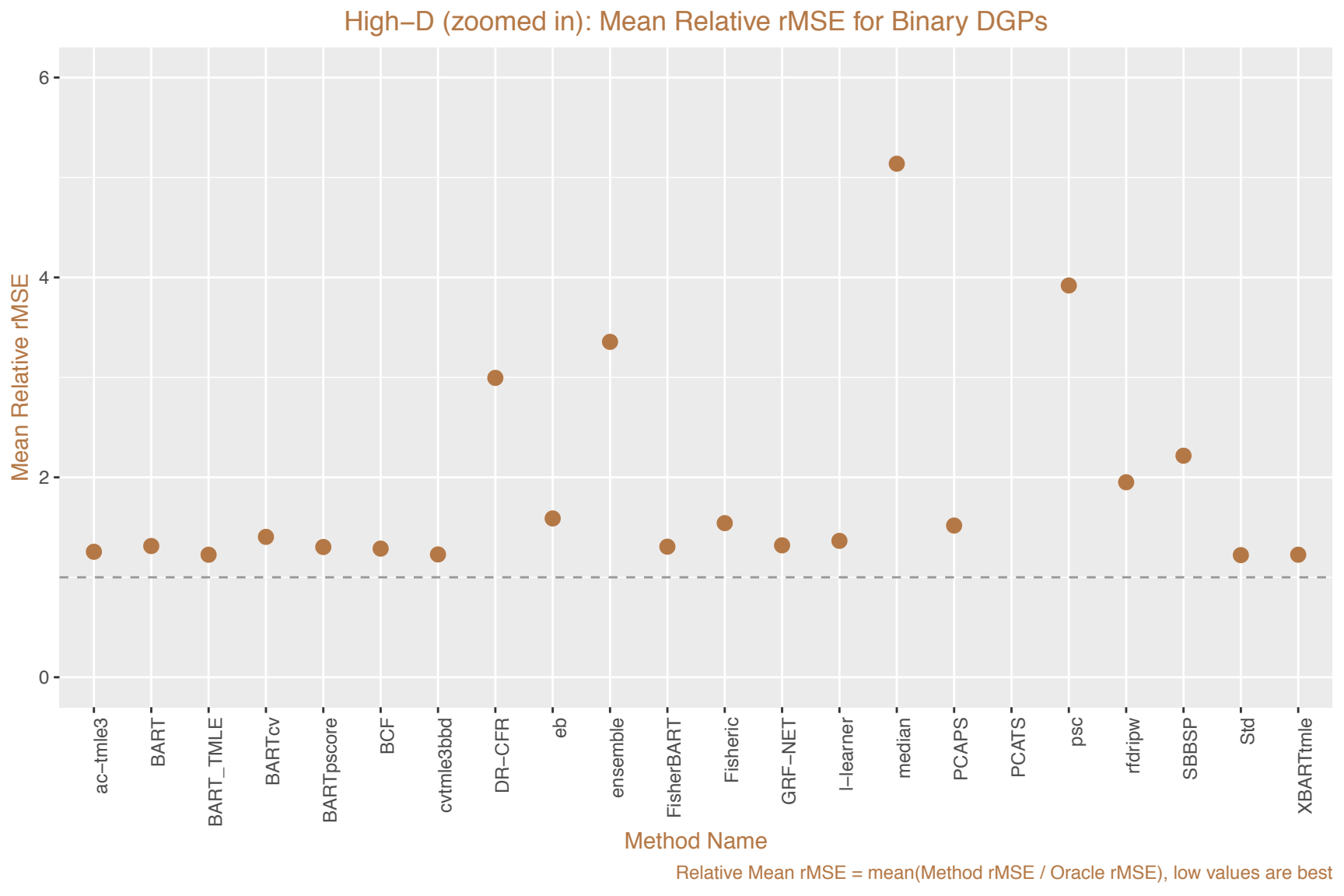

High−D Track: Mean Relative Standard Deviation for Continuous DGPs
Mean Relative Std. Deviation
0
2
4
6
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Relative Mean SD = mean(Method SD / Oracle SD), low values are best

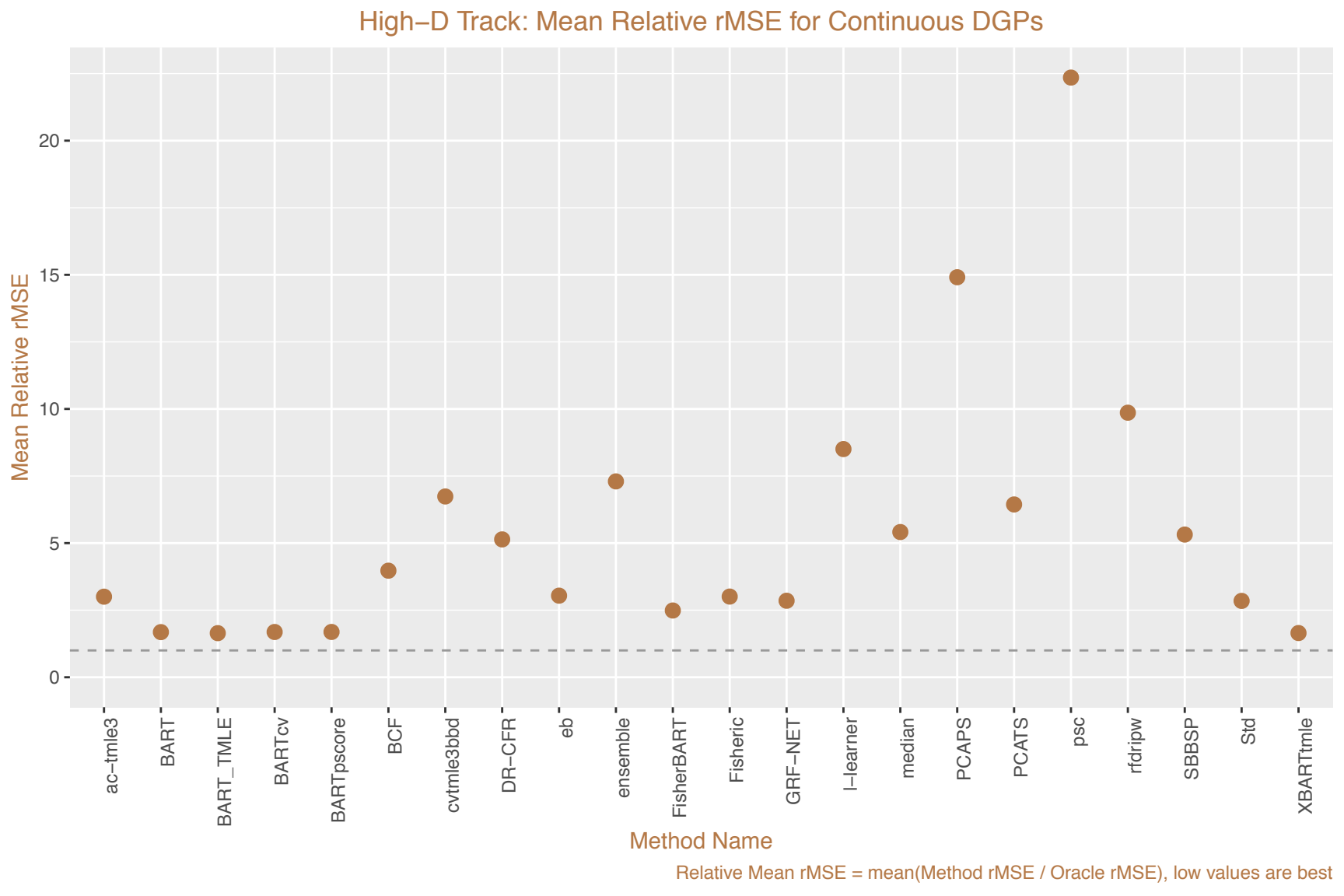

High−D Track: Standard Deviation
Binary Outcome DGPs
25
26
27
28
45
46
47
48
49
50
51
52
53
54
55
56
Std. Deviation
Method Name
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle

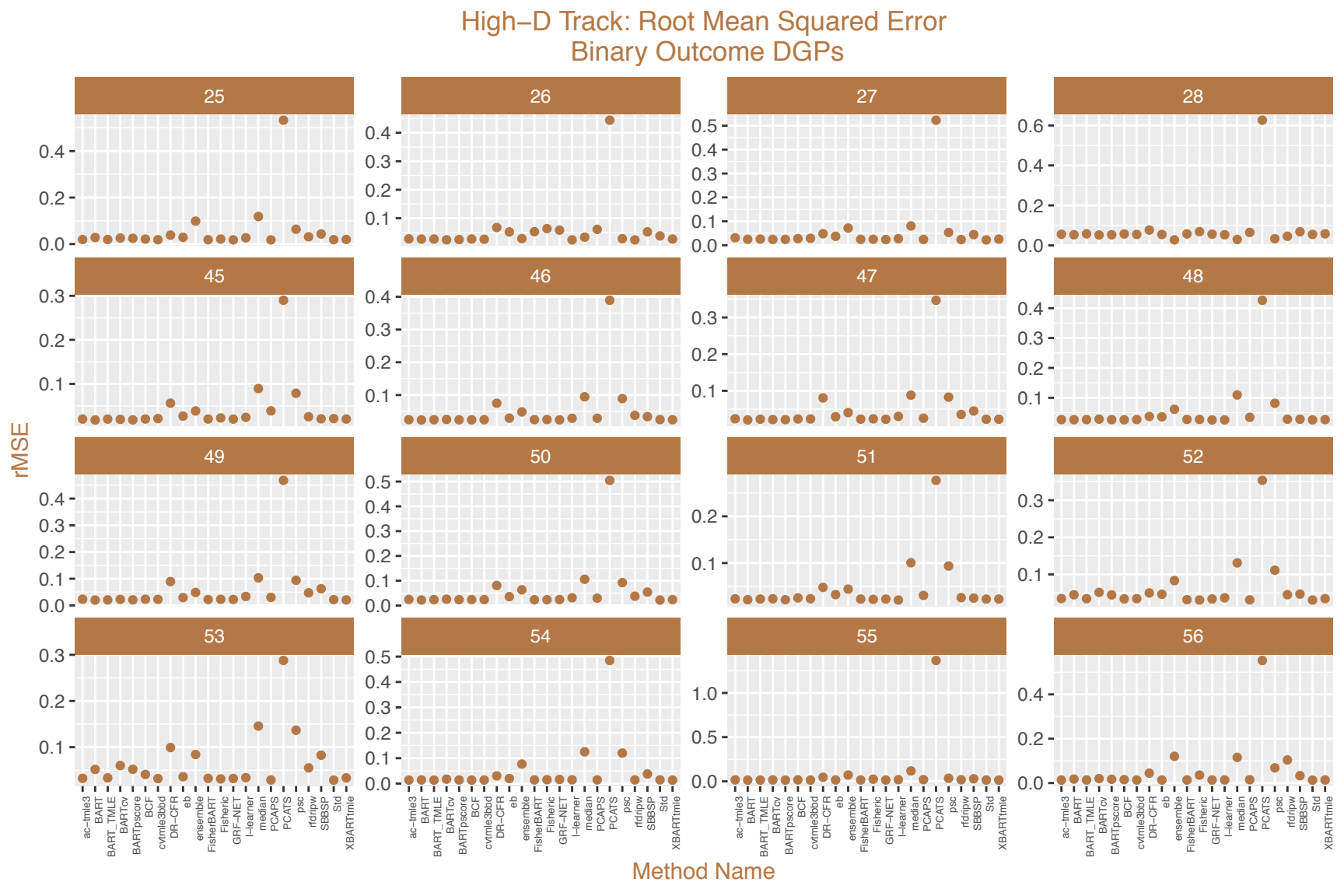

High−D Track: Standard Deviation
Continuous Outcome DGPs
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Std. Deviation
Method Name
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisherc
GRF−NET
l−learner
median
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle

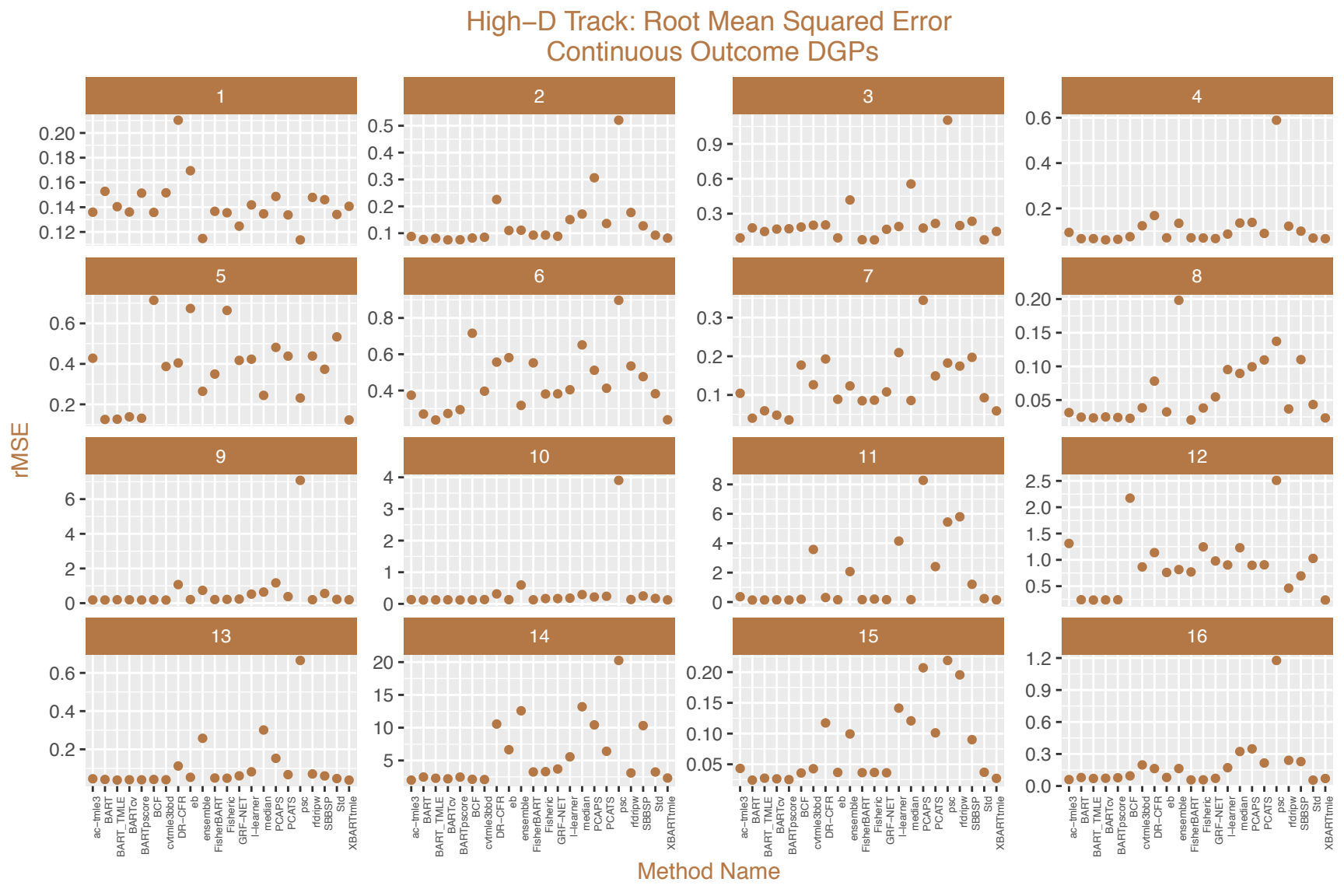

High−D Track: Mean Relative rMSE for All 32 DGPs
Mean Relative rMSE
0
5
10
15
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Relative Mean rMSE = mean(Method rMSE / Oracle rMSE), low values are best

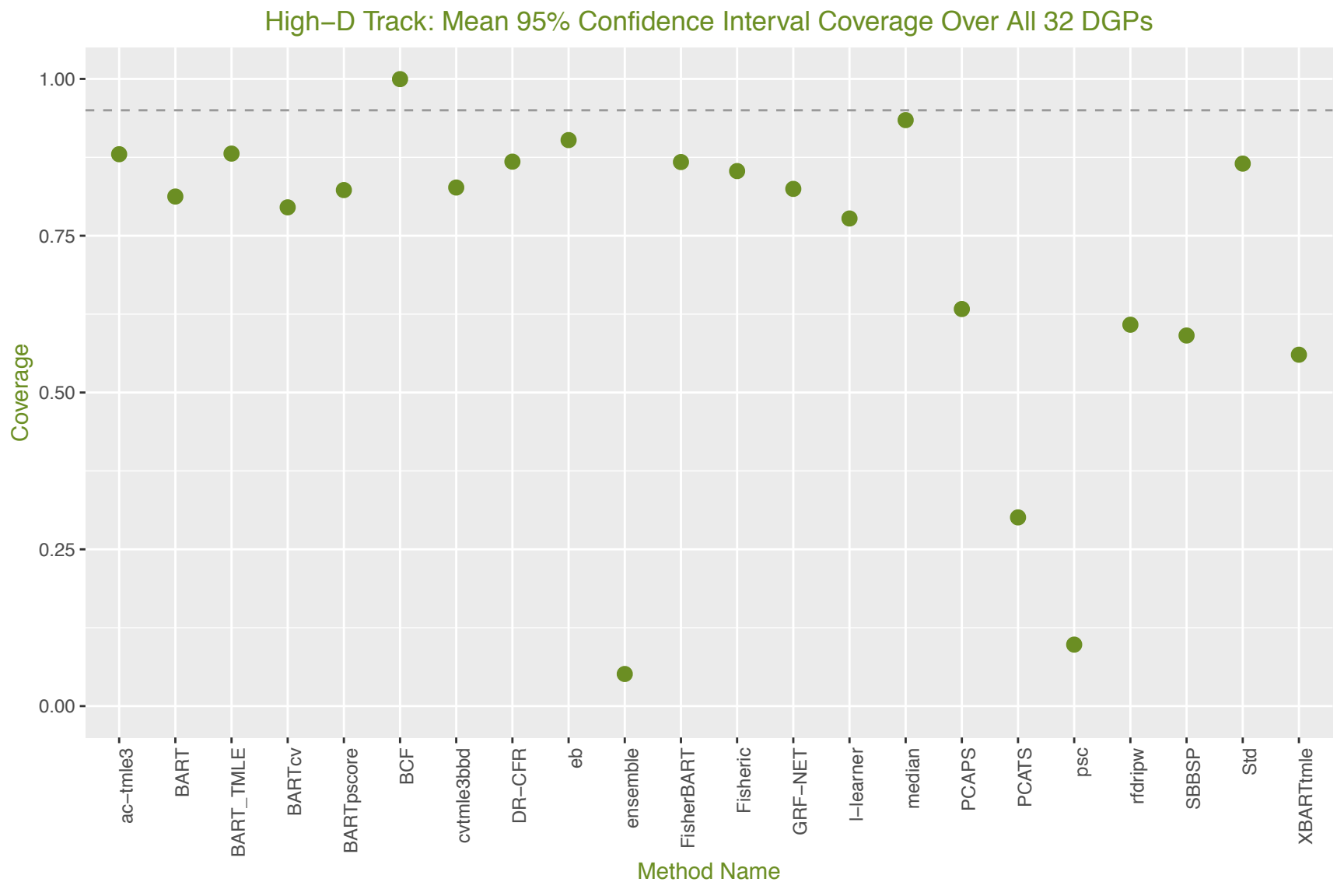

High−D Track: Mean Relative rMSE for Binary DGPs
Mean Relative rMSE
20
10
0
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Relative Mean rMSE = mean(Method rMSE / Oracle rMSE), low values are best

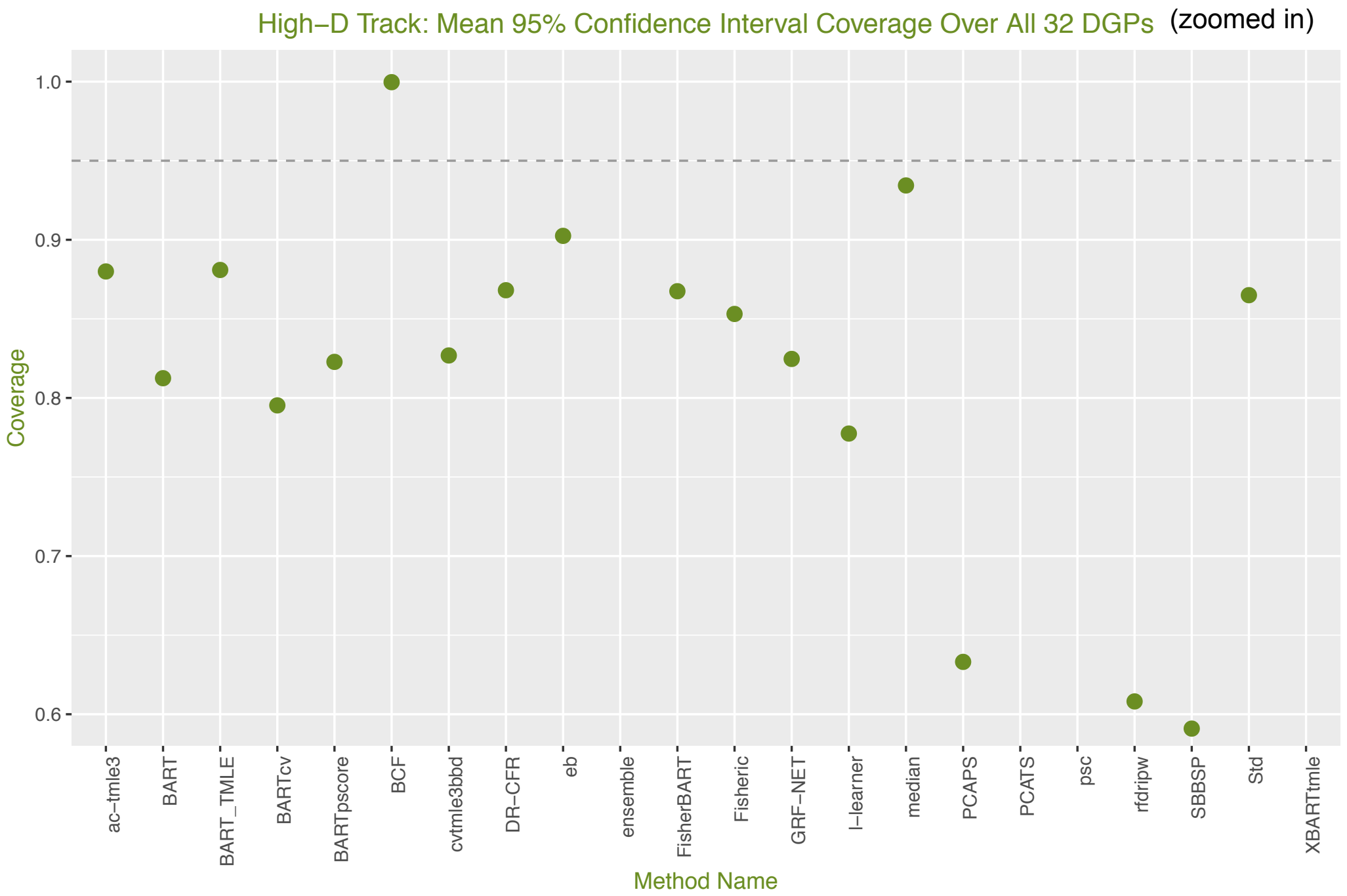

High−D (zoomed in): Mean Relative rMSE for Binary DGPs
Mean Relative rMSE
6
4
2
0
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Relative Mean rMSE = mean(Method rMSE / Oracle rMSE), low values are best

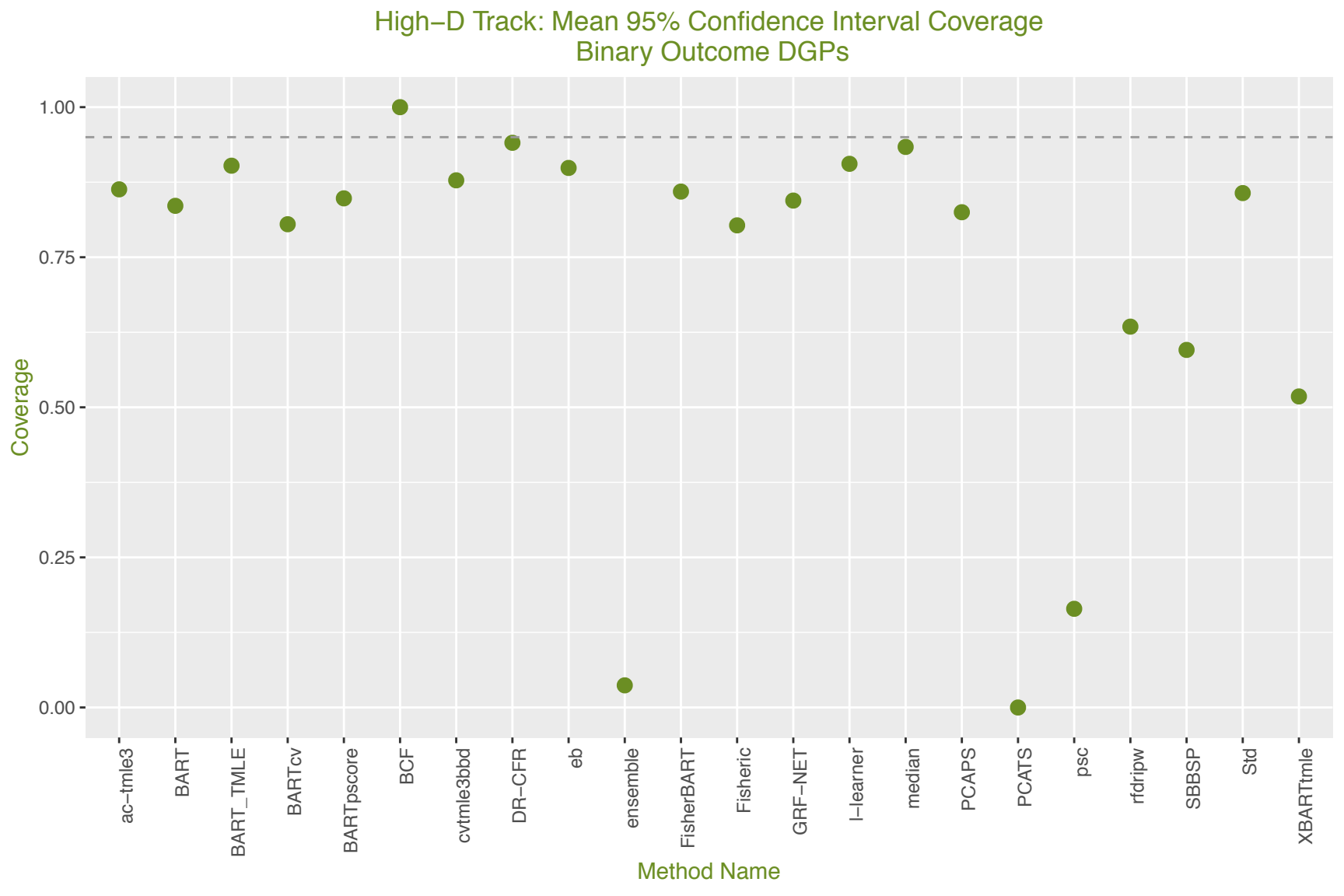

High−D Track: Mean Relative rMSE for Continuous DGPs
Mean Relative rMSE
0
5
10
15
20
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
Relative Mean rMSE = mean(Method rMSE / Oracle rMSE), low values are best

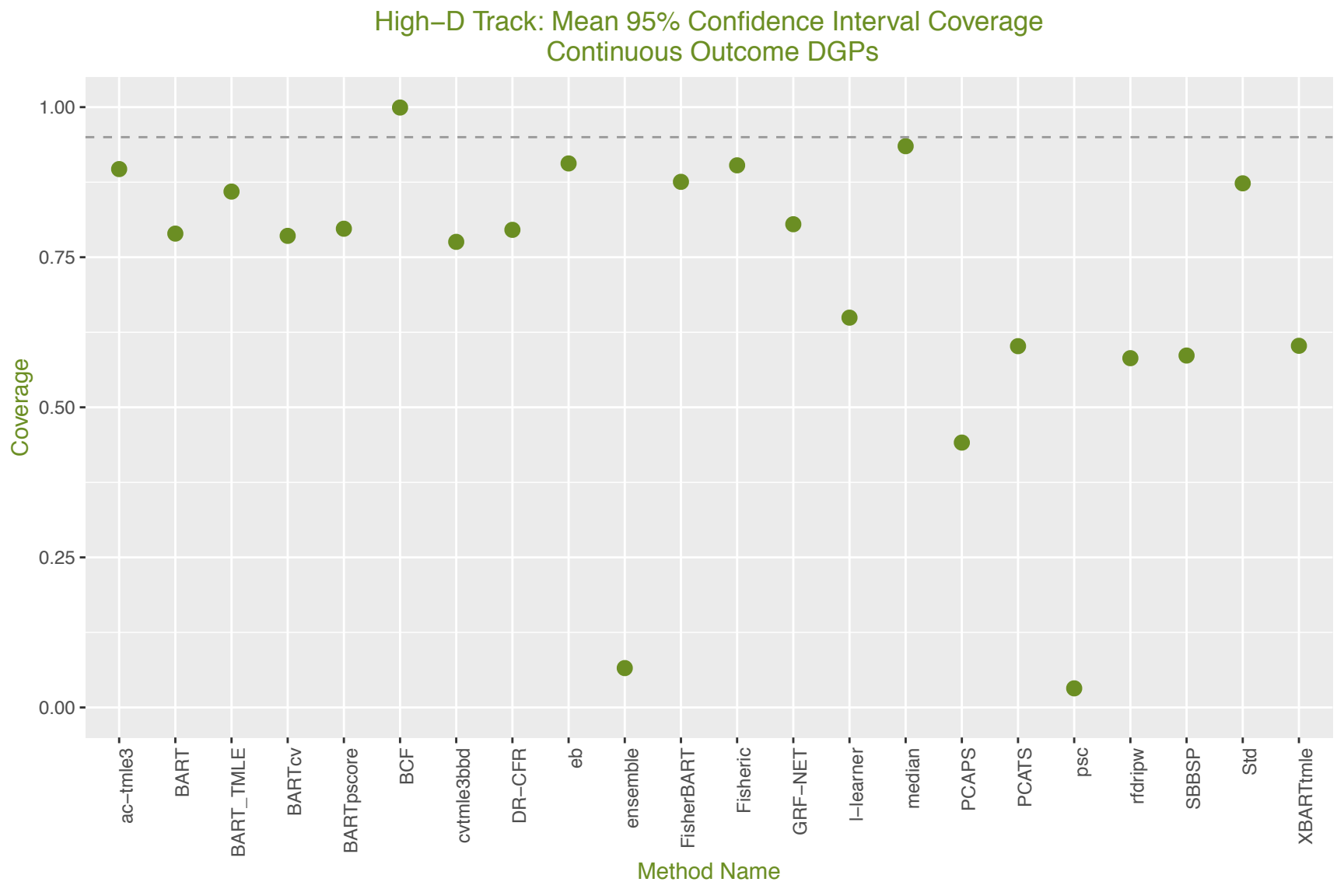

High−D Track: Root Mean Squared Error
Binary Outcome DGPs
25
26
27
28
45
46
47
48
49
50
51
52
53
54
55
56
rMSE
Method Name
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
I−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle

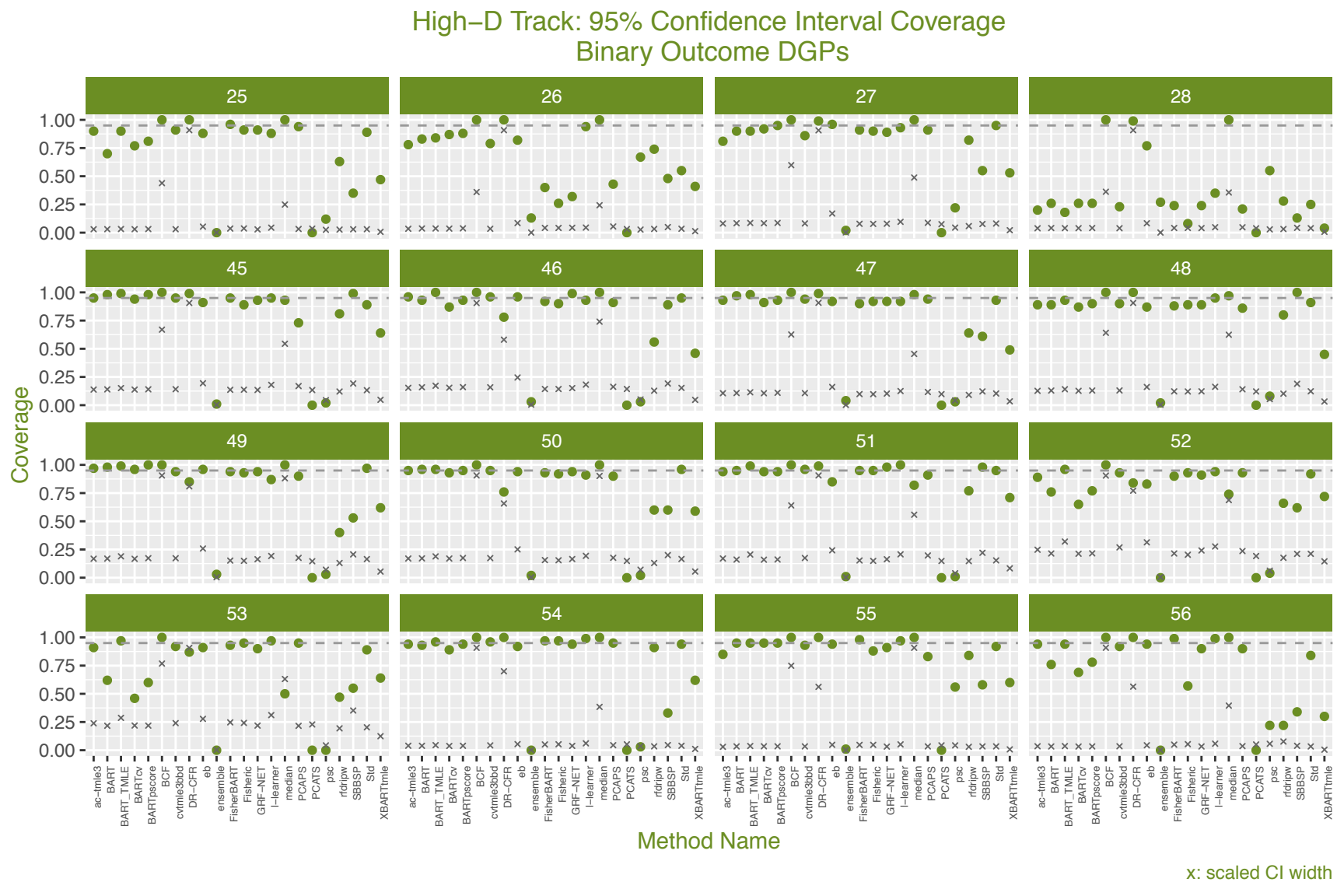

High−D Track: Root Mean Squared Error
Continuous Outcome DGPs
rMSE
Method Name
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisherc
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle

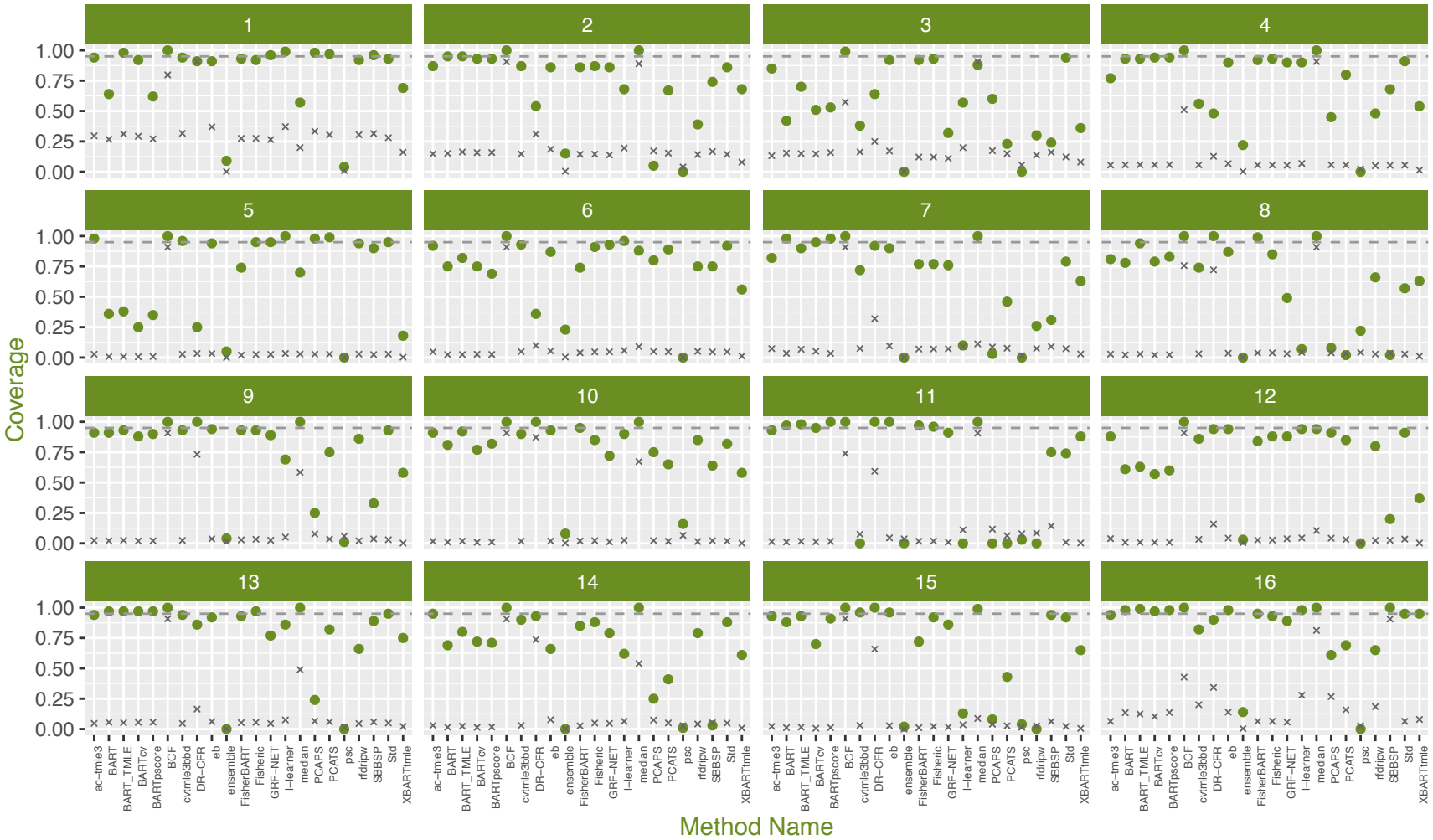

High−D Track: Mean 95% Confidence Interval Coverage Over All 32 DGPs
Coverage
1.00
0.75
0.50
0.25
0.00
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
I−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name


High−D Track: Mean 95% Confidence Interval Coverage Over All 32 DGPs (zoomed in)
Coverage
1.0
0.9
0.8
0.7
0.6
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name

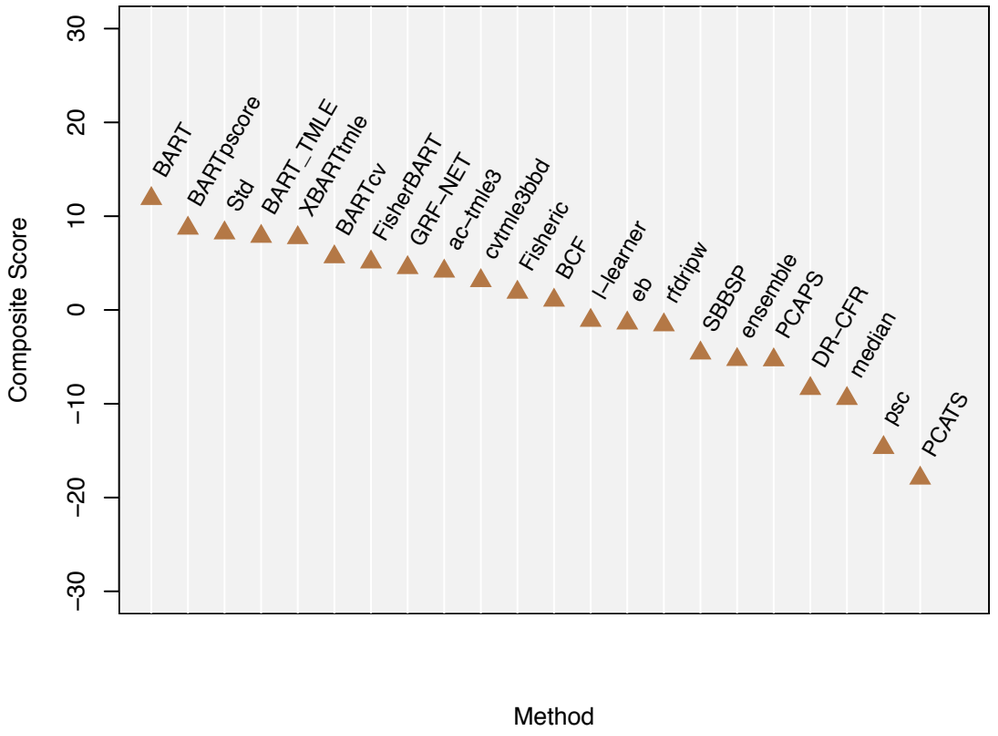

High−D Track: Mean 95% Confidence Interval Coverage
Binary Outcome DGPs
Coverage
1.00
0.75
0.50
0.25
0.00
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name


High−D Track: Mean 95% Confidence Interval Coverage
Continuous Outcome DGPs
Coverage
1.00
0.75
0.50
0.25
0.00
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
I−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name

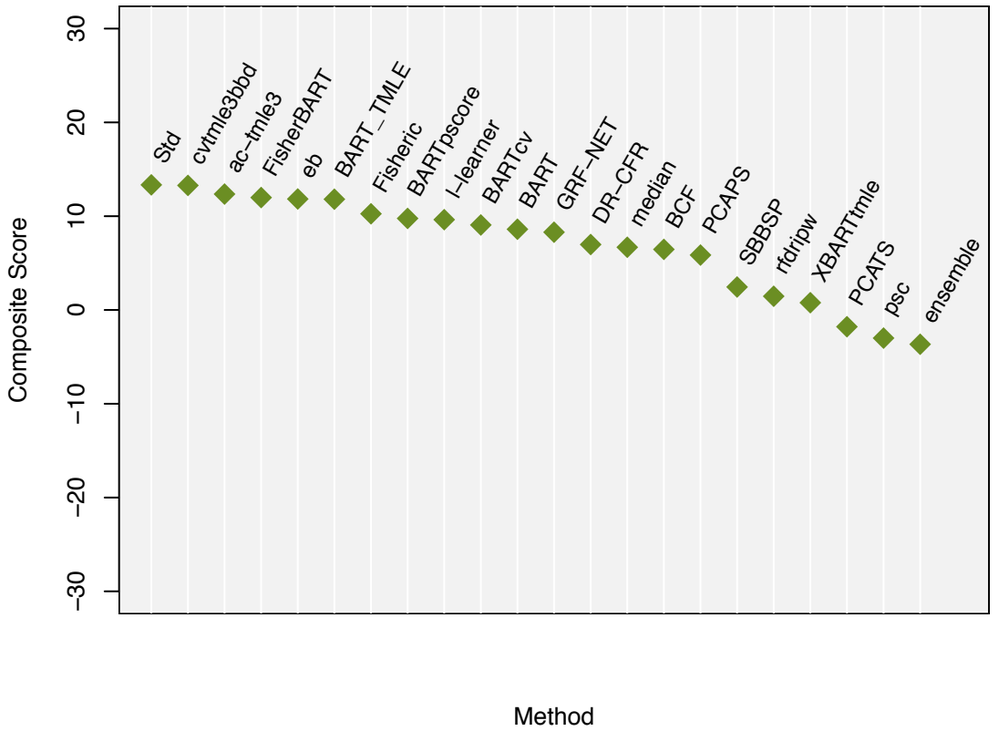

High−D Track: 95% Confidence Interval Coverage
Binary Outcome DGPs
25
26
27
28
45
46
47
48
49
50
51
52
53
54
55
56
Coverage
1.00
0.75
0.50
0.25
0.00
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
x: scaled CI width


High−D Track: 95% Confidence Interval Coverage
Continuous Outcome DGPs
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
Coverage
1.00
0.75
0.50
0.25
0.00
ac−tmle3
BART
BART_TMLE
BARTcv
BARTpscore
BCF
cvtmle3bbd
DR−CFR
eb
ensemble
FisherBART
Fisheric
GRF−NET
l−learner
median
PCAPS
PCATS
psc
rfdripw
SBBSP
Std
XBARTtmle
Method Name
x: scaled CI width

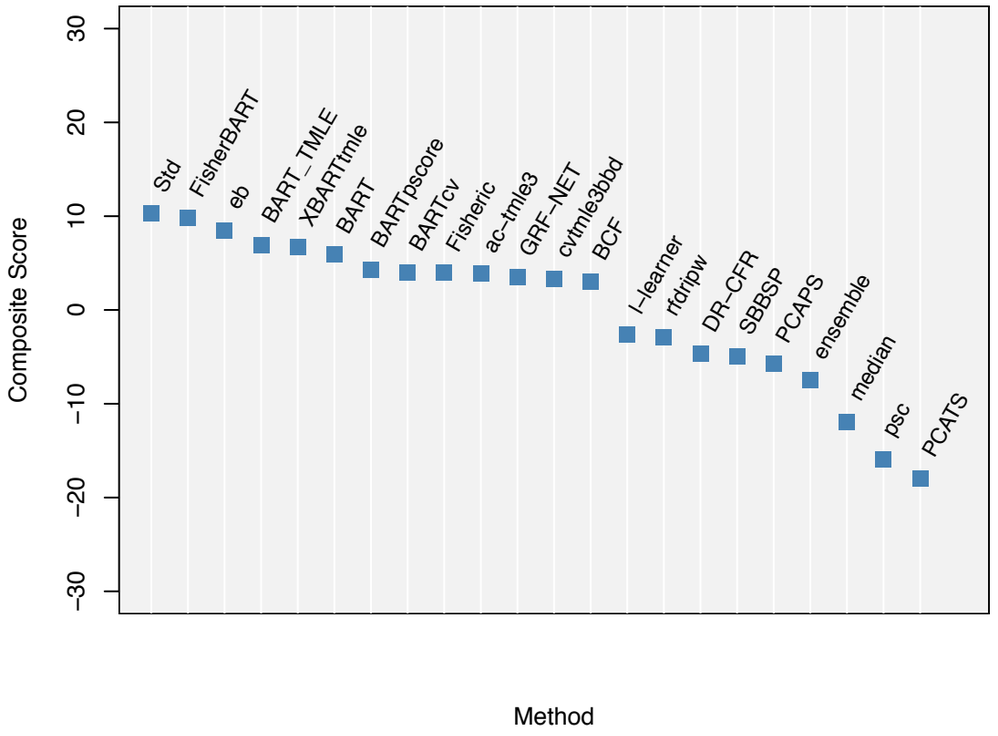
High–Dim: Composite rMSE Scores



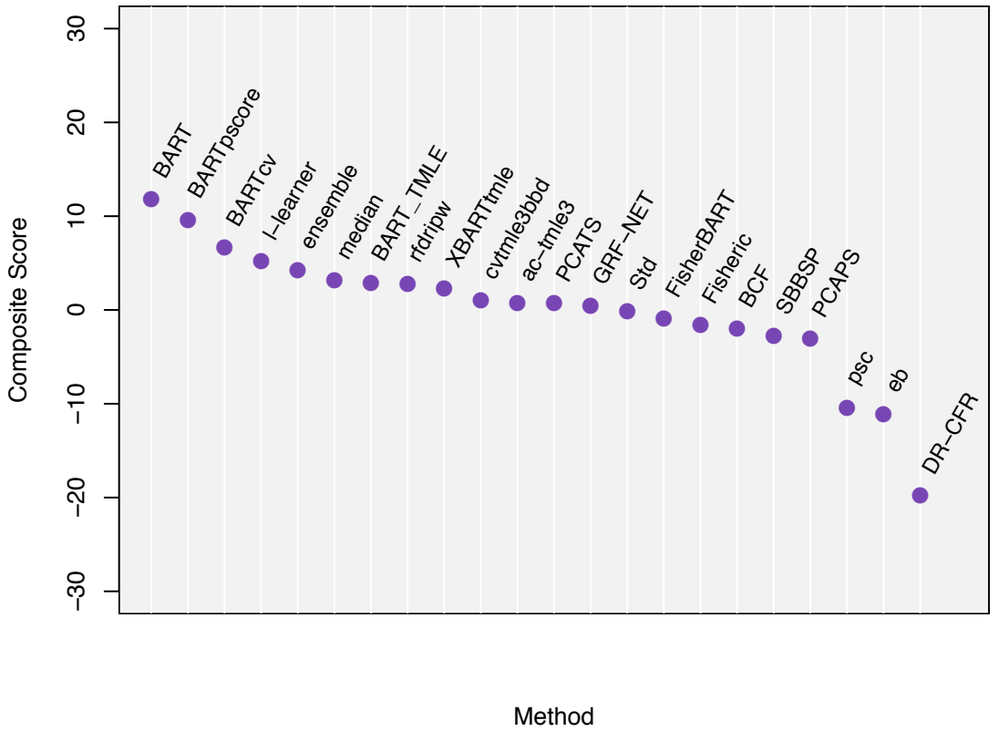
High–Dim: Composite Coverage Scores



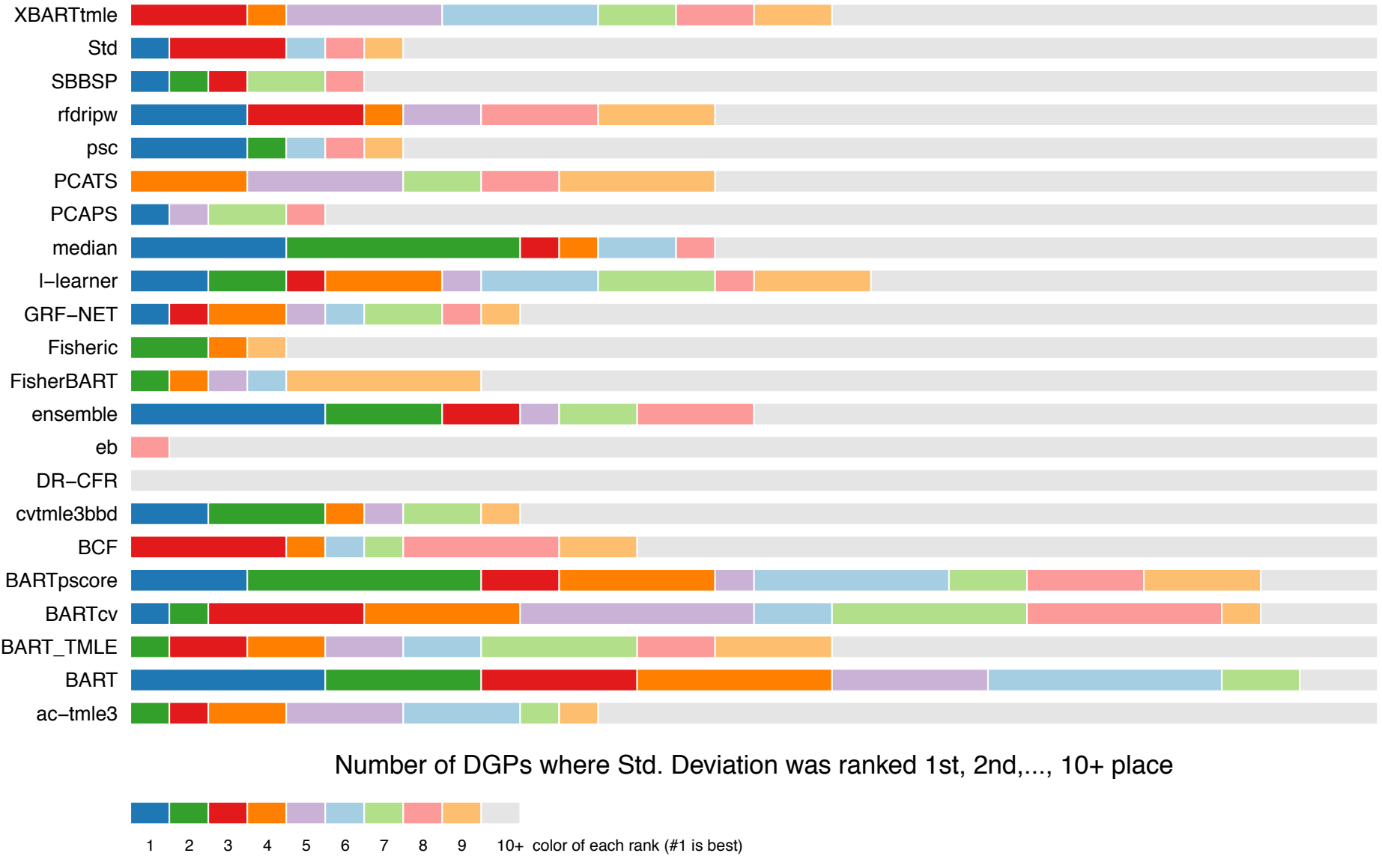
High–Dim: Composite Bias Scores



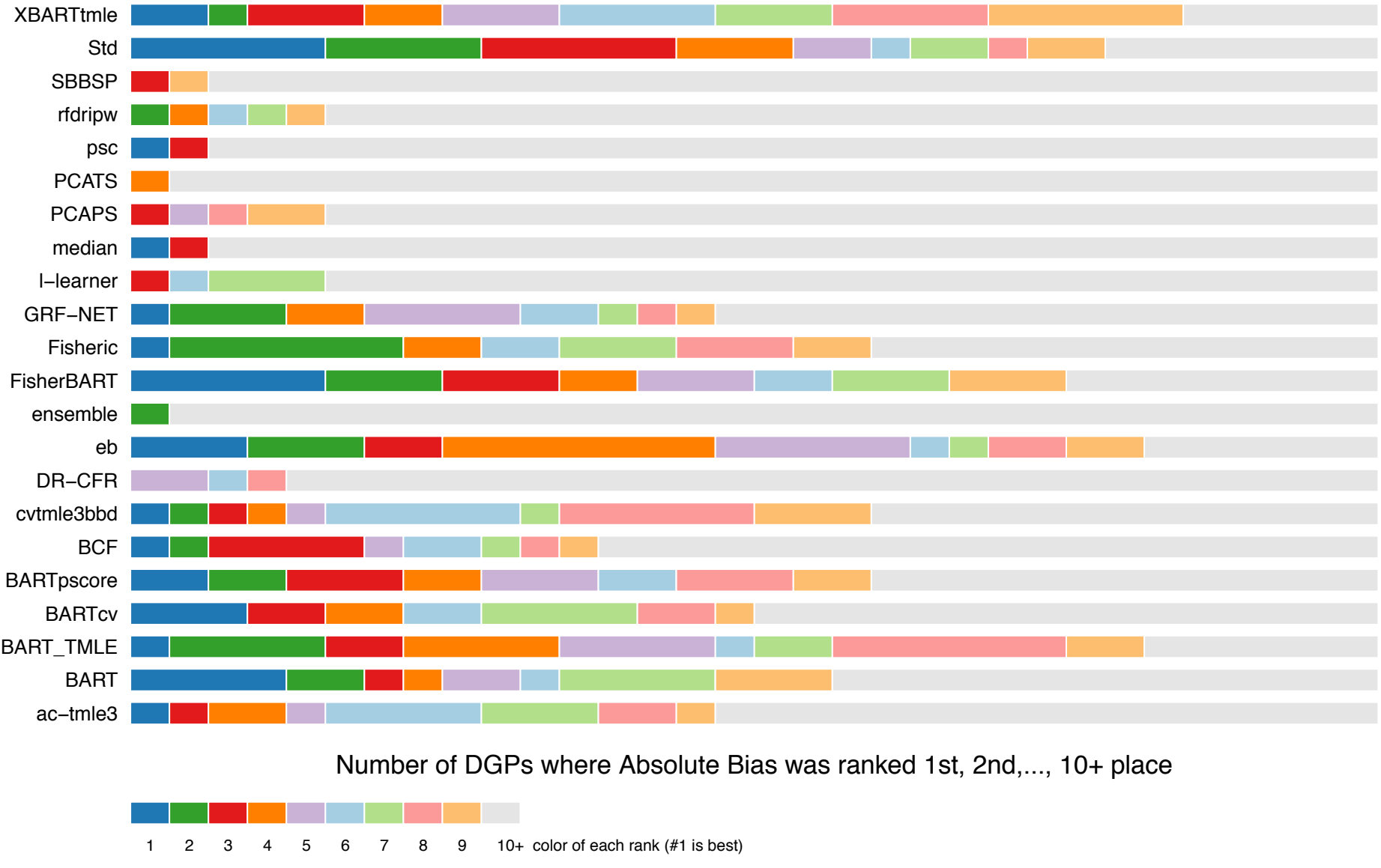
High–Dim: Composite SD Scores

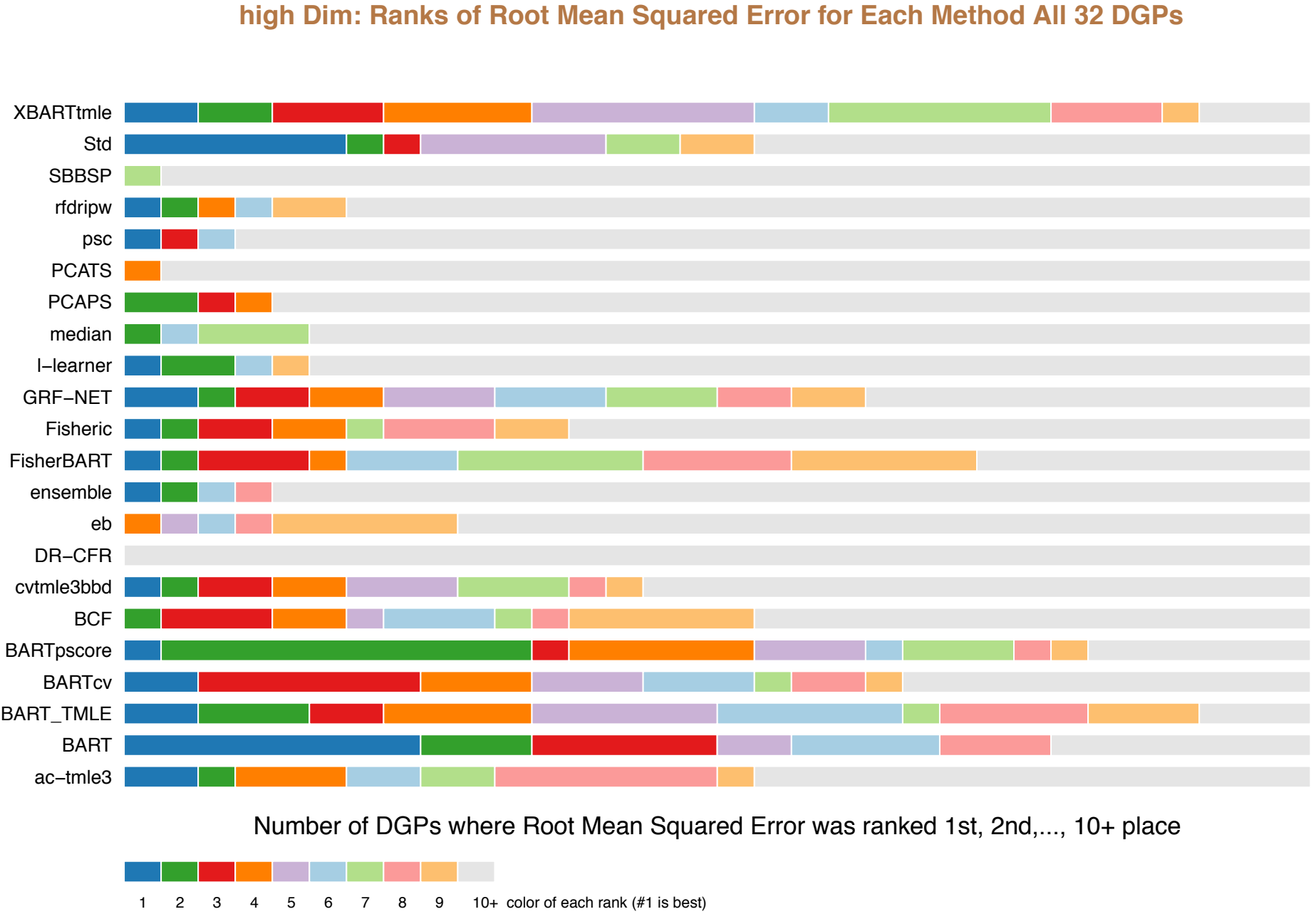


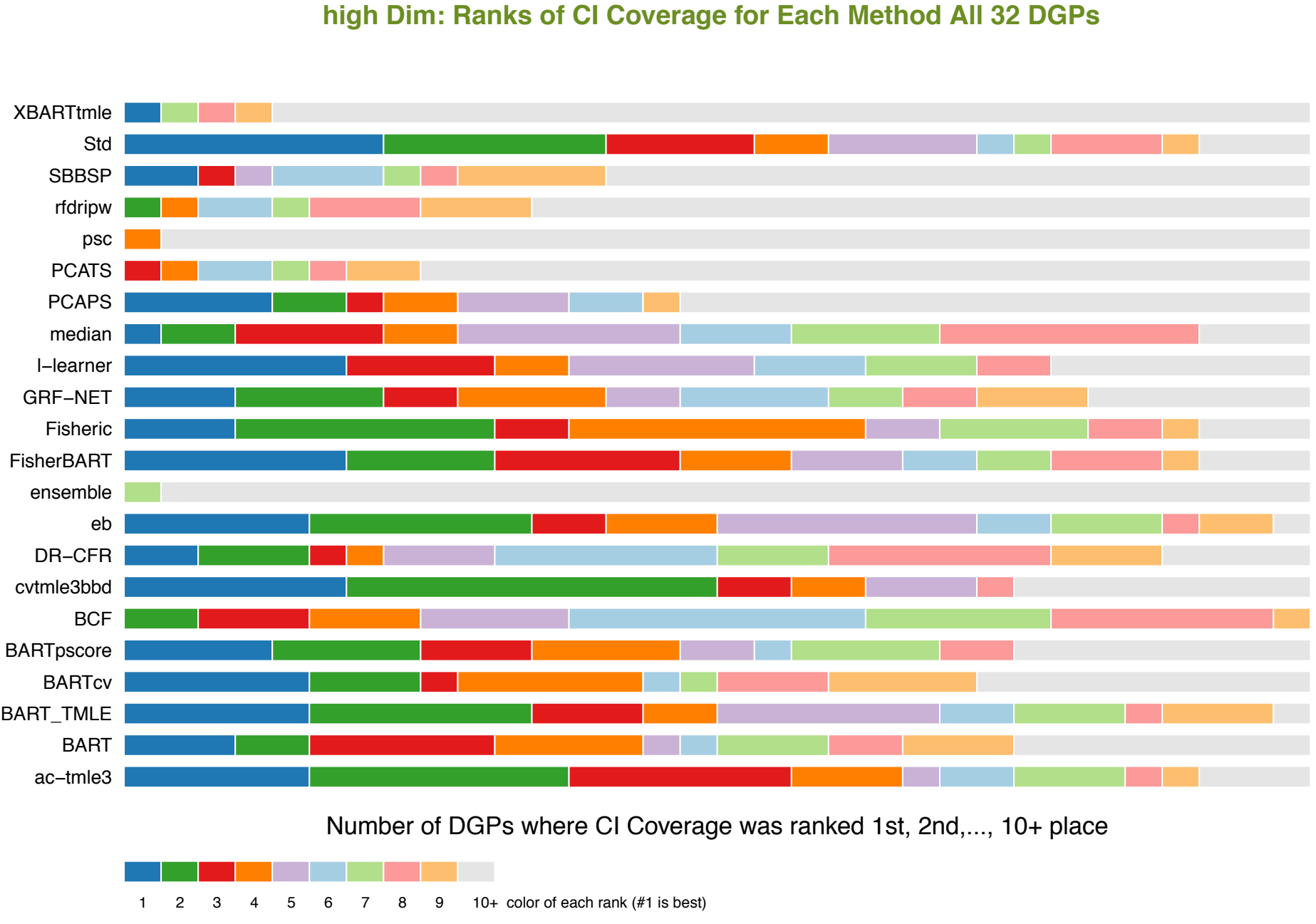
high Dim: Ranks of Std. Deviation for Each Method All 32 DGPs



high Dim: Ranks of Absolute Bias for Each Method All 32 DGPs




high Dim: Ranks of Root Mean Squared Error for Each Method All 32 DGPs
XBARTtmle
Std
SBBSP
rfdripw
psc
PCATS
PCAPS
median
l−learner
GRF−NET
Fisheric
FisherBART
ensemble
eb
DR−CFR
cvtmle3bbd
BCF
BARTpscore
BARTcv
BART_TMLE
BART
ac−tmle3
Number of DGPs where Root Mean Squared Error was ranked 1st, 2nd,..., 10+ place
1 2 3 4 5 6 7 8 9 10+ color of each rank (#1 is best)


high Dim: Ranks of CI Coverage for Each Method All 32 DGPs
XBARTtmle
Std
SBBSP
rfdripw
psc
PCATS
PCAPS
median
l–learner
GRF–NET
Fisheric
FisherBART
ensemble
eb
DR–CFR
cvtmle3bbd
BCF
BARTpscore
BARTcv
BART_TMLE
BART
ac–tmle3
Number of DGPs where CI Coverage was ranked 1st, 2nd,..., 10+ place
1 2 3 4 5 6 7 8 9 10+ color of each rank (#1 is best)