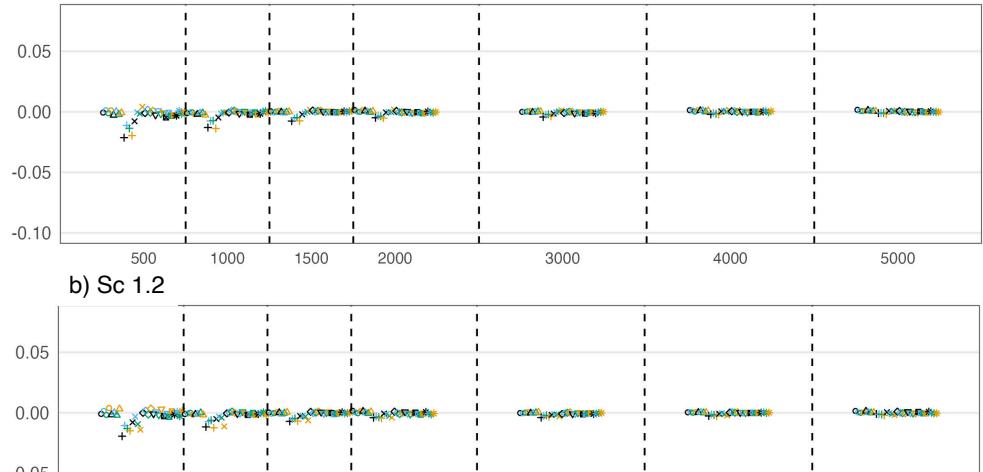
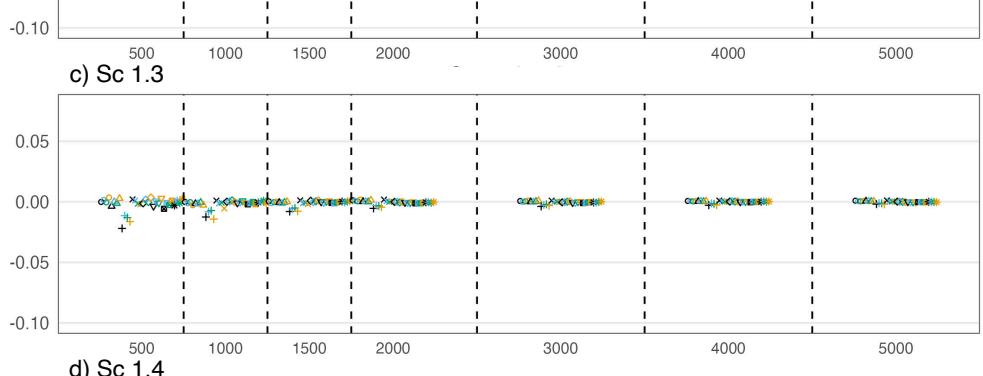


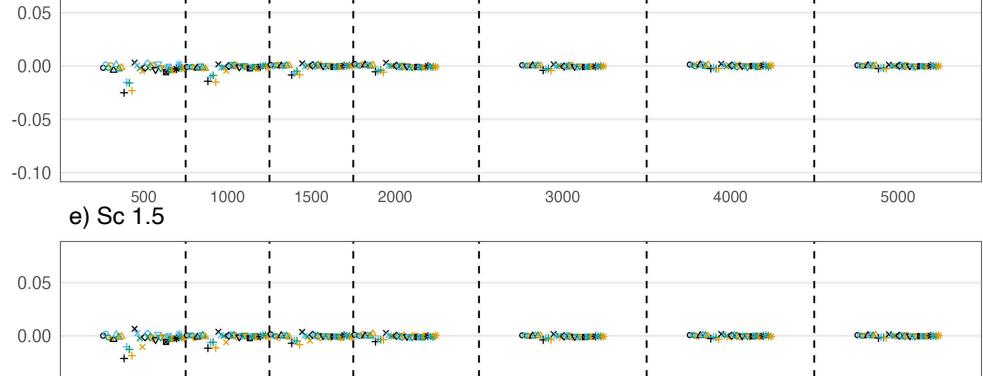
a) Sc 1.1



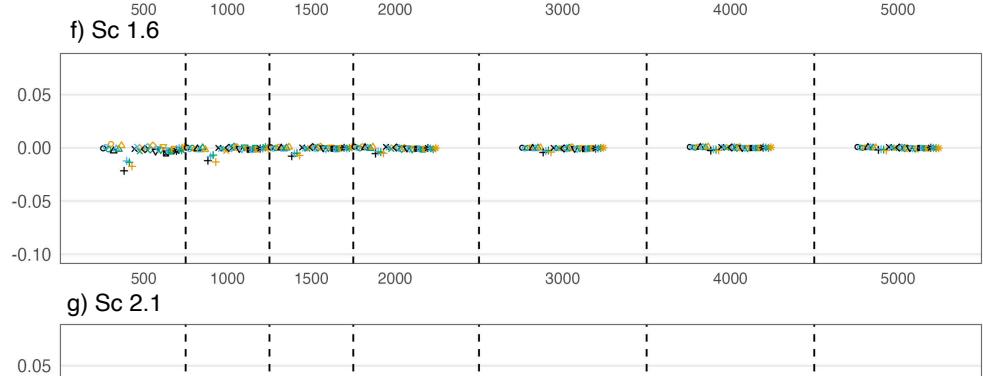
b) Sc 1.2



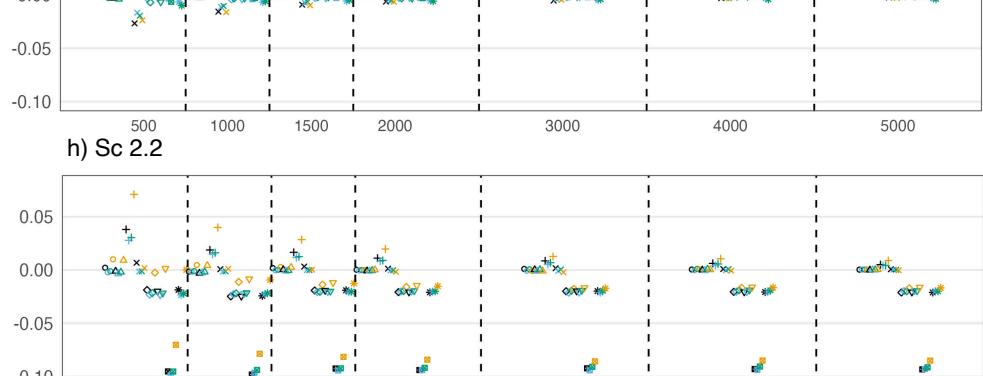
c) Sc 1.3



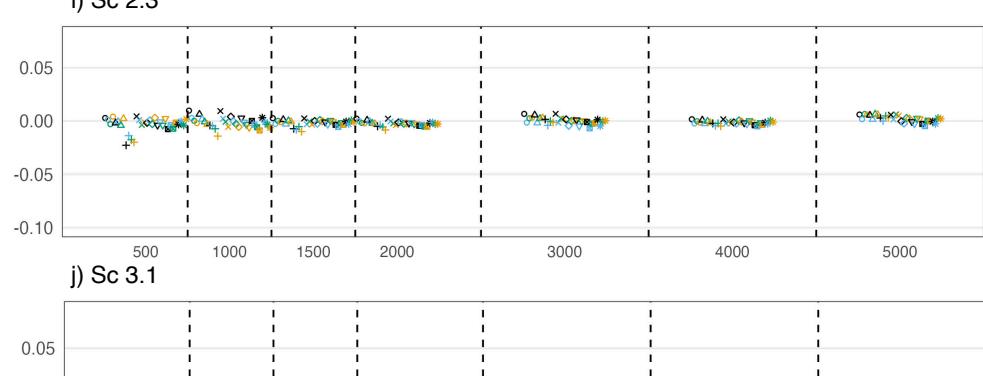
d) Sc 1.4



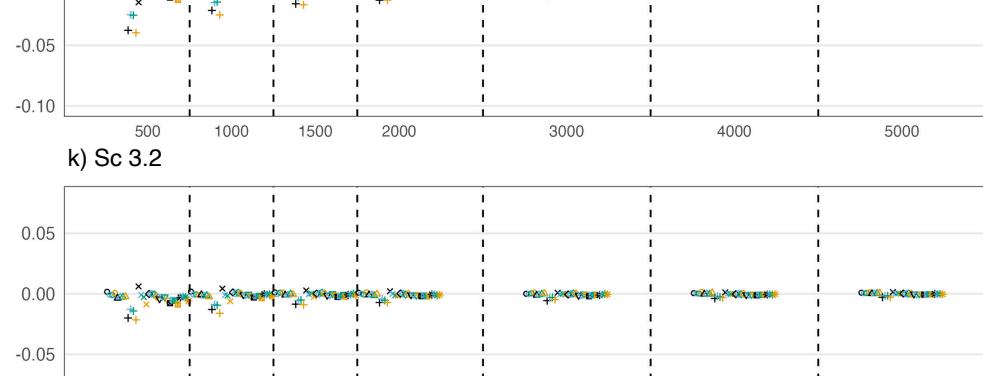
e) Sc 1.5



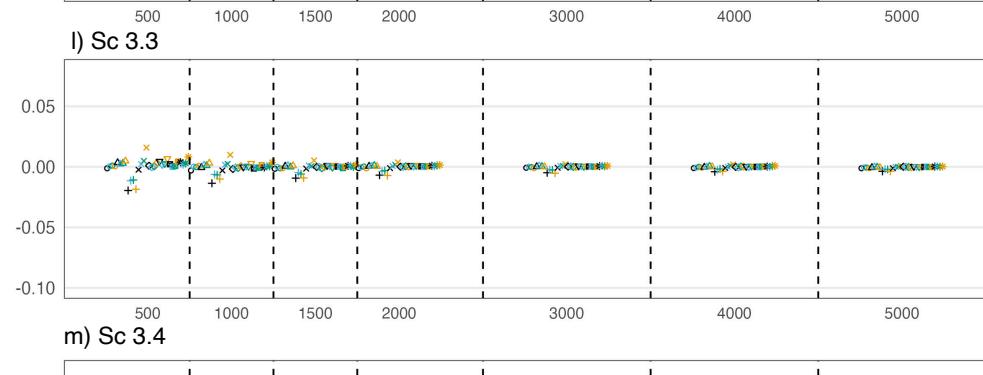
f) Sc 1.6



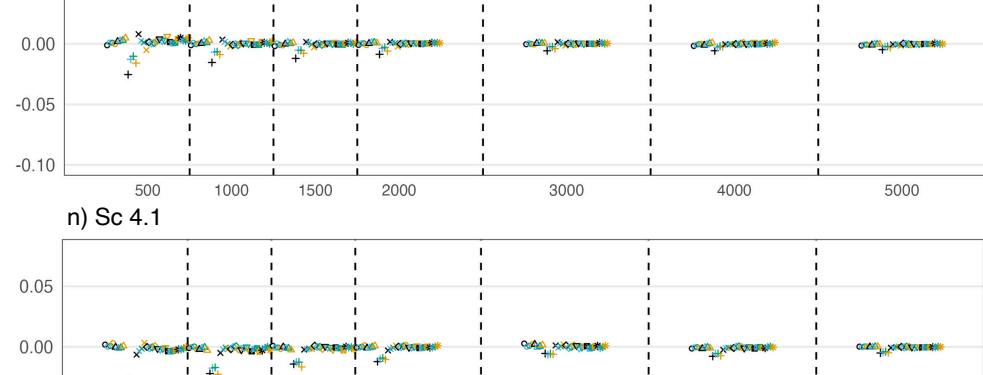
g) Sc 2.1



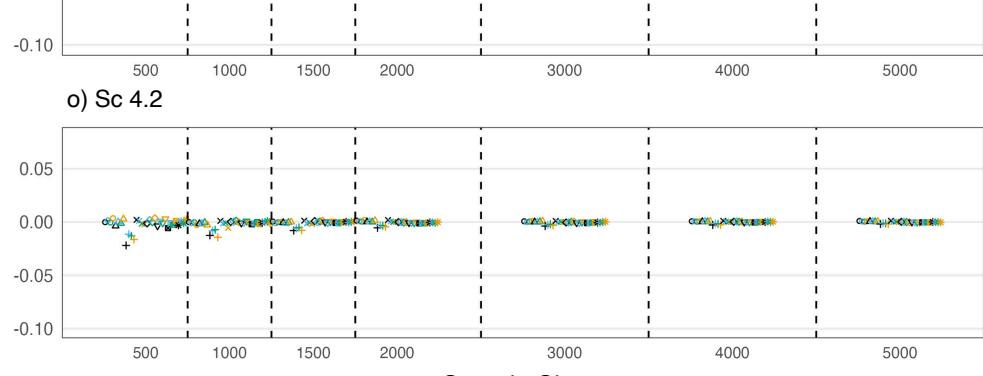
h) Sc 2.2



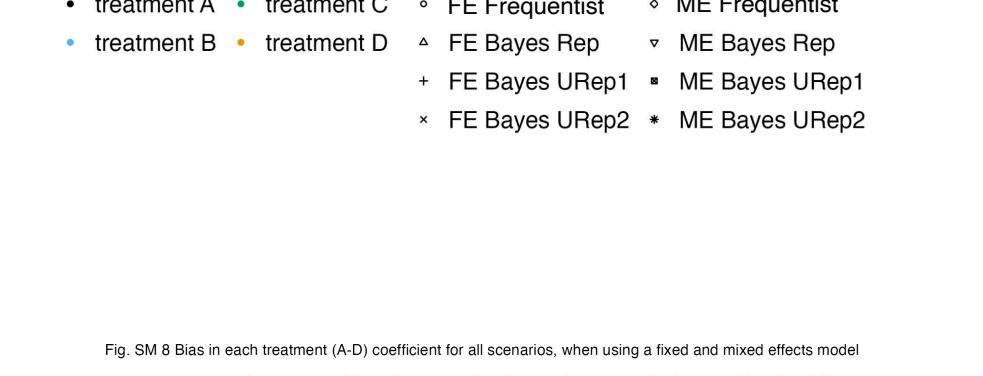
i) Sc 2.3



j) Sc 3.1



k) Sc 3.2



l) Sc 3.3

m) Sc 3.4

n) Sc 4.1

o) Sc 4.2

Sample Size

• treatment A • treatment C ◦ FE Frequentist ◊ ME Frequentist

• treatment B • treatment D ▲ FE Bayes Rep ▽ ME Bayes Rep

+ FE Bayes URep1 ■ ME Bayes URep1

× FE Bayes URep2 * ME Bayes URep2

Fig. SM 8 Bias in each treatment (A-D) coefficient for all scenarios, when using a fixed and mixed effects model

using frequentist and Bayesian approaches for sample sizes ranging between N = 500-5,000.