Figure legends:

Figures S1–S21:

Relative bias of naive (solid lines) and conditional (dashed lines) estimates $\hat{\Psi}_1$ and $\hat{\Psi}_2$ calculated from 100 samples being significant at level α simulated under a MOI with allele frequency p. The size of the sample was 200 (dot symbol), 400 (square symbol), or 800 (diamond symbol) families.

Figure S1: MOI=MUL, p = .5, $\alpha = .05$ Figure S2: MOI=MUL, p = .5, $\alpha = 10^{-3}$ Figure S3: MOI=MUL, $p = .5, \alpha = 10^{-6}$ Figure S4: MOI=ADD, $p = .2, \alpha = .05$ Figure S5: MOI=ADD, p = .2, $\alpha = 10^{-3}$ Figure S6: MOI=ADD, p = .2, $\alpha = 10^{-6}$ Figure S7: MOI=ADD, p = .5, $\alpha = .05$ Figure S8: MOI=ADD, p = .5, $\alpha = 10^{-3}$ Figure S9: MOI=ADD, p = .5, $\alpha = 10^{-6}$ Figure S10: MOI=REC, $p = .2, \alpha = .05$ Figure S11: MOI=REC, $p = .2, \alpha = 10^{-3}$ Figure S12: MOI=REC, $p = .2, \alpha = 10^{-6}$ Figure S13: MOI=REC, p = .5, $\alpha = .05$ Figure S14: MOI=REC, $p = .5, \alpha = 10^{-3}$ Figure S15: MOI=REC, $p = .5, \alpha = 10^{-6}$ Figure S16: MOI=DOM, $p = .2, \alpha = .05$ Figure S17: MOI=DOM, $p = .2, \alpha = 10^{-3}$ Figure S18: MOI=DOM, $p = .2, \alpha = 10^{-6}$ Figure S19: MOI=DOM, p = .5, $\alpha = .05$ Figure S20: MOI=DOM, $p = .5, \alpha = 10^{-3}$ Figure S21: MOI=DOM, $p = .5, \alpha = 10^{-6}$

Fig. S1.—



Fig. S2.—



Fig. S3.—



Fig. S4.—



Fig. S5.—



Fig. S6.—



Fig. S7.—



Fig. S8.—



Fig. S9.—



Fig. S10.—



Fig. S11.—



Fig. S12.—

Fig. S13.—

Fig. S14.—

Fig. S15.—

Fig. S16.—

Fig. S17.—

Fig. S18.—

Fig. S19.—

Fig. S20.—

Fig. S21.—

