

Additional figures: Optimal designs and operating characteristics  
for a range of prior distributions

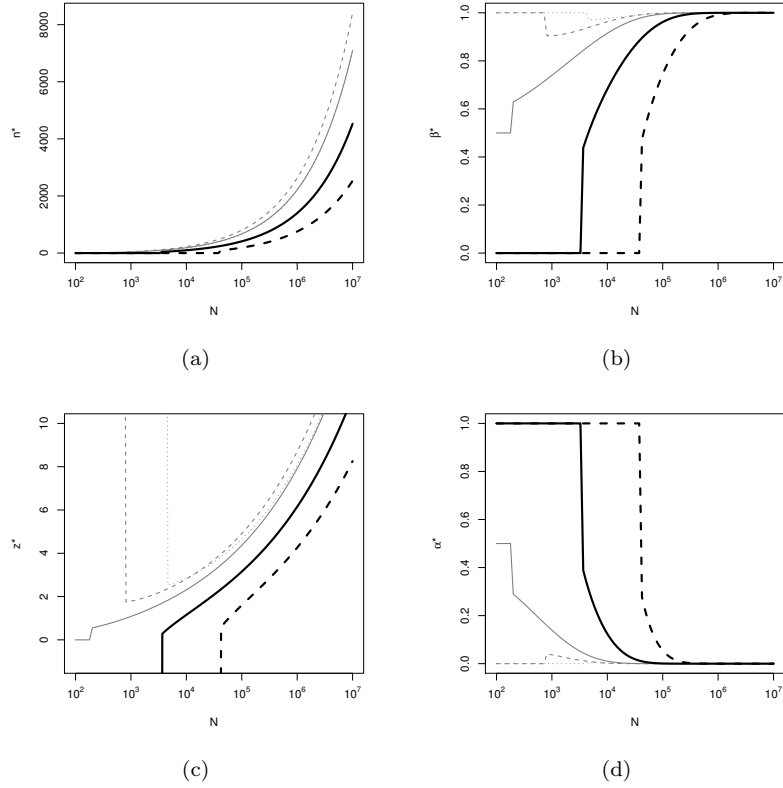


Figure 1: Optimal (a) sample size,  $n^*$ , (b) type II error rate,  $\beta^*$ , (c)  $z_\alpha^*$  and (d) type I error rate,  $\alpha^*$  in order to detect an alternative  $\theta_A = \$24819$  against the size of the population,  $N$ , with fixed  $\sigma_0^2 = (\$49638)^2$ ,  $\tau^2 = (\$363202)^2$ ,  $c_1 = \$5000$ ,  $c_2 = \$61032$  and  $c_f = \$1$  million for different values of;  $\mu_0 = 0$  (light grey dotted line),  $\mu_0 = \$32000$  (light grey dashed line),  $\mu_0 = c_2 = \$61032$  (light grey solid line),  $\mu_0 = \$96000$  (heavy black solid line), and  $\mu_0 = \$128000$  (heavy black dashed line).

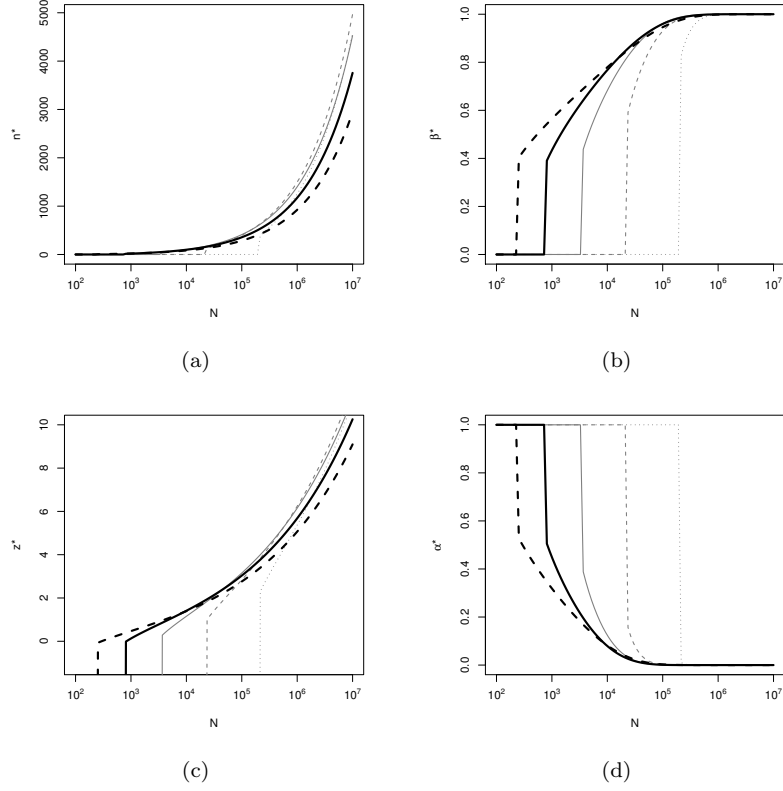


Figure 2: Optimal (a) sample size,  $n^*$ , (b) type II error rate,  $\beta^*$ , (c)  $z_\alpha^*$  and (d) type I error rate,  $\alpha^*$  in order to detect an alternative  $\theta_A = \$24819$  against the size of the population,  $N$ , with fixed  $\mu_0 = \$96000$ ,  $\tau^2 = (\$363202)^2$ ,  $c_1 = \$5000$ ,  $c_2 = \$61032$  and  $c_f = \$1$  million for different values of;  $\sigma_0^2 = (\$49638)^2/4$  (light grey dotted line),  $\sigma_0^2 = (\$49638)^2/2$  (light grey dashed line),  $\sigma_0^2 = (\$49638)^2$  (light grey solid line),  $\sigma_0^2 = 2(\$49638)^2$  (heavy black solid line) and  $\sigma_0^2 = 4(\$49638)^2$  (heavy black dashed line).