Effect of QRPs:

No censoring:

RE: Increases type I error and power, especially with increased k. Increased ME and RMSE. Decreases coverage, especially at high k.

TF: Increases Type I error under homogeneity, reduces it very slightly under heterogeneity. Very small effect on ME, causing upward bias under homogeneity and having **complex relationship with d = 0.5 and tau and k. Complex relationship with RMSE. Complex relationship with coverage.**

PET-PEESE: Increases Type I error, reduces power. Exacerbates downward bias. (Maybe the Type I errors are in the negative direction?) Increases RMSE. Decreases coverage.

p-curve: Reduces ME in all circumstances, alleviating somewhat positive bias at delta = 0, tau = 0, and tau = 0.2. Undershoots delta = 0.5 tau = 0.2. Reduces RMSE where it alleviates positive bias.

p-uniform: Reduces ME in all circumstances, alleviating somewhat the positive bias at delta = 0, tau = 0 and tau = 0.2. Undershoots delta = 0.5 tau = 0.2. Generally reduces RMSE for delta = 0, but delta = 0.5. Causes overcoverage at delta = 0, tau = 0, undercoverage at delta = 0.5, tau = 0, causes better coverage at delta = 0.5 except for large k delta 0.5 tau 0.2.

3PSM: QRPs reduce power and Type I error. Inflict decrease in ME (meaning greater negative bias) in all conditions. Generally leads to an increase in RMSE because of this bias and a noticeable drop in coverage, particularly at large *k*.

WAAP-WLS: QRPs have a **complex relationship** with Type I error and power. Cause a slight increase in ME under most circumstances but seem to exacerbate downward bias at delta = 0.5, tau = 0.2, k = 60. Complicated! Very small influence on RMSE, usually .01 of a point or less. Generally reduces coverage but can be complex.

Medium censoring:

RE: QRPs increase Type I error. QRPs increase bias. QRPs increase RMSE. Exception: RMSE reduced slightly for delta = 0.5, tau = 0.2.

TF: QRPs increase Type I error. QRPs increase ME, chiefly for delta = 0. Exception: ME reduced for delta = 0.5, tau = 0.2. QRPs increase RMSE under the null, very slightly reduce it under H1.

PET-PEESE: QRPs increase Type I error under homogeneity, have complex relationship with it under heterogeneity (medium p-hacking reduces power and Type I; heavy p-hacking increases power and Type I). QRPs cause negative bias ME. QRPs increase RMSE across the board.

p-curve: QRPs lead to reduction in mean estimation, which leads to underestimations sometimes and accurate estimations at other times. QRPs reduce RMSE when p-curve would normally be biased (d = 0, tau = 0, or tau = 0.2), increase it otherwise (e.g. d = 0.5, tau = 0).

p-uniform: Same as p-curve.

3PSM: QRPs reduce Type I error and power. QRPs cause reduction in ME, negative bias. Complex relationship with RMSE – generally reduces RMSE under H0, increases it under H1, but exception at k = 60, delta = 0, tau = 0.2, qrp = high.

WAAP-WLS: QRPs increase Type I and Type II error. However, at k = 60, QRPs decrease Type I error rate (which is 85%+). Increases ME under the null, slight reduction in ME under H1. QRPs generally increase RMSE under H0, have minimal influence under H1.