

Updated: Full SVD Runs

Note that all ratios are original:optimal

With Party Id

KPOP (no meanfirst)

Table 1: KPOP + MF=FALSE + W PID: Comparison of Bias bound and L1 distance by choice of b

	Bias Bound Ratio	L1 Ratio	Bias Bound Orig	Bias Bound Opt	L1 Orig	L1 Opt
b=2x	2.4161	5.4181	0.0540	0.0224	0.0416	0.0077
b=1x	2.2103	4.9226	0.0531	0.0240	0.0856	0.0174
b=.5x	4.0284	17.1382	0.0418	0.0104	0.1811	0.0106
b=.25x	2.2641	5.5715	0.0279	0.0123	0.3531	0.0634
b=.125x	1.2792	1.5100	0.0210	0.0165	0.5024	0.3327

Table 2: KPOP + MF=FALSE + W PID: Choice of b and Estimated Outcome

	Bias Bound Ratio	L1 Ratio	Est Vote Margin	Diff from Target
b=2x	2.4161	5.4181	-0.0420	-0.0684
b=1x	2.2103	4.9226	-0.0130	-0.0394
b=.5x	4.0284	17.1382	0.0409	0.0145
b=.25x	2.2641	5.5715	0.0244	-0.0020
b=.125x	1.2792	1.5100	0.0564	0.0300

KPOP with meanfirst

Table 3: KPOP + MF=TRUE + W PID: Comparison of Bias bound and L1 distance by choice of b

	Bias Bound Ratio	L1 Ratio	Bias Bound Orig	Bias Bound Opt	L1 Orig	L1 Opt
b=2x	7.8998	40.9127	0.0540	0.0068	0.0416	0.0010
b=1x	5.4788	21.4005	0.0531	0.0097	0.0856	0.0040
b=.5x	3.4858	8.4553	0.0418	0.0120	0.1811	0.0214
b=.25x	2.2433	4.8617	0.0279	0.0124	0.3531	0.0726
b=.125x	1.3924	2.0274	0.0210	0.0151	0.5024	0.2478

Table 4: KPOP + MF=TRUE + W PID: Choice of b and Estimated Outcome

	Bias Bound Ratio	L1 Ratio	Est Vote Margin	Diff from Target
b=2x	7.8998	40.9127	0.0247	-0.0017
b=1x	5.4788	21.4005	0.0249	-0.0015
b=.5x	3.4858	8.4553	0.0268	0.0004
b=.25x	2.2433	4.8617	0.0263	-0.0001
b=.125x	1.3924	2.0274	0.0292	0.0028

Without Party Id

KPOP (no meanfirst)

Table 5: KPOP + MF=FALSE + NO PID: Comparison of Bias bound and L1 distance by choice of b

	Bias Bound Ratio	L1 Ratio	Bias Bound Orig	Bias Bound Opt	L1 Orig	L1 Opt
b=2x	6.0636	14.7920	0.0575	0.0095	0.0464	0.0031
b=1x	5.3590	14.7438	0.0575	0.0107	0.0960	0.0065
b=.5x	6.6915	27.7576	0.0472	0.0070	0.2027	0.0073
b=.25x	2.6331	5.9951	0.0343	0.0130	0.3783	0.0631
b=.125x	2.2572	3.7655	0.0280	0.0124	0.4964	0.1318

Table 6: KPOP + MF=FALSE + NO PID: Choice of b and Estimated Outcome

	Bias Bound Ratio	L1 Ratio	Est Vote Margin	Diff from Target
b=2x	6.0636	14.7920	-0.0205	-0.0469
b=1x	5.3590	14.7438	-0.0235	-0.0499
b=.5x	6.6915	27.7576	-0.0090	-0.0354
b=.25x	2.6331	5.9951	0.0002	-0.0262
b=.125x	2.2572	3.7655	0.0238	-0.0026

KPOP with meanfirst

```
#best
#bb_comp: best in terms of balance on target
rownames(bb_comp)[which(abs(bb_comp$Diff_from_Target) == min(abs(bb_comp$Diff_from_Target)))]

## [1] "b=.25x"

#best in terms of bias bound ratio
rownames(bb_comp)[which(abs(bb_comp$bb_ratio) == max(abs(bb_comp$bb_ratio)))]

## [1] "b=.5x"

#best
#bb_comp_mf: best in terms of balance on target
rownames(bb_comp_mf)[which(abs(bb_comp_mf$Diff_from_Target) == min(abs(bb_comp_mf$Diff_from_Target)))]

## [1] "b=.25x"

#best in terms of bias bound ratio
rownames(bb_comp_mf)[which(abs(bb_comp_mf$bb_ratio) == max(abs(bb_comp_mf$bb_ratio)))]

## [1] "b=2x"

#best
#bb_comp_nopid: best in terms of balance on target
rownames(bb_comp_nopid)[which(abs(bb_comp_nopid$Diff_from_Target) == min(abs(bb_comp_nopid$Diff_from_Target)))]

## [1] "b=.125x"

#best in terms of bias bound ratio
rownames(bb_comp_nopid)[which(abs(bb_comp_nopid$bb_ratio) == max(abs(bb_comp_nopid$bb_ratio)))]
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```
## [1] "b=.5x"
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