Simulation Analysis: table the results

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | 1.0000 | 2.0000 | 3.0000 | 4.0000 | 5.0000 | 6.0000 | 7.0000 | 8.0000 |
| true.beta1 | 0.0000 | 0.0400 | 0.1000 | 0.2000 | 0.0000 | 0.0400 | 0.1000 | 0.2000 |
| BayesB1bias | 0.0001 | 0.0002 | 0.0004 | 0.0010 | 0.0004 | 0.0008 | 0.0009 | 0.0020 |
| BayesN1bias | 0.0055 | 0.0049 | 0.0045 | 0.0038 | 0.0058 | 0.0056 | 0.0048 | 0.0046 |
| Freq1bias | 0.0048 | 0.0043 | 0.0040 | 0.0041 | 0.0052 | 0.0050 | 0.0044 | 0.0049 |
| BayesB1cover | 0.9540 | 0.9640 | 0.9440 | 0.9530 | 0.9600 | 0.9510 | 0.9540 | 0.9510 |
| BayesN1cover | 0.9370 | 0.9500 | 0.9210 | 0.9430 | 0.9390 | 0.9250 | 0.9440 | 0.9350 |
| Freq1cover | 0.9500 | 0.9590 | 0.9360 | 0.9530 | 0.9490 | 0.9360 | 0.9540 | 0.9470 |
| BayesB1mse | 0.0002 | 0.0002 | 0.0002 | 0.0001 | 0.0002 | 0.0002 | 0.0002 | 0.0001 |
| BayesN1mse | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 |
| Freq1mse | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 |
| BayesB1power | 0.0460 | 0.8720 | 1.0000 | 1.0000 | 0.0400 | 0.8510 | 1.0000 | 1.0000 |
| BayesN1power | 0.0630 | 0.9260 | 1.0000 | 1.0000 | 0.0610 | 0.9230 | 1.0000 | 1.0000 |
| Freq1power | 0.0500 | 0.9140 | 1.0000 | 1.0000 | 0.0510 | 0.8930 | 1.0000 | 1.0000 |
| BayesB1se2mean | 0.0002 | 0.0002 | 0.0002 | 0.0001 | 0.0002 | 0.0002 | 0.0002 | 0.0001 |
| BayesN1se2mean | 0.0002 | 0.0002 | 0.0002 | 0.0001 | 0.0002 | 0.0002 | 0.0002 | 0.0001 |
| Freq1se2mean | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 |
| mcse.biasB1 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 |
| mcse.biasN1 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 |
| mcse.biasF1 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 | 0.0004 |
| RhatB1 | 1.0082 | 1.0088 | 1.0083 | 1.0073 | 1.0069 | 1.0068 | 1.0075 | 1.0063 |
| RhatN1 | 1.0052 | 1.0055 | 1.0052 | 1.0045 | 1.0047 | 1.0046 | 1.0047 | 1.0039 |
| true.beta2 | 0.0000 | 0.0000 | 0.0300 | -0.2000 | 0.0000 | 0.0000 | 0.0300 | -0.2000 |
| BayesB2bias | -0.0003 | -0.0012 | 0.0007 | -0.0009 | -0.0008 | 0.0004 | 0.0000 | -0.0026 |
| BayesN2bias | -0.0071 | -0.0075 | -0.0057 | -0.0042 | -0.0078 | -0.0064 | -0.0063 | -0.0057 |
| Freq2bias | -0.0050 | -0.0061 | -0.0043 | -0.0043 | -0.0060 | -0.0048 | -0.0048 | -0.0059 |
| BayesB2cover | 0.9520 | 0.9560 | 0.9550 | 0.9610 | 0.9530 | 0.9540 | 0.9500 | 0.9550 |
| BayesN2cover | 0.9460 | 0.9450 | 0.9470 | 0.9540 | 0.9480 | 0.9520 | 0.9480 | 0.9380 |
| Freq2cover | 0.9590 | 0.9520 | 0.9600 | 0.9610 | 0.9550 | 0.9570 | 0.9540 | 0.9450 |
| BayesB2mse | 0.0008 | 0.0007 | 0.0006 | 0.0005 | 0.0009 | 0.0007 | 0.0006 | 0.0005 |
| BayesN2mse | 0.0008 | 0.0007 | 0.0006 | 0.0005 | 0.0009 | 0.0007 | 0.0006 | 0.0006 |
| Freq2mse | 0.0008 | 0.0007 | 0.0006 | 0.0005 | 0.0009 | 0.0007 | 0.0006 | 0.0006 |
| BayesB2power | 0.0480 | 0.0440 | 0.2750 | 1.0000 | 0.0470 | 0.0460 | 0.2480 | 1.0000 |
| BayesN2power | 0.0540 | 0.0550 | 0.2040 | 1.0000 | 0.0520 | 0.0480 | 0.1940 | 1.0000 |
| Freq2power | 0.0410 | 0.0480 | 0.2010 | 1.0000 | 0.0450 | 0.0430 | 0.1970 | 1.0000 |
| BayesB2se2mean | 0.0009 | 0.0007 | 0.0006 | 0.0005 | 0.0009 | 0.0007 | 0.0006 | 0.0006 |
| BayesN2se2mean | 0.0009 | 0.0007 | 0.0006 | 0.0006 | 0.0009 | 0.0007 | 0.0006 | 0.0006 |
| Freq2se2mean | 0.0009 | 0.0008 | 0.0007 | 0.0006 | 0.0009 | 0.0008 | 0.0007 | 0.0006 |
| mcse.biasB2 | 0.0009 | 0.0008 | 0.0008 | 0.0007 | 0.0009 | 0.0008 | 0.0008 | 0.0007 |
| mcse.biasN2 | 0.0009 | 0.0008 | 0.0007 | 0.0007 | 0.0009 | 0.0008 | 0.0008 | 0.0007 |
| mcse.biasF2 | 0.0009 | 0.0008 | 0.0008 | 0.0007 | 0.0009 | 0.0008 | 0.0008 | 0.0008 |
| RhatB2 | 1.0100 | 1.0102 | 1.0095 | 1.0086 | 1.0081 | 1.0079 | 1.0085 | 1.0074 |
| RhatN2 | 1.0066 | 1.0070 | 1.0064 | 1.0056 | 1.0059 | 1.0055 | 1.0057 | 1.0048 |
| true.tau | 0.0010 | 0.0010 | 0.0010 | 0.0010 | 0.0100 | 0.0100 | 0.0100 | 0.0100 |
| BayesBtaubias | 0.0124 | 0.0118 | 0.0105 | 0.0108 | 0.0051 | 0.0044 | 0.0033 | 0.0037 |
| BayesNtaubias | 0.0130 | 0.0126 | 0.0116 | 0.0117 | 0.0055 | 0.0051 | 0.0041 | 0.0047 |
| BayesBtaucover | 0.9380 | 0.9340 | 0.9560 | 0.9420 | 0.9820 | 0.9770 | 0.9750 | 0.9860 |
| BayesNtaucover | 0.9140 | 0.9060 | 0.9070 | 0.9060 | 0.9810 | 0.9750 | 0.9710 | 0.9640 |
| BayesBtaumse | 0.0002 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0000 | 0.0000 |
| BayesNtaumse | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| BayesBtaupower | 0.0780 | 0.0820 | 0.0650 | 0.0680 | 0.1490 | 0.1620 | 0.1690 | 0.1700 |
| BayesNtaupower | 0.1090 | 0.1160 | 0.1270 | 0.1290 | 0.1610 | 0.2000 | 0.2150 | 0.2340 |
| BayesBtause2mean | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| BayesNtause2mean | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| mcse.biastauB | 0.0002 | 0.0002 | 0.0001 | 0.0001 | 0.0002 | 0.0002 | 0.0002 | 0.0002 |
| mcse.biastauN | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0002 |
| RhatBtau | 1.0208 | 1.0215 | 1.0199 | 1.0204 | 1.0198 | 1.0199 | 1.0211 | 1.0209 |
| RhatNtau | 1.0147 | 1.0150 | 1.0149 | 1.0155 | 1.0161 | 1.0148 | 1.0151 | 1.0171 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 41 | 5 | 6 | 21 |
| X | 1.0000 | 2.0000 | 3.0000 | 1.0000 | 4.0000 | 5.0000 | 6.0000 | 2.0000 |
| true.beta1 | 0.0000 | 0.0400 | 0.1000 | 0.2000 | 0.0000 | 0.0400 | 0.1000 | 0.2000 |
| BayesB1bias | 0.0000 | 0.0002 | 0.0001 | -0.0021 | 0.0007 | 0.0006 | 0.0004 | 0.0001 |
| BayesN1bias | 0.0077 | 0.0068 | 0.0101 | -0.0175 | 0.0070 | 0.0070 | 0.0113 | -0.0080 |
| Freq1bias | 0.0003 | -0.0009 | -0.0041 | -0.0054 | 0.0001 | -0.0009 | -0.0061 | -0.0045 |
| BayesB1cover | 0.9450 | 0.9430 | 0.9510 | 0.9090 | 0.9520 | 0.9550 | 0.9460 | 0.9630 |
| BayesN1cover | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Freq1cover | 0.9370 | 0.9410 | 0.9160 | 0.8620 | 0.9450 | 0.9400 | 0.9040 | 0.9050 |
| BayesB1mse | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0000 | 0.0000 | 0.0001 | 0.0000 |
| BayesN1mse | 0.0003 | 0.0002 | 0.0003 | 0.0007 | 0.0002 | 0.0002 | 0.0004 | 0.0003 |
| Freq1mse | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0000 | 0.0001 | 0.0002 | 0.0001 |
| BayesB1power | 0.0550 | 1.0000 | 1.0000 | 1.0000 | 0.0480 | 1.0000 | 1.0000 | 1.0000 |
| BayesN1power | 0.0000 | 0.0000 | 0.0000 | 0.0020 | 0.0000 | 0.0000 | 0.0000 | 0.0190 |
| Freq1power | 0.0630 | 1.0000 | 1.0000 | 1.0000 | 0.0550 | 0.9920 | 1.0000 | 1.0000 |
| BayesB1se2mean | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 |
| BayesN1se2mean | 0.0710 | 0.0482 | 0.0226 | 0.0493 | 0.0487 | 0.0339 | 0.0164 | 0.0346 |
| Freq1se2mean | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0000 | 0.0001 | 0.0001 | 0.0001 |
| mcse.biasB1 | 0.0001 | 0.0002 | 0.0003 | 0.0003 | 0.0002 | 0.0002 | 0.0003 | 0.0002 |
| mcse.biasN1 | 0.0005 | 0.0004 | 0.0004 | 0.0006 | 0.0004 | 0.0004 | 0.0005 | 0.0005 |
| mcse.biasF1 | 0.0002 | 0.0002 | 0.0003 | 0.0003 | 0.0002 | 0.0003 | 0.0004 | 0.0003 |
| RhatB1 | 1.0077 | 1.0089 | 1.0091 | 1.0074 | 1.0037 | 1.0047 | 1.0066 | 1.0044 |
| RhatN1 | 1.0076 | 1.0087 | 1.0106 | 1.0106 | 1.0087 | 1.0097 | 1.0117 | 1.0114 |
| true.beta2 | 0.0000 | 0.0000 | 0.0300 | -0.2000 | 0.0000 | 0.0000 | 0.0300 | -0.2000 |
| BayesB2bias | -0.0001 | -0.0005 | -0.0006 | 0.0021 | -0.0005 | 0.0001 | 0.0006 | 0.0007 |
| BayesN2bias | -0.0262 | -0.0228 | -0.0229 | 0.0442 | -0.0239 | -0.0209 | -0.0202 | 0.0249 |
| Freq2bias | -0.0007 | 0.0009 | 0.0036 | 0.0064 | 0.0006 | 0.0017 | 0.0068 | 0.0070 |
| BayesB2cover | 0.9420 | 0.9580 | 0.9610 | 0.9190 | 0.9620 | 0.9540 | 0.9440 | 0.9680 |
| BayesN2cover | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| Freq2cover | 0.9100 | 0.9180 | 0.9170 | 0.8760 | 0.9240 | 0.9160 | 0.9160 | 0.8940 |
| BayesB2mse | 0.0001 | 0.0001 | 0.0002 | 0.0002 | 0.0001 | 0.0002 | 0.0003 | 0.0002 |
| BayesN2mse | 0.0021 | 0.0020 | 0.0021 | 0.0036 | 0.0020 | 0.0018 | 0.0022 | 0.0022 |
| Freq2mse | 0.0002 | 0.0003 | 0.0007 | 0.0006 | 0.0003 | 0.0004 | 0.0010 | 0.0008 |
| BayesB2power | 0.0580 | 0.0420 | 0.5580 | 1.0000 | 0.0380 | 0.0460 | 0.4220 | 1.0000 |
| BayesN2power | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Freq2power | 0.0900 | 0.0820 | 0.3740 | 0.9990 | 0.0760 | 0.0840 | 0.3260 | 0.9950 |
| BayesB2se2mean | 0.0001 | 0.0001 | 0.0002 | 0.0001 | 0.0001 | 0.0002 | 0.0004 | 0.0002 |
| BayesN2se2mean | 0.3868 | 0.3004 | 0.1635 | 0.2695 | 0.2893 | 0.2226 | 0.1257 | 0.1960 |
| Freq2se2mean | 0.0002 | 0.0003 | 0.0005 | 0.0004 | 0.0003 | 0.0004 | 0.0008 | 0.0006 |
| mcse.biasB2 | 0.0003 | 0.0003 | 0.0005 | 0.0004 | 0.0004 | 0.0004 | 0.0006 | 0.0004 |
| mcse.biasN2 | 0.0012 | 0.0012 | 0.0013 | 0.0013 | 0.0012 | 0.0012 | 0.0013 | 0.0013 |
| mcse.biasF2 | 0.0005 | 0.0005 | 0.0008 | 0.0007 | 0.0006 | 0.0006 | 0.0010 | 0.0009 |
| RhatB2 | 1.0093 | 1.0101 | 1.0103 | 1.0084 | 1.0044 | 1.0054 | 1.0074 | 1.0050 |
| RhatN2 | 1.0103 | 1.0119 | 1.0137 | 1.0141 | 1.0115 | 1.0129 | 1.0151 | 1.0147 |
| true.tau | 0.0010 | 0.0010 | 0.0010 | 0.0010 | 0.0100 | 0.0100 | 0.0100 | 0.0100 |
| BayesBtaubias | 0.0031 | 0.0041 | 0.0062 | 0.0051 | -0.0005 | -0.0001 | 0.0013 | 0.0001 |
| BayesNtaubias | 0.1160 | 0.0911 | 0.0580 | 0.0843 | 0.0810 | 0.0641 | 0.0394 | 0.0588 |
| BayesBtaucover | 0.9680 | 0.9570 | 0.9580 | 0.9190 | 0.9490 | 0.9730 | 0.9790 | 0.9730 |
| BayesNtaucover | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| BayesBtaumse | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| BayesNtaumse | 0.0135 | 0.0083 | 0.0034 | 0.0074 | 0.0066 | 0.0041 | 0.0016 | 0.0036 |
| BayesBtaupower | 0.0810 | 0.0770 | 0.0690 | 0.1160 | 0.5690 | 0.4400 | 0.2420 | 0.4510 |
| BayesNtaupower | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| BayesBtause2mean | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| BayesNtause2mean | 0.0082 | 0.0051 | 0.0021 | 0.0045 | 0.0050 | 0.0033 | 0.0015 | 0.0029 |
| mcse.biastauB | 0.0000 | 0.0001 | 0.0001 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| mcse.biastauN | 0.0002 | 0.0002 | 0.0001 | 0.0005 | 0.0002 | 0.0002 | 0.0001 | 0.0003 |
| RhatBtau | 1.0210 | 1.0200 | 1.0187 | 1.0193 | 1.0209 | 1.0213 | 1.0224 | 1.0219 |
| RhatNtau | 1.0067 | 1.0068 | 1.0069 | 1.0071 | 1.0068 | 1.0065 | 1.0069 | 1.0067 |