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 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 0.0000 | 0.0001 | 0.0005 | -0.0018 | 0.0006 | 0.0000 | 0.0008 | 0.0004 |
| BayesN1bias | 0.0001 | -0.0010 | -0.0047 | -0.0060 | 0.0002 | -0.0017 | -0.0067 | -0.0059 |
| Freq1bias | 0.0000 | -0.0010 | -0.0040 | -0.0049 | 0.0002 | -0.0015 | -0.0055 | -0.0044 |
| BayesB1cover | 0.9520 | 0.9520 | 0.9320 | 0.9130 | 0.9430 | 0.9480 | 0.9620 | 0.9600 |
| BayesN1cover | 0.9040 | 0.9080 | 0.8530 | 0.7900 | 0.9150 | 0.9040 | 0.8660 | 0.8150 |
| Freq1cover | 0.9500 | 0.9390 | 0.9000 | 0.8570 | 0.9380 | 0.9270 | 0.9160 | 0.8960 |
| BayesB1mse | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0000 | 0.0000 | 0.0001 | 0.0000 |
| BayesN1mse | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0000 | 0.0001 | 0.0002 | 0.0001 |
| Freq1mse | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0000 | 0.0001 | 0.0002 | 0.0001 |
| BayesB1power | 0.0480 | 1.0000 | 1.0000 | 1.0000 | 0.0570 | 1.0000 | 1.0000 | 1.0000 |
| BayesN1power | 0.0960 | 1.0000 | 1.0000 | 1.0000 | 0.0850 | 0.9960 | 1.0000 | 1.0000 |
| Freq1power | 0.0500 | 1.0000 | 1.0000 | 1.0000 | 0.0620 | 0.9930 | 1.0000 | 1.0000 |
| BayesB1se2mean | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 |
| BayesN1se2mean | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0001 |
| 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 | 0.0002 | 0.0002 | 0.0004 | 0.0003 | 0.0002 | 0.0003 | 0.0004 | 0.0003 |
| mcse.biasF1 | 0.0002 | 0.0002 | 0.0003 | 0.0003 | 0.0002 | 0.0003 | 0.0004 | 0.0003 |
| RhatB1 | 1.0078 | 1.0090 | 1.0086 | 1.0074 | 1.0036 | 1.0049 | 1.0066 | 1.0042 |
| RhatN1 | 1.0021 | 1.0026 | 1.0026 | 1.0018 | 1.0018 | 1.0021 | 1.0023 | 1.0016 |
| true.beta2 | 0.0000 | 0.0000 | 0.0300 | -0.2000 | 0.0000 | 0.0000 | 0.0300 | -0.2000 |
| BayesB2bias | -0.0003 | -0.0005 | -0.0011 | 0.0015 | -0.0004 | 0.0004 | -0.0002 | 0.0000 |
| BayesN2bias | -0.0004 | 0.0009 | 0.0041 | 0.0077 | 0.0000 | 0.0019 | 0.0073 | 0.0094 |
| Freq2bias | 0.0001 | 0.0011 | 0.0041 | 0.0065 | 0.0001 | 0.0021 | 0.0064 | 0.0076 |
| BayesB2cover | 0.9570 | 0.9570 | 0.9530 | 0.9110 | 0.9410 | 0.9550 | 0.9640 | 0.9540 |
| BayesN2cover | 0.8250 | 0.8090 | 0.7890 | 0.7080 | 0.8490 | 0.8380 | 0.8070 | 0.7190 |
| Freq2cover | 0.9140 | 0.9220 | 0.9070 | 0.8720 | 0.9210 | 0.9090 | 0.9090 | 0.8790 |
| BayesB2mse | 0.0001 | 0.0001 | 0.0002 | 0.0002 | 0.0001 | 0.0002 | 0.0003 | 0.0002 |
| BayesN2mse | 0.0002 | 0.0003 | 0.0008 | 0.0006 | 0.0003 | 0.0005 | 0.0010 | 0.0009 |
| Freq2mse | 0.0002 | 0.0003 | 0.0008 | 0.0005 | 0.0003 | 0.0004 | 0.0010 | 0.0008 |
| BayesB2power | 0.0430 | 0.0430 | 0.5440 | 1.0000 | 0.0590 | 0.0450 | 0.4240 | 1.0000 |
| BayesN2power | 0.1750 | 0.1910 | 0.5440 | 0.9980 | 0.1510 | 0.1620 | 0.4870 | 0.9990 |
| Freq2power | 0.0860 | 0.0780 | 0.4020 | 1.0000 | 0.0790 | 0.0910 | 0.3120 | 0.9950 |
| BayesB2se2mean | 0.0001 | 0.0001 | 0.0002 | 0.0001 | 0.0001 | 0.0002 | 0.0003 | 0.0002 |
| BayesN2se2mean | 0.0001 | 0.0001 | 0.0003 | 0.0002 | 0.0002 | 0.0002 | 0.0004 | 0.0003 |
| Freq2se2mean | 0.0002 | 0.0002 | 0.0006 | 0.0004 | 0.0003 | 0.0004 | 0.0008 | 0.0005 |
| mcse.biasB2 | 0.0003 | 0.0003 | 0.0005 | 0.0004 | 0.0004 | 0.0004 | 0.0006 | 0.0004 |
| mcse.biasN2 | 0.0005 | 0.0006 | 0.0009 | 0.0007 | 0.0006 | 0.0007 | 0.0010 | 0.0009 |
| mcse.biasF2 | 0.0005 | 0.0005 | 0.0009 | 0.0007 | 0.0006 | 0.0007 | 0.0010 | 0.0009 |
| RhatB2 | 1.0094 | 1.0104 | 1.0096 | 1.0086 | 1.0043 | 1.0055 | 1.0074 | 1.0048 |
| RhatN2 | 1.0026 | 1.0031 | 1.0030 | 1.0021 | 1.0021 | 1.0025 | 1.0027 | 1.0018 |
| true.tau | 0.0010 | 0.0010 | 0.0010 | 0.0010 | 0.0100 | 0.0100 | 0.0100 | 0.0100 |
| BayesBtaubias | 0.0032 | 0.0040 | 0.0063 | 0.0051 | -0.0002 | -0.0001 | 0.0015 | 0.0003 |
| BayesNtaubias | 0.0086 | 0.0096 | 0.0158 | 0.0154 | 0.0041 | 0.0049 | 0.0106 | 0.0107 |
| BayesBtaucover | 0.9690 | 0.9660 | 0.9630 | 0.9190 | 0.9670 | 0.9670 | 0.9910 | 0.9740 |
| BayesNtaucover | 0.3690 | 0.4680 | 0.3720 | 0.2120 | 0.8360 | 0.8010 | 0.6830 | 0.5440 |
| BayesBtaumse | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| BayesNtaumse | 0.0001 | 0.0001 | 0.0003 | 0.0003 | 0.0000 | 0.0001 | 0.0002 | 0.0002 |
| BayesBtaupower | 0.0800 | 0.0780 | 0.0710 | 0.1290 | 0.6160 | 0.4400 | 0.2670 | 0.4700 |
| BayesNtaupower | 0.7160 | 0.6220 | 0.6870 | 0.8280 | 0.8340 | 0.7520 | 0.7070 | 0.8890 |
| BayesBtause2mean | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| BayesNtause2mean | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 |
| mcse.biastauB | 0.0000 | 0.0001 | 0.0001 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| mcse.biastauN | 0.0001 | 0.0001 | 0.0002 | 0.0002 | 0.0002 | 0.0002 | 0.0003 | 0.0002 |
| RhatBtau | 1.0202 | 1.0205 | 1.0178 | 1.0190 | 1.0204 | 1.0202 | 1.0211 | 1.0221 |
| RhatNtau | 1.0163 | 1.0171 | 1.0164 | 1.0140 | 1.0141 | 1.0154 | 1.0160 | 1.0102 |