S9 Table. Effect of varied sample size per batch with effect size SD 0.1 A) Number of TP and FP found in the different simulations using different sizes per batch (first column). B) Mean of the FDR values from the TP and FP from the same simulations as A)

A)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| N samples | LMM | | LM | | LMBatch | | LMcom | |
| per batch | TP | FP | TP | FP | TP | FP | TP | FP |
| 3 | 0.74 | 0.78 | 17.90 | 998.29 | 0.14 | 0.03 | 1.28 | 5.59 |
| 6 | 9.68 | 49.23 | 6.37 | 509.95 | 8.58 | 45.70 | 10.77 | 65.33 |
| 9 | 28.35 | 98.24 | 6.32 | 527.11 | 27.50 | 96.83 | 32.86 | 111.29 |
| 12 | 60.13 | 59.94 | 9.41 | 1039.04 | 59.40 | 60.39 | 68.86 | 54.86 |
| 15 | 86.42 | 21.06 | 6.34 | 533.51 | 85.69 | 20.94 | 101.32 | 22.15 |
| 18 | 122.57 | 6.21 | 8.66 | 535.09 | 121.90 | 6.15 | 143.39 | 10.08 |
| 21 | 153.97 | 15.04 | 5.00 | 261.37 | 153.37 | 14.76 | 171.33 | 20.93 |
| 24 | 156.05 | 21.67 | 4.99 | 239.37 | 155.73 | 21.51 | 173.99 | 30.21 |

B)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| N samples | LMM | | LM | | LMBatch | | LMcom | |
| per batch | TP | FP | TP | FP | TP | FP | TP | FP |
| 3 | 0.874251 | 0.898654 | 0.745501 | 0.740858 | 0.329539 | 0.495664 | 0.864575 | 0.895315 |
| 6 | 0.802665 | 0.877366 | 0.749255 | 0.742392 | 0.217354 | 0.491894 | 0.799815 | 0.875669 |
| 9 | 0.711416 | 0.888695 | 0.736109 | 0.71725 | 0.156904 | 0.494362 | 0.693401 | 0.887174 |
| 12 | 0.604952 | 0.875761 | 0.73626 | 0.706689 | 0.124237 | 0.483163 | 0.576718 | 0.875852 |
| 15 | 0.533466 | 0.882482 | 0.715459 | 0.686892 | 0.098131 | 0.489782 | 0.496671 | 0.882563 |
| 18 | 0.442689 | 0.866968 | 0.725119 | 0.693038 | 0.078968 | 0.4838 | 0.405843 | 0.865314 |
| 21 | 0.398315 | 0.866648 | 0.719804 | 0.686516 | 0.067626 | 0.485152 | 0.369804 | 0.86243 |
| 24 | 0.395177 | 0.86726 | 0.718222 | 0.683149 | 0.066625 | 0.486074 | 0.366807 | 0.863726 |