

|                            | $n = 500$  | $n = 1000$ | $n = 2000$ | $n = 5000$ |
|----------------------------|------------|------------|------------|------------|
| PCA                        | 0          | 0          | 0          | 0          |
| SPCA                       | 566        | 673        | 756        | 839        |
| DSPCA                      | 211        | 203        | 138        | 62         |
| PathSPCA                   | 189        | 187        | 186        | 171        |
| sPCA-rSVD $_{l_0}$         | 646        | 702        | 797        | 906        |
| sPCA-rSVD $_{l_1}$         | 649        | 715        | 806        | 909        |
| sPCA-rSVD $_{\text{SCAD}}$ | 649        | 715        | 806        | 909        |
| EMPCA                      | 649        | 715        | 806        | 909        |
| GPower $_{l_0}$            | 155        | 154        | 155        | 139        |
| GPower $_{l_1}$            | 122        | 127        | 126        | 126        |
| GPower $_{l_{0,m}}$        | 91         | 76         | 71         | 16         |
| GPower $_{l_{1,m}}$        | 90         | 92         | 88         | 82         |
| ALSPCA                     | 669        | <b>749</b> | 826        | 927        |
| ReDaC                      | <b>676</b> | 748        | <b>827</b> | <b>928</b> |