

1 COCOMO I vs COCOMO II comparison

1.1 Sorted by Median Reduction

| Goal | Treatment/Dataset | Median Reduction | Spread Reduction | Reduction Quartiles 50% | Avg Estimate (Before → After) | Estimate Stdev (Before → After) |
|--------|--------------------|------------------|------------------|-------------------------|-------------------------------|---------------------------------|
| effort | COC2-nasa93/flight | 71.88% | 22.01% | | 683.1→204.2 | 1195.5→375.1 |
| effort | COC2-nasa93/ground | 70.19% | 32.20% | | 654.4→184.4 | 1294.4→225.9 |
| effort | COC1-nasa93/osp | 68.32% | 23.47% | | 595.9→190.7 | 1032.3→316.3 |
| effort | COC1-nasa93/ground | 66.80% | 37.59% | | 680.4→301.8 | 1270.2→527.6 |
| effort | COC1-nasa93/flight | 62.81% | 36.03% | | 515.1→253.2 | 912.8→426.1 |
| effort | COC2-coc81/flight | 54.71% | 41.98% | | 685.4→420.1 | 1891.0→1301.2 |
| effort | COC2-nasa93/osp2 | 51.34% | 60.54% | | 607.1→570.5 | 1023.7→1175.2 |
| effort | COC2-coc81/ground | 50.28% | 40.74% | | 774.3→284.6 | 1988.4→543.7 |
| effort | COC1-coc81/ground | 49.89% | 53.09% | | 702.2→347.8 | 1737.6→1096.1 |
| effort | COC2-nasa93/osp | 46.60% | 47.03% | | 624.9→353.5 | 1160.5→936.6 |
| effort | COC1-coc81/flight | 45.79% | 41.69% | | 654.8→442.4 | 1711.2→1312.1 |
| effort | COC2-coc81/osp | 38.30% | 82.69% | | 615.0→411.7 | 1638.8→1328.8 |
| effort | COC1-coc81/osp | 26.44% | 47.00% | | 630.3→412.7 | 1788.9→1431.9 |
| effort | COC1-nasa93/osp2 | 22.55% | 44.87% | | 629.1→327.5 | 1184.8→455.2 |
| effort | COC1-coc81/osp2 | 18.19% | 39.94% | | 641.9→533.0 | 1736.9→1448.5 |
| effort | COC2-coc81/osp2 | 12.93% | 38.74% | | 727.6→586.1 | 1868.5→1361.4 |

1.2 Grouped by Case Study

| Goal | Treatment/Dataset | Median Reduction | Spread Reduction | Reduction Quartiles 50% | Avg Estimate (Before → After) | Estimate Stdev (Before → After) |
|--------|--------------------|------------------|------------------|-------------------------|-------------------------------|---------------------------------|
| effort | COC2-nasa93/flight | 71.88% | 22.01% | | 683.1→204.2 | 1195.5→375.1 |
| effort | COC1-nasa93/flight | 62.81% | 36.03% | | 515.1→253.2 | 912.8→426.1 |
| effort | COC2-coc81/flight | 54.71% | 41.98% | | 685.4→420.1 | 1891.0→1301.2 |
| effort | COC1-coc81/flight | 45.79% | 41.69% | | 654.8→442.4 | 1711.2→1312.1 |
| effort | COC2-nasa93/ground | 70.19% | 32.20% | | 654.4→184.4 | 1294.4→225.9 |
| effort | COC1-nasa93/ground | 66.80% | 37.59% | | 680.4→301.8 | 1270.2→527.6 |
| effort | COC2-coc81/ground | 50.28% | 40.74% | | 774.3→284.6 | 1988.4→543.7 |
| effort | COC1-coc81/ground | 49.89% | 53.09% | | 702.2→347.8 | 1737.6→1096.1 |
| effort | COC1-nasa93/osp | 68.32% | 23.47% | | 595.9→190.7 | 1032.3→316.3 |
| effort | COC2-nasa93/osp | 46.60% | 47.03% | | 624.9→353.5 | 1160.5→936.6 |
| effort | COC2-coc81/osp | 38.30% | 82.69% | | 615.0→411.7 | 1638.8→1328.8 |
| effort | COC1-coc81/osp | 26.44% | 47.00% | | 630.3→412.7 | 1788.9→1431.9 |
| effort | COC2-nasa93/osp2 | 51.34% | 60.54% | | 607.1→570.5 | 1023.7→1175.2 |
| effort | COC1-nasa93/osp2 | 22.55% | 44.87% | | 629.1→327.5 | 1184.8→455.2 |
| effort | COC1-coc81/osp2 | 18.19% | 39.94% | | 641.9→533.0 | 1736.9→1448.5 |
| effort | COC2-coc81/osp2 | 12.93% | 38.74% | | 727.6→586.1 | 1868.5→1361.4 |