

Fig. S1: The distribution of the raw, Pearson product-moment correlations of the A) NCAA data and B) simulated data.

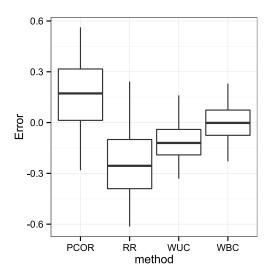


Fig. S2: The distribution of the errors for the four adjustment methods estimated by Monte Carlo simulation of the soccer data. Box plots with the median, 50% and 95% intervals represented by the horizontal line, the box, and the tips of the whiskers. Correlations are partial (PCOR), regression residual (RR), Wright's uncorrected (WUC) and bias corrected (WBC).

Table S1. Pearson and quality-adjusted correlations for soccer data. Pearson, partial (PCOR), regression residual (RR), and Wright's bias corrected (WBC) correlations are given in Supplement Table 1. The error intervals associated with PCOR, RR, and WBC method are illustrated in Supplement Fig. 2 and were computed using Monte Carlo simulation of 1000 data sets with a distribution of correlations similar to that of the soccer data (see Methods) The Pearson correlations are from Table 1 of Wilson et al. (2014). The regression residual correlations are from Table 2 of Wilson et al. (2014). The WBC correlations were computed using the PC1 loadings in Table 3 of Wilson et al. (2014) (these loadings are estimates of the Quality path coefficients  $\alpha$ ).

|    | Event_A | Event_B | Pearson | PCOR  | RR    | WBC   |
|----|---------|---------|---------|-------|-------|-------|
| 1  | Squat   | X1500   | 0.16    | -0.02 | -0.52 | -0.10 |
| 2  | Jump    | X1500   | 0.18    | -0.08 | -0.41 | -0.11 |
| 3  | Jump    | Squat   | 0.47    | 0.18  | -0.20 | 0.03  |
| 4  | Sprint  | X1500   | 0.32    | 0.28  | 0.05  | 0.11  |
| 5  | Sprint  | Squat   | 0.29    | 0.14  | -0.06 | -0.03 |
| 6  | Sprint  | Jump    | 0.37    | 0.27  | -0.25 | 0.01  |
| 7  | Agility | X1500   | 0.28    | 0.22  | -0.44 | -0.01 |
| 8  | Agility | Squat   | 0.50    | 0.30  | 0.15  | 0.06  |
| 9  | Agility | Jump    | 0.63    | 0.51  | -0.02 | 0.15  |
| 10 | Agility | Sprint  | 0.24    | -0.09 | -0.52 | -0.12 |