**Variance in PARCC scores predicted by prior MCAS scores**

The table below shows the proportion of 2015 PARCC high school preliminary scaled score variance associated with each student’s MCAS raw scores from 2014. PARCC ELA scores are compared to MCAS ELA scores, and PARCC mathematics scores are compared to MCAS mathematics scores.

|  |  |  |
| --- | --- | --- |
| **PARCC test** | ***R2*** | **N (number of students)** |
| ELA grade 9 | 0.474721 | 8364 |
| ELA grade 11 | 0.344569 | 6759 |
| Algebra I | 0.469225 | 6151 |
| Geometry | 0.488601 | 1822 |
| Algebra II | 0.386884 | 4525 |
| Integrated math I | 0.672400 | 530 |
| Integrated math III | 0.450241 | 241 |

*R2*is the square of the Pearson correlation coefficient (*R).* So one would say, for example, that 47% of the variation in the PARCC grade 9 ELA scores was associated with the student’s eight grade MCAS ELA score, among the 8,364 students who took both tests.

N.B.: The Pearson correlation coefficient is named after British statistician Karl Pearson, no relation (as far as we know) to Samuel Pearson, the founder of Pearson PLC (the PARCC testing contractor).