

Household wealth

Household wealth is frequently seen as an enabler of education. Conceptually, it enables support, materials, spare time, and other factors that might influence a student's learning. The PILNA programme collected information from students to estimate their level of household wealth. It was unlikely that students would know the monetary value of their household wealth. A list of home possessions and facilities was provided, and students were asked to indicate which of these they had in their home. They could respond with either 'Yes' or 'No'. The list included telephones, TVs, and cars, as well as home facilities, such as electricity, a flushing toilet and tap water.

From this list, a new scale was created for household wealth. Student's responses to these questions resulted in a score that estimated their level of household wealth. Higher scores on this scale indicated that the student came from a wealthier household. Lower scores on this scale indicated that the student came from a less wealthy household.

The PILNA scale for household wealth has an average of 200 and a standard deviation of 40. Most scores are expected to be within 40 points of 200 (160–240). The scale was formed using statistical analysis of ten out of thirteen answers to questions about students' household wealth.




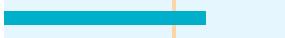

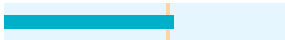

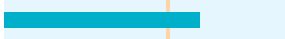
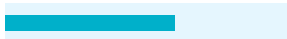
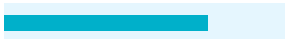
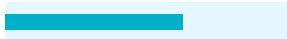
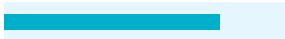
The scale was also developed separately for each country participating in PILNA, and scores on this scale were benchmarked against each country's average wealth. This was done to make comparisons between students from households with above average wealth in a country and students from households with below average wealth. Varying levels of average household wealth across countries in the region meant that a standardised approach to assessing wealth would not be appropriate for regional comparisons.

Household wealth and student performance

Table STT1.5 shows the average student performance in numeracy, reading and writing at grade three and grade five levels for students from households at or above their country's average level of wealth and for students from households below their country's average level of wealth.


Table STT1.5

Average achievement of students by household wealth and grade level

Household wealth	Grade 3	Grade 5
Numeracy		
Below average country wealth	 490 (4.1)	 530 (3.0)
At or above average country wealth	 488 (4.2)	 534 (2.3)
Reading		
Below average country wealth	 454 (4.3)	 497 (3.6)
At or above average country wealth	 460 (4.8)	 525 (3.8)
Writing		
Below average country wealth	 503 (2.7)	 537 (2.1)
At or above average country wealth	 511 (2.8)	 549 (2.3)

Average achievement of students by household wealth and grade level, PNG, PILNA 2021

() Standard errors appear in parentheses.

 Expected minimum proficiency score.

Grade five students from wealthier households had higher average performance on the PILNA assessments. This was observed across all domains – numeracy, reading and writing. For grade three, students from wealthier household also had higher average performance on the PILNA assessments, but exclusively in the writing domain.

What does this mean?

Students from wealthier households tended to have higher levels of achievement. These possible associations between wealth and achievement were found relative to each country's average household wealth. This is unsurprising, given the worldwide phenomenon of inequality and educational outcomes – students with access to greater resources or socio-economic advantages tend to perform better in education (ACER & UNESCO Institute for Statistics, 2022).

These performance differences were observed in all domains for grade five students, but just the writing domain for grade three students. This may mean that any association between household wealth and student performance is greater at this higher level of schooling.

Papua New Guinea's results aligned with those observed regionally, which also indicated that students from wealthier households tended to have higher levels of achievement.