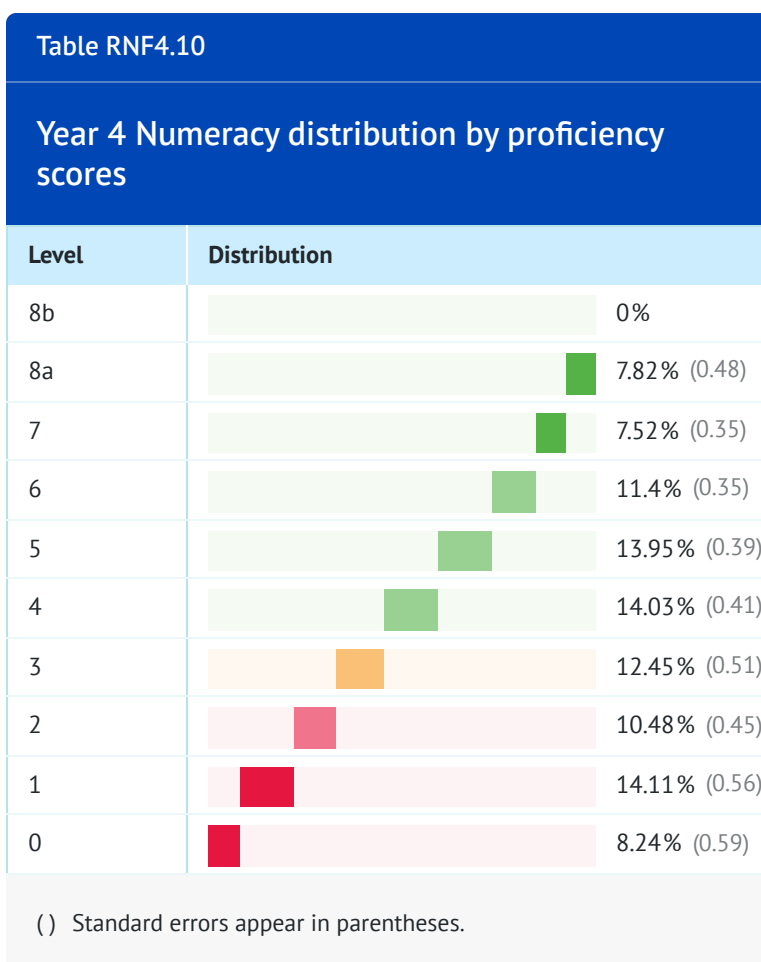


Benchmarking Year 4 numeracy performance: Are standards being met?

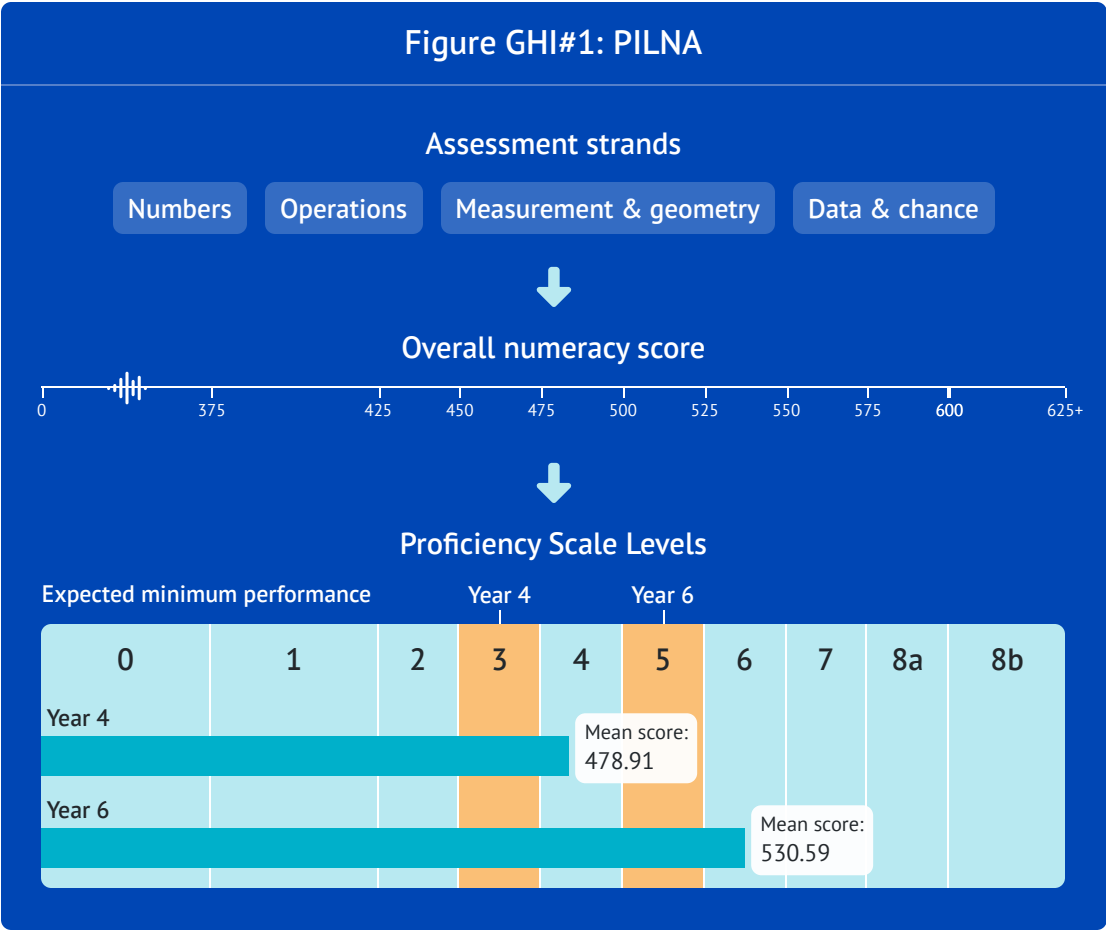
Figure RNF4.10 shows the distribution of year four overall numeracy scores against the PILNA numeracy proficiency scale. This scale converts a student's overall numeracy score into a level ranking from zero to eight.

The expected minimum overall numeracy performance for year four students is proficiency level three. Pacific stakeholders expect these students to reach or exceed this proficiency level.



The average overall numeracy score for year four students in 2021 was 478.91 (SD = 71.45). This corresponds to proficiency level four in the PILNA numeracy proficiency scale, though at the lower threshold for this level (level four is assigned to scores 475–500).

On average, year four students throughout the region are achieving the minimum expected standard in numeracy.



The average numeracy score does not tell us the whole story. The proportion of students who are meeting the minimum expected standard is also important.

Approximately 67% of the year four students, two out of three, performed at or above this expected level (levels 3–8) in PILNA 2021.

Conversely, approximately 33% of the students, one out of three, performed below the expected proficiency level (levels 0–2).

In other words, most year four students are meeting the minimum expected level for numeracy, but there is a significant proportion (33%) who are yet to meet the minimum expected proficiency level.

When looking at the distribution of year four numeracy proficiency scores in 2021 by gender (Figure RNF4.11) slight differences can be seen for girls and boys.

Table RNF4.11

Year 4 Numeracy distribution by proficiency scores and gender

Level	Girls	Boys
8	4.88 % (1.35)	4.44 % (1.11)
7	4.31 % (0.89)	3.53 % (0.78)
6	8.18 % (1.05)	5.25 % (0.87)
5	12.54 % (1.22)	7.55 % (1.11)
4	13.76 % (1.45)	8.90 % (1.20)
3	13.68 % (1.39)	11.04 % (1.27)
2	12.01 % (1.44)	12.80 % (1.31)
1	18.79 % (1.65)	22.73 % (1.43)
0	11.86 % (1.18)	23.76 % (2.31)

() Standard errors appear in parentheses.

Approximately 72% of girls performed at or above the minimum expected proficiency level (levels 3–8) compared to approximately 63% of boys.

Additionally, boys represented higher proportions of the students performing at level zero and level one than girls; 16% of year four boys performed at level one compared to 12% of girls, and 10% of boys performed at level zero compared to 6% of girls.

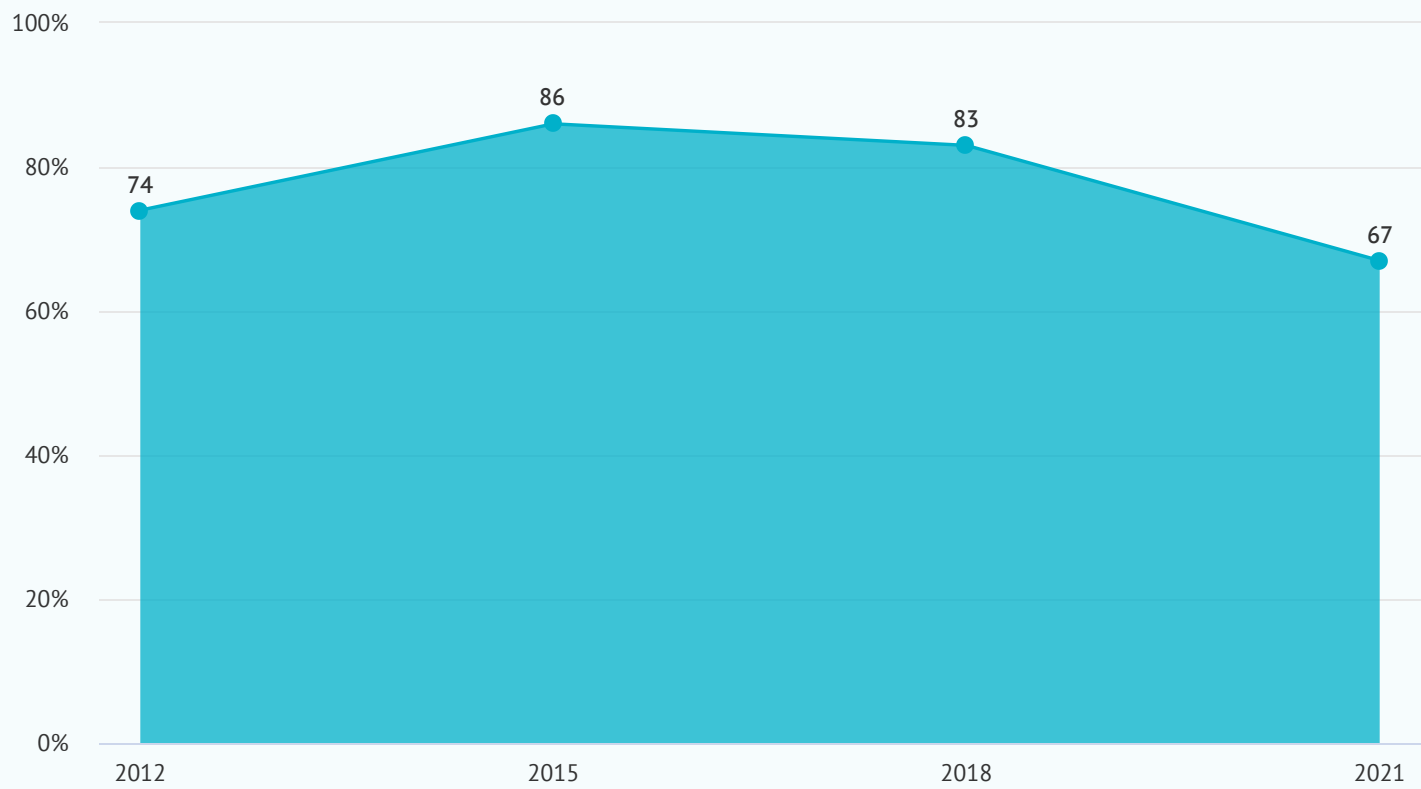
Figure RNF#X shows the proportion of year four students meeting the overall numeracy standard over time.

As seen in Figure RNF#X, a lower proportion of year four students met the minimum expected level of overall numeracy performance in 2021 than in all previous PILNA cycles (2012 = 74%, 2015 = 86%, 2018 = 83%, 2021 = 67%).

This is a critical finding from PILNA 2021: a decrease in the proportion of year four students achieving the minimum expected level of numeracy.

Figure RNF#X

Proportion of year four students meeting the overall numeracy standard over time



Year	Students at/above minimum
2012	74
2015	86
2018	83
2021	67

Proportion of year four students meeting the overall numeracy standard over time; 2012, 2015, 2018, 2021