

PISA 2022 IN LEBANON

POLICY BRIEF



RÉPUBLIQUE LIBANAISE







CRDP
Centre de Recherche
et de Développement
Pédagogiques

INTRODUCTION

The Programme for International Student Assessment (PISA) has been organized by the Organisation for Economic Co-operation and Development (OECD) in participating countries and territories every three year since 2000, surveying the competencies of 15-year-old students in mathematics (the major domain in 2022), reading, and science. Due to the outbreak of the COVID-19 pandemic, the 2021 edition has been postponed to 2022. Table 1 presents the sample size across the governorates in Lebanon.



TABLE 1 PISA 2022 STUDENT AND SCHOOL SAMPLE DISTRIBUTION ACROSS GOVERNORATES IN LEBANON

| GOVERNORATE | STUDENT SAMPLE SIZE | SCHOOL SAMPLE SIZE | SHARE IN THE STUDENT SAMPLE |
|--------------|---------------------|--------------------|-----------------------------|
| AKKAR | 382 | 23 | 7.2% |
| BAALBECK | 401 | 19 | 7.6% |
| BEIRUT | 482 | 32 | 9.1% |
| BEKAA | 357 | 22 | 6.8% |
| MOUNT LEB. | 2061 | 128 | 39.0% |
| NABATIEH | 416 | 21 | 7.9% |
| NORTH | 698 | 39 | 13.2% |
| SOUTH | 490 | 29 | 9.3% |
| TOTAL | 5287 | 313 | 100.0% |

Source: PISA 2022

FIGURE 1 AVERAGE STUDENT PERFORMANCE IN LEBANON AND ON THE OECD AVERAGE, BY DOMAIN

PERFORMANCE OF STUDENTS

Students in Lebanon achieve on average 399 points in mathematics, 375 points in reading, and 396 points in science, which are below the OECD averages of 472, 476, and 485 points, respectively.



MATHEMATICS



READING



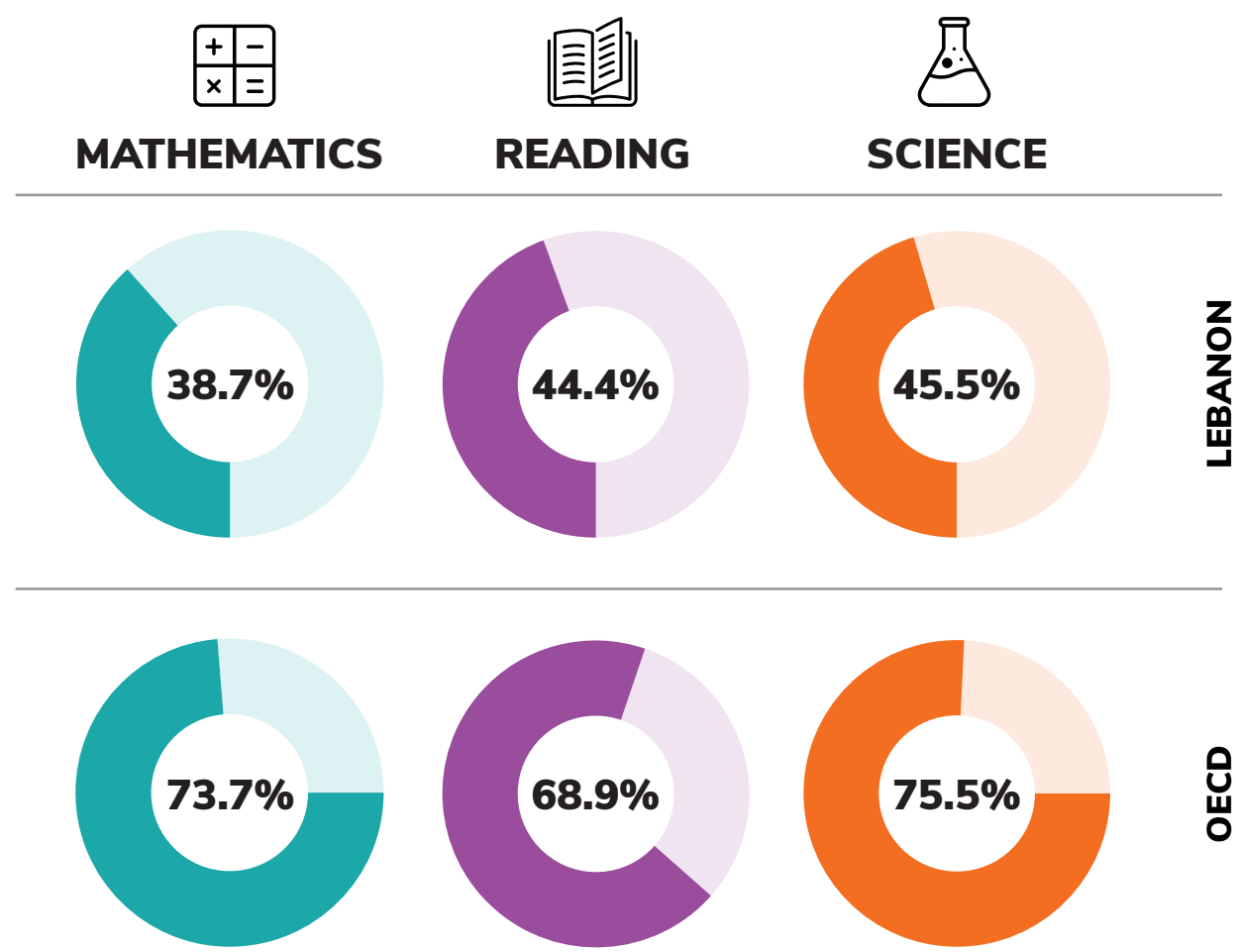
SCIENCE



Source: PISA 2022

FIGURE 2 STUDENTS WHO REACH AT LEAST PROFICIENCY LEVEL 2 IN LEBANON AND ON THE OECD AVERAGE, BY DOMAIN

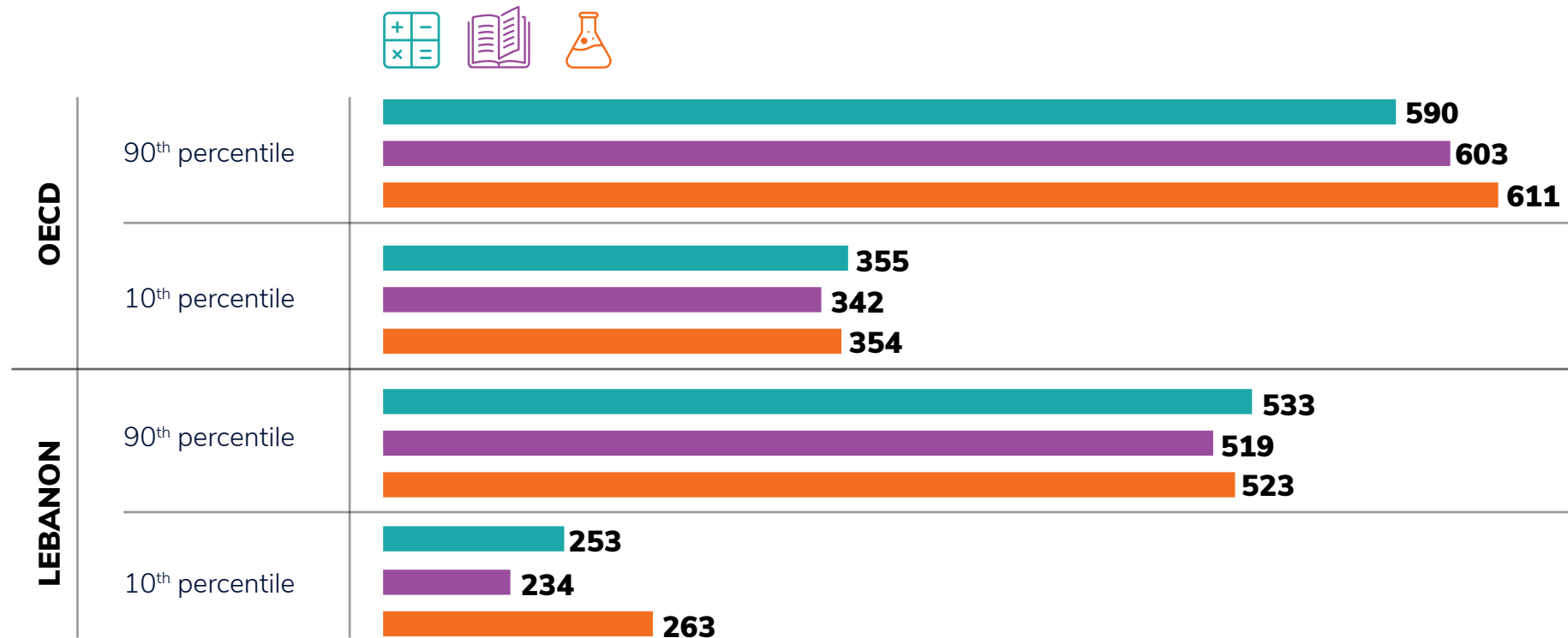
The comparison of students who manage to reach at least proficiency level 2, which corresponds to the minimum requirements, also shows how in Lebanon 44.4% of students reach level 2 in mathematics, 38.7% in reading, and 45.5% in science. On the OECD average, these shares equal 68.9%, 73.7%, and 75.5%, respectively.



Source: PISA 2022

FIGURE 3 PERFORMANCE OF STUDENTS AT THE 10TH AND 90TH PERCENTILE IN LEBANON AND ON THE OECD AVERAGE

When comparing the performance of students at the 10th and at the 90th percentile, it can be noted how the gaps are larger in Lebanon than on the OECD average. In mathematics, students at the 10th and 90th percentile reach 253 and 533 points in Lebanon, and 355 and 590 points on the OECD average; in reading, these numbers equal 234 and 519 for Lebanon, and 342 and 603 on the OECD average; in science, these numbers equal 263 and 523 for Lebanon, and 356 and 611 on the OECD average.

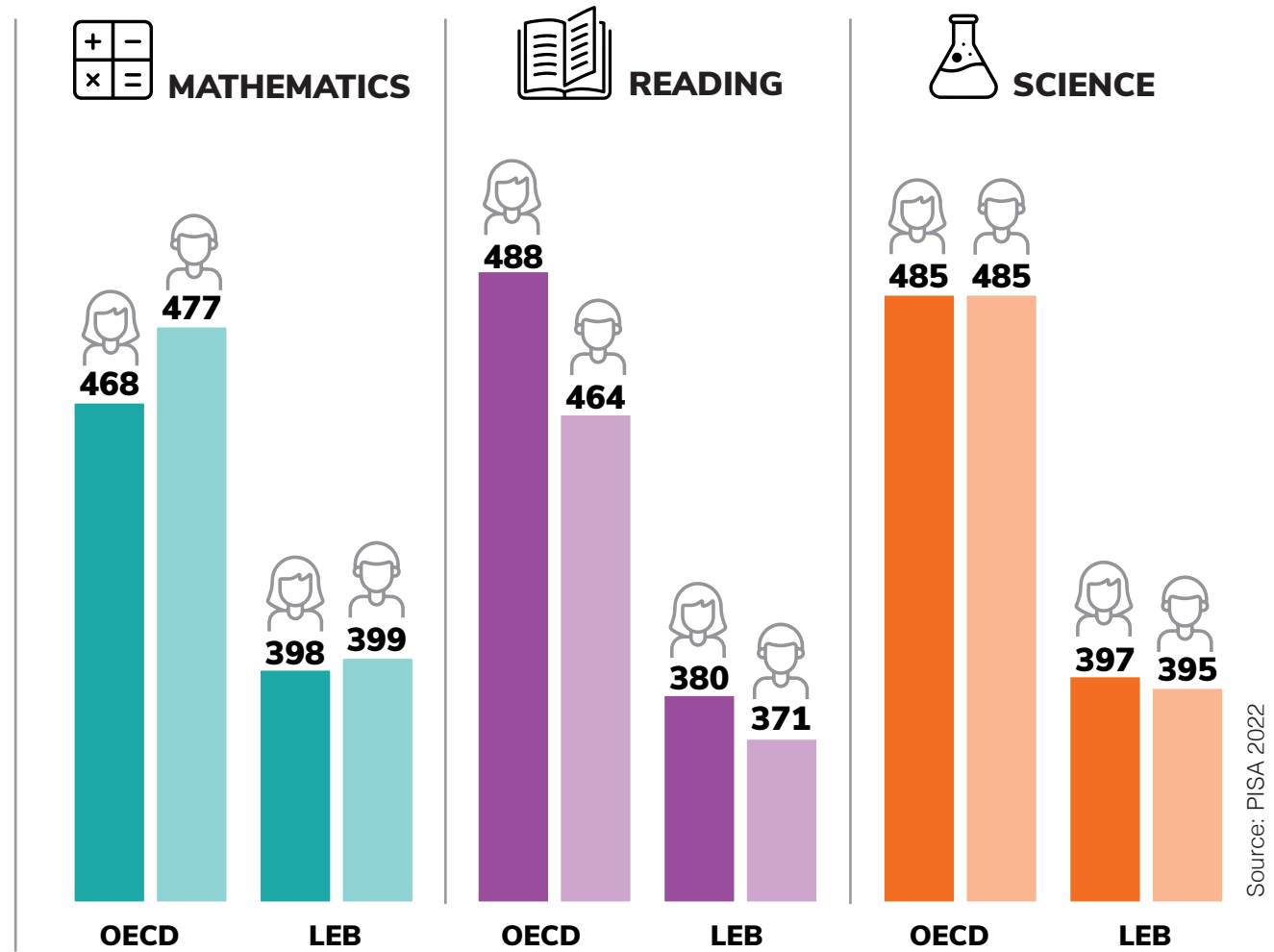


Source: PISA 2022

FIGURE 4 PERFORMANCE OF MALE AND FEMALE STUDENTS IN LEBANON AND ON THE OECD AVERAGE, BY DOMAIN

GENDER GAPS AND SOCIOECONOMIC DETERMINANTS OF PERFORMANCE

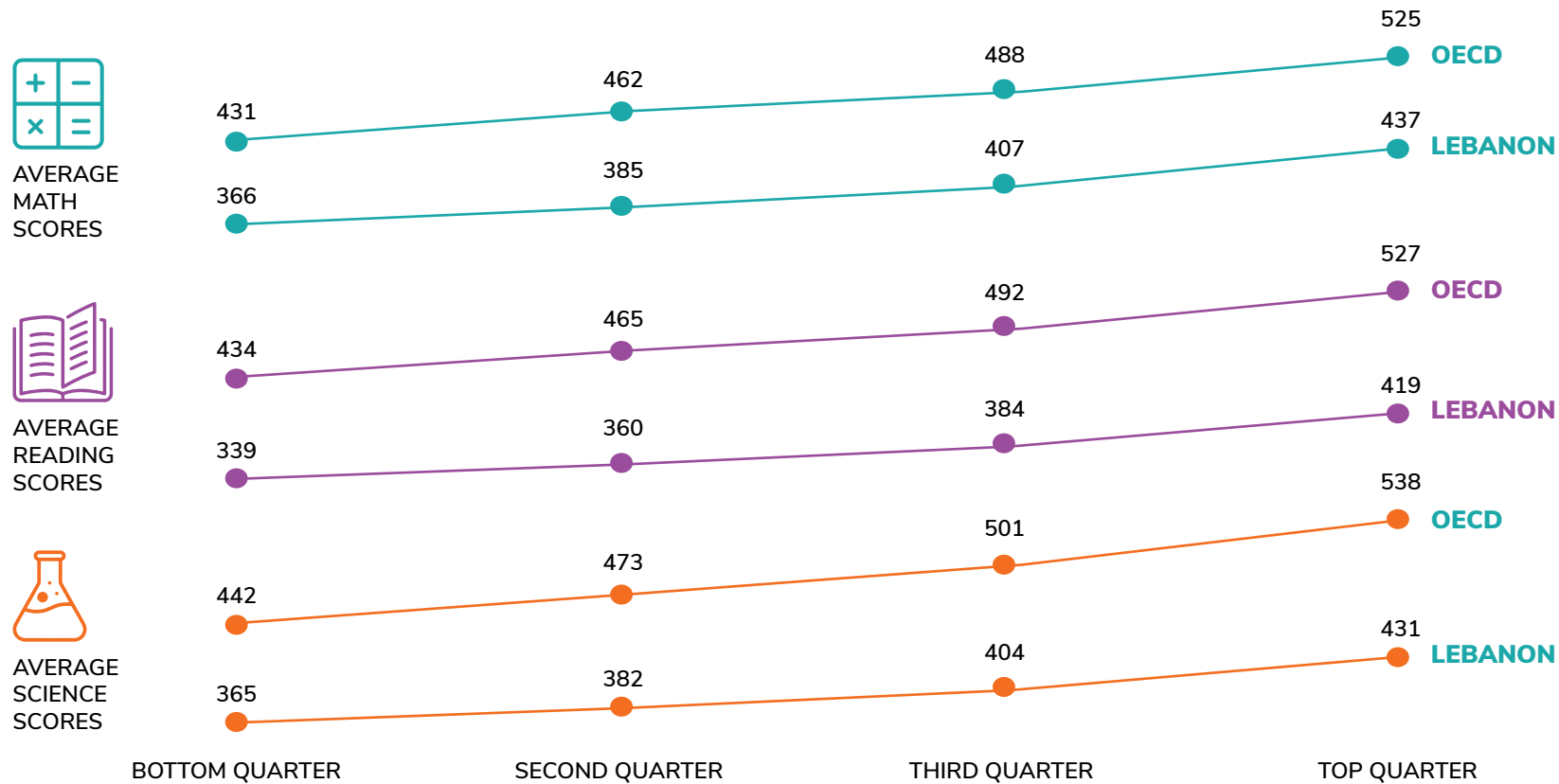
Comparing the performance of male and female students in Lebanon shows how in mathematics males reach on average 399 points and females reach 398 points, compared to 477 and 468 on the OECD average. In reading, males reach on average 371 points and females reach 380 points, compared to 464 and 488 on the OECD average. In science, males reach on average 395 points and females reach 397 points, compared to 485 and 485 on the OECD average.



Source: PISA 2022

FIGURE 5 PERFORMANCE AND SOCIOECONOMIC STATUS

The comparison of the performance of students across quarters of the socioeconomic background index show how in mathematics, reading, and science there is an association between economic status and performance. Furthermore, students in Lebanon perform lower than the OECD average for almost all the levels of socioeconomic status.

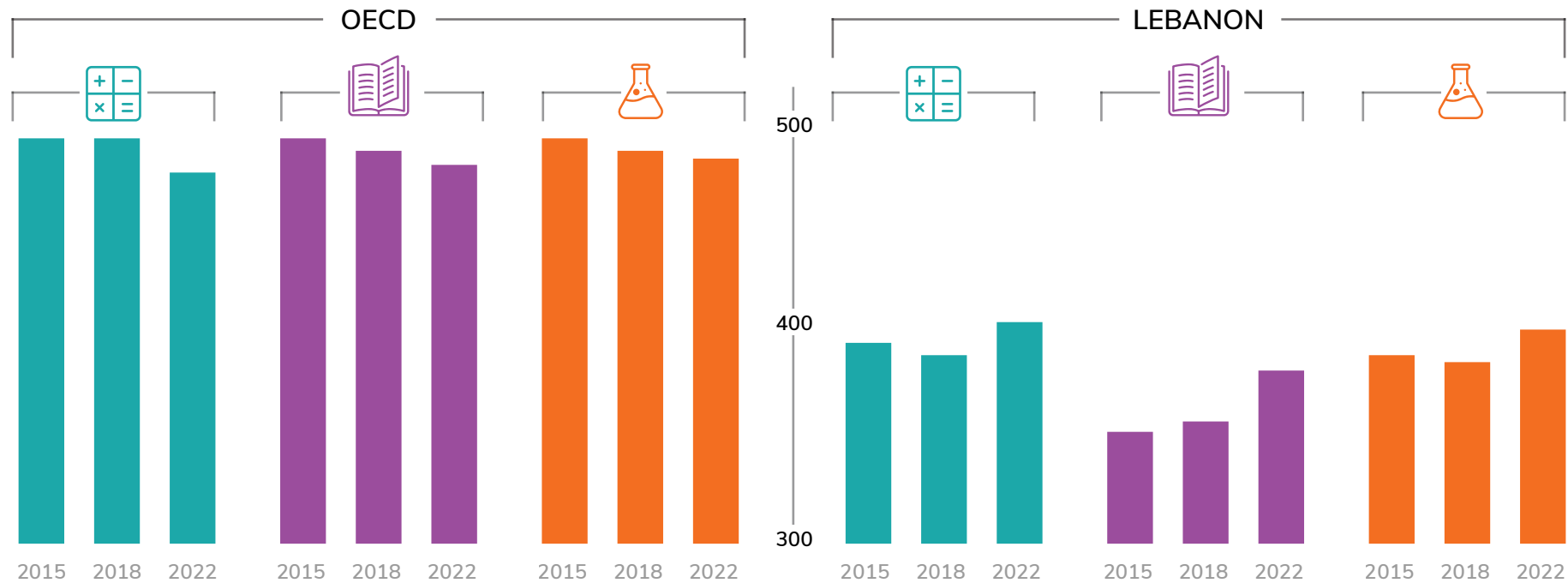


Source: PISA 2022

FIGURE 6 PERFORMANCE AND SOCIOECONOMIC STATUS

TRENDS IN PERFORMANCE AND LEARNING LOSS DUE TO COVID-19




Between 2018 and 2022, in all the domains the OECD average performance of students has decreased, most likely as a result of the COVID-19 pandemic. In Lebanon, despite the overall lower performance, positive trends emerge instead – especially between 2018 and 2022, the average performance of students has increased in all the domains.



Source: PISA 2015, PISA 2018, PISA 2022

TABLE 2 COMPUTATION OF THE CHANGE IN SCORES GIVEN THE PANDEMIC, BY MONTHS OF SCHOOL CLOSURES

The computation of the learning loss attributable to COVID-19, performed by assuming an average weekly loss in Lebanon equal to the average found on the OECD average, shows how COVID-19 has impacted student performance significantly, reducing positive improvements in achievements in Lebanon. Without the outbreak of the pandemic, the performance of students could have increased by up to 35 points in mathematics, 43 points in reading, and 17 points in science .

| |  |  |  |
|---|---|---|---|
| Change in average performance observed on the OECD average | -14.9 | -10.7 | -2.7 |
| Per-week loss on the OECD average (computed as: change in performance / 17.6) | -0.85 | -0.61 | -0.15 |
| Total expected loss in Lebanon predicting the same negative trend as in OECD countries (Per-week loss on the OECD average x 34) | -28.9 | -20.7 | -5.1 |
| Change in performance observed in Lebanon | +6.0 | +22.0 | +12 |
| Change in performance in Lebanon, assuming the total loss computed on a per-week basis | +34.9 | +42.7 | +17.1 |

Source: own calculations based on PISA 2022