

Student Performance Dashboard – Insight Summary

Test Prep Impact on Average Scores by Gender

Students who completed a test preparation course scored on average 7–8% higher than those who did not, regardless of gender. While female students slightly outperform male students overall (by 2–4%), the relative impact of test prep is consistent across both groups.

However, test prep completion is more strongly associated with reduced failure rates among female students. Female students who completed test prep had a 36% fail rate, compared to 44% for those who did not. Male students showed a 6% increase in failure likelihood when skipping test prep. Notably, 64% of students who failed despite completing test prep were male, suggesting the need to revisit instructional strategies to better support male learners.

Impact of Parental Education on Student Scores

Overall, higher parental education correlates with higher student scores, especially in reading and writing. An exception is seen among students whose parents had *some high school* education—they slightly outperformed those whose parents only completed *high school*.

- **Math:** Parental education has a modest 2–4% impact on average passing scores.
- **Reading:** Average reading scores among students with less-educated parents trail 3–6% behind those with more educated parents.
- **Writing:** This subject shows the widest performance gap (up to 10%) based on parental education.

No male students from Group E whose parents held a bachelor's degree or higher failed their assessments. Similarly, female students in Group B with parents holding a bachelor's or master's degree had no recorded exam failures. These trends affirm the positive influence of parental education on academic performance.

Student Count by Race and Gender

Group C has the highest student representation, while Group A students (both genders) have the lowest average scores. Group E students consistently achieve the highest average scores across all subjects.

- In Group A, female students' math scores fall 2% below the passing threshold, whereas male students exceed it by 4%.
- Group B male students are likely to have parents with at least a bachelor's degree, which aligns with higher performance.

Additionally, students receiving free or reduced lunch show higher failure rates, suggesting socioeconomic factors play a role in achievement. Targeted tutoring or support groups are recommended to help bridge this gap.