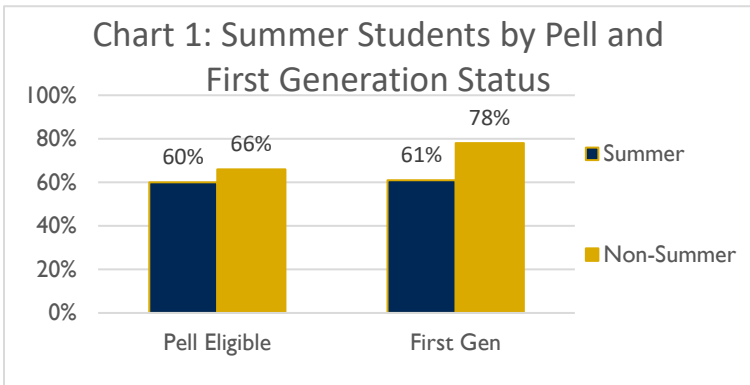


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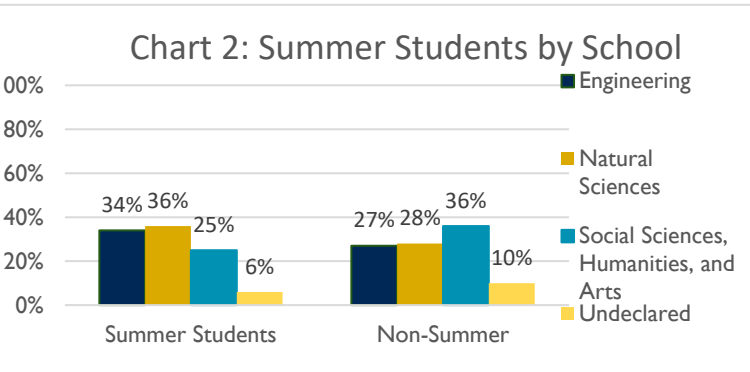
This report examines one-year retention of Frosh students who enrolled in Summer courses after their first term (referred to here as “Summer Students”), compared to Fall 2019 entering Frosh who did not enroll in Summer courses (“non-Summer Students”). There were 341 Summer Students from the Fall 2019 cohort, and 98% were retained to Fall 2020, which was significantly higher than non-Summer students, who were retained at an 84% rate.

Student Characteristics

Summer students did not have significantly¹ higher High School GPA than non-Summer students (they had the same mean High School GPA - 3.58 versus 3.58). Summer students were significantly² less often First-Generation (61% versus 78% for non-Summer students) and were significantly² less often Pell eligible in the first term (60% versus 66% for non-Summer students); see Chart 1, below:



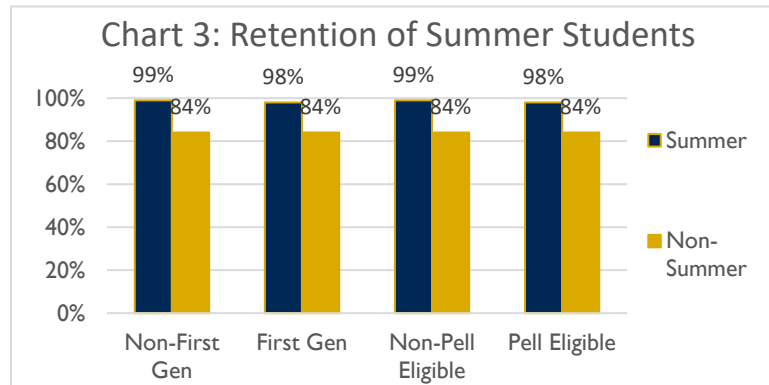
Summer students also differed in the UC Merced majors chosen, as shown in Chart 2, below. Summer students were significantly³ less likely to be Undeclared, more likely to have a



major in the School of Engineering or the School of Natural Sciences, and less likely to have a major in the School of Social Sciences, Humanities, and Arts.

Retention Rates

First year retention was significantly² higher for Summer students when compared with Non-Summer students (98% versus 84% overall), and the difference was significantly different when analyzed within Pell statuses and First-Generation statuses as well; see Chart 3, below:



Academic Outcomes

Cumulative First year GPA was significantly¹ higher for Summer students, 3.17 versus 3.01. We also compared end of Fall and end of Spring (non-cumulative) GPA to remove the influence of Summer GPA and found that both were significantly¹ higher for Summer students, with an average Fall GPA of 2.96 (versus 2.80), and an average Spring GPA of 3.27 (versus 3.02).

Summer students were equally likely² to take Math 005 as Non-Summer students (68% versus 67%), though among the

population that took Math 005, Summer students significantly² more often took Math 005 twice (20% versus 5%), though this could be due in part to them having been enrolled for an additional semester. Additionally, Summer students had significantly¹ higher grades in Math 005 the last time it was taken (2.85 versus 2.56).

If we examine just the subset of students who had taken Math 005 twice, the summer students (n=41) had somewhat (though not significantly¹) higher grades than non-summer students (n=50) in both the first attempt (0.65 versus 0.51) and the second attempt (2.32 versus 2.04). More importantly, the summer students had a significantly² smaller proportion of students earning a D, F, or W grade on the second attempt (11% versus 25%), meaning that summer students were more likely to pass Math 005 than non-summer students when they had to re-take the course.

Summer students were equally likely² to take Wri 001 as Non-Summer students (65% versus 64%), and among the students that took Wri 001, there was no significant² difference between Summer and Non-Summer students in the proportion who had taken Wri 001 twice (1% versus 3%). Summer students also had significantly² higher grades in Wri 001 the last time it was taken (3.32 versus 3.16).

Conclusion

Retention rates and first year GPA were significantly higher for the Fall 2019 Frosh cohort students who enrolled in Summer courses. Students were equally likely to take preparatory courses (in particular, Math 005 and Writing 001), and had similar High School GPA, suggesting similar academic backgrounds, though Summer students earned higher grades in these courses.

Follow up analyses will investigate outcomes in subsequent Math courses taken after Math 005.

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ENDNOTES

1. Calculated via independent samples t-test; a threshold of $p < .05$ was used for significance testing.
2. Calculated via Chi-square test of independence; a threshold of $p < .05$ was used for significance testing
3. Based on Chi-Square analysis, Pairwise Comparisons of Column Proportions with Bonferroni Correction, $p < .05$.