This report examines one-year retention for participants in the Fiat Lux program, compared to similar Fall 2017 entering Frosh. Fiat Lux selection criteria are students who are first generation and low income, and these criteria were used to identify a comparison group. 129 students participated in Fiat Lux, and 113 returned for Fall 2018, with a retention rate of 88%, well over the UC Merced undergraduate average of 81%. Compared to students with similar characteristics, Fiat Lux students were retained at a significantly higher rate. For students with high school GPAs above 3.76, 100% of Fiat Lux students retained to the next fall relative to only 82% of the comparison group with similar GPAs.

Background

The Fiat Lux program was founded to empower first-generation, low income students to be academically successful at UC Merced. Selection criteria for the program are first-generation college students (e.g. neither parent has a 4-year degree) who are low income (i.e., eligible for Pell and/or Cal grants). Criteria has changed for the 2018-19 Academic year, however, which may impact the ability to make longitudinal comparisons over time.

Retention Rates

Retention rates for Fiat Lux students were compared to other Fall 2017 entering frosh with similar characteristics, to control for effects of student background and academic preparation. We selected the comparison group to have the same range of high school GPA as the Fiat Lux students.

Table 1. Distribution of High School GPA*

<table>
<thead>
<tr>
<th>GPA Range</th>
<th>Fiat Lux</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.04 to 3.32</td>
<td>20%</td>
<td>26%</td>
</tr>
<tr>
<td>3.33 to 3.53</td>
<td>24%</td>
<td>26%</td>
</tr>
<tr>
<td>3.54 to 3.75</td>
<td>30%</td>
<td>24%</td>
</tr>
<tr>
<td>3.76 to 4.44</td>
<td>27%</td>
<td>24%</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>297</td>
</tr>
</tbody>
</table>

*note that percents may not equal 100% due to rounding error.

We found a statistically significant difference in the one-year retention rates, with significantly higher retention rates for Fiat Lux students when compared to similar peers, at 88% versus 77%, as illustrated in Chart 1:

Chart 1. One Year Retention of Fiat Lux students

Retention within GPA levels

Retention rates for Fiat Lux students were also compared within the four GPA ranges listed in Table 1; these ranges are the quartiles (e.g. 25% of the total sample falls within each of these ranges). For students in the highest high school GPA level, the Fiat Lux students were retained at a significantly higher rate than the comparison group, with 100% of these Fiat Lux students returning, compared with 82% of their peers – an 18-percentage point difference, as shown in Chart 2:
Chart 2. Retention by High School GPA level

Retention rates for Fiat Lux students in the other GPA ranges were not significantly higher than those of the comparison group, with retention rates between 7 and 9 percentage points higher. The lack of statistical significance may be partly due to small sample size when splitting into four quartiles.

Conclusion

Overall, participation in Fiat Lux was associated with higher retention rates, with an 11-percentage point difference between Fiat Lux students and similar peers with High School GPA above 3.04. The difference was greatest for students at the highest level of academic preparation, with 100% of Fiat Lux Students with a high school GPA above 3.76 returning for the second year, an 18-percentage point higher rate than similar peers.

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ENDNOTES

1. Calculated via an 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