Two Year Retention Rates of Fiat Lux Students

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This report examines two-year retention rates for participants in the Fiat Lux program. The Fiat Lux program serves students who are first generation and low income, and these criteria were used to produce a comparison group. For the Fall 2016 entering frosh cohort, 132 students participated in Fiat Lux, and 100 returned for Fall 2018 for a two-year retention rate of 76%, while the comparison group had a two-year retention rate of 67%. Compared to students with similar characteristics, Fiat Lux students were retained at a significantly higher rate. For students with high school GPAs below 3.30, 79% of Fiat Lux students were retained, relative to only 58% 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) and who are low income (i.e., eligible for Pell and/or Cal grants). Criteria has changed for the 2018-19 Academic year, however, which will impact the ability to make longitudinal comparisons going forward.

This analysis was requested as a follow up to the prior year's one-year retention analysis of the Fall 2017 cohort, to investigate longer term associations with retention for the Fiat Lux participants.

Retention Rates

Two-year retention rates for Fiat Lux students were compared to other Fall 2016 entering frosh with similar characteristics, to control for effects of student background and academic preparation. We selected the comparison group to have similar average high school GPA and SAT scores as the Fiat Lux students[1].
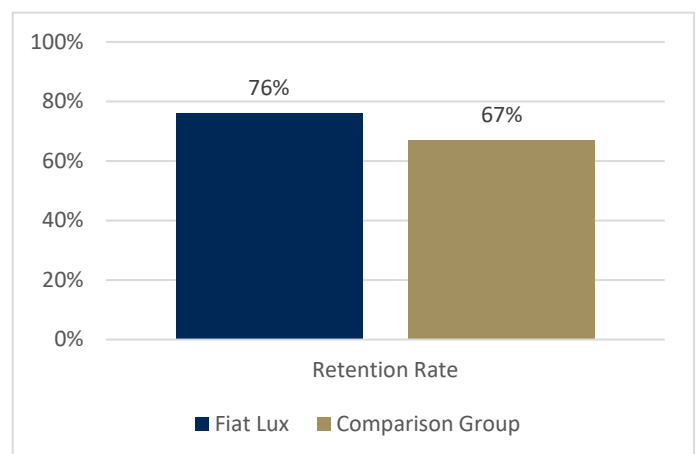
Table 1. Distribution of High School GPA*

		3.00 to 3.29	3.30 to 3.47	3.48 to 3.68	3.69 to 4.33
Fiat Lux	%	22%	27%	21%	30%
	N	29	35	28	40
Comparison	%	27%	25%	26%	23%
	N	219	201	211	184

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

We found a statistically significant difference[2] in the two-year retention rates, with significantly higher retention for Fiat Lux students when compared to similar peers, at 76% versus 67%, as illustrated in Chart 1:

Chart 1. Two Year Retention of Fiat Lux students
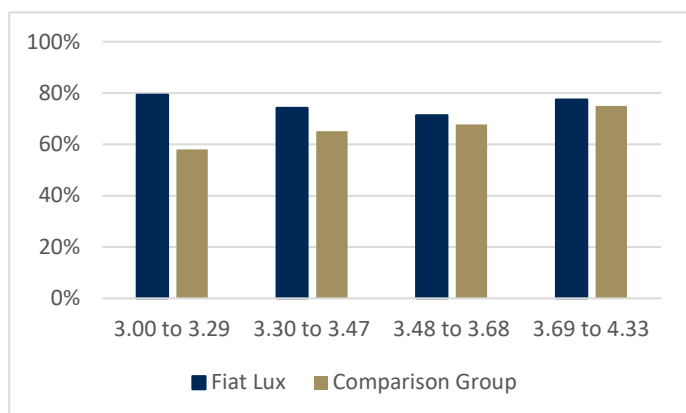

Retention within GPA levels

We examined retention within GPA levels, as the prior analysis found significant effects for the highest high school GPA band for first year retention. The four GPA ranges (listed in Table 1) are the quartiles of both samples combined (e.g. 25% of the total group falls within each of these ranges).

In this analysis, a significant difference was found for students with high school GPA's below 3.30. Fiat Lux students were

retained at a significantly[2] higher rate than the comparison group. Chart 2 shows 79% of these Fiat Lux students return for the third year, compared with 58% of the comparison group.

Chart 2. Retention by High School GPA range

Retention rates for Fiat Lux students in the other GPA ranges were not significantly higher[2] than those of the comparison group.

Conclusion

Overall, participation in Fiat Lux was associated with significantly[2] higher retention rates, with a 9-percentage point difference between Fiat Lux students and the comparison group. The difference for retention to the third year was greatest for students at the lowest level of academic preparation (high school GPA below 3.30), with 79% of Fiat Lux Students, and 58% of the comparison group returning for the third year.

If the 219 students with High School GPAs below 3.30 in the comparison group had been served by a similar program and were retained at a similar rate to their Fiat Lux peers, we would expect that 46 additional students would have been retained from this cohort. For context, an additional 46 students would have raised the retention rate of the 2016 Frosh cohort by 2 percentage points, from 73% to 75%.

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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