

Socioeconomic Factors and Student Retention
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For 24,069 degree-seeking undergraduate students that started between Fall 2011 and Fall 2016, 18,997 students (79%) had applied for financial aid at some point while enrolled.

The 1-Year Retention Rates comparing students that applied for financial aid versus to other students are provided in the following table. It is interesting that applying for financial aid is an indicator of higher retention ($t = 9.905, p = .000, \text{Cohen's } d = 0.2$ small)

	N	1-Year Retention Rate		
		Overall	Applied Fin Aid	Did not Apply
All Student Types	24,069	75.1%	76.5%	69.8%
FYR Admit Type	9,705	77.2%	77.9%	75.0%
TRN Admit Type	13,790	73.7%	75.6%	65.3%

Next, I looked at students that were awarded Pell during their first semester ($N = 9,924$ or 41% of all students). Again, it is interesting that being awarded Pell is an indicator of higher retention ($t = 10.154, p = .000, \text{Cohen's } d = 0.1$ very small).

	N	1-Year Retention Rate		
		Overall	Pell	Non-Pell
All Student Types	24,069	75.1%	78.5%	72.8%
FYR Admit Type	9,705	77.2%	80.1%	75.2%
TRN Admit Type	13,790	73.7%	77.4%	71.1%

Then I looked at First Generation Status. There does not seem to be a significant difference based on first generation status across student types. That is an indication that UMB is doing a good job in retaining underserved student, at least during the first year.

	N	1-Year Retention Rate			
		Overall	First Gen	Non-1stGen	Unk/Missing
All Student Types	24,069	75.1%	77.1%	75.4%	72.5%
FYR Admit Type	9,705	77.2%	79.2%	75.8%	76.8%
TRN Admit Type	13,790	73.7%	75.7%	75.0%	69.0%

Finally, I looked at the expected family contribution (EFC) variable as a measure of socioeconomic status – the higher the EFC, the higher the ability of a student's family to pay for their education. For example, students that were awarded Pell grants had an average EFC of \$2,093 compared to \$20,680 for non-Pell students that applied for financial aid. For the students that applied for financial aid, I found that EFC is positively correlated with 1-year retention. However, the correlation was quite small ($r = .039$). Basically,

students that returned for the second year had an average EFC of \$11,262 compared to those that dropped out with an average EFC of \$9,278.

These results are quite interesting and will require me to dig deeper. While Pell students have higher retention rates than non-Pell students, the higher the EFC the higher the retention rate. It could be that students with high EFC (wealthier students) are doing quite well along with Pell students that are getting full financial aid. However, the students in the middle, low EFC but not Pell eligible, are not doing well. This will be an ongoing analysis.