



Student Success and Financial Aid

This report updates a [2019 report](#) on student success and financial aid, which examined persistence by level of aid using a novel metric, the *net cost ratio*. The net cost ratio is the proportion of a student's cost of attendance (COA) after "gift aid" (i.e., grants and scholarships that do not need to be repaid) has been applied. For example, a student's COA was \$26,900 and they received \$8,000 in grants and scholarships. Their net cost is \$18,900 (\$26,900 - \$8,000), resulting in a net cost ratio of .70 (\$18,900 ÷ \$26,900). This 0.70 (or 70%) of cost falls to the student and their family, to be paid via savings, loans, or other means. Generally, these ratios increase as the financial need of the group decreases.

Results from the 2019 report revealed the level of financial aid to be positively associated with persistence and were used to guide financial aid packaging levels by increasing efforts to assist limited income students. Results from this 2021 study revisit these results and look beyond second fall persistence to identify optimal net cost ratios based on students' financial need and class level. These ratios can be used to strategically determine ideal financial aid amounts in service of achieving the University's student success goals.

Overall, 2021 results suggest low income students with a net cost ratio of 0.3 or lower in their first year and a 0.6 or lower in subsequent years tend to persist at rate at or higher than the overall university rate. For limited and lower-middle income students, net cost ratios of 0.6 or lower in the first year and 0.8 in subsequent years are associated with persistence rates at or above the university average.

Table 1 displays the demographic characteristics of the FA18/19 first-time, full-time resident cohorts included in this updated study.

Table 1: FA18/19 FTFT Resident Cohort Demographics by Financial Aid Packaging Group

	Low income	Limited & Lower-middle income	Non-filer/non-qualified	Overall
Headcount	1,485	506	4,629	6,620
High school GPA	3.63	3.70	3.68	3.67
First generation	65.3%	37.9%	15.3%	28.2%
Pell recipient	93.9%	21.7%	4.8%	26.1%
First generation and racially minoritized	48.8%	20.2%	5.6%	16.4%
Racially minoritized	65.3%	40.5%	21.0%	32.4%
- Not white, single race	18.4%	10.7%	5.2%	8.6%
- Multi-race, with white	41.8%	27.3%	15.1%	22.0%
- Multi-race, not white	5.1%	2.6%	0.8%	1.9%

Of the students in the low income packaging tier (about 20% of all students in the FA18/19 cohorts), almost two-thirds were either first generation or racially minoritized; almost half held both identities. Limited and lower-middle income students (less than 10% of all students) also had high representation of underserved populations; about 40% first generation or racially minoritized and about 20% both. Non-filer/non-qualified students were less likely to hold underserved identities.

Figure 1 examines the relationship between second fall persistence and net cost ratio for each financial aid packaging group and Table 2 displays the number of students in each net cost ratio bin.

Figure 1: FA18/19 2nd Fall Persistence by Net Cost Ratio and Packaging Group

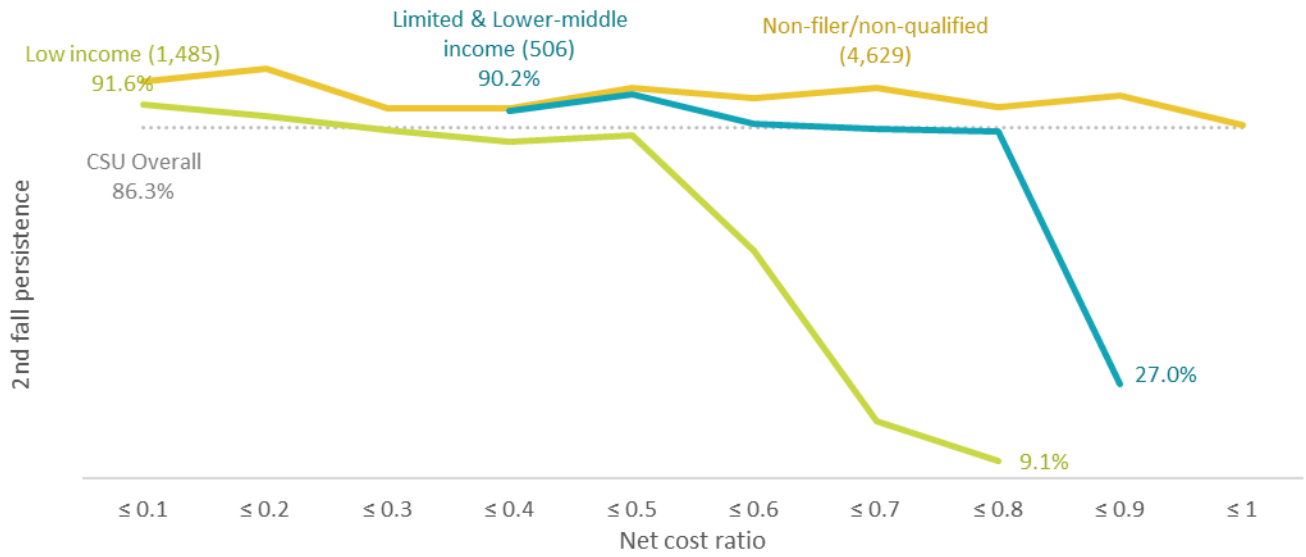


Table 2: FA18/19 2nd Fall Persistence by Net Cost Ratio and Packaging Group

	Low income		Limited & lower-middle income		Non-filer/non-qualified		Overall	
	2 nd fall persist	N	2 nd fall persist	N	2 nd fall persist	N	2 nd fall persist	N
≤ 0.1	91.6%	166			97.1%	35	92.5%	201
≤ 0.2	89.1%	175			100.0%	7	89.6%	182
≤ 0.3	85.7%	294	90.2%	41	90.9%	11	85.9%	305
≤ 0.4	83.1%	261			90.9%	11	84.3%	313
≤ 0.5	84.5%	466	93.9%	33	95.7%	23	85.6%	522
≤ 0.6	57.9%	57	87.1%	62	93.3%	45	78.7%	164
≤ 0.7	18.2%	22	86.0%	93	95.6%	91	83.0%	206
≤ 0.8	9.1%	44	85.4%	240	91.1%	235	81.5%	519
≤ 0.9		0			93.9%	521	89.4%	558
≤ 1		0	27.0%	37	86.9%	3,650	86.9%	3,650
Total	81.6%	1,485	82.4%	506	88.3%	4,629	86.3%	6,620

For low income students, second fall persistence was higher than the overall CSU rate when the net cost ratio was 0.3 or lower. Limited income student persisted at higher rates when the net cost ratio was 0.6 or lower. While most of these students had a net cost ratio of 0.8, their persistence was slightly lower than the overall CSU rate (82.1% v. 86.3%). Non-filer/non-qualified students persisted at a rate higher than the overall average at each ratio level.

Figure 2 and Table 3 compare the financial aid groups and second fall persistence rates by net cost ratio of the previous and current studies.

Figure 2: FA16/FA17 and FA18/FA19 Low and Limited Income 2nd Fall Persistence by Net Cost Ratio

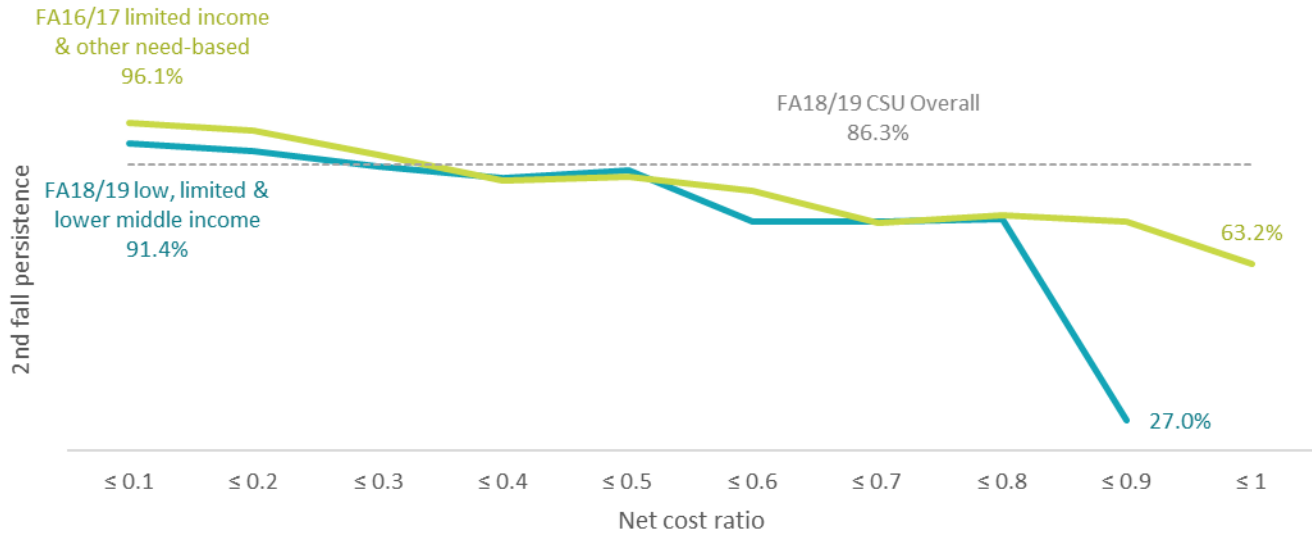


Table 3: 2nd Fall Persistence Compared by FA16/17 Aid Group Categories and FA18/19 Packaging Group

FA16/17	2nd fall persist	N	FA18/19	2nd fall persist	N
Limited income	82.7%	1,807	Low income	81.6%	1,485
Other need-based aid	80.7%	393	Limited & lower middle-income	82.4%	506
Non-need-based aid	89.8%	1,670	Non-filer/non-qualified	88.3%	4,629
No gift aid	83.0%	1,845	Overall	86.3%	6,620
No FAFSA	84.4%	955			
Overall	84.7%	6,670			

Overall persistence for FA16/17 was 84.7%, compared to 86.3% for FA18/19, or almost 70 additional students retained. Comparing the low and limited income groups in FA16/17 and FA18/19, second fall persistence is lower for FA18/19 than FA16/17 (81.6% v. 82.3%). However, for both groups, second fall persistence remains at or above the overall persistence when the net cost ratio is about 0.5 or lower.

The total and average institutional aid as well as the average cost of attendance was higher in FA18/FA19 compared to FA16/FA17. Students in FA18/FA19 received a total of \$12.6 million compared to \$11.6 million in FA16/FA17; about \$6,300 and \$6,000 on average, respectively. Average cost of attendance increased by \$2,350, \$32,400 for the FA16/17 cohorts compared to \$34,750 for the FA18/19 cohorts.

Undocumented students are not able to apply for federal aid; support comes in the form of institution aid. Undocumented students are automatically assigned to the low income packaging group. Figure 3 compares the second fall persistence of undocumented students with the low income packaging group and Table 4 displays the number of students in each net cost ratio bin.

Figure 3: FA18/FA19 Undocumented and Low Income Students 2nd Fall Persistence by Net Cost Ratio

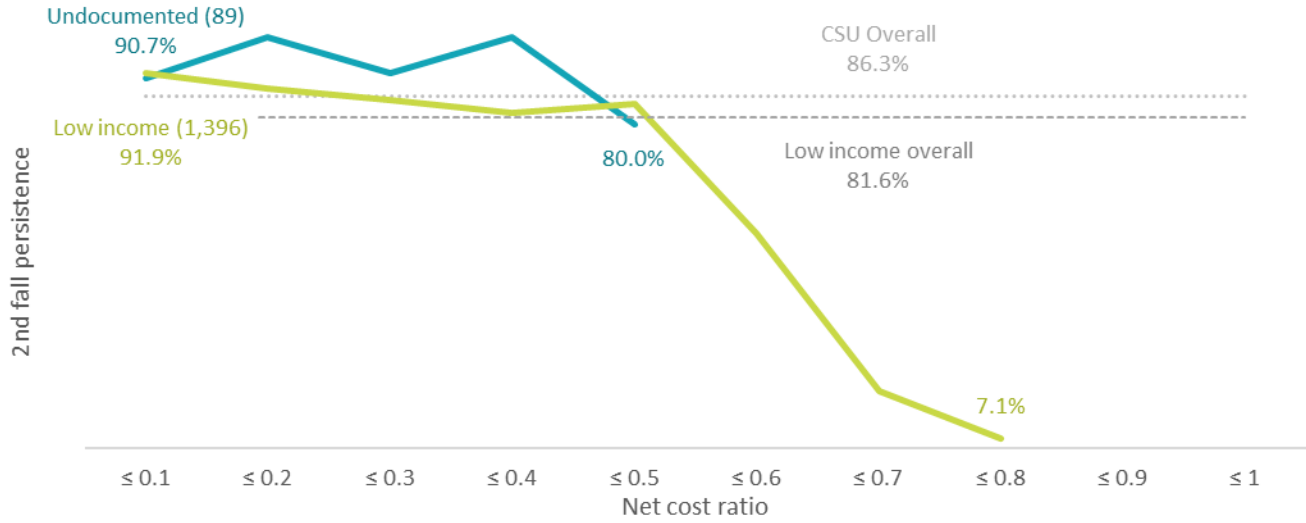


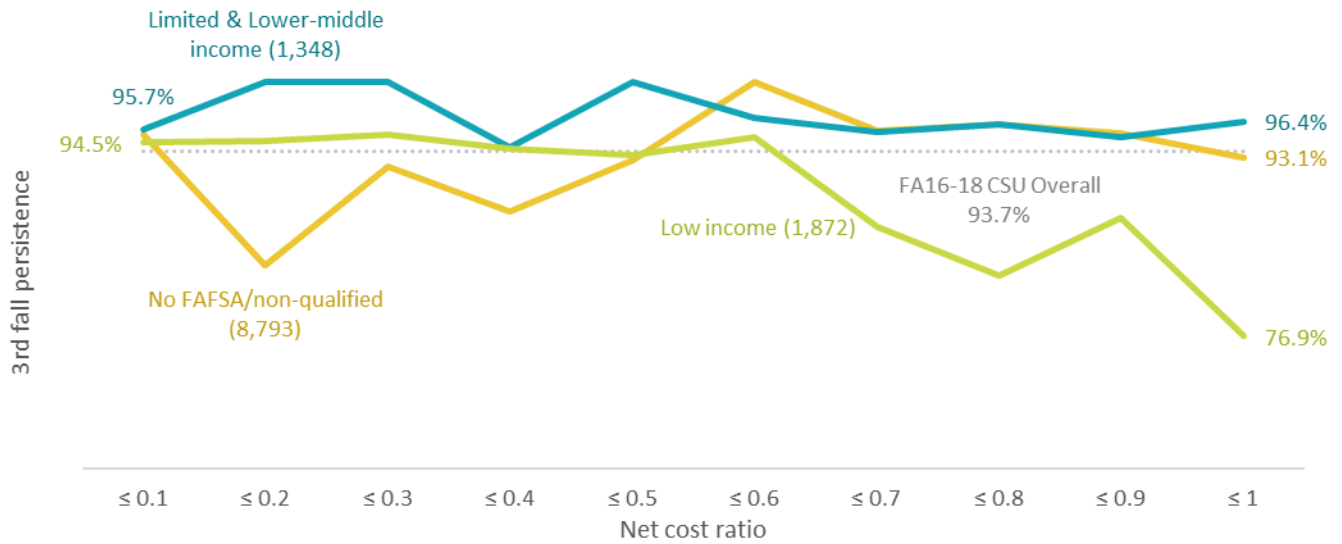
Table 4: FA18/19 Undocumented and Low Income Students 2nd Fall Persistence by Net Cost Ratio and Packaging Group

	Low income		Undocumented		Low income overall	
	2 nd fall persist	N	2 nd fall persist	N	2 nd fall persist	N
≤ 0.1	91.9%	123	90.7%	43	91.6%	166
≤ 0.2	88.3%	162	100.0%	13	89.1%	175
≤ 0.3	85.5%	282	91.7%	12	85.7%	294
≤ 0.4	82.4%	250	100.0%	11	83.1%	261
≤ 0.5	84.6%	462	80.0%	10	84.5%	472
≤ 0.6	54.7%	53		0	54.7%	53
≤ 0.7	18.2%	22		0	18.2%	22
≤ 0.8	7.1%	42		0	7.1%	42
≤ 0.9		0		0		0
≤ 1		0		0		0
Total	80.9%	1,396	92.1%	89	81.6%	1,485

Overall, undocumented students persisted at a higher rate than other low income students (92.1% v. 80.9%) as well as the overall CSU rate (92.1% v. 86.3%). Additionally, no undocumented student's net cost ratio was above 0.5.

While second fall persistence is an important success outcome, a student's financial need likely extends beyond their second year of schooling, Figure 4 and Table 5 examine third fall persistence and Figure 5 and Table 6 examine fourth fall persistence by net cost ratio and financial aid packaging group.

Figure 4: 3rd Fall Persistence by 2nd Fall Financial Aid Packaging Group (FA16, FA17 and FA18 Cohorts)



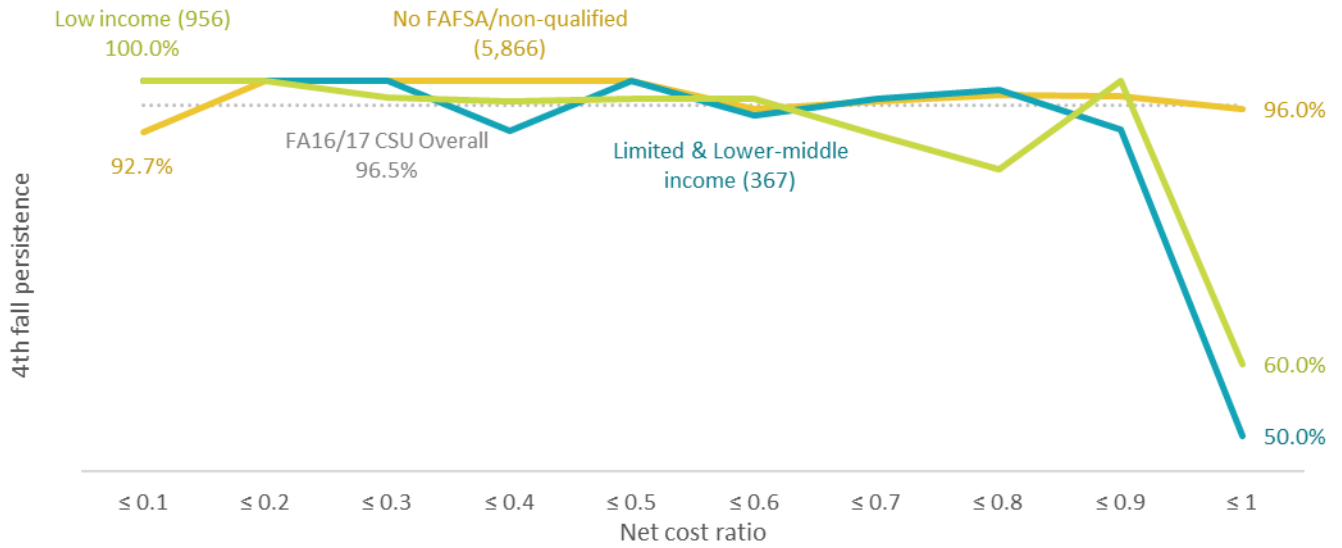
Note: FA16 packaging group has been estimated based on need group in previous analysis; includes students who persisted to the end of their second spring.

Table 5: 3rd Fall Persistence by 2nd Fall Financial Aid Packaging Group (FA16, FA17 and FA18 Cohorts)

	Low income		Limited & Lower-middle income		Non-filer/non-qualified		Overall	
	3rd fall persist	N	3rd fall persist	N	3rd fall persist	N	3rd fall persist	N
≤ 0.1	94.5%	145	95.7%	23	95.2%	42	94.8%	210
≤ 0.2	94.7%	132	100.0%	10	83.3%	12	94.2%	154
≤ 0.3	95.3%	190	100.0%	7	92.3%	13	95.2%	210
≤ 0.4	93.9%	330	94.1%	17	88.2%	17	93.7%	364
≤ 0.5	93.4%	349	100.0%	22	92.9%	28	93.7%	399
≤ 0.6	95.0%	464	96.8%	93	100.0%	58	95.8%	615
≤ 0.7	86.8%	76	95.5%	133	95.6%	114	93.5%	323
≤ 0.8	82.4%	74	96.2%	368	96.1%	439	95.0%	881
≤ 0.9	87.7%	73	95.0%	338	95.4%	754	94.8%	1,165
≤ 1	76.9%	39	96.4%	337	93.1%	7,316	93.2%	7,692
Total	93.0%	1,872	96.0%	1,348	93.5%	8,793	93.7%	12,013

Note: FA16 packaging group has been estimated based on need group in previous analysis; includes students who persisted to the end of their second spring.

Figure 5: 4th Fall Persistence by 3rd Fall Financial Aid Packaging Group (FA16 and FA17 Cohorts)



Note: FA16 packaging group has been estimated based on need group in previous analysis; includes students who persisted to the end of their third spring.

Table 6: 4th Fall Persistence by 3rd Fall Financial Aid Packaging Group (FA16 and FA17 Cohorts)

	Low income		Limited & Lower-middle income		Non-filer/non-qualified		Overall	
	4th fall persist	N	4th fall persist	N	4th fall persist	N	4th fall persist	N
≤ 0.1	100.0%	68	100.0%	9	92.7%	41	97.5%	118
≤ 0.2	100.0%	44	100.0%	6	100.0%	11	100.0%	61
≤ 0.3	97.6%	84	100.0%	5	100.0%	7	97.9%	96
≤ 0.4	97.1%	173	92.9%	14	100.0%	15	97.0%	202
≤ 0.5	97.5%	197	100.0%	19	100.0%	33	98.0%	249
≤ 0.6	97.5%	319	95.0%	40	95.9%	49	97.1%	408
≤ 0.7	92.5%	53	97.4%	77	97.1%	105	96.2%	235
≤ 0.8	87.5%	8	98.6%	146	98.0%	356	98.0%	510
≤ 0.9	100.0%	5	93.0%	43	97.8%	553	97.5%	601
≤ 1	60.0%	5	50.0%	8	96.0%	4,696	95.9%	4,709
Total	97.2%	956	96.2%	367	96.4%	5,866	96.5%	7,189

Note: FA16 packaging group has been estimated based on need group in previous analysis; includes students who persisted to the end of their third spring.

Overall, the positive association between the level of financial aid and third and fourth fall persistence is consistent with the findings that examined second fall persistence. For low income students, a net cost ratio of 0.6 tends to elicit persistence rates at or above the overall university rate. For limited and lower-middle income students, this threshold is about 0.8.

In summary, low income students with a net cost ratio of 0.3 or lower in their first year and a 0.6 or lower in subsequent years tend to persist at rate at or higher than the overall university rate. For limited and lower-middle income students, net cost ratios of 0.6 or lower in the first year and 0.8 in subsequent years are associated with persistence rates at or above the university average. Non-filer/non-qualified students tend to persist at higher than average rates regardless of their net cost ratio.