



Office of Institutional Research & Effectiveness

# **FTEIC Retention into Spring:** A Spotlight on Financial Aid

March 15, 2023  
Dr. Brian Ault,  
Senior Research Analyst

## **FTEIC Retention into Spring: A Spotlight on Financial Aid**

### ***From the last brief:***

For the last three “First Time Ever in College” cohorts (FTEIC2019-FTEIC2020-FTEIC2021), the overall retention rate into the very next spring has been three-fourths or higher (average is 77.6%). The one-year fall-to-fall overall retention rate has been shy of two-thirds (average is 63.7%). From prior OIRE research, we know that if FTEIC students return the very next spring, three-fourths of them will come back the very next fall.

Given the extreme importance of retaining FTEIC students into the very next spring, what are the factors most predictive of these students actually returning? A logistic regression model was created, combining the data from the last three FTEIC cohorts (over 10,000 cases), and the statistically significant factors positively predicting retention into spring were:

- 1) **Had Financial Aid +117.1%**
- 2) Fall Term GPA 95.4%
- 3) # of Encounters Documented with C&A +26.1%

The statistically significant factors negatively predicting retention into spring were:

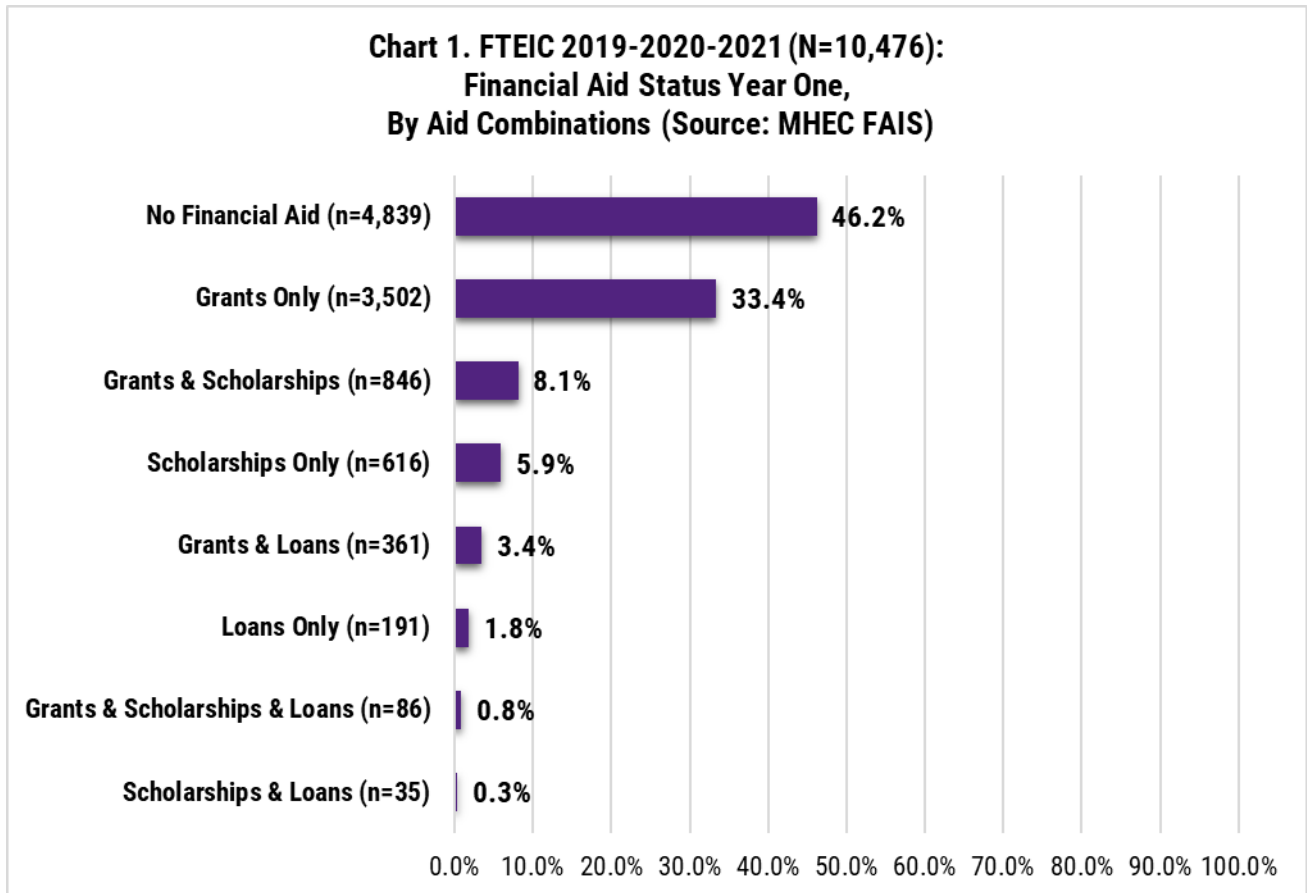
- 1) Was Part-Time -53.7%
- 2) Was LatinX -16.8%
- 3) Was Black -13.8%
- 4) Had Developmental English Need -13.7%
- 5) Was Older -2.8%

Amid the challenging economic implications of the COVID pandemic, having financial aid is almost imperative. It is so significant, that this research brief focuses on financial aid, its varied types, and how they relate to student success.

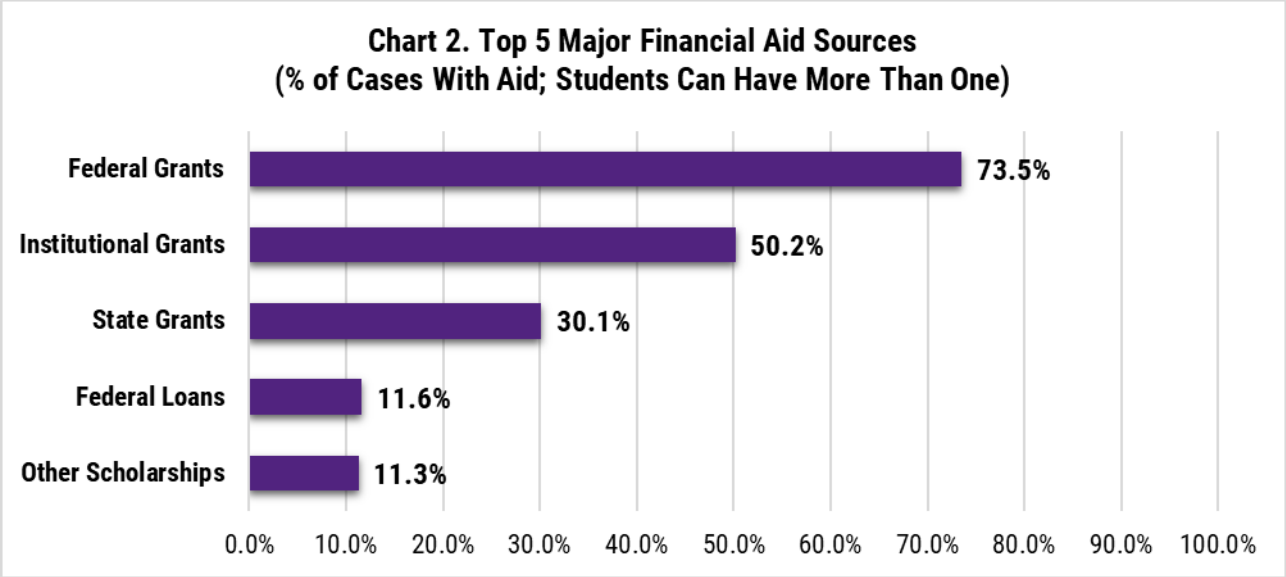
### **Financial Aid for these FTEIC Students**

Just over half (53.8%) of new students had some sort of financial aid in their first year at MC. Chart 1 presents all of the financial aid combinations for these new students. The modal type of financial aid was “grants only”, at 33.4%, followed by “grants & scholarships” at 8.1%, followed by “scholarships only” at 5.9%. Of all those students receiving grants, almost eight out of ten

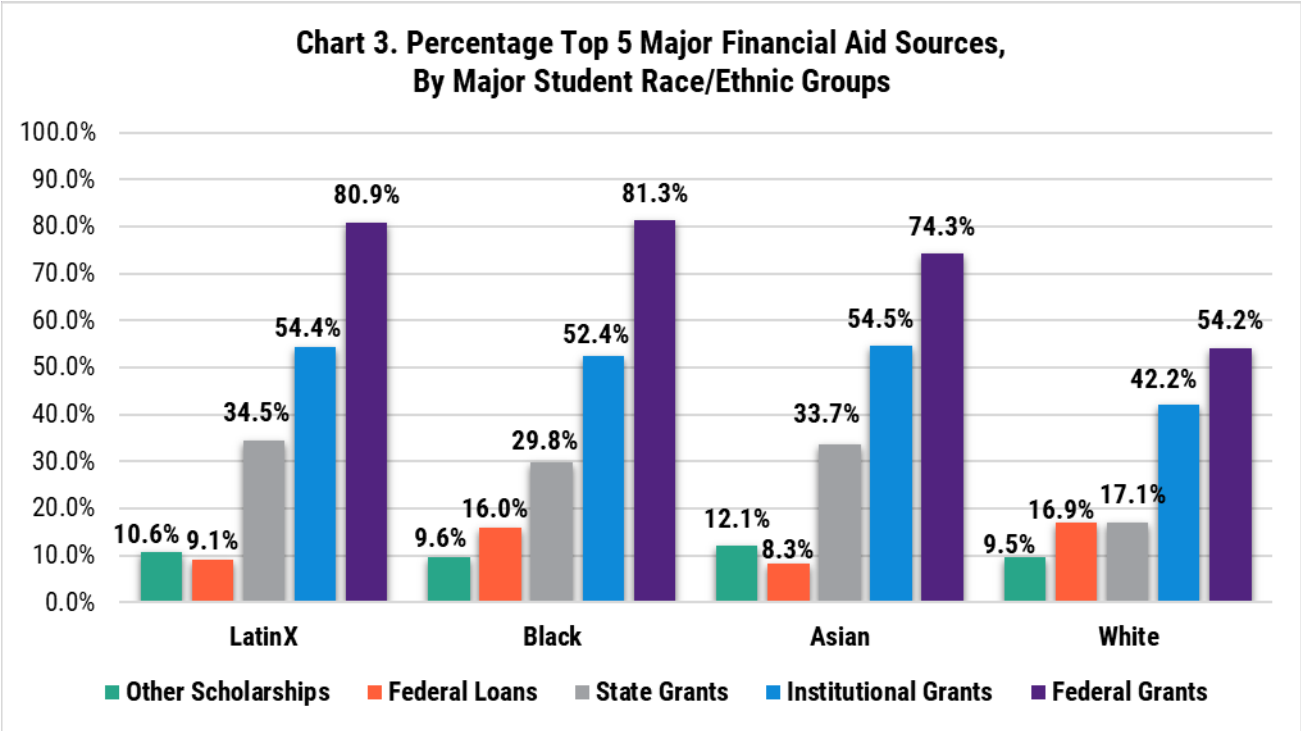
(79.1%) received federal Pell grants. In this period, as a result of the pandemic, a lot of students received the federal CARES act funding, via the Higher Education Emergency Relief Fund.



What were the major financial aid sources? Chart 2 emphasizes that federal grants, primarily Pell grants, are the number one source: That said, half (50.2%) of these new students received institutional grants, by way of the MC Board of Trustees need-based grant program. It is of significant note that only 11.6% of new students had federal loans. Given the level of indebtedness of so many students nationally, it is good to see that a small minority of our students utilize the federal Direct loans. This is especially commendable in COVID times, where so many individuals have been challenged financially.

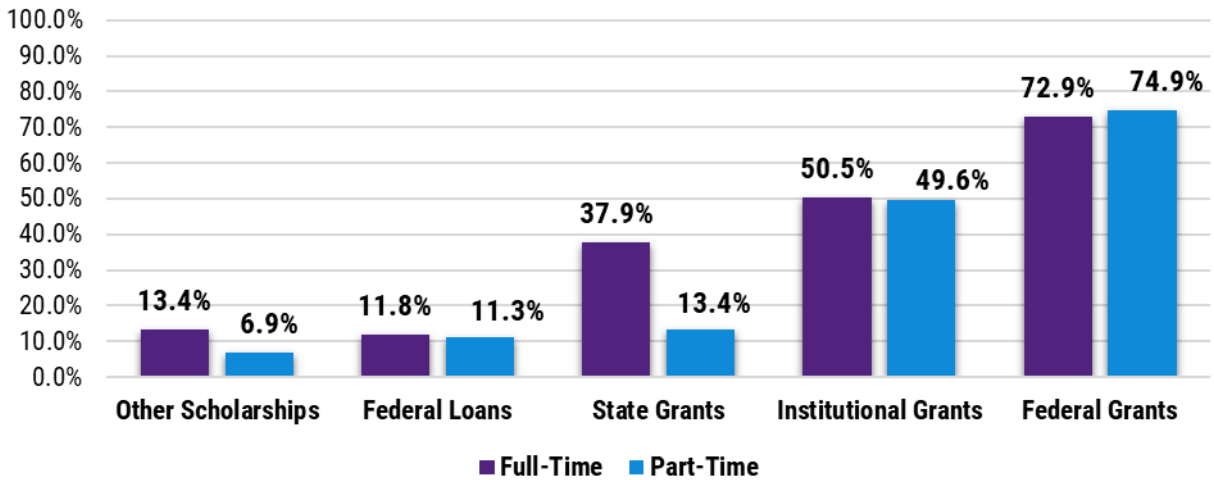


What kinds of students receive the major sources of financial aid? Charts 3-6 detail financial aid sources by race/ethnicity, first fall enrollment status, gender, and age.



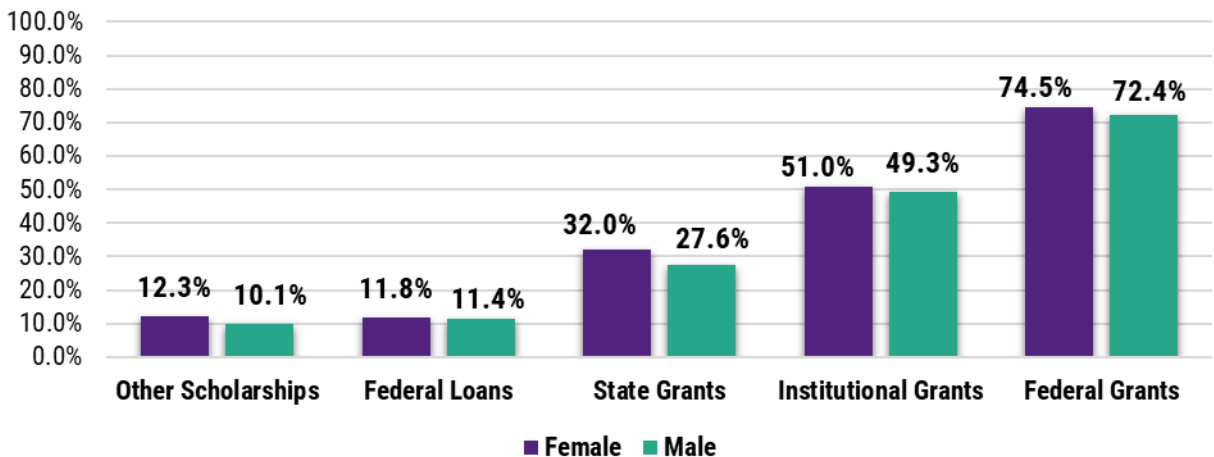
Of the four major race/ethnic groups in the FTEIC population, LatinX and black students receive a higher percentage of federal grants. This indicates that Montgomery College enrolls a significant number of low-income students from these groups.

**Chart 4. Percentage Top 5 Major Financial Aid Sources, By Fall Enrollment Status**



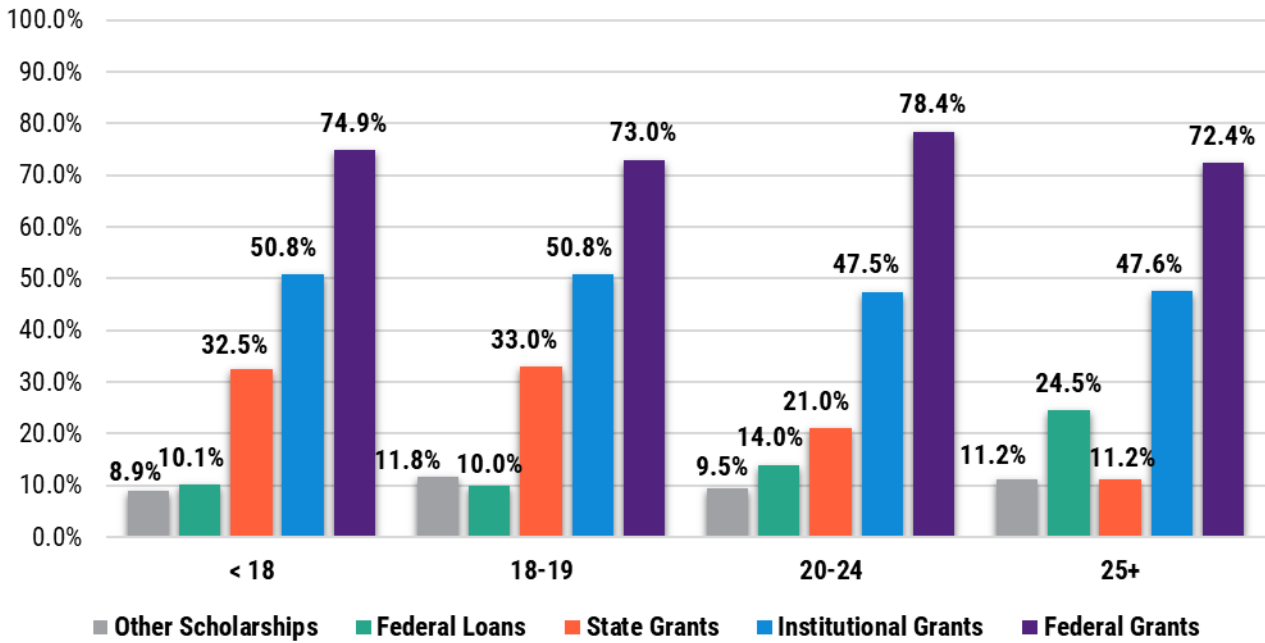
Both full- and part-time students receive financial aid at MC. In some instances, students enrolled full-time are more able to receive certain types of financial aid. Many Maryland State grants and scholarships require full-time (minimum 12 credit hours per semester) enrollment.

**Chart 5. Percentage Top 5 Major Financial Aid Sources, By Gender**



The August 2022 MC Data Summit shined a light on gender differences in student success. i.e., male students underperformed relative to their female counterparts. In terms of financial aid, however, there is little to no gender difference in FTEIC students receiving financial aid at MC.

**Chart 6. Percentage Top 5 Major Financial Aid Sources, By Age Group**



While older students do receive federal and institutional grants in similar percentages to that of younger students, they do have a higher percentage receiving federal loans. This makes sense, given the level of economic responsibility they may carry, and a relatively better chance of qualifying and receiving loans.

**Financial Aid and Student Success**

Chart 7 provides information about the fall term GPA performance of these FTEIC students, by primary financial aid source. Students with all sources do well, i.e., getting a C or better. Those with “other scholarships” do best, relatively, but these students may have received these scholarships given specific academic performance criteria.

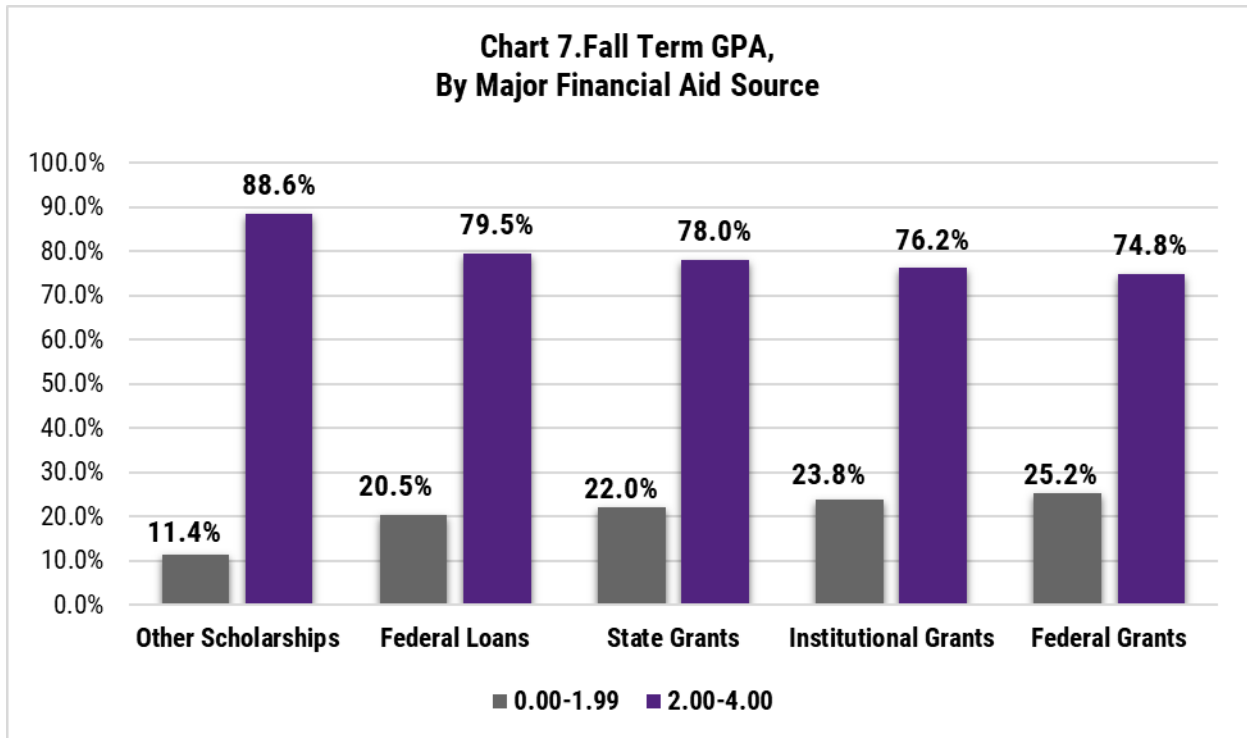
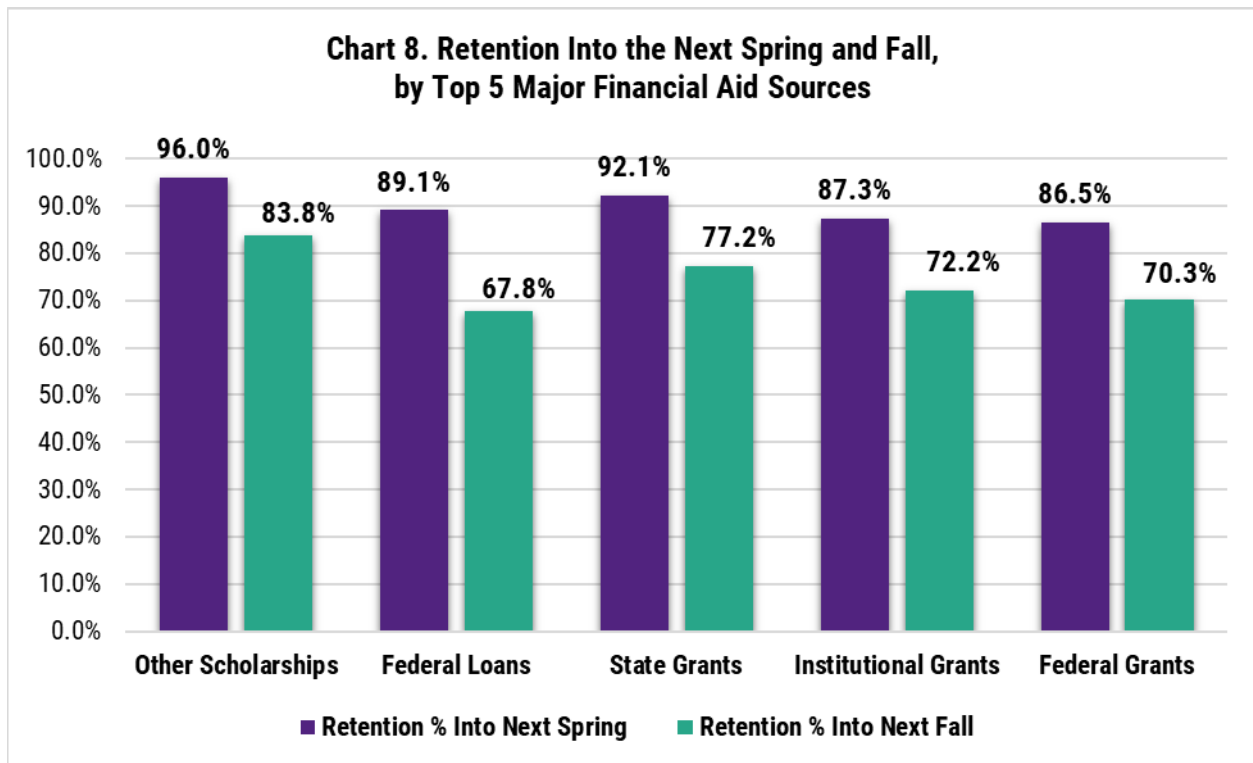
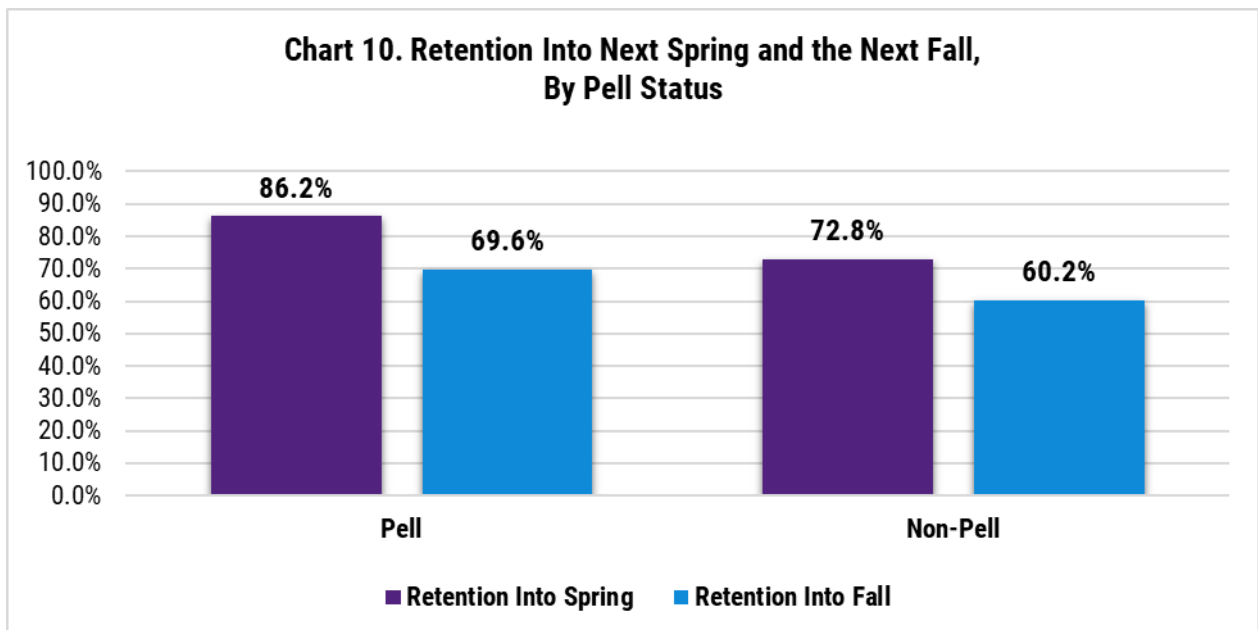
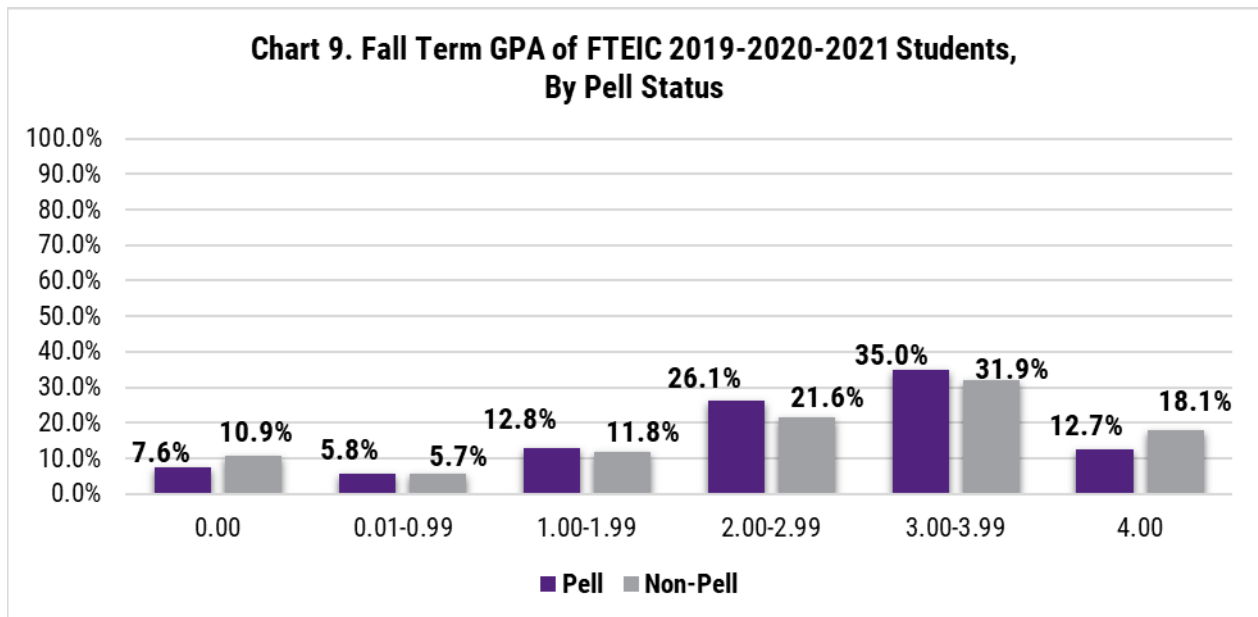


Chart 8 looks at the retention rates into the very next spring and, the very next fall, by primary aid source. These rates are higher than official rates for all students (MC Scorecard). Retention into the next fall for those with federal loans is lowest of all.



## Students with Pell grants

Pell status is used by most institutions as a measure of a student's socio-economic status. It is often a comparison category when assessing student success. For these three FTEIC students, just over a third (36.2%) had Pell grants. What were their outcomes? Chart 9 below has fall term GPA parsed by Pell status. The Pell recipients among the three cohorts of FTEIC students performed just as well as non-Pell students. In terms of retention into the next spring and next fall, higher percentages of Pell recipients are retained. Quite positive news.





## Award Amounts and Student Success

While it is clear that having any financial aid helps keep students enrolled, does it matter how much money they actually receive?

For those FTEIC students **with** financial aid (**N=5,695**), what are the factors most predictive of students actually returning? A logistic regression model was created, combining the data from the last three FTEIC cohorts, and regressing spring enrollment (yes/no) on the following factors:

- 1) Fall part-time status (yes/no)
- 2) Total financial aid dollars
- 3) Was male (yes/no)
- 4) Was Black (yes/no)
- 5) Was LatinX (yes/no)
- 6) Was Asian (yes/no)
- 7) Age at Term Start
- 8) Needed Developmental English (yes/no)
- 9) Needed Developmental Math (yes/no)
- 10) Fall Term GPA
- 11) # of Encounters Documented With C&A (# from prior March through December of Fall Term)

	<b>B</b>	<b>S.E.</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Age at Fall Term Start	-0.026	0.008	10.299	1	0.001	0.975
# of Counseling Encounters	0.211	0.026	65.952	1	0.000	1.234
<b>Part-Time</b>	-0.090	0.104	0.744	1	0.388	0.914
<b>Male</b>	-0.014	0.099	0.020	1	0.888	0.986
<b>Asian</b>	-0.142	0.197	0.524	1	0.469	0.867
<b>Black</b>	-0.254	0.140	3.279	1	0.070	0.776
Latinx	-0.480	0.134	12.723	1	0.000	0.619
Termgpa	0.736	0.039	353.010	1	0.000	2.087
<b>Mathdev</b>	-0.158	0.159	0.981	1	0.322	0.854
<b>Engdev</b>	-0.108	0.107	1.020	1	0.313	0.897
Totawardaidyramt	0.000	0.000	361.238	1	0.000	1.000

	B	S.E.	Wald	df	Sig.	Exp(B)
<b>Constant</b>	-1.182	0.243	23.647	1	0.000	0.307

#### Statistically Significant 0.5 or Lower

Omnibus Test of Model Coefficients                      Significance = 0.000

Hosmer and Lemeshow Test                                      Significance = 0.859

**Nagelkerke R Square**    0.427

The results from the Omnibus Test of Model Coefficients and the Hosmer and Lemeshow Test show that the fit of this model is statistically significant. Nagelkerke R Square, somewhat analogous to the R Square of linear regression, shows that this model has moderate strength (scale of 0-1).

The variables highlighted in gray are the statistically significant variables in the model. The column, Exp(B), reports the log odds of retention into spring for every one unit increase in the highlighted variable, controlling for all other variables in the model. If we multiply these by 100 and subtract from 100, we will arrive at the positive and negative odds of returning into the spring.

The statistically significant factors positively predicting retention into spring were:

- 1) Fall Term GPA +108.7%
- 2) # of Encounters Documented with C&A +23.4%
- 3) Total Award Year Amount <+1%

The statistically significant factors negatively predicting retention into spring were:

- 1) Was LatinX -38.1%
- 2) Was Older -2.5%

For those students **with** financial aid, the determining factor for retention into spring was their first fall term GPA. Next was the number of encounters with C&A faculty. While positive, the total financial aid money awarded was comparatively negligible. Having more financial aid money is certainly better than less, perhaps, but the most important conclusion from both research briefs is that it matters most **if you have financial aid at all**. In terms of negative predictors, it's not surprising that older students don't return at the same rate as younger

students, because it's plausible that more of them have challenges balancing school with work and family. The race/ethnic variable, Latin X, remains negatively related to next spring retention, even for those with financial aid. The number of LatinX students at MC continues to climb, and poses a challenge for the institution. This is not a homogeneous population, as Spanish-speaking students come from different countries with unique cultures. Outreach to these communities has increased, and such efforts must continue to fully meet students' needs and support their achievement of academic success.

### Next Steps?

1. The Financial Aid Office does a very good job of providing more than half of new students the kinds of financial aid that will greatly help them maintain and sustain their time at MC. The positive outcomes for those with financial aid are quite dramatic. Are there ways to extend financial aid to even more new students at MC?
2. Connected to #1 above, is it possible that more part-time students could receive financial aid? Part-timers make up more than two-thirds of our students, overall. Their academic outcomes are not as good as full-timers. No doubt a good deal of financial aid comes with stipulations about enrollment status and credits attempted, but if there are new or underused sources for the part-time students they might serve as a boon to retention. Financial aid is awarded prior to most student enrollment, so identifying part-time students early in the process is a challenge.
3. Connected to #s 1-2 above, older students (25+), especially those part-time, may be most at risk in these challenging economic times. They are the group more likely to accept loans, which often fuels indebtedness. Special outreach and service to this sub-population might also help retention efforts.

Many thanks to Dr. Melissa Gregory and the Financial Aid Office for their help in editing this document, and answering questions along the way.  
Most of all, thanks for their hard work serving our students!