

2020-2022 Merced College General Education Program Review

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Introduction

During their program of study at Merced College, students are assessed to determine whether or not they have demonstrated mastery of specific knowledge, skills and abilities students during the course. These skills are listed as the course student learning outcomes (or C-SLOs) and provide students with an idea on what the faculty and staff have identified as important “take home messages” for each course. Program student learning outcomes (or P-SLOs) describe the knowledge, skills and abilities which students should be able to show they have mastered during the time they have spent at the college earning their degree or certificate. While these skills are assessed as students are taking their classes, the course outcome are mapped to the Program SLOs in the eLumen software, and these links are used to examine the proficiency for students who have earned their degree and mastered the program outcomes.

Associate degree breadth courses associated with the General Education Breadth requirements introduce students to a variety of common basic principles outside of their discipline specific learning outcomes. The General Education Learning Outcomes, or GELOs, define the knowledge, skills and abilities students should acquire upon completion of courses approved for general education areas, regardless of their major or discipline. In addition to the student learning outcomes (C-SLOs and P-SLOs) linked to specific disciplines, the mission statement for the General Education (GE) program at Merced College illustrates how upon completion of the general education course pattern, students should be able to:

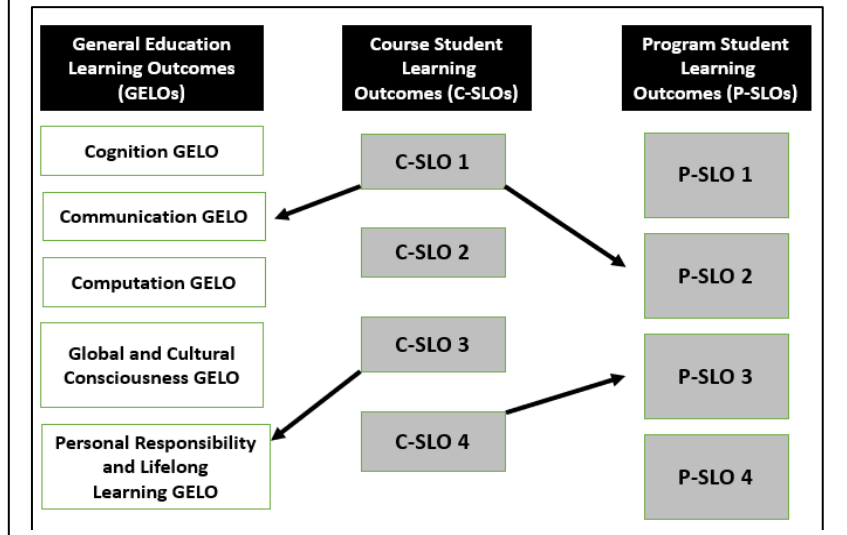
1. Use cognitive skills to analyze, synthesize, and evaluate ideas and information - **Cognition**
2. Use communication skills appropriate to the audience and purpose - **Communication**
3. Use computation skills and various aspects of technology appropriate to the task - **Computation**
4. Demonstrate understanding of different cultures - **Global and Community Consciousness and Responsibility**
5. Demonstrate self-management, maturity, and growth - **Personal Development and Lifelong Learning**

Merced College is using the institutional student learning outcomes (I-SLOs) to evaluate student achievements in the General Education Program. As part of the curriculum process, faculty identify and “map” course outcomes to the related skillsets in both the program outcomes and the institutional learning outcomes. Similar to the discipline specific program mapping process, SLOs in courses have been mapped to the appropriate General Education Learning Outcomes. Results from assessments of course SLOs which have been linked to the GELOs via this mapping are used to determine whether or not students have mastered the five learning outcomes of the GE program. Assessing the General Education Learning Outcomes provides more information about specific skill sets students should become proficient in during their time at Merced College. When the course outcomes are assessed, the results are “rolled up” and combined by the eLumen Connect software allowing an analysis of the results for each discipline, and for the General education outcomes. Evaluating the GELOs associated

with the courses included in the General Education program at Merced College provides evidence that students are graduating with basic skills and knowledge shared by many fields of study. Areas of strengths in the General Education breadth requirements can be identified and recommendations made for any areas demonstrating a need for improvement.

Figure 1 to the right provides an example showing how specific course SLOs can be mapped to the General Education Learning Outcomes and to the discipline specific Program Student Learning Outcomes. It is important to recognize that most courses will not teach to all of the

Figure 1: Example of Mapping Learning Outcomes to assess Program Outcomes



program and GE outcomes at the same time. Effectively, the Program SLOs and GELOs are the sum of the knowledge, skills and abilities students should have demonstrated they have met the learning outcome expectations from their time at Merced College.

Analysis and discussion about the GE program have taken place at the Program Review and Outcomes Assessment Committee (PROAC) meetings, and the Instructional Program Review and Student Learning Outcomes Assessment Committee (IPRSLOAC) meetings. A web survey was also available during the Spring 2023 semester for members of the College community to provide their feedback and comment on the results. For this report on the General Education Program at Merced College, we explored three sets of data related to the General Education program at Merced College:

1. Assessment mastery of the 5 GELOs using the course SLOs in the eLumen Connect software mapped to the GELOs and disaggregated student mastery data.
2. Institutional Effectiveness Metrics with information about the students and courses in the GE Program. This analysis also disaggregates enrollment data, such as class size, number of sections, success and retention rates, and student demographics, etc., and is routinely used in instructional program reviews at Merced College.
3. Exit surveys of graduating students queried on how they felt their education at Merced College prepared them for a variety of activities related to the GE program learning outcomes.

Part 1: Merced College Enrollment Information

In order to provide context about the student population at Merced College, the Office of Institutional Effectiveness used information available in the CCCO Data Mart to examine student enrollment in the district. As can be seen in the tables below, Merced College has paralleled the national trend for community college with a decrease in enrollment over the past few years, from a high of almost 18,000 students in 2019-20, dropping by 2,500 students in 2021-22 during the COVID19 pandemic years. This population of students includes a larger percentage of women (more than 60%) and students are typically under the age of 30 (more than 76%).

Table 1: Enrollment at Merced College

Enrollment	Annual 2019-2020	Annual 2020-2021	Annual 2021-2022
	Student Count	Student Count	Student Count
Merced CCD	17,982	15,933	15,433

Table 2: Enrollment by Gender at Merced College

Enrollment by Gender	Annual 2019-2020		Annual 2020-2021		Annual 2021-2022	
	Student Count	Student Count (%)	Student Count	Student Count (%)	Student Count	Student Count (%)
Female	10,824	60.2 %	10,043	63.0 %	9,506	61.6 %
Male	6,956	38.7 %	5,748	36.1 %	5,718	37.1 %
Non-Binary	--	0 %	--	0 %	15	0.10 %
Unknown	202	1.1 %	142	0.9 %	194	1.3 %

Table 3: Enrollment by Age at Merced College

Enrollment by Age	Annual 2019-2020		Annual 2020-2021	
	Student Count	Student Count (%)	Student Count	Student Count (%)
19 or Less	6,418	35.8 %	6,215	39.0 %
20 to 24	4,837	26.9 %	4,205	26.4 %
25 to 29	1,999	11.1 %	1,826	11.5 %
30 to 34	1,324	7.4 %	1,293	8.1 %
35 to 39	910	5.1 %	780	4.9 %
40 to 49	1,169	6.5 %	923	5.8 %
50 +	1,283	7.1 %	655	4.1 %
Unknown	42	0.23 %	36	0.23 %

Tables 4 and 5 show the majority of students at Merced College identify their race as Hispanic (~60%), followed by non-Hispanic whites (~19%) and Asian (~8%). In order to break up the demographics for the GELO analysis, we separated these into discrete categories comparing groups with enrollment greater than 5%, between 1-5% (depicted with the light gray background in the table below) and less than 1% of students. Table 5 shows that the college has a large number of 1st time students enrolling in Fall semester every year (up to 20% of students), while this number declines in the Spring semester to around 7% of the enrolled students in Spring 2021 and 2022.

Table 4: Enrollment by Race at Merced College

Enrollment by Race	Annual 2019-2020		Annual 2020-2021		Annual 2021-2022	
	Student Count	Student Count (%)	Student Count	Student Count (%)	Student Count	Student Count (%)
Hispanic	10,355	57.6 %	9,465	59.4 %	9,342	60.5 %
White Non-Hispanic	3,311	18.41 %	2,944	18.48 %	3,020	19.57 %
Asian	1,311	7.3 %	1,326	8.3 %	1,248	8.1 %
African-American	541	3.0 %	515	3.2 %	533	3.5 %
Multi-Ethnicity	441	2.5 %	503	3.2 %	515	3.3 %
Filipino	185	1.0 %	166	1.0 %	107	0.69 %
American Indian/ Alaskan Native	81	0.5 %	77	0.48 %	75	0.49 %
Pacific Islander	54	0.30 %	42	0.26 %	38	0.25 %
Unknown	1,703	9.5 %	895	5.6 %	555	3.6 %

Table 5: Enrollment of First-Time students at Merced College

Enrollment	Fall 2020		Spring 2021		Fall 2021		Spring 2022	
	Student Count	Student Count (%)	Student Count	Student Count (%)	Student Count	Student Count (%)	Student Count	Student Count (%)
First-Time Student	2,188	19.1 %	707	6.7 %	2,089	20 %	697	7 %

GELO Assessment results

To look at the big picture of the GE learning outcomes, the percentage of assessed students in GE courses who demonstrated mastery of the GELOs years is shown in the table below. Each column in the table is a separate semester indicated as **Fall**, **Spring** or **sUmmer**. This information is generated in the eLumen Connect software using assessments in courses with outcomes linked to the GELOs.

Table 6: % Mastery of the GE Learning Outcomes over the past 5 years

GELO	2017F	2018S	2018U	2018F	2019S	2019U	2019F	2020S	2020U	2020F	2021S	2021U	2021F	2022S	2022U
Cognition	100%	87%	97%	86%	89%	100%	83%	87%	90%	88%	91%	92%	82%	89%	97%
Communication	100%	90%	100%	90%	90%	100%	88%	89%	91%	93%	91%	97%	87%	89%	100%
Computation	100%	84%	97%	87%	89%	98%	81%	89%	100%	94%	93%	100%	83%	92%	97%
Global Consciousness	100%	93%	100%	91%	90%	100%	84%	88%	85%	92%	93%	100%	85%	89%	100%
Personal Development	100%	97%	100%	91%	90%	98%	91%	92%		96%	93%	85%	90%	91%	100%

The data in Table 6 indicates the college has a robust GELO assessment process in place which has exceeded the 70% benchmark for success with each GELO for the past year. The following sections of this report will look at student performance for each GELO and at the assessment results for various populations of students in more detail. For comparison, we examined the success and retention of **all students** enrolled in the courses associated with each of the GELOs. (see Appendix A for the complete list of courses associated with each GELO). It should be noted that there is a difference in the success/completion rates with the populations of students in courses associated with each GELO. The GELO assessment results could include students in courses where the faculty mapped course SLOs to the GELOs in eLumen, yet the courses are not included on the GE course list. Also, the final assessment result in eLumen includes students who were assessed in the classroom and completed the course – students who withdraw from a course before the assessment was completed are not included in the assessment results as eLumen removes those students from the final class list. As the data indicates, a number of students demonstrated they mastered the GELO(s), yet are not successfully completing their courses with passing grades (see Table 7 and 8). For example, during 2021-22 the data shows that 87% and 89% of assessed students demonstrated mastery of the Communication GELOs, yet the success rate for all students in courses linked to the Communication GELO is only 60%. Therefore, the success rate does not correlate well to mastery of the GELO. In the end, it appears more students are demonstrating mastery of the GE Learning outcomes than pass the courses. Keep in mind, the GELOs are linked to some of the outcomes assessed in courses - students could demonstrate mastery of the GELO, while not mastering the other outcomes specific to the course, but this is a troubling trend.

Table 7: Success Rate in courses associated with each General Education Learning Outcome

*Course Success Rate - percentage of **successful** students in courses out of total enrollment.
 Success is defined at Merced College as students who receive an A, B, C, or P in a course.

GELO	2017-18	2018-19	2019-20	2020-21	2021-22
Cognition	70.3%	71.6%	70.9%	69.7%	68.2%
Communication	66.3%	67.7%	62.4%	57.9%	60.2%
Computation	55.5%	58.4%	61.1%	63.5%	63.9%
Global Consciousness	67.0%	68.7%	66.6%	68.6%	68.6%
Personal Development	70.6%	72.4%	72.7%	77.5%	72.4%

Table 8: Completion Rate in courses associated with each General Education Learning Outcome

* Completion Rate - percentage of students who completed the course. Course completion is defined by Merced College as students retained in a course until the end of the semester.

GELO	2017-18	2018-19	2019-20	2020-21	2021-22
Cognition	84.5%	84.2%	84.2%	82.2%	84.1%
Communication	80.4%	82.7%	77.7%	75.0%	79.1%
Computation	79.8%	82.1%	79.2%	78.4%	81.9%
Global Consciousness	84.6%	85.6%	84.2%	83.5%	86.6%
Personal Development	85.9%	86.7%	85.6%	85.4%	86.75

In the following sections we will examine the assessment results for each General Education Learning outcome which are generated using the course SLOs that are linked to each of the GELOs.

Part 2: Assessment results for the **Cognition GELO**

The Cognition GELO is linked to Humanities and Physical and Life Science courses where students **“Use critical thinking skills to analyze, synthesize, and evaluate ideas and information.”** Students will be able to:

- Evaluate information and incorporate it into appropriate tasks
- Analyze information, develop an opinion, and support it
- Examine, create, and/or evaluate materials and objects by using aesthetic criteria
- Analyze and problem solve using logical and creative methods
- Assess the impact of science and technology on the world

Figures 2 and 3 below show the Student Achievement Data for success and completion rates in 129 courses associated with the Cognition GELO districtwide (MCCD) – see Appendix A for the complete list of courses. These rates have also been identified for Cognition courses offered in different modalities as either Distance Education or non-distance education courses. The average success and retention rates for all courses districtwide are depicted with the gold lines above the bars for comparison. We can see that courses associated with the Cognition GELO have similar success rates compared to the district average around 70%, with the exception of the 2020-21 non-DE courses (grey bar) during the COVID19 pandemic when the number of courses offered in person was severely limited. Likewise, completion rates are fairly consistent with 80-85% of students completing courses associated with the cognition GELO.

Figure 2: Success Rate in Courses associated with the Cognition GELO

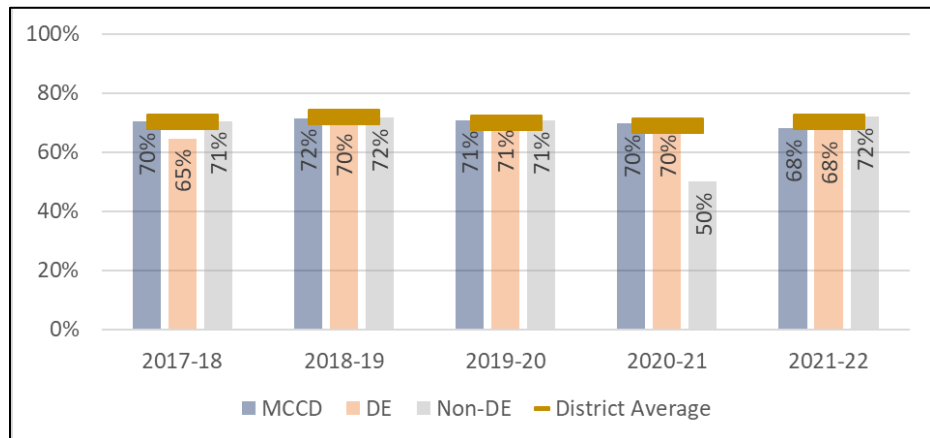


Figure 3: Completion Rate in Courses associated with the Cognition GELO

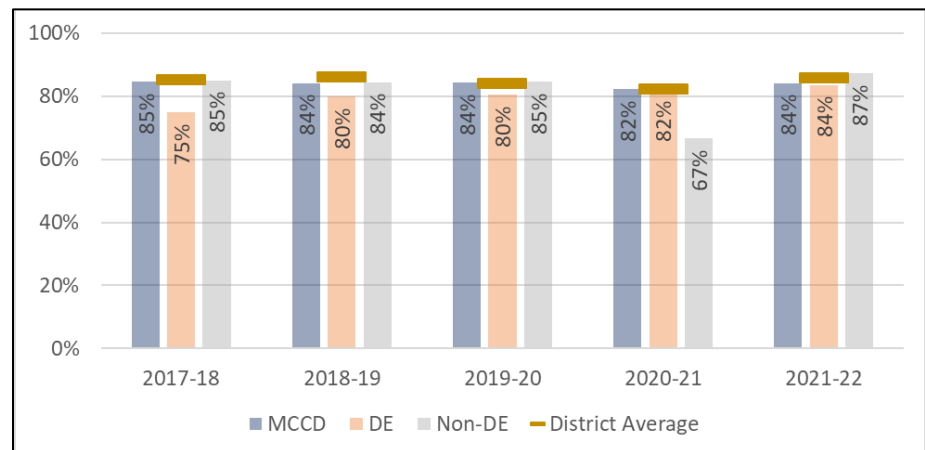


Table 9: Cognition GELO assessment results from eLumen

Table 9 demonstrates the number of Cognition GELO assessments has steadily increased over the past 5 years as faculty have become more proficient with using the eLumen software and its ability to record their assessment results. We now have 60,985 total assessment results compared to seven in the first 2017F semester.

Looking at the percentage of students who demonstrated mastery of the Cognition GELO in the last column of Table 9 and the Graph in Figure 4, we can see that it is consistently above the 70% benchmark target for success. One interesting trend that was noticed and discussed is the percentage of students who demonstrated mastery the Cognition outcome appears to consistently have a higher success rate in the Spring semesters compared to the Fall semesters, and there are larger numbers of first time students enrolling in Fall compared to Spring semesters

Term	Meets expectations	Does not meet expectations	N/A	Mastery of Cognition GELO?
2017F	7	0	0	100%
2018S	229	33	3	87.4%
2018U	134	4	0	97.1%
2018F	6,137	961	520	86.5%
2019S	3,084	363	365	89.5%
2019U	48	0	0	100%
2019F	4,889	989	1,093	83.2%
2020S	9,749	1,509	740	86.6%
2020U	225	24	0	90.4%
2020F	2,823	380	136	88.1%
2021S	2,486	238	83	91.3%
2021U	119	11	0	91.5%
2021F	9,496	2,007	793	82.6%
2022S	9,252	1,194	706	88.6%
2022U	151	4	0	97.4%

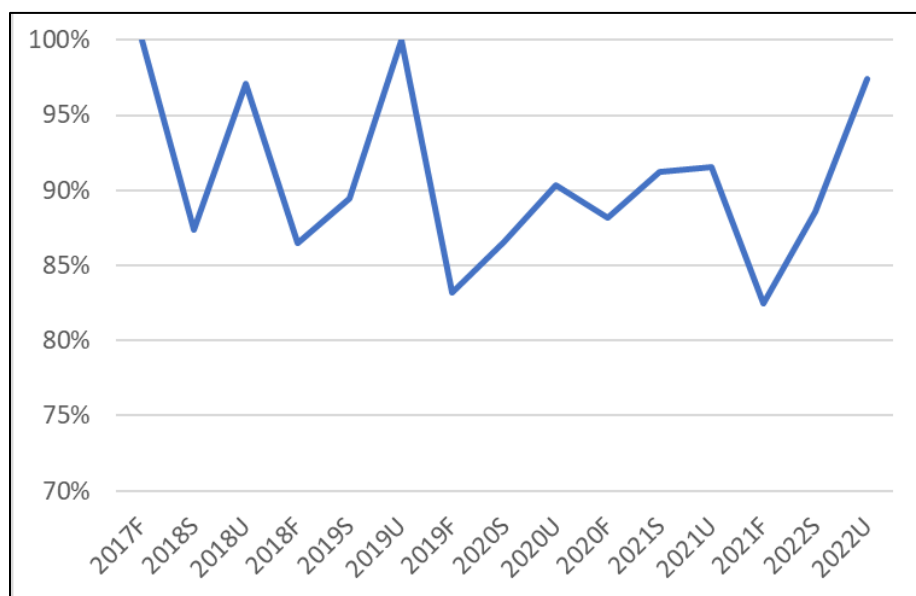
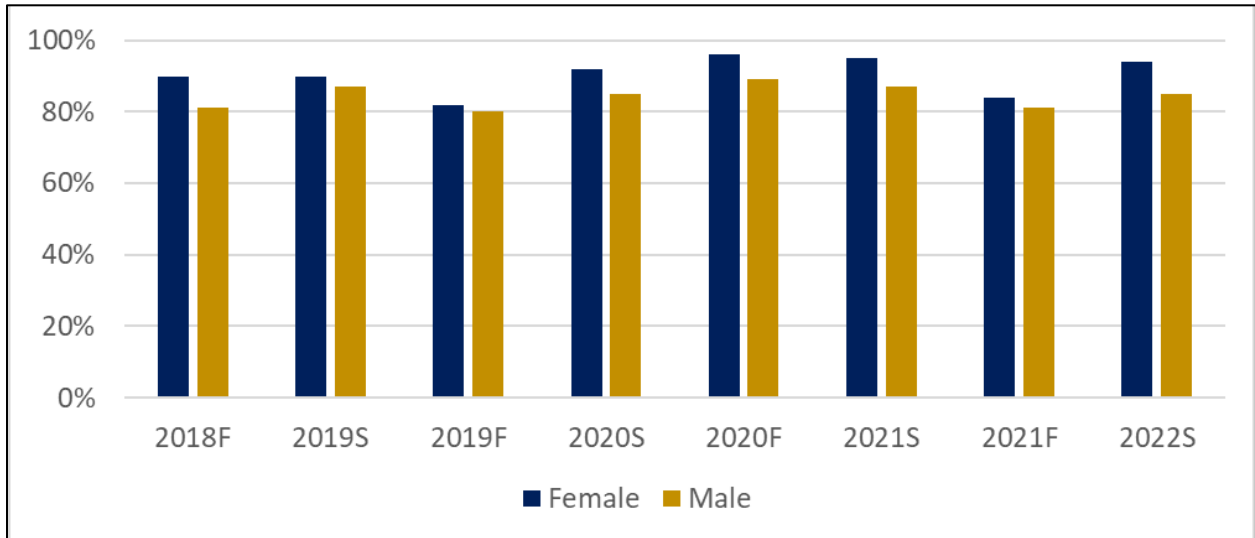


Figure 4: Percentage of students who demonstrated mastery of the Cognition GELO by Semester

The true power of the eLumen Connect software is the ability for users to examine the results relative to different populations of students being assessed. We chose to look at the GELO assessment results for a variety of different cohorts of students by gender, first-time students, age and race.

Figure 5: Students demonstrating mastery of the Cognition GELO - by Gender



The data in Figure 5 above suggests women are consistently scoring 5-10% higher than their male counterparts at mastering the Cognition GELO regardless of the semester when the assessment took place. Figure 6 below shows the performance of 1st time students - again we see the trend that Spring semester has slightly higher mastery of the Cognition GELO compared to the Fall semester.

Figure 6: First Time Students who demonstrated Mastery of the Cognition GELO

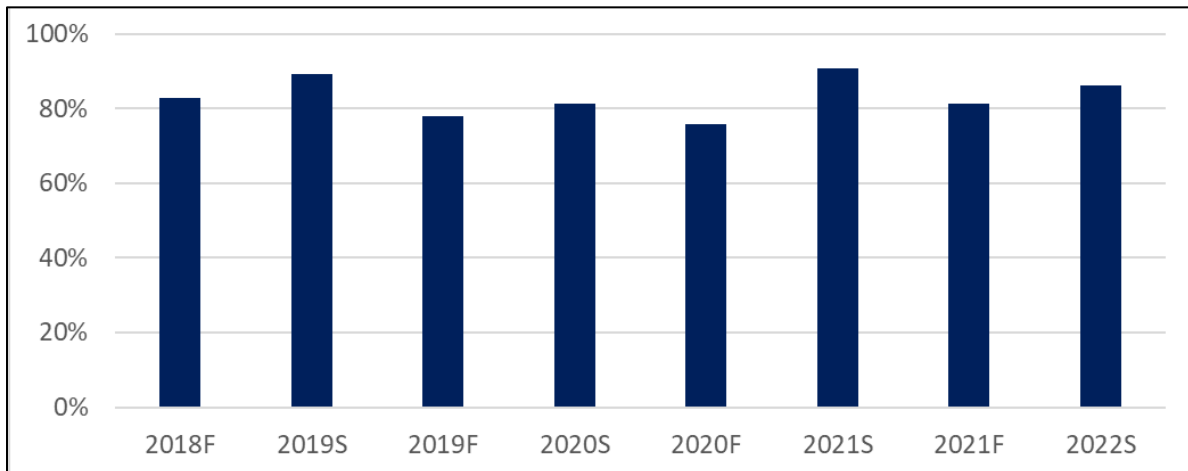


Figure 7 below shows the assessment results with the Cognition GELO for different age categories. It looks like the trend with higher mastery in spring is observed with younger (below 25 years old) students, which also has the lowest overall mastery percentages compared to the older age cohorts.

Figure 7A: % of Students Under 30 Years Old Demonstrating Mastery of the Cognition GELO

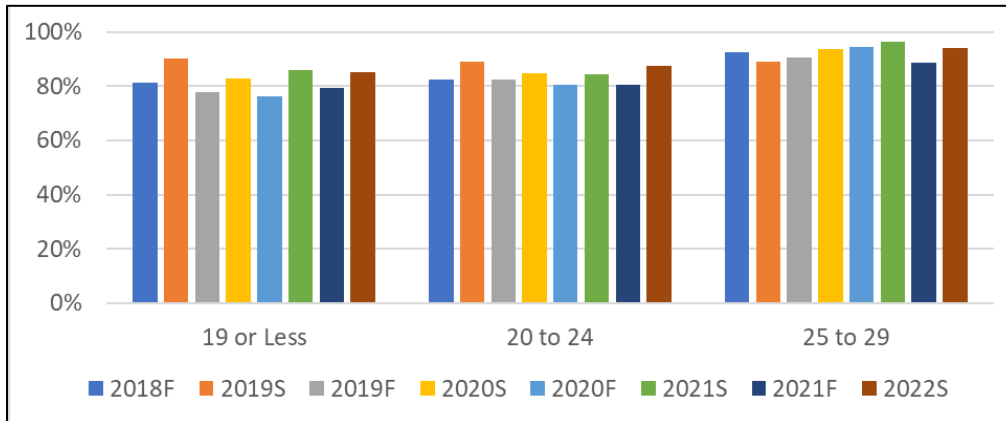


Figure 7B: % of students 30-39 years old demonstrating mastery of the Cognition GELO

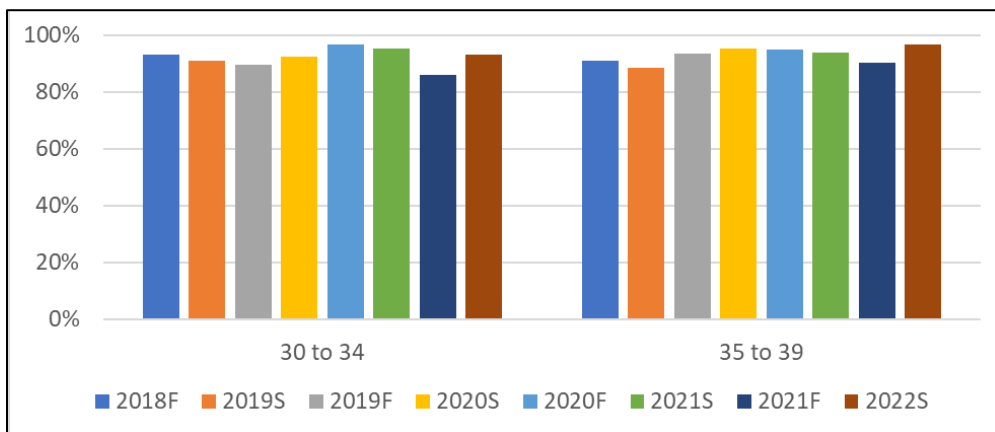
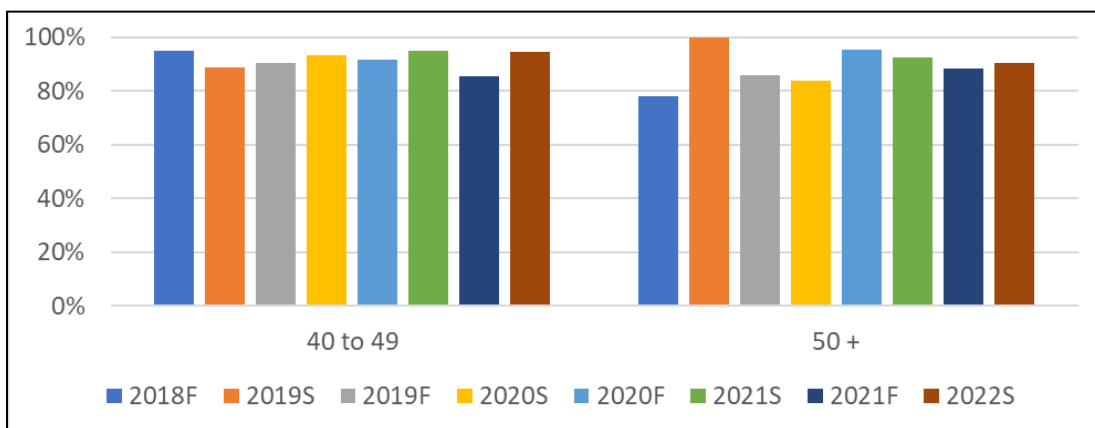


Figure 7C: % of students over 40 years old demonstrating mastery of the Cognition GELO



Looking at the mastery of the Cognition GELO for students grouped into the different cohorts by race in Figure 8A-C, keep in mind, the largest cohort with enrollment more than 5% represents more than 10,000 students, while the middle one is around 1,000, and the smallest cohort is less than 1,000 students in total. Interestingly, mastery of the Cognition GELO appears to be consistently higher in the enrollment cohorts the highest and lowest numbers. Figure 8A and 8C have mastery levels above 80% every semester compared to the cohort with 1-5% enrollment where the mastery of the cognition GELO started out low, peaked during the COVID pandemic years 2020-21, and appears to have stabilized around 80% for 2021-22. **Overall, mastery of the Cognition GELO appears to meet or exceed the benchmark level set by the college at 70%.**

Figure 8A: % Mastery of Cognition GELO by Races with Enrollment > 5%

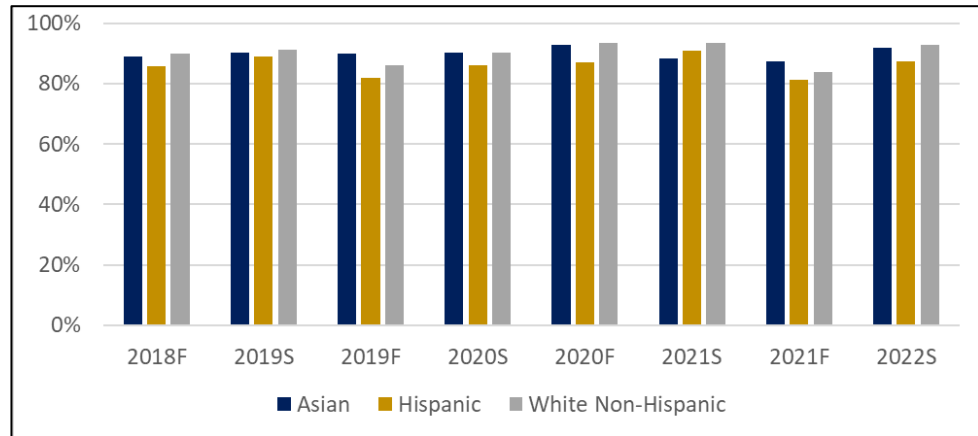


Figure 8B: % Mastery of Cognition GELO by Races with Enrollment 1-5%

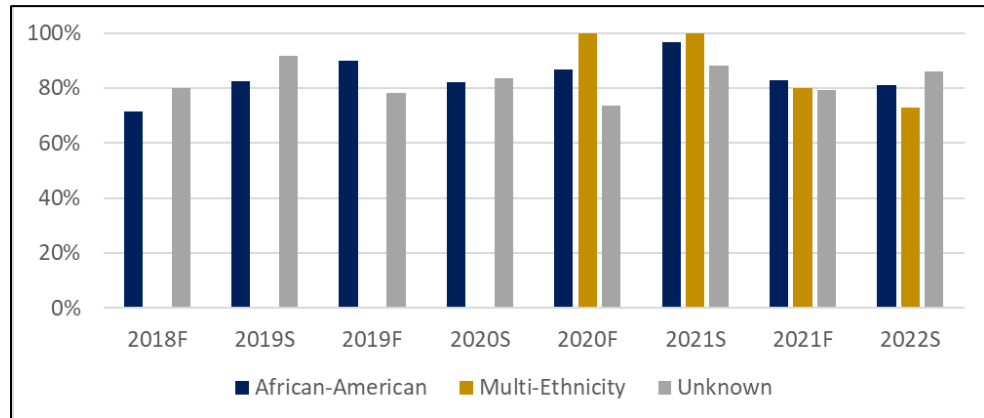
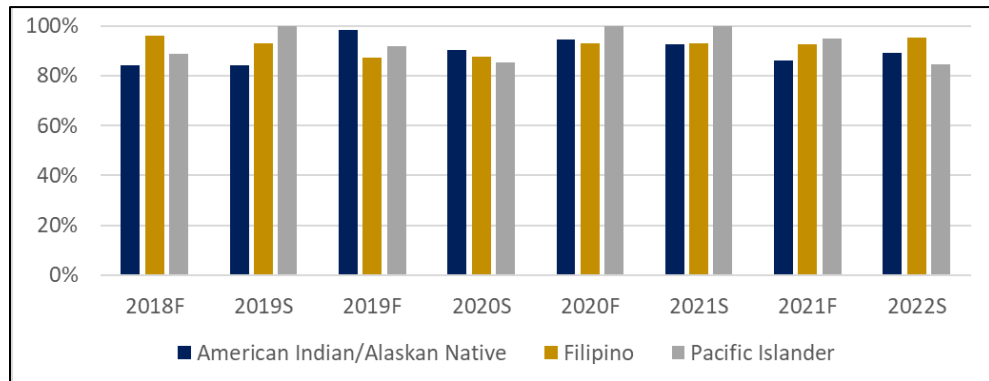


Figure 8C: % Mastery of Cognition GELO by Races with Enrollment <1%



Part 3: Assessment results for the **Communication GELO**

The Communication GELO is primarily associated with courses in English, Communication Studies and Philosophy where students “Use language and non-verbal modes of expression appropriate to the audience and purpose.” Some examples of skillsets students should have mastered in these courses include:

- Compose coherent written communication appropriate to the audience
- Read and analyze written communication appropriate to the subject
- Construct and deliver oral communication appropriate to eth audience
- Comprehend, analyze, and utilize aural and visual communication in its various modes
- Design and deliver presentations appropriate to the audience

As shown in Figure 9, the success rate in courses associated with the Communication GELO is lower compared to courses associated with the Cognition GELO (~60% versus ~80%) and the district success rate indicated by the gold bars in the figure below. It is reassuring to see the discrepancy between the success rate for distance education and face-to-face courses (non-DE) has evened out of the past few years.

Figure 9: Success Rate in courses linked to the Communication GELO

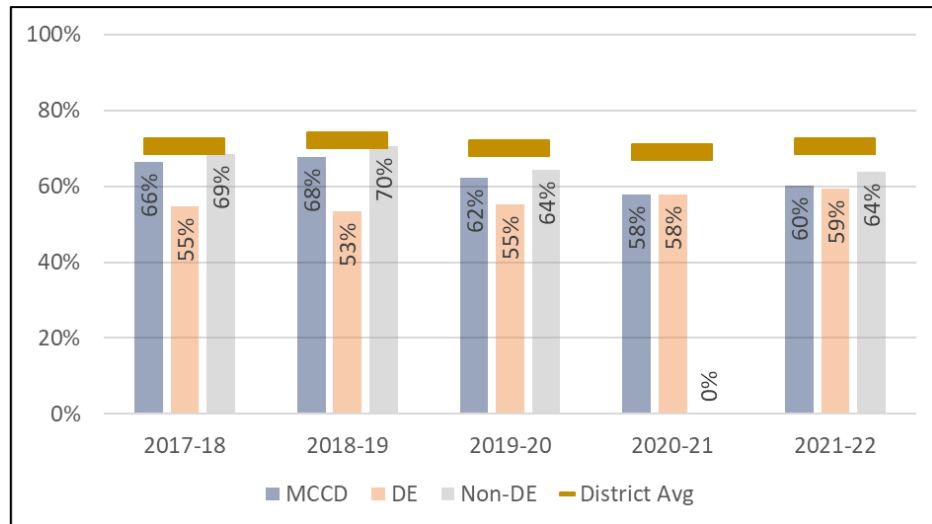
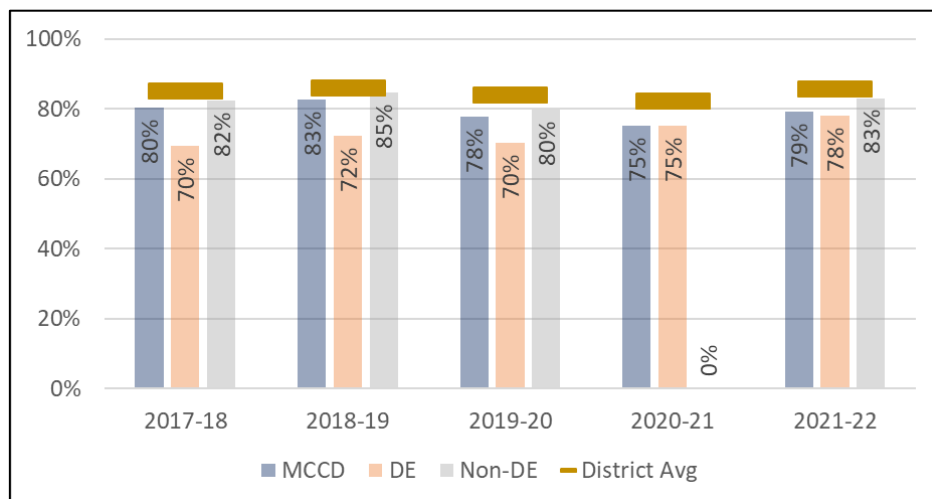


Figure 10: Completion Rate in Courses linked to the Communication GELO



When we compare this to the assessment results in Table 10 and Figure 11, mastery of the Communication GELO is consistently above 90%. Many of the summer semesters have 100% mastery, but it should be noted that the sample size for these results is much smaller compared to the other Semesters (Fall 21 and Spring 22 semesters have more than 5,000 student assessments each while summer 22 has only 131 assessments).

Table 10 Assessment results for the Communication GELO

Term	Meets expectations	Does not meet expectations	N/A	Mastery rate?
2017F	7	0	0	100%
2018S	158	17	3	90.3%
2018U	74	0	0	100%
2018F	4,138	435	356	90.5%
2019S	2,443	268	387	90.1%
2019U	32	0	0	100%
2019F	2,951	397	489	88.1%
2020S	5,479	668	370	89.1%
2020U	131	13	0	91%
2020F	1,963	154	54	92.7%
2021S	1,799	172	97	91.3%
2021U	103	3	0	97.2%
2021F	5,890	889	439	86.9%
2022S	6,200	743	415	89.3%
2022U	131	0	0	100%

Figure 11: Overall assessment results for mastery of the Communication GELO

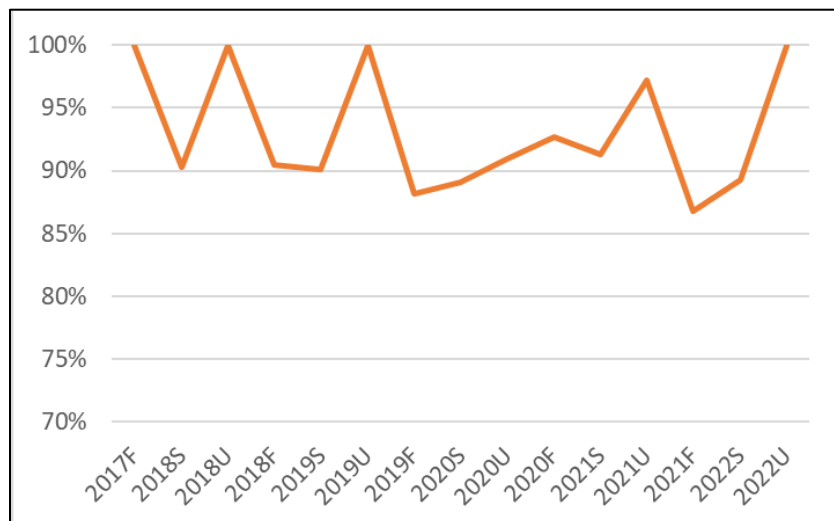


Figure 12 demonstrates that both males and females demonstrate mastery of the communication GELO much higher than the 70% benchmark. Women consistently demonstrate a slightly higher mastery of the communication GELO compared to their male classmates (2-3%). Likewise, Figure 13 shows that 80% or more of first-time students demonstrated mastery of the Communication GELO.

Figure 12: % Students by Gender who demonstrated mastery of the Communication GELO

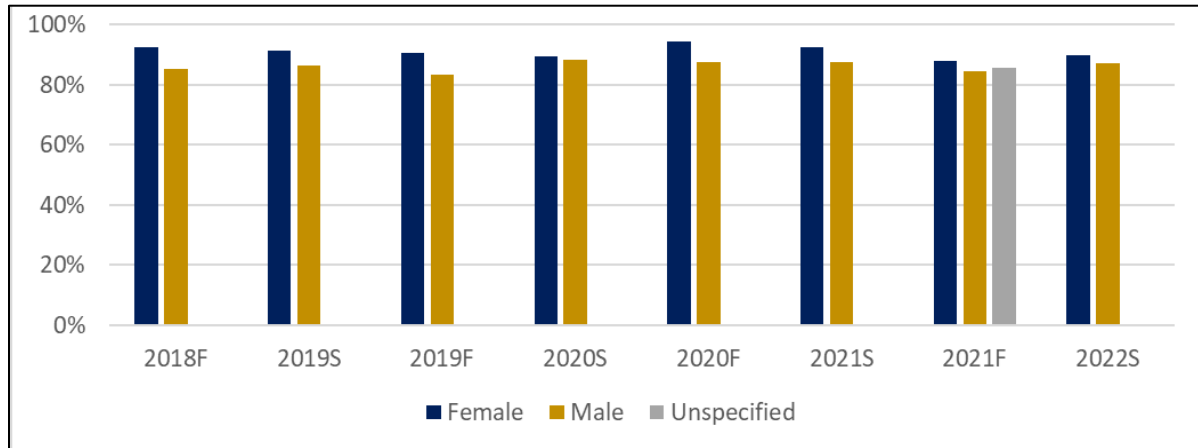


Figure 13: % First Time students who demonstrated mastery of the Communication GELO

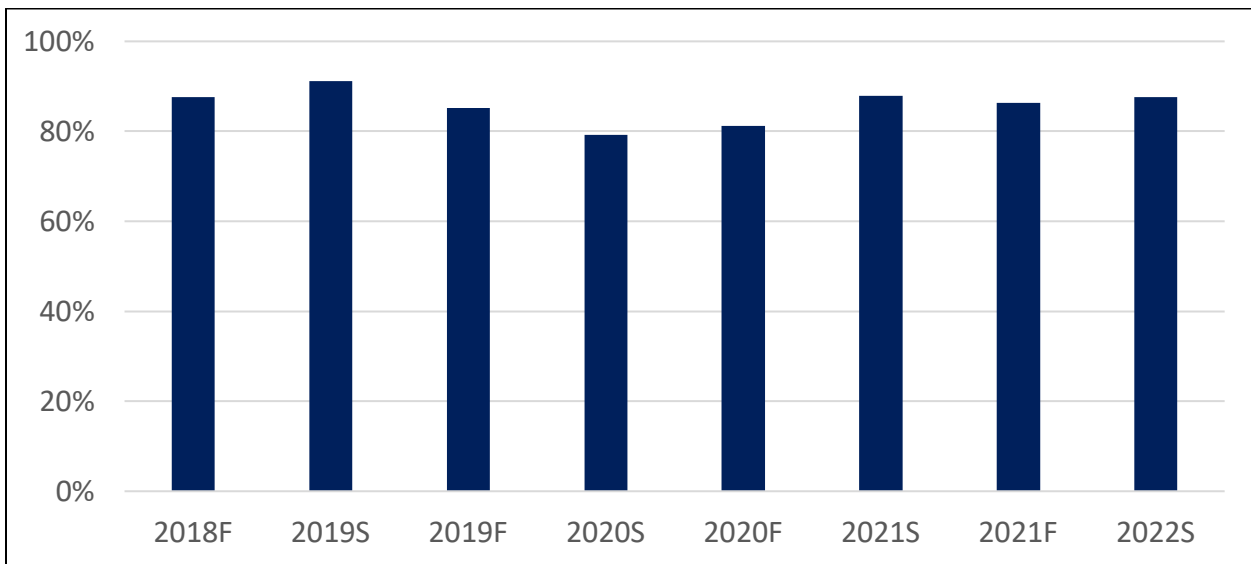


Figure 14 on the next page shows mastery of the Communication GELO for students in various age cohorts. Similar to the previous assessment for Cognition, students under 25 years old have a slightly lower mastery compared to their older classmates.

Figure 14A: Students Under 30 Years Old Demonstrating Mastery of the Communication GELO

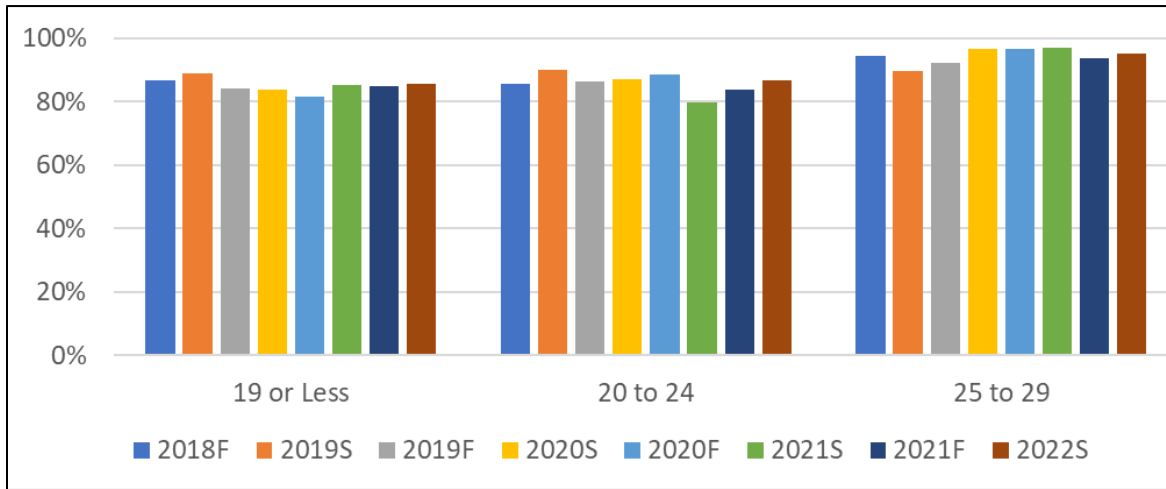


Figure 14B: Students 30-40 Years Old Demonstrating Mastery of the Communication GELO

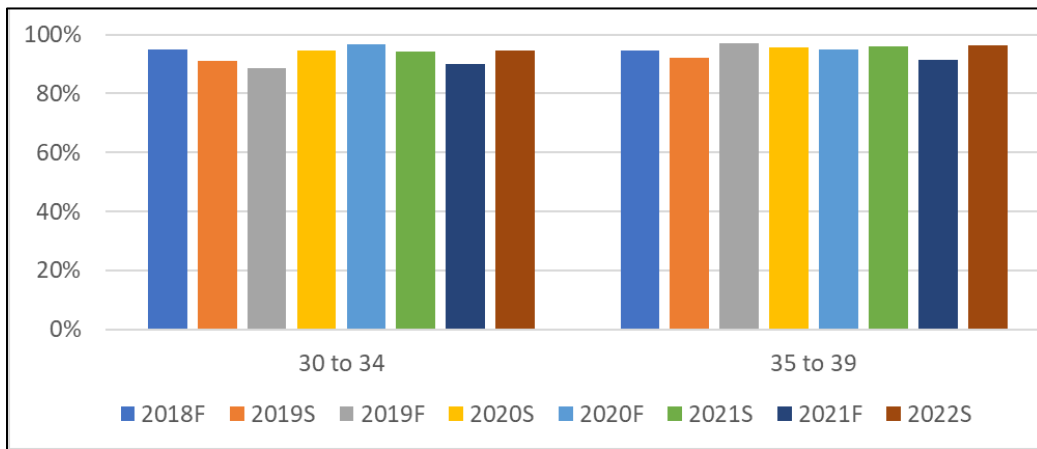
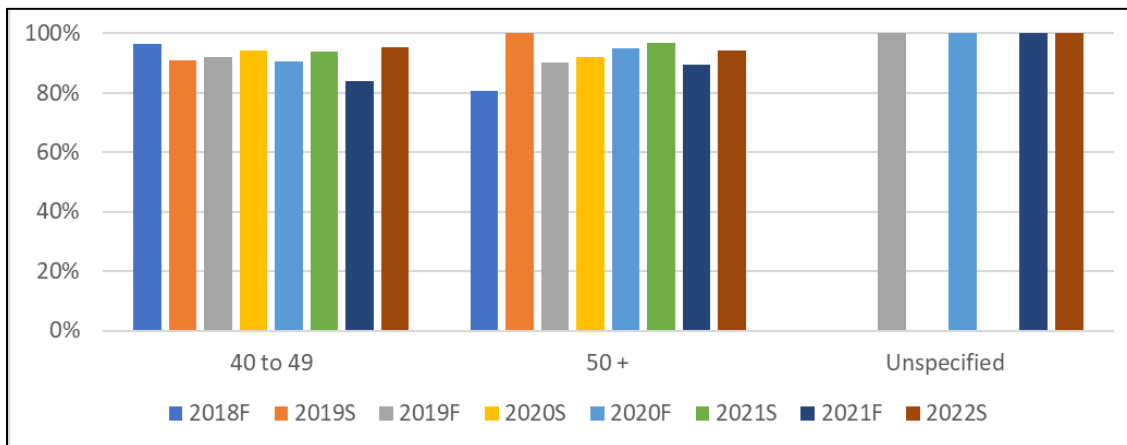


Figure 14C: Students over 40 Years Old Demonstrating Mastery of the Communication GELO



The data shown in Figure 15 below shows a slight difference in mastery of the communication GELO when we look at the assessment results by race. Again, the race cohorts with enrollment >5 and with enrollment <1% consistently demonstrated higher mastery of the communication GELO compared to students in the cohort with enrollment in the 1-5% range. Although all cohorts were above the 70% benchmark target, the numbers for the 2021-22 school year are noticeably lower.

Figure 15A: Mastering the Communication GELO - Students by Race with enrollment >5%

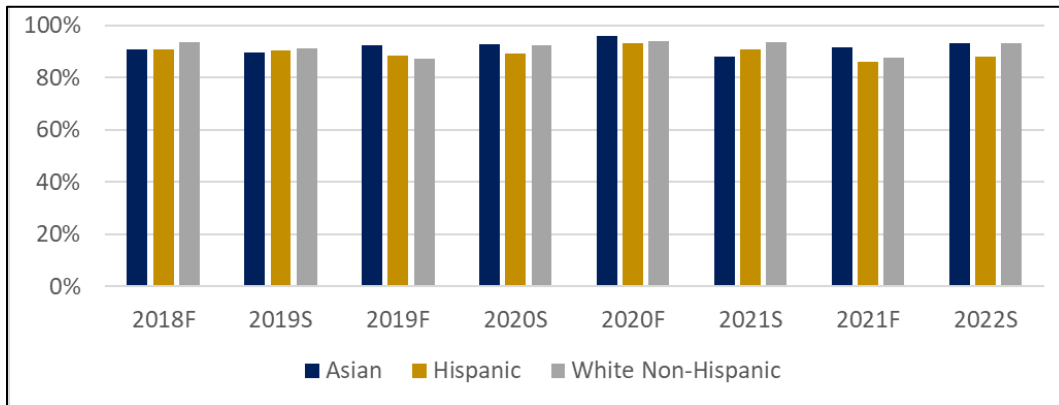


Figure 15B: Mastering the Communication GELO - Students by Race with enrollment 1-5%

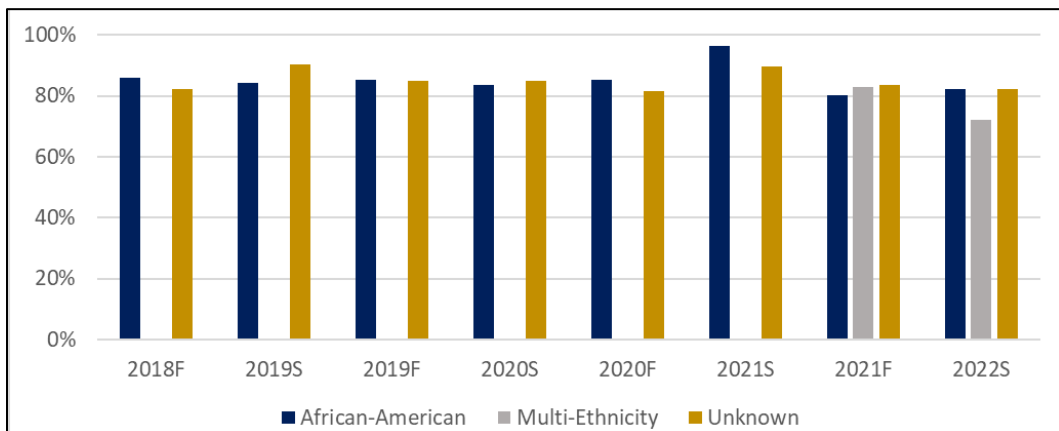
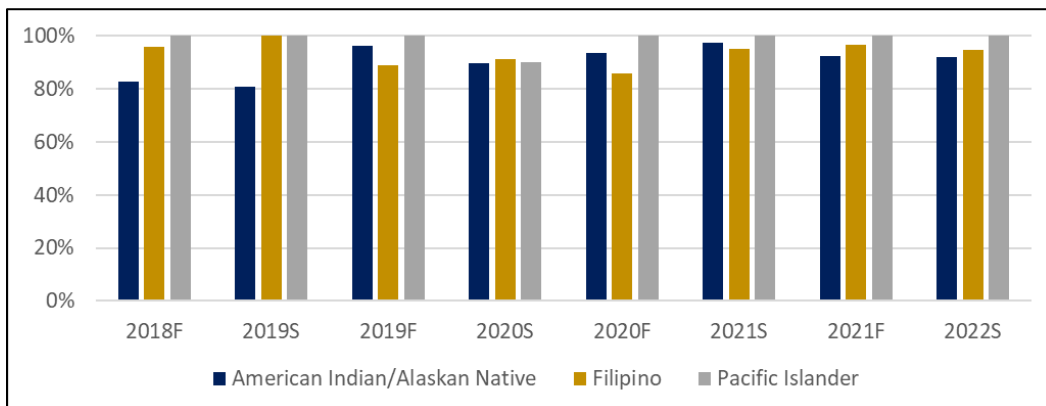


Figure 15C: Mastering the Communication GELO - Students by Race with enrollment <1%



Part 4: Assessment results for the **Computation GELO**

The majority of courses linked to the Computation GELO are in the Mathematics program where students “Use mathematical skills and various aspects of technology appropriate to the task”. In these courses’ students should be able to, “Analyze and apply mathematical concepts to an appropriate task” and “Appraise various aspects of technology and apply them to an appropriate task”. Some of the skills associated with the computation outcome include,

- Analyze and apply mathematical concepts to an appropriate task
- Appraise various aspects of technology and apply them to an appropriate task

Figures 16 and 17 show the overall success and retention rates for students taking any of the classes associated with the Computation GELO. While the success rates for these courses has increased over the past 5 academic years, it is still lower than the success rate for all classes at Merced College. This might bear looking into more as the completion rate is consistent with many of the other GELO courses and normal retention in classes at Merced College shown with the gold bar in the graphs, the success rate is consistently lower, although it looks like the difference between DE and non-DE courses has narrowed over the past few years.

Figure 16: Success Rate in Courses linked to the Computation GELO

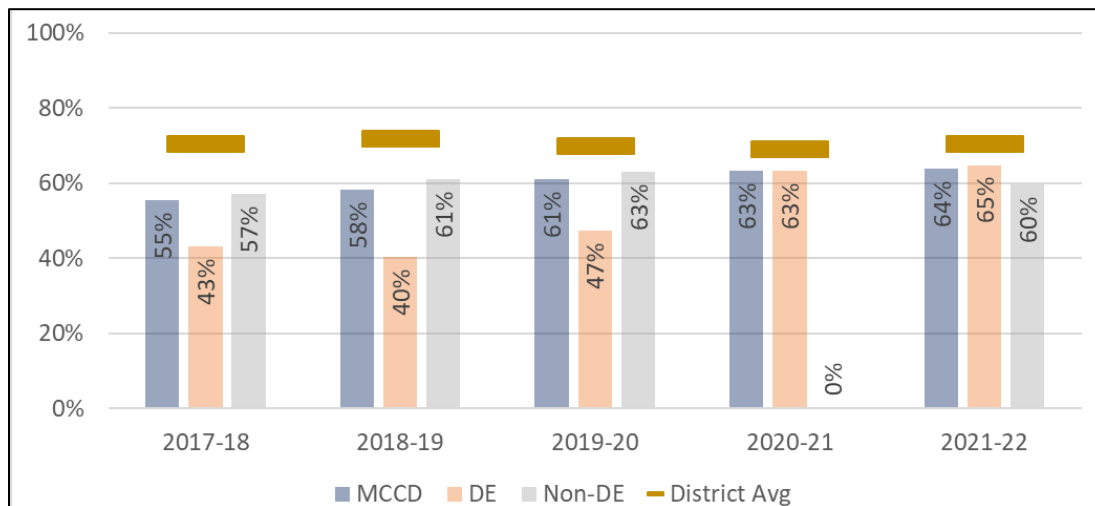


Figure 17: Completion Rate in courses linked to the Computation GELO

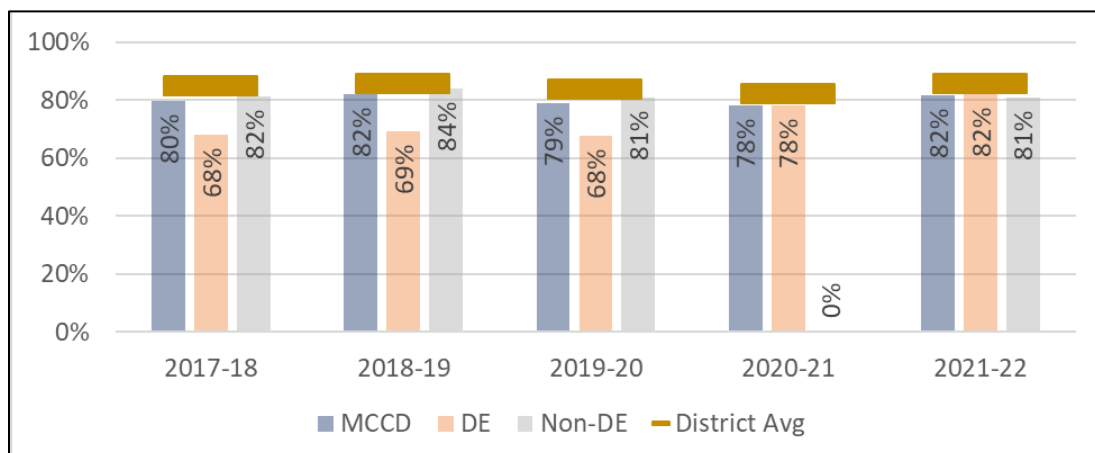
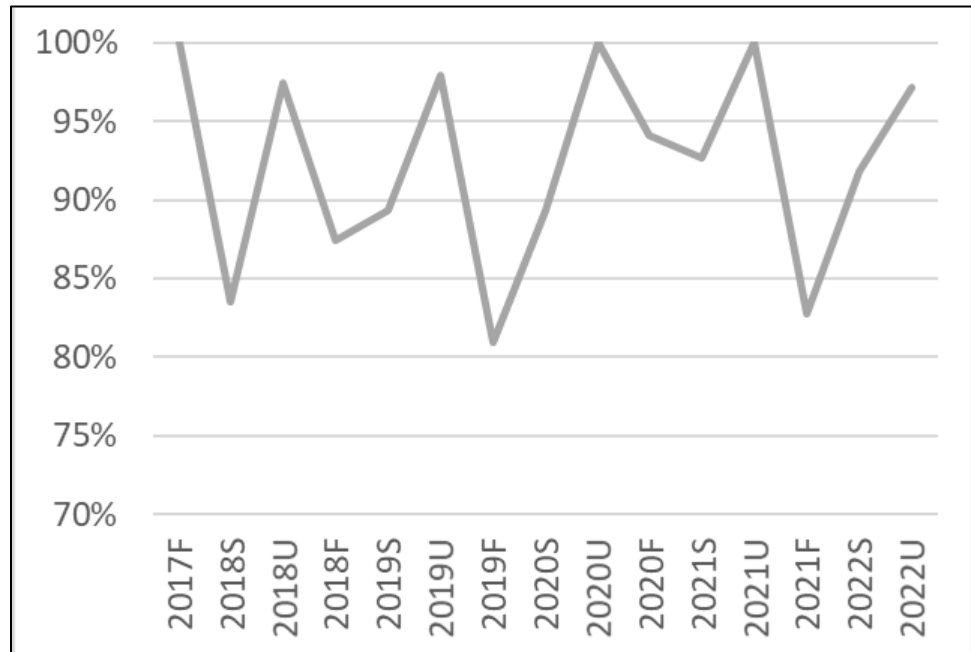


Table 11 Assessment results for the Computation GELO

Term	Meets expectations	Does not meet expectations	N/A	Performance Achieved
2017F	14	0	0	100%
2018S	81	16	1	83.5%
2018U	76	2	0	97.4%
2018F	2,902	416	98	87.5%
2019S	1,871	223	101	89.4%
2019U	47	1	0	97.9%
2019F	2,902	681	892	81%
2020S	3,589	428	87	89.4%
2020U	82	0	0	100%
2020F	1,896	118	210	94.1%
2021S	1,217	96	27	92.7%
2021U	88	0	0	100%
2021F	5,905	1,220	577	82.9%
2022S	3,012	267	149	91.9%
2022U	139	4	0	97.2%

Figure 18: Percentage of students demonstrating mastery of the Computation GELO



Assessment of the Computation GELO shows the same pattern where the results show mastery is above the benchmark of 70% but is often higher in Spring and summer semesters compared to the Fall semesters (see Table 11 and Figure 18 on the previous page). We also see similar patterns when looking at the computation assessment results by gender where the women typically score higher than the men. Assessments of first-time students indicate they are at or above the benchmark of 70% again for the computation GELO (Figure 20 below).

Figure 19: % of students by Gender who demonstrate mastery of the Computation GELO

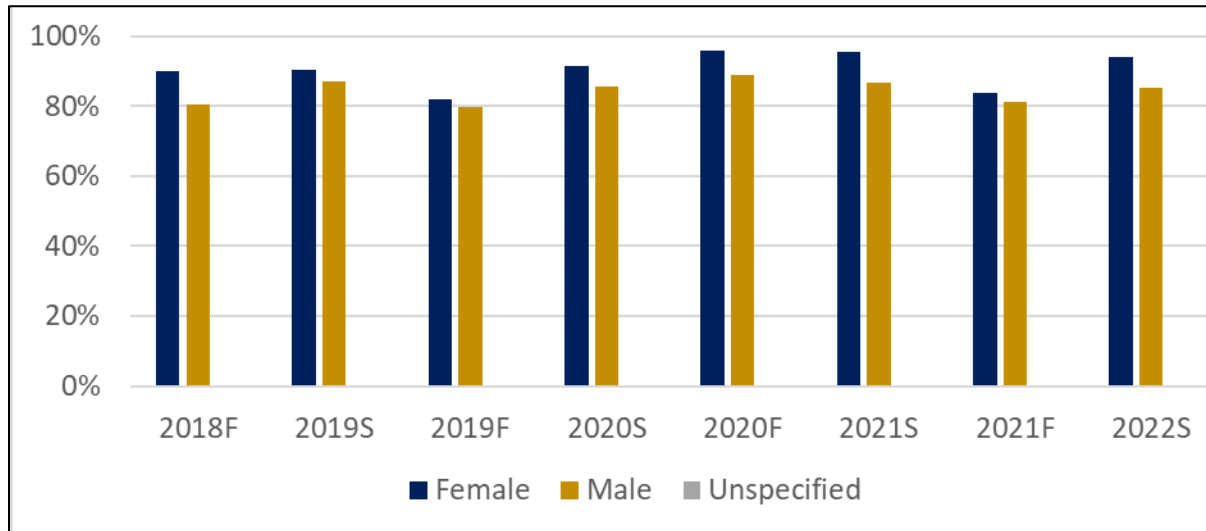


Figure 20: % first time students who demonstrated mastery of the Computation GELO

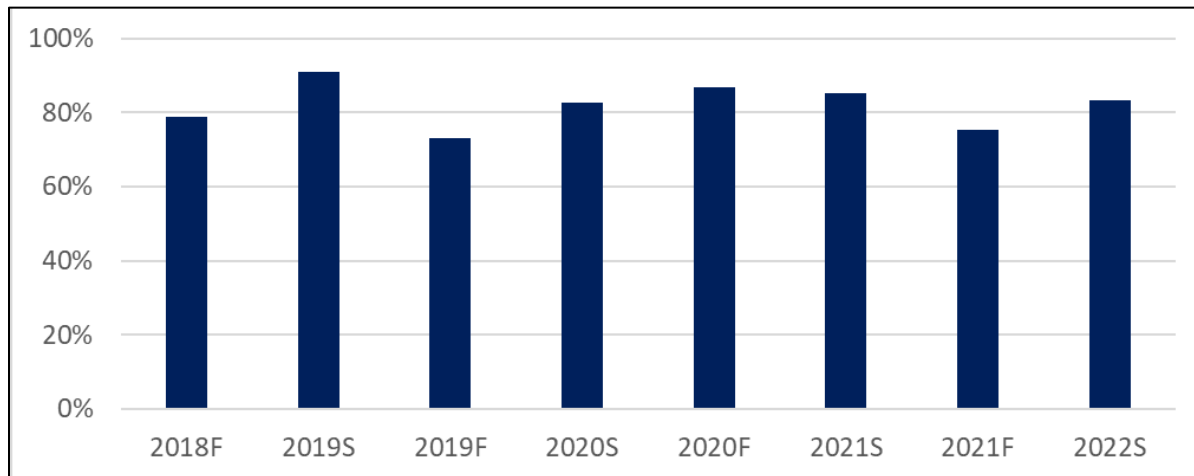


Figure 21 on the next page shows mastery of the Computation GELO for students in various age cohorts. Similar to the previous assessment of the Cognition and Communication GELOs, students under 25 years old typically have a lower mastery compared to their older classmates, and all cohorts scored higher than the benchmark.

Figure 21A: % of students under 30 years old who mastered the Computation GELO

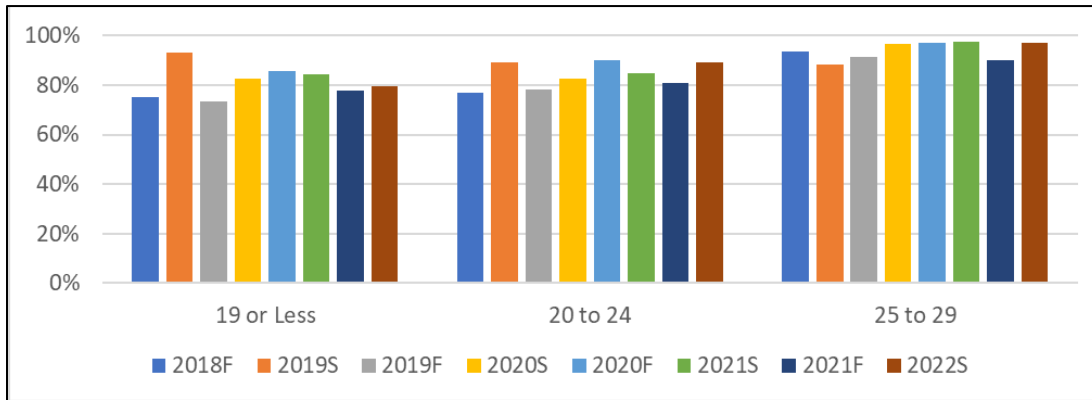


Figure 21B: % of students between 30-39 years old who mastered the Computation GELO

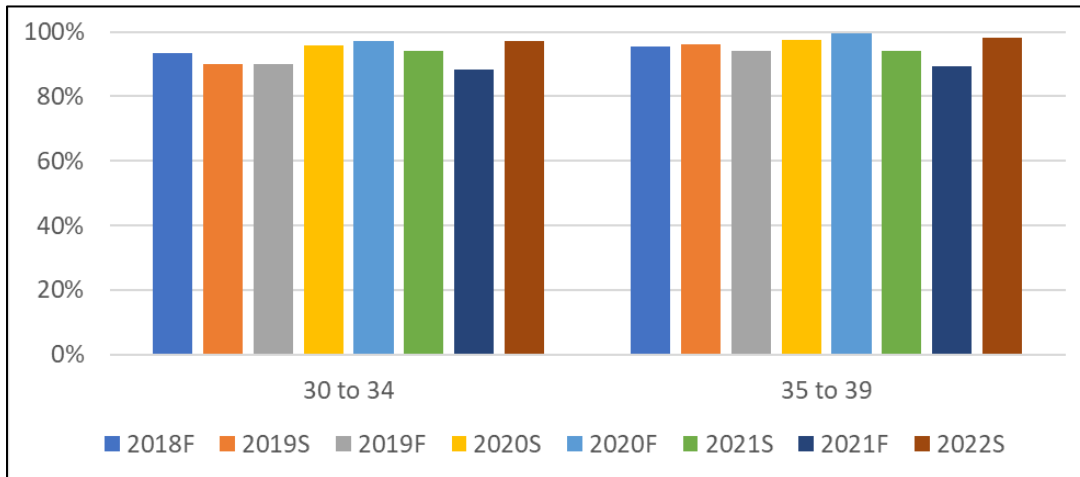


Figure 21C: % of students over 40 years old who mastered the Computation GELO

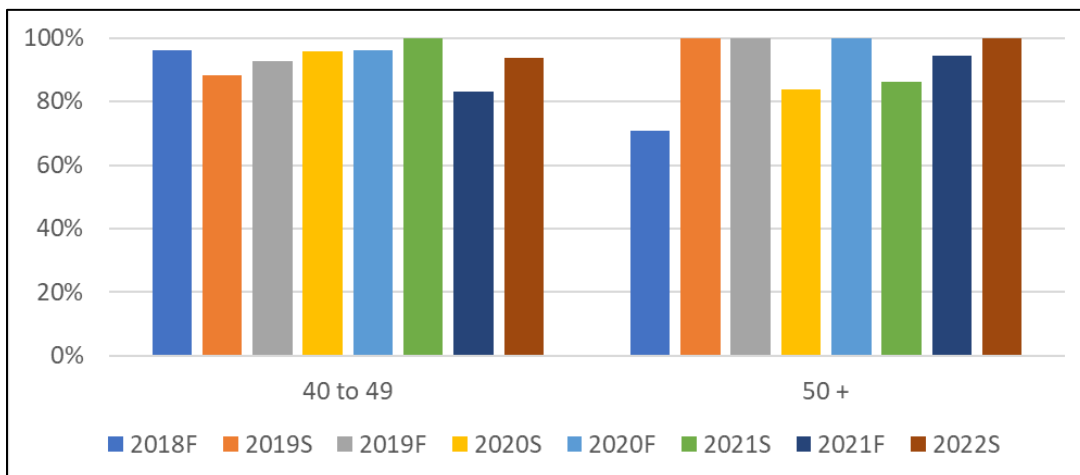


Figure 22A: % of students by Races with Enrollment >5% who mastered the Computation GELO

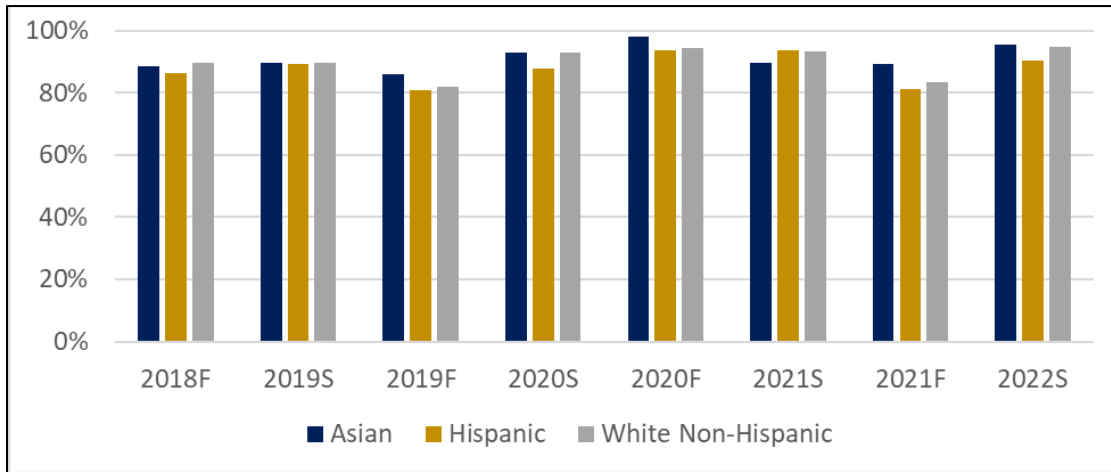


Figure 22B: % of students by Races with Enrollment 1-5% who mastered Computation GELO

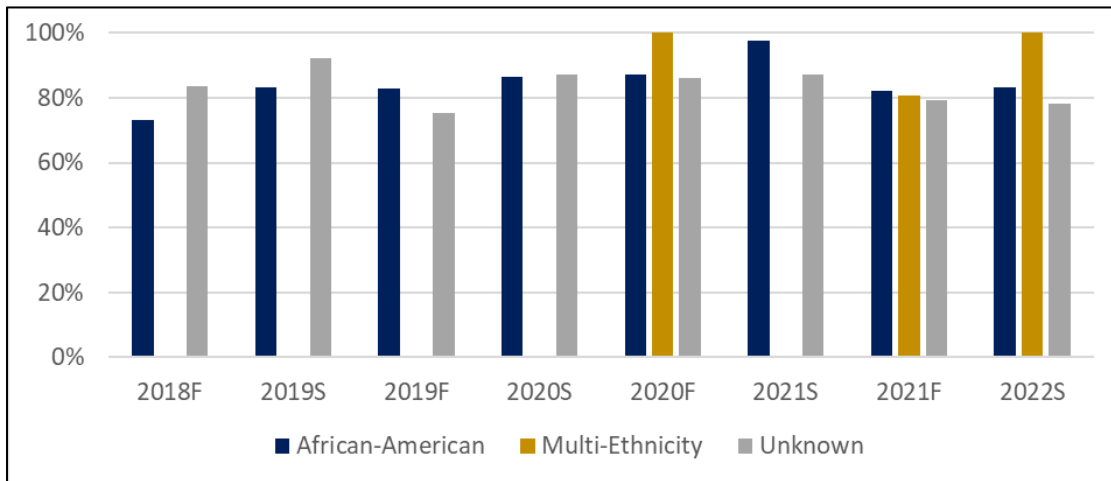
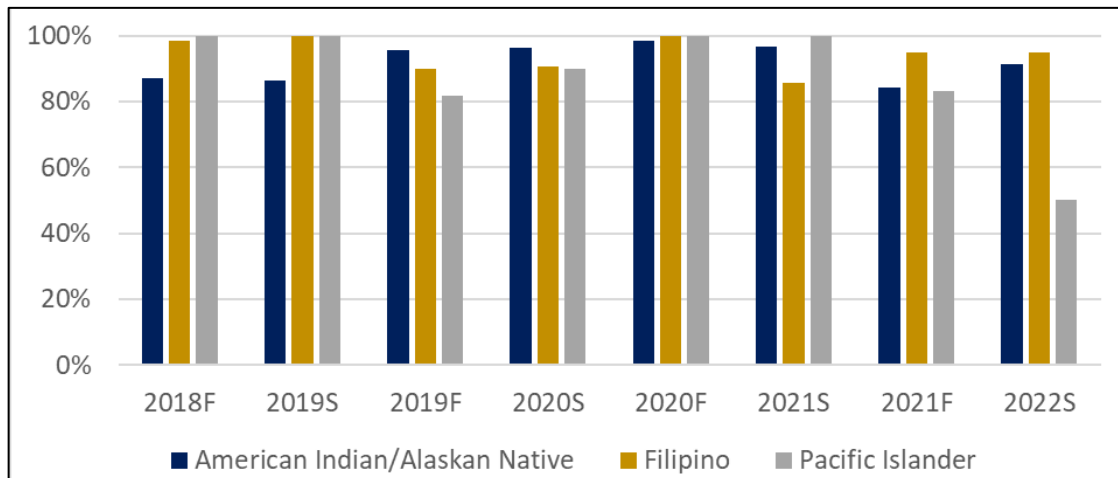


Figure 22C: % students by Races with Enrollment <1% who mastered the Computation GELO



Part 5: Assessment results for the Global and Community Consciousness and Responsibility GELO

Courses associated with the “Global and Community Consciousness and Responsibility” GE Learning outcome typically include the social sciences, history and political science. In these courses’ students are expected to “Demonstrate understanding of different cultures and knowledge of historical eras and importance of community involvement.” Some of the skill sets used to demonstrate mastery of this outcome include:

- Distinguish and understand diverse cultures
- Evaluate historical knowledge and relate it to current issues
- Recognize the impact of local, national, and global involvement

The success and completion rate in courses associated with the Global and Community Consciousness GELO approaches the average for all courses at the college (~66-72% success and ~85% or higher retention).

Figure 23: Success rate in courses associated with the Global Consciousness GELO

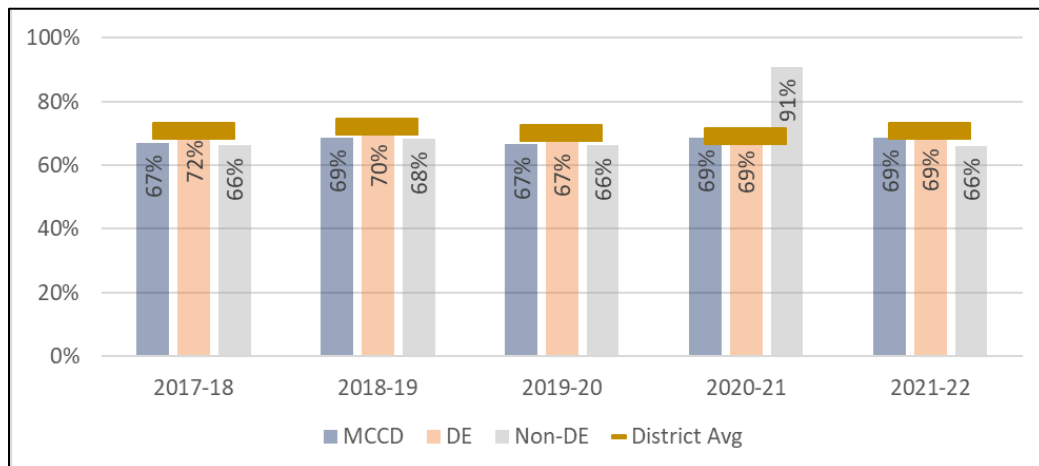
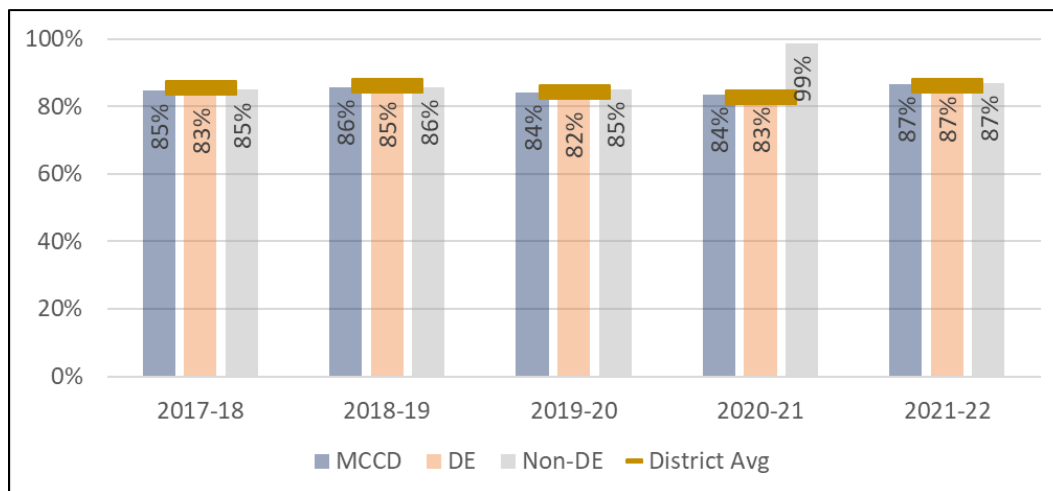


Figure 24: Completion rate in courses associated with the Global Consciousness GELO

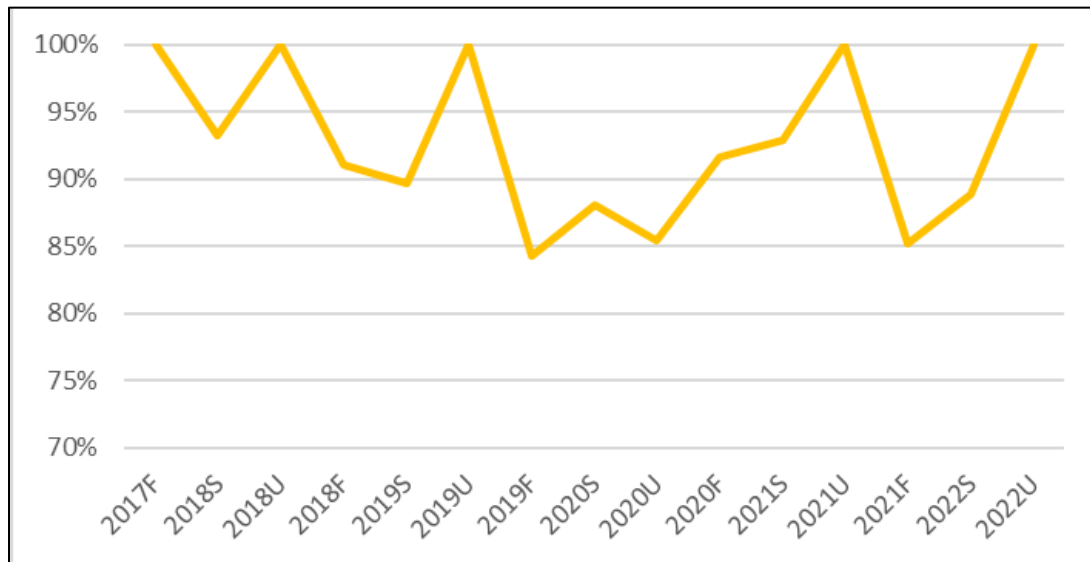


The table and figure below show the raw results for the assessment of the Global and Community Consciousness GELO. One aspect that stands out with these results is the 100% mastery shown with assessment of the Global Consciousness GELO during the summer, while the Fall and Spring assessments are typically in the mid to high 80% range. Possibly the student population during summer school, or the assessment is different.

Table 12: Assessment results for the Global and Community Consciousness GELO

Term	Meets expectations	Does not meet expectations	N/A	Performance Achieved
2017F	7	0	0	100%
2018S	55	4	0	93.2%
2018U	36	0	0	100%
2018F	3,418	335	279	91.1%
2019S	1,500	173	80	89.7%
2019U	32	0	0	100%
2019F	2,275	425	561	84.3%
2020S	5,756	780	522	88.1%
2020U	88	15	0	85.4%
2020F	1,574	144	23	91.6%
2021S	1,195	91	30	92.9%
2021U	40	0	0	100%
2021F	4,228	724	241	85.4%
2022S	5,533	695	424	88.8%
2022U	119	0	0	100.0%

Figure 25: Mastery of the Global Consciousness GELO



When we look at the Global Consciousness GELO assessment results shown below we again see that women typically outperform their male classmates. While there is a noticeable dip in mastery during the 2019-20 academic year, especially for first-time students during the COVID pandemic Fall 2020 semester, Global GELO assessments have shown a steady increase in the subsequent years.

Figure 26: % of students by gender who mastered the Global Consciousness GELO

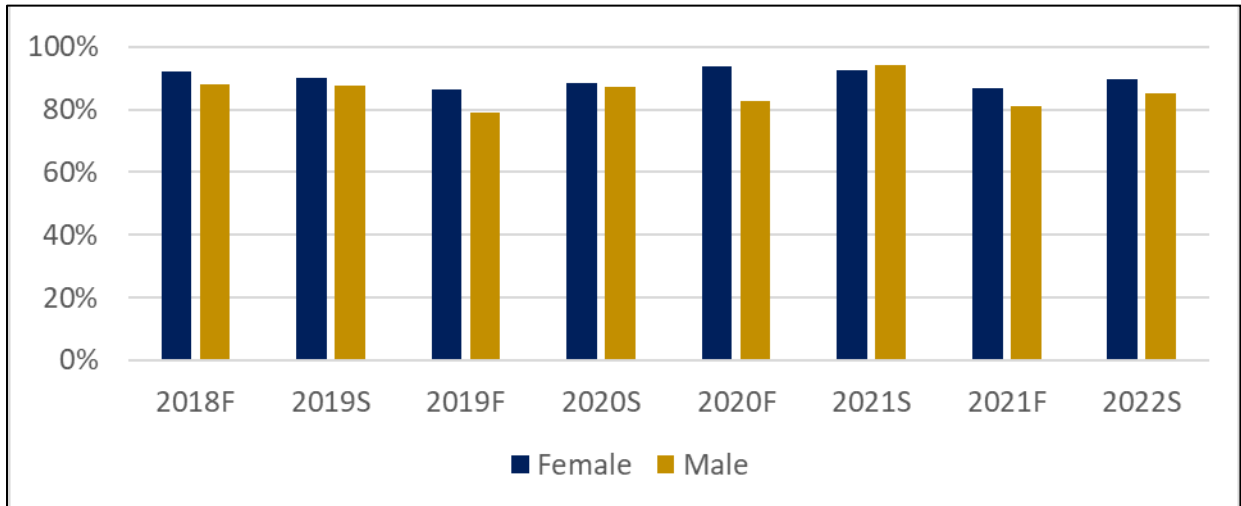
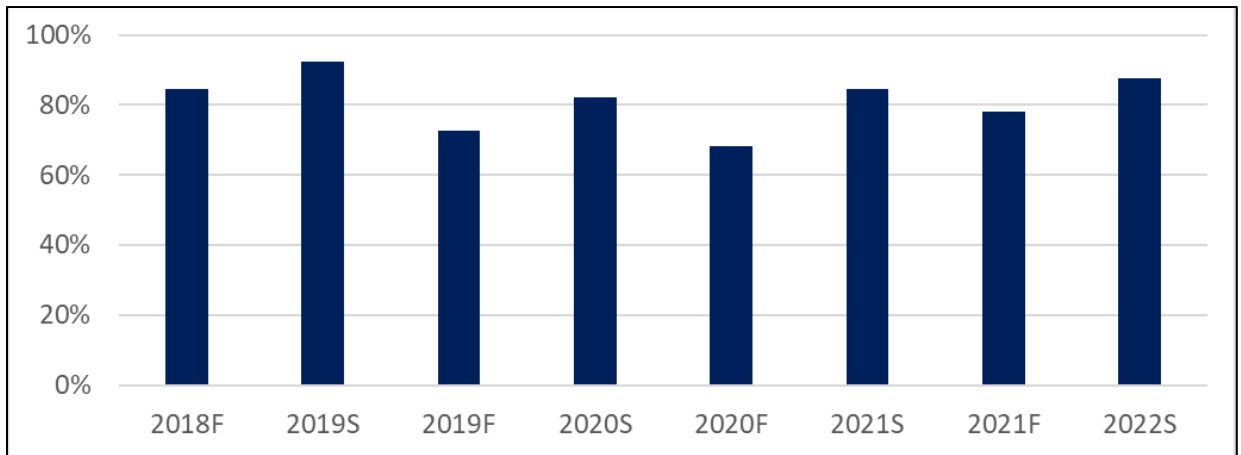


Figure 27: % of First-time students who mastered the Global Consciousness GELO



On the next two pages we can see similar patterns with students below 25 years old demonstrating a lower mastery of the Global GELO compared to their older classmates. When the students are broken up into cohorts by race there is an observable difference. Cohorts representing races with enrollment greater than 5 % (Asian, Hispanic and White non-Hispanic) are fairly consistent with their mastery of the Global GELO. However, when we look at races with enrollment in the 1-5% (African American, Multi-ethnicity and unknown race) at mastering the Global GELO there is a lot more variation in student performance here that might bear looking into as Fig 29 A and Fig 29C have similar patterns in their performance results that differ from Fig 29B.

Figure 28A: % of students under 30 years old demonstrating mastery of the Global GELO

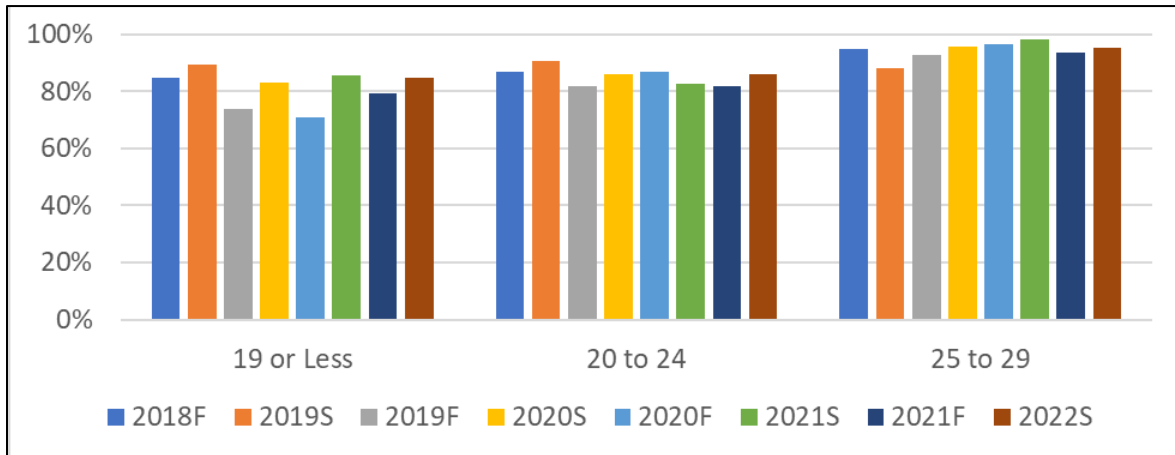


Figure 28B: % of students between 30-40 years old demonstrating mastery of the Global GELO

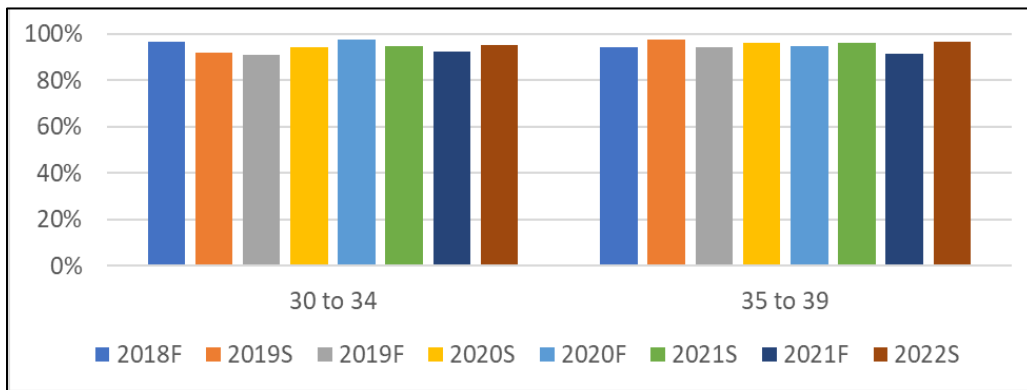


Figure 28 C: % of students over 40 years old (and unspecified ages) demonstrating mastery of the Global Consciousness GELO

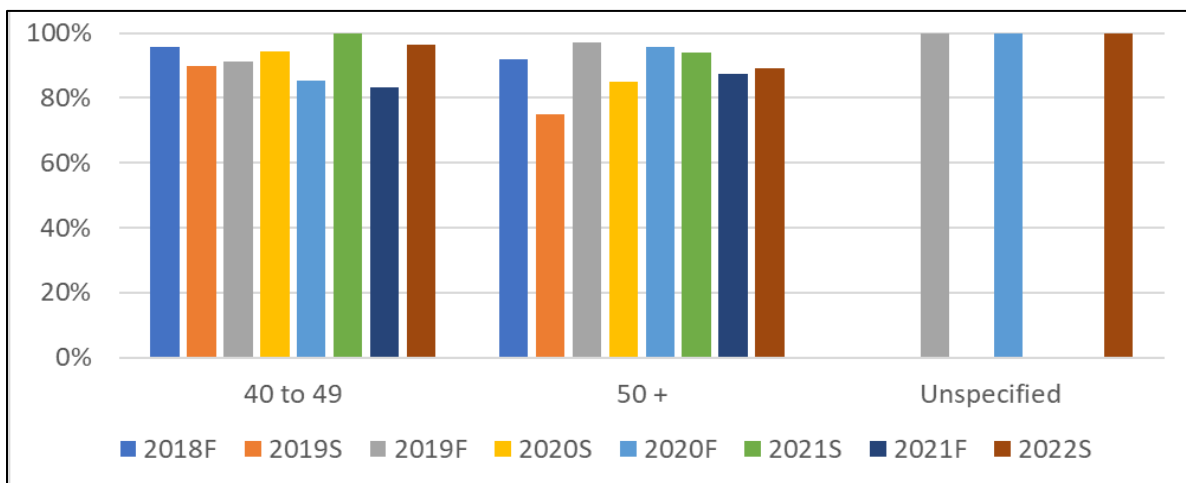


Figure 29A: % of students by races with enrollment >5% - demonstrating mastery of the Global GELO

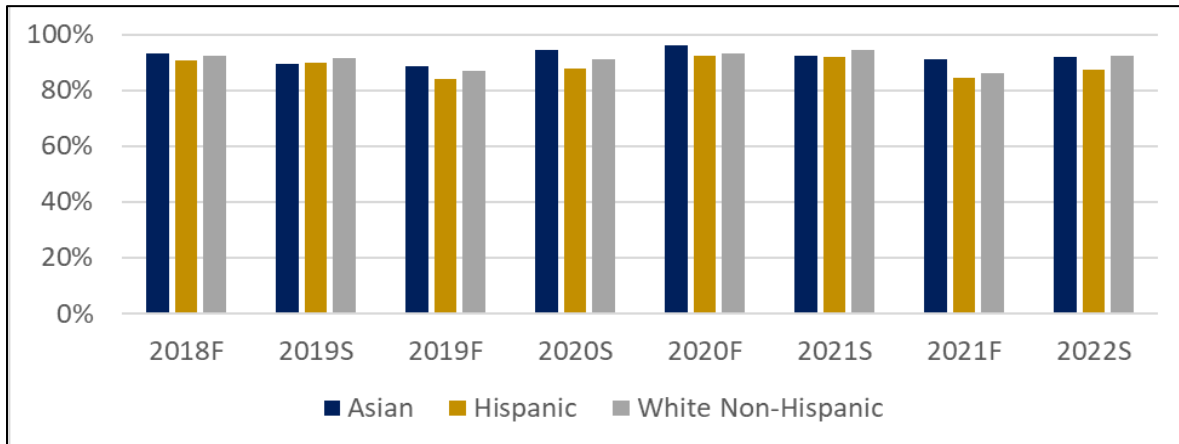


Figure 29B: % of students by races with enrollment 1-5% - demonstrating mastery of the Global GELO

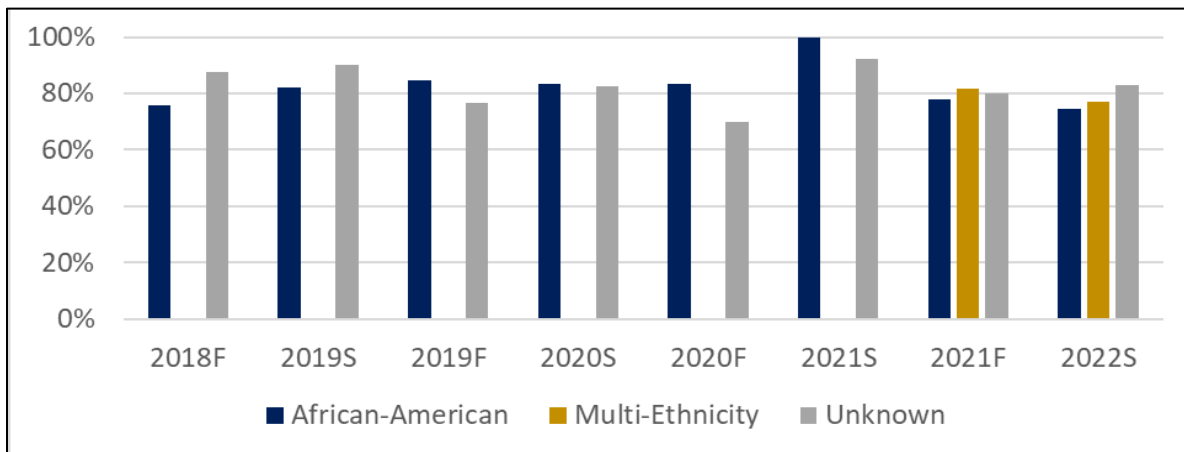
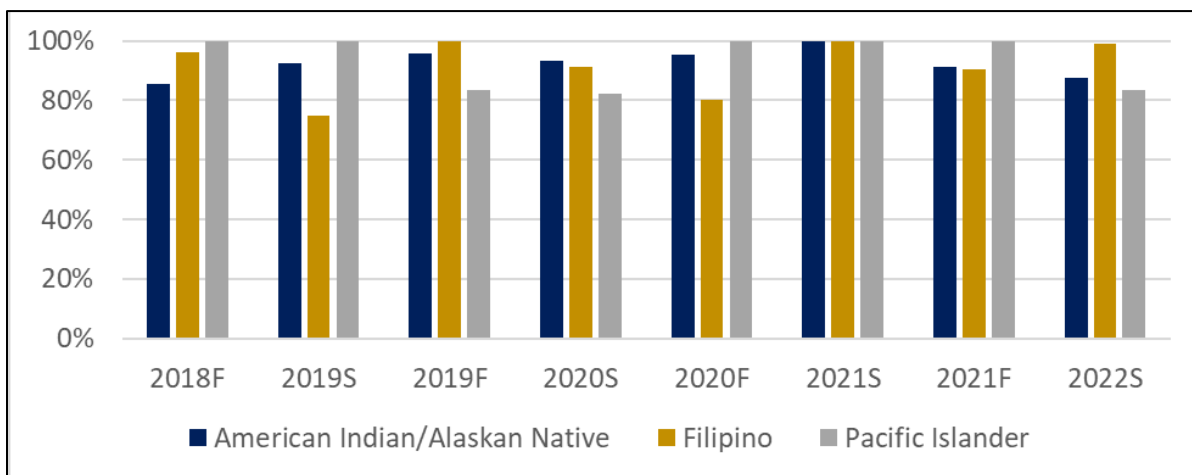


Figure 29A: % of students by races with enrollment <1% - demonstrating mastery of the Global GELO



Part 6: Assessment results for the Personal Development and Life-Long Learning GELO

Courses associated with the Personal Development and Life-Long Learning GELO are found in a wide variety of disciplines such as Athletics, Automotive, Business, Child Development, Computer Science, Guidance, Health, Nutrition and Psychology. Students who have demonstrated mastered of this outcome should demonstrate self-management, maturity, and growth through practices that promote physical, mental, and emotional well-being. Students will be able to do the following:

- Analyze and apply interpersonal skills
- Demonstrate an understanding of life-long learning
- Relate a healthy lifestyle and wellness to personal choices
- Evaluate and adhere to professional and academic ethical standards

The success and retention rates for students in all of the classes associated with the Personal Development GELO are fairly consistent with two outliers. The success rates are typically around 72-73% until we look at the data from 2020-21 where the success rate for face-to-face classes was 100% and 2021-22 where it was 84%. The completion rate also shows a similar pattern, with retention typically around 84-87% and the same outliers for face-to-face classes in 2020-22. One factor that might have contributed to this deviation is the COVID pandemic threw off the face-to-face course offerings. While this might be something to look into further, there is a chance this GELO could change in the future due to statewide revisions in the General education patterns.

Figure 30: Success Rates in courses associated with the Personal Development GELO

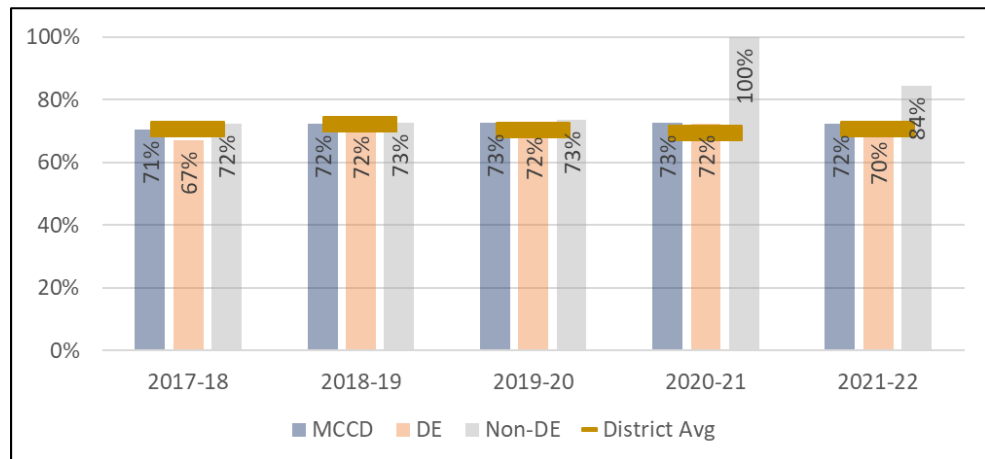
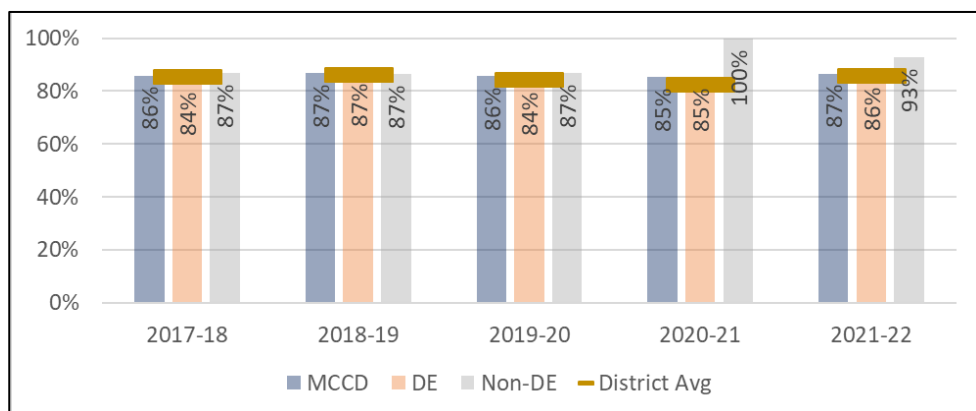


Figure 31: Completion rates in courses associated with the Personal Development GELO

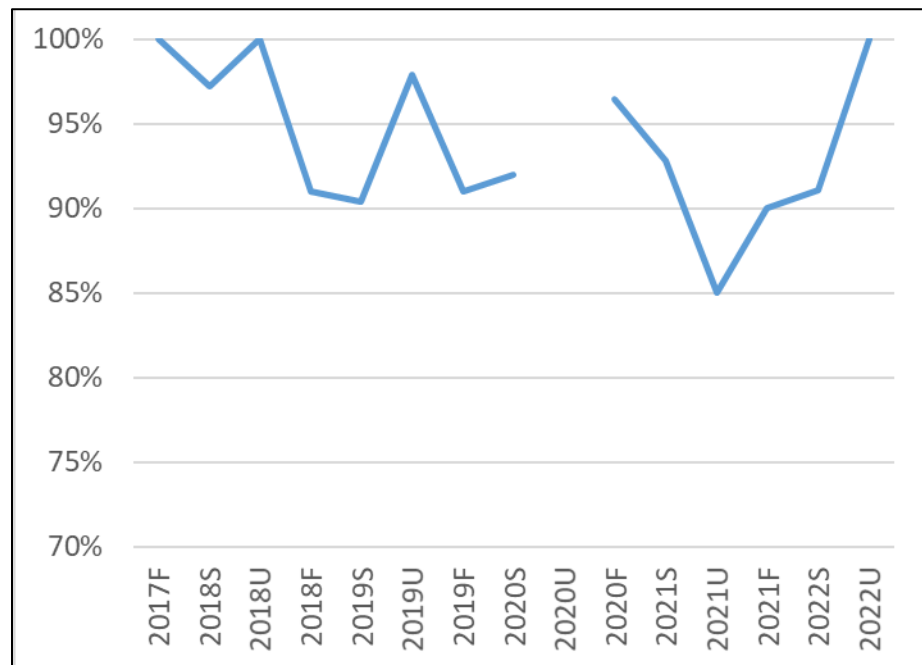


Looking at the assessment results for the Personal Development GELO in Table 13 and Figure 32 below, we can see that it has consistently resulted in higher achievement numbers compared to all of the other GELO assessments typically in the 90-100% range.

Table 13: Assessment results for mastery of the Personal Development and Life-Long Learning GELO

Term	Meets expectations	Does not meet expectations	N/A	Performance Achieved
2017F	14	0	0	100%
2018S	35	1	1	97.2%
2018U	2	0	0	100%
2018F	4,427	438	388	91.0%
2019S	2,443	260	316	90.4%
2019U	47	1	0	97.9%
2019F	1,713	170	126	91%
2020S	5,129	449	205	92%
2020U	0	0	0	0%
2020F	1,868	68	17	96.5%
2021S	2,421	188	172	92.9%
2021U	170	30	0	85%
2021F	6,025	659	123	90.1%
2022S	5,175	509	268	91.0%

Figure 32: Mastery of the Personal Development and Life-Long Learning GELO



Similar to the trend seen with previous GELO assessments, women consistently meet the expectations at a slightly higher rate compared to their male classmates in Figure 33 below. Likewise, first time students also performed well, with 80-95% of the student cohort demonstrating mastery of the Personal Development GELO in Figure 34 below.

Figure 33: % of students by Gender demonstrating mastery of the Personal Development GELO

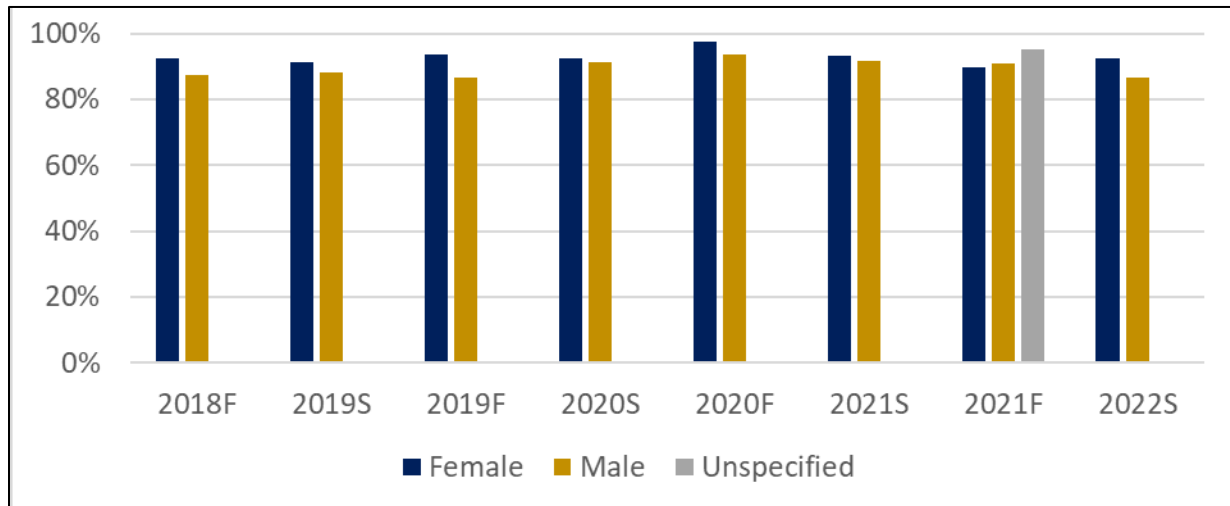
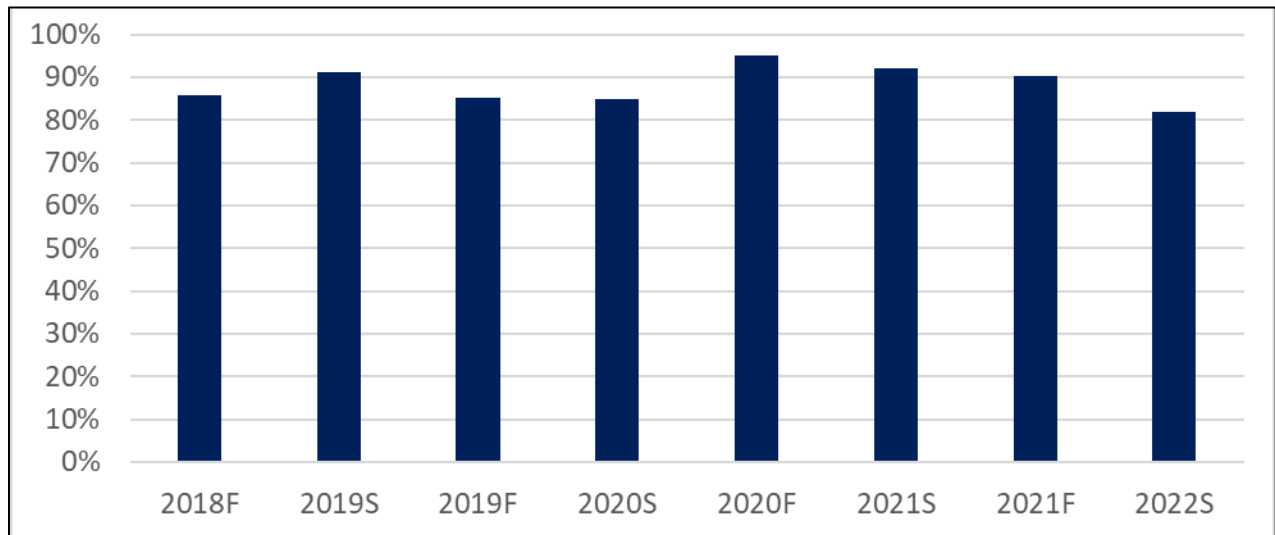


Figure 34: % of First-Time students demonstrating mastery of the Personal Development GELO



When the Personal Development GELO assessment results are broken down into different age categories in Fig 35, the assessment results suggest that students who are 25 years and older are typically more responsible than students below 25 years old.

Figure 35A: % of students under 30 years old who demonstrated mastery of the Personal Development GEL0

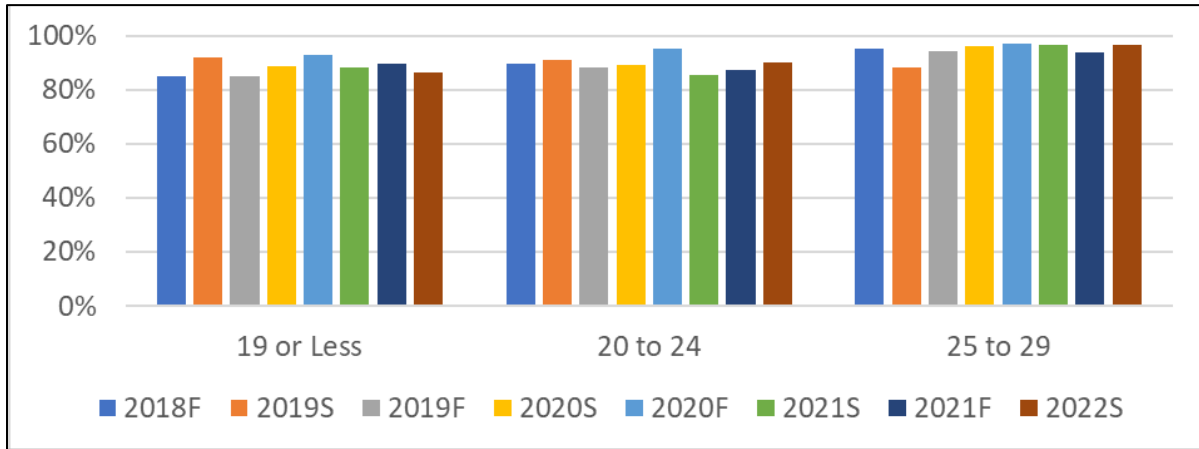


Figure 35B: % of students between 30-39 years old who demonstrated mastery of the Personal Development GEL0

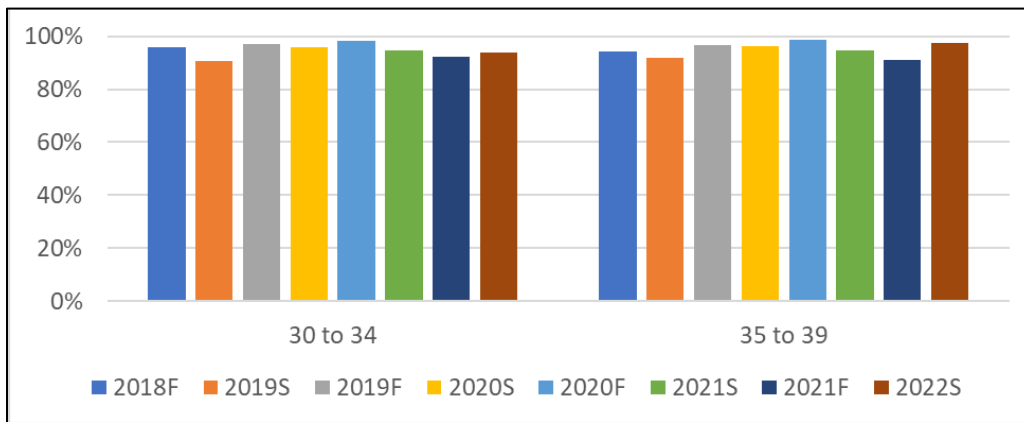
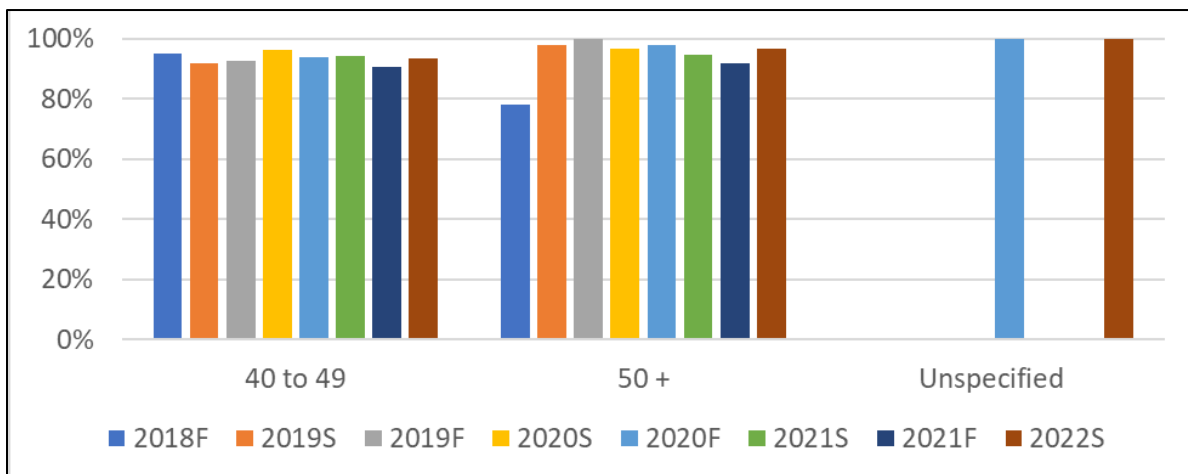


Figure 35C: % of students over 40 years old who demonstrated mastery of the Personal Development GEL0



The assessment results for the Personal Development GELO viewed by the race of the student, we can see that initially African American students scored lower, but those numbers have trended upward in the 2021-22 academic year. We do see a lot of variation with the assessment results for Pacific Islander students, but this could be due to the small sample size of students that are found in this cohort.

Figure 36A: % of students by Races with Enrollment >5% demonstrating mastery of the PD GELO

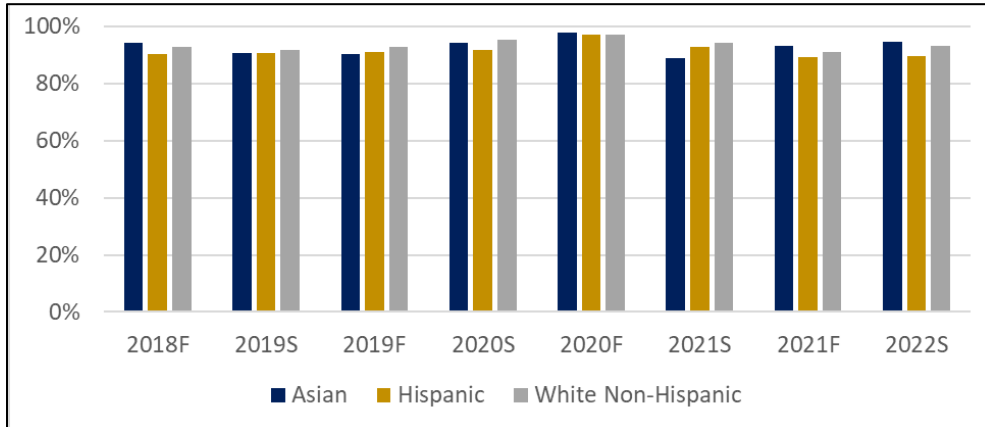


Figure 36B: % of students by Races with Enrollment 1-5% demonstrating mastery of the PD GELO

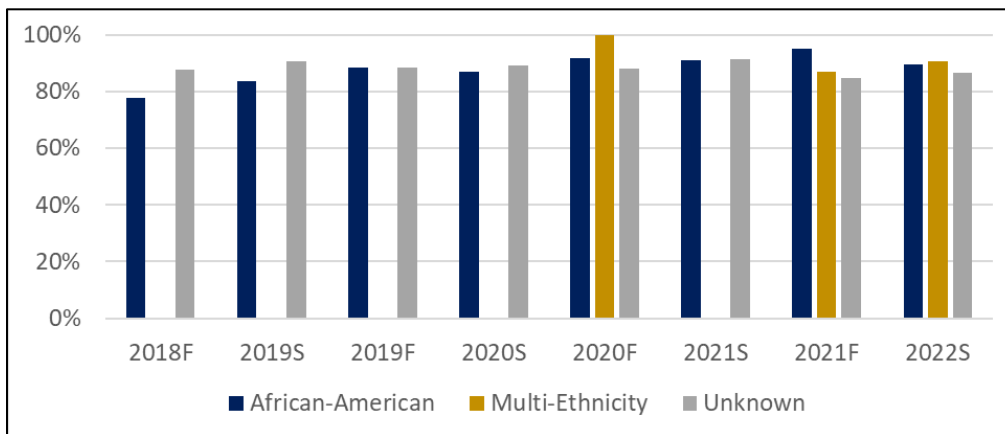
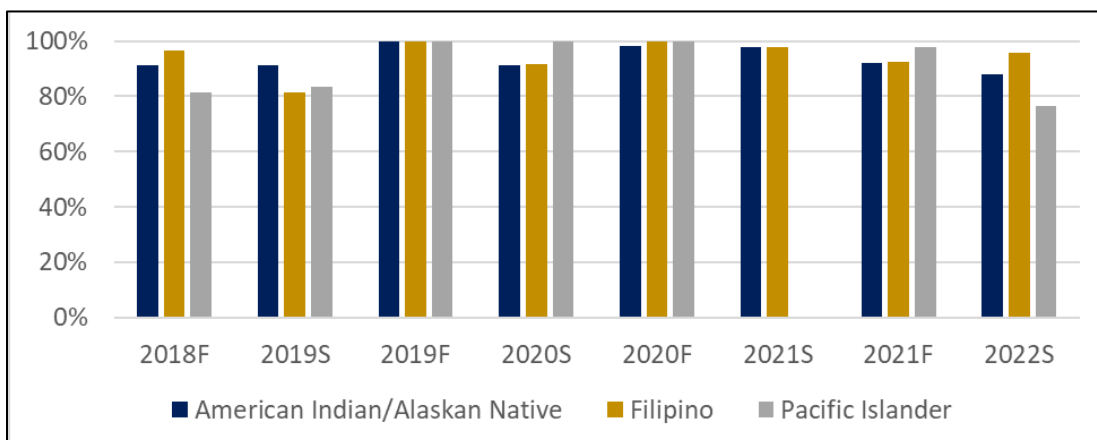


Figure 36C: % of students by Races with Enrollment <1% demonstrating mastery of the PD GELO



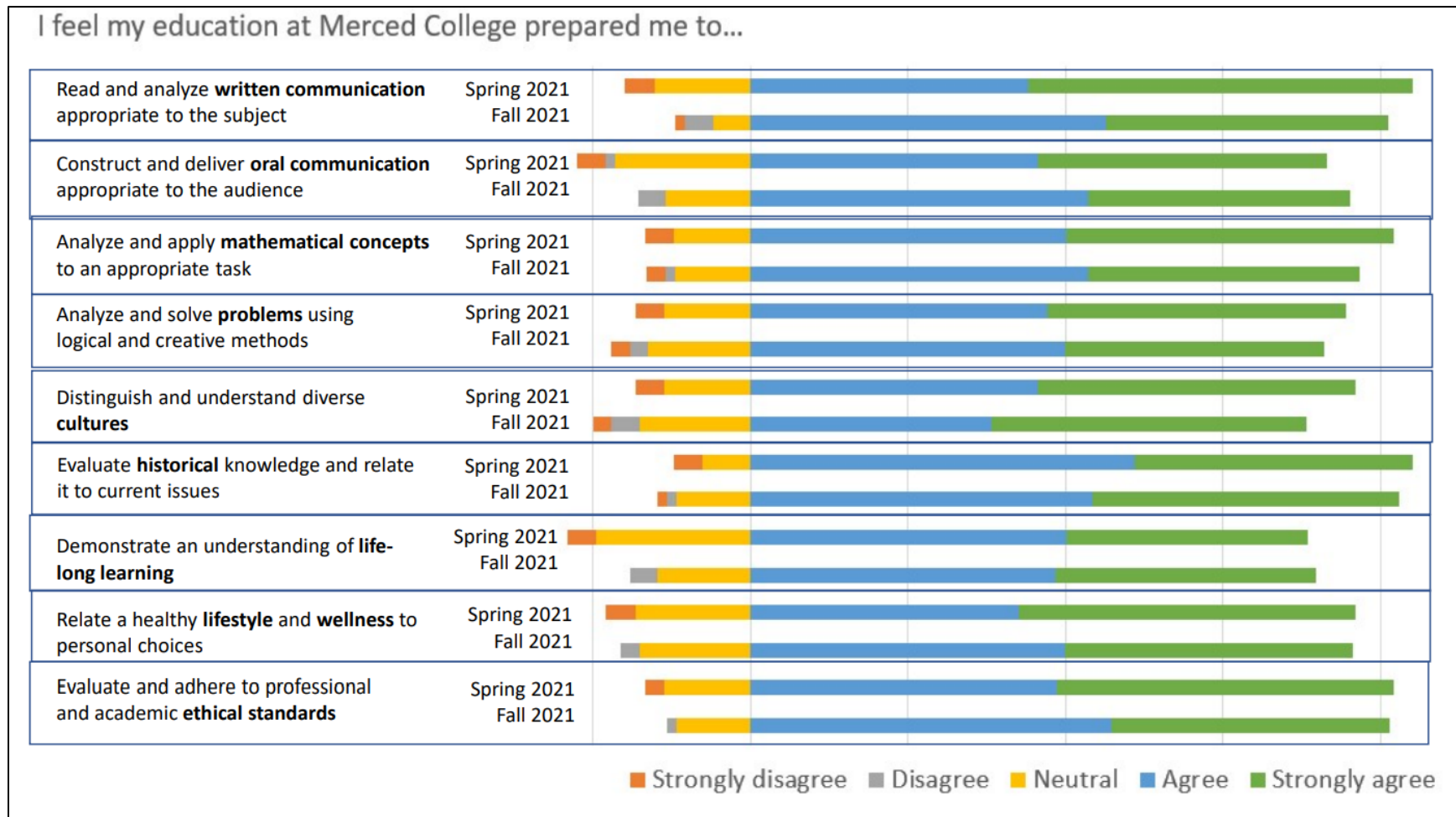
Part 7: Graduating student survey about the General Education Learning Outcomes

In order to collect student feedback about the General Education Program, a set of questions were included in a survey administered to graduating students in Spring and Fall 2021. The questions started with the prompt, “I feel my education at Merced College prepared me to....” Followed by a list of different skill sets that students should be able to complete in order to demonstrate they have met expectations for various GE learning outcomes. Students were given a standard Likert scale to rate their impression relative to the skill sets associated with each of the GELOs. The results shown in Figure 37 were normalized around the neutral answer, such that the ends of each bar can be compared to see changes in student feelings over the two semesters the survey was administered. Essentially, if the bar stretches further to the left side in the figure it indicates students feel the college did not prepare them for that skill, while bars stretching further to the right side indicates stronger satisfaction with the preparation provided for that skill by the College. It should be noted that less than 10% of the graduating students responded to the questions in the survey, and Spring 2021 was at the tail end of the COVID19 pandemic which could introduce some bias into the student responses.

Students felt Merced College did not prepare them well for “**constructing and delivering Oral communication appropriate to the audience**”, although there was an improvement in responses for Fall 2021 compared to Spring 2021 with no strong feelings in the Fall survey. With the Written communication skill set the students seem to have bimodal responses to either extreme, but there were more negative feelings in the Fall survey responses. This can also be seen with the responses about “Analyzing and applying mathematical concepts to an appropriate task” and “Analyze and solve problems using logical and creative methods” – both of these skills trended more on the less prepared side in the Fall responses compared to Spring.

Interestingly, the skill sets associated with the Global Consciousness GELO had opposite responses. Students felt the college prepared them too “evaluate historical knowledge and relate it to current events” but they felt less prepared with the ability to “distinguish and understand diverse cultures”. The skill with the largest negative response was related to whether or not the college prepared students to “demonstrate an understanding of life-long learning”, although the Fall responses were more positive compared to the Spring responses. The preparation to relate a healthy lifestyle and wellness to personal choices was fairly spread out between the disagree and agree sides. Finally, students agreed that the college did prepare them to “evaluate and adhere to professional and academic ethical standards”.

Figure 37: Results from Graduating student survey on preparation for the General Education Learning Outcome skills.



Longer bars on the right side (blue and green) indicate more agreement that Merced College prepared the student. The further the bars stretch to the left side (yellow to orange color) the more students disagreed and felt that their education at Merced College did not prepare them. Keep in mind these surveys were administered at the tail end of the Covid19 pandemic.

Conclusions and Recommendations for the General Education program

1. The new CALGETC requirements will change the Breadth requirements, dropping courses traditionally associated with the Personal Responsibility GELO and including a new ethnic studies requirement. **The Institutional SLOs used as the GE learning outcomes for Merced College should be re-examined within this new framework.**
2. A task force including faculty from all disciplines should **update the list of courses linked to the GELOs.** This should focus on whether or not the courses on the list are teaching and assessing the actual skill sets described in the learning outcome statements.
3. Given the wide variety of assessment strategies for the General Education program, evaluating the assessment results can feel like comparing apples to oranges. It would be helpful, and more rigorous, if the GELO assessments utilized more standardized procedures. The American Association of Colleges and Universities (AAC&U) has a set of “Valid Assessment of Learning in Undergraduate Education” or VALUE rubrics with fundamental criteria that can be used to evaluate the progress students are making during the course of their education. (see Appendix B for an example of the oral communication VALUE rubric). A common set of performance descriptors could make the GELO assessment more meaningful - we need to make stronger connections between the goals of the GE learning outcomes and what is necessary to do well in classes.
4. Continue to survey students about whether or not they feel the college prepared them with the skill sets in the GE learning outcomes.
5. Overall, students are meeting expectations for the GE learning outcome assessments, which seems to parallel the district average for success in these courses. Based on the GELO assessment results, younger, male, African American and Hispanic students should remain a focus as this cohort had lower assessment scores for some of the GELO assessments compared to the other cohorts of students.
6. Examine why the success rates in classes are typically lower compared to students meeting expectations with assessments of the GE learning outcomes, especially for courses linked to the communication and computation GELOs. While the GELOs are only a subset of outcomes for the courses it would be interesting to compare the course SLO assessment results to see if they mirror the GELO assessment results.
7. Identify whether or not a standing committee should be created to work on the GE program assessment or if this process should continue under the leadership of PROAC. Currently, the GE program collects and analyzes data associated with course assessments in instruction using the eLumen software. While PROAC solicits feedback from student services and administrative services, it is difficult for the non-instructional areas to assess the Global and Community Consciousness and Responsibility GELO.

Appendix A: List of General Education Program courses associated with the GELOs

This list of GE Program courses associated with the GELOs comes from a mapping project in Appendix 3 of the Computation GE report in 2015.

GE Learning Outcome	Breadth Area Courses
Communication	<u>GE Breadth Areas A and C</u> A1 English Composition ENGL-01A A2 Communication and Analytical Thinking ACTG-04A COMM-01, 01H, 02, 04, 05, 30 CPSC-07 ENGL-02, 13, 13H PHIL-10, 12, 13, 13H
Computation	<u>GE Breadth Areas A and B</u> A2 Communication and Analytical Thinking MATH-C, 02, 04A, 04B, 04C, 06, 08, 10, 15, 20A, 20B, 25, 26 and PSYC-05
Cognition	<u>GE Breadth Areas A, B and C</u> B1 Physical Science ARCH-01 ASTR-01, 01L CHEM-02A, 02B, 04A, 04B ELCT-30 GEOG-01 GEOL-01 PHSC-01/01L PHYS-02A, 02B, 04A, 04B, 04C, 10 SOIL-10 B2 Life Science ANSC-10 ANTH-01 BIOL-01, 02, 04A, 04B, 06, 08, 09, 16, 18, 20 ENTC-30 PLSC-10 PSYC-15 C – Humanities ART-01, 02, 06, 12A, 15, 24A DART-40A, 40B, 41A, 41B, 41C DRAM-01, 02, 02L, 04, 04L, 08, 12 ENGL-01B, 04A, 04B, 05, 06A, 06B, 07, 08, 10, 11, 14, 15, 18 FREN-01, 02, 03, 04 GERM-01, 02, 03, 04 HMNG-01, 02 HUM-01, 01H, 02, 02H, 15*, 21 JPNS-01A, 01B, 02 MUS-01, 04A, 04B, 11, 12, 13, 14, 36A, 43A, 44, 45 PHIL-01, 01H, 03, 04, 05, 15 PHOT-10A, 11A, SPAN-01, 02, 03, 04, 10, 11
Global and Community Consciousness and Responsibility	<u>GE Breadth Area D</u> D1 – Social Science AGBS-11 AGRI-10 ANTH-02, 10* CRIM-01 ECON-01A, 01B GEOG-02 PSYC-01A, 01AH, 15, 25, 51 SOC-01, 02 D2 – History and Pol. Sci. HIST-04A, 04B, 09A, 09B, 17A, 17AH, 17B, 17BH, 22*, 23, 29 POSC-01, 02
Personal Development and Life-Long Learning	<u>GE Breadth Area E</u> E1 Integrated Organism AUTO-04 BUS-35 CLDV-01, 02, 09 CPSC-01 GUID-30, 48 HLTH-10, 16 LAND-11 NUTR-10 PSYC-09, 22, 23, 36 E2 Activity ATHL-01A, 01B, 01G, 01J, 01K, 01L, 03 KINE-01 PHED-01, 10, 11, 12, 13, 15

Appendix B: Information about the AAC&U VALUE Rubrics

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. **For more information, please contact value@aacu.org**

Example: Oral Communication VALUE rubric –

The type of oral communication most likely to be included in a collection of student work is an oral presentation and therefore is the focus for the application of this rubric.

Definition

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

Framing Language

Oral communication takes many forms. This rubric is specifically designed to evaluate oral presentations of a single speaker at a time and is best applied to live or video-recorded presentations. For panel presentations or group presentations, it is recommended that each speaker be evaluated separately. This rubric best applies to presentations of sufficient length such that a central message is conveyed, supported by one or more forms of supporting materials and includes a purposeful organization. An oral answer to a single question not designed to be structured into a presentation does not readily apply to this rubric.

Glossary The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- **Central message:** The main point/thesis/"bottom line"/"take-away" of a presentation. A clear central message is easy to identify; a compelling central message is also vivid and memorable.
- **Delivery techniques:** Posture, gestures, eye contact, and use of the voice. Delivery techniques enhance the effectiveness of the presentation when the speaker stands and moves with authority, looks more often at the audience than at his/her speaking materials/notes, uses the voice expressively, and uses few vocal fillers ("um," "uh," "like," "you know," etc.).
- **Language:** Vocabulary, terminology, and sentence structure. Language that supports the effectiveness of a presentation is appropriate to the topic and audience, grammatical, clear, and free from bias. Language that enhances the effectiveness of a presentation is also vivid, imaginative, and expressive.
- **Organization:** The grouping and sequencing of ideas and supporting material in a presentation. An organizational pattern that supports the effectiveness of a presentation typically includes an introduction, one or more identifiable sections in the body of the speech, and a conclusion. An organizational pattern that enhances the effectiveness of the presentation reflects a purposeful choice among possible alternatives, such as a chronological pattern, a problem-solution pattern, an analysis-of-parts pattern, etc., that makes the content of the presentation easier to follow and more likely to accomplish its purpose.
- **Supporting material:** Explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities, and other kinds of information or analysis that supports the principal ideas of the presentation. Supporting material is generally credible when it is relevant and derived from reliable and appropriate sources. Supporting material is highly credible when it is also vivid and varied across the types listed above (e.g., a mix of examples, statistics, and references to authorities). Supporting material may also serve the purpose of establishing the speaker's credibility. For example, in presenting a creative work such as a dramatic reading of Shakespeare, supporting evidence may not advance the ideas of Shakespeare, but rather serve to establish the speaker as a credible Shakespearean actor.

Example of the AAC&U Oral Communication VALUE rubric

	Capstone 4	Milestones		Benchmark 1
		3	2	
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.
Language	Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.
Supporting Material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) refer to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.
Central Message	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported.)	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.

