

# **Engagement Differences by College and First Generation Status**

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Institutional Research, Planning & Effectiveness

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# NSSE Results by College and First Generation Status

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## Introduction

The National Survey of Student Engagement (NSSE) is an online survey sent to freshmen, sophomores, and senior students at CSU about every three years. NSSE uses a combination of conceptual and empirical analysis to identify 4 themes of effective educational practices with engagement indicators for each theme. These indicators are constructs that are built from grouping individual NSSE items. The sections throughout this report are organized around NSSE engagement themes and indicator as well as high impact practices. The purpose of this report is to summarize differences in the NSSE engagement indicators by college and first generation status.

## 2016 NSSE Data

Table 1 displays the sample size by college and first generation status for CSU's 2016 NSSE administration.

Table 1.

2016 NSSE Respondents by College and First Generation Status			
College / First Generation Status	First Year	Sophomore	Senior
<b>Agricultural Sciences</b>	<b>132</b>	<b>69</b>	<b>135</b>
Continuing Generation	93	51	89
First Generation	39	18	46
<b>Business</b>	<b>132</b>	<b>85</b>	<b>203</b>
Continuing Generation	109	68	158
First Generation	23	17	45
<b>Engineering</b>	<b>204</b>	<b>61</b>	<b>246</b>
Continuing Generation	165	51	203
First Generation	39	10	43
<b>Health and Human Sciences</b>	<b>241</b>	<b>214</b>	<b>332</b>
Continuing Generation	161	163	235
First Generation	80	51	97
<b>Intra-University (Undeclared)</b>	<b>365</b>	<b>107</b>	<b>7</b>
Continuing Generation	259	73	5
First Generation	106	34	2
<b>Liberal Arts</b>	<b>194</b>	<b>181</b>	<b>336</b>
Continuing Generation	139	133	249
First Generation	55	48	87
<b>Natural Sciences</b>	<b>304</b>	<b>178</b>	<b>329</b>
Continuing Generation	230	134	253
First Generation	74	44	76
<b>Veterinary Medicine &amp; Biomedical Sci</b>	<b>78</b>	<b>25</b>	<b>77</b>
Continuing Generation	59	22	59
First Generation	19	3	18
<b>Warner College of Natural Resources</b>	<b>88</b>	<b>69</b>	<b>147</b>
Continuing Generation	68	52	107
First Generation	20	17	40
Overall Sample	1738	989	1812

In 2016 CSU has a first year response rate of 36% and a senior response rate of 34%. For reference, other large land grant institutions have about a 15% response rate in 2016. These response rates resulted in survey data from about 1,700 first year students, 1,800 seniors and 1,000 sophomores.

In terms of our data quality, our sample is well represented in terms of demographics because our NSSE sample has a similar proportion of first generation, low income and students of color compared to our population parameters. However, it is important to note that the NSSE data is a little biased towards higher achieving students. The average HS GPA and CSU GPA is higher in our NSSE sample compared to the CSU.

## Report Methodology

This study compared the mean engagement score for first generation students within each college to the overall CSU confidence interval for each. A limitation of this approach is that it is not as sensitive to sample size variability as a t-test or ANOVA would be. However, a benefit is that this data is completely available on line through our online interactive tool. The entire campus has access to this data and can see academic areas that have significant strength or room for improvement when it comes to differences in engagement by class level and first generation students.

## Executive Summary

The purpose of this report is to summarize differences in the NSSE engagement indicators by college and first generation status. The tables below summarize the NSSE results by class level and college. The minus, plus, and equal signs in each table indicate whether the score for the specific engagement indicator is below, above, or equivalent to CSU's overall mean (using a 95% confidence interval around the mean).

### College of Agricultural Sciences (CAS)

Figure E, 1.

College of Agriculture Science				
Theme	Engagement Indicators	First year	Sophomores	Seniors
Academic Challenge	Higher-Order Learning	-	-	-
	Learning Strategies	-	+	=
	Quantitative Reasoning	-	=	-
	Reflective and Integrative Learning	-	-	-
Learning with Peers	Collaborative Learning	-	=	-
	Discussions with Diverse Others	+	=	-
Experiences with Faculty	Effective Teaching Practices	-	=	=
	Student-Faculty Interaction	+	+	+
Campus Environment	Quality of Interactions	-	-	=
	Supportive Environment	-	+	-
High Impact Practices	Learning Community	=	=	-
	Research with a Faculty Member	=	=	+
	Service-Learning	-	=	+
	Culminating Senior Experience			=
	Internship or Field Experience			+
	Study Abroad			-

In the CAS students of all class levels reported higher levels of student-faculty interactions compared to CSU overall; however, all class levels have lower levels of engagement in higher order learning and reflective and integrative learning. Generally student engagement, as measured by the NSSE instrument, in CAS is lower than it is at CSU overall. In case of high impact practices, both first year, sophomore, and senior students in CAS reported relatively similar scores as CSU overall rate

First generation CAS students generally have lower engagement compared to their continuing generation peers in CAS. However, first generation CAS students generally reported similar student-faculty interactions compared continuing generation CAS students in the student-faculty interaction, which is generally high for the college.

### College of Business

Figure E, 2

College of Business				
Theme	Engagement indicators	First Year	Sophomore	Senior
Academic Challenge	Higher-Order Learning	=	-	+
	Learning Strategies	-	-	=
	Quantitative Reasoning	+	=	+
	Reflective and Integrative Learning	=	-	=
Experience with Faculty	Effective Teaching Practices	-	-	+
	Student-Faculty Interaction	-	+	+
Campus Environment	Quality of Interactions	=	+	+
	Supportive Environment	=	=	+
High Impact Practices	Learning Community	-	-	=
	Research with a Faculty Member	-	-	-
	Service-Learning	=	=	+
	Culminating Senior Experience			+
	Internship or Field Experience			+
	Study Abroad			+

First year and sophomore students in COB tend to have lower levels of engagement compared to CSU overall; however, COB seniors have higher levels of engagement.

Overall, first generation students in COB have similar scores with overall student in COB, with a couple of exceptions. First generation students in COB (across all class levels) reported lower scores than overall COB students for discussion with diverse others and higher participation rates in learning community.

## College of Engineering

Figure E, 3.

College of Engineering				
Theme	Engagement Indicators	First Year	Sophomore	Senior
Academic Challenge	Higher-Order Learning	=	+	-
	Learning Strategies	-	-	-
	Quantitative Reasoning	+	+	+
	Reflective and Integrative Learning	-	-	-
Learning with Peers	Collaborative Learning	+	+	+
	Discussions with Diverse Others	-	-	-
Experience with Faculty	Effective Teaching Practices	-	-	-
	Student-Faculty Interaction	-	+	-
Campus Environment	Quality of Interactions	=	-	-
	Supportive Environment	-	=	-
High Impact Practices	Learning Community	-	-	-
	Research with a Faculty Member	=	-	+
	Service-Learning	-	=	-
	Culminating Senior Experience			-
	Internship or Field Experience			+
	Study Abroad			-

In COE students of all classes reported to higher mean scores for quantitative reasoning and collaborative learning when compared to the CSU overall mean score; however, outside of these two engagement indicators, the COE students have lower engagement scores compared to CSU overall.

Similar to all students in COE, quantitative reasoning and collaborative learning are two areas of strength for first generation students in COE. In comparison to all students at CSU, first generation first year and sophomore students in COE reported to have higher scores for higher order learning engagement indicator and service learning course work participation. First generation senior students score higher than the overall scores for COE for the engagement indicators within the campus environment theme.

## College of Health and Human Sciences

Figure E, 4.

Health and Human Sciences				
Theme	Engagement Indicator	First Year	Sophomore	Senior
Academic Challenge	Higher-Order Learning	=	+	-
	Learning Strategies	-	=	+
	Quantitative Reasoning	-	=	-
	Reflective and Integrative Learning	=	+	+
Learning with Peers	Collaborative Learning	=	=	-
	Discussions with Diverse Others	=	-	=
Experience with Faculty	Effective Teaching Practices	+	=	+
	Student-Faculty Interaction	+	+	=
Campus Environment	Quality of Interactions	=	=	+
	Supportive Environment	+	=	+
High Impact Practices	Learning Community	=	=	+
	Research with a Faculty Member	-	=	-
	Service-Learning	+	+	+
	Culminating Senior Experience			-
	Internship or Field Experience			+
	Study Abroad			-

Generally, HHS students score above or equivalent to the overall scores at CSU. HHS students generally have higher rates of service learning course work and lower rates of research with faculty compared to CSU overall.

First generation students of all classes in HHS reported higher levels of supportive environment and service learning coursework participation relative to HHS students overall. Similar to overall HHS, first generation students have low participation rates of research with a faculty member and study abroad.

## Intra-University (IU)

Figure E, 5.

Intra University			
Theme	Engagement Indicator	First year	Sophomores
Academic Challenge	Higher-Order Learning	=	-
	Learning Strategies	-	-
	Quantitative Reasoning	=	+
	Reflective and Integrative Learning	=	-
Learning with Peers	Collaborative Learning	-	=
	Discussions with Diverse Others	-	+
Experience with Faculty	Effective Teaching Practices	=	-
	Student-Faculty Interaction	+	-
Campus Environment	Quality of Interactions	-	+
	Supportive Environment	-	+
High Impacts Practices	Learning Community	-	-
	Research with a Faculty Member	=	-
	Service-Learning	+	-

Generally undeclared students have lower levels of engagement compared to CSU. These are diverse groups of students, some are waiting to get into the college of engineering, some are waiting to get into the college of business and some are in the process of exploring their majors.

The IU engagement indicator levels decreased even further for first generation first year and sophomore students.

*College of Liberal Arts*

Figure E, 6.

College of Liberal Arts				
Theme	Engagement Indicators	First Year	Sophomores	Seniors
Academic Challenge	Higher-Order Learning	=	+	+
	Learning Strategies	+	-	=
	Quantitative Reasoning	-	-	-
	Reflective and Integrative Learning	+	+	+
Learning with Peers	Collaborative Learning	-	-	-
	Discussions with Diverse Others	+	+	+
Experiences with Faculty	Effective Teaching Practices	+	+	+
	Student-Faculty Interaction	=	=	=
Campus Environment	Quality of Interactions	+	+	=
	Supportive Environment	+	=	=
High Impact Practices	Learning Community	+	=	=
	Research with a Faculty Member	=	=	-
	Service-Learning	=	+	+
	culminating Senior Experience			+
	Internship or Field Experience			-
	Study Abroad			+

CLA students of all classes reported to score lower level quantitative reasoning and collaborative learning when compared to CSU overall students; however, CLA students of all classes also reported high levels of reflective and integrative learning and discussion with divers others relative to CSU overall students.

All class levels of first generation students in CLA have higher scores for high high-order learning and effective teaching practices when compared to overall CLA students. First generation sophomores have higher reported rates of research with a faculty member.

College of Natural Sciences (CNS)

Figure E, 7.

College of Natural Sciences				
Themes	Engagement Indicator	First Year	Sophomore	Senior
Academic Challenge	Higher-Order Learning	=	=	-
	Learning Strategies	=	+	=
	Quantitative Reasoning	=	=	=
	Reflective and Integrative Learning	-	-	=
Learning with Peers	Collaborative Learning	=	+	-
	Discussions with Diverse Others	+	-	=
Experience with Faculty	Effective Teaching Practices	+	=	-
	Student-Faculty Interaction	-	-	-
Campus Environment	Quality of Interactions	=	=	-
	Supportive Environment	+	=	-
High Impact Practices	Learning Community	+	+	+
	Research with a Faculty Member	=	+	+
	Service-Learning	-	-	-
	Culminating Senior Experience			-
	Internship or Field Experience			-
	Study Abroad			-

Seniors in CNS generally have lower levels of engagement compared to CSU overall. However, these lower levels of engagement are not as pronounced for first-year and sophomores. Sophomore and senior CNS students have higher participation rates for conducting research with a faculty member.

All class levels of first generation students in CNS reported higher levels of higher-order learning and discussions with diverse others compared to CNS students overall. First generation first year and senior CNS students reported to have higher levels of learning strategies compared to CNS students overall. First generation seniors reported higher levels of service learning and internship or field experience compared to the college overall.

Veterinary Medicine & Biomedical Sciences (CVMBS)

Figure E, 8.

Veterinary Medicine & Biomedical Sciences				
Theme	Engagement Indicator	First year	Sophomores	Seniors
Academic Challenge	Higher-Order Learning	+	-	=
	Learning Strategies	=	-	+
	Quantitative Reasoning	+	+	+
	Reflective and Integrative Learning	+	-	-
Learning with Peers	Collaborative Learning	+	=	+
	Discussions with Diverse Others	-	+	=
Experience with Faculty	Effective Teaching Practices	-	-	-
	Student-Faculty Interaction	+	-	+
Campus Environment	Quality of Interactions	-	+	+
	Supportive Environment	-	+	=
High Impacts Practices	Learning Community	+	-	+
	Research with a Faculty Member	+	+	+
	Service-Learning	=	=	-
	Culminating Senior Experience			+
	Internship or Field Experience			-
	Study Abroad			-

Students in CVMBS of all classes have higher levels of quantitative reasoning but lower levels of effective teaching practices. CVMBS students have high rates of research with a faculty member. Seniors in CMVBS also have lower participation rates of study abroad and internship or field experience.

First generation students reported low levels of effective teaching practices and high levels of research with faculty compared to CVMBS overall. Additionally, first generation CVMBS students reported lower levels of supportive environment and learning community participation. Senior first generation students reported low scores of discussion with divers others, reflective and integrative learning, and students- faculty interactions compared to CVMBS seniors overall.

Warner College of Natural Resources (WCNR)

Figure E, 9.

Warner College of Natural Resources				
Theme	Engagement Indicator	First year	Sophomore	Seniors
Academic Challenge	Higher-Order Learning	-	=	+
	Learning Strategies	=	+	=
	Quantitative Reasoning	+	+	+
	Reflective and Integrative Learning	+	+	+
Learning with Peers	Collaborative Learning	-	=	+
	Discussions with Diverse Others	=	+	-
Experience With Faculty	Effective Teaching Practices	-	=	-
	Student-Faculty Interaction	-	=	=
Campus Environment	Quality of Interactions	-	+	+
	Supportive Environment	-	+	=
High Impacts Practices	Learning Community	+	+	+
	Research with a Faculty Member	-	=	=
	Service-Learning	+	=	+
	Culminating Senior Experience			=
	Internship or Field Experience			=
	Study Abroad			+

WCNR students have higher scores for the quantitative reasoning as well as reflective and integrative learning engagement indicators. Additionally, WCNR students have higher participation rates in learning communities.

Engagement levels are lower for first generation WCNR students compared to overall students in WCNR.

## Academic Challenge

Academic challenge is a NSSE theme that is measured by four engagement indicators. These four indicators are high-order learning, learning strategies, quantitative reasoning, and reflective and integrative learning. These categories are measured by the average score of multiple survey questions.

### Higher-Order Learning

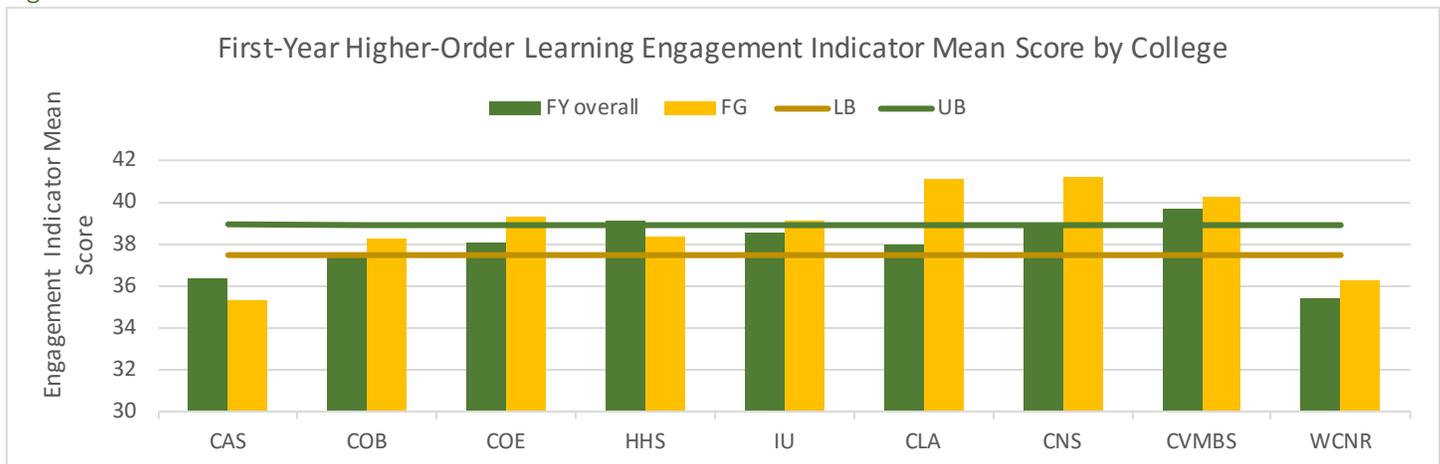
Higher-order learning is an engagement indicator that captures how much students' coursework underlines challenging cognitive course work of application, analysis, evaluation, and creation. It is measured by taking the average score of four individual survey items, in which students have the options to select very little, some, quite a bit, and very much. These questions are as the following:

- During the current school year, how much did your coursework emphasize applying facts, theories, or methods to practical problem or new situations?
- During the current school year, how much did your coursework emphasize analyzing an idea, experience, or line of reasoning in depth by examining its parts?
- During the current school year, how much did your coursework emphasize evaluating a point of view, decision, or information source?
- During the current school year, how much did your coursework towards forming a new idea or understanding from various pieces of information?

### High-Order Learning for All First Year Students

Figure 1, below, displays the higher-order learning engagement indicator mean score by college and by first generation status. Please note that green and gold lines represent the 95% confidence interval around the overall CSU mean and are used as a relative measure to evaluate the scores by college. The confidence interval for high-order learning in 2016 is 37.82 and 39.16, with the overall mean of 38.2.

Figure 1



CAS, COB, and WCNR fell below the confidence interval, while CVMBS is the only college that scored above the confidence interval with the score of 39.7. COE, HHS, IU, CLA, and CNS all fell within the confidence interval. CVMBS scored the highest for the higher-order learning, due to the high proportion of respondents that said they quite frequently applied facts, theories or methods to practical problems or new situations. In general, a Summer 2017

high percentage of students answered quite a bit of all four of the questions. WCNR scored the lowest for higher- order learning, due to the high proportion of students that responded with some or very little to all of the items in this construct.

### High Order Learning for First Generation First Year Students

The average high-order score for first generation first year students is 39.1, a higher average than the overall CSU mean of 38.2. CAS, WCNR, and CNS have scores below the confidence interval, while COE, CLA, CNS, and CVMBS managed to score above 39.16. The mean scores for COB, HHS, and IU are within the confidence interval of 37.82 and 39.16.

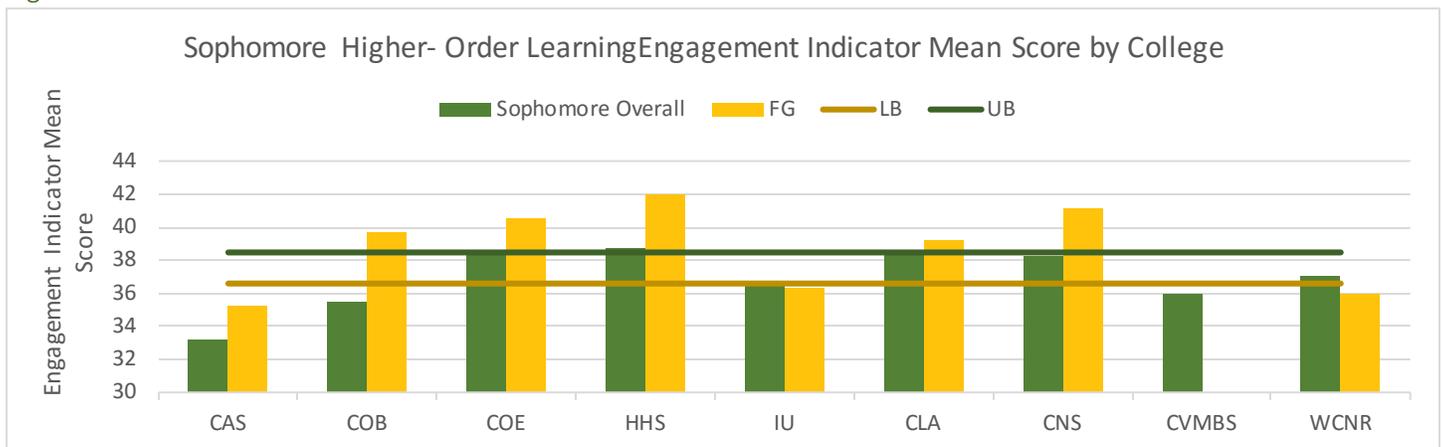
First Generation first-year students in CAS have the lowest score for high-order learning, while students in CNS have the highest score. CAS reported to have the lowest score due to the high proportion of students that responded that they only sometimes work towards forming a new idea or understanding various pieces of information. In comparison to other colleges, CNS, has a higher percentage of responses from students that selected very much for all four questions.

There is a visible difference between first generation first year students and all first-year students in CLA, CNS, and CAS. Where first generation first year student in CLA and CNS have high-order learning scores above the confidence interval, despite the fact the high-order learning scores for overall first year students is within the confidence interval. CAS and HHS are the only two colleges where first generation students scored below overall first year students for this engagement indicator.

### Higher-Order Learning for All Sophomore Students

The confidence intervals for CSU’s overall scores and the scores by college are displayed in figure 2. The average higher-order learning score for all sophomore is 37.5 with a 95% confidence interval of 36.59 and 38.47. CNS and WCNR are the two colleges to score within the confidence interval, while CAS, COB, IU, and CVMBS scored below the confidence interval. COE, HHS, and CLA all scored above the upper bound of the confidence interval.

Figure 2.



In comparison to other colleges, sophomore students in HHS have the highest higher-order learning score and sophomore students in CAS have the lowest score. About 73% of students in HHS said they frequently or very much applied facts, theories, or methods to practical problems or new situation, compared to only 56% of Summer 2017

students in CAS who said they frequently or very much applied facts, theories, or methods to practical problems or new situation. Additionally, 45% of students in CAS answered very little or some of their course work emphasized analyzing an idea experience, or line of reasoning in depth by examining its parts, while only 30% of sophomores in HHS.

### High-Order Learning for First Generation Sophomore Students

The average higher-order learning score for first generation sophomore students is 39.5, significantly greater than the overall sophomore higher-order learning average. First generation sophomores in CAS, IU, and WCNR have scores below the 95% confidence interval, while students in COB, COE and, CLA reported to have a score above 38.47. There are not enough first-generation sophomore students in CVMBS to reliably report their results.

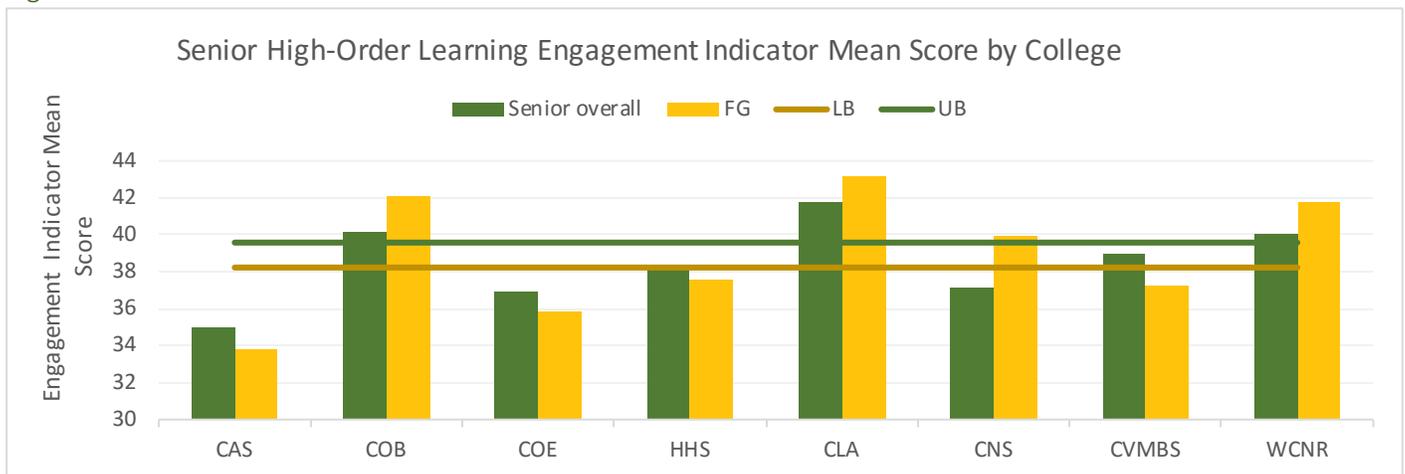
Similar to all sophomore students, in comparison to other colleges, first generation sophomores in HHS have the highest higher-order learning score, while students in CAS have the lowest score. Only 11% of first generation sophomores in HHS selected some of their coursework emphasized analyzing an idea, experience, or line of reasoning in depth by examining its parts, compare to 38% of students in CAS.

As it is seen in figure 2, first generation sophomores in IU and WNCR are the only two groups to score lower than the overall CSU, at the same time these two colleges are also the ones with the least amount of gap between the first generation and overall students. Although CAS has the lowest high-order learning score for both groups, a huge gap is seen in their means. First generation students in CAS have a score of 35.3, while overall sophomores in CAS has a mean of 33.2. COB is also another example of enormous gap between the two groups, where the high-order learning score for overall sophomores was below the lower bond of the confidence interval and first generation students' had a score above the upper bound of the confidence interval.

### High Order Learning for All Seniors

As displayed in figure 3, below, the overall confidence interval for high-order learning all seniors at CSU is between 38.23 and 39.58.

Figure 3



CVMBS is the only college to score within the 95% confidence of the mean, while COB, CLA, and WCNR have scores above the upper bound of the confidence interval, and CAS, COE, HHS, and CNS have mean scores below 38.23.

In comparison to other colleges, senior students in the CLA score the highest for the higher-order learning, while senior students in CAS have the lowest score. High proportion of students in CLA stated they frequently were able to apply facts, analyze ideas, evaluate point of views, and form a new idea or understanding. The biggest difference between the two colleges is that 81% of students in CLA selected quite a bit or very much when they were asked how their course work towards forming a new idea or understanding from various pieces of information, in comparison to 56% of students in CAS who said quite a bit or very much of their course work towards forming a new idea or understanding from various pieces of information.

#### High-Order Learning for First Generation Seniors

The average high-order learning score for first generation seniors is 39.3, it is a score that is slightly higher than the CSU overall mean for all senior of 38.7, yet it is statically similar to the mean. COB, COE, CLA, CNS, and WCNR all score higher than the upper level confidence interval for this demographics, while CAS, COE, HHS, and CVMBS all have scores below the lower level confidence interval. Interestingly, CNS has a score above the confidence interval for first generation seniors, while they score below the confidence interval for overall seniors.

Similar to all seniors, CLA has the highest score and CAS scored the lowest for higher-order learning. Over 80% of first generation seniors in CLA selected quite a bit or very much for all four questions, in relation to an average of 60% of students in CAS. One large difference is that 87% of students in CLA said they frequently or very often analyzed an idea, experience, or line of reasoning in depth by examining its parts, in comparison to 56% of students in CAS.

#### Learning Strategies

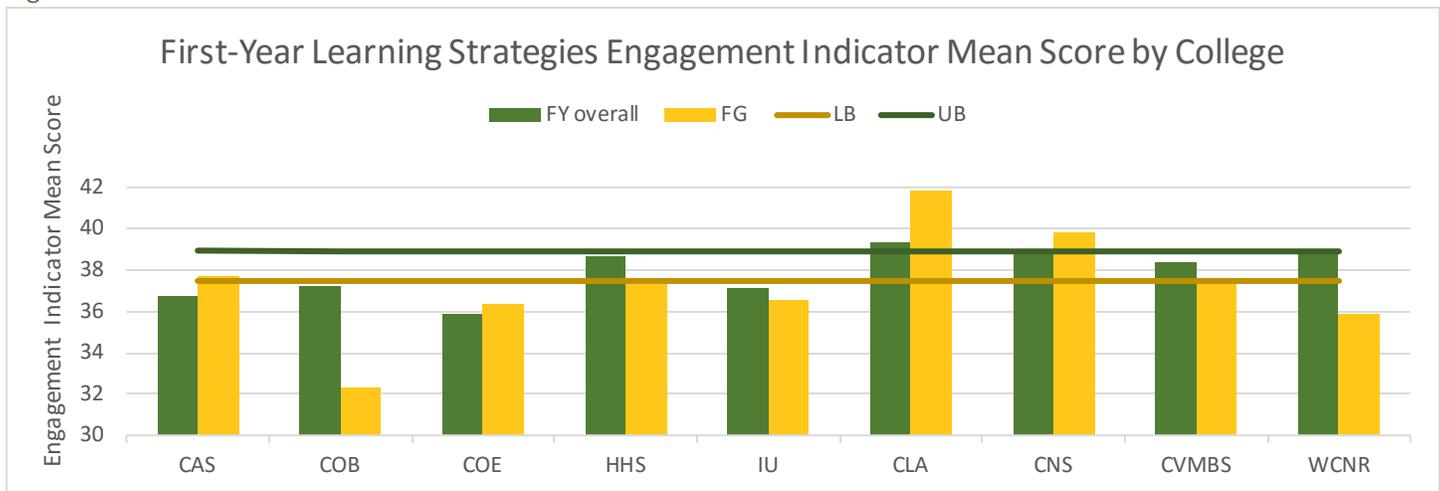
Learning strategies is a created by a composite score of three questions, in which students have the option to select never, sometimes, often, and very often. The three questions are meant to examine how often students identified key information from reading assignments, how often they reviewed notes after class, and how often they summarized course materials. The questions used for this composite score are:

- During the current school year how often have you identified key information from reading assignments?
- During the current school year how often have you reviewed your notes after class?
- During the Current School year how often have you summarized what you learned in class or from course materials?

#### Learning Strategies for All First Year Students

Figure 4 displays the learning strategies mean score for all first-year students and first generation, first-year students by college. The overall confidence interval for learning strategies is between 37.82 and 39.16, with a mean of 37.9.

Figure 4



CLA is the only college to score above the upper level confidence interval, while HHS, CNS, CVMBS, and WCNR all have scores within the 95 percent confidence interval of the mean. CAS, COB, COE, HHS all fell below the lower level of the confidence interval.

COE has the lowest score for learning strategies in comparison to other colleges. Nearly 47% of first year students in COE responded by stating they never or only sometimes summarized what they learned in class or from course material, in comparison 37% students in CLA who said they never or sometimes summarized what they learned in class or from course material. In addition, 65% of student in CLA often or very often reviewed their notes after class in comparison to 54% students in COE.

#### Learning Strategies for First Generation First Year Students

The mean for learning strategies for first generation first year student is 37.7, which is it is statistically similar to CSU mean of 37.9. CAS and CVMBS are the only two colleges to score within the confidence interval, while COB, COE, HHS, IU, and WCNR all have scores below 37.47, and CLA and CNS have scores above the upper bound of the confidence interval.

First generation first year students in CAS, COE, CLAS, CNS, and CVMBS have higher scores for the learning strategies engagement indicator in comparison to all first year students at CSU. Students in COB, HHS, and WCNR all have scores lower than all first year students. As it is seen in figure 4 there is a significant gap between the mean score of first generation first year students and all first year students in the COB. This big difference in the mean scores within the two groups in COB is displayed by the high proportion of first generation students that responded with very little or some to all three questions, compared to higher percentage of all first year students that responded with often or very often to all three questions.

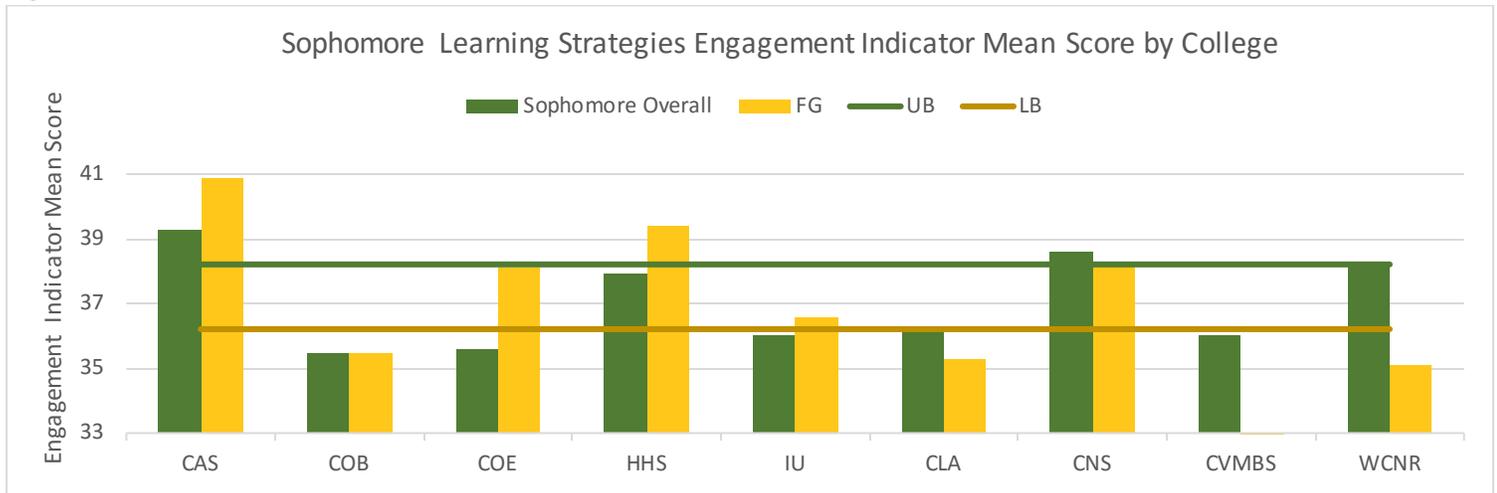
First generation first year students in CLA have the highest score for learning strategies in comparison to other colleges, while COB has the lowest score. This gap is due to the fact that nearly 24% of first generation, first

year students in the COB said they never summarized what they learned in class or from course materials, in comparison to only 8% of students in CLA that agreed with the statement.

### Learning Strategies for All Sophomore Students

As it is seen in figure 5, the learning strategies mean score for sophomores varied by college and first generation status. The mean learning strategies for all sophomores at CSU is 37.3 with a 95% confidence interval of 36.59 to 38.47.

Figure 5.



HHS is the only college to score within the confidence interval. CAS, COB, IU, and CVMBS all have scores below the lower level of the confidence interval, while CAS, CNS, and WCNR have scored above 38.47. Sophomore students in CAS have the highest score for learning strategies, while students in COB have the lowest score. Nearly 41% of students in COB stated that they never or sometimes reviewed their notes after class, in comparison to only 25% students in CAS.

### Learning Strategies for First Generation First Sophomores

The learning strategies mean for first generation sophomore students at CSU is 37.5, which statistically similar to CSU mean for sophomore students. CAS and HHS are the only two colleges to score above the upper bound of the confidence interval, while COB, CLA, and WCNR have scores that are below the lower bound confidence interval. The scores for COE, IU, and CNS, are within the confidence interval.

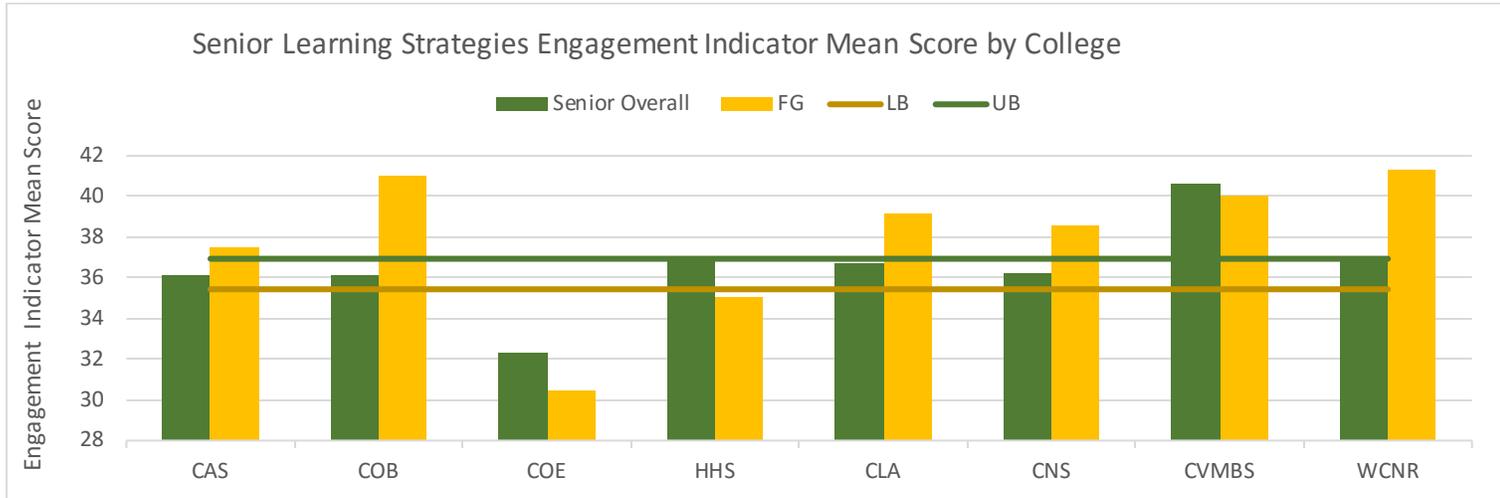
The overall confidence interval for learning strategies is between 37.82 and 39.16, with a mean of 37.9. First generation CAS sophomores have the highest score for learning strategies and sophomore students in WCNR scored the lowest. Interestingly enough, WCNR's score was above the upper bound of the confidence interval for all sophomores, yet for first generation sophomores it scored the lowest. Nearly 41% of first generation sophomores in WCNR said they never or sometimes identified key information from reading assignments, in comparison to 27% of first generation students in CAS.

As it is seen in figure 5, the gap in learning strategies score between first generation and all is magnified in CAS, HHS, COE, and WCNR. First generation students in CAS, COE, and HHS have higher learning strategies score than all students in their respective college, but first generation students in WCNR have a score that is a lot lower than all WCNR students.

### Learning Strategies for All Seniors Students

Figure 6, illustrates the learning strategies mean for all and first generation seniors in each college. The learning strategies mean for all senior students at CSU is 36.2 with a 95% confidence interval of 35.44 and 36.94.

Figure 6.



All seniors in CSA, COB, CLA, CNS, and WCNR have scores within the confidence interval, while COE is the only college to score below the lower bound of the confidence interval, and the two colleges to score above the upper bound of the confidence interval are HHS and CVMBS. COE also has the lowest score in comparison to other colleges, while CVMBS has the highest score. This low score in COE is due to the average of 55% of students that answered they never or they sometimes summarized what they learned in class or from course materials, while only 28% of students in CVMBS that selected never or sometimes.

### Learning Strategies for First Generation Senior Students

The learning strategies mean for first generation senior students at CSU is 37.6, which is significantly greater than 36.2, the mean score for all seniors at CSU. First generation seniors in CAS, COB, CLA, CNS, CVMBS, and WCNR are above the upper bound confidence interval, while COE and HHS are the only two colleges with first generation mean scores that are lower than the lower bound of the overall confidence interval. In relation to all seniors, first generation seniors in CAS, COB, CLA, and WCNR have significantly higher scores.

First generation seniors in WCNR have the highest score, while the students in COE have the lowest score. Ninety-four percent of students in WCNR stated they often or very often identified key information from reading assignment, compared to only 56% of student in COE. About 59% of students in COE said they never or sometimes summarized what they learned in class or from course materials, while only 28% of student in WCNR selected never or sometimes.

### Quantitative Reasoning

One's ability to use and understand numerical and statistical information in everyday life is a very important outcome of higher education. Quantitative reasoning is an engagement indicator that is a composite score of Summer 2017

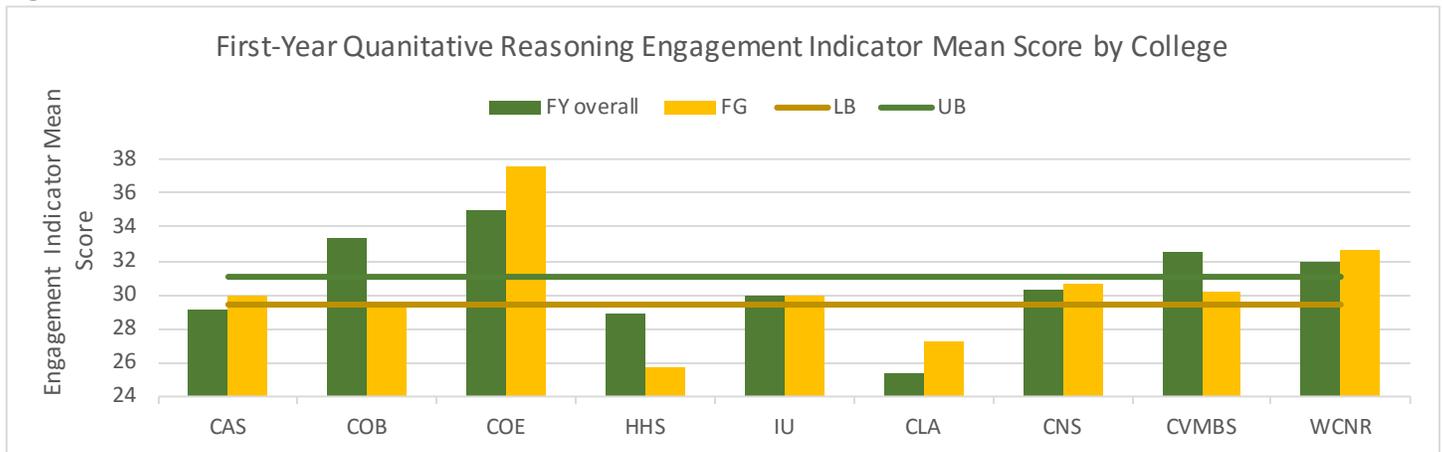
three survey questions that examined one’s ability to evaluate, support, and critique arguments using numerical and statistical information. Students have the option to select never, sometimes, often or very often to the following three questions.

- During the current school year how often have you reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)?
- During the current school year how often have you used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)?
- During the current school year how often have you evaluated what others have concluded from numerical information?

### Quantitative Reasoning for All First Year Students

As it seen in figure 7, the overall confidence interval for quantitative reasoning is between 29.42 and 31.06. The mean scores for COB, COE, CVMBS, and WCNR are above the upper level of the confidence interval, while IU and CNS, are the two colleges to score within the confidence interval and the rest of the colleges have scores below 29.42.

Figure 7



CLA, the lowest scoring college for quantitative reasoning for first year students has nearly 60% of first year students that responded saying they never or they sometimes evaluated what others have concluded from numerical information, in comparison to only 36% of first year students in COE.

### Quantitative Reasoning for First Generation First Year Students

The quantitative reasoning mean for first generation first year students at CSU is 29.7, it is not statically different than the mean for all first year students. First generation first year students in CAS, IU, CNS, and CVMBS all score within the 95% confidence interval of the mean. While, COB, HHS, and CLA all have scores below the lower bound confidence interval and COE and WCNR are the two colleges to score above the confidence interval.

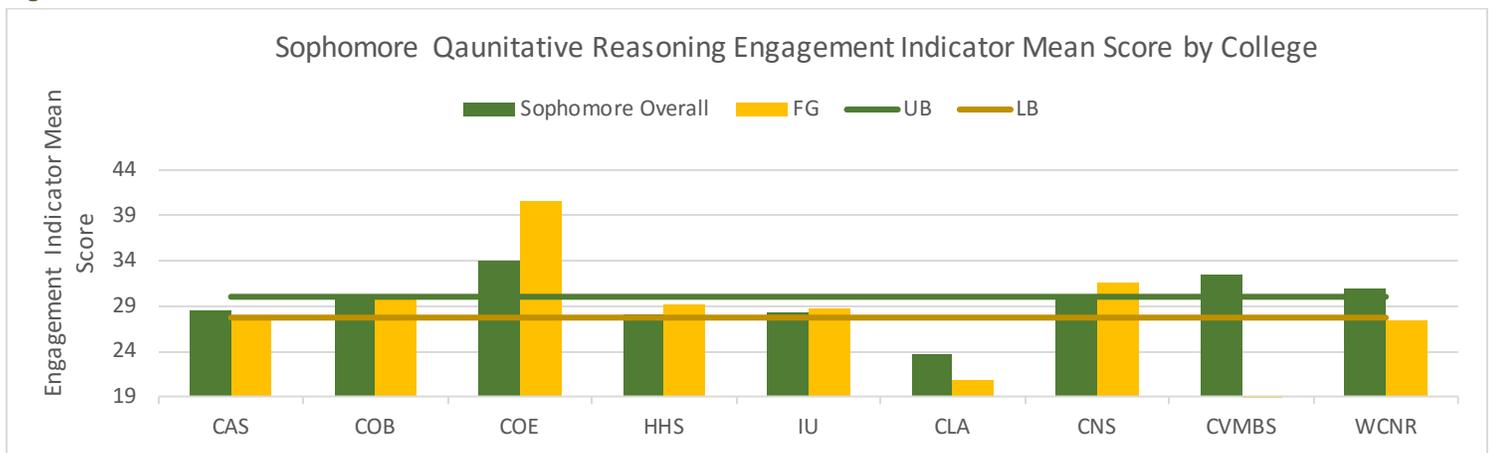
Similar to overall first years, first generation first year student in COE have the highest quantitative reasoning score, while first generation first year students in HHS had the lowest quantitative reasoning mean. Nearly 67% of first generation first year students in COE said they often or very often have used numerical information to examine a real- world problem or issue (unemployment, climate change, public health, etc.), while only 39% of first generation first year students selected often or very often for the same question.

As it is displayed in figure 7, large disparities between first generation first year and overall first year students are seen COB, COE, HHS, and CVMBS. Especially in COB, the mean score of overall first year students is above the confidence interval while, the mean score for first generation students is below the confidence interval.

#### Quantitative Reasoning for All Sophomore Students

Figure 8, displays the mean quantitative reasoning score for overall and first generation sophomores by college. The overall sophomore quantitative reasoning mean is 28.5 with a 95% confidence interval of 27.71 and 30.01. COE, CVMBS, and WCNR contained scores above the upper bound of the confidence interval, while CLA is the only college to score below the confidence interval, and CAS, COB, HHS, IU, and CNS all have scores within the confidence interval.

Figure 8.



Sophomores in COE have a high cumulative mean of quantitative reasoning, while sophomore students in CLA have the lowest mean score. Nearly 72% of sophomores in COE have often or very often reach conclusions based on their own analysis of numerical information (numbers, graphs, statistics, etc.), in comparison to 39% of sophomore students in CLA who selected often or very often.

#### Quantitative Reasoning for First Generation Sophomores

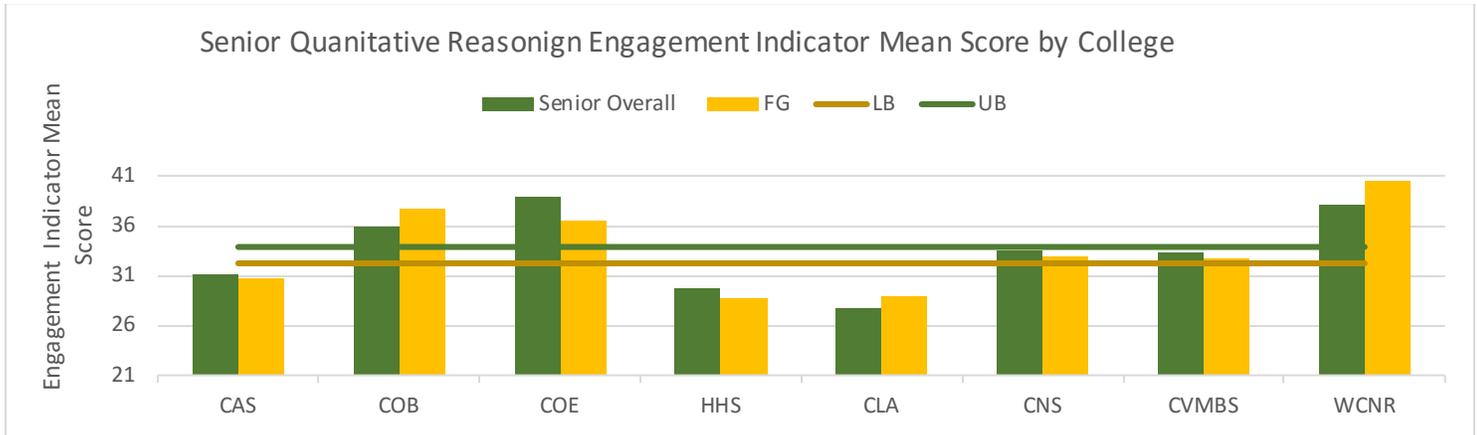
As it is seen in figure 8, the mean scores for first generation sophomores in CAS, CLA and WCNR are below the confidence interval, while first generation sophomore in COE and CNS have mean scores above the upper level of the confidence interval. Students in COB, HHS, and IU have mean scores within the confidence interval. Figure 8 also displays the huge disparity between first generation sophomores and overall sophomores in COE.

First generation sophomores in COE have the highest quantitative reasoning mean score, while first generation sophomores in CLA have the lowest. Only 37% of first generation sophomores in CLA said they never or sometimes reach conclusion based on their own analysis of numerical information (numbers, graphs, statistic, etc.), while 90% of first generation sophomores made the very same statement.

#### Quantitative Reasoning for First Generation Sophomores

Figure 9, illustrates the quantitative reasoning mean for first generation and overall seniors by college.

Figure 9



The overall senior mean for quantitative reasoning for all seniors is 32.9 with a 95% confidence interval of 32.22 and 33.86. Scores for CAS, HHS, and CLA are below 32.22, while COB, COE, CVMBS and WCNR managed to score above 33.86, and CNS is the only college to score within the confidence interval.

Senior student in COE have the highest quantitative reasoning score, while senior students in CLA have the lowest. Nearly 88% of seniors in COE said they often or very often reached conclusion based on their own analysis of numerical information (number, graphs, statistics, etc.), compared to only 42% of seniors in CLA.

#### Quantitative Reasoning for First Generation Senior Students

The quantitative reasoning mean for first generation senior students is 32.5, which is not statically different than the over senior students mean. CAS, HHS, and CLA all score below the lower level of the confidence interval, while COB, COE, and WCNR score above the confidence interval, and CNS and CVMBS are the two college to score within the confidence level. As it is seen in figure 9, the quantitative reasoning mean scores for first generation and all senior students are very similar in each college.

First generation seniors in WCRN have the highest quantitative reasoning mean score, while first generation seniors in HHS have the lowest mean score. This is due to the fact that, 76% of first generation seniors in WCNR said they often or very often evaluated what others have concluded from numerical information, while only 48% of first generation seniors in HHS said they often or very often evaluated what other have concluded from numerical information.

#### Reflective and Integrative Learning

Connecting learning to societal problems, examining one’s own views on a topic, diversifying perspectives, and combining ideas from different courses are important items of reflective and integrative learning engagement indicator. Reflective and integrative learning is promoted in higher education to motivate students to make connections between their learning and the world surrounding them. Seven survey items are used to create the composite score, where students have the options to select, never, some, quite a bit, and very much to the following questions

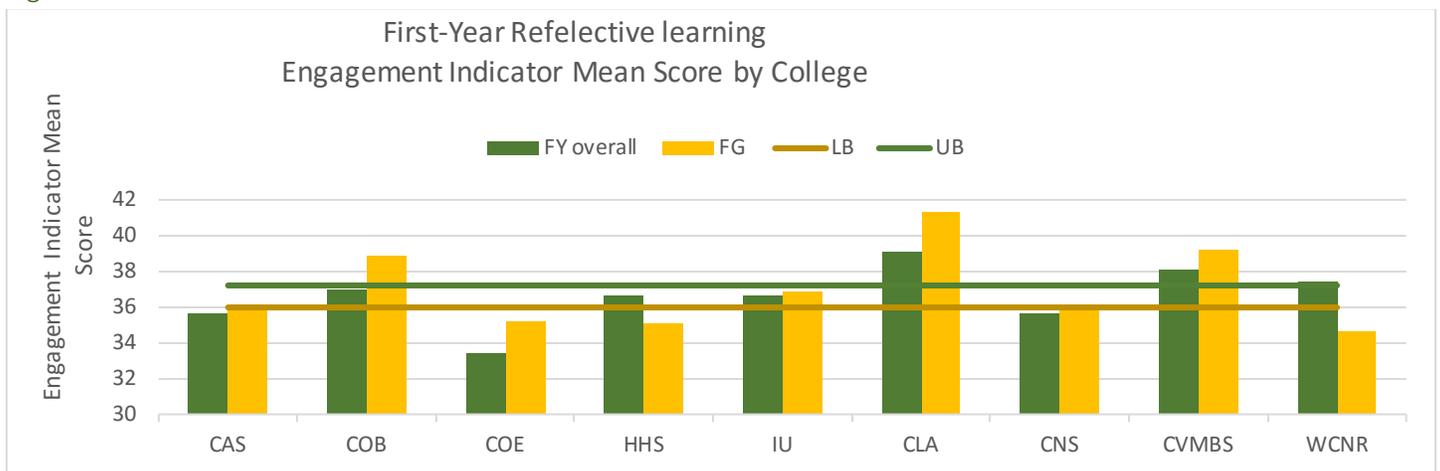
- During the past year, how much did you combined ideas from different courses when completing assignments?
- During the past year how much did you connected your learning to societal problems or issues?

- During the past year, how much did you Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
- During the current school year how much did you examined the strengths and weaknesses of your own views on a topic or issue?
- During the current school year, how much did you tried to better understand someone else's views by imagining how an issue looks from his or her perspective?
- During the current school year, how much did you learned something that changed the way you understand an issue or concept?
- During the current school year, how much did you connected ideas from your courses to your prior experiences and knowledge?

Reflective and Integrative Learning for all First year students

Figure 10, below, displays the reflective and integrative learning mean score for first year students per college, for both first generation and overall first year students. The reflective and integrative learning mean for overall first year students is 36.5 with a 95% confidence interval of 35.98 and 37.21.

Figure 10



First year students in CAS, COE, and CNS have mean scores below the confidence interval, while first students in CLA, CVMBS, and WCNR score above the confidence interval. First year students in CLA have the highest score for reflective and integrative learning, while first year students in COE have the lowest score for reflective and integrative learning. Only 34% of first year students in COE said they often or very often included diverse perspective (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments, while nearly 66% of first year students in CLA often or very often.

Reflective and Integrative Learning for First Generation First Year Students

The mean scores for first generation, first year students in CLA, CVMBS, and COB are above the upper level of the confidence interval and first generation, first year students in COE, HHS, and in WCNR all scored below the lower level of the confidence interval. Students in CLA have the highest reflective and integrative learning mean score, while students in WCNR have the lowest score.

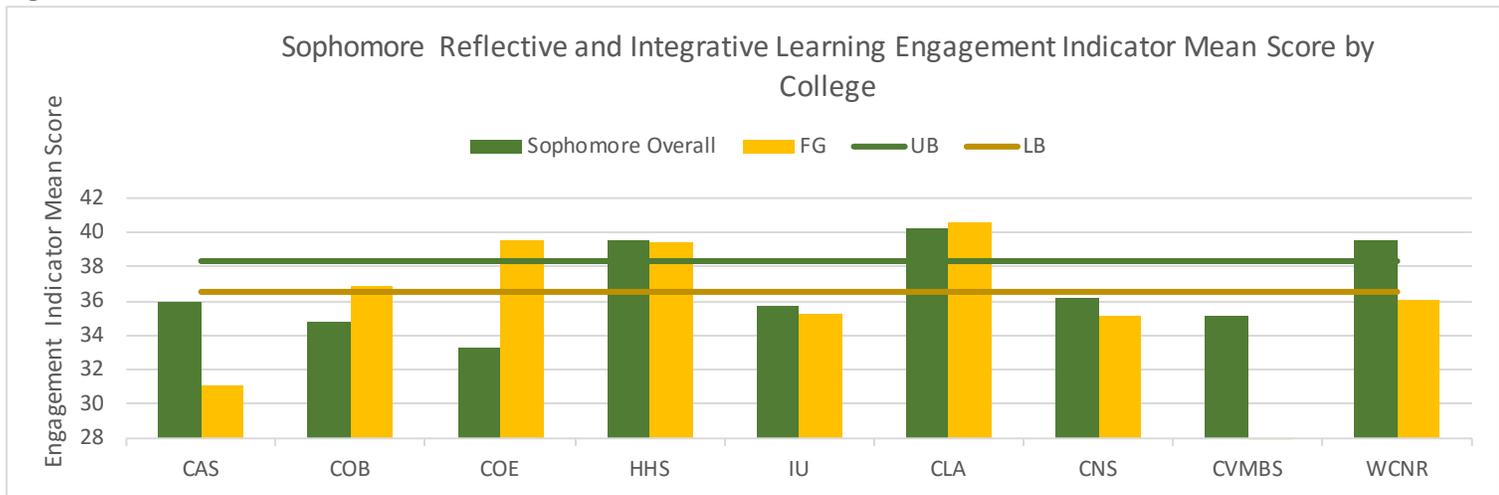
This high difference in the mean score in CLA and WCNR is due to the disparities in the responses for 2 of the 7 questions. Only 37% of first generation, first year students in COE said they often or very often connected their learning to societal problems or issues, compared to 75% of first generation first year students in WCNR that said often or very often. On a similar note, 77% of students in CLA said they often or very often included diverse perspective (political, religious, racial/ethnic, gender, etc.) in course discussions of assignments, while only 39% of students in COE said often or very often.

In addition, as it is also seen in figure 10 above, the scores between overall first year and first generation first year students were fairly similar in CAS, IU, CLA, and CVMBS and different in COB, COE, HHS, and WCNR. In COB, first generation first year students have a reflective and integrative learning mean score above the confidence interval, while the score for overall first years is within the confidence interval and in WCNR first generation first year students have a mean score below the confidence interval, and overall first year students have a mean score above the confidence interval.

### Reflective and Integrative Learning for Sophomore Students

Figure 11, illustrates the reflective and integrative learning mean scores for sophomore students, both all sophomores and first generation sophomores, per college. There are not enough responses of CVMBS sophomores to show their results.

Figure 11



The overall reflective and integrative learning mean score for all sophomores at CSU is 37.15 with a confidence interval of 36.54 and 38.33. All of the colleges scored either above or below the confidence interval and not within. The mean scores for CAS, COB, COE, IU, CNS, and CVMBS are below the lower level confidence interval, while HHS, CLA and WCNR have scores above the upper level confidence interval.

Sophomore student in CLA have the highest reflective and integrative learning mean score, while sophomores in COE have the lowest mean score. This large gap was due to the question that asked about including diverse perspectives. Sixty-seven percent of sophomores in CLA said they often or very often include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussion or assignment compared to only 27% of sophomores in COE.

### Reflective and Integrative Learning for First Generation Sophomore Students

The reflective and integrative learning mean score for first generation sophomore students is 37.3, this score is not statically different than the overall mean for sophomore students. As it is displayed in figure 11, the large gap between first generation sophomores and overall sophomores in CAS, COB, COE, and WCNR. Where first generation students in COE have a mean score above the confidence interval, while overall sophomores have a mean score below the confidence interval. This is opposite in WCNR because first generation students have a mean score below the overall confidence interval but the overall score for WCNR is above the overall confidence interval.

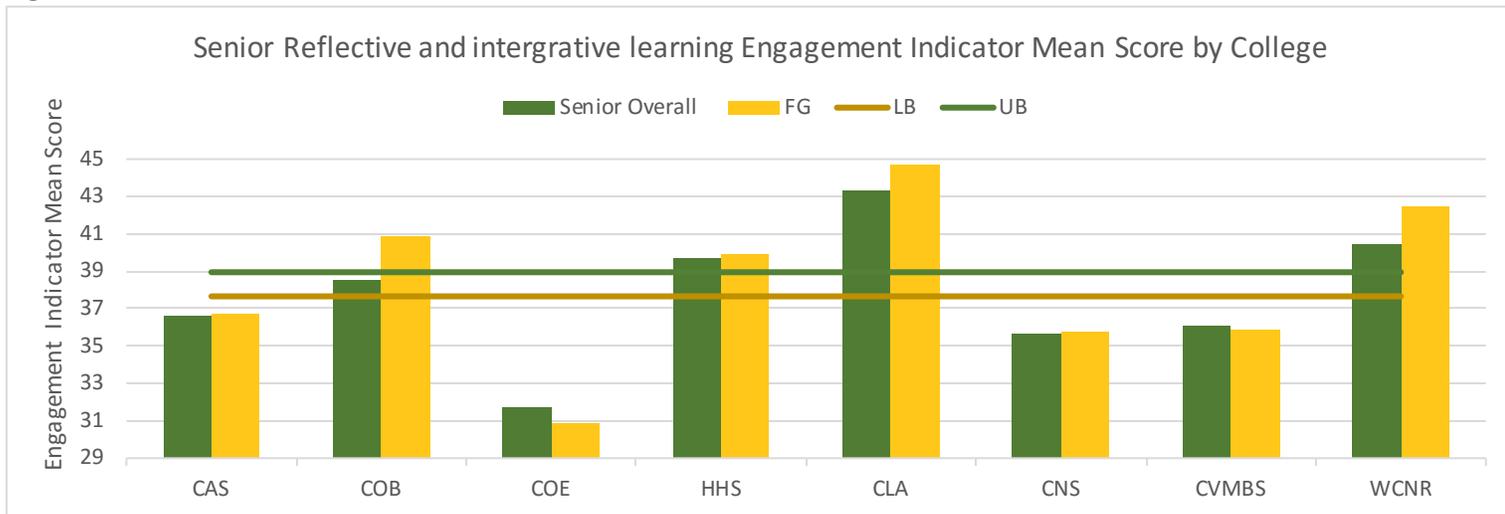
First generation sophomores in COB are the only group to score within the confidence interval, whereas the mean score for CAS, IU, CNS, and WCNR are below the confidence interval and COE, HHS, and CLA score above the confidence interval. First generation sophomores in CLA have the highest reflective and integrative learning mean score, while first generation sophomores in CAS have the lowest score. The gap between mean score of the two colleges is between 31.1 and 40.6.

The question that asks whether they learned something that changed the way they thought about an issue or concept caused a large amount of variation in the engagement scores. For instance, 59% of first generation in CAS said they often or very often learned something that changed that way you understand an issue or concept, in comparison to 84% of first generation sophomores in CLA.

### Reflective and Integrative Learning for All Senior Students

Figure 12, below, displays the reflective and integrative learning mean scores for first generation and overall seniors at CSU, by colleges.

Figure 12.



The reflective and integrative learning mean for overall seniors are CSU is 38.1 with a 95% confidence interval of 37.66 and 38.95. COB is the only college to score within the confidence interval, while students in CAS, COE, CNS, and CVMBS all have scores below the confidence interval, and HHS, CLA and WCNR all scored above the confidence interval.

As it seen in figure 12, the mean score gap between seniors in CLA and in COE is big, where seniors in CLA have a mean score of 43.3 and senior in COE have a mean score of 31.7. This is due to the fact that higher percentage of senior students in COE said never or sometimes for all six question, while a few senior student in CLA answered never or sometimes. Only 14% of seniors in COE said they often or very often included diverse perspective (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments, in comparison to 74% of seniors in CLA that said often or very often.

#### Reflective and Integrative Learning for First Generation Senior Students

As it is seen in figure 12, in all of the colleges, with the exception of COB, first generation seniors and overall seniors have similar reflective and integrative learning mean scores. As for COB, first generation seniors have a reflective and integrative learning mean score above the upper level of the confidence interval, while overall seniors have a score within the confidence interval.

Similar to overall seniors, first generation seniors in CLA have the highest reflective and integrative learning score, while first generation seniors in COE have the lowest score. COE has the lowest score due to the low proportion of students that answered very often and often for majority of the questions. Only 20% of first generation seniors in COE said they often or very often included diverse perspective (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments, while nearly 82% of first generation seniors in CLA said often or very often. Additionally, 49% of first generation seniors in COE said they often or very often tried to better understand someone else's view by imagining how an issue looks form his or her perspective, compared to 90% of first generation seniors in CLA.

## Learning with Peers

Learning with Peers is a NSSE theme that includes the Collaborative Learning and Discussions with Diverse Others engagement indicators.

### Collaborative Learning

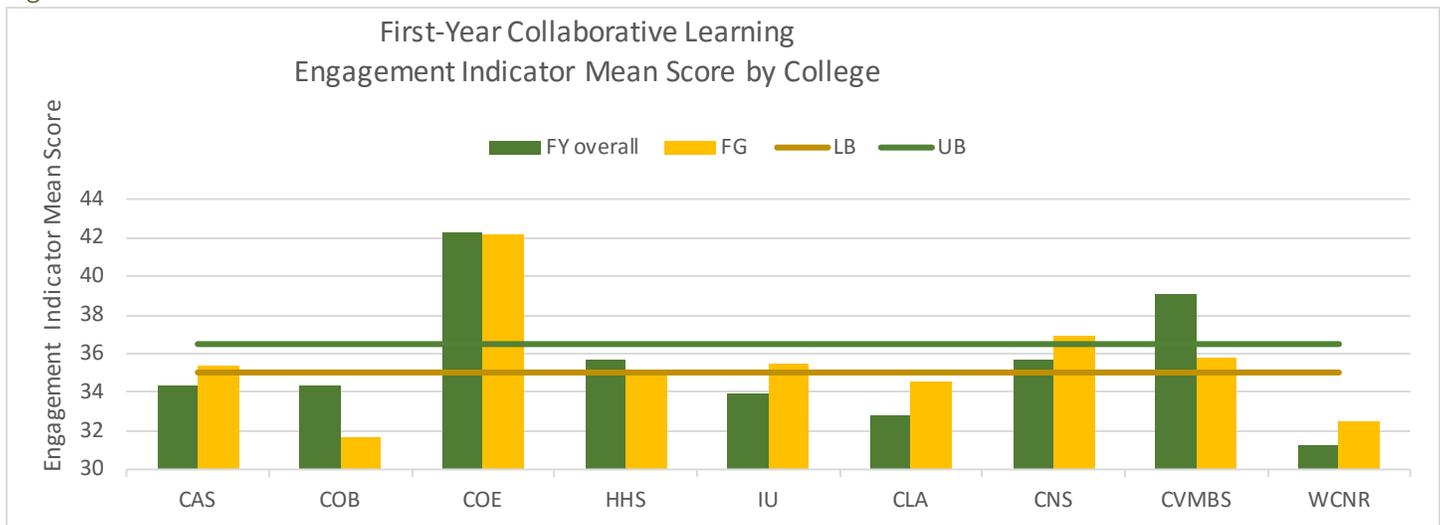
The ability to collaborate with other students to explain and understand course material, to prepare for exams, and to work on projects all represent a collaborative learning environment. Collaborative learning is an average score of four survey items, in which students have the options to select never, sometimes, often or very often. The survey items are as the following:

- During the current school year, how often have you asked another student to help you understand course material?
- During the current school year, how often have you explained course material to one or more students?
- During the current school year, how often have you prepared for exams by discussing or working through course material with other students?
- During the current school year, how often have you worked with other students on course projects or assignments?

### Collaborative Learning for All First Year Students

Figure 13 below, displays the collaborative learning engagement indicator mean score for overall first year and first generation first year students by college.

Figure 13.



The collaborative learning mean score for overall first year students is 35.5 with a 95% confidence interval of 35.02 and 36.49. CAS, COB, IU, CLA, and WCNR all have collaborative learning scores below the lower level of confidence interval, while COE and CVMBS are the two colleges to score above the upper level of the confidence interval, and HHS and CNS maintained a score within the confidence interval.

First year students in COE have the highest collaborative learning score, while first year students in WCNR have the lowest score. The collaborative learning score for first year students in COE is 42.3 and the collaborative score for first year student in WCNR is 31.3. This high disparity is due to the fact that 74% of students in COE said they often or very often worked with others students on course projects or assignments, compared to 38% of first year students in WCNR that said often or very often.

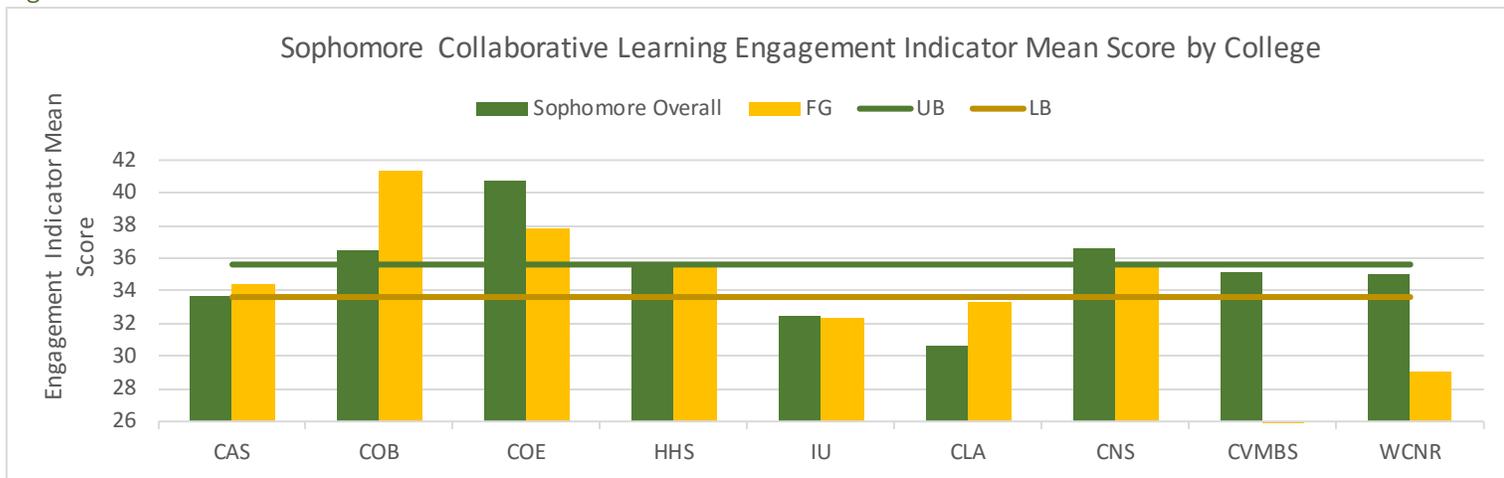
#### Collaborative Learning for First Generation First Year Students

The collaborative learning for first generation first year students was 35.8, which was not statically different than mean for overall first year students. First generation first year students in COB, HHS, CLA and WCNR had scores below the lower level of the confidence interval, while students in CAS, IU and CVMBS scored within the confidence interval, and first generation first year students in COE and CNS score above the upper level of the confidence interval. First generation first year students in COB have the lowest collaborative score, while students in COE have the highest score. Again, the gap for collaborative learning scores between the two colleges is big, due to the fact that only 35% of first generation first year students in COB said they often or very often asked another student to help them understand course material, while 76% of student in COE said often or very often.

#### Collaborative Learning for All Sophomores

Figure 14 illustrates the collaborative learning score for all sophomores and first generation sophomore students by college.

Figure 14.



The collaborative learning mean for overall sophomores is 34.8 with a 95% confidence interval of 33.62 and 35.61. COB, COE, and CNS have collaborative learning mean scores above the upper level of the confidence interval, IU and CLA have mean scores below the lower level of the confidence interval, and CAS, HHS, CVMBS, and WCNR have mean scores within the confidence interval.

Sophomores in COE have the highest collaborative learning mean score and sophomores in CLA have the lowest collaborative learning score. Only 50% of sophomores in CLA said they often or very often worked with other students on course projects or assignments, when compared to 83% of sophomores in COE that said often or very often

#### Collaborative Learning for First Generation Sophomore Students

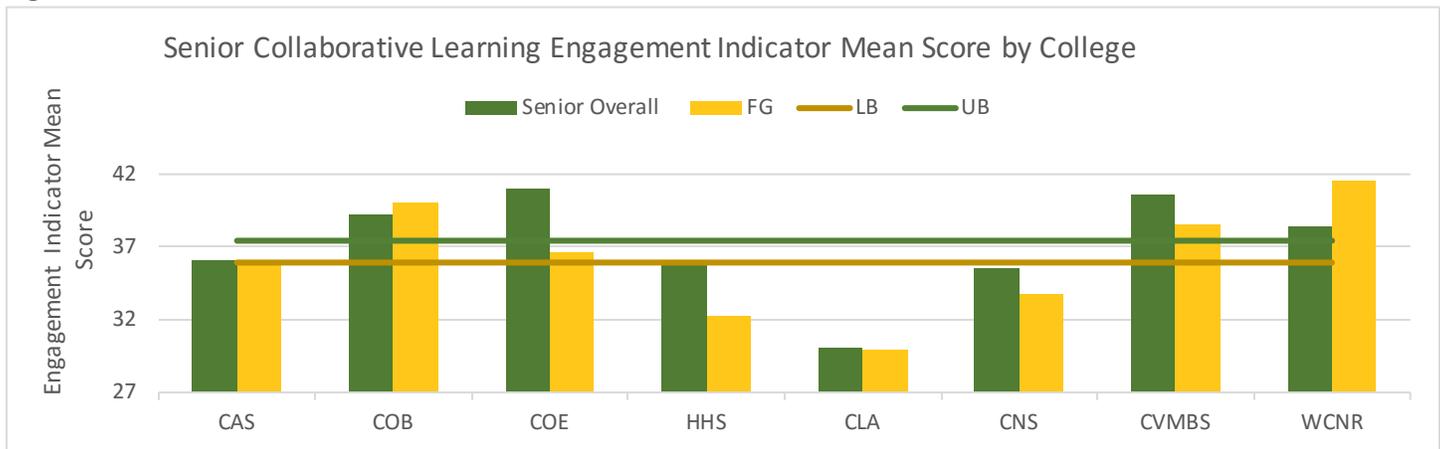
First generation sophomore students in COB and COE have collaborative learning scores above the upper level of the confidence interval, while CAS, HHS and CNS have scores within confidence interval. The mean scores for first generation students in IU, CLA, and WCNR are below the confidence interval. First generation sophomores in COB have the high collaborative learning score of 41.3, while first generation sophomores in WCNR have the lowest score of 29.1. This big difference in scores between the two colleges is the low percentage of students in WCNR that responded very often or often for all four questions, in comparison to the high percentage of students in COB that responded very often or often. For example, 50% of first generation sophomores in COB said they very often worked with other students on course projects or assignments, when compared to only 6% of first generation sophomores in WCNR said very often for the same question.

As it displayed on figure 14, there is a huge gap in the collaborative learning score between first generation sophomores and all sophomores in COB, COE and WCNR. In both COE and WCNR first generation students have a lower collaborative learning mean score than overall sophomores, while in the COB, first generation sophomores have a much higher collaborative learning mean score than overall sophomores in COB.

#### Collaborative Learning for All Seniors

Figure 15, illustrates the collaborative learning mean score for overall seniors and first generation senior students by college.

Figure 15.



The collaborative learning mean score for overall seniors is 36.3 with a confidence interval ranging from 35.93 to 37.43. As it is seen in figure 15, the collaborative learning mean score for senior varies by each college, where some colleges score above the confidence interval and other colleges have scores below the confidence interval. Seniors in CAS, HHS, CLA, and CNS have mean scores below the lower level of the confidence interval and the mean scores for seniors in COB, COE, CVMBS, and WCNR are above the upper level confidence interval.

Senior students in CLA have the lowest mean score of 30.1, while seniors in COE have the highest mean score of 41.0. For all four question, a higher percentage of seniors in CLA responded with never or sometimes, in comparison to seniors in COE.

#### Collaborative Learning for First Generation Seniors

As displayed in figure 15, the collaborative learning mean score between overall seniors and first generation seniors is statically similar in CAS, COB, CLA, CNS, CVMBS and WCNR. COE and HHS have significantly lower mean scores for their first generation seniors. In addition, the collaborative learning mean for all first generation senior students is 34.8, which is significantly lower than the overall senior mean.

First generation seniors in CAS, HHS, CLA, and CNS have collaborative learning mean scores that are low and COB, CVMBS, and WCNR have mean scores that are high. Similar all seniors, CLA has the lowest collaborative learning mean score for first generation seniors and WCNR has the highest mean score. Nearly 71% of first generation seniors in WCNR said they often or very often asked another student to help them understand course material, while only 33% of first generation CLA seniors said often or very often. In addition, 50% of first generation seniors in WCNR said they very often work with other students on course projects or assignments, in comparison to only 20% of students in CLA.

#### Discussion with Diverse Others

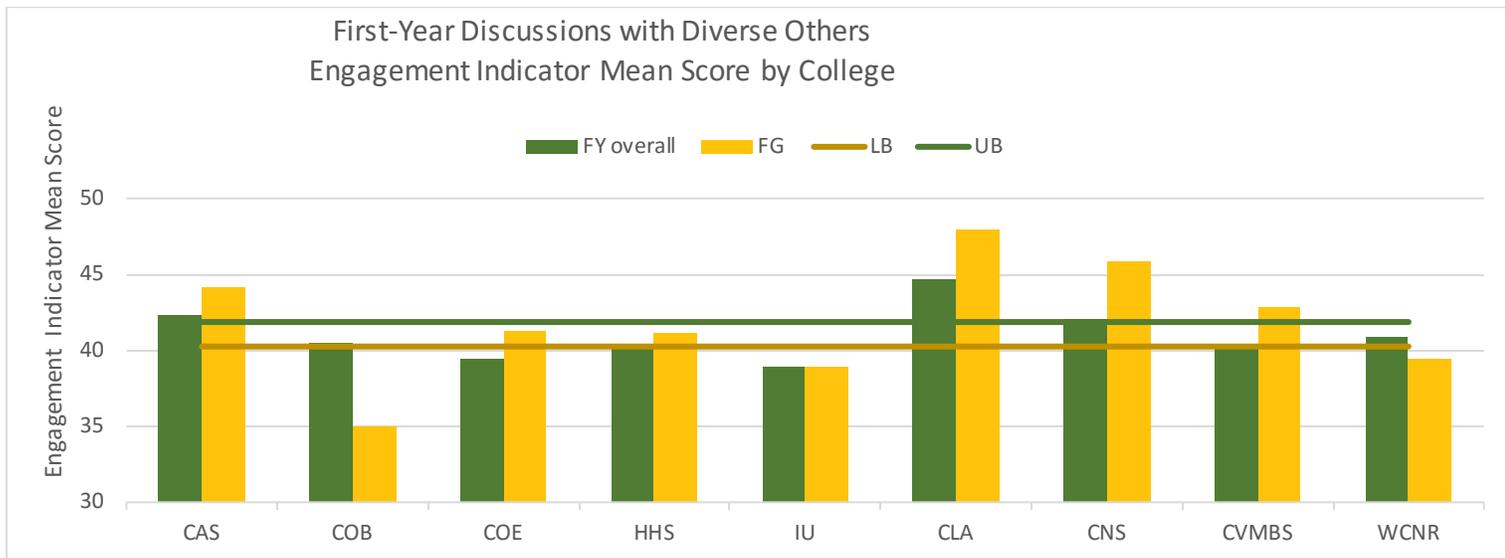
Another method for one to learn with peers is to engage in a discussion with diverse others. These diverse others include different racial identities, economical status, religious beliefs, and political views that one's own. Discussion with diverse others is an engagement indicator that is an average score of four survey questions, where students answered never, sometimes, often, and very often to the following questions:

- During the current school year, how often have you had discussions with people of a race or ethnicity other than your own?
- During the current school year, how often have you had discussions with people from an economic background other than your own?
- During the current school year, how often have you had discussions with people with religious beliefs other than your own?
- During the current school year how, often have you had discussions with people with political views other than your own?

### Discussion with Diverse Others for All First Year Students

Figure 16 displays the mean scores for the discussion with diverse others engagement indicator by college and first generation status.

Figure 16



The CSU first year mean score for discussion with diverse others is 40.9 with a 95% confidence interval of 40.25 and 41.86. As it is seen in the figure 16, first year students in COB, HHS, and WCNR have mean scores within the confidence interval, while CAS, CLA, and CNS have scores above the upper level of the confidence interval, and the mean scores in COE, IU, and CVMBS are below the confidence interval. First year students in CLA have the highest discussion with diverse others mean score of 44.7, while IU has the lowest mean score of 38.9. This big gap within the mean score is due to the fact that 50% of first year students in CLA said they very often have had discussion with people with religious beliefs other than their own, when compared to 33% of students in IU.

### Discussion with Diverse Other for First Generation First Year Students

The discussion with diverse others mean score for first generation first year students is 42.1, which is significantly greater than the overall mean of 40.25 for all first year students at CSU. CAS, COB, HHS, IU, and CLA have statically similar scores for first generation first year students and all first year students. However,

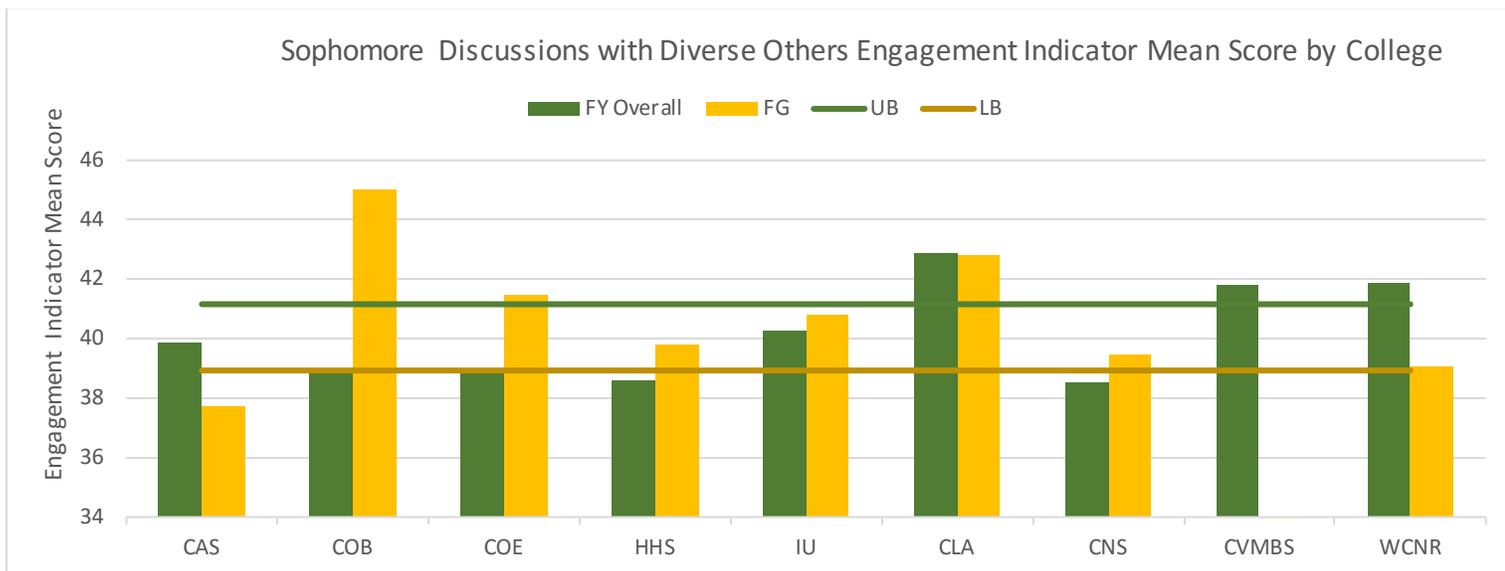
COE, CNS, CVMBS, and WCNR have significantly different scores between all first year and first generation first year students.

First generation first year students in CAS, CLA, CNS, and CVMBS have scores below the upper level of the confidence interval and COB, IU, and WCNR have scores below the lower level of the confidence interval. First generation first year students in CLA have the highest mean score of 47.9, while students in COB have the lowest mean score of 35.0. Only 18% of first generation first year students in COB said they very often have had discussions with people of a race or ethnicity other than their own, when compared to 49% of students in CLA who said very often to the same question.

#### Discussion with Diverse Others for All Sophomore Students

The figure below displays the discussion with diverse others engagement indicator scores by college for and first generation statuses for sophomores. The discussion with diverse others mean for all sophomores at CSU is 40.0 with a 95% confidence interval of 38.93 and 41.16.

Figure 17.



Sophomores in CAS, COB, and IU have mean scores within the confidence interval, while sophomores in COE, HHS, and CNS have scores below the lower level of the confidence interval, and CLA, CVMBS, and WCNR have scores above the upper level of the confidence interval.

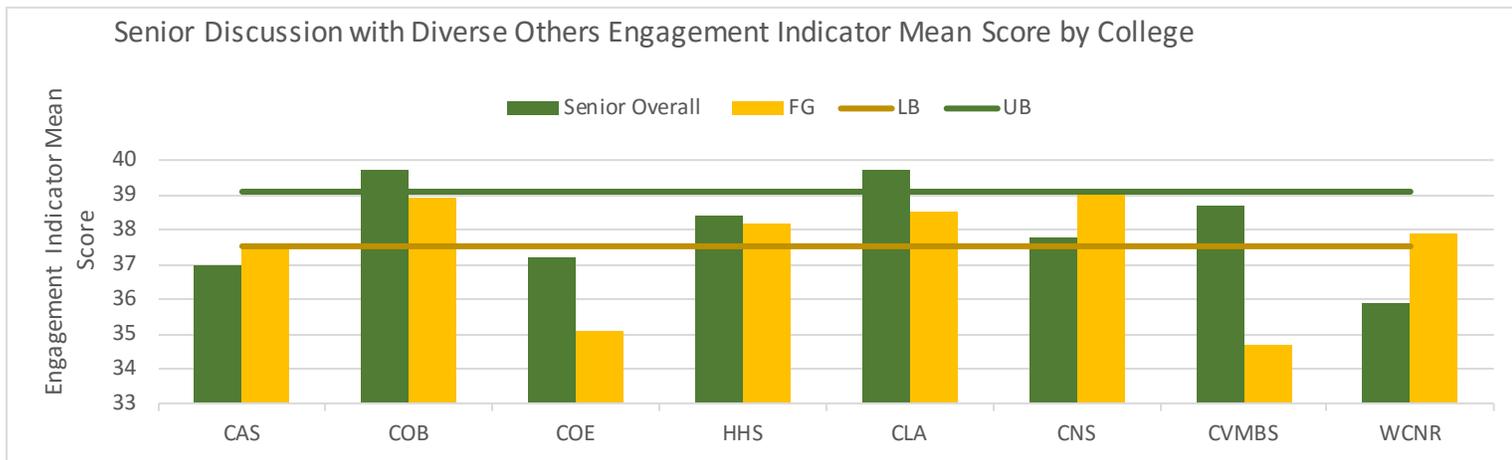
Sophomore students in CLA have the highest score and sophomore students in CNS have the lowest. This is due to the fact that nearly 50% of sophomores in CLA said they very often have had discussion with people with political views other than their own, compared to the 29% of sophomores in CNS that said very often to the same question.

### Discussion with Diverse Others for First Generation Sophomore Students

First generation students in COB, COE, and CNS have a significantly greater discussion with diverse others mean score compared to sophomores overall. This is especially pronounced in COE. In CAS and WCNR, however, first generation sophomores have significant lower score than all sophomores at CSU.

### Discussion with Diverse Others for All Seniors

Figure 18 below displays the discussion with diverse others mean scores for seniors by college and first generation status. The discussion with diverse others mean for seniors was 38.2 with a 95% confidence interval of 37.52 and 39.09. Figure 18.



Seniors in CAS, COE, and WCNR have scores below the lower level of the confidence interval, while COB and CLA are the only two colleges to have scores above the upper level confidence interval, and the mean scores for HHS, CNS, and CVMBS are within the confidence interval. COB has the highest score of 39.7 and WCNR has the lowest score of 35.9. Nearly 78% of seniors in COB said they often or very often have had discussion with people political views other than their own, while only 65% of seniors in WCNR said often or very often to the same exact question.

### Discussion with Diverse Others for First Generation Senior Students

The discussion with diverse others mean for first generation seniors is 37.9, slightly less than the CSU senior mean, but statically similar nonetheless. CAS, COB, HHS, CLA, and WCNR have mean scores within the confidence interval, while COE and CVMBS have scores below the lower level of the confidence interval, and CNS is the only college to have a score above the upper level of the confidence interval. CNS has the highest score for first generation seniors, while CVMBS has the lowest mean score. Nearly 19% of first generation senior students in CVMBS said they never had discussion with people of a race or ethnicity other than their own, compared to only 6% of first generation seniors in CNS that said never for the same question.

## Experience with faculty

Effective teaching practices and student faculty interactions are two things that effect one's experience with faculty. This NSSE theme examines how students rate their interactions with faculty and how often students talk with faculty members or advisors about career plans.

## Effective Teaching Practices

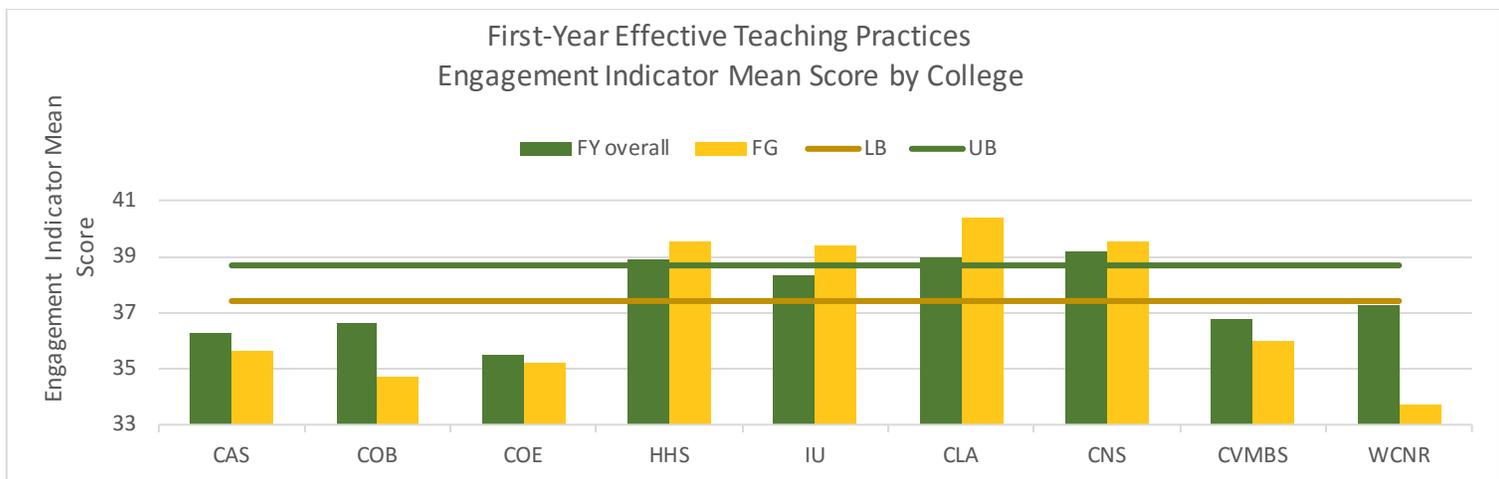
Effective teaching practices is an engagement indicator composite score of four survey questions that assess the organization of instruction, the clarity of explanations, the effectiveness of feedback, and the illustration of examples. Students had the option to select very little, some, quite a bit, and very much. The questions include:

- During the current school year, to what extent have your instructors clearly have you explained course goals and requirements?
- During the current school year, to what extent have your instructors clearly have you worked with a faculty member on activities other than coursework (committees, student groups, etc.)?
- During the current school year, to what extent have your instructors discussed course topics, ideas, or concepts with a faculty member outside of class?
- During the current school year, to what extent have your instructors provided feedback on a draft or work in progress?
- During the current school year, to what extent have your instructors discussed your academic performance with a faculty member?

### Effective Teaching Practices for All First Year Students

Figure 19, below, displays the mean score for effective teaching practices for first year students by college and first generation status. The effective teaching practices mean for first year students at CSU is 37.9 with a 95% confidence interval of 37.41 and 38.68.

Figure 19.



First year students in IU are the only group to score within the confidence interval, while CAS, COB, COE, CVMBS and WCNR all have scores below the lower level confidence interval and HHS, CLA, and CNS score above the confidence interval. CNS has the highest score, while COE has the lowest mean score. Nearly 85% of first year students in CNS said instructors quite a bit or very much thought course sessions in an organized ways, compared to 77% of first year student in COE that said quite a bit or very much.

### Effective Teaching Practices for First Generation First Year Students

As it is seen in figure 19. The effective teaching practices mean for first generation first year students is 38.3, which is statically similar to the mean for all first year students. CAS, COB, COE, CVMBS, and WCNR have

scores below the lower level of the confidence interval, while HHS, IU, CLA, and CNS have scores above the confidence interval.

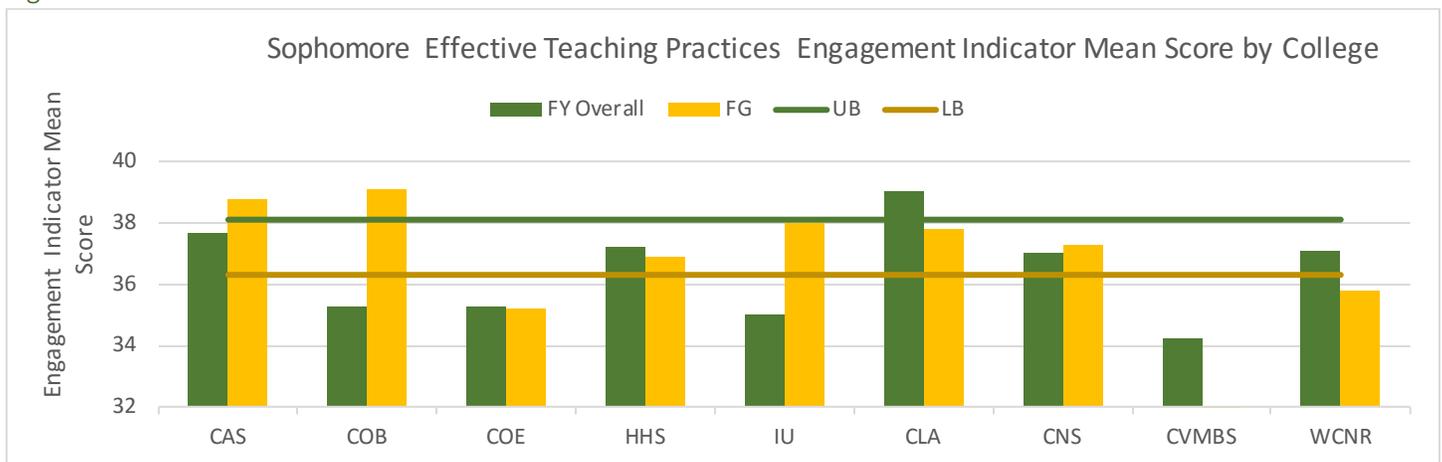
First generation first year students in CLA have the highest effective teaching practices mean score of 40.4 and first generation first year students in WCNR have the lowest score of 33.7. Nearly 72% of first generation first year students in CLA said instructors quite a bit or very often provided feedback on a draft or work in progress, compared to only 58% of first generation first year students in WCNR that said quite a bit to very often to that same question. In addition, 68% of first generation first year students in WCNR said very little or some of their instructors provided prompt and detailed feedback on tests or completed assignments, while only 34% of CLA first generation first year students said very little or some for the same exact question.

As is it displayed in figure 19, the mean score gap between first generation first year students and overall first year students is the highest in WCNR. This was due to the fact that higher percentage of overall first year student in WCNR answered very much for all four of the questions in comparison to first generation first year students in WCNR.

#### Effective Teaching Practices for All Sophomores

Figure 20, below, illustrates the effective teaching mean score of overall sophomore and first generation sophomore students by college. The effective teaching mean score for all sophomores at CSU is 37.0 with a 95% interval of 36.3 and 38.1.

Figure 20.



Sophomores in CLA are the only group to score above the upper level of the confidence interval, while sophomore in COB, COE, IU, and CVMBS have scores below the lower level of the confidence interval, and CAS, HHS, CNS, and WCNR have scores within the confidence interval. Sophomore students in CLA have the highest score of 39.0, while sophomore students in IU have the lowest score of 35. This large gap between the two colleges is due to the fact that higher percentage of sophomore students in CLA said very much to all questions, when compared to sophomores in IU.

#### Effective Teaching Practices for First Generation Sophomores

As it is seen in figure 20, the mean score gap between first generation sophomores and overall sophomores varies by colleges. In the case of CAS, COB, and IU first generation sophomores have significantly higher mean scores than overall sophomores, while in the cases of CLA and WCNR first generation sophomore have

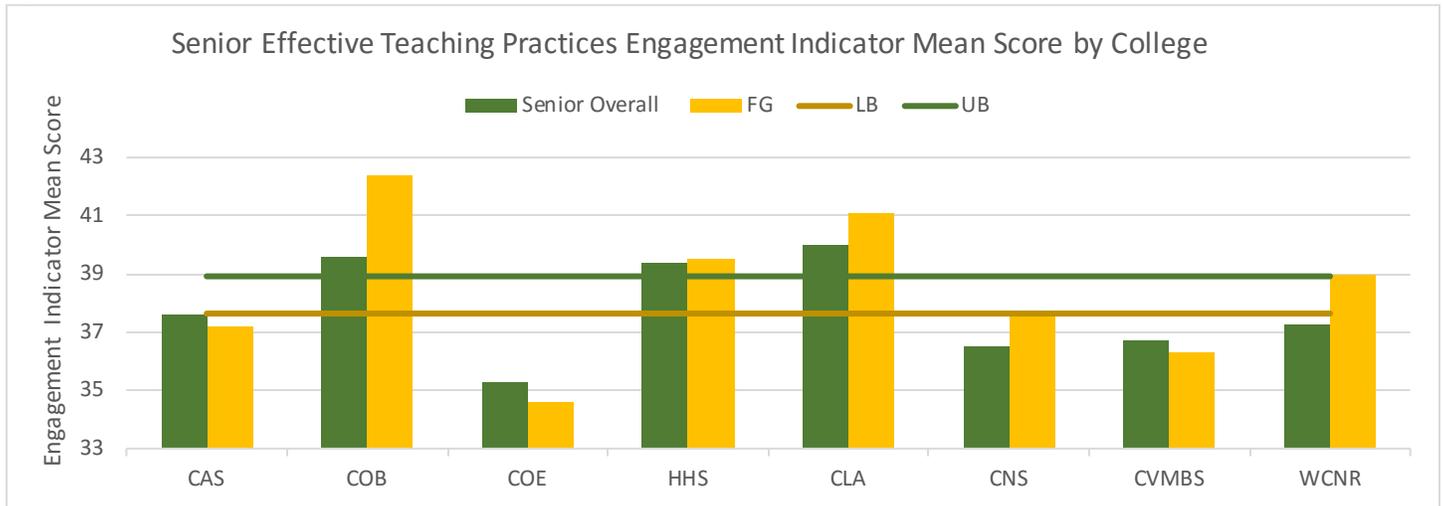
significant lower mean scores than overall sophomores, and first generation sophomores and overall sophomores in COE and HHS had statistically similar scores.

CAS and COB have effective teaching practices mean scores higher than the upper level of the confidence interval, while COE and WCNR have mean scores below the lower level of the confidence interval. HHS, IU, LA and CNS have scores within the confidence interval. First generation first year students in COB have the highest score, while first generation student in COE have the lowest mean score. Only 10% of first generation first generation sophomore students in COE said their instructors very much taught course sessions in an organized way, compared to 33% of first generation sophomore students in COB who said very much for the same question.

### Effective Teaching Practices for All Seniors

Figure 21, illustrates the effective teaching practices for all senior students by first generation status and colleges. The effective teaching practice mean for all seniors is 38.0 with a 95% confidence interval of 37.64 and 38.92.

Figure 21.



Seniors in CAS are the only group to score within the confidence interval, while students in COB, HHS, and CLA scored above the upper level of the confidence interval, and COE, CNS, CVMBS, and WCNR have scores below the lower level of the confidence interval.

Senior students in CLA have the highest effective teaching practice mean score of 40.0, while students in COE have the lowest score of 35.3. This is due to the fact that 60% of senior students in CLA said their instructors quite a bit or very much provided feedback on a draft or work in progress, compared to 40% of seniors in COE that said quite a bite or very much for the same question.

### Effective Teaching Practices for First Generation Seniors

The effective teaching practice mean score for first generation seniors is 38.9, which is greater than the mean for overall senior mean of 38.0. As it seen in figure 21, first generation seniors in CAS have a significantly

lower score than overall seniors, while in WCNR first generation seniors have a significantly higher score than overall seniors.

The mean scores for first generation senior students in CAS, COE, CNS, and CVMBS are below the lower level of the confidence interval, while first generation seniors in COB, HHS, CLA and WCNRs have scores greater than the upper level of the confidence interval. COB has the highest score for this demographic, while COE has the lowest score. Nearly 45% of first generation seniors in COB said their instructors very much used examples or illustration to explain difficult points, compared to only 25% of first generation seniors in COE who said very much for the same question.

### Student Faculty Interaction

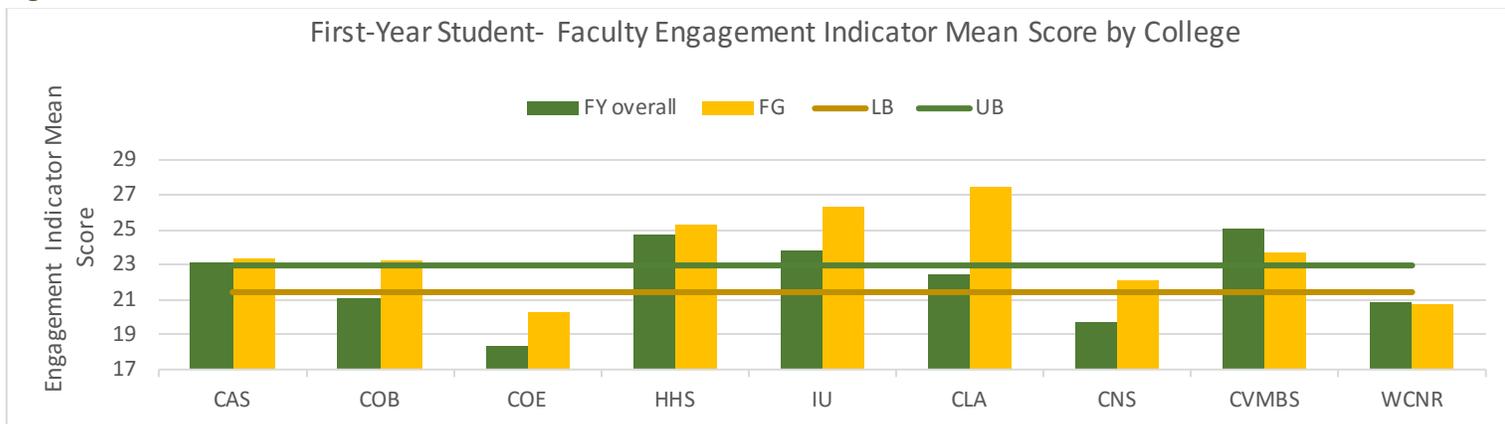
Student faculty interactions measures the frequency that students interact with their faculty. The student faculty interaction engagement indicator is an average score of four survey questions:

- During the current school year, how often have you talked about career plans with a faculty member
- During the current school year, how often have you worked with a faculty member on activities other than coursework (committees, student groups, etc.)?
- During the current school year, how often have you discussed course topics, ideas, or concepts with a faculty member outside of class?
- During the current school year, how often have you discussed your academic performance with a faculty member?

### Student Faculty Interaction for All First Year Students

Figure 22, below, displays the student faculty mean score for first generation first year students and overall first year students at CSU by college. The mean score for CSU first year students is 22.1 with a 95% confidence interval of 21.43 and 22.96.

Figure 22.



First year students in COB, COE, CNS, and WCNR have scores below the lower level of the confidence interval, the mean scores for HHS, IU, and CVMBS are above the upper level of the confidence interval, and first year students in CLA have a score within the confidence interval.

CVMBS has the highest score of 25.1 for first year students and COE has the lowest score of 18.4. This is due to the fact that 49% of first year student in COE said they never worked with a faculty member on activities other than coursework (committees, students group, etc.), compared to 22% of student in CVMBS that said never to the same question.

### Student Faculty Interaction for First Generation First Year Students

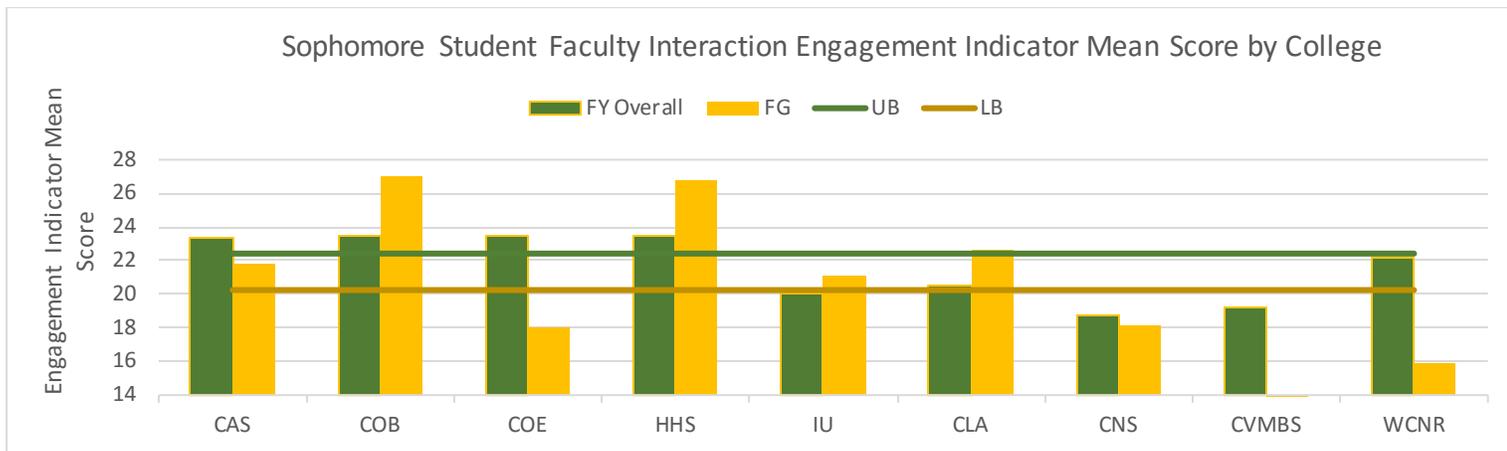
As it is seen in figure 22, with the exception of CVMBS, first generation first year students have a higher mean than overall first year students in every college. The student faculty interaction mean score for first generation first year students is 24.4, a mean score that is significantly greater than the mean for overall CSU first year students. In CAS, COB, and CLA first generation students have significantly higher scores than overall first year students.

The mean score for first generation students in CAS, COB, HHS, IU, CLA and CVMBS are above the upper level of the confidence interval and for COE, CNS and WCNR the mean scores are below the lower level of the confidence interval. CLA has the highest student faculty interaction mean for this demographics, while COE has the lowest score. Only 26% of first generation first year students in COE said they often or very often discussed their academic performance with a faculty member compared to 51% of CLA first generation first year students.

### Student Faculty Interaction for All Sophomores

Figure 23, below, displays the student faculty interaction mean score for sophomores by college and first generation status. The student faculty interaction mean score for all sophomores at CSU is 21.3 with a 95% confidence interval of 20.5 and 22.42.

Figure 23.



CAS, COB, COE, and HHS have mean scores above the upper level of the confidence interval, while the mean score for IU, CNS and CVMBS are below the lower level of the confidence interval. CLA and WCNR are two colleges to have a student faculty interaction mean scores within the confidence interval. Sophomore students in COB, COE and HHS have a tied mean score of 23.5, which also happens to be the highest score in comparison to other colleges, and CNS has the lowest score of 18.8.

### Student Faculty Interaction for First Generation Sophomore Students

The mean score gap between first generation sophomores and overall sophomores is largest in COE and WCNR, as it is seen in figure 23. First generation sophomores in COE and WCNR have scores below the lower level of the confidence interval, while overall sophomores in COE have scores above the confidence interval and in WCNR within the confidence interval.

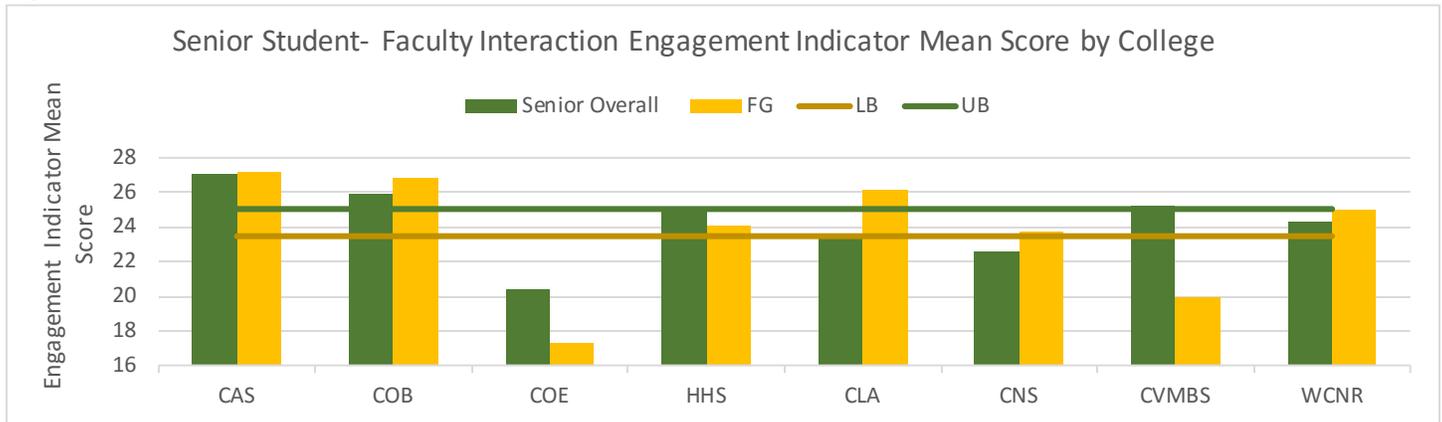
First generation students in CAS and IU have scores within the confidence interval, while the mean scores for COB, HHS and CLA are above the confidence interval and COE, CNS, and WCNR have scores below the lower level of the confidence interval. COB has the highest student faculty interaction mean score of 27, while WCNR

has the lowest score of 15.3. This high gap is due to the fact that 76% of first generation sophomores in WCNR said they never worked with a faculty member on activities other than coursework (committees, students group, etc.), compared to only 13% of students in COB that said never for the same question.

#### Student Faculty Interaction for All Seniors

Figure 24 displays the student-faculty interaction mean score for senior students by college and first generation status. The student-faculty interaction mean for CSU seniors is 23.9 with a 95% confidence interval of 23.47 and 25.04.

Figure 24.



The mean scores for CAS, COB, and, CVMBS are above the upper level confidence interval, while HHS, CLA, and WCNR have scores within the confidence interval, and COE and CNS have scores below the lower level of the confidence interval.

Senior students in CAS have the highest score of 27.1, while senior students in COE have the lowest score of 20.4. This big gap was due to the fact that 41% of seniors in COE said they never worked with a faculty member on activities other than coursework, when compared to 32% in CAS.

#### Student Faculty Interaction for First Generation Seniors

The student faculty mean for all first generation seniors is 24.3, which is slightly greater than the mean for all seniors at CSU. The student faculty interaction mean score is statistically similar for CAS, COB, COE, HHS, CNS, and WCNR. For CLA, first generation seniors have mean scores that is significantly greater than the mean for all seniors. First generation seniors in CNS and CVMBS, have scores that are significantly lower than the mean for all students at CSU.

CAS, COB, and CLA have scores above the upper level of the confidence interval, HHS, CNS and WCNR have scores within the confident interval, and first generation seniors in COE and CVMBS have scores below the lower level of the confidence interval. COB has the highest mean score of 27.2, while COE has the lowest score of 17.3. Nearly 90% of first generation seniors in COE said they never or sometimes worked with a faculty member on activities other than coursework, compared to 67% students in COB, who said never or sometimes.

## Campus Environment

Containing a supportive environment and a quality interactions with students, academic advisors, faculty, student staff, and other administrative staff is another NSSE theme.

### Quality of Interactions

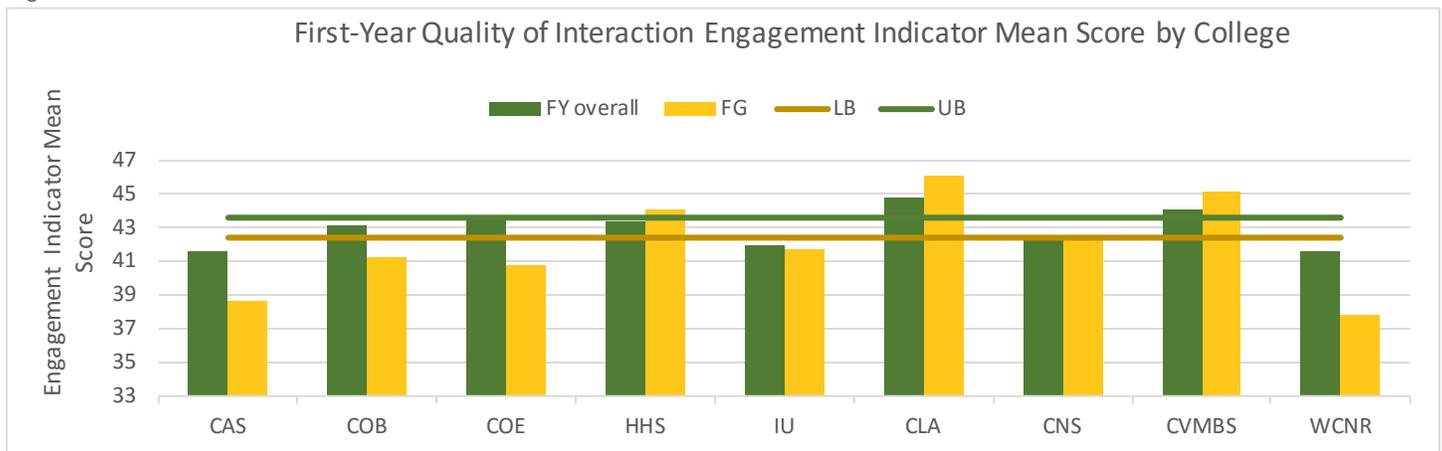
The quality of interpersonal interactions with students, academic advisors, faculty, student service offices (career services, student activates, housing), and other administrative offices (register, financial aid, etc.) is an important element of student satisfaction. This engagement indicator is measured by the average score of five survey questions, in which students have the option to select very good, good, average, not good, poor, and very poor. The questions are as the following.

- During the current school year how would you rate the quality of interactions with students?
- During the current school year how would you rate the quality of interactions with academic advisors?
- During the current school year how would you rate the quality of interactions with faculty?
- During the current school year how would you rate the quality of interactions with student services staff?
- During the current school year how would you rate the quality of interactions with other administrative staff and offices

### Quality of Interactions for All First Year Students

Figure 25, below, displays the mean score for quality of interaction for first year students by college and first generation status.

Figure 25.



The overall CSU mean score for first year students is 42.9 with a 95% of confidence interval of 42.42 and 43.61. First year students in CLA and CVMBS have scores above the upper level of the confidence interval, while CAS, IU, and WCNR have scores below the lower level of the confidence interval. First year students in CLA had the highest quality of interaction mean score of 44.8, while CAS and WCNR are tied with the lowest score of 41.6.

### Quality of Interaction for First Generation First Year Students

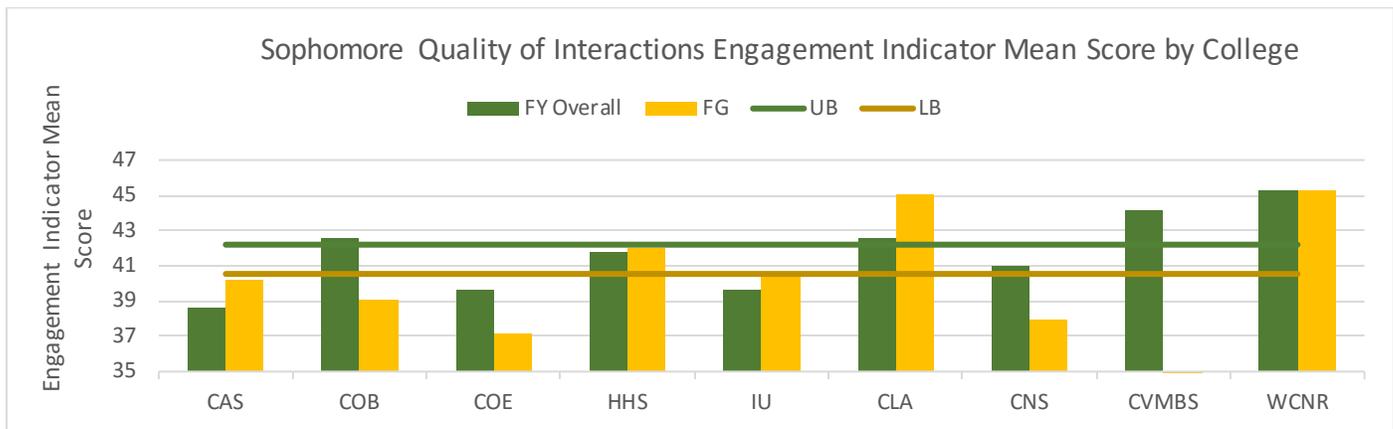
The quality of interaction mean for first generation first year students is 42.4, which is slightly lower than the overall CSU mean. As it seen in figure 25, with the exception of CLA and CVMBS, first generation students in other colleges have scores lower than overall first year students.

The mean scores for CAS, COB, COE, IU, and WCNR are below the lower level of the confidence interval, while HHS, CLA and CVMBS have scores below the lower level of confidence interval, and CNS is the only college to score within the confidence interval. CLA has the highest mean score of 46.1, while WCNR has the lowest score 37.8. Give an item example of what is driving the difference

### Quality of Interaction for All Sophomore

Figure 26, below, displays the quality of interactions engagement indicator mean score by college and first generation statuses. The quality of interaction mean for sophomore students at CSU is 41.6 with a 95% confidence interval of 40.52 and 42.2.

Figure 26



Sophomore students in CAS, COE, and IU have a quality of interaction mean scores below the lower level of the confidence interval. Students in COB, CLA, CVMBS, and WCNR have scores above the upper level of the confidence interval. Sophomores in HHS and CNS have quality of interactions mean score within the confidence interval.

WCNR has the highest quality of interaction score for sophomore students, while CAS has the lowest score. Only 50% of sophomores in CAS rated the quality of interaction with student service staff as excellent, very good, or good, in comparison to 84% of sophomores in WCNR. Additionally, 40% of sophomores in WCNR said the quality of interaction with students is excellent, while only 11% of sophomores in CAS said excellent.

### Quality of Interaction for First Generation Sophomores

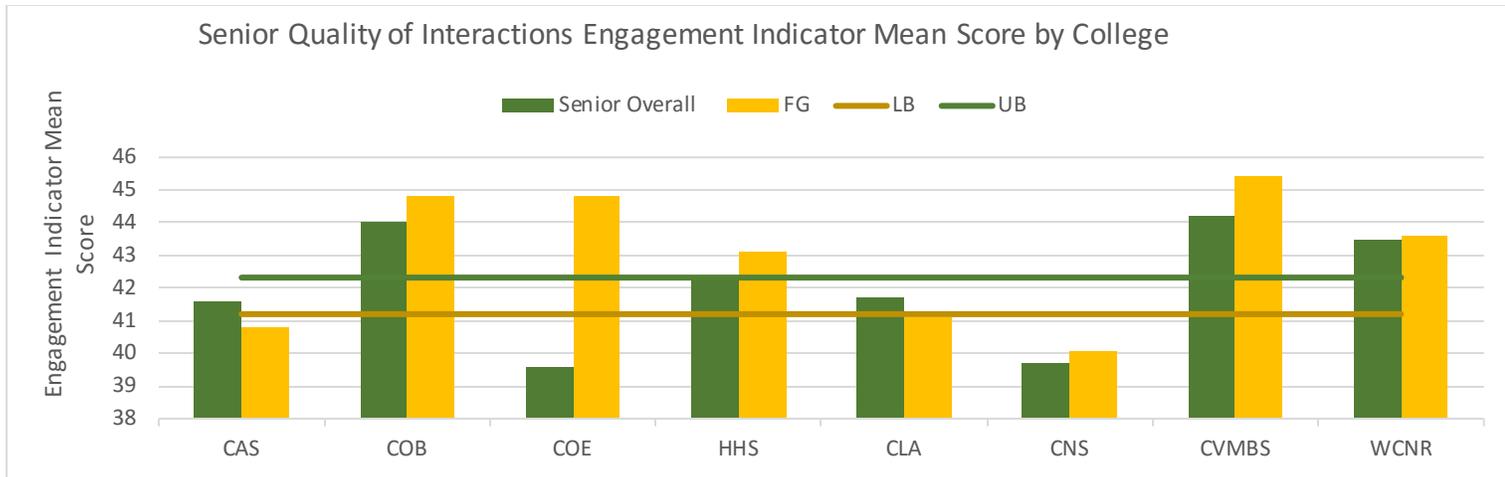
The quality of interaction mean for first generation sophomore students at CSU is 41.8, which is statistically similar to the overall CSU sophomore mean. As displayed in figure 26, the quality of interactions mean score between first generation sophomores and all sophomores differed significantly. In COB, COE, and CNS first generation sophomores have lower scores than overall sophomores.

First generation students in CAS, COB, COE, and CNS have mean scores below the lower level of the confidence interval. CLA and WCNR have high mean scores.

### Quality of Interaction for All Seniors

Figure 27 displays the quality of interaction mean score for senior students by college and first generation status. The quality of interaction mean score for seniors is 41.7 with a 95% confidence interval of 41.2 and 42.32.

Figure 27.



COB, HHS, CVMBS, and WCNR have quality of interaction mean scores above the confidence interval, while COE and CNS have scores below the confidence interval, and CAS and CLA have scores within the confidence interval.

Senior students in CVMBS have the highest quality of interaction score of 44.2, while students in COE have the lowest score of 39.6. Nearly 44% of senior students in CVMBS said they have an excellent quality of interaction with academic advisors, compared to only 20% of students in COE who said excellent.

### Quality of Interaction for First Generation Seniors

The quality of interaction mean for first generation seniors is a score of 45.4, significantly greater than the overall senior quality of interaction mean of 41.7. As displayed in figure 26, a big gap between first generation seniors and all seniors is seen in COE. First generation seniors in COE have a quality interaction mean score of 44.8, while overall seniors have a mean score of 39.6.

### Supportive Environment

Providing support and involvement across cognitive, social, and physical domains, that foster higher levels of student performance and satisfaction is a characteristic of institutions that are committed to student success. A supportive environment is an engagement indicator that summarizes students' perception of how much an institution emphasizes service and activities that support their learning and development. The questions include:

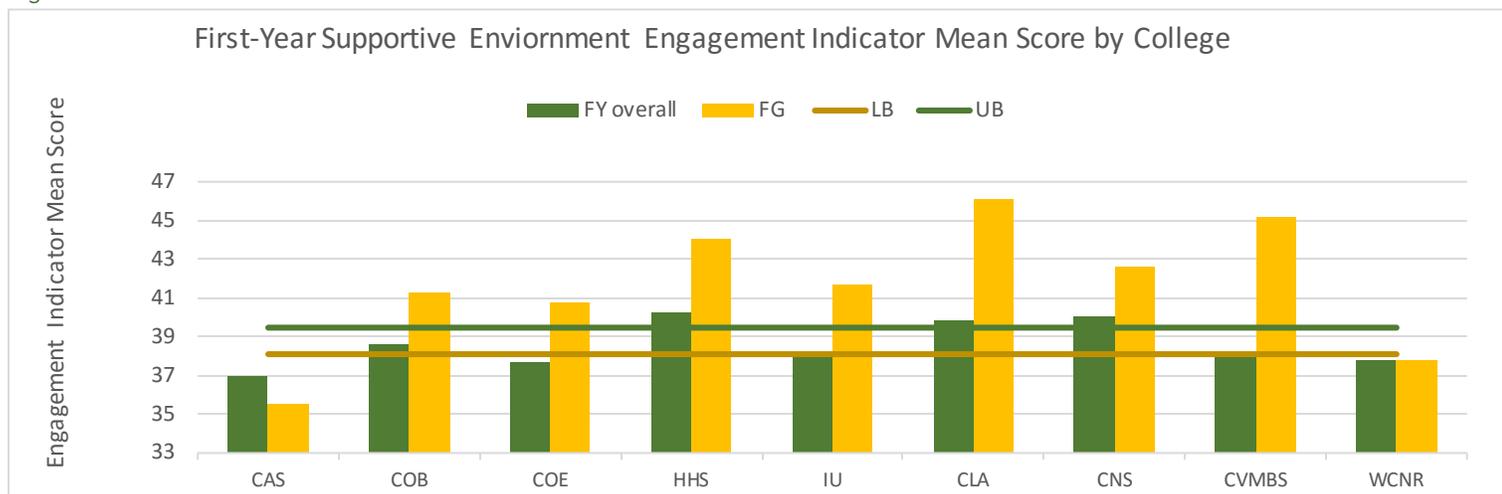
- During the current school year, how much does your institution emphasize providing support to help students succeed academically

- During the current school year, how much does your institution emphasize using learning support services (tutoring services, writing center, etc.)
- During the current school year, how much does your institution emphasize encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)
- During the current school year, how much does your institution emphasize providing opportunities to be involved socially
- During the current school year, how much does your institution emphasize providing support for your overall well-being (recreation, health care, counseling, etc.)
- During the current school year, how much does your institution emphasize helping you manage your non-academic responsibilities (work, family, etc.)
- During the current school year, how much does your institution emphasize attending campus activities and events (performing arts, athletic events, etc.)
- During the current school year, how much does your institution emphasize attending events that address important social, economic, or political issues

### Supportive Environment for All First Year Students

Figure 28 illustrates the supportive environment mean score for first year students by college and first generation status. The supportive environment mean score for first year students is 38.8 with a 95% confidence interval of 38.1 and 39.47.

Figure 28



First year students in CAS, COE, IU, CVMBS and WCNR have scores below the lower level of the confidence interval, students in HHS, CLA, and CNS have scores above the CSU mean, and students in COB are the only group to have a mean score within the confidence interval. First year student in HHS have the highest supportive environment mean score of 40.3 and students in CAS have the lowest mean score of 37.0. Nearly 86% of first year students in HHS said there were a quite a bit or very much institutional emphasis on providing support for their overall well-being (recreation, health care, counseling, ETC), compared to 71% of first year students in CAS that said quite a bit or often.

### Supportive Environment for First Generation First Year Student.

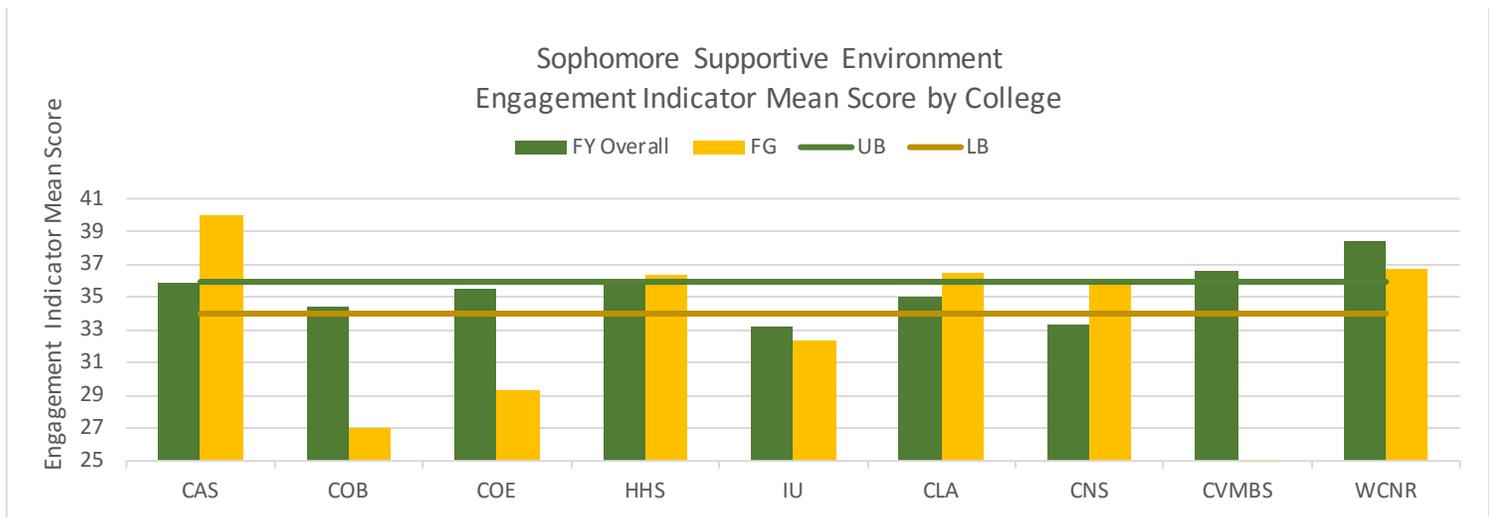
The supportive environment mean score for first generation first year students is 40.8, a mean score that is significantly greater than the supportive environment score for overall first year students at CSU. As it is seen in figure 28, first generation first year students in COB, COE, HHS, IU, CNS and CVMBS have scores above the upper level of the confidence interval, while students in CAS and WCNR have supportive environment mean scores below the lower level of the confidence interval. As displayed in the figure above, CAS is the only college whose first generation students scored below the overall students.

The CLA has the highest mean score of 46.1 and CAS has the lowest mean score of 35.5. This big gap between the means of students in CLA and students in CAS is because nearly 92% of first generation first year students in CLA said there was a quite a bit or very much institutional emphasis on providing support to help students succeed academically, when compared to 77% of students in CAS. Also, nearly 79% of first generation first year students in CLA said there was a quite a bit or very much institutional emphasis on encouraging contact among students from different backgrounds (social, racial/ethnic, Religious, etc.), in comparison to only 61% of students in CAS.

### Supportive Environment for All Sophomores

Figure 29 below displays the supportive environment mean score for sophomore students by college and first generation status. The supportive environment mean for all sophomores is 35 with a 95% confidence interval of 33.99 and 35.9.

Figure 29.



Sophomore students in IU and CNS have mean scores below the lower level of the confidence interval, CAS, CVMBS and WCRN score above the upper level of the confidence interval, and COB, COE, HHS and CLA have scores within the confidence interval. As it is seen in figure 30, sophomore students in WCNR have the highest supportive environment mean score of 38.4 and sophomore students in students in IU have the lowest score of 33.2.

### Supportive Environment for First Generation Sophomores

The supportive environment mean score for first generation sophomores is 36.5. This mean score is significantly greater than the mean for overall CSU sophomores. As seen in figure 29, first generation sophomores in CAS, HHS, CLA, CNS, and WCNR have mean scores above the upper level of the confidence

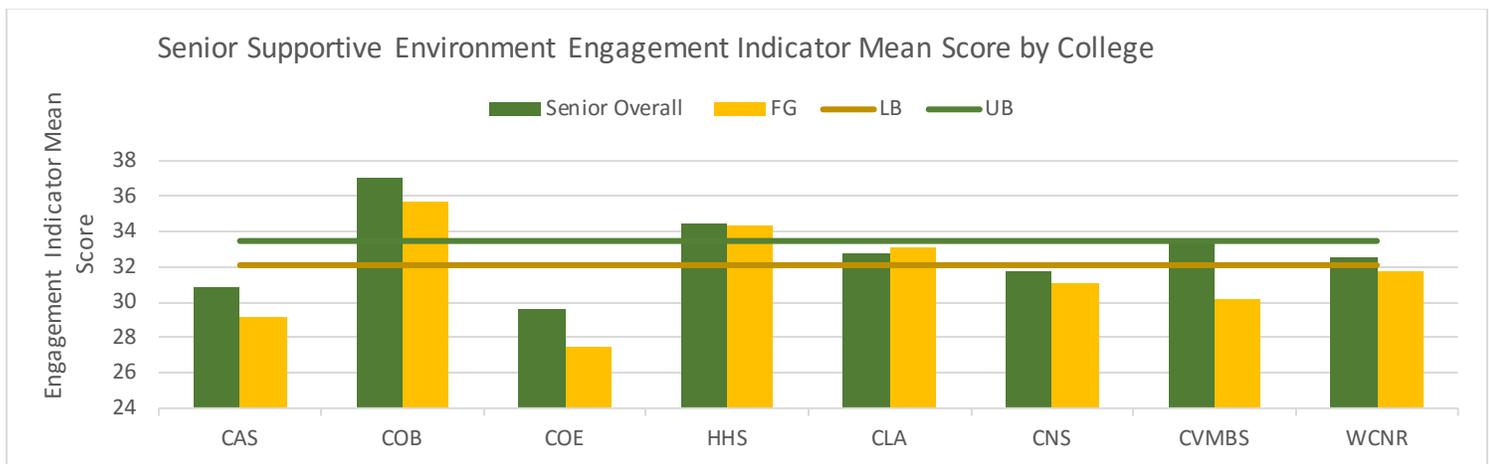
interval, COB, COE, HHS, and CLA have scores within the confidence interval, and the mean scores for IU and CNS are below the lower level of the confidence interval. The figure also displays the big gap within the means of first generation sophomore and overall sophomores in COB and COE.

CAS has the highest supportive environment mean score of 40 for this demographics and COB has the lowest score of 27. This big gap between the mean of the two score due to the fact that 53% of first generation sophomores in CAS said there is a very much institutional emphasis on providing opportunities to be involved socially, in comparison to 27% of students that said very much to the same question.

### Supportive Environment for All Seniors

Figure 30, below displays the supportive environment mean scored for senior students by college and first generation status. The supportive environment mean score for senior students at CSU is 32.8 with 95% confidence interval of 32.1 and 33.47.

Figure 30



As it seen in figure 30, senior students in CAS, COE, and CNS have mean scores below the lower level of the confidence interval, COB, and HHS have mean scores above the upper level of the confidence interval, and CLA, CVMBS, and WCNR have scores within the confidence interval. Senior student sin COB had the highest mean score of 37.0 and COE has the lowest mean score of 29.6. This gap was due to the fact that 45% of seniors in COB said there is a quite a bit or very much institutional emphasis on helping them manage their non-academic responsibility (work, family, etc.), compared to 19% of seniors in COE that said quite a bit or very much for the same question.

### Supportive Environment for First Generation Seniors

The supportive environment mean for first generation seniors is 32.1, which is a statistically similar mean to the overall sophomore mean. As it is displayed in figure 28, with the exception of CVMBS and WCNR, first generation seniors and overall seniors have statically similar scores.

COB and HHS have mean scores above the upper level of the confidence interval, CAS, COE, CNS, and CVMBS have scores below the lower level of the confidence interval, and CLA has a mean score within the confidence interval. First generation senior students in COB have the highest score of 35.7 and students in COE have the lowest score of 27.5. Nearly 53% of first generation seniors in COE said there is a very little institutional

emphasis on help them manage their nonacademic responsibilities (work, family, etc.), compared to only 20% of first generation senior students in COB that said very little to the same exact question.

## High Impact Practices

Due to their positive associations with student learning and retention, certain undergraduate opportunities are designated as high-impact practices. High-Impact Practices (HIP) share several traits: they demand considerable time and effort, facilitate learning outside of the classroom, require meaningful interactions with faculty and students, and encourage collaboration with diverse others. High impact practices that are measured in NSSE are as follows:

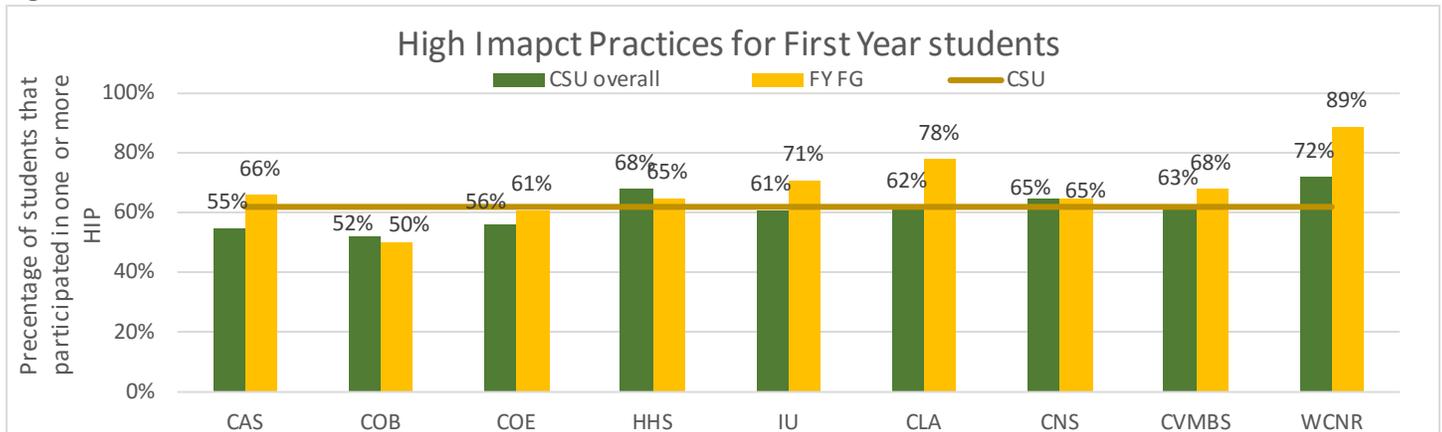
- Learning community or some other formal program where groups of students take two more classes together
- Courses that included a community-based projects (service-learning)
- Work with a faculty member on research project
- Internship, co-op, field experience, student teaching, or clinical placement
- Study abroad
- Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)

Participation rates in service learning coursework, learning communities, and research with faculty are reported for first year and sophomore students includes participation rates in these HIP as well as internships, study abroad, and a culminating senior experience for the senior class level. Because the confidence interval for the data is not available on the online tool, this report will use the absolute value of 3 percentage points to evaluate the substantively significant differences for each college from the overall rate.

### High Impact Practices for All First year students

Figure 31, below, displays the graph for high impacts practices for first year students. The percentage of students that participated in one high impact activity or more is placed on the y-axis and colleges are located on the x-axis. The green bar indicates the overall first year percentage of students that participated in one or more high impact practices and the yellow bar is the percentage of first generation first year students that participated in one or more high impact practices. The gold line is the overall rate of high impacts practice for all first year students are CSU.

Figure 31



The overall rate for all first year students that participated in one or more high impacts practices is 62%. Over 62% of first year students in HHS, CLA, CNS, CVMBS, and WCNR have participated in one or more high impact practices. The percentage of students that participated in one or more high impact practices is three percentage points higher than the overall rate for first year students in HHS and WCNR. On the other hand, in CAS, COB, and COE the percentage of first year students that participated in one or more in high impact practices is three percentage points lower than the overall rate.

First year students in WCNR have the highest participation rate of 72% and COB have the lowest participation rate of 52%. This was due to the fact that 37% of first year students in WCNR have been part of in a learning community, compared to only 17% of first year students in COB who have been part of a learning community.

#### High Impact Practice for First Generation First Year Students

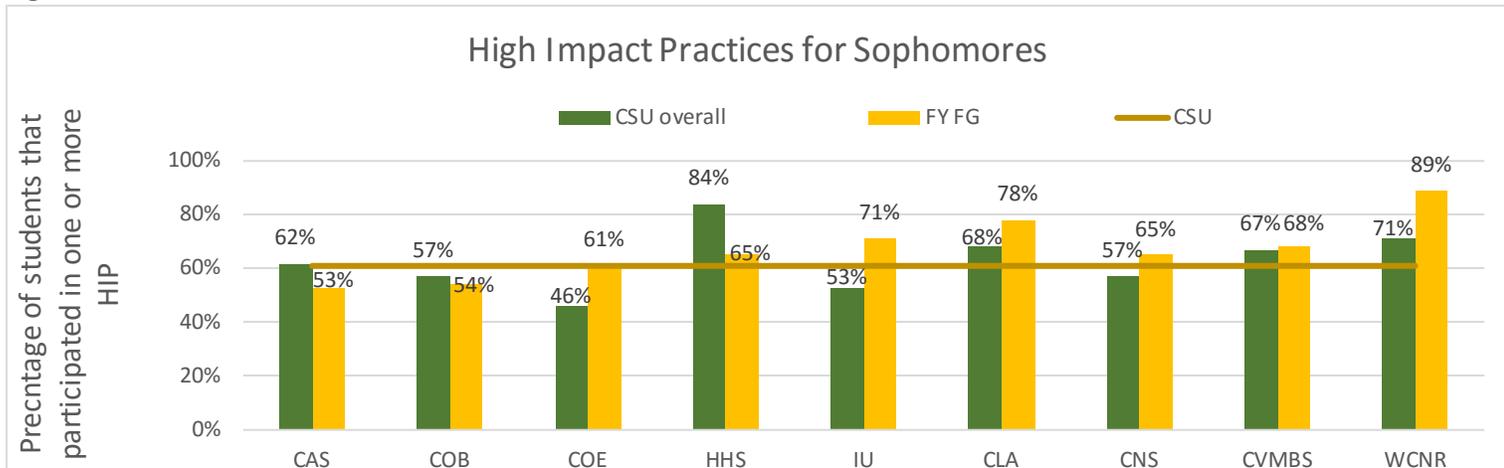
Figure 31, above, displays the visual difference between the participation rate in one or more high impact practices for first-generation and overall first year students. The percentage of first generation first year students that participate in one or more high impacts practice is 68% a much greater rate than all first year students; however, if we take a look at the participation rate for first generation first year students who do not participate in learning community, the rate decreases to 53%. This is to note that students in learning communities, such as key communities, have higher response rates.

First generation first year students in WCNR have the highest percentage of students that participated in one or more high impact practices of 89% and COB has the lowest percentage of students that participated in one or more high impact practices of 50%. Nearly 50% of first generation first year student in COE said some of their courses at this institution have included a community-based project, compared to 100% of students in WCNR that said some for the same question.

#### High Impact Practice for All Sophomore Students

The figure 32, below, displays the rate of high impact activity participation for sophomore students by college and first generation status. The overall rate for sophomores that participated in one or more high impacts practice is 61%.

Figure 32



Sophomore students in CAS participate in HIP at the same rate as overall at CSU. On the other hand, HHS, CLA, CVMBS, and WCNR have larger proportions of sophomore students that participate in one or more high impact practices. COB, COE, IU, and CNS have lower participation rates.

In comparison to other colleges, COE has the lowest participation rate for high impact practices for all sophomore students. Sophomore students in COE have very low participation rate for all three of the high impact practice. For example, the 23% of overall sophomore students participated in learning community, compared to only 13% of sophomore students in COE.

#### High Impact Practice for First Generation Sophomores

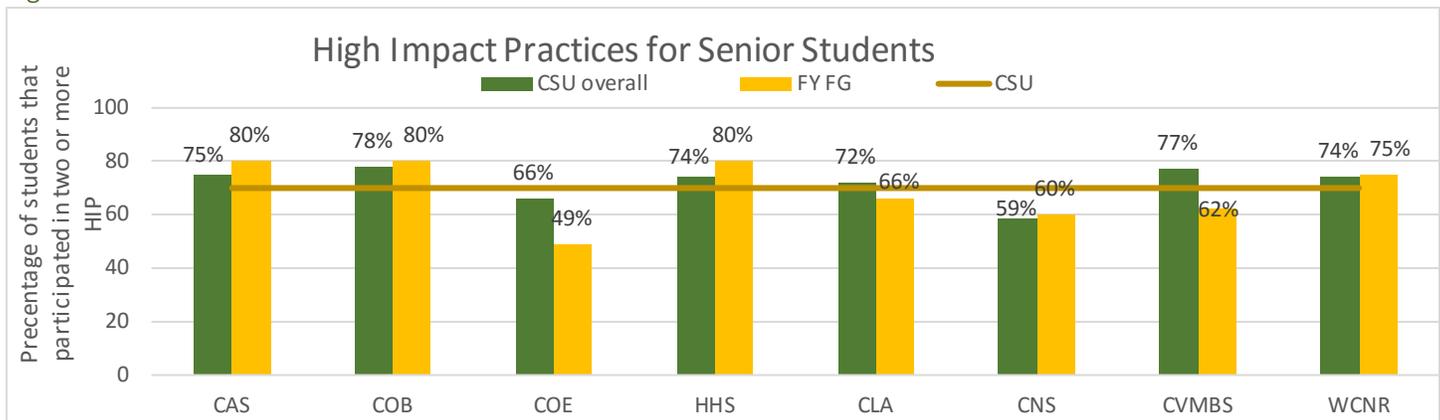
Sixty-two percent of first generation sophomores at CSU have participated in one or more high impact practices. As it is displayed in figure 32. First generation sophomores in COE, IU, CLA, CNS, CVMBS, and WCNR have higher participation rates in one or more high impact practices, when compared to all students. In CAS, COB, and HHS first generation sophomores have lower participation rates than overall sophomore students. The biggest difference in participation rates between first year students and overall students is seen in HHS where the participation gap between first generation students and overall students is 19 percentage points. I want you to dig into this a bit? I would guess in LC participation but put an example in here.

First generation sophomores in WCNR have the highest rate of participation in one or more high impact practices. Eighty-nine percent of WCNR first generation sophomores have participated in one or more high impact practices.

#### High Impact Practice for All Senior

Nearly 70% of overall senior students at CSU have participated in two or more high impact practices. Figure 32, below, displays the percent of students that participate in two or more of the six HIP reported in NSSE for seniors.

Figure 32



Percentage of seniors in COE and CNS that participated in two or more high impact practices is three percentage points below the overall senior rate. On the other hand, the participation rate of senior students that participated in two or more high impact practices in CAS, COB, HHS, CVMBS, and WCNR is three percentage points greater than the overall mean.

Of the six high impact practices, participation is highest for the culminating senior experience and lowest for study abroad (62% and 16%; respectively). About 28% of seniors have completed research with a faculty member.

As it seen figure 32, senior students in COB have the highest participation rate of students that participated in two or more high impact practices and senior students in CNS have the lowest participation rate. Senior students in COB have higher participation rates for every high impact practice with the exception of research with a faculty member – only 16% of seniors in COB conducted a research with a faculty member. In contrast, senior students in CNS have low participation rates in all the HIP except for research with a faculty member where they have a higher rate. Twenty-eight percent of overall seniors have conducted research with a faculty member, in the case of seniors in CNS that percentage increases to 38%.

#### High Impact Practices for First Generation Seniors

As displayed in figure 32, first generation senior students have high participation rates in CAS, COB, HHS, CNS, WCNR, while first generation seniors in COE, CLA and CVMB have lower participation rates. Sixty-nine percent of first generation seniors have participated in two or more high impact practices. The participation rate of first generation seniors that conducted research with a faculty member and studied abroad is very low when compared to the participation rate for overall seniors.

COE has the lowest participation rate for first generation seniors because of the low participation rate in multiple high impact practices, one of them being study abroad. Nearly 16% of overall seniors have participated in a study abroad programs; however, only 3% of first generation seniors in COE have been a part of a study abroad program.

## Conclusions

The engagement indicator mean scores differed by different colleges at CSU, class levels, and first generation status. Colleges like CLA reported mean scores that are equivalent or above the CSU mean for all class levels and first generation status, for most of the engagement indicators across themes. Other colleges like COB and WCNR reported means below or equivalent the CSU mean for first and sophomore year students; however, for senior students, the engagement indicators scores in these reported above the upper level of the CSU confidence interval. In addition, due to the small sample of sophomore students in the data, the mean scores for sophomore students at times differed from the mean scores for first and senior students in a college.

High impacts participation rates have the most variety. For example, science heavy colleges, such as CVMBS, CNR, and WCRN reported higher participation rate for research with a faculty member for all class levels and first generation status, when compared to colleges like CLA and COB. On the other hand, colleges who have departments that require their student to complete a practicum or an internship as part of a graduation requirement, reported high participation rate for internship or field experience. HHS and CAS are some of the colleges that have departments that require an internship as a graduation requirement and that is reflected in the participation are.