

Sustainability QEP NSSE Report of Results

Contents

- Executive Summary..... 2
- Integrating NSSE, SLI, and Strategic Plan Core Values 3
 - Core Value: Integrity 3
 - Core Value: Academic Excellence 3
 - Core Value: Liberal Arts Education 4
 - Core Value: Diversity, Equity & Inclusion..... 4
 - Core Value: Student Centeredness 4
 - Core Value: Innovation 5
 - Core Value: Public Mission..... 5
- 2016 NSSE Survey Results: CofC Freshmen vs. Other University Freshmen..... 6
 - Summary of Findings (COFC Freshmen 2016 vs. Sustainability Cohort):..... 6
- 2019 NSSE Survey Results: CofC Freshmen vs. Other University Freshmen..... 7
 - Summary of Findings (CofC Freshmen 2019 vs. Sustainability Cohort):..... 7
- NSSE Survey Results: CofC Freshmen Comparison, 2016 vs. 2019 8
 - Summary of Findings (2016 CofC Freshmen vs. 2019 CofC Freshmen): 8
- 2016 NSSE Survey Results: CofC Seniors vs. Other University Seniors 9
 - Summary of Findings (CofC Seniors in 2016 vs. Sustainability Cohort): 9
- 2019 NSSE Survey Results: CofC Seniors vs. Other University Seniors 10
 - Summary of Findings (CofC Seniors in 2019 vs. Sustainability Group): 10
- NSSE Survey Results: CofC Senior Comparison, 2016 vs. 2019..... 11
 - Summary of Findings (2016 CofC Seniors vs. 2019 CofC Seniors): 11
- Moving Forward with Sustainability Literacy at the College of Charleston..... 12
 - Recommendations Based on NSSE Survey Results 12
- Appendix 1: 13
 - NSSE Sustainability Questions – Alignment with QEP Student Learning Outcomes 13
- Appendix 2: 14
 - Summary of Cohort Comparisons 13

Executive Summary

Sustainability is becoming a holistic core of the liberal arts and sciences and the overall student experience in higher education. Its import in post-graduation opportunities and job force preparation is also steadily growing. Given these trends a globally fluent and competitive College of Charleston graduate should be equipped with the skills and knowledge that reflect the role of sustainability in the 21st century. This import is recognized in CofC's 2020 strategic plan where the triple bottom line of sustainability (the interplay of social, environmental, and economic systems) is centrally located in the College's mission and its core values. It is within these contexts of sustainability at CofC, in higher education, and the world-at-large that we analyzed National Survey of Student Engagement (NSSE) sustainability data provided in both the 2016 and 2019 NSSE surveys. NSSE is a student-focused survey given to first-year and senior students at hundreds of four-year colleges and universities around the country to estimate how they spend their time at college. As part of the QEP CofC opted in to adding NSSE sustainability questions to the 2019 NSSE in order to gain comparative data with peer institutions who opted in on the NSSE sustainability questions in order to help measure students' sustainability literacy. The NSSE sustainability questions asked are broadly consistent with the goals of the QEP/SLI and the new strategic plan and its mission, values, and focus on academic distinction, as well.

The pre-QEP 2016 data are clear that when compared to respective freshmen and seniors in our NSSE-assigned sustainability cohort, CofC students were average to below average on the NSSE sustainability questions relative to our peers. However, by 2019 CofC students' scores were significantly higher than the reference group on approximately half of the questions asked with no difference on the remainder of the questions. When compared internally, CofC freshmen and seniors in 2019 scored significantly higher than their 2016 counterparts on most of the same sustainability questions. This strongly suggests that the implementation of the sustainability literacy QEP is associated with positive gains in student learning of and experience with sustainability at the College. According to NSSE results the College of Charleston is excelling at sustainability education and this is a broad and consistent result across a number of measures and in both freshmen and seniors.

Overall, the NSSE results from 2016 and 2019 suggest that when compared to institutions with similar profiles the College is becoming a clear leader in engaging students around sustainability literacy. This trend should be celebrated and continue to receive strategic and structural support. As sustainability becomes increasingly important the College should continue to prioritize and center sustainability literacy, as articulated in the QEP and via the Center for Sustainable Development but also along the categories identified by NSSE and summarized in this report, in its interactions with its student body. Furthermore, the institution should recognize and take advantage of our strong sustainability profile as articulated in NSSE results and strategically highlight our growing sustainability profile. We encourage the institution to take advantage of our sustainability gains in its marketing as well as in targeted recruitment and retention of students as well as future faculty.

In recent years CofC has embraced sustainability as an organizing theme, as evidenced in CofC's new mission and values. The focus of the QEP on 21st century problems and solving them through sustainability literacy directly relates to all seven core values of the College's new strategic plan. Continuing to support sustainability literacy and experiential learning of sustainability at the College makes us a more resilient and competitive institution that honors our mission and role in the community.



Dr. Todd LeVasseur, QEP Director

Integrating NSSE, SLI, and Strategic Plan Core Values



The QEP Assessment Team identified NSSE questions that we thought best represent the Core Values of the College's Strategic Plan. These are identified in the tables below.¹

Core Value: Integrity

	NSSE Question	CofC NSSE Results
4a	To what extent does your institution emphasize taking responsibility for the welfare of your communities?	With exception of 2016 seniors, CofC student scores comparable to other universities
5a	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in articulating a vision of a just and sustainable society?	CofC students below average in 2016 but above average in 2019; significant improvement among CofC students 2016 ---> 2019
5c	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding the consequences of your choices?	CofC student scores comparable to other universities and consistent between years

Core Value: Academic Excellence

	NSSE Question	CofC NSSE Results
2a	During the current school year, how much has your coursework emphasized understanding the complex relationships between economic, social, and ecological systems?	CofC student scores comparable to other universities and consistent between years
5b	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring skills to lead or facilitate group activities?	CofC student scores comparable to other universities; CofC Freshmen scored lower than Seniors in 2016 and 2019
5e	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring the skills to help organizations become more sustainable?	CofC student scores comparable to other universities; however, among CofC students, significant improvement in scores between years

¹ Please note that we have highlighted in each table a result/results that evidenced significant statistical improvement and that some NSSE questions were identified as corresponding to multiple core values.

Core Value: Liberal Arts Education

	NSSE Question	CofC NSSE Results
1c	In your experience at your institution during the current school year, about how often have you integrated knowledge from multiple academic disciplines in working on a project?	CofC student scores comparable to other universities; CofC Freshmen scored lower than Seniors in 2016 and 2019
1d	In your experience at your institution during the current school year, about how often have you completed an assignment that evaluates our responsibilities to future generations?	2016 CofC seniors below average in 2016; among CofC students, significant improvement 2016 ---> 2019
2a	During the current school year, how much has your coursework emphasized understanding the complex relationships between economic, social, and ecological systems?	CofC student scores comparable to other universities and consistent between years

Core Value: Diversity, Equity & Inclusion

	NSSE Question	CofC NSSE Results
2b	During the current school year, how much has your coursework emphasized evaluating the moral dimensions of social or environmental problems?	CofC student scores comparable to other universities and consistent between years
4a	To what extent does your institution emphasize taking responsibility for the welfare of your communities?	With exception of 2016 seniors, CofC student scores comparable to other universities
5a	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in articulating a vision of a just and sustainable society?	CofC students below average in 2016 but above average in 2019; significant improvement among CofC students 2016 ---> 2019
5f	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding issues of social justice?	CofC student scores comparable to other universities in 2016, but above average in 2019; significant improvement 2016 ---> 2019

Core Value: Student Centeredness

	NSSE Question	CofC NSSE Results
3a	During the current school year, about how often have you participated in a campus or community sustainability project?	CofC student scores comparable to other universities in 2016, but above average in 2019 (seniors); significant improvement 2016 ---> 2019
3b	During the current school year, about how often have you altered your behavior to become more sustainable?	CofC student scores comparable to other universities in 2016, but above average in 2019; significant improvement 2016 ---> 2019
3c	During the current school year, about how often have you gone on a field trip in your bioregion?	CofC senior scores above average 2019; freshmen scores below average 2016; significant improvement in freshmen 2016--->2019
5a	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in articulating a vision of a just and sustainable society?	CofC students below average in 2016 but above average in 2019; significant improvement among CofC students 2016 ---> 2019
5b	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring skills to lead or facilitate group activities?	CofC student scores comparable to other universities; CofC Freshmen scored lower than Seniors in 2016 and 2019
5c	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding the consequences of your choices?	CofC student scores comparable to other universities and consistent between years
5e	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring the skills to help organizations become more sustainable?	CofC student scores comparable to other universities; however, among CofC students, significant improvement in scores between years
5f	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding issues of social justice?	CofC student scores comparable to other universities in 2016, but above average in 2019; significant improvement 2016 ---> 2019
5g	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in persevering in achieving long-term goals despite adversity?	CofC student scores comparable to other universities and consistent between years

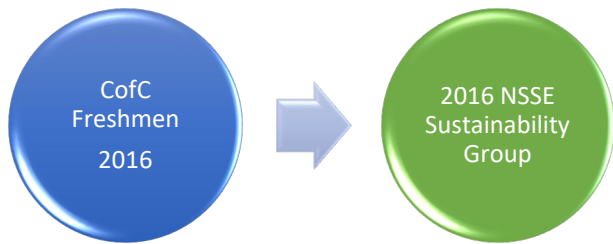
Core Value: Innovation

	NSSE Question	CofC NSSE Results
2c	During the current school year, how much has your coursework emphasized comprehending ways in which human activities may exceed the carrying capacity of systems that support us?	CofC student scores comparable to other universities in 2016 and 2019; significant improvement among CofC students 2016--->2019
3a	During the current school year, about how often have you participated in a campus or community sustainability project?	CofC student scores comparable to other universities in 2016, but above average in 2019 (seniors); significant improvement 2016 ---> 2019
3b	During the current school year, about how often have you altered your behavior to become more sustainable?	CofC student scores comparable to other universities in 2016, but above average in 2019; significant improvement 2016 ---> 2019
5d	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding the economic dimensions of sustainability?	CofC student scores at or below average in 2016, but above average in 2019; significant improvement among CofC students 2016 ---> 2019
5e	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring the skills to help organizations become more sustainable?	CofC student scores comparable to other universities; however, among CofC students, significant improvement in scores between years
5g	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in persevering in achieving long-term goals despite adversity?	CofC student scores comparable to other universities and consistent between years

Core Value: Public Mission

	NSSE Question	CofC NSSE Results
1d	In your experience at your institution during the current school year, about how often have you completed an assignment that evaluates our responsibilities to future generations?	2016 CofC seniors below average in 2016; among CofC students, significant improvement 2016 ---> 2019
2b	During the current school year, how much has your coursework emphasized evaluating the moral dimensions of social or environmental problems?	CofC student scores comparable to other universities and consistent between years
4a	To what extent does your institution emphasize taking responsibility for the welfare of your communities?	With exception of 2016 seniors, CofC student scores comparable to other universities
5a	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in articulating a vision of a just and sustainable society?	CofC students below average in 2016 but above average in 2019; significant improvement among CofC students 2016 ---> 2019
5b	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring skills to lead or facilitate group activities?	CofC student scores comparable to other universities; CofC Freshmen scored lower than Seniors in 2016 and 2019
5c	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding the consequences of your choices?	CofC student scores comparable to other universities and consistent between years
5d	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding the economic dimensions of sustainability?	CofC student scores at or below average in 2016, but above average in 2019; significant improvement among CofC students 2016 ---> 2019
5e	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring the skills to help organizations become more sustainable?	CofC student scores comparable to other universities; however, among CofC students, significant improvement in scores between years
5f	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding issues of social justice?	CofC student scores comparable to other universities in 2016, but above average in 2019; significant improvement 2016 ---> 2019
5g	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in persevering in achieving long-term goals despite adversity?	CofC student scores comparable to other universities and consistent between years

2016 NSSE Survey Results: CofC Freshmen vs. Other University Freshmen



- Which areas are CofC freshmen **above** average?
- Which areas are CofC freshmen **below** average?

QUESTION	COFC MEAN (95% CI)	SG MEAN (95% CI)	RESULTS ¹	NSSE RESULTS ²
1A	2.18 (2.09-2.27)	2.32 (2.28-2.36)	CofC Lower	p<0.05
1B	3.01 (2.93-3.09)	2.84 (2.81-2.87)	CofC Higher	p<0.001
1C	2.73 (2.65-2.81)	2.70 (2.67-2.73)	No Difference	
1D	2.18 (2.09-2.27)	2.19 (2.15-2.23)	No Difference	
2A	2.39 (2.30-2.48)	2.45 (2.41-2.49)	No Difference	
2B	2.43 (2.34-2.52)	2.49 (2.46-2.52)	No Difference	
2C	2.25 (2.16-2.34)	2.34 (2.30-2.38)	No Difference	
3A	1.62 (1.54-1.70)	1.73 (1.70-1.76)	No Difference	p<0.05
3B	2.23 (2.14-2.32)	2.27 (2.24-2.30)	No Difference	
3C	1.38 (1.31-1.45)	1.49 (1.46-1.52)	CofC Lower	p<0.01
4A	2.46 (2.37-2.55)	2.57 (2.54-2.60)	No Difference	p<0.05
4B	2.41 (2.32-2.50)	2.55 (2.51-2.59)	CofC Lower	p<0.01
4C	2.28 (2.19-2.37)	2.40 (2.36-2.44)	No Difference	p<0.05
5A	2.25 (2.16-2.34)	2.40 (2.37-2.43)	CofC Lower	p<0.01
5B	2.44 (2.35-2.53)	2.55 (2.52-2.58)	No Difference	p<0.05
5C	2.66 (2.57-2.75)	2.75 (2.72-2.78)	No Difference	
5D	2.23 (2.14-2.32)	2.34 (2.31-2.37)	No Difference	p<0.05
5E	2.21 (2.11-2.31)	2.33 (2.29-2.37)	No Difference	p<0.05
5F	2.47 (2.37-2.57)	2.51 (2.47-2.55)	No Difference	
5G	2.64 (2.54-2.74)	2.68 (2.65-2.71)	No Difference	

¹Comparison of COFC mean (95% CI) to mean (95% CI) of comparable sustainability group (SG); ²Results from t-tests, note that in most cases non-overlapping 95% CIs correspond to p<0.01

Summary of Findings (COFC Freshmen 2016 vs. Sustainability Cohort):

Before the implementation of the QEP, CofC freshmen were at or below average compared with peers at other institutions in NSSE's Sustainability Cohort. Among College of Charleston freshmen that completed the 2016 NSSE Sustainability Survey, mean scores for 15 of 20 questions were **not significantly different** than a cohort of freshmen from comparable universities. These findings indicate that experience in the majority of the NSSE sustainability topic areas were comparable to freshmen from similar universities across the U.S. For question 1B, the mean score for CofC Freshmen was **higher** than a cohort of freshmen from comparable universities, suggesting that CofC freshmen may be more engaged in group projects than students at other universities. For 4 of 20 questions, mean scores were **lower** among College of Charleston freshmen compared to a cohort of freshmen from comparable universities. These findings suggest CofC freshman in 2016 had below-average experience in the following topic areas:

Topic
1a Engagement in course assignments or activities that evaluate sustainability
3c Bioregion field trip opportunities
4b Institutional emphasis on sustainability education
5a Development and understanding of a just and sustainable society

2019 NSSE Survey Results: CofC Freshmen vs. Other University Freshmen



- Which areas are freshmen **above** average?
- Which areas are freshmen **below** average?

QUESTION	COFC MEAN (95% CI)	SG MEAN (95% CI)	RESULTS ¹	NSSE RESULTS ²
1A	2.51 (2.44-2.58)	2.50 (2.46-2.54)	No Difference	
1B	2.99 (2.92-3.06)	2.97 (2.93-3.01)	No Difference	
1C	2.75 (2.68-2.82)	2.80 (2.76-2.84)	No Difference	
1D	2.40 (2.32-2.48)	2.41 (2.37-2.45)	No Difference	
2A	2.54 (2.46-2.62)	2.56 (2.52-2.60)	No Difference	
2B	2.55 (2.47-2.63)	2.58 (2.54-2.62)	No Difference	
2C	2.44 (2.36-2.52)	2.46 (2.42-2.50)	No Difference	
3A	1.94 (1.86-2.02)	1.88 (1.84-1.92)	No Difference	
3B	2.53 (2.46-2.60)	2.34 (2.30-2.38)	CofC Higher	p<0.001
3C	1.58 (1.51-1.65)	1.51 (1.47-1.55)	No Difference	
4A	2.46 (2.38-2.54)	2.42 (2.38-2.46)	No Difference	
4B	2.92 (2.85-2.99)	2.46 (2.42-2.50)	CofC Higher	p<0.001
4C	2.57 (2.49-2.65)	2.32 (2.28-2.36)	CofC Higher	p<0.001
5A	2.53 (2.46-2.60)	2.38 (2.34-2.42)	CofC Higher	p<0.001
5B	2.55 (2.48-2.62)	2.59 (2.55-2.63)	No Difference	
5C	2.74 (2.67-2.81)	2.85 (2.81-2.89)	No Difference	p<0.05
5D	2.51 (2.43-2.59)	2.38 (2.34-2.42)	CofC Higher	p<0.01
5E	2.50 (2.42-2.58)	2.40 (2.36-2.44)	No Difference	p<0.05
5F	2.77 (2.69-2.85)	2.58 (2.54-2.62)	CofC Higher	p<0.001
5G	2.71 (2.64-2.78)	2.78 (2.74-2.82)	No Difference	

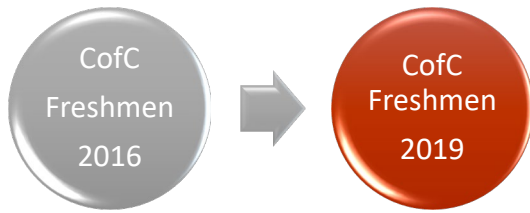
¹Comparison of COFC mean (95% CI) to mean (95% CI) of comparable sustainability group (SG); ²Results from t-tests, note that non-overlapping 95% CIs correspond to p<0.01

Summary of Findings (CofC Freshmen 2019 vs. Sustainability Cohort):

By 2019, following the implementation of the QEP in 2017, CofC freshmen were equaling or exceeding peers in the Sustainability Cohort. Among College of Charleston freshmen that completed the 2019 NSSE Sustainability Survey, mean scores for 14 of 20 questions were **not significantly different** than a cohort of freshmen from comparable universities. These findings indicate that experience in the majority of the NSSE sustainability topic areas were comparable to freshmen from similar universities across the U.S. Mean scores among College of Charleston freshmen in 2019 were not **lower** for **any** question, suggesting no deficiencies in experience compared to a cohort of freshmen from similar universities across the U.S. In fact, for 6 of 20 questions, mean scores for College of Charleston Freshmen in 2019 were significantly **higher** than a cohort of freshmen from comparable universities. These findings suggest above-average experience with the following topic areas, which align with the focus areas of the Sustainability Literacy Institute and components of the triple bottom line:

Topic	
3b	Behavior change to become more sustainable
4b	Institutional emphasis on sustainability education
4c	Institutional emphasis on understanding local economies and/or ecosystems
5a	Development and understanding of a just and sustainable society
5d	Development and understanding of the economic dimensions of sustainability
5f	Development and understanding of social justice issues

NSSE Survey Results: CofC Freshmen Comparison, 2016 vs. 2019



QUESTION	2016 FRESHMAN MEAN (95% CI)	2019 FRESHMAN MEAN (95% CI)	RESULTS ¹
1A	2.18 (2.09-2.27)	2.51 (2.44-2.58)	2019 Higher
1B	3.01 (2.93-3.09)	2.99 (2.92-3.06)	No Difference
1C	2.73 (2.65-2.81)	2.75 (2.68-2.82)	No Difference
1D	2.18 (2.09-2.27)	2.40 (2.32-2.48)	2019 Higher
2A	2.39 (2.30-2.48)	2.54 (2.46-2.62)	No Difference
2B	2.43 (2.34-2.52)	2.55 (2.47-2.63)	No Difference
2C	2.25 (2.16-2.34)	2.44 (2.36-2.52)	2019 Higher
3A	1.62 (1.54-1.70)	1.94 (1.86-2.02)	2019 Higher
3B	2.23 (2.14-2.32)	2.53 (2.46-2.60)	2019 Higher
3C	1.38 (1.31-1.45)	1.58 (1.51-1.65)	2019 Higher
4A	2.46 (2.37-2.55)	2.46 (2.38-2.54)	No Difference
4B	2.41 (2.32-2.50)	2.92 (2.85-2.99)	2019 Higher
4C	2.28 (2.19-2.37)	2.57 (2.49-2.65)	2019 Higher
5A	2.25 (2.16-2.34)	2.53 (2.46-2.60)	2019 Higher
5B	2.44 (2.35-2.53)	2.55 (2.48-2.62)	No Difference
5C	2.66 (2.57-2.75)	2.74 (2.67-2.81)	No Difference
5D	2.23 (2.14-2.32)	2.51 (2.43-2.59)	2019 Higher
5E	2.21 (2.11-2.31)	2.50 (2.42-2.58)	2019 Higher
5F	2.47 (2.37-2.57)	2.77 (2.69-2.85)	2019 Higher
5G	2.64 (2.54-2.74)	2.71 (2.64-2.78)	No Difference

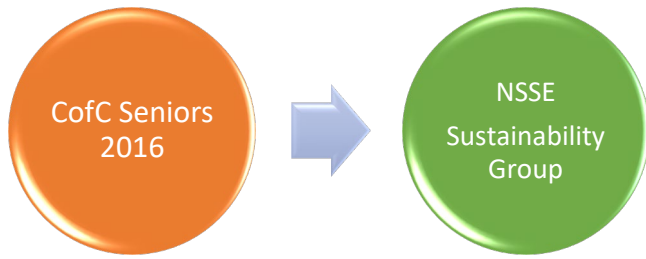
¹Comparison of 2019 mean (95% CI) and 2016 mean (95% CI) for COFC freshmen

Summary of Findings (2016 CofC Freshmen vs. 2019 CofC Freshmen):

Mean scores for College of Charleston freshmen in 2019 were significantly **higher** than 2016 for 12 of 20 questions. These findings suggest significant improvement in the following areas between 2016 and 2019 and strongly suggests that the various interventions of the QEP have had a statistically measurable impact on sustainability literacy gains in CofC freshmen:

Topic
1a Engagement in course assignments or activities that evaluate sustainability
1d Engagement in course assignments or activities that evaluate our responsibilities to future generations
2c Engagement in coursework that emphasizes comprehending ways in which human activities may exceed the carrying capacity of systems that support us
3a Participation in a campus or community sustainability project
3b Behavior change to become more sustainable
3c Bioregion field trip opportunities
4b Institutional emphasis on sustainability education
4c Institutional emphasis on understanding local economies and/or ecosystems
5a Development and understanding of a just and sustainable society
5d Development and understanding of the economic dimensions of sustainability
5e Development and understanding of the skills to help organizations become more sustainable
5f Development and understanding of social justice issues

2016 NSSE Survey Results: CofC Seniors vs. Other University Seniors



- Which areas are seniors leaving **above** average?
- Which areas are seniors leaving **below** average?

QUESTION	COFC MEAN (95% CI)	SG MEAN (95% CI)	RESULTS ¹	NSSE RESULTS ²
1A	2.18 (2.09-2.27)	2.38 (2.35-2.41)	CofC Lower	p<0.001
1B	3.27 (3.19-3.35)	3.30 (3.27-3.33)	No Difference	
1C	3.09 (3.01-3.17)	3.04 (3.01-3.07)	No Difference	
1D	2.25 (2.15-2.35)	2.40 (2.37-2.43)	CofC Lower	p<0.01
2A	2.53 (2.43-2.63)	2.62 (2.59-2.65)	No Difference	
2B	2.55 (2.45-2.65)	2.65 (2.62-2.68)	No Difference	
2C	2.35 (2.25-2.45)	2.46 (2.43-2.49)	No Difference	p<0.05
3A	1.72 (1.63-1.81)	1.72 (1.69-1.75)	No Difference	
3B	2.42 (2.33-2.51)	2.32 (2.29-2.35)	No Difference	p<0.05
3C	1.60 (1.51-1.69)	1.57 (1.54-1.60)	No Difference	
4A	2.27 (2.18-2.36)	2.53 (2.50-2.56)	CofC Lower	p<0.001
4B	2.31 (2.22-2.40)	2.55 (2.52-2.58)	CofC Lower	p<0.001
4C	2.20 (2.11-2.29)	2.40 (2.37-2.43)	CofC Lower	p<0.001
5A	2.29 (2.20-2.38)	2.46 (2.43-2.49)	CofC Lower	p<0.001
5B	2.82 (2.73-2.91)	2.93 (2.90-2.96)	No Difference	p<0.05
5C	2.78 (2.69-2.87)	2.87 (2.84-2.90)	No Difference	
5D	2.22 (2.13-2.31)	2.40 (2.37-2.43)	CofC Lower	p<0.001
5E	2.24 (2.15-2.33)	2.36 (2.33-2.39)	No Difference	p<0.05
5F	2.55 (2.46-2.64)	2.64 (2.61-2.67)	No Difference	
5G	2.69 (2.59-2.79)	2.77 (2.74-2.80)	No Difference	

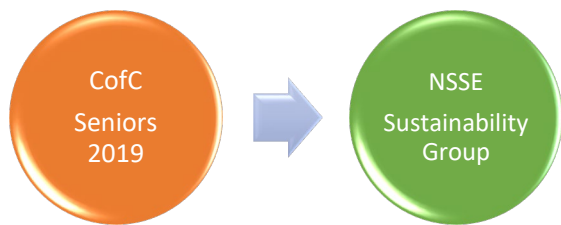
¹Comparison of COFC mean (95% CI) to mean (95% CI) of comparable sustainability group (SG); ²Results from t-tests, note that non-overlapping 95% CIs correspond to p<0.01

Summary of Findings (CofC Seniors in 2016 vs. Sustainability Cohort):

Among College of Charleston seniors that completed the 2016 NSSE Sustainability Survey (pre-QEP), mean scores for 13 of 20 questions were **not significantly different** than a cohort of seniors from comparable universities. These findings indicate that experiences for the majority of the NSSE sustainability topic areas were comparable to seniors from similar universities across the U.S. For 7 of 20 questions, mean scores were **lower** among College of Charleston seniors compared to a cohort of seniors from comparable universities. These findings suggest CofC seniors in 2016 had below-average experience in the following topic areas:

Topic
1a Engagement in course assignments or activities that evaluate sustainability
1d Engagement in course assignments or activities that evaluate our responsibilities to future generations
4a Institutional emphasis on taking responsibility for the welfare of your communities
4b Institutional emphasis on sustainability education
4c Institutional emphasis on understanding local economies and/or ecosystems
5a Development and understanding of a just and sustainable society
5d Development and understanding of the economic dimensions of sustainability

2019 NSSE Survey Results: CofC Seniors vs. Other University Seniors



- Which areas are seniors leaving **above** average?
- Which areas are seniors leaving **below** average?

QUESTION	COFC MEAN (95% CI)	SG MEAN (95% CI)	RESULTS ¹	NSSE RESULTS ²
1A	2.38 (2.30-2.46)	2.45 (2.41-2.49)	No Difference	
1B	3.38 (3.32-3.44)	3.21 (3.17-3.25)	CofC Higher	p<0.001
1C	3.12 (3.06-3.18)	3.04 (3.01-3.07)	No Difference	p<0.05
1D	2.52 (2.44-2.60)	2.48 (2.44-2.52)	No Difference	
2A	2.68 (2.60-2.76)	2.60 (2.56-2.64)	No Difference	
2B	2.67 (2.60-2.74)	2.64 (2.60-2.68)	No Difference	
2C	2.54 (2.46-2.62)	2.43 (2.39-2.47)	No Difference	p<0.05
3A	1.95 (1.87-2.03)	1.82 (1.78-1.86)	CofC Higher	p<0.01
3B	2.63 (2.56-2.70)	2.40 (2.36-2.44)	CofC Higher	p<0.001
3C	1.70 (1.63-1.77)	1.54 (1.50-1.58)	CofC Higher	p<0.001
4A	2.43 (2.36-2.50)	2.37 (2.33-2.41)	No Difference	
4B	2.78 (2.71-2.85)	2.43 (2.39-2.47)	CofC Higher	p<0.001
4C	2.51 (2.44-2.58)	2.32 (2.28-2.36)	CofC Higher	p<0.001
5A	2.52 (2.45-2.59)	2.36 (2.32-2.40)	CofC Higher	p<0.001
5B	2.83 (2.76-2.90)	2.79 (2.75-2.83)	No Difference	
5C	2.88 (2.81-2.95)	2.85 (2.81-2.89)	No Difference	
5D	2.52 (2.45-2.59)	2.40 (2.36-2.44)	CofC Higher	p<0.001
5E	2.44 (2.36-2.52)	2.40 (2.36-2.44)	No Difference	
5F	2.76 (2.69-2.83)	2.62 (2.58-2.66)	CofC Higher	p<0.001
5G	2.80 (2.73-2.87)	2.80 (2.76-2.84)	No Difference	

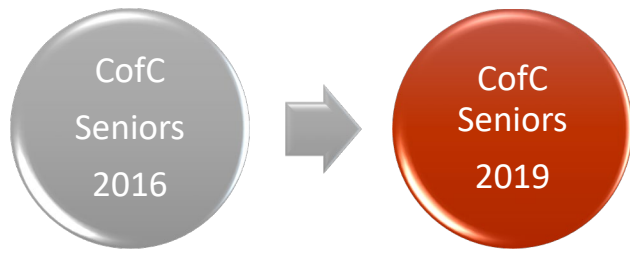
¹Comparison of COFC mean (95% CI) to mean (95% CI) of comparable sustainability group (SG); ²Results from t-tests, note that non-overlapping 95% CIs correspond to p<0.01

Summary of Findings (CofC Seniors in 2019 vs. Sustainability Group):

Among College of Charleston seniors that completed the 2019 NSSE Sustainability Survey, mean scores for 11 of 20 questions were **not significantly different** than a cohort of seniors from comparable universities. These findings indicate that experience in the majority of the NSSE sustainability topic areas were comparable to seniors from similar universities across the U.S. Mean scores among College of Charleston seniors in 2019 were not **lower** for **any** question, suggesting no deficiencies in experience compared to a cohort of seniors from similar universities across the U.S. In fact, for 9 of 20 questions, mean scores for College of Charleston seniors in 2019 were significantly **higher** than a cohort of seniors from comparable universities. These findings suggest above-average experience with the following topic areas:

Topic
1b Make significant contributions to group assignments.
3a Participation in a campus or community sustainability project
3b Behavior change to become more sustainable
3c Bioregion field trip opportunities
4b Institutional emphasis on sustainability education
4c Institutional emphasis on understanding local economies and/or ecosystems
5a Development and understanding of a just and sustainable society
5d Development and understanding of the economic dimensions of sustainability
5f Development and understanding of social justice issues

NSSE Survey Results: CofC Senior Comparison, 2016 vs. 2019



QUESTION	2016 SENIORS MEAN (95% CI)	2019 SENIORS MEAN (95% CI)	RESULTS ¹
1A	2.18 (2.09-2.27)	2.38 (2.30-2.46)	2019 Higher
1B	3.27 (3.19-3.35)	3.38 (3.32-3.44)	No Difference
1C	3.09 (3.01-3.17)	3.12 (3.06-3.18)	No Difference
1D	2.25 (2.15-2.35)	2.52 (2.44-2.60)	2019 Higher
2A	2.53 (2.43-2.63)	2.68 (2.60-2.76)	No Difference
2B	2.55 (2.45-2.65)	2.67 (2.60-2.74)	No Difference
2C	2.35 (2.25-2.45)	2.54 (2.46-2.62)	2019 Higher
3A	1.72 (1.63-1.81)	1.95 (1.87-2.03)	2019 Higher
3B	2.42 (2.33-2.51)	2.63 (2.56-2.70)	2019 Higher
3C	1.60 (1.51-1.69)	1.70 (1.63-1.77)	No Difference
4A	2.27 (2.18-2.36)	2.43 (2.36-2.50)	No Difference
4B	2.31 (2.22-2.40)	2.78 (2.71-2.85)	2019 Higher
4C	2.20 (2.11-2.29)	2.51 (2.44-2.58)	2019 Higher
5A	2.29 (2.20-2.38)	2.52 (2.45-2.59)	2019 Higher
5B	2.82 (2.73-2.91)	2.83 (2.76-2.90)	No Difference
5C	2.78 (2.69-2.87)	2.88 (2.81-2.95)	No Difference
5D	2.22 (2.13-2.31)	2.52 (2.45-2.59)	2019 Higher
5E	2.24 (2.15-2.33)	2.44 (2.36-2.52)	2019 Higher
5F	2.55 (2.46-2.64)	2.76 (2.69-2.83)	2019 Higher
5G	2.69 (2.59-2.79)	2.80 (2.73-2.87)	No Difference

¹Comparison of 2019 mean (95% CI) to 2016 mean (95% CI) among COFC seniors

Summary of Findings (2016 CofC Seniors vs. 2019 CofC Seniors):

Mean scores for College of Charleston seniors in 2019 were significantly **higher** than 2016 for 11 of 20 questions. These findings suggest significant improvement in the following areas and strongly suggest that various QEP interventions have had a measurable impact on sustainability literacy gains in CofC students as they progress through their CofC career:

Topic
1a Engagement in course assignments or activities that evaluate sustainability
1d Engagement in course assignments or activities that evaluate our responsibilities to future generations
2c Engagement in coursework that emphasizes comprehending ways in which human activities may exceed the carrying capacity of systems that support us
3a Participation in a campus or community sustainability project
3b Behavior change to become more sustainable
4b Institutional emphasis on sustainability education
4c Institutional emphasis on understanding local economies and/or ecosystems
5a Development and understanding of a just and sustainable society
5d Development and understanding of the economic dimensions of sustainability
5e Development and understanding of the skills to help organizations become more sustainable
5f Development and understanding of social justice issues

Moving Forward with Sustainability Literacy at the College of Charleston

Recommendations Based on NSSE Survey Results

The NSSE sustainability data clearly demonstrate widespread gains in sustainability education at CofC since the implementation of the QEP. This evidence confirms the effectiveness of the QEP, supporting the College's continued investment in the Sustainability Literacy QEP. However, the NSSE data also suggest areas in which to seek improvement as the QEP matures, through faculty professional development and other forms of institutional support, including training for upper-level administration on linkages between institutional core values and the QEP.

For both freshmen and seniors, the weakest metrics in the 2019 NSSE data relate to opportunities to participate in sustainability-related service or in bioregional field trips (means of 1.94 and 1.58 of 4 among freshmen and 1.70 and 1.95 of 4 among seniors on 3A and 3C, respectively). This weakness suggests opportunities for the CSD and Center for Civic Engagement to partner with the First Year Experience (FYE), Residential Life, and capstone courses to increase student participation in the annual spring day of service, which addresses SLO 7 of the QEP (*Advocate for resiliency at various levels*). Similarly, relatively few freshmen and seniors reported an institutional emphasis on taking responsibility for the welfare of their communities (means of 2.46 of 4 among freshmen and 2.43 of 4 among seniors on 4A). Here faculty engagement with SLO 7 as well as SLO 2 (*Identify key ways to be more sustainable in personal life and on-campus*) in their courses could lead to improvement on this element of the student experience.

Freshmen also reported relatively few opportunities to complete assignments that evaluate their responsibilities to future generations (mean of 2.40 of 4 on 1D). Here gains can be made by faculty engaging more with SLO 5 (*Demonstrate the impact of production – consumption practices on social, economic, and/or ecological systems*) and SLO 6 (*Design a solution to a given sustainability problem*) as well as SLO 7 in classroom settings. Similarly, freshmen reported relatively little emphasis in their courses on the ways in which human activities may exceed the carrying capacity of systems that support human existence (mean of 2.44 of 4 on 2C). Here faculty engagement with SLO 3 (*Identify policies and practices that have led to unsustainability*) and SLO 4 (*Synthesize knowledge from two or more systems to address a sustainability problem*) could provide learning gains.

The 2019 NSSE data for seniors also suggest areas of potential improvement in the context of QEP SLOs. Most immediately, few seniors report completing an assignment that evaluates the sustainability of some activity (mean of 2.38 out of 4 on 1A). This suggests that more faculty can be trained to engage SLOs 3, 4, and 5 in upper-level courses. Seniors also reported relatively few opportunities to acquire skills to help an organization become more sustainable (mean of 2.44 out of 4 on 5E). This suggests that SLOs 6 and 7 can be better utilized within courses to help equip students with relevant skills to solve sustainability problems and advocate for resiliency in an organizational setting. In addition, this objective can be further advanced through support and promotion of the Sustainability and 21st Century Business Solutions certificate initiated as part of the QEP offered via the Center for Sustainable Development.

Appendix 1:

NSSE Sustainability Questions – Alignment with QEP Student Learning Outcomes

Q#	QUESTION TEXT	QEP SLO(S)
1A	In your experience at your institution during the current school year, about how often have you completed an assignment that evaluates the sustainability of some activity?	2, 3, 4, 5
1B	In your experience at your institution during the current school year, about how often have you made significant contributions in a group project?	
1C	In your experience at your institution during the current school year, about how often have you integrated knowledge from multiple academic disciplines in working on a project?	4, 7
1D	In your experience at your institution during the current school year, about how often have you completed an assignment that evaluates our responsibilities to future generations?	5, 6, 7
2A	During the current school year, how much has your coursework emphasized understanding the complex relationships between economic, social, and ecological systems?	1, 4, 6, 7
2B	During the current school year, how much has your coursework emphasized evaluating the moral dimensions of social or environmental problems?	3, 5, 7
2C	During the current school year, how much has your coursework emphasized comprehending ways in which human activities may exceed the carrying capacity of systems that support us?	3, 5
3A	During the current school year, about how often have you participated in a campus or community sustainability project?	6, 7
3B	During the current school year, about how often have you altered your behavior to become more sustainable?	2, 7
3C	During the current school year, about how often have you gone on a field trip in your bioregion?	6, 7
4A	To what extent does your institution emphasize taking responsibility for the welfare of your communities?	2, 7
4B	To what extent does your institution emphasize learning about sustainability?	1-7
4C	To what extent does your institution emphasize understanding local economies and/or ecosystems?	1, 3, 4
5A	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in articulating a vision of a just and sustainable society?	1-7
5B	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring skills to lead or facilitate group activities?	6
5C	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding the consequences of your choices?	2, 3, 4, 5, 6
5D	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding the economic dimensions of sustainability?	1, 3, 4, 5
5E	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in acquiring the skills to help organizations become more sustainable?	3, 6, 7
5F	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding issues of social justice?	3, 4, 5, 7
5G	To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in persevering in achieving long-term goals despite adversity?	2, 7

Appendix 2:

Summary of Cohort Comparisons

		CofC Freshmen against Benchmark		CofC Seniors against Benchmark		CofC Against Benchmark 2016 vs 2019	
		2016	2019	2016	2019	Freshmen	Seniors
Integrity	5a	Below Average	Above Average	Below Average	Above Average	Above Average	Above Average
Academic Excellence	5e	No difference	No difference	No difference	No difference	Above Average	Above Average
Liberal Arts Education	1d	No difference	No difference	Below Average	No difference	Above Average	Above Average
Diversity, Equity & Inclusion	5a	Below Average	Above Average	Below Average	Above Average	Above Average	Above Average
	5f	No difference	Above Average	No difference	Above Average	Above Average	Above Average
Student Centeredness	3a	No difference	No difference	No difference	Above Average	Above Average	Above Average
	3b	No difference	Above Average	No difference	Above Average	Above Average	Above Average
	5e	No difference	No difference	No difference	No difference	Above Average	Above Average
	5f	No difference	Above Average	No difference	Above Average	Above Average	Above Average
Innovation	3a	No difference	No difference	No difference	Above Average	Above Average	Above Average
	3b	No difference	Above Average	No difference	Above Average	Above Average	Above Average
	5d	No difference	Above Average	Below Average	Above Average	Above Average	Above Average
	5e	No difference	No difference	No difference	No difference	Above Average	Above Average
Public Mission	1d	No difference	No difference	Below Average	No difference	Above Average	Above Average
	5a	Below Average	Above Average	Below Average	Above Average	Above Average	Above Average
	5d	No difference	Above Average	Below Average	Above Average	Above Average	Above Average
	5e	No difference	No difference	No difference	No difference	Above Average	Above Average
	5f	No difference	Above Average	No difference	Above Average	Above Average	Above Average

Below Average	Below Average
Above Average	Above Average
No difference	No difference