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# Inclusive Sustainability: Environmental Justice in Higher Education

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## Abstract

The aim of this paper is to demonstrate why and how efforts at UC Santa Cruz have begun to shift from sustainability as a technical, expert-oriented activity focused on aspects such as built environment, climate, energy, food and water, to

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more of a concern with *inclusive sustainability*, which centers on issues of power dynamics, difference, and ethical considerations. As the campus undergoes significant demographic change (e.g., UCSC's undergraduate population is 66% non-white and 43% are first generation college students), framings of sustainability must resonate with these increasingly diverse populations. The People of Color Sustainability Collective (PoCSC) is a groundbreaking partnership between UCSC's Ethnic Resource Centers, Colleges Nine and Ten, and Sustainability Office. PoCSC's efforts to recognize, celebrate, and validate diverse understandings and expressions of sustainability is a response to evidence of exclusion among certain sectors of our student population. Based on a recent campus-wide survey, this paper compares and contrasts responses between white, non-Hispanic students and students of color in terms of their participation in and perceptions about the environmental sustainability movement, finding that the former participate at a higher rate and rate mainstream environmental concerns such as conservation of biodiversity as more important, while environmental justice issues such as food access were rated more important to students of color. However, many areas of convergence between the two groups was found, notably a broad agreement about the importance of environmental issues.

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**Keywords**

Inclusive sustainability · Diversity · Higher education · People of color sustainability collective · Race · Ethnicity · Environmentalism

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## 1 Introduction

If the sustainability movement had an epicenter, it would arguably be California, a state that has “played an out-sized role over the last century” in promoting sustainability discourse and “embodying sustainability in the eyes of the world” (Greenberg 2013, p. 55). Perhaps no university campus exemplifies the concept of sustainability as the University of California at Santa Cruz (UCSC), recognized by the Environmental Protection Agency, *Forbes Magazine*, the Princeton Review, Sierra Club, and US News and World Report as being a “green” campus both literally (with its verdant 2,000-acre campus) and figuratively, from efforts on waste reduction (with a goal of zero waste by 2020), water conservation, on-campus cogeneration energy production, sustainable food production and sourcing, to having the first organic farm and garden program established on a university campus in the country. UCSC demonstrates ecological leadership on most of the typical areas associated with sustainability—built environment, climate, energy, food and water—joining a surge of green campus initiatives across the U.S. that seek to reduce carbon footprints, offer sustainability-themed degrees and programs, go local and organic, and build capital campaigns.

While such efforts are badly needed, the aim of this paper is to argue that such traditional framings of sustainability must be complemented by simultaneous efforts at *inclusive sustainability*, a concept elaborated below. Breen (2010) argues that campus sustainability movements and initiatives have narrowly defined sustainability in scientific terms and positivistic definitions. Such a definition sidesteps political analysis and is largely devoid of the deeper social contexts in which sustainability is embedded, locating efforts in marketing, operations, and individualist measures (e.g., ride a bike, eat local, use compact fluorescents) rather than “interdisciplinary green democratic education” or challenging structural inequities that promote environmental degradation. Sustainability is, as Scoones (2007, p. 589) puts it, a ‘boundary term’ in which “science meets politics, and politics meets science”; it is a complex term with divergent meanings that reflect “tensions and contradictions...in terms of inclusion and exclusion, of diversity and contestation, and the role of history and geography in shaping its divergent meanings” (Greenberg 2013, p. 57). When sustainability discourse centers predominantly as a technical, expert-oriented activity based on neutral empiricism, the resulting exchange of ideas can be stifled, lacking a robust grappling with issues of power dynamics, difference, and ethical considerations.

In her senior thesis advised by the first author, Pack (2014) undertook 20 semi-structured interviews in Spring 2013 and approximately 450 undergraduate surveys in Fall 2013; her study, despite its limitations, was the first investigating the intersection of race and sustainability at UCSC, and has catalyzed much conversation and subsequent efforts. Pack found that among students who were active environmentally, people of color tended to participate through initiatives with an environmental justice focus (although few such opportunities existed). The overwhelming majority participated in initiatives with a sustainability focus. Students Pack interviewed expressed that the campus environmental movement was “somewhat limited to issues and perspectives of privileged White people.”

These provocative findings dovetailed with anecdotal evidence provided by students to staff (including some of the co-authors of this paper) that point to a potential incommensurability between the campus’ stated dedication to ideals of environmentalism and diversity, and the way that students experience these ideals as actual practices. This paper presents some results from the first campus-wide survey at UCSC on environmental sustainability, which was conducted by the People of Color Sustainability Collective (PoCSC), a groundbreaking partnership between the UCSC Ethnic Resource Centers, Colleges Nine and Ten, and the Sustainability Office. It examines the degree to which students of diverse ethnic backgrounds participate in environmental efforts and the factors that influence such participation in sustainability programs. The paper compares and contrasts responses by students of color and White, non-Hispanic (WNH) students as to the importance of environmental issues to them, how important they perceive these issues to be to the institution, and the racial/ethnic composition of those who participate in sustainability. Finally, it describes a concept coined by PoCSC —“inclusive sustainability”— which entails the recognition, celebration, and validation of diverse understandings and expressions of sustainability. The paper

asserts that environmental sustainability is as much processual, symbolic/cultural, and affective as material, challenging discourses which equate it solely with bio-physical measurements, flows and outputs.

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## 2 Background

In 2014, Directors of the Ethnic Resource Centers<sup>1</sup> (ERCs) organized a student panel with graduating seniors to hear about their experiences at UCSC and ascertain ways that the Resource Centers can better address their needs. One student shared an experience where she was throwing something away at the library and a white male student abruptly and harshly chastised her for not throwing the waste in the correct receptacle. This interaction, akin to a public shaming, caused the student to feel upset, embarrassed, angry, and even caused her to consider transferring to another school. Events such as these inspired the Resource Center Directors to create a social media campaign, #POCsustainability, to create a platform to recognize the contributions people of diverse cultures make to sustainability efforts and for students to share about their experiences and to connect with others with similar experiences.

In March 2015, the ERCs and student leaders behind #POC sustainability held a discussion for 30 participants, most them students of color, who shared their thoughts about the intersection of race, class and environmentalism. The discussion highlighted not just the widespread perception that WNH students and the relatively wealthy dominate the environmental movement on campus, but also how the environmental efforts of people of color and low-income folks (e.g., reusing, reducing consumption, repurposing, limiting waste, etc.) are discounted, considered strategies of just coping with poverty, and even considered “unhygienic.” Many efforts to be sustainable on campus are consumer-based and are financially out of reach for low-income students—some who reported being shamed by other students for what they eat and where they buy their food and other items. Students commented that in courses, definitions of the ‘environment’ were taken as given and sustainability was portrayed as apolitical, resulting in a lack of critical discussion.

Co-authors Lu and Erickson attended the discussion organized by ERC Directors Kim and Rosser, and ensuing conversations resulted in an unprecedented alliance between these units, bridging the Ethnic Resource Centers, the Sustainability Office, and Colleges Nine and Ten to form the People of Color Sustainability Collective in 2015. PoCSC is an interdisciplinary initiative dedicated to bridging the sustainability, diversity and social justice efforts on campus through a multi-faceted approach that utilizes education and outreach, (curricular, co-curricular, and extracurricular) programming, cross-campus collaboration, and research. PoCSC seeks to showcase the sustainability accomplishments of communities of color and

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<sup>1</sup>Asian-American/Pacific Islander Resource Center, Chicano Latino Resource Center (El Centro), American Indian Resource Center, and African American Resource and Cultural Center.

aims to redefine sustainability to include diverse cultural approaches. By creating spaces where students, staff, and faculty can have critical dialogues regarding race, class, ethnicity, gender, and sustainability, the Collective is working towards re-envisioning UCSC as a leader in both mainstream environmentalism and environmental justice. PoCSC thus seeks to forge a more *inclusive sustainability*, one based on nuanced and diverse socio-cultural and ecological understandings, and one that creates a space for a multiplicity of approaches to steward our planet.

Not only does PoCSC host events and programs on campus that raise awareness and create spaces for underrepresented voices in the environmental movement, the initiative also undertakes research to foster a critical dialogue between faculty, administrators and students; better inform programmatic design; and fill a gap in the scholarship about diversity and sustainability at college campuses. In Spring 2016, PoCSC worked with the Institutional Research, Assessment & Policy Studies (IRAPS) office to develop and implement a campus-wide survey to measure student participation in and perceptions of the campus sustainability movement. Given its focus on empowering undergraduates, PoCSC involved students in the development and outreach for the survey.

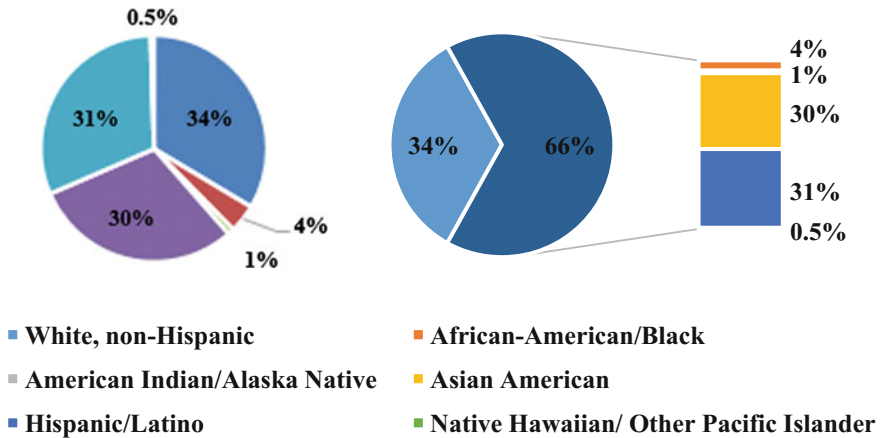
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### 3 Methodology

In spring 2016, a census survey of the undergraduate campus community ( $n = 15,746$ ) was conducted. Over the course of five weeks, all enrolled students were invited to take an online survey where they were asked to share their perceptions of and participation in the environmental sustainability movement on campus. The survey response rate was 21% ( $n = 3,266$ ). UCSC's IRAPS office oversaw survey design, administration, and data analysis.

At the time of the survey, the undergraduate student population consisted of three fairly large groups: 30% Asian American, 31% Hispanic/Latino, and 34% White, non-Hispanic (WNH) students. African-American students constituted close to four percent, American Indian/Alaska Native students were one percent of the population, and Native Hawaiians/Other Pacific Islanders were under one percent (Fig. 1). Students of color made up two-thirds of the campus undergraduate population.

Survey respondents were representative of the student population in terms of race and ethnicity, first generation status, transfer status, and class level. As typical for student surveys, men participated at somewhat lower rates compared to women, and ethnic groups slightly varied in their gender composition. Weighted data was used for our analysis to ensure proper representation of the student population in terms of gender and ethnicity. In addition to the survey data, the analyses incorporated institutional data on students' demographic background (gender, race/ethnicity, first generation status) and academic path (major, college, class level, and transfer status).



**Fig. 1** Undergraduate population by race/ethnicity in Spring 2016

Student participation in the sustainability movement was measured based on self-reported participation in various specific organizations. Students could select more than one organization where they were a member and/or an event participant. If a student indicated being a member in at least one of the student organizations, programs or campus units, it was coded as an indicator of “membership” and a dichotomous variable was created differentiating members from non-members. If a student indicated being a member in some organizations and/or a participant in at least one of the organizations, this was coded as an indicator of “broad participation.” This variable also had two categories to distinguish a participant and non-participant.

In the analyses of ethnic group differences, a dichotomous categorical variable: PoC vs WNH, or a trichotomous variable representing three large ethnic groups was used, shown on Fig. 1. Multivariate logistic regression, ANOVA and chi-square analyses were conducted. The survey results presented here are part of larger, ongoing research efforts using interviews and focus groups at UCSC to better understand these processes.

## 4 Results

Student participation in campus organizations and programs is shaped by institutional history and policies, compositional ethnic diversity, interpersonal relations, and personal beliefs and values. The paper presents results in five subsections, each addressing a research question:

1. Is there evidence of inclusive participation by students of diverse ethnic backgrounds in a multitude of organizations and programs on campus?

2. What are the factors that influence student participation in the environmental sustainability movement? The following background factors were considered: gender, race, first generation status; academic path: class level, transfer status, major, college affiliation; personal experiences: prior participation in high school, experience with environmental health issues and environmental threats; and importance of environmental issues.
3. How important is environmental sustainability to students as individuals? Do specific issues vary in importance between students of color and WNH students? What environmental issues do students perceive as university priorities, and how do these overlap with their own?
4. What is the impact of student participation in programs on their learning about sustainability?
5. Are there differences in students' perception of ethnic diversity in student organizations?

### **4.1 Student Participation in Organizations and Programs**

Student participation in the environmental sustainability movement on campus was measured based on student responses about either having been an active member in organizations and programs, or having participated in campus events and programs. Overall student participation was very high; about 50% of students participated in at least one program, event or organization. It was found that 54% of WNH students participated overall in environmental sustainability efforts compared to 49% of students of color, a statistically significant difference. Table 1 shows the breakdown by different racial/ethnic groups. Relatively fewer students (11%) were members of campus programs and organizations. Students of color were not any more or less likely than WNH students to serve as members of these programs. The similarity of ethnic composition of members and participants to the student population is shown in Chart 2 (Fig. 2).

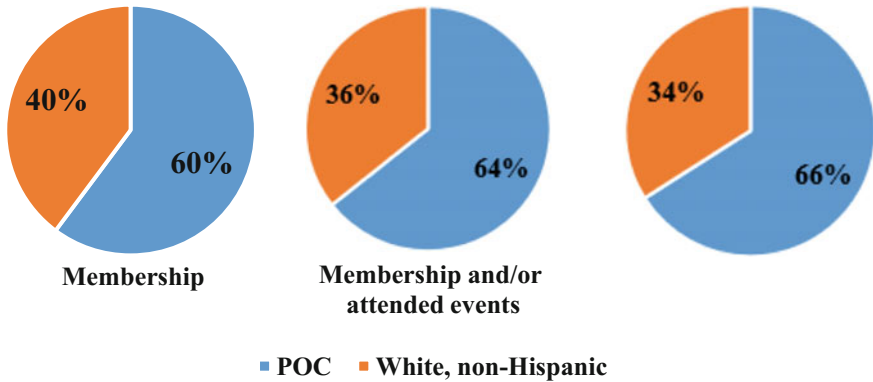
Specific organizations in six main categories were clustered based on their focus and type: (1) student-led organizations, (2) staff-run campus units, (3) education programs, (4) media projects, (5) food-centered programs, (6) garden projects, and (7) recreation trips by OPERS. As shown in Table 2, student participation varied by focus and type, and some variation in participation (3–6%) based on ethnicity.

About the same proportion of students reported having been active in environmental sustainability before and during their college experience. While in high school, 46% of students of color and 49% of WNH students participated in environmental sustainability related organizations and programs. When asked why they participate in environmental sustainability programs at UCSC and what is most valuable about that participation, students cited learning about sustainability; giving back and making a difference; and meeting new people and networking.

**Table 1** Rates of participation by ethnic group and for international students (N of respondents in parentheses)

	All domestic (%)	Domestic students							WNH ( <i>n</i> = 1,071) (%)	International students ( <i>n</i> = 123) (%)
		African American/Black ( <i>n</i> = 111) (%)	American Indian/Alaskan Native ( <i>n</i> = 29) (%)	Asian American ( <i>n</i> = 896) (%)	Hispanic/Latino ( <i>n</i> = 961) (%)	Pacific Islander ( <i>n</i> = 18) (%)				
Broad Participation	51	57	64	47	51	63	54	43		
Membership	11	8	6	11	12	15	13	12		





**Fig. 2** Membership, Broad Participation, and Student Population by Race/Ethnicity

**4.2 Factors Associated with Student Participation**

In order to identify key factors associated with student participation in the environmental sustainability movement on campus, logistic regression modeling was used to examine the following: (1) factors associated with current participation in student organizations (as measured by membership or attendance of an event), and (2) current membership in environmental sustainability-related programs (Table 3).

The first model examined factors associated with broad participation (member and/or participant in a sustainability organization), and found that ethnicity and first generation status were not significant predictors (Table 4).

Within the three large racial/ethnic subpopulations (Asian American, Hispanic/Latino, and WNH students) and taking into account students’ first generation status, the following significant predictors were found:

**Table 2** Rates of Broad Participation (attended or members), by Program Type and Ethnicity

	Campus (%)	Students of Color (%)	WNH (%)
Overall participation*	51	49	54
<b>Participation by Program Type</b>			
Gardens*	36	34	40
Student organizations	25	26	24
Staff-run campus units (Sustainability office, PoCSC, Common ground)	17	19	15
Food programs	20	19	22
OPERS recreation trips	16	15	18
Education programs	10	10	10
Media*	9	10	7
CA Student Sustainability Coalition	6	6	4

\* statistically significant differences at p < 0.05

**Table 3** Variables in Logistic Regression Modeling

Variable	Description	Variable Levels
<b>PREDICTORS</b>		
Prior_Engmnt	Engagement in environment sustainability-related activities in High School	1 = Membership or attendance in HS 0 = No prior membership or attendance in HS
Community_Health	Environmental health threats impacted home community	1 = Impacted home community 0 = Did not impact
Personal_Health	Environmentally-caused health problems in self or family	1 = Student or someone in immediate family suffers from environmentally-caused health problems 0 = Neither student nor family members suffer from environmentally-caused health problems
Concerns	Average concern across 5 topics: Environmental Health, Agroecology, Conservation and Protection of Biodiversity, Access to Healthy Food, and Environmental Justice	4 = Very concerned 3 = Concerned 2 = Somewhat concerned 1 = Not concerned
Env_College	Affiliated with an environmentally-focused college (Rachel Carson College)	1 = Environmentally-focused college 0 = Other college
Major_ENVS	Environmental Studies major or other	1 = Environmental Studies major 0 = Other major
Senior	Time at UCSC	1 = Senior 0 = Frosh, Sophomore, or Junior
<b>CONTROL VARIABLES</b>		
AsianAmerican	Race/Ethnicity (Asian American)	1 = Not Asian American 0 = Asian American
HispanicLatino	Race/Ethnicity (Hispanic/Latino)	1 = Not Hispanic/Latino 0 = Hispanic/Latino
Gender	Gender	1 = Women 0 = Men
First_Gen	1st generation status	1 = Not 1st generation 0 = 1st generation
Transfer	Transfer status	1 = Started as freshman 0 = Transfer student
<b>OUTCOMES</b>		
ORG_Part	<b>Broad participation (attendance or membership)</b>	1 = Attended or was a member of environmental sustainability-related programs or organizations 0 = Did not participate
ORG_Member	<b>Membership</b>	1 = Was a member of environmental sustainability-related programs or organizations 0 = Was not a member

**Table 4** Predictors of broad participation

	$\beta$	S.E.	Sig.	Exp( $\beta$ )
Prior_Engmnt**	0.739	0.098	0.000	2.095
Community_Health*	0.282	0.132	0.033	1.326
Personal_Health*	0.235	0.097	0.015	1.264
Concerns**	0.558	0.077	0.000	1.747
Env_College**	0.559	0.152	0.000	1.750
Major_ENVS**	1.656	0.324	0.000	5.236
Senior**	0.627	0.112	0.000	1.871
AsianAmerican	0.195	0.120	0.103	1.216
HispanicLatino	0.133	0.127	0.295	1.143
Gender**	0.470	0.097	0.000	1.599
First_Gen	0.171	0.106	0.106	1.187
Transfer**	0.736	0.140	0.000	2.088
Constant	-3.704	0.330	0.000	0.025

- Environmental Studies majors were 5.2 times more likely to participate compared to all other students.
- Students who attended Rachel Carson College, a residential college focused on environmental sustainability, also were 1.8 times more likely to participate than students affiliated with other colleges.
- Seniors were about 2 times more likely to participate than other students.
- Transfer students were about 2 times more likely to participate than students who started as freshmen at UCSC.
- Students from communities impacted by environmental health issues were 1.3 times more likely to participate than their peers who were not impacted. Additionally, students who experienced personal and/or had immediate family who had experienced environmental health issues, were 1.3 times more likely to participate.
- Students who participated in programs or organizations in high school were twice as likely to continue participating once attending UCSC.
- Women were 1.6 times more likely to participate in organizations/events, which is congruent with previous studies (e.g., Zelezny 2000).
- Students who are very concerned with environmental sustainability issues are also 1.7 times more likely to participate.

Similarly, ethnicity and first generation status were not significant predictors of membership (Table 5). Taking into account multiple factors, the same significant factors were found to be important as in the broad participation model.

### 4.3 Importance of Environmental Sustainability to Students and to Campus

Students evaluated the overall importance and specific topics related to environmental sustainability and sustainable infrastructure issues and distinguished

**Table 5** Predictors of Membership

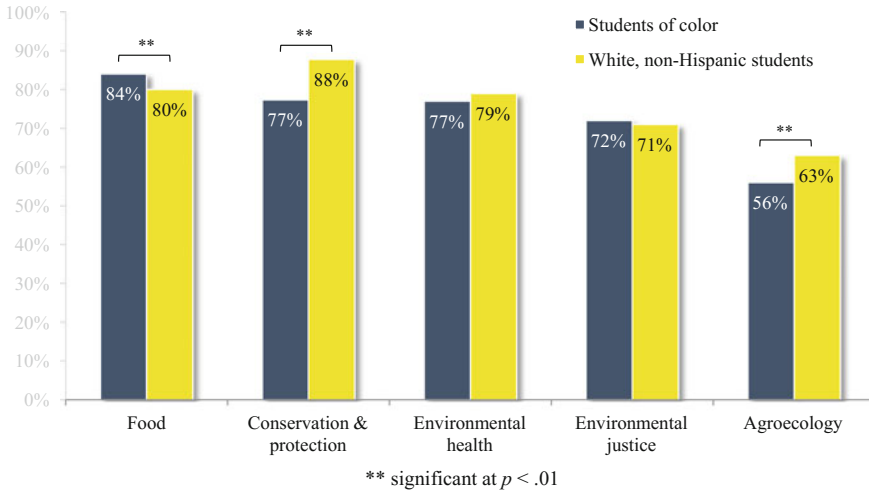
	$\beta$	S.E.	Sig.	Exp( $\beta$ )
Prior_Engmnt**	0.584	0.124	0.000	1.792
Concerns**	0.614	0.108	0.000	1.848
Env_College**	0.464	0.161	0.004	1.590
Major_ENVS**	1.849	0.192	0.000	6.352
Senior**	0.602	0.129	0.000	1.826
AsianAmerican	0.268	0.158	0.089	1.308
HispanicLatino	0.120	0.155	0.440	1.127
Gender*	0.267	0.124	0.031	1.306
First_Gen	0.049	0.135	0.715	1.051
Transfer*	0.346	0.174	0.047	1.413
Constant	-5.265	0.429	0.000	0.005

**Table 6** Importance of five environmental sustainability topics (% of “important” or “very important”)

	All UCSC students		Difference (%)
	To Me (%)	To UCSC (%)	
Environmental sustainability	<b>94</b>	<b>94%</b>	<b>0</b>
<b>Access</b> to healthy, affordable, and culturally appropriate <b>food</b>	84	81	-3
<b>Conservation</b> of natural resources and <b>protection</b> of biodiversity and habitats	81	88	+7
<b>Environmental health</b> (including asthma, cancer, toxic exposures, chemical exposures in the workplace, access to clean water)	79	83	+4
<b>Environmental justice</b> (including rights of American Indians/Indigenous People, equitable distribution of land and resources, equitable environmental policy making)	73	75	+2
<b>Agroecology</b>	59	79	+20

between their own priorities and those of the campus. Overall, the vast majority (94–96%) of all students considered environmental sustainability to be important, both to themselves and to the campus (Table 6). In other words, there was no gap in students placing high importance on environmental sustainability and their perception of high importance of this issue to the campus as a whole. Students of color and WNH students found environmental sustainability similarly important to themselves and to the campus.

The overlap between students’ concerns and their perceptions of campus priorities was further explored. Of the students who rated each of the environmental sustainability topics as “important” or “very important,” the vast majority (82 to 97%) reported that the campus *also* found these issues “important” or “very



**Fig. 3** Percentage of Students who Rated Environmental Sustainability Issues as “Important”/ “Very Important” to them, by Ethnicity

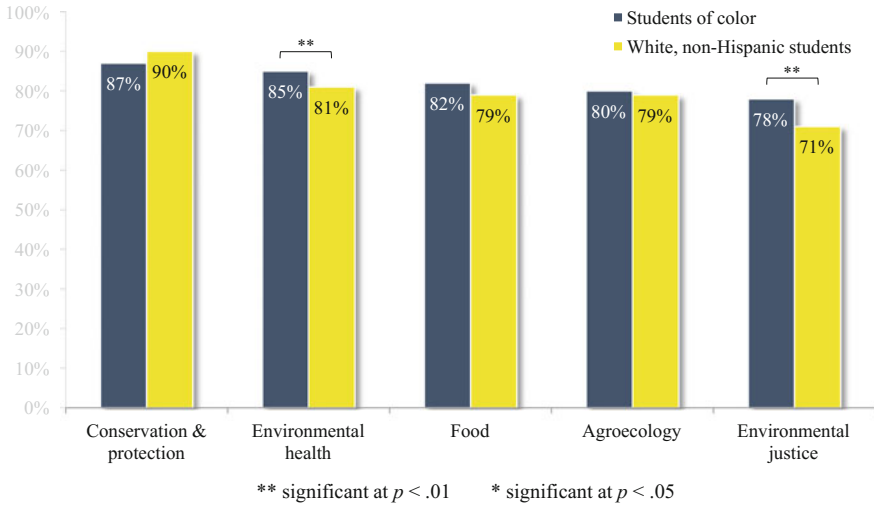
important,” suggesting that nearly all students who are concerned about environmental sustainability reported that campus priorities align with their own.

Students valued some topics more than others. Of the five environmental sustainability topics, the top three topics were “access to healthy food,” “conservation and protection of biodiversity,” and “environmental health” for both personal and campus-wide importance. Agroecology, was relatively less important to students, but the majority of them reported it to be important to the campus.

Perceptions of three of the five environmental sustainability issues differed between students of color and WNH students (Fig. 3). Specifically, “conservation and protection of biodiversity,” and “agroecology” were rated as important/very important by more WNH students, while more students of color rated “access to healthy food” as important/very important. Environmental health and environmental justice were similarly important to students in both groups.

Perceptions of campus importance of “environmental health” and “environmental justice” differed between students of color and WNH students (see Fig. 4). These topics were rated 4–7% higher in importance to the campus by students of color than WNH students.

Students considered sustainable infrastructure to be a key concern: at least 70% of all students rated renewable energy, green building design, sustainable transportation, waste reduction and prevention, and sustainable water use as “important/very important” to themselves or to UCSC (Table 7). Of the five issues presented on the survey, students rated sustainable water use, waste reduction and prevention, and renewable energy as the most important to both themselves and to the campus.



**Fig. 4** Percentage of Students who Rated Environmental Sustainability Issues as “Important”/ “Very Important” to Campus, by Ethnicity

**Table 7** Students’ratings of the importance of sustainable infrastructure issues to themselves and to UCSC

	All UCSC students		Students of color		WNH students	
	To Me (%)	To UCSC (%)	To Me (%)	To UCSC (%)	To Me (%)	To UCSC (%)
Sustainable water use	90	92	89	93	91	91
Waste reduction and prevention	85	91	85	92	86	90
Renewable energy	85	84	83	85	90	83
Sustainable transportation	83	79	81	82	87	73
Green building design	71	77	67	78	77	75

#### 4.4 Impact of Student Participation in Programs and Events on Learning About Sustainability

Given that students seek opportunities to learn about environmental sustainability, they were asked to what extent they learned about various issues through participation in campus organizations, clubs and programs. Table 8 shows percentage of respondents who heard about these issues “often” or “sometimes” as opposed to “seldom” or “never” (not shown).

**Table 8** Impact of Participation in Organizations on Student Learning by Ethnicity

Through your participation in campus organizations, clubs, and programs on the environment and sustainability, to what extent have you learned about the following issues:	Total campus (%)	Students of color (%)	WNH (%)
	Percent “often” or “sometimes”		
Race and class-based inequalities in the USA	71	71	71
Race and class-based inequalities globally	66	66	65
American Indian/Indigenous peoples’views on environment and sustainability	41	40	40
Non-industrialized countries’views on environment and sustainability	38	38	38
Biodiversity (ecology, restoration, protected areas, conservation, etc.)	64	6	68*
Impact on human life (health, food, housing, etc.)	73	73	72

\* Statistically significant at p <0 .01 level

Students of color and WNH students were almost identical in terms of responses for all categories except “Biodiversity,” where WNH students were statistically more likely than students of color to report learning about issues of conservation and ecology “often” or “sometimes” through their participation in campus organizations.

Two topics, about American Indian/Indigenous people’s views and about non-industrialized countries’ views around issues of environmental sustainability were reported as relatively less frequently discusses compared to other topics.

#### 4.5 *Students’Perceptions of Ethnic Diversity in Student Participation*

Students reported their perceptions of who participated in environmental sustainability-related activities at UCSC. Specifically, students agreed or disagreed with two statements: “Students of my (racial) ethnic background participate in environmental sustainability-related activities at UCSC” and “Students of all (racial) ethnic backgrounds participate in environmental sustainability-related activities at UCSC.”

The majority of students agreed that students of their own (80%) and all (76%) racial/ethnic backgrounds participate in these environmental sustainability-related activities, consistent with our findings based on the aggregate analysis of self-reported participation. Students of color and WNH students differed in their level of agreement (Table 9).

**Table 9** Percentage who Agree/Strongly Agree with Statements about Student Participation in Environmental Sustainability-Related Activities, by Ethnicity

	Students of Color (%)		WNH Students (%)	
	“My”	“All”	“My”	“All”
Students of _____ ethnic backgrounds participate in environmental sustainability-related activities at UCSC	74	74	92	81
Students of _____ social (class) backgrounds participate in environmental sustainability-related activities at UCSC	78	69	90	77

## 5 Analysis

UCSC is a hub of environmental activity: half of UCSC students participated in environmental sustainability programs and/or were members of environmental organizations. WNH participated at a slightly higher rate compared to Asian American and Hispanic/Latino students by 3–7%, and no significant ethnic group difference was found in the rates of membership. While one’s ethnicity was not a predictor of participation in the environmental movement on campus, one of the strongest predictors was majoring in Environmental Studies (5.2 times more likely to participate in sustainability programs or organizations, and 6.3 times more likely to be a member of a sustainability organization). It is noteworthy that WNH students constituted 33% of undergraduates and 51% of Environmental Studies majors (the largest of such disparities among Social Sciences majors). Prior engagement with sustainability efforts before college, being concerned about environmental issues, attending a residential college with an environmental theme, being a transfer student or senior, being female, and also having experienced community health concerns were also significant predictors of student involvement in sustainability efforts.

When asked for their perceptions of which racial/ethnic and socioeconomic groups participate in environmental sustainability related activities on campus, 92% and 90% of WNH students stated that peers of their ethnic background and class background, respectively, do. This is much higher than the response of PoC (about 74–78%). It was found that 19% of WNH students and 26% of students of color disagreed that “students of all ethnic backgrounds participate in environmental sustainability related activities at UCSC,” a statistically significant difference. Given that only half of students participate across ethnic groups, these results may be indicative of students’ shared agreement that student participation campus-wide, across ethnic groups could further increase.

The vast majority of students, participants and non-participants, strongly expressed the importance of environmental and environmental justice issues. There were differences between the groups in terms of specific issues: mainstream environmental concerns such as conservation of biodiversity were rated more



important to WNH students (and these students report learning more about such issues), while environmental justice issues such as food access were rated more important to PoC. Overall, the results resoundingly attest to how PoC and WNH students at UCSC feel that environmental sustainability issues are important, both to them personally and to the institution.

Our survey results point to the need for more curricular/co-curricular programming to further learning about Indigenous peoples' and non-industrialized countries' views about environmental sustainability, expanding the range of perspectives conveyed. This is a central mission of PoCSC: to expand exposure to environmental epistemologies beyond those which are traditionally privileged.

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## 6 Conclusion

As one of our students remarked, "There needs to be greater inclusion in the overall environmental movement and that starts with groups in universities." An institution like UCSC, renowned for its commitment to being "green," clearly can model what an *inclusive* sustainability could look like. The campus' commitment to and support of sustainability efforts to reduce energy use, conserve water, generate less waste and reduce its carbon footprint are vital, but also need to be expanded beyond these biophysical considerations and include processual, symbolic, and affective elements of sustainability in equal measure.

Sustainability is not reducible to an outcome, a measurable end point like a LEED certified building or the achievement of zero waste. It is a social and political process and a set of relationships that recognize that understandings of sustainability are embedded in historically and culturally specific contexts that reflect privilege and marginalization, cooptation and dispossession. From the erasure of local peoples from protected areas to the appropriation and distortion of native peoples' beliefs and practices, environmental sustainability has had a legacy entangled with social injustice (Holt 2005; Dowie 2009; Finney 2014). Judgements of whether others, namely low-income PoC, are knowledgeable and supportive of sustainability thus need to recognize that such normative litmus tests can be exercises of power and domination for political ends. Inclusivity occurs when diverse socio-cultural approaches and lived experiences of impacted communities are not just included, but are also given the same level of respect as scholars and scientists, thus challenging epistemological hierarchies and notions of expertise.

The current, predominant approach that is based on making these diverse members of our student body aware about sustainability (as an institutionalized concept) must be complemented by efforts that ascertain, validate, and incorporate the manifold ways that students experience and engage with the concept of sustainability. Paying attention to their socio-cultural and economic positionality, including race, ethnicity, class, and gender, helps us to better understand what sustainability activities students undertake, what patterns emerge, and why. Our

experiences highlight that these issues are closely linked to student success and retention, matters of great concern to universities.

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## Author Biographies

**Professor Flora Lu** holds a A.B. in Human Biology from Stanford University and a Ph.D. in Ecology from the University of North Carolina at Chapel Hill. She is a Professor of Environmental Studies at UCSC and Provost of Colleges Nine and Ten. An ecological anthropologist, she is interested in human/environment dynamics in tropical rainforests, the political economy of oil extraction, resource governance, and environmental justice. She has published four books and three dozen publications in journals such as *Human Ecology*, *Conservation Biology*, *Current Anthropology*, *Human Organization*, and the *Journal of Ecological Anthropology*.

**Dr. Rebecca H. Rosser** (Mexican American and Mescalero/Warm Springs Apache) is Director of the UCSC American Indian Resource Center. She earned an MFA in Exhibition Design and Museum Studies at CSU Fullerton, an M.A. in American Indian Studies from UCLA and her Ph. D. in American Studies from the University of New Mexico. Her current work focuses on raising awareness about the experiences of Native American students in the university setting, with particular attention to the stereotypical expectations surrounding Native identity. She has worked

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**Adriana Renteria** received her B.A. in Environmental Studies and Economics from UC Santa Cruz in 2015. Adriana is a first generation queer Chicana who grew up in Merced, California. As a UCSC student, she was involved with several student organizations and clubs including Hermanas Unidas, IDEASS, Education for a Sustainable Living Program, Student Environmental Center, and the American Indian Resource Center. As the Program Coordinator for the People of Color Sustainability Collective, Adriana dedicated herself to creating an inclusive campus sustainability community for all students at her alma mater. She is passionate about environmental justice and the honoring of cultural knowledge, experiences, and traditions.

**Nancy I. Kim** is Managing Director of UCSC Resource Centers and Director of the Asian American/Pacific Islander Resource Center. She received her M.A. in Asian American Studies from UCLA and taught courses at UCLA, CSU Northridge, and Scripps College. Her research interests include Asian American feminist pedagogy and coalition building between communities of color.

**Elida Erickson** is Director of the Sustainability Office at UCSC and received her M.S. in Higher Education and Student Affairs Administration from Indiana University (2004). She joined the University of California, Santa Cruz campus in 2005, and the Sustainability Office in 2011. She has collaborated with the local community, students, faculty and staff to support the goal of Zero Waste by 2020, as well as reduce campus water usage by 25% in response to the California statewide drought in 2014–2015. As a strong advocate for student engagement and empowerment in campus sustainability, Elida is also passionate about examining Whiteness within the environmental movement and challenging the movement to explore diverse cultural interpretations of sustainability.

**Dr. Anna Sher** received her Ph.D. in Sociology from Stony Brook University. She is the Director for Assessment & Survey Research at the UCSC Institutional Research, Assessment, and Policy Studies office. Since 2009, she has led campus-wide survey projects to assess campus climate for diversity and inclusion for the Chancellor's Diversity Advisory Council. She has been working with faculty and staff in student support units to develop and measure student learning outcomes and experiences, and to use this evidence to ensure equity and inclusion through program improvement.

**Lisa O'Connor** received her M.P.H. from San Diego State University. She joined the UCSC Institutional Research, Assessment, and Policy Studies office in 2015 as Survey Analyst. She brings over a decade's worth of experience in social science research, specifically in public health and education initiatives. She enjoys using data to help inform and improve policy change and practice. Prior to working at UCSC, she managed research initiatives that worked directly with culturally and economically diverse students and their parents, teachers and administrators. Her previous work experience includes program planning, management, and evaluation in the areas of adolescent health, substance use prevention and treatment, and access to education.