

2014

2014 UCUES Report on Undergraduate Student Participation in Research and Creative Activity



Institutional Research,
Assessment, & Policy Studies
UC Santa Cruz



Undergraduate Student Participation in Faculty's Research and Creative Activity

This report examines participation by UCSC graduating seniors¹ in research and creative projects under faculty guidance, as well as the value they place on research. It is based on the University of California Undergraduate Experience Survey (UCUES) conducted in Spring 2014. A representative sample of 40% of the senior student population responded to the survey (see Table 1 at the end of the report).

Methodology

Student participation in research and/or creative projects was measured based on a series of survey questions about whether or not they were involved in at least one of the following during their studies at UCSC:

1. Assisted in faculty's research or creative projects for course credit, pay, or on a volunteer basis;² and/or
2. Conducted a research or creative project under the supervision of faculty.³

Differences in participation are analyzed by academic division and entry status. The terms "similar" or "comparable" mean that the statistical significance of difference did not meet $p < .05$ in Chi-square analyses.

Participation in research and creative projects

About two-thirds (64%) of graduating seniors reported having assisted in faculty's research and/or creative projects during their studies at UCSC. Additionally, some students reported having completed a research and/or creative project under faculty's guidance.

Overall, 73% of graduating seniors reported assisting faculty and/or participating in research and/or creative activities under faculty guidance.

¹ "Graduating seniors" were survey respondents who answered "probably yes" to the UCUES question: "Will you complete a bachelor's degree this spring or summer?"

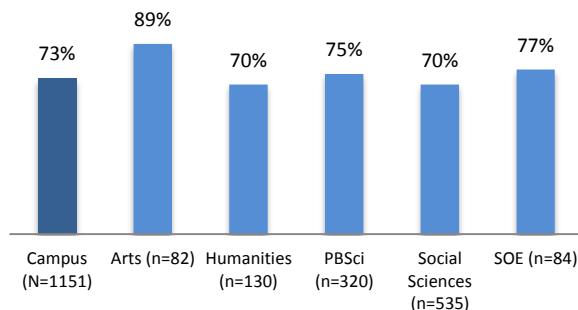
² A standard series of questions in UC-wide UCUES.

³ This question was added to the 2014 UCUES at UCSC to include information about students whose projects may not have been part of the faculty's research program.

By Division

Undergraduate participation in research and/or creative projects was high across all academic divisions as shown below in Figure 1.

Figure 1. Graduating seniors who participated in research or creative projects under faculty guidance by Division

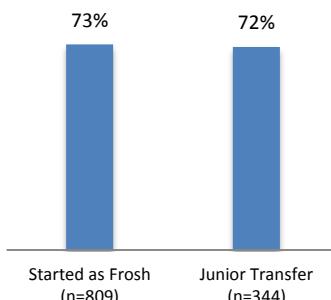


By Entry Status

Similarly, participation in research or creative projects was high whether students started at UCSC as frosh or junior transfers. Even though students who enter as frosh have more time to pursue opportunities with faculty than students who enter as junior transfers, as shown in Figure 2,

students who started at UCSC as frosh and junior transfers in each academic division reported comparable rates of participation (based on tests of statistical significance).

Figure 2. Graduating seniors who participated in research or creative projects under faculty guidance by transfer status

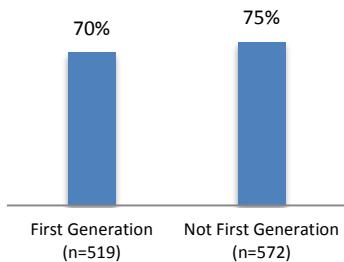


By First Generation Status

Research participation by students whose parents did not complete a 4-year degree (first generation students) was similar to their non-first generation peers.

Furthermore, first generation students in each academic division reported comparable rates of research experience to their peers (based on test of statistical significance).

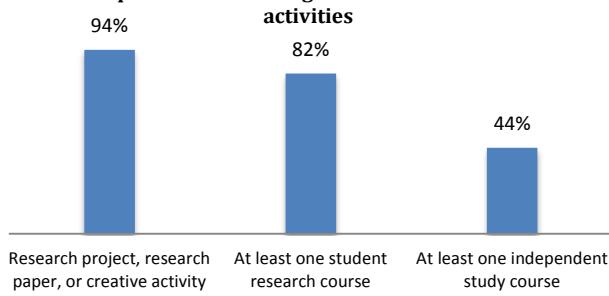
Figure 3. Graduating seniors who participated in research or creative projects under faculty guidance by first generation status



Course-Based Training

The majority (94%) of graduating seniors reported having completed a research project, research paper, or a creative activity as part of coursework. Also the majority (82%) took at least one student research course in which they learned research methods or researched a topic (Figure 4).

Figure 4. Percentage of graduating seniors who completed the following course-based research activities



Value of research

Students were asked a series of questions about the importance of being an undergraduate at a research university such as UCSC.

The majority of graduating seniors (84%) across majors agreed that “attending a university with world-class researchers” was important to them.

Learning about faculty’s research and gaining experience were important to UCSC students.⁴ Over three-quarters (78%) of graduating seniors reported that learning research methods was important to them (Figure 4). About two-thirds (63%) said that it was important to take courses from faculty who incorporate their current research into the lectures and discussions. Furthermore, two-thirds considered gaining research experience an important aspect of being a UCSC student. This experience included assisting faculty in research or pursuing their own research (Figure 6).

Figure 5. Importance of learning about faculty's research and research methods

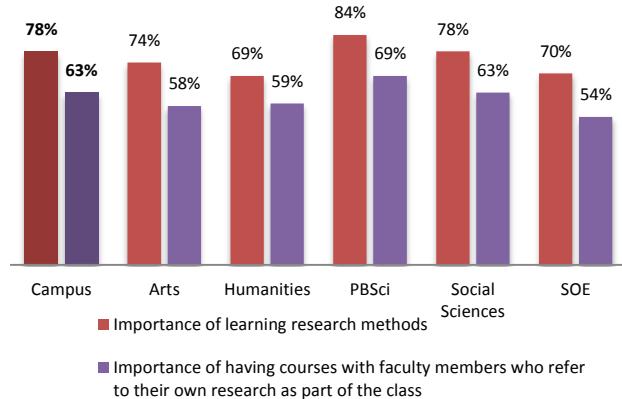
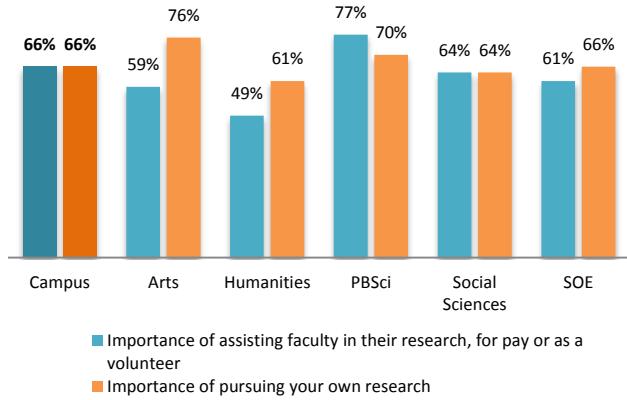


Figure 6. Importance of participating in research



⁴ “Important” includes those who selected essential, very important, and important on a 6-point scale from essential to not important.

Ability to participate in research or creative projects specific to one's field of study

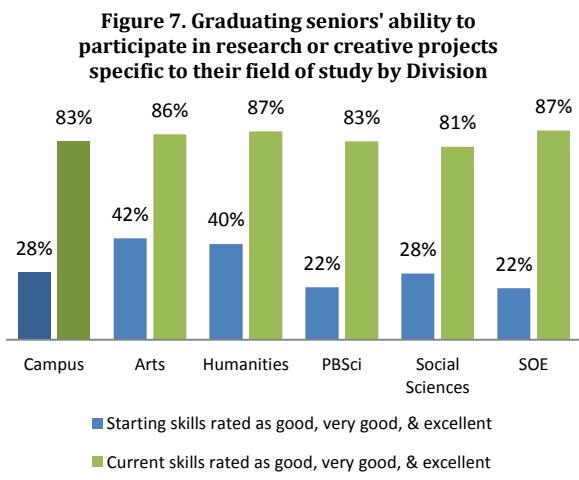
Students rated their current and starting ability to participate in research or creative projects in their field of study over the course of their studies at UCSC.

Across all programs, 83% of graduating seniors reported having a good, very good, or excellent ability to participate in research or creative projects in their field of study.

When they evaluated their starting levels, 28% of graduating seniors said that they had a good, very good, or excellent ability to participate in research or creative projects in their field of study.

By Academic Division

Graduating seniors' self-reported current ability to participate in research or creative projects specific to their field of study was similarly high across all academic divisions (shown in green bars in Figure 7).

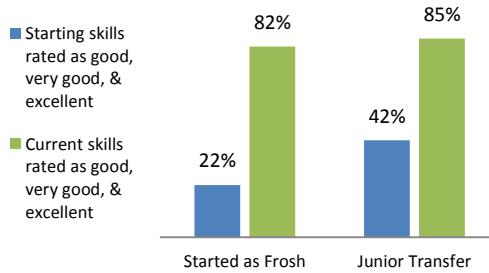


Estimated gains in students' abilities were also similarly high across divisions.

By Entry Status

Overall, junior transfers reported comparable current abilities to participate in research or creative projects specific to their field of research to those of seniors who started as frosh (see Figure 8).

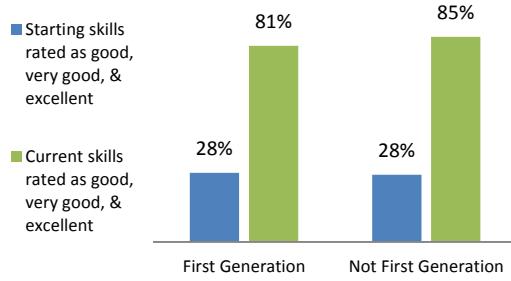
Figure 8. Graduating seniors' ability to participate in research or creative projects specific to their field of study by entry status



By First Generation Status

Overall, first generation students reported comparable current abilities to participate in research or creative projects specific to their field of research to those of non-first generation students (see Figure 9).

Figure 9. Graduating seniors' ability to participate in research or creative projects specific to their field of study by first generation status



Estimated gains in student abilities were also comparable .

Table 1.Graduating Senior Respondents' Characteristics⁵

		Graduating Seniors who responded to UCUES		All UCSC Seniors, including respondents and non-respondents	
		Count	%	Count	%
Academic Division	Arts	82	7%	153	7%
	Humanities	138	12%	223	11%
	Physical and Biological Sciences (PBSci)	326	28%	593	29%
	Social Sciences	553	47%	872	42%
	School of Engineering (SOE)	83	7%	233	11%
Transfer Status	Started as frosh	834	70%	4403	71%
	Junior transfer	357	30%	1795	29%
First Generation Status	First generation	540	45%	2645	43%
	Non-first generation	588	49%	3211	52%
	Unknown	63	5%	342	6%
Gender	Women	732	62%	3156	51%
	Men	457	38%	3022	49%
	Unknown	5	.4%	31	.5%

⁵ Information on academic division (one's major), transfer status, first generation status, gender, and senior status is based on institutional data as of Spring 2014.