

## 2022 Graduate Cost of Attendance Survey administration report

The 2022 Graduate Cost of Attendance Survey (GCOAS) was administered to over 22,000 graduate students at all ten UC campuses during the spring 2022 term (between April 11<sup>th</sup> and June 6<sup>th</sup>). This report provides information on completion rates, sample representativeness and survey incentives.

### Sampling method

A sample of 37% of all graduate students was drawn. To ensure that the sample for all sub-groups was representative, and large enough for statistical analysis, campus sub-groups by discipline and race/ethnicity were oversampled (we sampled all students in sub-groups with 70 or fewer students). Table 3 presents numbers and percentages of the graduate student population and sampled participants by campus and stratifications (discipline and race/ethnicity).

### Response rate

When calculating the response rate, we include both completers and partial completers. These two categories, combined, make up the respondents. Below, we define our operationalization of these three categories.

**Respondents: 8,673.** To calculate the number of respondents, we included all cases in the data file, excluding those who did not use the single sign on feature to enter the survey and those who did not consent to the survey. The final cleaned data file contains 8,673 respondents. This contributes to an overall response rate of 39%. Table 2 summarizes the response rate for the system and by campus.

**Completes: 8,321.** The final cleaned data file contains 8,321 completed respondents, who responded to at least one survey item and clicked the “submit” button at the conclusion of the survey. This translates into a completion rate of 37%.

**Partial completes: 352.** Partial complete means that at least one item was answered, but the “submit” button was not clicked. These participants may also be considered dropouts. These surveys were closed out at the end of the administration period, capturing all information provided by the respondent up to the day of survey closure.

Table 1. Response and completion rates

Campus	Total Invites	Total Respondents	Response Rate	Total Completers	Completion Rate
Berkeley	4,538	1,560	34%	1,484	33%
Davis	3,003	1,272	42%	1,212	40%
Irvine	2,326	876	38%	847	36%
Los Angeles	4,818	1,682	35%	1,610	33%
Merced	434	242	56%	235	54%
Riverside	1,370	521	38%	513	37%
San Diego	2,641	1,080	41%	1,026	39%
San Francisco	1,166	481	41%	468	40%
Santa Barbara	1,250	567	44%	541	43%
Santa Cruz	883	392	44%	384	44%
Systemwide	22,429	8,673	39%	8,320	37%

## Sample representativeness

Sample representativeness, defined as the degree to which the sample resembles the study population, often indicates whether systematic differences exist in the responses between survey respondents and non-respondents. A representative sample is one in which the characteristics or key variables in the sample parallel those of the target population. Examples of key variables include gender, race/ethnicity, student level, and so on. A representative sample ensures that the sample estimate of a mean or proportion is unbiased so that results or conclusions drawn from the sample can be generalized to the entire population.

Comparing individual characteristics or key variables between the sample and the population is a method commonly used to check whether a sample is representative of the study population. For categorical variables, a multivariate frequency table (or crosstab) is often used to examine the distribution of the sample and compare it to the population. We compare the proportions of individuals across different categories of the variable in the sample versus the population. A significant difference in the proportions implies that the sample is not representative of the population.

Table 2 examines the 2022 Graduate Cost of Attendance Survey respondent representativeness by discipline and race/ethnicity. Overall, respondents are representative of the graduate student population, except for underrepresentation of White students in the humanities. This is due to the practice of sampling 100% of students who fall into a cell (defined by campus, racial group, and discipline) with less than 70 students to ensure adequate statistical power when analyzing group differences.

## Survey incentives

Respondents were offered a chance to win one of 24 \$75 Amazon.com gift cards or the grand prize \$500 Amazon gift card.

Due to California lottery law, all UC students, regardless of their survey completion status, are eligible for the survey prizes. This message was provided in places where the incentive information is given.

*Table 2. 2022 Graduate Cost of Attendance Survey respondent representativeness by discipline and race/ethnicity*

Characteristics	Respondent		Population	
	Count	Percent	Count	Percent
<b>STEM</b>				
Asian	552	14%	4,408	16%
International	1,635	42%	11,178	40%
URM	398	10%	3,077	11%
White/Other	1,309	34%	9,028	33%
<b>Social Sciences</b>				
Asian	169	15%	716	12%
International	286	25%	1,557	26%
URM	241	21%	1,274	21%
White/Other	450	39%	2,514	41%
<b>Humanities</b>				
Asian	96	15%	237	9%
International	188	28%	616	22%
URM	148	22%	517	18%
White/Other	228	35%	1,404	51%
<b>Professional</b>				
Asian	714	24%	5,748	23%
International	558	19%	4,158	17%
URM	660	22%	5,643	23%
White/Other	1,041	35%	9,028	37%

Table 3. Sample by race, discipline, and campus

	Berkeley				Davis				Irvine				Los Angeles				Merced			
	Population		Sample		Population		Sample		Population		Sample		Population		Sample		Population		Sample	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
<b>Humanities</b>	523	100	219	100	316	100	205	100	285	100	197	100	489	100	200	100	49	100	49	100
Asian	53	10	53	24	23	7	23	11	27	9	27	14	42	9	42	21	6	12	6	12
International	96	18	34	16	59	19	59	29	62	22	62	31	109	22	39	20	9	18	9	18
URM	89	17	32	15	62	20	62	30	60	21	60	30	84	17	30	15	18	37	18	37
White/Other	285	54	100	46	172	54	61	30	136	48	48	24	254	52	89	45	16	33	16	33
<b>Professional</b>	5396	100	1891	100	3136	100	1098	100	2407	100	844	100	7886	100	2763	100	78	100	78	100
Asian	1238	23	434	23	840	27	293	27	668	28	234	28	1682	21	589	21	13	17	13	17
International	1212	22	425	22	335	11	118	11	390	16	137	16	1192	15	418	15	16	21	16	21
URM	1038	19	364	19	808	26	283	26	524	22	184	22	1826	23	640	23	25	32	25	32
White/Other	1908	35	668	35	1153	37	404	37	825	34	289	34	3186	40	1116	40	24	31	24	31
<b>Social Sciences</b>	646	100	228	100	1697	100	596	100	682	100	283	100	1122	100	395	100	104	100	104	100
Asian	78	12	28	12	276	16	97	16	64	9	64	23	123	11	44	11	12	12	12	12
International	162	25	57	25	352	21	124	21	126	18	45	16	347	31	122	31	22	21	22	21
URM	134	21	47	21	296	17	104	17	186	27	66	23	233	21	82	21	32	31	32	31
White/Other	272	42	96	42	773	46	271	45	306	45	108	38	419	37	147	37	38	37	38	37

	Berkeley				Davis				Irvine				Los Angeles				Merced			
	Population		Sample		Population		Sample		Population		Sample		Population		Sample		Population		Sample	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
<b>STEM</b>	6278	100	2200	100	3149	100	1104	100	2856	100	1002	100	4167	100	1460	100	509	100	203	100
Asian	1286	20	451	21	484	15	170	15	416	15	146	15	723	17	254	17	37	7	37	18
International	2283	36	800	36	1157	37	405	37	1307	46	458	46	1658	40	580	40	228	45	80	39
URM	664	11	233	11	376	12	132	12	318	11	112	11	477	11	167	11	90	18	32	16
White/Other	2045	33	716	33	1132	36	397	36	815	29	286	29	1309	31	459	31	154	30	54	27
<b>Asian</b>	2655	21	966	21	1623	20	583	19	1175	19	471	20	2570	19	929	19	68	9	68	16
<b>International</b>	3753	29	1316	29	1903	23	706	24	1885	30	702	30	3306	24	1156	24	275	37	127	29
<b>URM</b>	1925	15	676	15	1542	19	581	19	1088	17	422	18	2620	19	919	19	165	22	107	25
<b>White/Other</b>	4510	35	1580	35	3230	39	1133	38	2082	33	731	31	5168	38	1811	38	232	31	132	30

Table 3 (continued). Sample by race, discipline, and campus

	Riverside				San Diego				San Francisco				Santa Barbara				Santa Cruz			
	Population		Sample		Population		Sample		Population		Sample		Population		Sample		Population		Sample	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
<b>Humanities</b>	322	100	161	100	247	100	126	100	6	100	6	100	400	100	198	100	134	100	85	100
Asian	19	6	19	12	17	7	17	13	0	0	0	0	34	9	34	17	14	10	14	16
International	54	17	54	34	87	35	31	25	1	17	1	17	114	29	40	20	25	19	25	29
URM	81	25	29	18	42	17	42	33	3	50	3	50	58	15	58	29	19	14	19	22
White/Other	168	52	59	37	101	41	36	29	2	33	2	33	194	49	66	33	76	57	27	32
<b>Professional</b>	1219	100	429	100	1386	100	487	100	2310	100	811	100	554	100	239	100	265	100	167	100
Asian	183	15	65	15	190	14	67	14	829	36	291	36	69	12	69	29	36	14	36	22
International	307	25	108	25	391	28	137	28	143	6	51	6	131	24	45	19	41	15	41	25
URM	433	36	152	35	281	20	99	20	544	24	191	24	128	23	45	19	36	14	36	22
White/Other	296	24	104	24	524	38	184	38	794	34	278	34	226	41	80	33	152	57	54	32
<b>Social Sciences</b>	298	100	119	100	732	100	258	100	36	100	35	100	485	100	198	100	259	100	189	100
Asian	20	7	20	17	73	10	26	10	3	9	3	9	41	8	41	21	26	10	26	14
International	91	31	32	27	250	34	88	34	1	3	1	3	138	28	49	25	68	26	68	36
URM	72	24	26	22	124	17	44	17	15	43	15	43	124	26	44	22	57	22	57	30
White/Other	115	39	41	34	285	39	100	39	16	46	16	46	182	38	64	32	108	42	38	20

	Riverside				San Diego				San Francisco				Santa Barbara				Santa Cruz			
	Population		Sample		Population		Sample		Population		Sample		Population		Sample		Population		Sample	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
<b>STEM</b>	1884	100	661	100	5051	100	1770	100	776	100	314	100	1766	100	615	100	1255	100	442	100
Asian	192	10	68	10	739	15	259	15	157	20	55	18	222	13	76	12	152	12	54	12
International	868	46	304	46	2571	51	900	51	64	8	64	20	629	36	219	36	413	33	145	33
URM	236	13	83	13	455	9	160	9	154	20	54	17	175	10	62	10	132	11	47	11
White/Other	588	31	206	31	1286	25	451	25	401	52	141	45	740	42	258	42	558	44	196	44
<b>Asian</b>	414	11	172	13	1019	14	369	14	989	32	349	30	368	11	220	18	228	12	130	15
<b>International</b>	1320	35	498	36	3299	44	1156	44	209	7	117	10	1012	32	353	28	547	29	279	32
<b>URM</b>	822	22	290	21	902	12	345	13	717	23	263	23	486	15	209	17	244	13	159	18
<b>White/Other</b>	1167	31	410	30	2196	30	771	29	1213	39	437	37	1342	42	468	37	894	47	315	36