

Results of the 2022-2023 Campus Travel Survey

June 2023

A Research Report from the National Center
for Sustainable Transportation

Aakansha Jain, University of California, Davis



National Center
for Sustainable
Transportation



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Aakansha Jain, Institute of Transportation Studies, University of California, Davis



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Institute of Transportation Studies

and

Transportation Services

University of California, Davis

Prepared by

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Institute of Transportation Studies

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EXECUTIVE SUMMARY

The UC Davis Campus Travel Survey is an annual survey led by Transportation Services (TS) – formerly known as Transportation and Parking Services (TAPS) – and the National Center for Sustainable Transportation (NCST), part of the Institute of Transportation Studies (ITS) at UC Davis. It collects a rich set of data about travel to the UC Davis campus, demographics, and attitudes toward travel.

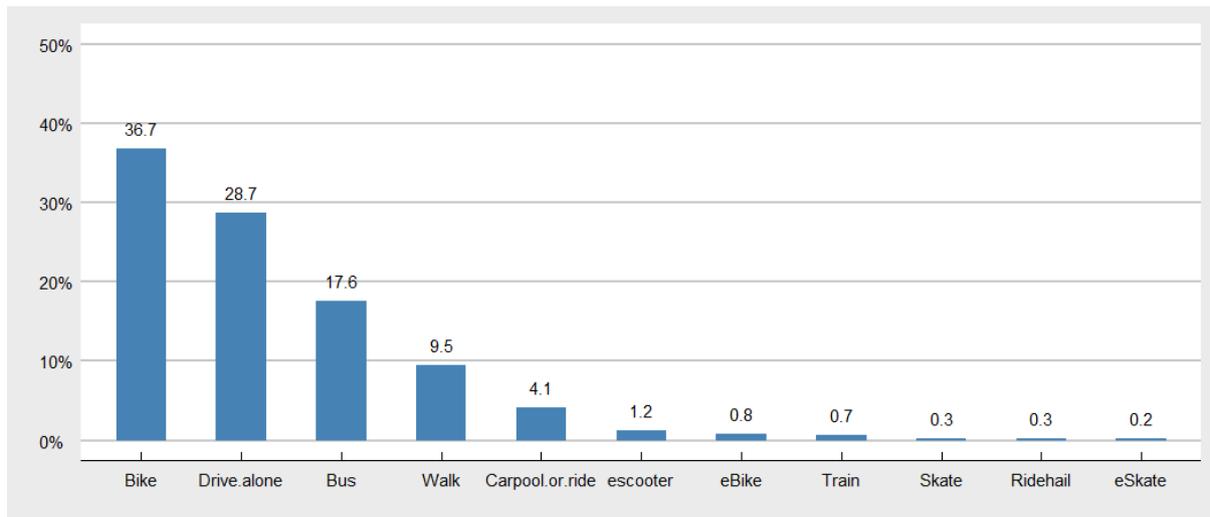
The 2022-23 survey collected data from 3,228 people affiliated with UC Davis about their travel to campus during a single week in October 2022. It used a stratified random sampling method with the intent to gather a representative sample of the campus population. About 18 percent of those invited responded to this year's survey. For the statistics presented throughout this report, we weight the responses by campus role (freshman, sophomore, junior, senior, Master's, PhD, faculty, and staff) and gender so that the proportion of respondents in each group reflects their proportion in the campus population.

Main Findings

Overall Mode Share

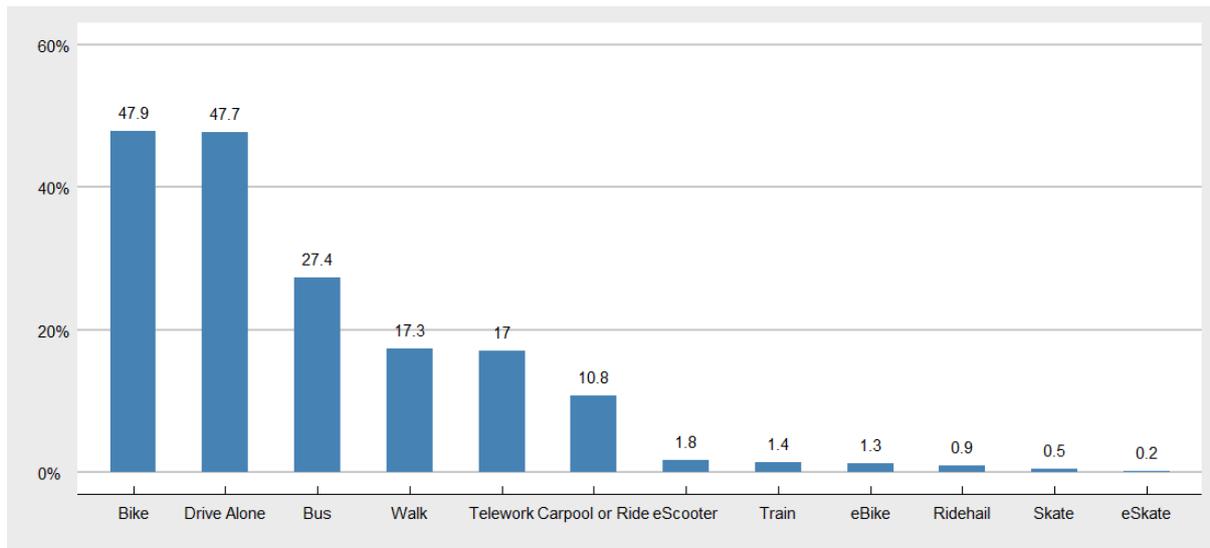
Physical travel to UC Davis campus increased slightly in the year 2022-23 as compared to 2021-22 levels. However, the proportion of people who physically traveled to campus on any given day remained lower than the pre-pandemic levels. On an average weekday, about 75 percent of people physically traveled to campus (approximately 36,300 people, including those living on campus). Among these, 37 percent biked to get there, 29 percent drove alone, nearly 18 percent rode the bus, 11 percent walked or skated, 4 percent carpooled or got a ride, 0.7 percent rode the train, 0.8 percent rode an electric-assist bike (eBike) and 0.3 percent used ridehailing services (see Figure 1). These figures represent the percent of people using each means of transportation as their primary mode (that is, for the greatest share of their distance) from wherever they live to their campus destination on an average weekday.

Figure 1. Overall Mode Share, 2022-23



Because some people use different travel modes on different days, the total number of people who bicycle or ride transit, for instance, is substantially larger than the number using each mode on any given day. In particular, about 48 percent reported biking as their primary means at least once during the week. Similarly, about 48 percent drove alone, 27 percent rode the bus, 20 percent walked, skated or used eScooter, 11 percent carpooled or got a ride, 1.4 percent rode the train, 1.3 percent rode an eBike and less than 1 percent used a ride-hailing service. About 17 percent teleworked at least one day in the reference week. See Figure 2.

Figure 2. Used mode at least once during reference week, 2022-23



Change in Mode Share, 2021-22 to 2022-23

One of the main purposes of the Campus Travel Survey is to collect comparable data each year in order to assess trends over time. The questions and calculations used to estimate mode share in this year’s survey are identical to those used in the 2021-22 survey. Table ES-1 shows the change in mode share between the 2021-22 and 2022-23 surveys.

Table ES- 1. Percentage Point Change in Mode Share on an Average Weekday

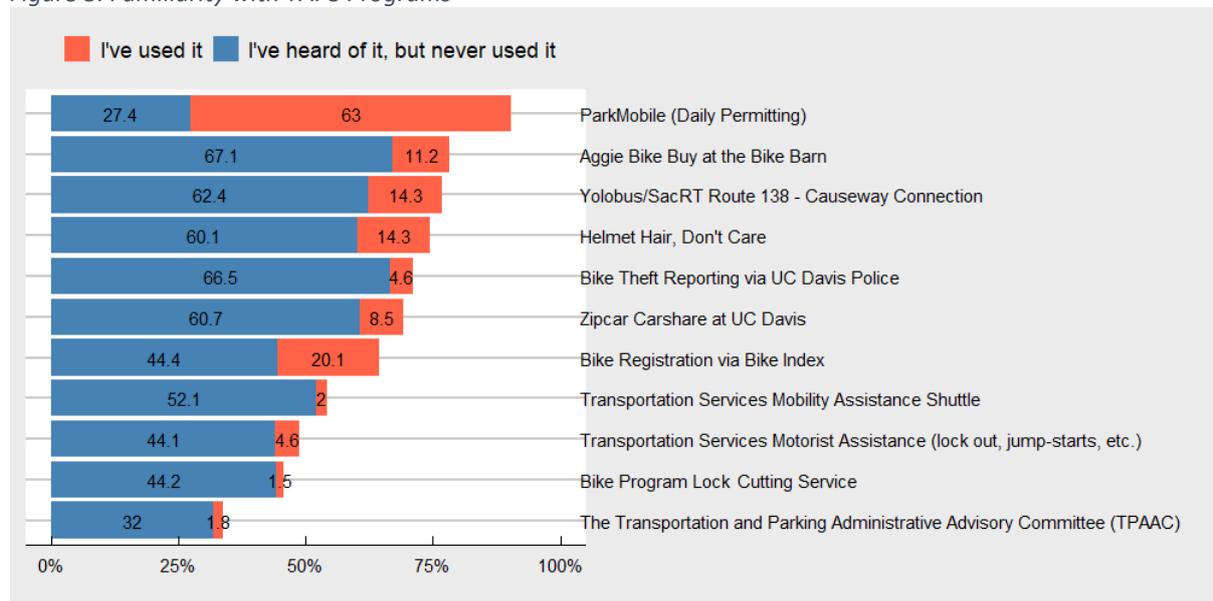
Survey Years	Physically Traveled	Of those who physically traveled to campus							
		Bike	eBike	Walk or Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail
2021-22, Overall	73.9%	36.8%	0.5%	12.5%	28.8%	5.2%	15.6%	0.50%	0.20%
2022-23, Overall	75.5%	36.7%	0.8%	11.2%	28.7%	4.1%	17.6%	0.65%	0.26%
Difference	1.6%	-0.1%	0.3%	-1.3%	-0.13%	-1.1%	2.0%	0.15%	0.06%

Data are weighted for both years by campus role and gender.

Familiarity with TAPS Programs

Several services that promote bicycling are well-known and highly utilized across the campus population. The ParkMobile service is the most highly used transportation service, with nearly 63 percent of respondents having used them (Figure 3).

Figure 3. Familiarity with TAPS Programs



BACKGROUND

In 2003 the University of California adopted the *UC Policy on Sustainable Practices*, which charges UC campuses with the task of measuring and promoting sustainable commuting. System-wide targets for assessing the sustainability of transportation systems include annual estimation and reporting of Average Vehicle Ridership (AVR) and carbon dioxide equivalent emissions (CO₂e) for each UC campus. The *UC Policy on Sustainable Practices* also lists mechanisms for reducing commute emissions, including the construction of on-campus housing and expansion of Transportation Demand Management (TDM) programs.

In addition to the sustainable transportation goals of the University of California, many universities and colleges around the world have additional reasons to promote alternatives to driving. Some concerns include high costs of expanding parking facilities, air pollution, and traffic congestion. It is essential that campus planners and travel demand managers have current and accurate information about commuting at their institutions so that they may implement targeted transportation policies, evaluate the effectiveness of current services, share best practices with other institutions, and track commuting behavior over time.

About the Campus Travel Survey

The UC Davis Campus Travel Survey is a joint effort by Transportation Services (TS) on campus and the National Center for Sustainable Transportation, part of the Institute of Transportation Studies at UC Davis. Since 2007 the survey has been administered each fall by a graduate student at the Institute of Transportation Studies. The main purpose of the survey is to collect annual data on how the UC Davis community travels to campus, including mode choice, vehicle occupancy, distances traveled, and carbon emissions.

Over the years, the travel survey results have been used to assess awareness and utilization of campus transportation services and estimate demand for new services designed to promote sustainable commuting at UC Davis. Data from the campus travel survey have also provided researchers with valuable insights about the effects of attitudes and perceptions of mobility options on commute mode choice. This year's survey is the thirteenth administration of the campus travel survey.

Survey Development & Administration

The content of the survey was based on the previous year's survey. Key questions relating to mode choice and residential location, among others, were retained. An ongoing attempt to refine question wording has meant that some variables are not directly comparable across years. See "Appendix A: Survey instrument, 2022-23 Campus Travel Survey" for a full copy of the survey instrument. See "Appendix B: Changes from the 2021-22 survey instrument" for a summary of changes from the previous year.

The online survey was prepared and hosted using the Qualtrics Survey website (www.qualtrics.com). Staff at Transportation Services as well as faculty and students affiliated with the Institute of Transportation Studies provided feedback on survey content and assisted with pre-testing of the online survey.

The 2022-23 survey was administered online in October and November 2022, distributed by email to a stratified random sample of 18,263 students, faculty, and staff (out of an estimated total population of 48,165). See Table B-1 for a summary of the random sample stratified by campus role.

Sample & Response

As in previous years, the goal of the sampling procedure was to draw a sufficiently large sample for reliable statistical estimates within the following groups: freshmen, sophomores, juniors, seniors, Master's/professional students, PhD students, faculty, and staff. We used standard statistical techniques to determine the minimum sample size needed for estimates with a +/- 5% margin of error, based on the assumed response rate for each of the groups.

A stratified random sample was drawn from ostensibly complete lists of UC Davis email addresses maintained at two different departments within the university. The sampling of student and employee email addresses was conducted by the Budget and Institutional Analysis (BIA) office. Student email addresses were screened based on students' class level and departmental affiliation, including all academic and professional students except medical students, who are not based on the Davis campus. Employees were screened to exclude those affiliated with the UC Davis Medical Center or field stations, those without salary, faculty at UC Davis Extension, temporary employees, and employees without email addresses. BIA staff compiled a spreadsheet containing only email addresses and role groups of those individuals selected for inclusion in the sample.

Each person in the selected sample received an initial email inviting them to take the survey. Those individuals who had not completed the survey one week later were sent a reminder email. Those individuals who had not completed the survey after the second week were sent an additional reminder email the following week. See "Appendix C: Text of the recruitment emails" for copies of these recruitment emails.

Offering a chance to win a desirable prize is thought to increase overall response to a survey. This year, Transportation Services provided incentives in the form of forty \$50 gift cards to participants of the survey. Entry into this drawing was mentioned in the initial and follow-up recruitment emails, as well as on the first welcome page of the online survey. On the final page of the survey, respondents were asked to indicate whether it would be okay for us to contact them again (1) with questions about their survey or (2) if they win the drawing, or if instead they preferred not to be contacted.

A total of 3,909 respondents at least started the survey (responding to the question about their role on campus), representing 21 percent of those invited. Of those who began the survey, 83 percent (3,228 respondents) completed the survey through the set of questions that asked respondents about their mode choice on each day of the reference week. Table B-1 shows response rates for this year's survey compared to the previous year.

Table B-2 shows the number of valid responses at three key points in the survey: those who answered the first question about role at the university, those who gave valid responses to questions about primary mode and gender, and those whose residential locations were successfully geocoded in addition to meeting the previous criteria.

Table B- 1. Response Rates for 2022-23 versus 2021-22

Role	Assumed Population	Number Invited	Actual Responses	Target Response Rate	2022-23 Actual Response Rate	2021-22 Actual Response Rate
Student	37,224	15,520	2,380	13.9%	15.3%	19.7%
Undergraduate	30,046	11,871	1,647	12.3%	13.9%	17.5%
Freshman	4,871	965	345	37.0%	35.8%	42.0%
Sophomore	5,795	2,777	405	13.0%	14.6%	18.0%
Junior	7,624	2,815	409	13.0%	14.5%	18.1%
Senior	11,756	5,314	488	7.0%	9.2%	12.1%
Graduate	7,178	3,649	733	19.0%	20.1%	25.7%
Master's	3,532	2,892	338	12.0%	11.7%	16.8%
PhD	3,646	757	395	46.0%	52.2%	50.8%
Employee	10,941	2,743	848	25.0%	30.9%	30.0%
Faculty	1,843	1,590	327	20.0%	20.6%	24.9%
Staff	9,098	1,153	521	32.0%	45.2%	37.3%
Overall	48,165	18,263	3,228	2,838	17.7%	21.1%
Overall Percent	100.0%	37.9%	17.7%	15.5%	17.7%	21.1%

Table B- 2. Number of Valid Responses by Role

Role	Population	Invited	Target	Valid role	Mode and Gender	Geocoded
Student	37,224	15,520	2,151	2,841	2,380	2,171
Undergraduate	30,046	11,871	1,456	1,937	1,647	1,525
Freshman	4,871	965	357	418	345	339
Sophomore	5,795	2,777	361	470	405	377
Junior	7,624	2,815	366	486	409	377
Senior	11,756	5,314	372	563	488	432
Graduate	7,178	3,649	695	904	733	646
Master's	3,532	2,892	347	434	338	286
PhD	3,646	757	348	470	395	360
Employee	10,941	2,743	687	1,014	848	694
Faculty	1,843	1,590	318	370	327	274
Staff	9,098	1,153	369	644	521	420
Overall	48,165	18,263	2,838	3,855	3,228	2,865
Overall percent	100.0%	37.9%	15.5%	21.1%	15.7%	100.0%

Weighting Responses by Role and Gender

For the purposes of analysis, we assume that respondents are roughly similar to the rest of the population within their role group (freshmen, sophomores, etc.) with respect to socio-demographics or other attributes that may matter for transportation choices. For this reason, we weight the sample by role group. In particular, as described above, we assign respondents to one of eight role groups based on their responses to questions Q2 through Q8. These eight roles are: freshmen, sophomores, juniors, seniors (and fifth-years and post-baccalaureate), Master’s students (and professional students such as law, business, and Ed.D.), PhD students, faculty, or staff (including Post-docs).

All results presented in this report are weighted to be representative of the campus population by these role groups. That is, we apply a weight factor to each case in a given role group so that the group’s proportion in the sample is the same as their proportion in the overall projected population. As in previous surveys, the sample is disproportionately comprised of women. In addition to weighting by role in the university, we correct for these differences in response rates among men and women in each role group so that the share of men and women in the weighted sample is equal to the share of men and women in each role group in the population.

Table B-3 and Table B-4 show the differences in gender distribution between the unweighted and weighted results.

Table B- 3. Unweighted Gender Distribution of Respondents

Role	Men	Women	Unweighted Sample	Projected Population
Undergraduate	23.9%	76.1%	1,647	30,046
Graduate	31.5%	68.5%	733	7,178
Faculty	44.3%	55.7%	327	1,843
Staff	29.8%	70.2%	521	9,098

Table B- 4. Weighted Gender Distribution of Respondents

	Men	Women	Weighted Sample	Projected Population
Undergraduate	39.6%	60.5%	2,013	30,046
Graduate	45.6%	54.5%	481	7,178
Faculty	57.1%	42.5%	124	1,843
Staff	42.0%	58.0%	610	9,098

Confidence Intervals

Table B-5 shows the margin of error of findings for each role group, to the extent that the proportions and figures estimated in the report differ by role group. For statistics about the population as a whole, we are 95 percent confident that our estimates are within 1.5 percent of their true value. These expectations are particularly important for mode share estimates, given that some year-to-year changes are significant, while others are not.

For example, when we report later that 36.7 percent of the campus population bikes to campus, our margin of error indicates that – to the extent to which the survey results are unbiased – the true share of persons that bike to campus is between 35.2 and 38.2 percent.

Table B- 5. Margins of Error, by Role Group

Role	Sample Size	Population Size	Margin of Error
Student	2,380	37,224	1.94%
Undergraduate	1,647	30,046	2.35%
Freshman	345	4,871	5.09%
Sophomore	405	5,795	4.70%
Junior	409	7,624	4.71%
Senior	488	11,756	4.34%
Graduate	733	7,178	3.43%
Master's	338	3,532	5.07%
PhD	395	3,646	4.66%
Employee	848	10,941	3.23%
Faculty	327	1,843	4.92%
Staff	521	9,098	4.17%
Overall	3,228	48,165	1.67%

FINDINGS

This section summarizes key results from the survey. Data presented in this section are weighted by role and gender, as described above. When “unweighted sample” size is reported it reflects the number of actual respondents in this category; “weighted sample” size reflects the number that would be in each category if the distribution of roles and genders in the sample matched the distribution in the population (so the total number in the weighted sample equals the number in the unweighted sample, but numbers within subgroups may change). “Projected population” size is a projection of the weighted proportions to the full campus population, calculated by multiplying each response by an expansion factor based on role and gender.

Many statistics are presented by role group (freshmen, sophomores, juniors, seniors, Master’s students, PhD students, faculty, or staff). Where applicable, some are broken down by students (including freshmen through PhD students), undergraduates (freshmen through senior students), graduate students (Master’s and PhD students), employees (faculty and staff), within Davis (those living on campus or elsewhere in Davis among all role groups), and outside Davis (those living outside of Davis among all role groups).

Physical Travel to Campus

Table 1 shows the share of each role group who traveled to campus on each day of the reference week. For those living on campus, “travel to campus” on a given day means the respondent indicated traveling to a campus destination for school or work. Overall, about 82 percent of university affiliates physically traveled to campus on each day Monday through Thursday, with a low of 71 percent traveling to campus on Friday. Sophomores and Junior traveled to campus most often, while staff traveled the least.

Table 1. Share Physically Traveling to Campus by Weekday

Role	Share physically traveling to campus by weekday						Weighted Sample	Projected Population
	Monday	Tuesday	Wed.	Thursday	Friday	No Days		
Student	84.8%	87.6%	87.7%	87.0%	76.4%	4.8%	2,495	37,224
Undergraduate	85.2%	88.4%	88.6%	87.5%	77.3%	4.9%	2,014	30,046
Freshman	85.0%	84.8%	85.7%	85.7%	83.4%	10.2%	326	4,871
Sophomore	89.8%	90.8%	91.3%	91.6%	86.0%	4.4%	388	5,795
Junior	85.1%	90.3%	89.7%	88.1%	73.9%	2.8%	511	7,624
Senior	83.0%	87.4%	87.7%	85.8%	72.8%	4.3%	788	11,756
Graduate	83.4%	84.5%	84.2%	84.9%	72.7%	4.3%	481	7,178
Master's	82.3%	82.9%	84.2%	80.8%	63.3%	6.1%	237	3,532
PhD	84.6%	86.0%	84.2%	88.8%	81.8%	2.5%	244	3,646
Employee	60.9%	70.0%	69.6%	66.1%	51.1%	10.2%	733	10,941
Faculty	62.5%	72.6%	72.0%	70.7%	61.6%	9.7%	124	1,843
Staff	60.6%	69.5%	69.1%	65.1%	49.0%	10.4%	610	9,098
Overall	79.4%	83.6%	83.6%	82.2%	70.7%	6.0%	3,228	48,165
Weighted Sample	2,563	2,700	2,699	2,654	2,282	194	3,228	NA
Projected Population	38,248	40,280	40,276	39,605	34,048	2,891	NA	48,165

Results are based on responses to questions Q37 and Q38. Data are weighted by role and gender.

In addition to trends by day of the week, there are substantial differences in the frequency of physical travel to campus among those living in different locations (Table 2). Overall, those living in Davis were more likely to travel to campus than those living outside Davis (80 percent versus 65 percent). Still, the overall share of people traveling to campus remained lower than the pre-pandemic level.

Table 2. Physical Travel to Campus by Residential Location

Role	Overall	On Campus	West Village	Off Campus in Davis	Outside Davis	Weighted Sample	Projected Population
Student	81.0%	75.3%	82.8%	84.8%	70.6%	2,214	37,224
Undergraduate	81.2%	75.3%	83.0%	84.7%	71.8%	1,787	30,046
Freshman	74.4%	73.7%	100.0%	100.0%	39.8%	290	4,871
Sophomore	86.4%	82.2%	83.5%	88.5%	84.9%	345	5,795
Junior	82.1%	79.5%	85.4%	82.1%	71.8%	453	7,624
Senior	80.9%	76.4%	77.9%	83.9%	71.6%	699	11,756
Graduate	80.3%	74.8%	69.6%	84.9%	68.0%	427	7,178
Master's	76.8%	74.3%	72.0%	80.6%	65.3%	210	3,532
PhD	83.6%	75.3%	40.0%	89.1%	70.8%	217	3,646
Employee	64.0%	100.0%	21.5%	68.1%	61.0%	651	10,941
Faculty	70.3%	100.0%	0.0%	74.7%	59.9%	110	1,843
Staff	62.7%	100.0%	21.5%	65.5%	61.1%	541	9,098
Overall	77.2%	75.5%	82.3%	81.7%	64.6%	2,865	48,165
Weighted Sample	2,211	343	300	1,176	392	2,865	NA
Projected Population	37,164	5,764	5,036	19,767	6,597	NA	48,165

Results are based on responses to questions Q27 (residential location) and Q38 (days traveled to campus). Data are weighted by role and gender.

Similar to last year, 6 percent of the sample did not physically travel to campus on any day during the reference week. These respondents were asked to give the reason they were away all week (Table 3). Employees were more likely to be away all week than students. Unlike last year, vacation, sickness, or personal leave and work or school-related travel were the most common reasons given for being away. Share of respondents away all week due to telecommuting reduced significantly, from 30 percent in 2021-22 to 14 percent in 2022-23.

Employees (but not students) who were away from campus some but not all of the days during the week were also asked to give the reason they did not travel to campus for each weekday they were away (Table 4). Nearly 38 percent of employees did not travel to campus on an average weekday (Table 4). The most common reasons for being away from campus are working from home (telecommuting) and vacation, sickness, or personal leave.

Table 3. Share Away from Campus All Week and Reasons Given, by Role

Role	Share Away All Week	Of those away all week						Weighted Sample	Projected Population
		Didn't Say	Study Abroad or Sabbatical	Telecommuting (working from home or remotely)	Temporary Appointment Elsewhere	Vacation, Sickness, or Personal Leave	Work- or School-Related Travel or Field Work		
Student	4.8%	55.5%	7.8%	7.6%	3.9%	10.6%	14.6%	119	1,770
Undergraduate	4.9%	57.3%	8.5%	5.8%	4.7%	11.0%	12.7%	98	1,463
Freshman	10.2%	61.4%	6.8%	0.0%	0.0%	9.1%	22.7%	33	495
Sophomore	4.4%	73.8%	0.0%	0.0%	4.4%	13.1%	8.7%	17	255
Junior	2.8%	36.1%	6.9%	21.5%	0.0%	20.8%	14.6%	14	214
Senior	4.3%	54.0%	15.2%	7.8%	11.5%	7.6%	3.9%	33	500
Graduate	4.3%	46.7%	4.4%	16.2%	0.0%	8.8%	23.9%	21	306
Master's	6.1%	56.2%	6.3%	10.4%	0.0%	6.3%	20.8%	14	216
PhD	2.5%	23.8%	0.0%	30.0%	0.0%	15.0%	31.3%	6	90
Employee	10.2%	27.2%	3.4%	24.6%	0.0%	30.3%	14.4%	75	1,121
Faculty	9.7%	18.6%	21.2%	18.7%	0.0%	13.0%	28.4%	12	178
Staff	10.4%	28.8%	0.0%	25.8%	0.0%	33.6%	11.8%	63	942
Overall	6.0%	44.5%	6.1%	14.2%	2.4%	18.3%	14.5%	194	2,891
Weighted Sample	194	86	12	28	5	35	28	194	NA
Projected Population	2,891	1,287	176	411	69	528	420	NA	2,891

Results are based on responses to question Q39 (main reason for not traveling to campus). Data are weighted by role and gender.

Table 4. Share of employees not traveling to campus on an average weekday, and reason

Role	Share Away from Campus on an Average Weekday	Of those not traveling to campus						Weighted Sample	Projected Population
		Telecommuting (working from home or remotely)	Work- or School-Related Activities Elsewhere	Regularly Scheduled Day Off	Vacation, Sickness, or Personal Leave	Day Off as Part of a Compressed Work Week	Other		
Employee	37.9%	83.3%	3.9%	1.4%	8.9%	1.6%	0.9%	733	10,941
Faculty	33.4%	79.8%	7.9%	2.5%	6.2%	0.5%	3.2%	124	1,843
Staff	38.8%	82.8%	4.4%	1.6%	8.5%	1.4%	1.2%	610	9,098
Weighted Sample	278	232	11	4	25	4	3	3,228	NA
Projected Population	4,146	3,454	162	59	368	65	38	NA	48,165

Results are based on responses to question Q40 (reason for not traveling to campus by day) and on responses to Q39 for those away from campus all week. Data are weighted by role and gender.

Mode Share for Primary Means of Transportation

For physical trips to campus, mode choice was determined by responses to the statement, “Please select how you got to your first campus destination each day. (If you used more than one means, select whatever you did for most of the distance)” (Q51). Thus, modes identified are those used for most of the trip, and only on the way to campus at the beginning of the day. Throughout this report, we refer to answers to this question as a respondent’s “primary” mode, meaning how they traveled for most of their trip to campus.

For each respondent, we calculate the share of days out of the five-day week that a given mode was used as a primary mode. (For instance, if someone biked one day of five days traveled to campus, their bike share for the week would be 20 percent.) The overall mode share represents the average shares across all respondents, which is equivalent to the share of all people using each mode on an average weekday. For the purpose of validating the method we use to calculate mode share, we also asked respondents about the mode they “usually” use to travel to campus.

We asked respondents to report their residential location as the place from which they usually travel to campus. In some cases, respondents may travel to campus from another location (e.g. a family member’s residence), resulting in seemingly impossible or at least improbable primary mode choices. For example, someone may report living on campus but traveling by train to campus. Since there are very few cases in which these improbable modes appear, results are reported as is, and discretion should be used in interpreting these cases.

Tables 5 through 11 show the overall mode share among those physically traveling to campus on a given weekday. Table 5 shows mode share among the entire sample. Tables 6 through 11 show mode share by residential location, as outlined below. The results suggest that mode splits vary substantially by residential location.

- Table 6 shows the mode share among those who live within Davis. This category includes students and employees who live on campus, off campus in Davis, and in the West Village apartments.
- Table 7 shows the mode share among those who live on campus, defined as the area south of Russell Boulevard, west of A St., north of I-80, and east of Highway 113. Bicycling and walking understandably predominate among the students who live on campus (only a few employees reported living on campus).
- Table 8 shows the mode shares among those living in the West Village apartments. Because the sample sizes in most role groups are very low, role-specific mode shares should be interpreted with some degree of caution. However, the overall mode share estimates for West Village are consistent with expectations for travel distances greater than “on campus” locations but generally less than “off campus in Davis” locations.
- Table 9 shows the mode share results for those living off-campus in Davis (excluding West Village). Among those living off-campus in Davis, undergraduate students and staff are less likely to bike than graduate students and faculty. Undergraduate students have high bus

ridership rates (31 percent), whereas graduate students and employees in Davis who do not bike are more likely to commute by car.

- Table 10 shows the mode share for students and employees who live outside Davis (an estimated 10,206 people). Among those traveling from outside Davis, about 84 percent commute by car, 5 percent carpool or get a ride, and 6 percent ride the bus.
- Table 11 shows the mode share for those living off-campus in Davis (excluding West Village) by their neighborhood in Davis. To determine neighborhood, we asked respondents who lived off-campus in Davis to identify which part of Davis they lived in by using a series of maps as references. See “**Error! Reference source not found.**” and Appendix A: Survey instrument, 2022-23 Campus Travel Survey”.

Table 5. Sharing Using Each Mode on an Average Weekday, by Role Group (Entire Sample)

Role	Physically Traveled	Of those who physically traveled to campus									Weighted Sample	Projected Population
		Bike	eBike	Walk	eScooter/ eSkate/ Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
Student	79.4%	40.8%	0.8%	10.9%	2.0%	20.0%	3.8%	20.9%	0.51%	0.29%	2,495	37,224
Undergraduate	79.8%	39.5%	0.9%	11.4%	2.1%	17.4%	3.6%	24.3%	0.47%	0.29%	2,014	30,046
Freshman	74.4%	62.8%	0.6%	28.2%	1.6%	1.8%	1.2%	3.2%	0.12%	0.50%	326	4,871
Sophomore	84.6%	36.2%	0.9%	9.5%	2.4%	11.2%	3.9%	35.3%	0.27%	0.39%	388	5,795
Junior	80.9%	39.7%	0.0%	8.4%	3.3%	17.1%	3.7%	27.1%	0.50%	0.10%	511	7,624
Senior	78.9%	32.0%	1.7%	7.9%	1.4%	27.0%	4.3%	24.8%	0.70%	0.29%	788	11,756
Graduate	77.9%	46.4%	0.3%	8.4%	1.4%	31.2%	4.8%	6.5%	0.67%	0.28%	481	7,178
Master's	73.6%	46.8%	0.0%	9.2%	1.8%	31.9%	2.9%	6.5%	0.38%	0.45%	237	3,532
PhD	82.1%	46.0%	0.5%	7.7%	1.1%	30.6%	6.5%	6.5%	0.91%	0.14%	244	3,646
Employee	62.1%	19.0%	0.8%	3.5%	0.3%	66.3%	5.4%	3.2%	1.26%	0.14%	733	10,941
Faculty	66.6%	40.5%	1.6%	3.6%	0.6%	41.6%	4.4%	2.6%	4.83%	0.31%	124	1,843
Staff	61.2%	14.3%	0.6%	3.5%	0.2%	71.8%	5.6%	3.4%	0.47%	0.10%	610	9,098
Overall	75.5%	36.7%	0.8%	9.5%	1.7%	28.7%	4.1%	17.6%	0.7%	0.3%	3,228	48,165
Weighted sample	2,437	895	19	231	41	699	100	429	16	6	3,228	NA
Projected population	36,358	13,357	289	3,449	606	10,425	1,498	6,402	237	96	NA	48,165

Results are based on responses to question Q38 (whether they traveled to campus each day) and Q51 (travel mode each day). We calculate all mode split percentages as follows: first we calculate the percent of five weekdays that an individual used a particular mode and then take the average over all respondents. Data are weighted by role and gender.

Table 6. Share Using Each Mode on an Average Weekday, respondents living within Davis

Role	Physically Traveled	Of those who physically traveled to campus									Weighted Sample	Projected Population
		Bike	eBike	Walk	eScooter/ eSkate/ Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
Student	82.2%	46.2%	1.0%	11.7%	2.1%	12.8%	3.1%	22.7%	0.12%	0.34%	1,984	33,354
Undergraduate	82.1%	43.8%	1.1%	12.1%	2.2%	11.1%	2.9%	26.3%	0.15%	0.34%	1,629	27,378
Freshman	74.9%	63.8%	0.6%	28.9%	1.7%	0.5%	0.6%	3.2%	0.13%	0.51%	286	4,802
Sophomore	86.5%	38.8%	1.0%	10.0%	2.5%	8.7%	2.8%	35.8%	0.05%	0.43%	334	5,607
Junior	83.3%	45.2%	0.0%	7.6%	3.8%	10.1%	2.8%	30.4%	0.00%	0.12%	406	6,831
Senior	82.4%	37.3%	2.2%	9.1%	1.2%	17.7%	4.0%	27.9%	0.31%	0.36%	603	10,137
Graduate	82.7%	56.9%	0.3%	9.7%	1.7%	20.8%	4.2%	6.1%	0.00%	0.31%	355	5,976
Master's	79.2%	59.4%	0.0%	10.5%	2.1%	19.3%	2.1%	6.1%	0.00%	0.47%	174	2,931
PhD	86.1%	54.6%	0.6%	8.9%	1.4%	22.1%	6.0%	6.2%	0.00%	0.17%	181	3,044
Employee	68.1%	49.1%	1.7%	4.9%	0.7%	35.5%	4.1%	3.6%	0.15%	0.26%	274	4,605
Faculty	75.0%	60.1%	2.5%	5.3%	0.9%	26.5%	3.4%	0.7%	0.48%	0.11%	75	1,268
Staff	65.4%	44.4%	1.4%	4.7%	0.6%	39.4%	4.3%	4.9%	0.00%	0.32%	198	3,336
Overall	80.5%	46.5%	1.0%	11.0%	2.0%	15.1%	3.2%	20.7%	0.1%	0.3%	2,258	37,959
Weighted sample	1,818	845	19	199	36	275	59	377	2	6	2,258	NA
Projected population	30,567	14,207	319	3,352	597	4,629	991	6,334	38	100	NA	37,959

Results are based on responses to question Q38 (whether they traveled to campus each day), Q51 (travel mode each day), and Q27 (residential location). We calculate all mode split percentages as follows: first we calculate the percent of five weekdays that an individual used a particular mode and then take the average over all respondents. Data are weighted by role and gender.

Table 7. Share Using Each Mode on an Average Weekday, respondents living on-campus

Role	Physically Traveled	Of those who physically traveled to campus									Weighted Sample	Projected Population
		Bike	eBike	Walk	eScooter/ eSkate/ Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
Student	75.3%	57.1%	0.3%	31.1%	1.5%	2.8%	0.8%	6.0%	0.08%	0.36%	450	7,571
Undergraduate	75.3%	56.8%	0.3%	32.1%	0.8%	2.1%	0.7%	6.7%	0.09%	0.38%	382	6,417
Freshman	73.7%	64.3%	0.5%	30.0%	1.1%	0.1%	0.6%	2.7%	0.13%	0.54%	273	4,584
Sophomore	82.2%	40.7%	0.0%	40.9%	0.0%	1.2%	0.0%	17.2%	0.00%	0.00%	41	694
Junior	79.5%	44.2%	0.0%	29.8%	0.0%	11.5%	1.9%	12.5%	0.00%	0.00%	25	419
Senior	76.4%	34.9%	0.0%	37.3%	0.0%	9.5%	1.6%	16.7%	0.00%	0.00%	43	719
Graduate	74.8%	59.0%	0.0%	25.6%	5.4%	6.5%	1.2%	2.1%	0.00%	0.24%	69	1,154
Master's	74.3%	55.7%	0.0%	26.8%	5.9%	6.1%	1.4%	3.7%	0.00%	0.53%	31	528
PhD	75.3%	61.9%	0.0%	24.6%	5.0%	6.8%	1.0%	0.7%	0.00%	0.00%	37	626
Employee	100.0%	60.7%	0.0%	7.6%	0.0%	26.4%	0.0%	0.0%	5.31%	0.00%	4	67
Faculty	100.0%	38.2%	0.0%	36.4%	0.0%	0.0%	0.0%	0.0%	25.44%	0.00%	1	14
Staff	100.0%	66.7%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.00%	0.00%	3	53
Overall	75.5%	57.2%	0.3%	30.9%	1.4%	3.1%	0.8%	5.9%	0.1%	0.4%	454	7,637
Weighted sample	343	196	1	106	5	10	3	20	0	1	454	NA
Projected population	5,764	3,296	16	1,778	83	176	46	340	8	20	NA	7,637

Results are based on responses to question Q38 (whether they traveled to campus each day), Q51 (travel mode each day), and Q27 (residential location). We calculate all mode split percentages as follows: first we calculate the percent of five weekdays that an individual used a particular mode and then take the average over all respondents. Data are weighted by role and gender.

Table 8. Share Using Each Mode on an Average Weekday, respondents living in West Village

Role	Physically Traveled	Of those who physically traveled to campus									Weighted Sample	Projected Population
		Bike	eBike	Walk	eScooter/ eSkate/ Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
Student	82.8%	46.7%	1.5%	7.1%	4.5%	4.8%	0.6%	34.7%	0.00%	0.14%	361	6,070
Undergraduate	83.0%	46.7%	1.5%	7.0%	4.6%	4.9%	0.5%	34.6%	0.00%	0.14%	355	5,973
Freshman	100.0%	51.9%	0.0%	28.1%	0.0%	0.0%	0.0%	20.0%	0.00%	0.00%	3	57
Sophomore	83.5%	41.5%	3.5%	5.6%	7.0%	2.5%	0.8%	39.2%	0.00%	0.00%	83	1,404
Junior	85.4%	51.4%	0.0%	6.2%	2.6%	5.9%	0.5%	33.1%	0.00%	0.29%	167	2,809
Senior	77.9%	42.5%	2.6%	8.9%	6.3%	5.2%	0.3%	34.1%	0.00%	0.00%	101	1,703
Graduate	69.6%	49.3%	0.0%	7.5%	0.0%	0.0%	6.2%	37.0%	0.00%	0.00%	6	97
Master's	72.0%	51.6%	0.0%	3.2%	0.0%	0.0%	6.5%	38.7%	0.00%	0.00%	5	90
PhD	40.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	0	7
Employee	21.5%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.00%	0.00%	3	49
Faculty	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00%	0.00%	0	0
Staff	21.5%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.00%	0.00%	3	49
Overall	82.3%	46.6%	1.5%	7.0%	4.5%	5.0%	0.6%	34.6%	0.0%	0.1%	364	6,120
Weighted sample	300	140	5	21	13	15	2	104	0	0	364	NA
Projected population	5,036	2,347	76	354	226	252	31	1,743	0	7	NA	6,120

Results are based on responses to question Q38 (whether they traveled to campus each day), Q51 (travel mode each day), and Q27 (residential location). We calculate all mode split percentages as follows: first we calculate the percent of five weekdays that an individual used a particular mode and then take the average over all respondents. Data are weighted by role and gender.

Table 9. Share Using Each Mode on an Average Weekday, respondents living off-campus within Davis

Role	Physically Traveled	Of those who physically traveled to campus									Weighted Sample	Projected Population
		Bike	eBike	Walk	eScooter/ eSkate/ Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
Student	84.8%	42.3%	1.0%	6.4%	1.6%	18.7%	4.7%	24.8%	0.17%	0.39%	1,173	19,713
Undergraduate	84.7%	37.8%	1.2%	6.4%	1.8%	16.9%	4.7%	30.5%	0.22%	0.41%	892	14,988
Freshman	100.0%	57.2%	4.3%	5.7%	14.4%	8.5%	1.4%	8.5%	0.00%	0.00%	10	161
Sophomore	88.5%	37.4%	0.2%	6.0%	1.2%	12.4%	4.1%	38.0%	0.08%	0.68%	209	3,510
Junior	82.1%	40.2%	0.0%	6.3%	5.2%	13.2%	4.8%	30.3%	0.00%	0.00%	214	3,603
Senior	83.9%	36.4%	2.2%	6.8%	0.2%	21.0%	5.0%	27.6%	0.40%	0.47%	459	7,715
Graduate	84.9%	56.5%	0.4%	6.3%	0.9%	24.2%	4.8%	6.5%	0.00%	0.33%	281	4,725
Master's	80.6%	60.4%	0.0%	7.4%	1.4%	22.7%	2.1%	5.5%	0.00%	0.47%	138	2,314
PhD	89.1%	53.1%	0.8%	5.4%	0.6%	25.5%	7.1%	7.4%	0.00%	0.21%	143	2,411
Employee	68.1%	49.1%	1.7%	4.8%	0.8%	35.4%	4.2%	3.7%	0.03%	0.26%	267	4,489
Faculty	74.7%	60.4%	2.5%	4.8%	0.9%	26.9%	3.5%	0.7%	0.11%	0.11%	75	1,254
Staff	65.5%	44.0%	1.4%	4.8%	0.7%	39.2%	4.5%	5.1%	0.00%	0.33%	192	3,234
Overall	81.7%	43.3%	1.2%	6.2%	1.5%	21.3%	4.6%	21.5%	0.1%	0.4%	1,440	24,202
Weighted sample	1,176	509	14	73	17	250	54	253	2	4	1,440	NA
Projected population	19,767	8,564	227	1,219	288	4,202	914	4,251	29	73	NA	24,202

Results are based on responses to question Q38 (whether they traveled to campus each day), Q51 (travel mode each day), and Q27 (residential location). We calculate all mode split percentages as follows: first we calculate the percent of five weekdays that an individual used a particular mode and then take the average over all respondents. Data are weighted by role and gender.

Table 10. Share Using Each Mode on an Average Weekday, respondents living outside Davis

Role	Physically Traveled	Of those who physically traveled to campus									Weighted Sample	Projected Population
		Bike	eBike	Walk	eScooter/ eSkate/ Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
Student	70.6%	1.9%	0.0%	4.7%	0.7%	77.3%	5.6%	9.6%	0.11%	0.12%	230	3,870
Undergraduate	71.8%	2.5%	0.0%	5.4%	0.5%	76.3%	5.5%	9.8%	0.00%	0.00%	159	2,668
Freshman	39.8%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.00%	0.00%	4	69
Sophomore	84.9%	0.0%	0.0%	0.0%	0.0%	62.6%	17.7%	19.7%	0.00%	0.00%	11	188
Junior	71.8%	0.0%	0.0%	12.8%	1.7%	70.7%	7.5%	7.3%	0.00%	0.00%	47	793
Senior	71.6%	4.2%	0.0%	2.6%	0.0%	80.3%	3.0%	9.8%	0.00%	0.00%	96	1,619
Graduate	68.0%	0.4%	0.0%	3.2%	1.0%	79.7%	5.9%	9.0%	0.36%	0.41%	72	1,202
Master's	65.3%	0.0%	0.0%	3.9%	2.1%	80.5%	3.1%	9.5%	0.00%	0.85%	36	601
PhD	70.8%	0.8%	0.0%	2.5%	0.0%	79.0%	8.4%	8.6%	0.69%	0.00%	36	602
Employee	61.0%	0.2%	0.0%	1.6%	0.0%	89.4%	4.8%	3.8%	0.09%	0.09%	377	6,336
Faculty	59.9%	1.7%	0.0%	0.9%	0.0%	82.7%	6.2%	7.4%	0.00%	1.03%	34	575
Staff	61.1%	0.0%	0.0%	1.7%	0.0%	90.1%	4.7%	3.5%	0.10%	0.00%	343	5,762
Overall	64.6%	0.9%	0.0%	2.9%	0.3%	84.4%	5.2%	6.2%	0.1%	0.1%	607	10,206
Weighted sample	392	3	0	11	1	331	20	24	0	0	607	NA
Projected population	6,597	58	0	192	18	5,568	340	408	6	7	NA	10,206

Results are based on responses to question Q38 (whether they traveled to campus each day), Q51 (travel mode each day), and Q27 (residential location). We calculate all mode split percentages as follows: first we calculate the percent of five weekdays that an individual used a particular mode and then take the average over all respondents. Data are weighted by role and gender.

Figure 4. Neighborhoods in Davis

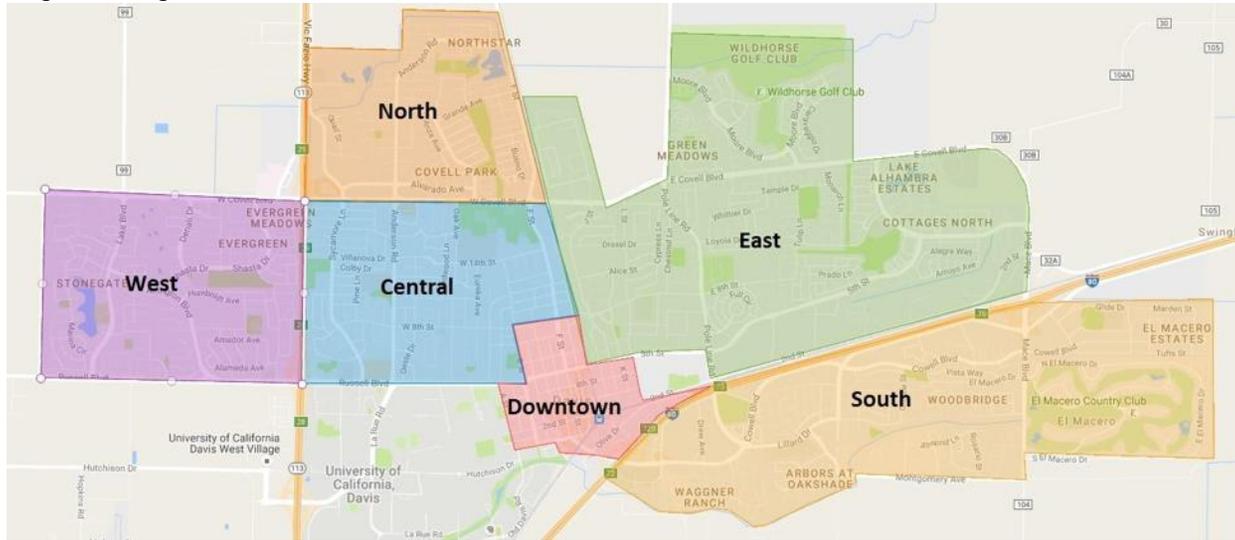


Table 11. Share Using Each Mode on an Average Weekday, by Neighborhood in Davis

Neighborhood	Physically Traveled	Of those who physically traveled to campus									Weighted Sample	Projected Population
		Bike	eBike	Walk	eScooter/ eSkate/ Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
North	82.5%	28.8%	0.5%	4.1%	1.1%	17.2%	5.8%	42.0%	0.00%	0.48%	281	4,726
South	77.6%	36.7%	2.3%	4.1%	1.5%	25.9%	4.7%	24.5%	0.00%	0.40%	196	3,291
East	78.6%	41.0%	3.3%	3.7%	2.1%	29.7%	5.0%	14.7%	0.03%	0.47%	296	4,975
West	81.6%	40.9%	0.0%	1.9%	0.6%	28.5%	6.3%	21.8%	0.08%	0.00%	227	3,810
Central	86.5%	59.0%	0.3%	10.1%	0.9%	13.2%	3.1%	12.6%	0.48%	0.17%	310	5,208
Downtown	81.9%	54.0%	0.4%	16.6%	3.8%	11.8%	2.1%	10.0%	0.26%	1.06%	123	2,069
Overall	81.7%	43.3%	1.2%	6.2%	1.5%	21.3%	4.6%	21.5%	0.15%	0.37%	1,440	24,202
Weighted sample	1,176	509	14	73	17	250	54	253	2	4	1,440	NA
Projected population	19,767	8,564	227	1,219	288	4,202	914	4,251	29	73	NA	24,202

Results are based on responses to question Q38 (whether they traveled to campus each day), Q51 (travel mode each day), and Q27 (residential location). We calculate all mode split percentages as follows: first we calculate the percent of five weekdays that an individual used a particular mode and then take the average over all respondents. Data are weighted by role and gender.

Comparison of 2022-23 Mode Share with 2021-22

One of the main purposes of the Campus Travel Survey is to collect comparable data each year in order to assess trends over time. The questions and calculations used to estimate mode share in this year’s survey are nearly identical to those used in previous year’s survey.

Table 12 shows mode share estimates for 2021-22 and 2022-23. Data for both years are weighted by role and gender. The campus returned to full in-person instruction in 2022-23 after some remote instruction during the previous year owing to Covid-19. Mode share changed slightly as compared to the 2021-22 survey year. Bike and bus use increased while drive alone and carpool use decreased in 2022-23.

Table 12. Comparison of Mode Shares, 2022-23 to 2021-22, Entire Sample

Role	Physically Travelled	Of those who physically traveled to campus								Weighted Sample	Projected Population
		Bike	eBike	Walk or Skate	Drive Alone	Carpool or Ride	Bus	Train	Ridehail		
2022-23											
Student	81.0%	42.2%	0.9%	13.0%	18.7%	3.4%	21.5%	0.12%	0.32%	2,214	37,224
Undergraduate	81.2%	40.6%	1.0%	13.6%	16.2%	3.1%	25.0%	0.14%	0.31%	1,787	30,046
Graduate	80.3%	48.8%	0.3%	10.4%	29.1%	4.4%	6.6%	0.05%	0.32%	427	7,178
Employee	64.0%	22.1%	0.8%	3.4%	65.3%	4.5%	3.7%	0.12%	0.17%	651	10,941
Outside Davis	64.6%	0.9%	0.0%	3.2%	84.4%	5.2%	6.2%	0.10%	0.10%	607	10,206
Within Davis	80.5%	46.5%	1.0%	12.9%	15.1%	3.2%	20.7%	0.12%	0.33%	2,258	37,959
Overall	77.2%	38.4%	0.9%	11.2%	27.4%	3.6%	18.1%	0.12%	0.29%	2,865	48,165
2021-22											
Student	78.8%	40.6%	0.5%	14.5%	20.5%	5.0%	18.5%	0.20%	0.21%	3,280	38,591
Undergraduate	79.5%	41.0%	0.5%	15.7%	16.8%	4.5%	21.2%	0.10%	0.19%	2,657	31,262
Graduate	75.8%	38.8%	0.2%	9.3%	37.2%	7.2%	6.3%	0.63%	0.34%	623	7,329
Employee	60.5%	19.6%	0.5%	2.5%	67.8%	6.2%	2.2%	1.15%	0.00%	898	10,568
Outside Davis	60.2%	1.2%	0.0%	2.3%	84.6%	7.3%	2.7%	1.80%	0.11%	950	11,177
Within Davis	79.2%	44.9%	0.6%	14.7%	16.3%	4.8%	18.5%	0.04%	0.19%	3,228	37,982
Overall	74.9%	36.9%	0.5%	12.4%	28.7%	5.2%	15.7%	0.36%	0.18%	4,178	49,159

Results are based on responses to question Q38 (whether they traveled to campus each day) and Q51 (travel mode each day). Data are weighted by role and gender.

Mode Access

We asked all respondents whether they have a driver’s license (Q15), as well as what modes they have available to them for commuting to campus (Q18). Table 13 shows the share of respondents who have a driver’s license, can drive alone, can bicycle, or use other micro-mobility options to campus for their commute.

Table 13. Driver’s License, Car, Bicycle, and Micro-mobility Access

Role	Driver's license	Access to a car	Access to a bike	Access to an ebike	Access to an scooter	Access to skates*	Weighted sample	Projected population
Student	79.6%	51.0%	69.6%	2.7%	4.1%	6.6%	2,214	37,224
Undergraduate	78.9%	46.4%	68.7%	2.9%	4.2%	7.0%	1,787	30,046
Freshman	59.3%	8.5%	82.4%	2.4%	4.7%	5.4%	290	4,871
Sophomore	76.8%	35.6%	72.2%	3.2%	4.7%	8.0%	345	5,795
Junior	80.4%	52.8%	68.0%	1.5%	5.4%	8.3%	453	7,624
Senior	87.0%	63.2%	61.8%	3.9%	3.0%	6.4%	699	11,756
Graduate	82.5%	70.5%	73.1%	2.0%	3.4%	4.7%	427	7,178
Master's	82.7%	69.2%	72.4%	1.4%	3.5%	6.0%	210	3,532
PhD	82.3%	71.8%	73.8%	2.6%	3.4%	3.4%	217	3,646
Employee	97.4%	95.0%	47.4%	5.4%	4.9%	3.3%	651	10,941
Faculty	98.0%	92.6%	70.3%	4.8%	3.2%	3.3%	110	1,843
Staff	97.3%	95.5%	42.7%	5.6%	5.2%	3.4%	541	9,098
Outside Davis	96.6%	95.9%	21.3%	2.7%	2.8%	2.2%	607	10,206
Within Davis	80.1%	51.6%	76.1%	3.5%	4.6%	6.8%	2,258	37,959
Overall	83.6%	61.0%	64.5%	3.4%	4.3%	5.8%	2,865	48,165
Weighted sample	2,395	1,748	1,848	96	122	167	2,865	NA
Projected population	40,271	29,383	31,074	1,617	2,050	2,811	NA	48,165

Results are based on responses to question Q15 (driver’s licensure) and Q18 (available modes to get to campus). Car access reflects those respondents who indicated that they have the option to drive alone to campus. Data are weighted by role and gender.

*Skates include Skates, conventional skateboard, or kick scooter and Electric skateboard (e-skiatboard)

Potential for Bicycling

We include a question to assess the potential mode share of biking. In Q18, we asked respondents to “select all options that are available to you for getting to campus, whether or not you use them on a regular basis.” Answers to this question might be used as a proxy for the highest potential share of each mode, since those who do not consider a particular mode as viable will be very unlikely to choose it.

Table 14 shows the differences between the share of respondents who consider biking to campus an option and the share that actually bikes to campus on an average weekday. About 80 percent of respondents living within 1 mile from the center of campus consider bicycling an option. A decrease is observed in the share of respondents who live 3 to 5 miles and 5 to 10 miles from the center of campus (i.e. living in off-campus Davis) and still consider biking to campus as an option. An increase is observed in the perceived availability of bicycling for respondents living beyond 5 miles.

Table 14. Potential for Bicycling

Residence	Share Biking on an Average Weekday	Share Who Consider Biking an Option
Within 1 mile	52.6%	80.0%
1 to 2.9 miles	39.3%	80.4%
3 to 4.9 miles	26.2%	75.6%
5 to 9.9 miles	2.9%	21.6%
10 to 19.9 miles	1.1%	32.5%
20 miles or more	0.0%	16.2%
Overall	33.3%	68.4%

Results are based on responses to question Q18 (available modes to get to campus) and Q51 (daily travel). Data are weighted by role and gender for the 2,865 responses that were successfully geocoded and had mode choice data in Q51 (daily travel).

Carpoolers, Ridesharers, and Drivers

We ask those who indicate carpooling (multiple people in a vehicle arriving on campus together) or getting a ride to campus (rideshare, where the driver continues on to another destination after the drop-off) how many other people were in the vehicle. These data enable us to accurately account for carpooling and ridesharing in our estimation of vehicle-miles traveled from person-miles traveled. The average vehicle occupancies for carpools and rides are shown in Table 15.

Among those who carpooled at any point during the reference week, the average number of passengers was 2.5, including the driver. Most people dropped off on campus were the sole passenger with an average of 1.3 passengers dropped off per ride to campus, excluding the driver.

Table 15. Average Carpool Size

Role	Average Occupancy for those who carpooled or got a ride at least once		Weighted Sample		Projected Population	
	Carpool	Ride	Weighted Carpoolers	Weighted Riders	Projected Carpoolers	Projected Riders
Undergraduate	2.63	1.36	181	129	3,040	2,168
Graduate	2.38	1.15	44	20	739	333
Faculty	2.05	1.00	6	4	104	71
Staff	2.19	1.09	34	21	570	352
Outside Davis	2.14	1.11	47	19	786	313
Within Davis	2.47	1.24	197	118	3,312	1,982
Overall	2.52	1.30	265	174	4,453	2,925

Vehicle occupancy is based on responses to Q60 (number of people in your carpool) and Q54 (number of people dropped off). Data are weighted by role and gender.

Number of Vehicles on Campus

Estimates of the number of people driving alone, carpooling, and getting a ride can be combined with average vehicle occupancy findings to estimate the total number of vehicles arriving on campus. We estimate the total number of vehicles as the number of people driving alone, plus fractional vehicles counted in proportion to vehicle occupancy. That is, if a respondent reports arriving in a four-person carpool, we count this as 0.25 vehicles arriving on campus on behalf of that respondent. We weight and expand the sample to project the total number of vehicles for the entire campus population, using the expansion factors shown in Table 16.

Table 16. Projected Vehicles Arriving on an Average Weekday, by Occupancy & Role

Role	Projected number of vehicles on an average weekday				Projected Population
	Drive Alone	Carpool	Ride	Total	
Student	5,631	288	274	6,193	37,224
Undergraduate	3,951	205	223	4,380	30,046
Freshman	46	1	21	67	4,871
Sophomore	521	52	21	594	5,795
Junior	975	55	59	1,089	7,624
Senior	2,410	110	122	2,642	11,756
Graduate	1,679	85	51	1,816	7,178
Master's	763	19	16	798	3,532
PhD	917	67	36	1,019	3,646
Employee	4,567	112	71	4,749	10,941
Faculty	537	20	14	571	1,843
Staff	4,030	92	57	4,179	9,098
Outside Davis	5,568	139	42	5,749	10,206
Within Davis	4,453	273	269	4,995	30,321
Overall	10,197	391	345	10,934	48,165

Vehicle occupancy is based on responses to Q60 (number of people in your carpool) and Q54 (number of people dropped off). Data are weighted by role and gender.

Average Vehicle Ridership

Average vehicle ridership (AVR) is a statistic calculated at each UC campus that represents the ratio of the number of people arriving on campus to the number of personal vehicles brought to campus. We use a formula developed by the South Coast Air Quality Management District, intended to count weekday arrivals of employees from off-campus (only) and making adjustments for employees who telecommute, who adopt a compressed work week schedule, or who use a zero-emission vehicle to commute to campus (see “Appendix D: Calculation of Average Vehicle Ridership (AVR)” for details on the calculation of AVR). If everyone drove alone to campus, the campus AVR would be equal to one. Values greater than one indicate more carpooling, bus or train use, or the use of active modes of transportation.

Among those traveling from off-campus, AVR is estimated to be 3.38 campus-wide, and 2.13 among non-student employees only (Table 17). This means that for every car coming to campus, there are an estimated 3.06 off-campus people coming to campus or telecommuting. This ratio is higher than it was in 2021-22.

Table 17 and Table 18 shows the AVR estimates over the last ten years. Because the method for estimating campus population, used in calculating weights, was modified for the 2015-16 and subsequent analyses, comparisons with earlier years may not be valid.

Table 17. Average Vehicle Ridership (AVR) 2013-14 through 2022-23, Off-Campus Only

Role	Only Off-Campus Residents									
	2013-14	2014-15	2015-16*	2016-17*	2017-18*	2018-19*	2019-20*	2020-21*	2021-22*	2022-23*
Student	5.59	5.66	5.16	3.99	4.08	3.71	4.12	2.85	3.64	4.34
Undergraduate	6.44	6.33	5.9	4.31	4.46	4.13	4.37	3.16	4.06	4.77
Freshman	2.31	4.24	2.73	2.52	2.09	1.88	2.08	3.41	2.72	5.88
Sophomore	10.93	10.64	11.14	6.97	9.7	7.09	8.00	4.52	6.46	7.64
Junior	6.59	6.64	6.23	4.02	4.06	4.25	4.62	4.40	4.26	5.83
Senior	5.85	5.31	4.75	3.92	3.85	3.44	3.52	2.30	3.38	3.64
Graduate	3.57	3.99	3.44	3.11	3.11	2.75	3.43	2.16	2.75	3.28
Master's	2.76	3.04	3.11	3.07	2.81	2.49	3.30	1.92	2.86	3.70
PhD	4.32	4.78	3.77	3.13	3.43	2.95	3.53	2.27	2.64	2.95
Employee	1.75	1.61	1.83	1.55	1.6	1.63	1.59	1.31	2.16	2.13
Faculty	3.24	2.81	2.77	2.27	2.76	2.80	2.60	1.95	3.25	3.08
Staff	1.54	1.49	1.74	1.48	1.49	1.53	1.49	1.25	2.03	2.00
Non-Student and Student Employees	2.58	2.57	2.61	2.25	2.32	2.16	2.21	1.63	2.64	2.79
Outside Davis	1.3	1.27	1.25	1.25	1.26	1.26	1.31	1.10	1.64	1.59
Within Davis	6.53	7.25	5.85	4.79	4.93	4.29	4.66	2.66	4.55	5.40
Overall	3.3	3.23	3.27	2.7	2.76	2.52	2.66	1.85	3.06	3.38

Bold indicates the official AVR statistic reported by UC campuses. *Based on new method for estimating campus population. See "Appendix D: Calculation of Average Vehicle Ridership" for details on AVR calculations.

Table 18. Average Vehicle Ridership (AVR) 2013-14 through 2022-23, On- and Off-Campus

Role	All (On- and Off-Campus Residents)									
	2013-14	2014-15	2015-16*	2016-17*	2017-18*	2018-19*	2019-20*	2020-21*	2021-22*	2022-23*
Student	6.74	6.93	6.46	5.08	5.34	4.38	5.05	3.49	4.49	5.16
Undergraduate	7.96	7.92	7.61	5.71	6.09	4.98	5.55	4.01	5.22	5.77
Freshman	15.45	31.58	33.12	27.93	21.35	14.89	21.10	11.12	20.06	59.40
Sophomore	11.86	11.94	11.83	7.37	10.81	7.33	8.83	5.57	6.81	8.52
Junior	7.41	7.2	6.66	4.42	4.87	4.56	5.06	4.34	4.46	5.90
Senior	6.14	5.67	5.04	4.11	4.21	3.51	3.63	2.46	3.53	3.78
Graduate	3.88	4.4	3.77	3.29	3.42	2.96	3.66	2.31	2.95	3.71
Master's	2.92	3.35	3.34	3.2	3.1	2.68	3.46	2.01	3.04	4.10
PhD	4.75	5.28	4.18	3.36	3.77	3.17	3.81	2.44	2.87	3.40
Employee	1.75	1.61	1.83	1.55	1.61	1.62	1.59	1.32	2.17	2.13
Faculty	3.24	2.81	2.78	2.28	2.76	2.79	2.63	2.02	3.26	3.10
Staff	1.55	1.49	1.74	1.48	1.51	1.53	1.50	1.26	2.04	2.01
Non-Student and Student Employees	2.69	2.7	2.72	2.35	2.49	2.22	2.29	1.68	2.77	2.94
Outside Davis	1.3	1.27	1.25	1.25	1.26	1.26	1.31	1.1	1.64	1.59
Within Davis	7.74	8.75	7.12	6.01	4.93	4.29	4.66	3.14	4.55	5.40
Overall	3.8	3.77	3.86	3.22	3.39	2.82	3.08	2.1	3.60	3.87

*Based on new method for estimating campus population. See "Appendix D: Calculation of Average Vehicle Ridership" for details on AVR calculations.

Vehicle Types

If respondents commuted to campus by vehicle during the reference week, we asked them what kind of vehicle they used. The sampled and projected vehicles by role and fuel type (internal combustion, hybrid, all-electric, et cetera) are shown in Table 19.

Table 19. Type of Vehicle Used During Reference Week

Role	All-Electric	Conventional Hybrid	Gas or Diesel	Hydrogen Fuel Cell	Plug-in Hybrid Electric	Total
Student	33	111	884	0.5	33	1,061
Undergraduate	26	82	672	0.0	25	804
Freshman	1	5	44	0.0	2	52
Sophomore	2	14	104	0.0	3	124
Junior	7	20	183	0.0	6	216
Senior	15	43	341	0.0	14	413
Graduate	7	29	212	0.5	8	257
Master's	4	14	103	0.0	4	125
PhD	3	15	109	0.5	5	132
Employee	31	47	427	0.0	24	529
Faculty	6	8	53	0.0	4	71
Staff	25	39	374	0.0	20	458
Overall	63	158	1,311	0.5	58	1,590
Overall Percent	4%	10%	82%	0%	4%	100%
Projected population	944	2,356	19,556	7	860	23,723

Transit Ridership

If respondents indicated that they rode transit at any point on their way to campus any day during the prior week, we asked them to indicate which transit service(s) they used (“Check all that apply”). Table 20 and Table 21 show the share of bus and train users who used each service at least once during the reference week.

Of the 667 respondents who indicated riding the bus in the past week, most reported using Unitrans at least once, followed distantly by use of the Causeway Connection (UCD/UCDMC shuttle) and Yolobus.

Of the 33 respondents who indicated riding the train to campus in the past week, almost 98 percent reported using Amtrak at least once.

Table 20. Share Using Specific Bus Services at Least Once during the Reference Week

Role	Of those riding the bus to campus at least once					Weighted Sample	Projected Population
	Unitrans	Yolobus	Causeway Connection (UCD/UCDMC Shuttle)	Sacramento Regional Transit	UC Berkeley /Davis Shuttle		
Undergraduate	95.1%	3.4%	1.2%	0.1%	0.2%	592	8,832
Graduate	75.9%	6.7%	16.6%	0.0%	0.8%	44	653
Faculty	29.7%	4.7%	61.0%	0.0%	4.7%	5	73
Staff	37.8%	14.6%	47.6%	0.0%	0.0%	27	399
Overall	90.6%	4.1%	4.8%	0.1%	0.3%	667	9,957

Results are based on responses to Q61 (bus or shuttle used last week). Data are weighted by role and gender.

Table 21. Share Using Specific Train Services at Least Once during the Reference Week

Role	Of those riding the train to campus at least once			Weighted Sample	Projected Population
	Amtrak	BART	Sacramento Regional Transit		
Undergraduate	100.0%	0.0%	0.0%	15	218
Graduate	88.1%	0.0%	11.9%	6	91
Faculty	100.0%	0.0%	0.0%	9	129
Staff	100.0%	0.0%	0.0%	4	53
Overall	97.7%	0.0%	2.3%	33	493

Results are based on responses to Q62 (train used last week). Data are weighted by role and gender.

Origins & Destinations

Residential Location

Travel behavior varies substantially by residential location so each year we ask respondents about their residential location, defined as the place of residence from which they regularly travel to campus. The four broad categories included are: the on campus area, the West Village apartments, off-campus elsewhere in Davis, and outside of Davis (Q27).

The results suggest that 16 percent live on campus (an estimated 7,637 people), 12.7 percent live in West Village (6,120 people), 50.2 percent live off-campus in Davis (24,202 people), and 21 percent live outside of Davis (10,206 people) (Table 22). Individuals who indicated that they live outside of Davis are most likely to live in the nearby cities of Sacramento, Woodland, Vacaville, West Sacramento, Dixon, Elk Grove, and Winters, as well as in the Bay Area (Berkeley, Oakland, San Francisco).

Table 22. Residential Location by Role Group

	On Campus	West Village	Off-Campus in Davis	Outside Davis	Weighted Sample	Projected Population
Student	20.3%	16.3%	53.0%	10.4%	2,214	37,224
Undergraduate	21.4%	19.9%	49.9%	8.9%	1,787	30,046
Freshman	94.1%	1.2%	3.3%	1.4%	290	4,871
Sophomore	12.0%	24.2%	60.6%	3.2%	345	5,795
Junior	5.5%	36.8%	47.3%	10.4%	453	7,624
Senior	6.1%	14.5%	65.6%	13.8%	699	11,756
Graduate	16.1%	1.4%	65.8%	16.7%	427	7,178
Master's	14.9%	2.5%	65.5%	17.0%	210	3,532
PhD	17.2%	0.2%	66.1%	16.5%	217	3,646
Employee	0.6%	0.4%	41.0%	57.9%	651	10,941
Faculty	0.8%	0.0%	68.1%	31.2%	110	1,843
Staff	0.6%	0.5%	35.5%	63.3%	541	9,098
Overall	15.9%	12.7%	50.2%	21.2%	2,865	48,165
Weighted Sample	454	364	1,440	607	2,865	NA
Projected Population	7,637	6,120	24,202	10,206	NA	48,165

Results are based on responses to Q27 (where do you live now?). Data are weighted by role and gender.

Distance to Campus

For the purpose of estimating vehicle miles traveled and carbon dioxide emissions from travel to campus, respondents were asked more detailed information about where they live, including the set of cross-streets nearest where they live (Q29) and their city or unincorporated county, if outside of Davis (Q30). This information was geocoded in ArcGIS, enabling a variety of spatial analyses (see “Appendix E: Geocoding and network distances” for details on the methodology).

We used the geocoded addresses to estimate the distance that respondents travel (along a shortest-time route) to get to campus (in particular, to the Silo) on a daily basis. Table 23 summarizes distances

traveled by role group, showing that employees tend to live farther from campus than students. The median distance traveled among students is 1.41 miles, versus 2.82 miles among faculty and 11.81 miles among staff (Table 23).

Table 23. Average Distance from Residence to Campus, by Role Group

	<i>Of those geocoded, distance from campus (miles)</i>					Weighted Sample	Projected Population
	Geocoded	Mean	Median	Minimum	Maximum		
Student	91.2%	4.18	1.41	0.48	179.38	2,214	37,224
Undergraduate	92.6%	3.69	1.33	0.48	179.38	1,787	30,046
Freshman	98.3%	1.25	0.77	0.77	82.94	290	4,871
Sophomore	93.1%	2.69	1.36	0.58	179.38	345	5,795
Junior	92.2%	4.14	1.33	0.48	79.72	453	7,624
Senior	88.5%	4.89	1.86	0.48	72.79	699	11,756
Graduate	88.1%	6.23	1.92	0.61	133.13	427	7,178
Master's	84.6%	6.91	1.91	0.70	100.31	210	3,532
PhD	91.1%	5.57	1.99	0.61	133.13	217	3,646
Employee	81.8%	12.98	8.46	0.48	180.19	651	10,941
Faculty	83.8%	9.03	2.82	0.57	73.67	110	1,843
Staff	80.6%	13.79	11.81	0.48	180.19	541	9,098
Outside Davis	72.4%	22.84	17.66	0.48	180.19	607	10,206
Within Davis	92.6%	1.93	1.83	0.48	179.38	1,804	30,321
Overall	88.8%	6.18	1.86	0.48	180.19	2,865	48,165
Weighted Sample	2,543	NA	NA	NA	NA	NA	NA

Distances are calculated as the shortest time network distance between respondents' geocoded cross streets given in Q29 (intersection nearest to your residence) and a point on campus near the Silo. Data are weighted by role and gender for the 2,865 cases that were successfully geocoded and had mode choice data in Q51 (daily travel).

Destination on Campus

We asked employees and graduate students the location of their office, lab, or department. This was in part to screen out those whose offices or labs were outside of Davis, who are excluded from the sample for this study. The summary of these results are in Table 24.

Table 24. Destination on Campus, among Employees and Graduate Students

Role	Main Campus	West Campus (west of SR 113)	South Campus (south of I-80)	Off-Campus but in Davis	Weighted Sample	Projected Population
Graduate	85.7%	7.6%	3.3%	3.4%	481	7,178
Master's	87.2%	6.3%	3.6%	2.9%	237	3,532
PhD	84.2%	8.8%	3.1%	3.9%	244	3,646
Employee	84.1%	6.1%	4.2%	5.6%	733	10,941
Faculty	93.5%	4.2%	1.1%	1.3%	124	1,843
Staff	82.2%	6.4%	4.8%	6.5%	610	9,098
Overall	1018	80	46	57	1214	18,119
Weighted Sample	1,018	80	46	57	1,214	NA
Projected Population	15,195	1,190	692	851	NA	18,119

Results are based on responses to Q9 (office, lab, department location). Data are weighted by role and gender.

Vehicle Miles Traveled & Greenhouse Gas Emissions

For estimates of the number of miles traveled to and from campus, we rely on the calculated distances between respondents' geocoded home locations and a centroid on campus, located at the Silo. We assume respondents take the fastest path to and from campus on the days they report having traveled to campus. This method likely underestimates the true number of miles traveled to and from campus because it does not take into account side trips that respondents might make on the way to or from campus (e.g. stopping at the store, picking up children, or visiting friends), diversions from the shortest time path for a more pleasant or less congested route, or trips away from campus during the middle of the day (e.g. going to lunch or to an off-site meeting).

Vehicle Miles Traveled

We estimate the number of miles traveled to and from campus each day as the doubled network distance between respondents' geocoded home locations and the Silo on campus (as described in "Appendix E: Geocoding and network distances"), multiplied by the percent of weekdays a respondent traveled to campus. Thus, if a person lives 10 miles from campus and traveled to campus all five days, her average daily miles traveled would be 20 miles; by contrast, if she traveled to campus only one day, her average daily miles traveled would be 4 miles. We then attribute miles traveled to each mode based on the share of weekdays a respondent used each mode. Thus, if a respondent biked one day and drove four, we count 20 percent of her miles as bike miles and 80 percent as driving miles. Summed across all respondents, this figure represents the number of miles traveled by each mode on an average weekday.

Annual VMT & PMT

To estimate the number of miles traveled annually, we first assume that respondents travel the same number of days per week and using the same modes as in the reference week for the entire 36 weeks of a normal three-quarter academic year. To estimate summer travel, we rely on responses to questions Q64 and Q65 about the number of weeks and average number of days per week traveled to campus during the summer, assuming respondents used the same modes as during the survey reference week

throughout the summer. For example, annual miles biked = (distance from campus × 2) × (share of days biked during reference week) × [(36 weeks × 5 days/week) + (weeks traveled to campus during the summer × days/week traveled during summer)]. In order to estimate the daily miles traveled by each person on an average day we calculate a weighted average of summer and academic-year travel.

Vehicle-miles traveled (VMT) is the miles traveled for each vehicle. Since different vehicles traveling to campus have varying occupancy (i.e. car vs bus vs train), person-miles traveled (PMT) accounts for both vehicles used and occupancy per mile. To estimate PMT for any travel in a personal vehicle or public transit vehicle (including driving alone, carpooling, getting a ride, riding a bus, and riding a train), we assume that each vehicle-mile traveled contributes a fractional person-mile equivalent of one divided by vehicle occupancy. We assume that travel by walking, biking, or skating contributes no PMT. Vehicle occupancy for carpooling and getting a ride varies for each respondent, as reported in questions Q60 and Q54 for those carpooling/vanpooling or getting a ride, respectively. If a respondent lives 10 miles from campus and traveled in a 3-person carpool all five weekdays, her average daily PMT would be $(10 \text{ miles} \times 2) / 3 = 6.67$ miles. Vehicle occupancy for those driving alone and for those who got a ride and were the only person dropped off on campus by the person giving them a ride is assumed to be one.

In addition to PMT for personal vehicles, we estimate PMT for buses and trains for the purpose of calculating the carbon dioxide equivalent emissions generated from commuting to campus (see next section). For bus and train occupancy, we assume average occupancy for all trips on those modes. We estimated average bus occupancy based on annual ridership data from Unitrans, since 88% of all bus riders use Unitrans. According to Unitrans' figures from 2022, Unitrans had an average of about 6.66 passengers per mile.¹ Thus, for someone who lives 10 miles from campus and traveled by bus all five weekdays, average bus PMT per day is $(10 \text{ miles} \times 2) / 6.66 \approx 3$ person-miles.

We estimate train occupancy based on annual ridership data from Amtrak's Capitol Corridor, since they provide nearly all of train rides to campus. According to figures in the Capitol Corridor Annual Business Plan, the Capitol Corridor had an average of 102 passengers per train mile in FY 2018-19.² If a respondent lives 100 miles from campus and traveled by train all five days, her average train PMT per day is estimated to be $(100 \text{ miles} \times 2) / 102 = 1.96$ person-miles.

Our estimates for person-miles traveled, by mode and role, are shown in Table 25 and Table 26.

¹ Estimates received from Unitrans' Office for the year 2021-22.

² Capitol Corridor Joint Powers Authority. Capitol Corridor Intercity Passenger Rail Service Business Plan Update FY 2020-21 – FY 2021-22, Appendix C.

Table 25. Person-Miles-Traveled (PMT) Daily and Annually, by Mode

Mode	Daily		Annually		Share of Total PMT	Share of Population	Projected Population
	Total PMT	PMT per Person	Total PMT	PMT per Person			
No travel	0	0.0	0	0.0	0.0%	22.9%	11,001
No vehicle (bike, walk, or skate)	0	0.0	0	0.0	0.0%	39.0%	18,743
Personal vehicles	2,65,423	23.0	5,63,87,390	4,891.4	97.5%	24.0%	11,528
Drive alone	2,57,040	25.2	5,46,44,229	5,358.7	94.4%	21.2%	10,197
Carpool or ride	8,383	6.3	17,43,161	1,310.1	3.1%	2.8%	1,331
Bus	6,910	1.0	13,60,712	201.8	2.5%	14.0%	6,742
Train	4	0.1	918	20.9	0.0%	0.1%	44
Total	2,72,338	5.7	5,77,49,020	1,201.7	100.0%	100.0%	48,058

PMT are calculated as described in the text and annual estimates assume that campus operated for the entire academic year. Mode groups are estimated using each means of transportation on a typical weekday, based on responses to questions Q38 (days traveled to campus) and Q51 (daily travel by mode). Data are weighted by role and gender for the 2,865 cases that were successfully geocoded and had mode choice data in Q51 (daily travel).

Table 26. Person-Miles-Traveled (PMT), Daily and Annually, by Role Group

Role	Daily		Annually		Share of total PMT	Share of Population	Projected Population
	Total PMT	PMT per person	Total PMT	PMT per person			
Student	1,33,048	3.6	2,61,86,483	703	48.8%	77.3%	37,224
Undergraduate	94,279	3.1	1,85,49,236	617	34.6%	62.4%	30,046
Freshman	2,255	0.5	4,07,589	84	0.8%	10.1%	4,871
Sophomore	8,755	1.5	16,50,115	285	3.2%	12.0%	5,795
Junior	28,182	3.7	51,83,536	680	10.3%	15.8%	7,624
Senior	55,087	4.7	1,13,07,996	962	20.2%	24.4%	11,756
Graduate	38,770	5.4	76,37,247	1,064	14.2%	14.9%	7,178
Master's	19,341	5.5	36,63,943	1,037	7.1%	7.3%	3,532
PhD	19,429	5.3	39,73,304	1,090	7.1%	7.6%	3,646
Employee	1,39,782	12.8	3,16,55,566	2,893	51.2%	22.7%	10,941
Faculty	14,215	7.7	29,61,405	1,607	5.2%	3.8%	1,843
Staff	1,25,568	13.8	2,86,94,161	3,154	46.0%	18.9%	9,098
Outside Davis	2,46,607	24.2	5,24,25,284	5,137	90.4%	21.2%	10,206
Within Davis	26,224	0.7	54,16,765	143	9.6%	78.8%	37,959
On Campus	437	0.1	89,656	12	0.2%	15.9%	7,637
West Village	1,441	0.2	2,74,162	45	0.5%	12.7%	6,120
Off Campus	24,346	1.0	50,52,947	209	8.9%	50.2%	24,202
Overall	2,72,831	5.7	5,78,42,049	1,201	100.0%	100.0%	48,165

PMT are calculated as described in the text and annual estimates assume that campus operated for the entire academic year. Data are weighted by role and gender for the 2,865 cases that were successfully geocoded and had mode choice data in Q51 (daily travel by mode).

Greenhouse Gas Emissions

We estimate the amount of greenhouse gases produced by campus travelers by assuming that each travel mode generates a certain quantity of carbon dioxide-equivalent (CO₂e) emissions per person-mile traveled, and multiplying this quantity by our estimate of miles traveled by each mode on an average weekday. In particular, we assume driving alone generates 1.1 pounds-equivalent of CO₂e per vehicle-mile (regardless of vehicle type), and that carpooling/getting a ride, riding a bus, and riding a train produce some fractional amount of the emissions produced for the entire vehicle, adjusted for the total number of passengers in the vehicle.

For carpooling and getting rides, we adjust vehicle occupancies based on those reported by the respondents themselves. For transit, we assume average occupancies apply for all respondents. For Unitrans (about 88% of bus use for the entire campus), we use emissions estimates specific to the Unitrans fuel mix and passenger occupancy. For other bus services and Amtrak we estimate emissions based on national travel fuel use and emissions averages. See Appendix I for the calculation of average weekday pounds of greenhouse gas emissions by mode.

Using these assumptions, we estimate the greenhouse gas emissions generated by travel to campus. These estimates are summarized in Table 27 through Table 30.

Table 27. Daily Pounds of CO2e Emitted, by Mode and Role

Role	Pounds-equivalent of CO2e generated on an average weekday							Average lbs per Person	Share of Total CO2e	Share of Population	Projected Population
	Drive Alone	Carpool	Ride	Bus	Train	Ridehail	Total				
Student	1,23,977	3,495	1,472	28,590	68	361	1,57,963	4.24	51.4%	77.3%	37,224
Undergraduate	87,042	2,518	1,047	23,917	37	206	1,14,767	3.82	37.3%	62.4%	30,046
Freshman	2,197	1	24	158	3	29	2,411	0.50	0.8%	10.1%	4,871
Sophomore	6,701	667	209	6,064	4	74	13,718	2.37	4.5%	12.0%	5,795
Junior	26,376	817	180	5,601	0	19	32,992	4.33	10.7%	15.8%	7,624
Senior	51,769	1,033	634	12,094	30	84	65,645	5.58	21.4%	24.4%	11,756
Graduate	36,935	977	426	4,672	31	155	43,197	6.02	14.1%	14.9%	7,178
Master's	18,611	396	53	2,442	0	129	21,631	6.12	7.0%	7.3%	3,532
PhD	18,324	581	373	2,230	31	26	21,566	5.91	7.0%	7.6%	3,646
Employee	1,36,516	2,865	663	9,074	91	139	1,49,348	13.65	48.6%	22.7%	10,941
Faculty	13,501	434	152	1,300	3	108	15,499	8.41	5.0%	3.8%	1,843
Staff	1,23,014	2,431	511	7,775	88	31	1,33,849	14.71	43.6%	18.9%	9,098
Outside Davis	2,40,131	5,056	1,032	21,536	119	194	2,68,069	26.26	87.2%	21.2%	10,206
Within Davis	20,361	1,304	1,104	16,128	41	306	39,243	1.03	12.8%	78.8%	37,959
On Campus	275	8	48	368	4	32	734	0.10	0.2%	15.9%	7,637
West Village	679	23	32	3,205	0	19	3,957	0.65	1.3%	12.7%	6,120
Off Campus	19,408	1,273	1,024	12,555	36	255	34,552	1.43	11.2%	50.2%	24,202
Overall	2,60,492	6,360	2,136	37,664	160	500	3,07,312	6.38	100.0%	100.0%	48,165

Data are weighted by role and gender for the 2,865 responses that were successfully geocoded.

Table 28. Annual Tons of CO₂e Emitted, by Mode and Role

Role	Annual Tons of CO ₂ e Emissions							Average Tons per Person	Share of Total CO ₂ e	Share of Population	Projected Population
	Drive Alone	Carpool	Ride	Bus	Train	Ridehail	Total				
Student	14,059	396	167	3,242	8	41	17,913	0.48	51.4%	77.3%	37,224
Undergraduate	9,870	286	119	2,712	4	23	13,014	0.43	37.3%	62.4%	30,046
Freshman	249	0	3	18	0	3	273	0.06	0.8%	10.1%	4,871
Sophomore	760	76	24	688	0	8	1,556	0.27	4.5%	12.0%	5,795
Junior	2,991	93	20	635	0	2	3,741	0.49	10.7%	15.8%	7,624
Senior	5,870	117	72	1,371	3	10	7,444	0.63	21.4%	24.4%	11,756
Graduate	4,188	111	48	530	4	18	4,898	0.68	14.1%	14.9%	7,178
Master's	2,110	45	6	277	0	15	2,453	0.69	7.0%	7.3%	3,532
PhD	2,078	66	42	253	4	3	2,446	0.67	7.0%	7.6%	3,646
Employee	15,481	325	75	1,029	10	16	16,936	1.55	48.6%	22.7%	10,941
Faculty	1,531	49	17	147	0	12	1,758	0.95	5.0%	3.8%	1,843
Staff	13,950	276	58	882	10	3	15,178	1.67	43.6%	18.9%	9,098
Outside Davis	27,230	573	117	2,442	13	22	30,398	2.98	87.2%	21.2%	10,206
Within Davis	2,309	148	125	1,829	5	35	4,450	0.12	12.8%	78.8%	37,959
On Campus	31	1	5	42	1	4	83	0.01	0.2%	15.9%	7,637
West Village	77	3	4	363	0	2	449	0.07	1.3%	12.7%	6,120
Off Campus	2,201	144	116	1,424	4	29	3,918	0.16	11.2%	50.2%	24,202
Overall	29,539	721	242	4,271	18	57	34,849	0.72	100.0%	100.0%	48,165

Data are weighted by role and gender for the 2,865 responses that were successfully geocoded.

Table 29. Daily Pounds of CO₂e Emitted, by Mode and Role (not including Unitrans)

Role	Pound-equivalent of CO ₂ e emissions generated on an average weekday							Average lbs per person	Share of total CO ₂ e	Share of Population	Projected Population
	Drive Alone	Carpool	Ride	Bus	Train	Ridehail	Total				
Student	1,23,977	3,495	1,472	13,301	68	361	1,42,675	3.83	48.9%	77.3%	37,224
Undergraduate	87,042	2,518	1,047	9,372	37	206	1,00,221	3.34	34.4%	62.4%	30,046
Freshman	2,197	1	24	10	3	29	2,263	0.46	0.8%	10.1%	4,871
Sophomore	6,701	667	209	2,006	4	74	9,660	1.67	3.3%	12.0%	5,795
Junior	26,376	817	180	1,195	0	19	28,587	3.75	9.8%	15.8%	7,624
Senior	51,769	1,033	634	6,161	30	84	59,712	5.08	20.5%	24.4%	11,756
Graduate	36,935	977	426	3,929	31	155	42,453	5.91	14.6%	14.9%	7,178
Master's	18,611	396	53	2,126	0	129	21,315	6.03	7.3%	7.3%	3,532
PhD	18,324	581	373	1,803	31	26	21,139	5.80	7.2%	7.6%	3,646
Employee	1,36,516	2,865	663	8,808	91	139	1,49,082	13.63	51.1%	22.7%	10,941
Faculty	13,501	434	152	1,286	3	108	15,486	8.40	5.3%	3.8%	1,843
Staff	1,23,014	2,431	511	7,522	88	31	1,33,597	14.68	45.8%	18.9%	9,098
Outside Davis	2,40,131	5,056	1,032	20,867	119	194	2,67,399	26.20	91.7%	21.2%	10,206
Within Davis	20,361	1,304	1,104	1,242	41	306	24,358	0.64	8.3%	78.8%	37,959
On Campus	275	8	48	15	4	32	382	0.05	0.1%	15.9%	7,637
West Village	679	23	32	46	0	19	798	0.13	0.3%	12.7%	6,120
Off Campus	19,408	1,273	1,024	1,181	36	255	23,178	0.96	7.9%	50.2%	24,202
Overall	2,60,492	6,360	2,136	22,109	160	500	2,91,757	6.06	100.0%	100.0%	48,165

Data are weighted by role and gender for the 2,865 responses that were successfully geocoded.

Table 30. Annual Tons of CO2e Emitted, by Mode and Role (not Including Unitrans)

Role	Annual Tons of CO ₂ e Emissions							Average Tons per Person	Share of Total CO ₂ e	Share of Population	Projected Population
	Drive Alone	Carpool	Ride	Bus	Train	Ridehail	Total				
Student	14,059	396	167	1,508	8	41	16,179	0.43	48.9%	77.3%	37,224
Undergraduate	9,870	286	119	1,063	4	23	11,365	0.38	34.4%	62.4%	30,046
Freshman	249	0	3	1	0	3	257	0.05	0.8%	10.1%	4,871
Sophomore	760	76	24	227	0	8	1,095	0.19	3.3%	12.0%	5,795
Junior	2,991	93	20	136	0	2	3,242	0.43	9.8%	15.8%	7,624
Senior	5,870	117	72	699	3	10	6,771	0.58	20.5%	24.4%	11,756
Graduate	4,188	111	48	446	4	18	4,814	0.67	14.6%	14.9%	7,178
Master's	2,110	45	6	241	0	15	2,417	0.68	7.3%	7.3%	3,532
PhD	2,078	66	42	204	4	3	2,397	0.66	7.2%	7.6%	3,646
Employee	15,481	325	75	999	10	16	16,906	1.55	51.1%	22.7%	10,941
Faculty	1,531	49	17	146	0	12	1,756	0.95	5.3%	3.8%	1,843
Staff	13,950	276	58	853	10	3	15,150	1.67	45.8%	18.9%	9,098
Outside Davis	27,230	573	117	2,366	13	22	30,323	2.97	91.7%	21.2%	10,206
Within Davis	2,309	148	125	141	5	35	2,762	0.07	8.3%	78.8%	37,959
On Campus	31	1	5	2	1	4	43	0.01	0.1%	15.9%	7,637
West Village	77	3	4	5	0	2	90	0.01	0.3%	12.7%	6,120
Off Campus	2,201	144	116	134	4	29	2,628	0.11	7.9%	50.2%	24,202
Overall	29,539	721	242	2,507	18	57	33,085	0.69	100.0%	100.0%	48,165

Data are weighted by role and gender for the 2,865 responses that were successfully geocoded.

Awareness of TAPS Programs

We presented respondents with a list of campus transportation services and asked them to indicate their familiarity with them. Table 31 summarizes the responses for each service, and Table 32 compares responses for the past six years for those services that appeared on each of the surveys.

Table 31. Awareness of Transportation Programs & Services

Program	I've used it	I've heard of it, but never used it	I've never heard of it
Aggie Bike Buy at the Bike Barn	11.2%	67.1%	21.7%
Transportation Services Motorist Assistance (lock out, jump-starts, etc.)	4.6%	44.1%	51.3%
Yolobus/SacRT Route 138 - Causeway Connection	14.3%	62.4%	23.3%
Zipcar Carshare at UC Davis	8.5%	60.7%	30.8%
Helmet Hair, Don't Care	14.3%	60.1%	25.6%
Bike Program LockCutting Service	1.5%	44.2%	54.3%
Bike Theft Reporting via UC Davis Police	4.6%	66.5%	28.9%
ParkMobile (Daily Permitting)	63.0%	27.4%	9.6%
Transportation Services Mobility Assistance Shuttle	2.0%	52.1%	45.9%
Bike Registration via Bike Index	20.1%	44.4%	35.5%
The Transportation and Parking Administrative Advisory Committee (TPAAC)	1.8%	32.0%	66.3%

Results are based on responses to Q66 (familiarity with TAPS programs). Data are weighted by role and gender.

Table 32. Awareness of Transportation Programs & Services, 2017-18 through 2022-23

Program	Change 2021-22			Percent who have heard of it or used it			
	to 2022-23	2022-23	2021-22	2020-21	2019-20	2018-19	2017-18
Aggie Bike Buy at the Bike Barn	42%	78%	37%	44%	40%	39%	43%
Zipcar Carshare at UC Davis	2%	69%	67%	76%	76%	73%	74%
Transportation Services Motorist Assistance (lock out, jump-starts, etc.)	28%	49%	21%	30%	26%	25%	32%
Bike Program LockCutting Service	-7%	45.7%	53%	53%	67%	65%	65%
Transportation Services Mobility Assistance Shuttle	14%	54%	40%	38%	26%	25%	32%
Bike Registration via Bike Index	-9%	64%	73%	57%	71%	71%	74%
Bike Theft Reporting via UC Davis Police	13%	71.1%	58%	59%	58%	NA	NA
ParkMobile(Daily Permitting)	10%	90%	80%	NA	NA	NA	NA
Yolobus/SacRT Route 138 - Causeway Connection	NA	77%	NA	NA	NA	NA	NA
Helmet Hair, Don't Care	NA	74%	NA	NA	NA	NA	NA
The Transportation and Parking Administrative Advisory Committee (TPAAC)	NA	34%	NA	NA	NA	NA	NA
Zimride carpool matching service	NA	NA	19%	NA	27%	25%	28%
In-vehicle parking meters (Easy Park)	NA	NA	35%	NA	40%	40%	47%
GoClub Transit Subsidy	NA	NA	29%	37%	27%	27%	NA
Bike tire air stations and repair stations around campus	NA	NA	80%	85%	86%	83%	87%
Bicycle Education and Enforcement Program (BEEP) and bike safety video	NA	NA	37%	33%	29%	31%	32%

Results are based on responses to Q66 (familiarity with TAPS programs). See previous CTS reports for previous years' data. Data are weighted by role and gender.

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APPENDICES

Appendix A: Survey Instrument, 2022-23 Campus Travel Survey

Below is the full text of the survey instrument, shown without the formatting that appeared for online survey-takers. Notes about the conditional display of questions based on respondents' prior answers are shown in gray and blue (e.g. "Skip to Q12 if..." and "Display This Question if..."). Responses that allow for only a single selection are shown as circles; responses that allow for multiple selections are shown as squares. No questions required responses for respondents to proceed. As in past surveys, we updated the dates of the reference week after one and two weeks.

2022-23 UC Davis Campus Travel Survey

Start of Block: Welcome Page

Q1 Welcome to the 2022-23 Campus Travel Survey! You are invited to participate in the 2022-2023 UC Davis Campus Travel Survey. This annual survey provides campus planners with valuable feedback on how people get to campus and their experiences with various transportation programs. It is intended for everyone who works or studies at UC Davis.

Your feedback helps improve the campus!

UC Davis Transportation Services (TS) and graduate students from the Institute of Transportation Studies have used the results from this survey to:

- Identify trends in the way that people get to campus from year to year
- Better understand the factors that encourage biking to campus
- Prioritize infrastructure improvements on campus
- Develop new TS programs to serve the campus community
- Estimate greenhouse gas emissions for travel to the campus

Participating in this research survey takes **10-15 minutes**. Doing so is voluntary. We assure you that **all responses are confidential** and the results will only be published in the aggregate, without connection to any individual. You must be at least 18 years old to complete this survey.

We're going to ask you questions in the following areas:

- Your role at UC Davis
- Your travel to and from campus
- Your experience with campus transportation programs
- Your safety and security when traveling on campus
- Your housing and experience with housing affordability
- Some background information about you

To reward you for your time and input, you will be entered into a drawing for **forty \$50 CoHo or UC Davis Bookstore gift cards**. If you are unable to complete the survey but would like to be included in the drawing, please email us at travelsurvey@ucdavis.edu to be entered.

Thanks for participating! **Aakansha Jain**, PhD Student, Institute of Transportation Studies (akjain@ucdavis.edu) **Susan Handy**, Professor, Institute of Transportation Studies (slhandy@ucdavis.edu)

End of Block: Welcome Page

Start of Block: Section 1 - Role

Q2 What is your primary role at UC Davis? If you are a student who is also employed by the university, please select your student role.

- Undergraduate student (including Post-baccalaureate) (1)
- Graduate student (2)
- Faculty (3)
- Staff (4)
- Visiting scholar (5)
- Post doc (6)
- Faculty emeritus (9)
- I'm no longer affiliated with UC Davis (8)
- Other: (10) _____

Skip To: Q12 If What is your primary role at UC Davis? = I'm no longer affiliated with UC Davis

Display This Question:

If What is your primary role at UC Davis? = Faculty

Q3 What is your current faculty status?

- Ladder rank (senate) (1)
- Non-ladder rank (federation) (2)
- Unsure (3)

Display This Question:

If What is your primary role at UC Davis? = Undergraduate student (including Post-baccalaureate)

Q4 What year are you?

- Freshman (1)
- Sophomore (2)
- Junior (3)
- Senior (4)
- Fifth-year senior (5)
- Post-baccalaureate (6)
- Visiting / exchange student (7)
- Other: (8) _____

Display This Question:

If What year are you? = Sophomore

Or What year are you? = Junior

Or What year are you? = Senior

Or What year are you? = Fifth-year senior

Or What year are you? = Post-baccalaureate

Q5 Did you transfer to UC Davis from a college, university, or community college?

- Yes (1)
- No (2)

Display This Question:

If What is your primary role at UC Davis? = Graduate student

Q6 What type of graduate program are you in?

- Master's (1)
- PhD (2)
- Law (3)
- MBA (4)
- Veterinary (5)
- Ed.D. or CANDEL (6)
- Other: (7) _____

Display This Question:

If What is your primary role at UC Davis? = Visiting scholar

Q7 What is your campus role?

- Freshman (1)
- Sophomore (2)
- Junior (3)
- Senior (4)
- Master's student (5)
- PhD student (6)
- Post doc (7)
- Faculty (8)
- Other: (9) _____

Display This Question:

If What is your primary role at UC Davis? = Undergraduate student (including Post-baccalaureate)
Or What is your primary role at UC Davis? = Graduate student

Q8 As a student, are you also a paid employee of UC Davis?

- Yes (1)
- No (2)

Display This Question:

If What is your primary role at UC Davis? = Faculty
Or What is your primary role at UC Davis? = Staff
Or What is your primary role at UC Davis? = Post doc
Or What is your primary role at UC Davis? = Faculty emeritus

Q307 During a typical week, for how many days do you work for most of the day at:

	1 day (7)	2 days (6)	3 days (3)	4 days (4)	5 days (5)
A UC Davis office, lab, or other facility (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Home (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A non-UC Davis remote work location other than my home (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If What is your primary role at UC Davis? != Undergraduate student (including Post-baccalaureate)

Q9 Where is your UC Davis office, lab, or other facility?

- Main Campus area (this is most people) (1)
 - On the Davis campus, in the West Campus area (west of SR 113) (2)
 - On the Davis campus, in the South Campus area (south of I-80) (3)
 - Technically off-campus, but within the City of Davis (4)
 - Outside of Davis (5)
-

Display This Question:

If Where is your UC Davis office, lab, or other facility? = Outside of Davis

Q10 Where outside of Davis is your office, lab, or other facility? Check all that apply to your work circumstances.

- Bodega Marine Laboratory (Bodega and/or Point Reyes) (1)
- Executive MBA Program (San Ramon) (2)
- Fish Conservation and Culture Laboratory (FCCL) (Byron) (3)
- Imperial Valley Desert Research Center (El Centro) (4)
- Jepson Prairie (Dixon area) (5)
- Lawrence Livermore National Laboratory (Livermore) (6)
- McClellan Nuclear Research Center (Sacramento) (7)
- McLaughlin Reserve (8)
- Oakville Research Station (Napa Valley) (9)
- Quail Ridge (10)
- Stebbins Reserve (11)
- Tahoe Environmental Research Center (Incline Village and/or Tahoe City) (12)
- Taller Arte del Nuevo Amanecer (Woodland) (13)
- UC Davis San Diego Veterinary Clinic (San Diego) (14)
- Veterinary Medicine Teaching & Research Center (VMTRC) – CAHFS (Tulare) (15)
- VMTRC CAHFS (San Bernardino) (16)
- VMTRC CAHFS (Turlock) (17)
- Veterinary Medicine Templeton Farms (Templeton near San Luis Obispo) (18)
- Wolfskill Experimental Orchard/National Clonal Germplasm Repository (Winters) (19)

Russell Ranch (20)

Other: (21) _____

Display This Question:

*If If Where outside of Davis is your office, lab, or other facility? Check all that apply to your work...
q://QID10/SelectedChoicesCount Is Greater Than 0*

Q309 Please select the primary mode of transportation you usually use to get to this UC Davis office, lab or other facility (If you selected more than one location in the previous question, please answer for the location you visit the most).

- Walk (or wheelchair) (4)
- Electric-assist bike (e-bike) (5)
- Bike (6)
- Stand up electric scooter (e-scooter) (7)
- Electric skateboard (e-skateboard) (8)
- Skates, conventional skateboard, or kick scooter (9)
- Drive alone in a car (or other vehicle) (10)
- Carpool and/or vanpool with others going to this UC Davis office, lab or other facility (11)
- Get dropped off by a friend or family (the driver continues on elsewhere) (12)
- Lyft, Uber, or other ride-hailing service (13)
- Motorcycle or Vespa-like scooter (14)
- Bus and/or shuttle (15)
- Train and/or light rail (16)
- Other: (17) _____

Display This Question:

If Please select the primary mode of transportation you usually use to get to this UC Davis office,... = Drive alone in a car (or other vehicle)

Or Please select the primary mode of transportation you usually use to get to this UC Davis office,... = Carpool and/or vanpool with others going to this UC Davis office, lab or other facility

Or Please select the primary mode of transportation you usually use to get to this UC Davis office,... = Get dropped off by a friend or family (the driver continues on elsewhere)

Or Please select the primary mode of transportation you usually use to get to this UC Davis office,... = Motorcycle or Vespa-like scooter

Carry Forward All Choices - Displayed & Hidden from "Which type of vehicle did you use to get to campus last week?"



Q349 Which type of vehicle do you usually use to get to this UC Davis office, lab or other facility?

- Gasoline or diesel vehicle (1)
- Conventional hybrid vehicle (does not plug into the electricity grid) (2)
- Plug-in hybrid electric vehicle (3)
- All-electric vehicle (4)
- CNG fueled vehicle (5)
- Biofuel vehicle (6)
- Hydrogen fuel cell vehicle (7)

Display This Question:

If Where is your UC Davis office, lab, or other facility? = Outside of Davis

Q310 What is your approximate round-trip commute distance in miles to this location?
(Take one-way distance and multiply it by 2).

Skip To: Q11 If Condition: What is your approximate ro... Is Displayed. Skip To: Thank you for taking this shortened V....

Display This Question:

If Where is your UC Davis office, lab, or other facility? = Outside of Davis

Q11 Thank you for taking this shortened version of the Campus Travel Survey. Since your office or lab is outside of Davis, we do not need any further information from you at this time.

Skip To: End of Survey If Thank you for taking this shortened version of the Campus Travel Survey. Since your office or lab... Is Displayed

Display This Question:

If What is your primary role at UC Davis? = I'm no longer affiliated with UC Davis

Q12 Thank you for taking this shortened version of the Campus Travel Survey. Since you are no longer affiliated with UC Davis, we do not need any further information from you at this time.

Skip To: End of Survey If Thank you for taking this shortened version of the Campus Travel Survey. Since you are no longer... Is Displayed

End of Block: Section 1 - Role

Start of Block: Section 2a - General Background Information

Q13 Next, we have a few questions about you.

Q14 Where were you born?

- In California (1)
- Outside of California, but in the United States (2)
- Outside the United States, in: (3) _____

Q15 Do you currently have a driver's license?

- Yes, a California driver's license (1)
- Yes, a non-California (but from the United States) driver's license (2)
- Yes, a driver's license issued by another country (3)
- No (4)

Page Break

Q16 Do you have any physical conditions that prevent you from...

	Yes (1)	No (2)
Walking (1)	<input type="radio"/>	<input type="radio"/>
Bicycling (2)	<input type="radio"/>	<input type="radio"/>
Driving (3)	<input type="radio"/>	<input type="radio"/>
Using public transit (4)	<input type="radio"/>	<input type="radio"/>

Page Break

Q17 How do you describe yourself?

Woman (2)

Man (7)

Non-binary (6)

Gender non-conforming (9)

Different identity: (10) _____

Prefer not to say (8)

Page Break

Q18

We are interested in your available means of transportation.

Select all options that are available to you for getting to campus, whether or not you use them on a regular basis. Include options you would only use for part of the way.

- Walk (or wheelchair) (1)
- Electric-assist bike (e-bike) (23)
- Bike (3)
- Stand up electric scooter (e-scooter) (24)
- Electric skateboard (e-skateboard) (25)
- Skates, conventional skateboard, or kick scooter (2)
- Drive alone in a car (or other vehicle) (6)
- Carpool and/or vanpool with others going to campus (7)
- Get dropped off by a friend or family (the driver continues on elsewhere) (8)
- Lyft, Uber, or other ride-hailing service (14)
- Motorcycle or Vespa-like scooter (5)
- Bus and/or shuttle (9)
- Train and/or light rail (10)
- Other: (22) _____

Page Break

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Bike

Or We are interested in your available means of transportation. Select all options that are availabl... = Skates, conventional skateboard, or kick scooter

Or We are interested in your available means of transportation. Select all options that are availabl... = Carpool and/or vanpool with others going to campus

Or We are interested in your available means of transportation. Select all options that are availabl... = Bus and/or shuttle

Or We are interested in your available means of transportation. Select all options that are availabl... = Train and/or light rail

Q19 You mentioned that you have these modes available...

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Bike

Or We are interested in your available means of transportation. Select all options that are availabl... = Electric-assist bike (e-bike)

Q20 What kind of bike is available to you? Select all that apply.

Bike that I own (1)

Bike that I borrow or rent (e.g. Joe Bike) (4)

Bike share (e.g. Lime) (3)

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Skates, conventional skateboard, or kick scooter

Q21 What kind of skates, conventional skateboard, or kick scooter is available to you? Select all that apply.

Roller skates or rollerblades (1)

Conventional skateboard (2)

Kick scooter (non-electric) (4)

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Carpool and/or vanpool with others going to campus

Q22 Do you have access to a carpool, vanpool, or both?

Carpool (1)

Vanpool (2)

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Bus and/or shuttle

Q23 Which bus or shuttle is available to you? Select all that apply.

Unitrans (1)

Yolobus (2)

Sacramento Regional Transit (4)

UC Berkeley/Davis Shuttle (5)

Causeway Connection (UCD/UCDMC Intercampus Shuttle) (7)

FlixBus (8)

Other: (6) _____

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Train and/or light rail

Q24 Which train or light rail is available to you? Select all that apply.

Amtrak/Capitol Corridor (1)

BART (2)

Sacramento Regional Transit (3)

Page Break

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Bus and/or shuttle

Or We are interested in your available means of transportation. Select all options that are availabl... = Train and/or light rail

Q26 Do you currently have a multi-ride transit pass?

Display This Choice:

If What is your primary role at UC Davis? = Undergraduate student (including Post-baccalaureate)

- Yes - with my student ID card (4)
- Yes - Monthly ticket (1)
- Yes - Multi-ride ticket (e.g. 10-rides) (2)
- Yes - Other: (5) _____
- No (3)

End of Block: Section 2a - General Background Information

Start of Block: Section 2b – Background Information about Residence

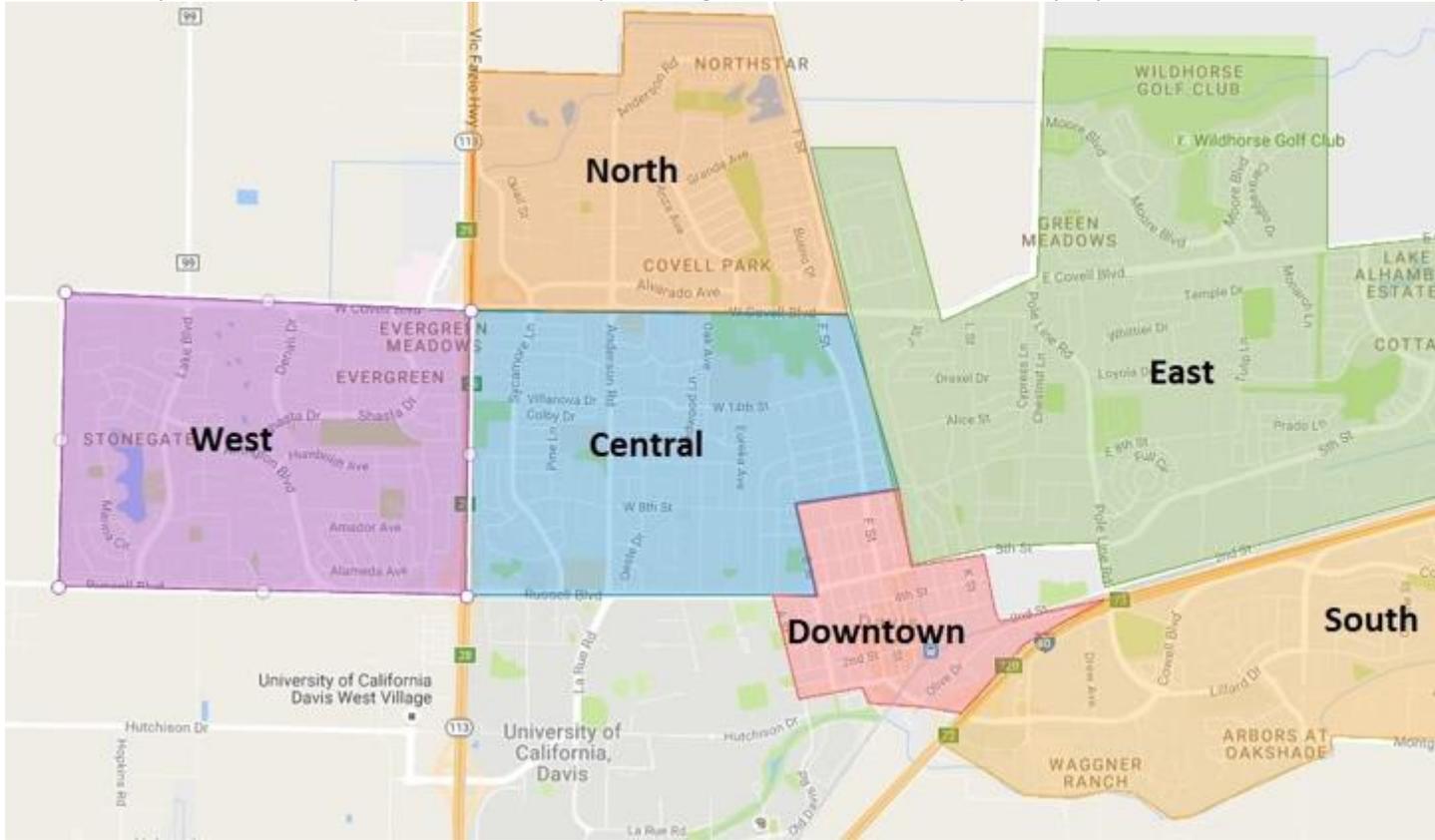
Q27 Where do you live now?

- On the UC Davis main campus (includes Cuarto and the area east of SR 113, south of Russell Blvd, west of A St, and north of I-80) (1)
- On-campus in the West Village apartments (2)
- Off-campus elsewhere in the city of Davis (3)
- Outside of Davis (4)

Display This Question:

If Where do you live now? = Off-campus elsewhere in the city of Davis

Q236 Which part of Davis do you live in? Click on your neighborhood on the map to drop a point.



Page Break

Display This Question:

If Where do you live now? = Off-campus elsewhere in the city of Davis

Or Where do you live now? = Outside of Davis

Q29

What intersection is nearest to your residence?

(Please answer for where you live when you are traveling to campus on a regular basis. This information will only be used to calculate the approximate distance you travel to campus and to help plan facility needs around campus. It will be kept confidential and will not be used in any other way.)

Street #1: (1) _____

Street #2: (2) _____

Display This Question:

If Where do you live now? = Outside of Davis

Q30 In what city (or unincorporated county) do you live?

Dixon (4)

Elk Grove (5)

Sacramento (2)

Vacaville (3)

West Sacramento (6)

Winters (7)

Woodland (1)

Other city: (8) _____

Unincorporated county: (10) _____

Page Break

Display This Question:

If Where do you live now? = Off-campus elsewhere in the city of Davis

Or Where do you live now? = On-campus in the West Village apartments

Or Where do you live now? = On the UC Davis main campus (includes Cuarto and the area east of SR 113, south of Russell Blvd, west of A St, and north of I-80)

Q31 Do you regularly (at least once per week) spend the night at a second residence that is **outside of Davis** from which you sometimes commute to campus? (E.g. Home of partner/spouse, family's home, second home)

Yes (1)

No (2)

Display This Question:

If Do you regularly (at least once per week) spend the night at a second residence that is outside o... = Yes

Q32 Where is this secondary residence?

City or nearest city: (1) _____

Display This Question:

If Where do you live now? = Outside of Davis

Q33 Do you regularly (at least once per week) stay at a second residence from which you sometimes commute to campus? (E.g. Home of partner/spouse, apartment near work or school, second home)

Yes (1)

No (2)

Display This Question:

If Do you regularly (at least once per week) stay at a second residence from which you sometimes com... = Yes

Q34 Where is this secondary residence?

- In Davis (1)
- Outside of Davis, in (city): (6) _____

Display This Question:

If Do you regularly (at least once per week) stay at a second residence from which you sometimes com... = Yes

Or Do you regularly (at least once per week) spend the night at a second residence that is outside o... = Yes

Q35 About how many days per week do you typically commute to campus from the secondary residence?

▼ 1 (1) ... 7 (7)

End of Block: Section 2b – Background Information about Residence

Start of Block: Section 3 - Travel to campus - Days traveled last week

Q36 Consider your activities during the last week, from Monday (November 7) through Sunday (November 13).

If you use a day planner or Google or Outlook Calendar, it might be useful to look at the last week's activities as you complete this section. Your best guess is also okay!

Q37

Did you go somewhere on campus any day last week (November 7 – November 13) for school or work?

If you live on campus, but went to other campus locations for school or work, please count those trips. If you went to a UC Davis office or lab that is technically off-campus, but within the City of Davis, please count that as well.

- Yes, I traveled to campus destinations for school or work last week (1)
- No, I did not travel to campus destinations for school or work last week (2)
-

Display This Question:

If Did you go somewhere on campus any day last week (November 7 – November 13) for school or work? ... = Yes, I traveled to campus destinations for school or work last week

Q38 On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please count that as well.

Monday (1)

Tuesday (2)

Wednesday (3)

Thursday (4)

Friday (5)

Saturday (6)

Sunday (7)

End of Block: Section 3 - Travel to campus - Days traveled last week

Start of Block: Section 4 - Travel to Campus - Days not traveled last week

Display This Question:

If Did you go somewhere on campus any day last week (November 7 – November 13) for school or work? ... = No, I did not travel to campus destinations for school or work last week

Q39 What was the main reason you did not go to campus destinations last week for school or work?

- Study abroad or sabbatical (1)
 - Vacation, sickness, or personal leave (2)
 - Work or school-related travel (e.g. meeting, conference, field work) (3)
 - Telecommuting (working from home or another remote location) (4)
 - Temporary appointment elsewhere (internship, visiting scholar, teaching appointment, exchange program, etc.) (5)
 - Other: (6) _____
-

Display This Question:

If What is your primary role at UC Davis? = Faculty

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Less Than or Equal to 4*

Or If

What is your primary role at UC Davis? = Staff

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Less Than or Equal to 4*

Or If

What is your primary role at UC Davis? = Visiting scholar

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Less Than or Equal to 4*

Or If

What is your primary role at UC Davis? = Post doc

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Less Than or Equal to 4*

Or If

What is your primary role at UC Davis? = Graduate student

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Less Than or Equal to 4*

Or If

What is your primary role at UC Davis? = Faculty emeritus

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

*And And On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Less Than or Equal to 4*

Q40

You mentioned that you **did not travel** to campus on the following days last week.

What was the main reason you did not travel to campus? Please answer for each day individually.

Display This Choice:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Answer:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Answer:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Answer:

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If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Answer:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Choice:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to...
!= Monday*

Display This Choice:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Choice:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to...
!= Tuesday*

Display This Choice:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Choice:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to...
!= Wednesday*

Display This Choice:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Choice:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to...
!= Thursday*

Display This Choice:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Choice:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to...
!= Friday*

Display This Choice:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Display This Answer: If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Monday (1)

Telecommuting (working from home or another remote location) (6)

Display This Answer: If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Tuesday (2)

Work or school-related travel (e.g. meeting, conference, field work) (7)

Display This Answer: If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Wednesday (3)

Regularly scheduled day off (8)

Display This Answer: If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Thursday (4)

Vacation, sickness, or personal leave (9)

Display This Answer: If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Friday (5)

Day off as part of a compressed work week (e.g. 9/80 schedule) (10)

Other (11)

Display This Choice: If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Telecommuting (working from home or another remote location) (1)

C O C O O O C C C O

Display
This
Choice:

If
On which
days last
week
(November 7 –
November 13) did
you go
somewhere
on
campus?

If you
went to...
!=

Monday

Monday
(7)

C O C O O O C C C O

Display
This
Choice:

If
Welcome
to the
2022-23
Campus
Travel
Survey! Is
Displayed

Work or
school-
related
travel
(e.g.
meeting,
conference,
field
work) (2)

C O C O O O C C C O

Display
This
Choice:

If
On which
days last
week
(November 7 –
November 13) did
you go
somewhere
on
campus?

If you
went to...
!=

Tuesday

Tuesday
(8)

C O C O O O C C C O

Display
This
Choice:

If
Welcome
to the
2022-23
Campus
Travel
Survey! Is
Displayed

Regularly
scheduled
day off
(3)

C O C O O O C C C O

Display
This
Choice:

If
On which
days last
week
(November 7 –
November 13) did
you go
somewhere
on
campus?
If you
went to...
!=
Wednesday

Wednesday (9)

C O C O O O C C C O

Display
This
Choice:

If
Welcome
to the
2022-23
Campus
Travel
Survey! Is
Displayed

Vacation,
sickness,
or
personal
leave (4)

C O C O O O C C C O

Display
This
Choice:

If
On which
days last
week
(November 7 –
November 13) did
you go
somewhere
on
campus?
If you
went to...
Thursday

C O C O O O C C C O

Thursday
(10)

Display
This
Choice:

If
Welcome
to the
2022-23
Campus
Travel
Survey! Is
Displayed

C O C O O O C C C O

Day off
as part of
a
compressed
work
week (i.e.
4/40,
9/80, or
3/36
schedule)
(5)

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... != Friday

Friday (11)

Display This Choice:

If Welcome to the 2022-23 Campus Travel Survey! Is Displayed

Other (6)

Display This Question:

If Did you go somewhere on campus any day last week (November 7 – November 13) for school or work? ... = No, I did not travel to campus destinations for school or work last week

Q41 Do you expect to resume regular travel to campus for school or work this academic year?

Yes (1)

No (2)

Skip To: Q42 If Do you expect to resume regular travel to campus for school or work this academic year? = No

Display This Question:

If Do you expect to resume regular travel to campus for school or work this academic year? = No

Q42 Thank you for taking this shortened version of the Campus Travel Survey. Since you do not intend to resume regular travel to campus, we do not need any further information from you at this time.

Skip To: End of Survey If Thank you for taking this shortened version of the Campus Travel Survey. Since you do not intend... Is Displayed

End of Block: Section 4 - Travel to Campus - Days not traveled last week

Start of Block: Section 5 - Travel to Campus - Usual travel to campus

Q43 When you are regularly traveling to campus, about how many days per week do you **typically** travel to campus for school or work?

- Less than once a week (1)
- 1 day per week (2)
- 2 days per week (3)
- 3 days per week (4)
- 4 days per week (5)
- 5 days per week (6)
- 6 days per week (7)
- 7 days per week (8)

Page Break

Carry Forward All Choices - Entered Text from "We are interested in your available means of transportation. Select all options that are available to you for getting to campus, whether or not you use them on a regular basis. Include options you would only use for part of the way."



Q44 What means of transportation do you **usually use to get to campus?** (If you usually use more than one mode of transportation, please select the one you usually use for **most of the distance**).

- Walk (or wheelchair) (1)
 - Electric-assist bike (e-bike) (2)
 - Bike (3)
 - Stand up electric scooter (e-scooter) (4)
 - Electric skateboard (e-skateboard) (5)
 - Skates, conventional skateboard, or kick scooter (6)
 - Drive alone in a car (or other vehicle) (7)
 - Carpool and/or vanpool with others going to campus (8)
 - Get dropped off by a friend or family (the driver continues on elsewhere) (9)
 - Lyft, Uber, or other ride-hailing service (10)
 - Motorcycle or Vespa-like scooter (11)
 - Bus and/or shuttle (12)
 - Train and/or light rail (13)
 - Other: (14)
-

Display This Question:

If If What means of transportation do you usually use to get to campus? (If you usually use more than o... Bus and/or shuttle Is Selected

Carry Forward Selected Choices - Entered Text from "Which bus or shuttle is available to you? Select all that apply."



Q45 Which bus do you **usually use to get to campus?** (If you used more than one, please select the service used for the greater distance of your trip.).

- Unitrans (1)
 - Yolobus (2)
 - Sacramento Regional Transit (3)
 - UC Berkeley/Davis Shuttle (4)
 - Causeway Connection (UCD/UCDMC Intercampus Shuttle) (5)
 - FlixBus (6)
 - Other: (7)
-

Q46 What means of transportation do you usually use to **get around campus**?

- Walk (or wheelchair) (1)
- Electric-assist bike (e-bike) (15)
- Bike (3)
- Stand up electric scooter (e-scooter) (16)
- Electric skateboard (e-skateboard) (17)
- Skates, conventional skateboard, or kick scooter (2)
- Drive alone in a car (or other vehicle) (6)
- Carpool (7)
- Get a dropped off by a friend or family (8)
- Lyft, Uber, or other ride-hailing service (12)
- Motorcycle or Vespa-like scooter (5)
- Bus or shuttle (9)
- Other: (10) _____

Display This Question:

If What is your primary role at UC Davis? = Staff

Q48 When do you typically arrive on campus?

▼ Before 7:00 am (2) ... Noon or later (13)

End of Block: Section 5 - Travel to Campus - Usual travel to campus

Start of Block: Section 6 - Travel to Campus - Modes used last week

Display This Question:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

Q49 Consider how you traveled to campus **last week**.

Display This Question:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

Carry Forward Displayed Choices from "We are interested in your available means of transportation.Select all options that are available to you for getting to campus, whether or not you use them on a regular basis. Include options you would only use for part of the way."



Q50 First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us **all** the different means of transportation you used at some point on your way to school or work, from the moment you left home to when you arrived at your first destination on campus – even if it was just for part of the way – on any day that week. Select **all** that apply.

- Walk (or wheelchair) (1)
- Electric-assist bike (e-bike) (2)
- Bike (3)
- Stand up electric scooter (e-scooter) (4)
- Electric skateboard (e-skateboard) (5)
- Skates, conventional skateboard, or kick scooter (6)
- Drive alone in a car (or other vehicle) (7)
- Carpool and/or vanpool with others going to campus (8)
- Get dropped off by a friend or family (the driver continues on elsewhere) (9)
- Lyft, Uber, or other ride-hailing service (10)
- Motorcycle or Vespa-like scooter (11)
- Bus and/or shuttle (12)
- Train and/or light rail (13)
- Other: (14) _____

Display This Question:

*If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please...
q://QID24/SelectedChoicesCount Is Greater Than or Equal to 1*

Carry Forward Selected Choices - Entered Text from "First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your

way to school or work, from the moment you left home to when you arrived at your first destination on campus – even if it was just for part of the way – on any day that week. Select all that apply. "



Q51 Next, consider each day specifically. Please select how you got to your first campus destination each day. (If you used more than one mode of transportation, select whatever you did for **most of the distance**.)

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Monday

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Tuesday

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Wednesday

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Thursday

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Friday

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Saturday

Display This Choice:

If On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Sunday

Walk (or wheel chair) (1)	Electric-assist bike (e-bike) (2)	Bike (3)	Stand up electric scooter (e-scooter) (4)	Electric skateboard (e-skateboard) (5)	Skates, conventional skateboard, or kick scooter (6)	Drive alone in a car (or other vehicle) (7)	Car pool and/or van pool with others going to campus (8)	Get dropped off by a friend or family (the driver continues on elsewhere) (9)	Lyft, Uber, or other ride-hailing service (10)	Motorcycle or Vespa-like scooter (11)	Bus and/or shuttle (12)	Train and/or light rail (13)	Other: (14)
---------------------------	-----------------------------------	----------	---	--	--	---	--	---	--	---------------------------------------	-------------------------	------------------------------	-------------

Display This Choice:

If On which days last week (November 7 – November 13) did you go some where on campus? If you went to... = Monday

○ ((○ ○ ((○ (○ ((○ (((

Monday (1)

Display This Choice:
If
On which days last week (November 7 – November 13) did you go some where on campus? If you went to... = Tuesday

Tuesday (2)



Display This Choice:
If
On which days last week (November 7 – November 13) did you go some where on campus? If you went to... = Wednesday

Wednesday
(3)



Display This Choice:
If
On which days last week (November 7 – November 13) did you go some where on campus? If you went to... = Thursday

Thursday
(4)



Display This Choice:
If
On which days last week (November 7 – November 13) did you go somewhere on campus? If you went to... = Friday

Friday
(5)



Display This Choice:
If
On which days last week (November 7 – November 13) did you go some where on campus? If you went to... = Saturday

Saturday (6)



Display This Choice:
If
On which days last week (November 7 – November 13) did you go some where on campus? If you went to... = Sunday

Sunday (7)



End of Block: Section 6 - Travel to Campus - Modes used last week

Start of Block: Section 8 - Travel to campus - More details about mode last week

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Bike Is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... [Bike] (Count) > 0

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Electric-assist bike (e-bike) Is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... [Electric-assist bike (e-bike)] (Count) > 0

And If

If What kind of bike is available to you? Select all that apply. q://QID375/SelectedChoicesCount Is Greater Than 1

Carry Forward Selected Choices from "What kind of bike is available to you? Select all that apply."



Q52 What kind of bike did you use **last week**?

Bike that I own (1)

Bike that I borrow or rent (e.g. Joe Bike) (2)

Bike share (e.g. Lime) (3)

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Skates, conventional skateboard, or kick scooter Is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... [Skates, conventional skateboard, or kick scooter] (Count) > 0

And If

If What kind of skates, conventional skateboard, or kick scooter is available to you? Select all that apply. q://QID374/SelectedChoicesCount Is Greater Than 1

Carry Forward Selected Choices from "What kind of skates, conventional skateboard, or kick scooter is available to you? Select all that apply."



Q53 What kind of skates, conventional skateboard, or kick scooter did you use **last week**?

- Roller skates or rollerblades (1)
- Conventional skateboard (2)
- Kick scooter (non-electric) (3)

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Get dropped off by a friend or family (the driver continues on elsewhere) Is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... [Get dropped off by a friend or family (the driver continues on elsewhere)] (Count) > 0

Q54 During the times when you got dropped off by a friend or family **last week**, how many people did your driver usually drop off?

- 1 (just you) (1)
- 2 people (2)
- 3 people (3)
- 4 people (4)
- 5 people (5)
- 6 people (6)
- 7 people (7)
- 8 people (8)
- 9 people (9)
- 10 people (10)
- 11 or more people (11)

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Carpool and/or vanpool with others going to campus Is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Get dropped off by a friend or family (the driver continues on elsewhere) Is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Motorcycle or Vespa-like scooter Is Selected

Q55 Which type of vehicle did you use to get to campus **last week**?

- Gasoline or diesel vehicle (1)
- Conventional hybrid vehicle (does not plug into the electricity grid) (2)
- Plug-in hybrid electric vehicle (3)
- All-electric vehicle (4)
- CNG fueled vehicle (5)
- Biofuel vehicle (6)
- Hydrogen fuel cell vehicle (7)

Page Break

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Drive alone in a car (or other vehicle) Is Selected

Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Carpool and/or vanpool with others going to campus Is Selected

Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Motorcycle or Vespa-like scooter Is Selected

Or What means of transportation do you usually use to get to campus? (If you usually use more than one) Drive alone in a car (or other vehicle) Is Selected

Or What means of transportation do you usually use to get to campus? (If you usually use more than one) Carpool and/or vanpool with others going to campus Is Selected

Or What means of transportation do you usually use to get to campus? (If you usually use more than one) Motorcycle or Vespa-like scooter Is Selected

Q57 When you drive to Davis for school or work, do you **usually** park on-campus or off-campus?

On-campus (1)

Off-campus (2)

Display This Question:

If When you drive to Davis for school or work, do you usually park on-campus or off-campus? = Off-campus

Q58 How do you **usually** get from your parked car to campus?

- Walk (or wheelchair) (8)
- Electric-assist bike (e-bike) (16)
- Bike (9)
- Stand up electric scooter (e-scooter) (17)
- Electric skateboard (e-skateboard) (18)
- Skates, conventional skateboard, or kick scooter (11)
- Get dropped off by a friend or family (12)
- Bus or shuttle (13)
- Lyft, Uber, or other ride hailing service (14)
- Other: (15) _____

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Carpool and/or vanpool with others going to campus Is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... [Carpool and/or vanpool with others going to campus] (Count) > 0

Q59 You mentioned that you carpoled or vanpoled last week. Which was it?

- Carpool (1)
- Vanpool (2)

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Carpool and/or vanpool with others going to campus Is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... [Carpool and/or vanpool with others going to campus] (Count) > 0

Q60 During the times when you carpoled or vanpoled last week, about how many people were in your carpool or vanpool (including yourself)?

- 2 (you plus one other person) (1)
- 3 people (2)
- 4 people (3)
- 5 people (4)
- 6 people (5)
- 7 people (6)
- 8 people (7)
- 9 people (8)
- 10 people (9)
- 11 people (10)
- 12 or more people (11)

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Bus and/or shuttle Is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... = Bus and/or shuttle

Carry Forward All Choices - Entered Text from "Which bus or shuttle is available to you? Select all that apply."



Q61 Which bus or shuttle did you use on your way to campus last week? If you used more than one, please select the service used for the greater distance of your trip.

- Unitrans (1)
- Yolobus (2)
- Sacramento Regional Transit (3)
- UC Berkeley/Davis Shuttle (4)
- Causeway Connection (UCD/UCDMC Intercampus Shuttle) (5)
- FlixBus (6)
- Other: (7)

Display This Question:

If If Which bus or shuttle did you use on your way to campus last week? If you used more than one, please select the service used for the greater distance of your trip. Unitrans Is Selected

Q385 Which Unitrans line did you use on your way to campus last week?

▼ A Line (1) ... Z Line (18)

Page Break

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Train and/or light rail is Selected

Or Next, consider each day specifically. Please select how you got to your first campus destination... [Train and/or light rail] (Count) > 0

Carry Forward Displayed Choices from "Which train or light rail is available to you? Select all that apply."



Q62 Which train or light rail did you use on your way to campus last week? If you used more than one, please select the service you used for the greater portion of your trip.

- Amtrak/Capitol Corridor (1)
- BART (2)
- Sacramento Regional Transit (3)

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Bus and/or shuttle is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to campus. Train and/or light rail is Selected

Q301 Which travel mode did you use to get **from your residence** to the bus stop or train station?

- Walk (or wheelchair) (1)
- Electric-assist bike (e-bike) (3)
- Bike (2)
- Stand up electric scooter (e-scooter) (11)
- Electric skateboard (e-skateboard) (12)
- Skates, conventional skateboard, or kick scooter (4)
- Drive alone in a car (or other vehicle) (5)
- Get dropped off by a friend or family member (the driver continues on elsewhere) (7)
- Lyft, Uber, or other ridehailing service (8)
- Motorcycle or Vespa-like scooter (9)
- Other (write-in) (10) _____

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Bus and/or shuttle Is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Train and/or light rail Is Selected

Q303 Which travel mode did you use to get from the bus stop or train station *to your usual destination on campus*?

- Walk (or wheelchair) (1)
- Electric-assist bike (e-bike) (3)
- Bike (2)
- Stand up electric scooter (e-scooter) (11)
- Electric skateboard (e-skateboard) (12)
- Skates, conventional skateboard, or kick scooter (4)
- Drive alone in a car (or other vehicle) (5)
- Get dropped off by a friend or family member (the driver continues on elsewhere) (7)
- Lyft, Uber, or other ridehailing service (8)
- Motorcycle or Vespa-like scooter (9)
- Other (write-in) (10) _____

Page Break

End of Block: Section 8 - Travel to campus - More details about mode last week

Start of Block: Section 7 - Travel to campus - in the summer

Q63 Now consider this past summer, from June 13 - September 16, 2022.

Q64 How much time did you spend at UC Davis over the summer? We're interested in the number of weeks you spent last summer traveling to and from campus destinations on a regular basis. Please estimate how many weeks you were on campus at least once a week during this period. If you went to a UC Davis office or lab that is technically off-campus, but within the city of Davis, please count that as well. (Note: There were a total of 14 weeks in the academic summer.)

- None (15)
- All summer / 14 weeks (June 21 - September 18) (1)
- 13 weeks (2)
- 12 weeks (3)
- 11 weeks (4)
- 10 weeks (5)
- 9 weeks (6)
- 8 weeks (7)
- 7 weeks (8)
- 6 weeks (equivalent to just ONE summer session, I or II) (9)
- 5 weeks (10)
- 4 weeks (11)
- 3 weeks (12)
- 2 weeks (13)
- 1 week (14)

Display This Question:

If How much time did you spend at UC Davis over the summer? We're interested in the number of weeks... != None

Q65 During this summer, how many days per week were you typically on campus?

- 1 day per week (1)
- 2 days per week (2)
- 3 days per week (3)
- 4 days per week (4)
- 5 days per week (5)
- 6 days per week (6)
- 7 days per week (7)

End of Block: Section 7 - Travel to campus - in the summer

Start of Block: Add On: Safety and Crashes

Q384 Transportation services would like to know more about your safety while traveling on campus.

Q382 Since the start of 2022 Fall Quarter, have you been hit by any of the following while you were walking on campus?

- Electric-assist bike (e-bike) (1)
 - Bike (2)
 - Stand up electric scooter (e-scooter) (3)
 - Electric skateboard (e-skateboard) (4)
 - Skates, conventional skateboard, or kick scooter (5)
 - No, I have not been hit by any of the listed modes while walking (6)
-

Q347 Did you work or study at UC Davis during the 2021-22 academic year?

Yes (1)

No (2)

Display This Question:

If Did you work or study at UC Davis during the 2021-22 academic year? = Yes

Q348 These next questions are about bicycling, scooting, and skating to get to and/or around the UC Davis campus during the last academic year. Think back to ALL of the last year from the beginning of Fall Quarter 2021 through the end of Summer Session 2022. Do not consider travel you did that was unrelated to getting to, from, and/or around campus.

Display This Question:

If Did you work or study at UC Davis during the 2021-22 academic year? = Yes

Q326 Did you use any of the following modes to get to, from, and/or around the UC Davis campus at least once last year?

	Yes (1)	No (2)
Electric-assist bike (e-bike) (4)	<input type="radio"/>	<input type="radio"/>
Bike (5)	<input type="radio"/>	<input type="radio"/>
Stand up electric scooter (e-scooter) (6)	<input type="radio"/>	<input type="radio"/>
Electric skateboard (e-skateboard) (10)	<input type="radio"/>	<input type="radio"/>
Skates, conventional skateboard, or kick scooter (7)	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Electric-assist bike (e-bike) [Yes]

Q328 How often did you ride an e-bike to get to, from, and/or around the UC Davis campus last year?

- Daily or nearly daily (1)
- 3-6 Days per week (2)
- 1-2 Days per week (3)
- 1-3 Days per month (4)
- Less than once per month (5)

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Electric-assist bike (e-bike) [Yes]

Q332 During this period did you experience a fall or crash with an injury while using your e-bike?

	On campus (1)	Off campus, on my way between home and campus (2)
<input checked="" type="radio"/> No (1)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, a fall or crash but I had no injuries (2)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury but I did not need medical attention (4)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I had to visit an urgent care or emergency room without being admitted (5)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I was admitted to a hospital (6)	<input type="checkbox"/>	<input type="checkbox"/>

Display This Question:

If During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, an injury but I did not need medical attention] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q336 Thinking back to the last fall or crash you had while using your e-bike last year, what type of fall or crash was it?

- A slip or swerve resulting in a fall (1)
- Collision with an object (curb, tree, pole, bollard etc.) or animal (2)
- Collision with a bicyclist (3)
- Collision with someone on skates, skateboard, or scooter (7)
- Collision with a pedestrian (4)
- Collision with a motor vehicle (5)

Display This Question:

If Thinking back to the last fall or crash you had while using your e-bike last year, what type of f... = Collision with a bicyclist

Q350 You mentioned that you had a collision with a bicyclist. What kind of bike was it?

- Electric-assist bike (e-bike) (1)
 - Bike (2)
 - Unsure (4)
-

Display This Question:

If Thinking back to the last fall or crash you had while using your e-bike last year, what type of f... = Collision with someone on skates, skateboard, or scooter

Q351 You mentioned that you had collision with someone on skates, skateboard, or scooter. What kind of skates, skateboard, or scooter was it?

- Roller skates or rollerblades (1)
- Electric skateboard (e-skateboard) (3)
- Conventional skateboard (2)
- Stand up electric scooter (e-scooter) (5)
- Kick scooter (non-electric) (4)
- Unsure (6)

Display This Question:

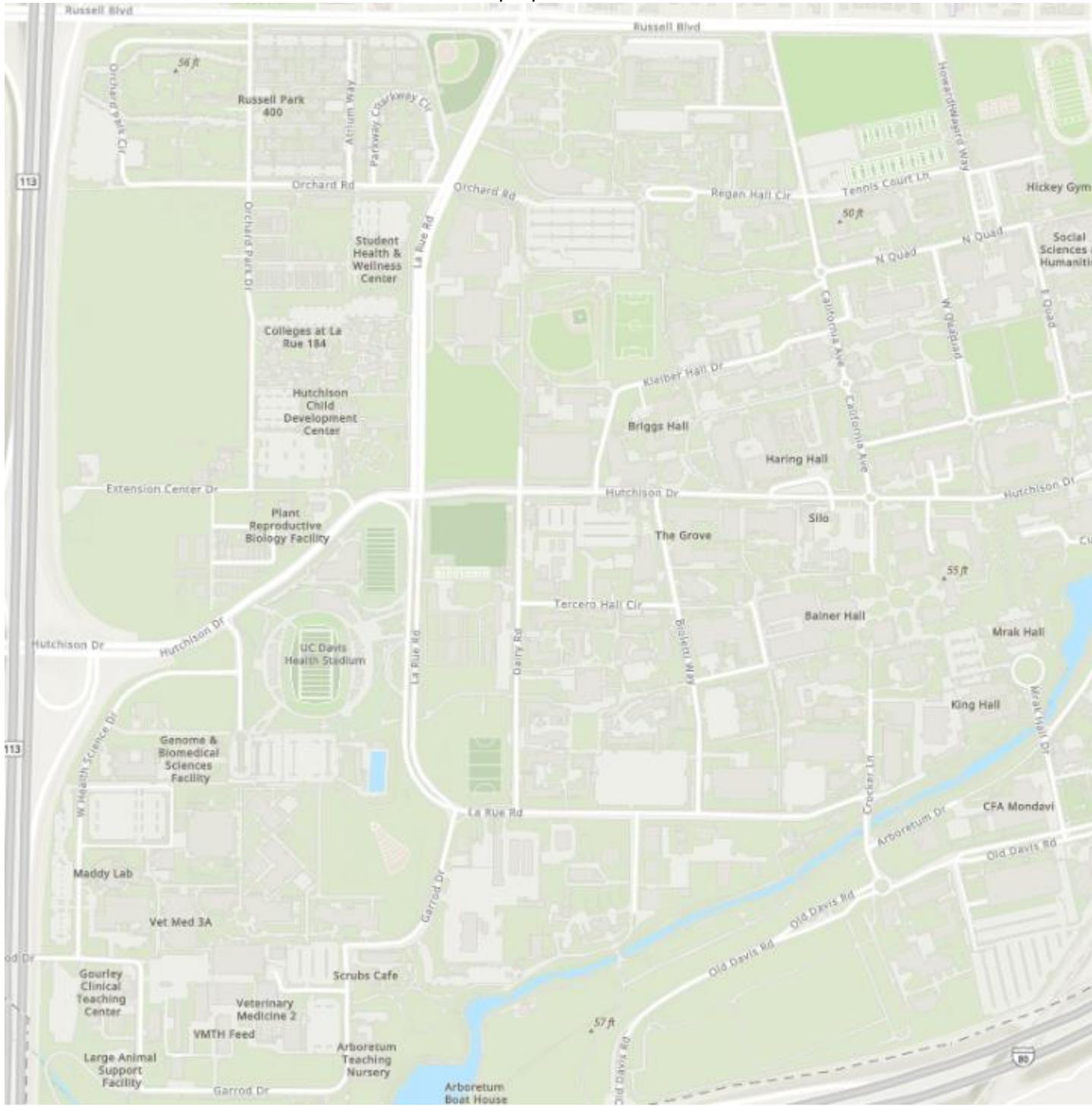
If During this period did you experience a fall or crash with an injury while using your e-bike? = Yes, a fall or crash but I had no injuries [On campus]

Or During this period did you experience a fall or crash with an injury while using your e-bike? = Yes, an injury but I did not need medical attention [On campus]

Or During this period did you experience a fall or crash with an injury while using your e-bike? = Yes, an injury and I had to visit an urgent care or emergency room without being admitted [On campus]

Or During this period did you experience a fall or crash with an injury while using your e-bike? = Yes, an injury and I was admitted to a hospital [On campus]

Q337 Where did the last fall or crash occur? Please drop a pin for the location.



Display This Question:

If During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, an injury but I did not need medical attention] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-bike? [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q338 Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from your e-bike?

- Yes (1)
- No (2)
- Not sure (3)

Display This Question:

If Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from... = No

Q366 What prevented you from notifying the authorities?

Page Break

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Bike [Yes]

Q329 How often did you ride a bike to get to, from, and/or around the UC Davis campus last year?

- Daily or nearly daily (1)
- 3-6 Days per week (2)
- 1-2 Days per week (3)
- 1-3 Days per month (4)
- Less than once per month (5)

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Bike [Yes]

Q333 During this period did you experience a fall or crash with an injury while using your bike?

	On campus (1)	Off campus, on my way between home and campus (2)
<input checked="" type="radio"/> No (1)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, a fall or crash but I had no injuries (2)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury but I did not need medical attention (4)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I had to visit an urgent care or emergency room without being admitted (5)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I was admitted to a hospital (6)	<input type="checkbox"/>	<input type="checkbox"/>

Display This Question:

If During this period did you experience a fall or crash with an injury while using your bike? [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your bike? [Yes, an injury but I did not need medical attention] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your bike? [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your bike? [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q352 Thinking back to the last fall or crash you had while using your bike last year, what type of fall or crash was it?

- A slip or swerve resulting in a fall (8)
- Collision with an object (curb, tree, pole, bollard etc.) or animal (9)
- Collision with a bicyclist (10)
- Collision with someone on skates, skateboard, or scooter (11)
- Collision with a pedestrian (12)
- Collision with a motor vehicle (13)

Display This Question:

If Thinking back to the last fall or crash you had while using your bike last year, what type of fall... = Collision with a bicyclist

Q355 You mentioned that you had a collision with a bicyclist. What kind of bike was it?

- Electric-assist bike (e-bike) (1)
 - Bike (2)
 - Unsure (4)
-

Display This Question:

If Thinking back to the last fall or crash you had while using your bike last year, what type of fal... = Collision with someone on skates, skateboard, or scooter

Q356 You mentioned that you had a collision with someone on skates, skateboard, or scooter. What kind of skates, skateboard, or scooter was it?

- Roller skates or rollerblades (1)
- Electric skateboard (e-skateboard) (3)
- Conventional skateboard (2)
- Stand up electric scooter (e-scooter) (5)
- Kick scooter (non-electric) (4)
- Unsure (6)

Display This Question:

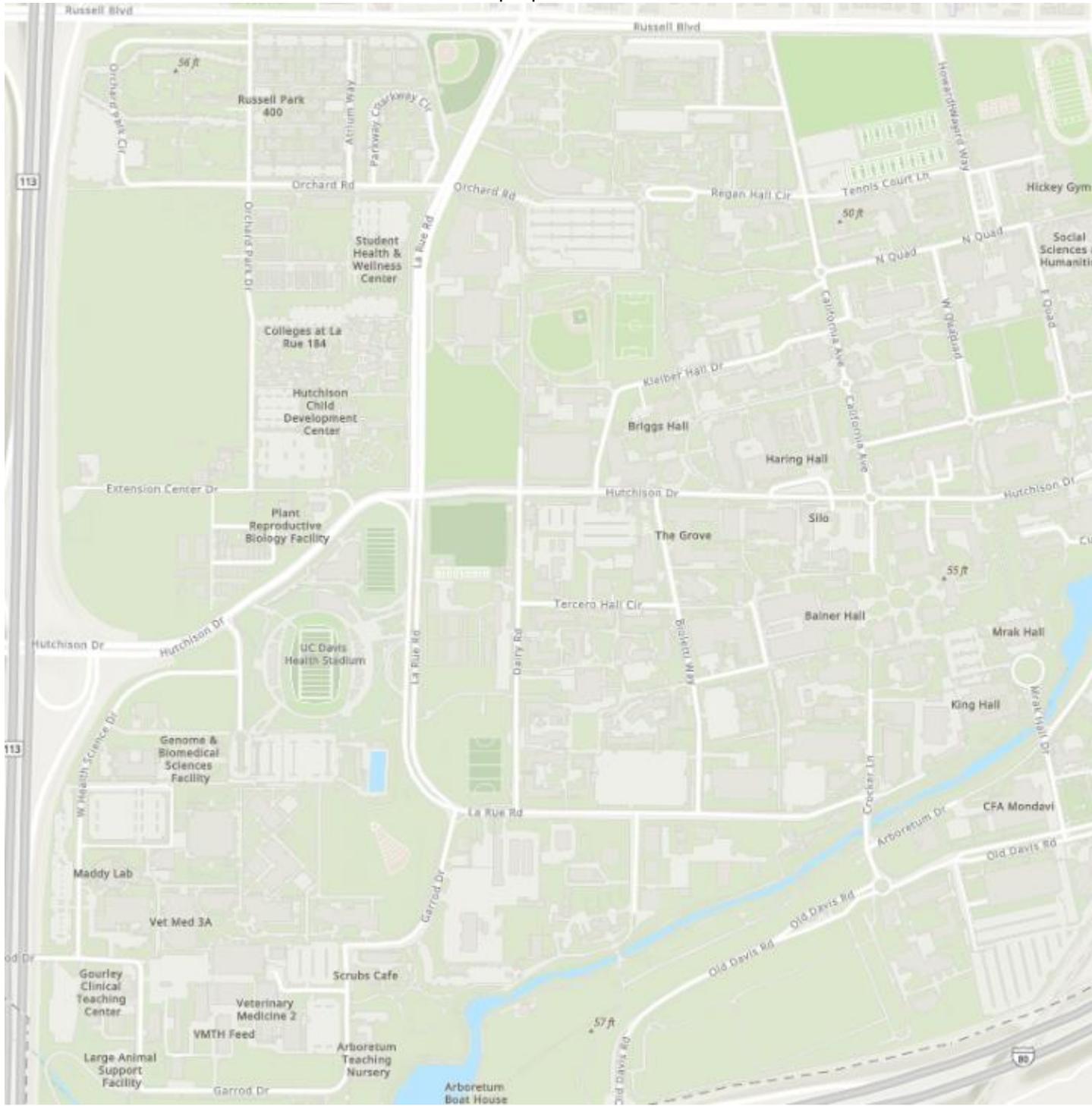
If During this period did you experience a fall or crash with an injury while using your bike? = Yes, a fall or crash but I had no injuries [On campus]

Or During this period did you experience a fall or crash with an injury while using your bike? = Yes, an injury but I did not need medical attention [On campus]

Or During this period did you experience a fall or crash with an injury while using your bike? = Yes, an injury and I had to visit an urgent care or emergency room without being admitted [On campus]

Or During this period did you experience a fall or crash with an injury while using your bike? = Yes, an injury and I was admitted to a hospital [On campus]

Q357 Where did the last fall or crash occur? Please drop a pin for the location.



Display This Question:

If During this period did you experience a fall or crash with an injury while using your bike? [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your bike? [Yes, an injury but I did not need medical attention] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your bike? [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your bike? [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q339 Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from your bike?

- Yes (1)
- No (2)
- Not sure (3)

Display This Question:

If Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from... = No

Q367 What prevented you from notifying the authorities?

Page Break

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Stand up electric scooter (e-scooter) [Yes]

Q330 How often did you use an e-scooter to get to, from, and/or around the UC Davis campus last year?

- Daily or nearly daily (1)
- 3-6 Days per week (2)
- 1-2 Days per week (3)
- 1-3 Days per month (4)
- Less than once per month (5)

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Stand up electric scooter (e-scooter) [Yes]

Q334 During this period did you experience a fall or crash with an injury while using your e-scooter?

	On campus (1)	Off campus, on my way between home and campus (2)
<input checked="" type="checkbox"/> No (1)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, a fall or crash but I had no injuries (2)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury but I did not need medical treatment (4)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I had to visit an urgent care or emergency room without being admitted (5)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I was admitted to a hospital (6)	<input type="checkbox"/>	<input type="checkbox"/>

Display This Question:

If During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, an injury but I did not need medical treatment] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q353 Thinking back to the last fall or crash you had while using your e-scooter last year, what type of fall or crash was it?

- A slip or swerve resulting in a fall (8)
- Collision with an object (curb, tree, pole, bollard etc.) or animal (9)
- Collision with a bicyclist (10)
- Collision with someone on skates, skateboard, or scooter (11)
- Collision with a pedestrian (12)
- Collision with a motor vehicle (13)

Display This Question:

If Thinking back to the last fall or crash you had while using your e-scooter last year, what type o... = Collision with a bicyclist

Q358 You mentioned that you had a collision with a bicyclist. What kind of bike was it?

- Electric-assist bike (e-bike) (1)
 - Bike (2)
 - Unsure (4)
-

Display This Question:

If Thinking back to the last fall or crash you had while using your e-scooter last year, what type o... = Collision with someone on skates, skateboard, or scooter

Q359 You mentioned that you had a collision with someone on skates, skateboard, or scooter. What kind of skates, skateboard, or scooter was it?

- Roller skates or rollerblades (1)
 - Electric skateboard (e-skateboard) (3)
 - Conventional skateboard (2)
 - Stand up electric scooter (e-scooter) (5)
 - Kick scooter (non-electric) (4)
 - Unsure (6)
-

Display This Question:

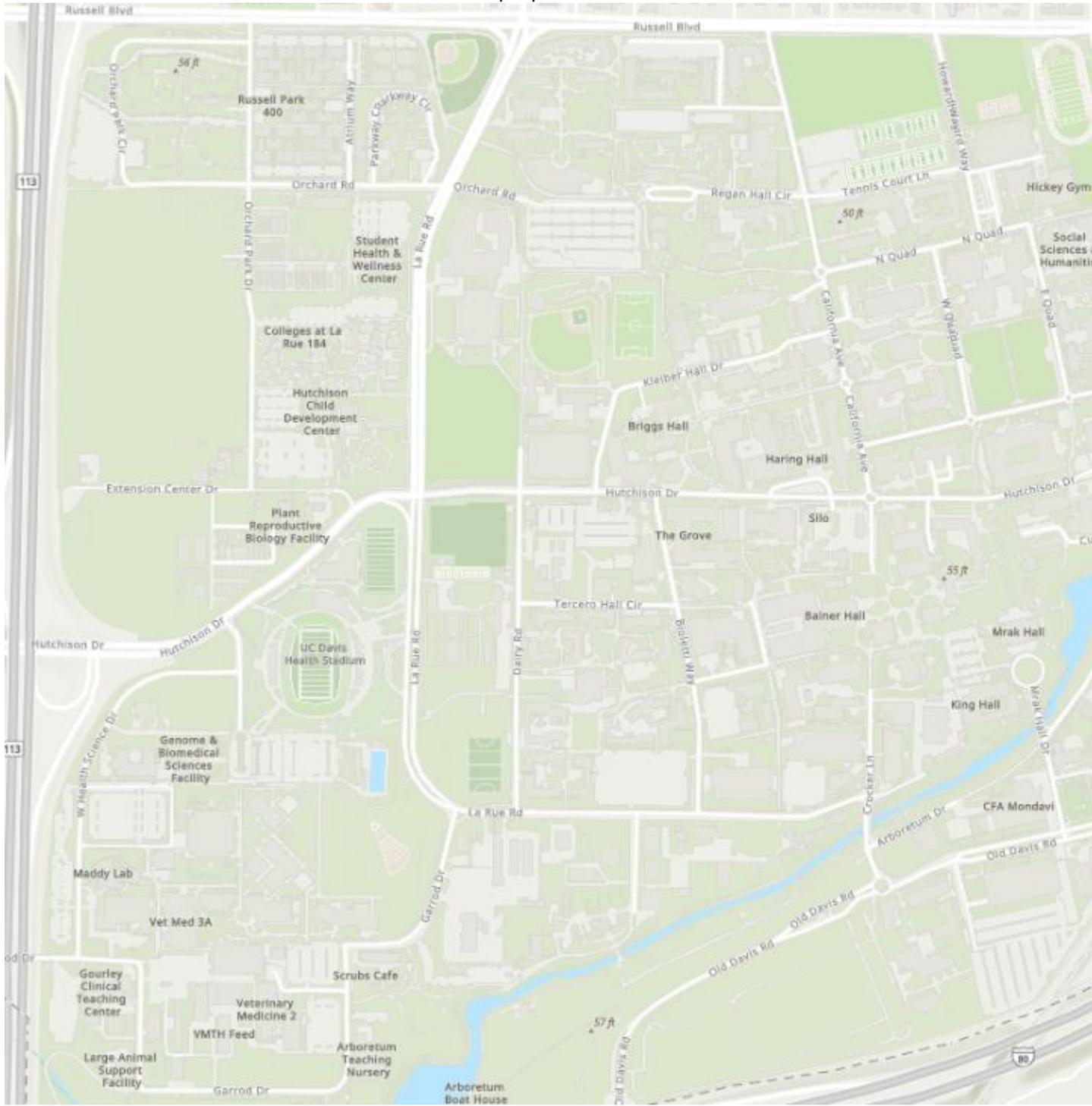
If During this period did you experience a fall or crash with an injury while using your e-scooter? = Yes, a fall or crash but I had no injuries [On campus]

Or During this period did you experience a fall or crash with an injury while using your e-scooter? = Yes, an injury but I did not need medical treatment [On campus]

Or During this period did you experience a fall or crash with an injury while using your e-scooter? = Yes, an injury and I had to visit an urgent care or emergency room without being admitted [On campus]

Or During this period did you experience a fall or crash with an injury while using your e-scooter? = Yes, an injury and I was admitted to a hospital [On campus]

Q360 Where did the last fall or crash occur? Please drop a pin for the location.



Display This Question:

If During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, an injury but I did not need medical treatment] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your e-scooter? [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q340 Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from your e-scooter?

- Yes (1)
- No (2)
- Not sure (3)

Display This Question:

If Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from... = No

Q368 What prevented you from notifying the authorities?

Page Break

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Electric skateboard (e-skateboard) [Yes]

Q372 How often did you use electric skateboard to get to, from, and/or around the UC Davis campus last year?

- Daily or nearly daily (1)
- 3-6 Days per week (2)
- 1-2 Days per week (3)
- 1-3 Days per month (4)
- Less than once per month (5)

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Electric skateboard (e-skateboard) [Yes]

Q373 During this period did you experience a fall or crash with an injury while using your electric skateboard?

	On campus (1)	Off campus, on my way between home and campus (2)
<input checked="" type="radio"/> No (1)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, a fall or crash but I had no injuries (2)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury but I did not need medical treatment (4)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I had to visit an urgent care or emergency room without being admitted (5)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I was admitted to a hospital (6)	<input type="checkbox"/>	<input type="checkbox"/>

Display This Question:

If During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, an injury but I did not need medical treatment] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q375 Thinking back to the last fall or crash you had while using your electric skateboard last year, what type of fall or crash was it?

- A slip or swerve resulting in a fall (8)
- Collision with an object (curb, tree, pole, bollard etc.) or animal (9)
- Collision with a bicyclist (10)
- Collision with someone on skates, skateboard, or scooter (11)
- Collision with a pedestrian (12)
- Collision with a motor vehicle (13)

Display This Question:

If Thinking back to the last fall or crash you had while using your electric skateboard last year, w... = Collision with a bicyclist

Q376 You mentioned that you had a collision with a bicyclist. What kind of bike was it?

- Electric-assist bike (e-bike) (1)
- Bike (2)
- Unsure (4)

Display This Question:

If Thinking back to the last fall or crash you had while using your electric skateboard last year, w... = Collision with someone on skates, skateboard, or scooter

Q377 You mentioned that you had a collision with someone on skates, skateboard, or scooter. What kind of skates, skateboard, or scooter was it?

- Roller skates or rollerblades (1)
- Electric skateboard (e-skateboard) (3)
- Conventional skateboard (2)
- Stand up electric scooter (e-scooter) (5)
- Kick scooter (non-electric) (4)
- Unsure (6)

Display This Question:

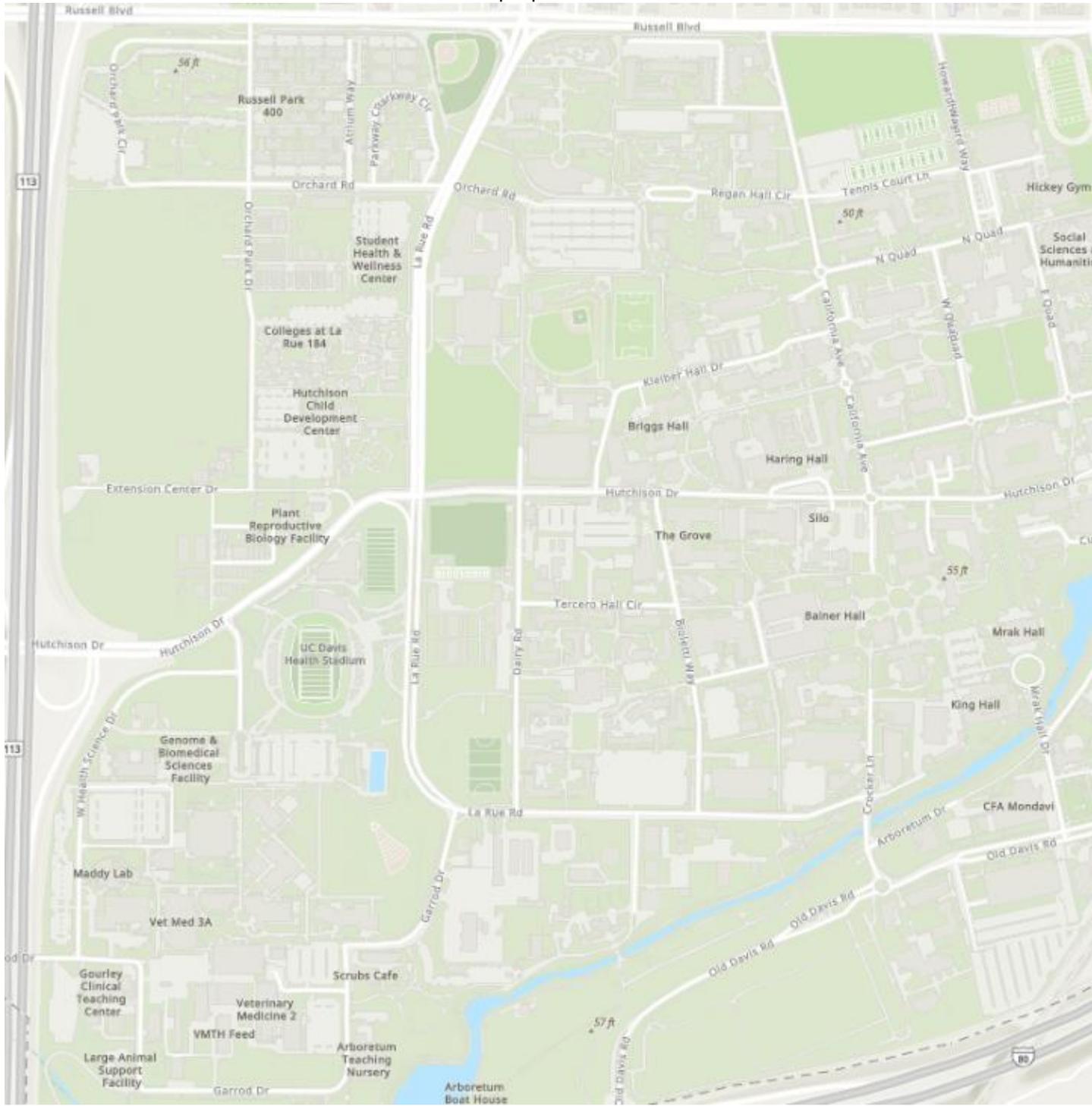
If During this period did you experience a fall or crash with an injury while using your electric sk... = Yes, a fall or crash but I had no injuries [On campus]

Or During this period did you experience a fall or crash with an injury while using your electric sk... = Yes, an injury but I did not need medical treatment [On campus]

Or During this period did you experience a fall or crash with an injury while using your electric sk... = Yes, an injury and I had to visit an urgent care or emergency room without being admitted [On campus]

Or During this period did you experience a fall or crash with an injury while using your electric sk... = Yes, an injury and I was admitted to a hospital [On campus]

Q378 Where did the last fall or crash occur? Please drop a pin for the location.



Display This Question:

If During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, an injury but I did not need medical treatment] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your electric sk... [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q379 Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from your electric skateboard?

- Yes (1)
- No (2)
- Not sure (3)

Display This Question:

If Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from... = No

Q380 What prevented you from notifying the authorities?

Page Break

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at least once a week = Skates, conventional skateboard, or kick scooter [Yes]

Q331 How often did you use skates, conventional skateboard, or kick scooter to get to, from, and/or around the UC Davis campus last year?

- Daily or nearly daily (1)
- 3-6 Days per week (2)
- 1-2 Days per week (3)
- 1-3 Days per month (4)
- Less than once per month (5)

Display This Question:

If Did you use any of the following modes to get to, from, and/or around the UC Davis campus at least once a week = Skates, conventional skateboard, or kick scooter [Yes]

Q335 During this period did you experience a fall or crash with an injury while using your skates, conventional skateboard, or kick scooter?

	On campus (1)	Off campus, on my way between home and campus (2)
<input checked="" type="checkbox"/> No (1)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, a fall or crash but I had no injuries (2)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury but I did not need medical treatment (4)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I had to visit an urgent care or emergency room without being admitted (5)	<input type="checkbox"/>	<input type="checkbox"/>
Yes, an injury and I was admitted to a hospital (6)	<input type="checkbox"/>	<input type="checkbox"/>

Display This Question:

If During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, an injury but I did not need medical treatment] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q354 Thinking back to the last fall or crash you had while using your skates, conventional skateboard, or kick scooter last year, what type of fall or crash was it?

- A slip or swerve resulting in a fall (8)
 - Collision with an object (curb, tree, pole, bollard etc.) or animal (9)
 - Collision with a bicyclist (10)
 - Collision with someone on skates, skateboard, or scooter (11)
 - Collision with a pedestrian (12)
 - Collision with a motor vehicle (13)
-

Display This Question:

If Thinking back to the last fall or crash you had while using your skates, conventional skateboard,... = Collision with a bicyclist

Q362 You mentioned that you had a collision with a bicyclist. What kind of bike was it?

- Electric-assist bike (e-bike) (1)
 - Bike (2)
 - Unsure (4)
-

Display This Question:

If Thinking back to the last fall or crash you had while using your skates, conventional skateboard,... = Collision with someone on skates, skateboard, or scooter

Q363 You mentioned that you had a collision with someone on skates, skateboard, or scooter. What kind of skates, skateboard, or scooter was it?

- Roller skates or rollerblades (1)
- Electric skateboard (e-skateboard) (3)
- Conventional skateboard (2)
- Stand up electric scooter (e-scooter) (5)
- Kick scooter (non-electric) (4)
- Unsure (6)

Display This Question:

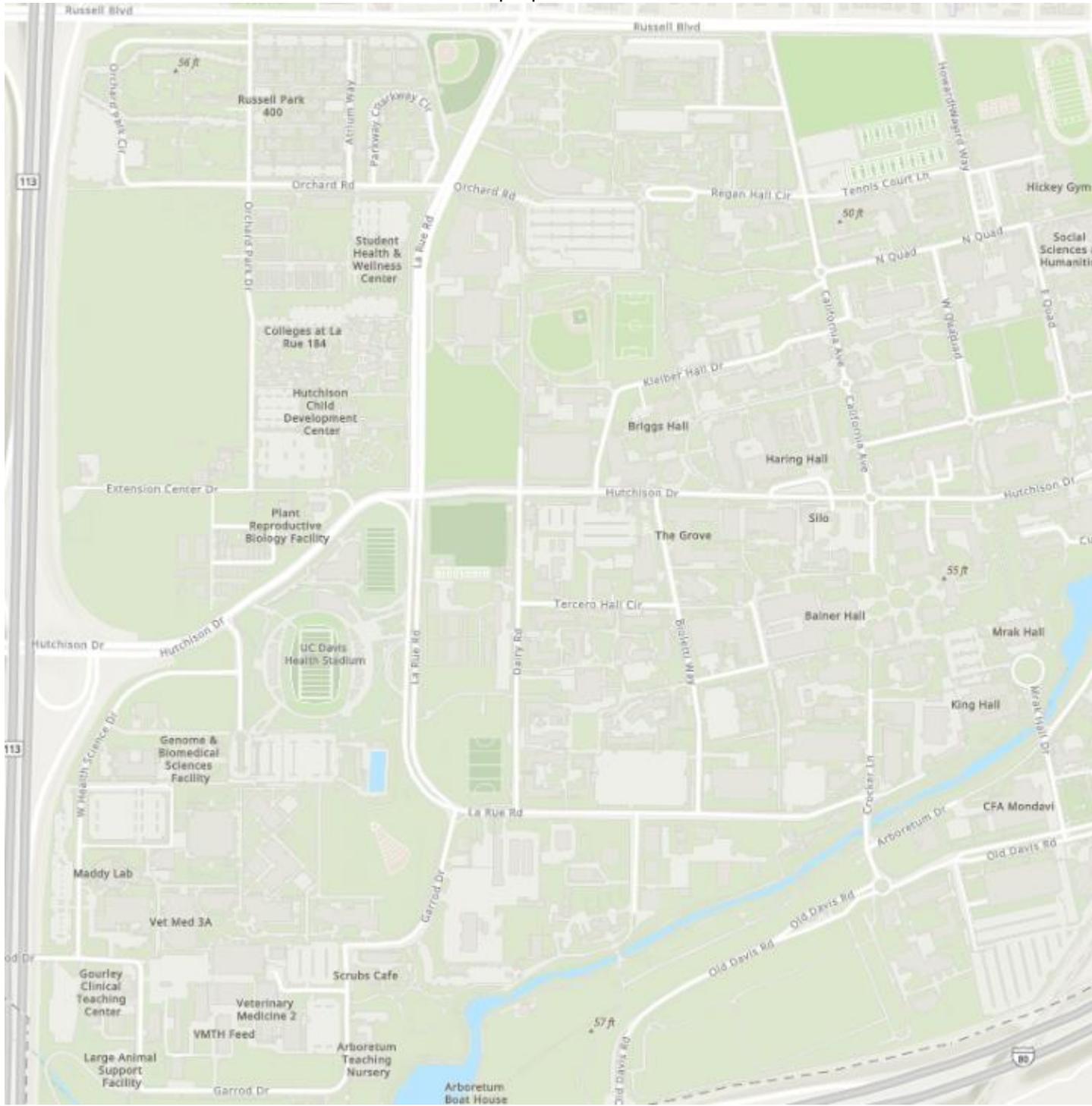
If During this period did you experience a fall or crash with an injury while using your skates, con... = Yes, a fall or crash but I had no injuries [On campus]

Or During this period did you experience a fall or crash with an injury while using your skates, con... = Yes, an injury but I did not need medical treatment [On campus]

Or During this period did you experience a fall or crash with an injury while using your skates, con... = Yes, an injury and I had to visit an urgent care or emergency room without being admitted [On campus]

Or During this period did you experience a fall or crash with an injury while using your skates, con... = Yes, an injury and I was admitted to a hospital [On campus]

Q361 Where did the last fall or crash occur? Please drop a pin for the location.



Display This Question:

If During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, a fall or crash but I had no injuries] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, an injury but I did not need medical treatment] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, an injury and I had to visit an urgent care or emergency room without being admitted] (Recode) Is Not Empty

Or During this period did you experience a fall or crash with an injury while using your skates, con... [Yes, an injury and I was admitted to a hospital] (Recode) Is Not Empty

Q341 Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from your skates, conventional skateboard, or kick scooter?

- Yes (1)
- No (2)
- Not sure (3)

Display This Question:

If Did you or someone else notify the authorities (Police, Fire, or TAPS) of your fall or crash from... = No

Q369 What prevented you from notifying the authorities?

End of Block: Add On: Safety and Crashes

Start of Block: Add On: Bike Theft

Display This Question:

If Did you work or study at UC Davis during the 2021-22 academic year? = Yes

Q311 The next set of questions are about bicycle theft or vandalism on the the UC Davis campus during the last academic year. Think back to ALL of the last year from the beginning of Fall Quarter 2021 through the end of Summer Session 2022.

Display This Question:

If Did you work or study at UC Davis during the 2021-22 academic year? = Yes

And If

Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Electric-assist bike (e-bike) [Yes]

Or Did you use any of the following modes to get to, from, and/or around the UC Davis campus at leas... = Bike [Yes]

Q312 Were you the victim of bicycle theft or vandalism on the UC Davis campus during this period? If you experienced multiple incidents of bike theft or vandalism on campus in the past year, please check all that apply.

- Yes, my entire bike was stolen (1)
- Yes, but only parts of my bike were stolen (seat, wheel, accessories) (2)
- My bike was vandalized (damaged but not stolen) (3)
- No, I had a bike on campus in the past year but did not experience a theft or vandalism (4)
- Not applicable: I did not have a bike on campus in the last year (5)

Display This Question:

If Were you the victim of bicycle theft or vandalism on the UC Davis campus during this period? If y... = Yes, my entire bike was stolen

Q313 At the time your bike was stolen, was it locked?

- Yes, locked outdoors (1)
- No, unlocked outdoors (2)
- Indoors, but not locked with a bike lock (3)
- Indoors and locked with a bike lock (4)
- Other: (5) _____

Display This Question:

If At the time your bike was stolen, was it locked? = Yes, locked outdoors

Or At the time your bike was stolen, was it locked? = Indoors and locked with a bike lock

Q370 What was your bike locked to when it was stolen?

- A bike rack (1)
- A pole, railing, tree, or other fixed object (2)
- To itself only (3)

Display This Question:

If At the time your bike was stolen, was it locked? = Yes, locked outdoors

Or At the time your bike was stolen, was it locked? = Indoors and locked with a bike lock

Q314 What type of lock were you using as your primary security measure at the time your bike was stolen?

- A cable lock (1)
- A chain lock (2)
- A U-lock (3)
- Another type of lock: (4) _____

Display This Question:

If Were you the victim of bicycle theft or vandalism on the UC Davis campus during this period? If y... = Yes, my entire bike was stolen

Or Were you the victim of bicycle theft or vandalism on the UC Davis campus during this period? If y... = Yes, but only parts of my bike were stolen (seat, wheel, accessories)

Or Were you the victim of bicycle theft or vandalism on the UC Davis campus during this period? If y... = My bike was vandalized (damaged but not stolen)

Q316 Did you notify the authorities (Police, Fire, or TAPS) of the theft or vandalism?

Yes (1)

No (2)

Not sure (3)

End of Block: Add On: Bike Theft

Start of Block: Section 9 - Campus transportation programs

Q66 Transportation Services offers a wide variety of programs for people traveling to campus. Have you used or have you heard of any of the following campus programs?

	I've used it (1)	I've heard of it, but never used it (2)	I've never heard of it (3)
Aggie Bike Buy at the Bike Barn (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation Services Motorist Assistance (lock out, jump-starts, etc.) (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation Services Mobility Assistance Shuttle (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ParkMobile (Daily Permitting) (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zipcar Carshare at UC Davis (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yolobus/SacRT Route 138 - Causeway Connection (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bike Program Lock-Cutting Service (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bike Registration via Bike Index (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helmet Hair, Don't Care (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bike Theft Reporting via UC Davis Police (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Transportation and Parking Administrative Advisory Committee (TPAAC) (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Section 9 - Campus transportation programs

Start of Block: Section 10 - Housing

Q67

The next set of questions will help the university get a better sense of housing conditions and

affordability for UC Davis students and employees. We'll ask you about your residence, living expenses, and financial resources.

Your responses are entirely confidential.

Display This Question:

If Where do you live now? = Off-campus elsewhere in the city of Davis

Or Where do you live now? = Outside of Davis

Q68 What type of place is your current residence? Please pick the option that best describes your unit.

- Building with 4 or fewer units or apartments (2)
- Building with 5 or more units or apartments (3)
- Duplex (two units, side-by-side or two stories, with separate front doors) (4)
- Accessory dwelling unit (smaller unit behind, attached to, or within a main house, but which also has its own sleeping, cooking, and bathroom facilities. Also called a "granny" or "in-law" unit) (8)
- House (stand-alone unit usually intended for a single family) (5)
- Mobile home or trailer (6)
- Other: (7) _____

Q69

How many bedrooms are in your residence?

▼ Studio (1) ... 6 or more (7)

Q70 Are there any spaces in your residence that weren't built as bedrooms (with walls and door) but are used as sleeping areas for residents? (e.g. living room, converted garage)

- Yes (1)
- No (2)
- Not sure (4)



Q71 Do you live alone or with other people?

- Alone (1)
- With other people (2)

Display This Question:

If Do you live alone or with other people? = With other people

Q72 How many **other people** live in your residence? Don't count yourself.

▼ 1 (1) ... 10 or more (10)

Display This Question:

If Do you live alone or with other people? = With other people

Q73 Of the other people who live in your residence, how many are enrolled as UC Davis students?

▼ 0 (12) ... 10 or more (11)

Display This Question:

If Do you live alone or with other people? = With other people

Q74

Of the other people who live in your residence, how many are...

	Number of People (1)
Your partner or spouse (6)	
Your children (3)	
Other immediate relatives (e.g. parents, siblings) (2)	

Display This Question:

If Do you live alone or with other people? = With other people

Q75 How many other people do you share your **bedroom** with?

▼ 0 (11) ... 6 or more (10)

Page Break

Q87 How satisfied are you with your current residence and its location?

	Very Unsatisfied (1)	Somewhat Unsatisfied (2)	Neutral (5)	Somewhat Satisfied (6)	Very Satisfied (7)
Characteristics of the residence itself (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Location of your residence within your neighborhood (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Characteristics of the neighborhood itself (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Location of your city in the region (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Display This Question:

If What year are you? != Freshman

Q76 How long have you lived at your current residence?

- Less than a year (1)
- Between 1 and 2 years (2)
- Between 2 and 4 years (3)
- Between 4 and 10 years (5)
- Between 10 and 20 years (6)
- More than 20 years (7)

Display This Question:

If Where do you live now? = Off-campus elsewhere in the city of Davis

Or Where do you live now? = Outside of Davis

Q77 Do you rent or own your residence?

- Rent (1)
- Own (with or without a mortgage) (2)
- Other arrangement (e.g. live with friends or family) (4)
- Other: (3) _____

Page Break

Q82 Do any of the following apply to you? Select all that apply.

I am married or in a domestic partnership. (1)

I have children or other dependents. (2)

I am a veteran. (3)

I am emancipated from my parents or legal guardians. (5)

Page Break

Q83 If an unexpected \$400 expense came up, how would you pay for it?

- I wouldn't be able to (1)
 - I'd pay with money in my checking or savings account (2)
 - I'd borrow from family or friends and pay them back (4)
 - Family or friends would pay it for me (6)
 - I'd pay with a credit card and repay later (7)
 - Other: (8) _____
-

Display This Question:

If What is your primary role at UC Davis? = Undergraduate student (including Post-baccalaureate)

Q84 Are you a Pell Grant recipient?

- Yes (1)
 - No (2)
-

Page Break _____

Display This Question:

If Where do you live now? = Outside of Davis

Q85 You mentioned that you live outside of Davis. Would you prefer to live in Davis?

Yes (1)

Maybe (4)

No (2)

Display This Question:

If Where do you live now? = Outside of Davis



Q86 Which factors influenced your decision to live outside of Davis? Select all that apply.

- Cost of housing (1)
- Commute time for another person in my household (3)
- Public transportation access (4)
- Availability of housing (14)
- Housing options or choice (5)
- Proximity to family or friends (19)
- Proximity to shops, restaurants, services, etc. (7)
- Variety or quality of shops, restaurants, services, etc. (16)
- Safe neighborhoods (20)
- School choice (9)
- Proximity to parks or nature (10)
- Walkable or bikeable neighborhoods (11)
- Ease of driving places (12)
- Quiet neighborhoods (13)

Display This Question:

If Where do you live now? = Outside of Davis

Carry Forward Selected Choices from "Which factors influenced your decision to live outside of Davis? Select all that apply."



Q259 Of all the factors that influenced your decision to live outside of Davis, please rank the importance of each:

	Not at all important (6)	Slightly important (7)	Moderately important (8)	Very important (9)	Extremely important (10)
Cost of housing (x1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commute time for another person in my household (x3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public transportation access (x4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of housing (x14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Housing options or choice (x5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proximity to family or friends (x19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proximity to shops, restaurants, services, etc. (x7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Variety or quality of shops, restaurants, services, etc. (x16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safe neighborhoods (x20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School choice (x9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proximity to parks or nature (x10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Walkable or bikeable neighborhoods (x11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ease of driving
places (x12)



Quiet
neighborhoods
(x13)



Page Break

Display This Question:

If How long have you lived at your current residence? = Less than a year

Or How long have you lived at your current residence? = Between 1 and 2 years

Or How long have you lived at your current residence? = Between 2 and 4 years

Q88 Pick the option that best describes your most recent search for a place to live.

- I had lots of good options to choose from. (1)
- I had a couple of good options to choose from. (6)
- Good options were hard to find. (2)



Q89 Within the last 12 months, did you do any of the following? Select all that apply.

- Did not pay the full amount of rent or mortgage (1)
- Did not pay the full amount of utilities (2)
- Moved 2 or more times (3)
- Doubled up in a bedroom (without a lease agreement for the room) (4)
- Moved in with other people due to financial problems (5)
- Moved because of raised rent or mortgage (10)
- Regularly skipped meals to pay for living expenses (7)
- None of these happened to me (9)



Q90 Within the last 12 months, did any of the following happen to you? Select all that apply.

- Kicked out of residence by family or housemates (1)
- Legally evicted (2)
- Stayed in a shelter (3)
- Stayed in an auto, campus building, or another public building (4)
- Did not know where I was going to sleep for one or more nights (5)
- Stayed temporarily with a friend or acquaintance while looking for housing ("couch surfed") (6)
- Did not have a home (7)
- Slept outside (non-recreationally) (9)
- None of these happened to me (10)



Q91 Do you experience any of the following as problems or deficiencies in your current housing? Select all that apply.

- Expensive rent/mortgage (1)
- No in-unit kitchen (2)
- No in-unit washer and dryer (3)
- Difficult to find parking (4)
- Unaddressed pest issues (e.g. mold, bugs) (5)
- Unaddressed maintenance issues (e.g. broken heat, plumbing, electrical) (6)
- Poor treatment by landlord/leasing company (7)
- Poor lease terms (8)
- Neighborhood concerns (e.g. noise, crime, safety) (9)
- Safety concerns with structure (10)
- Overcrowding or sharing bedrooms (11)
- Too far from campus (12)
- Too far from amenities (e.g. shopping, entertainment) (13)
- No pets allowed (14)
- Overly restrictive rules (15)
- Poor access to transit (16)
- Too far from public schools (17)
- Too far from parks and green spaces (18)
- Could not choose my housemates/roommates (19)

Conflict with housemates/roommates (20)

I experience none of these (22)

Page Break

End of Block: Section 10 - Housing

Start of Block: Add On: EV charging

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or We are interested in your available means of transportation. Select all options that are availabl... = Carpool and/or vanpool with others going to campus

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Carpool and/or vanpool with others going to campus Is Selected

And If

What type of place is your current residence? Please pick the option that best describes your unit. = Duplex (two units, side-by-side or two stories, with separate front doors)

Or What type of place is your current residence? Please pick the option that best describes your unit. = Accessory dwelling unit (smaller unit behind, attached to, or within a main house, but which also has its own sleeping, cooking, and bathroom facilities. Also called a "granny" or "in-law" unit)

Or What type of place is your current residence? Please pick the option that best describes your unit. = House (stand-alone unit usually intended for a single family)

Or What type of place is your current residence? Please pick the option that best describes your unit. = Mobile home or trailer

Q318 In the next set of questions we would like to know more about your ability to charge an electric vehicle (EV) at your home. We are interested in your answers even if you don't own or lease an EV.

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or We are interested in your available means of transportation. Select all options that are availabl... = Carpool and/or vanpool with others going to campus

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Carpool and/or vanpool with others going to campus Is Selected

And If

What type of place is your current residence? Please pick the option that best describes your unit. = Duplex (two units, side-by-side or two stories, with separate front doors)

Or What type of place is your current residence? Please pick the option that best describes your unit. = Accessory dwelling unit (smaller unit behind, attached to, or within a main house, but which also has its own sleeping, cooking, and bathroom facilities. Also called a "granny" or "in-law" unit)

Or What type of place is your current residence? Please pick the option that best describes your unit. = House (stand-alone unit usually intended for a single family)

Or What type of place is your current residence? Please pick the option that best describes your unit. = Mobile home or trailer

Q319 Do you currently have the ability to charge an electric vehicle at home? Please select an option even if you don't own an EV at present. (choose one)

- Yes, with a regular 110V outlet (1)
- Yes, but we would need to use an extension cord to reach 110V outlet (2)
- Yes, with a 240V outlet for a dryer or other appliance (3)
- Yes, with a 240V EV charger (4)
- No, but we could use a public charger overnight (5)
- No, we have no option to charge the car overnight (6)
- Not sure (8)
- Other: (7) _____

Display This Question:

If Which type of vehicle did you use to get to campus last week? = Plug-in hybrid electric vehicle

Or Which type of vehicle did you use to get to campus last week? = All-electric vehicle

And If

Do you currently have the ability to charge an electric vehicle at home? Please select an option... = Yes, with a regular 110V outlet

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = Yes, but we would need to use an extension cord to reach 110V outlet

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = Yes, with a 240V outlet for a dryer or other appliance

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = Yes, with a 240V EV charger

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = No, but we could use a public charger overnight

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = No, we have no option to charge the car overnight

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = Not sure

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = Other:

And If

We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

Q320 Where do you usually charge your EV?

At home (1)

At work (2)

Somewhere else (3)

Display This Question:

If Which type of vehicle did you use to get to campus last week? = Plug-in hybrid electric vehicle

Or Which type of vehicle did you use to get to campus last week? = All-electric vehicle

And If

Do you currently have the ability to charge an electric vehicle at home? Please select an option... = No, but we could use a public charger overnight

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = No, we have no option to charge the car overnight

Or Do you currently have the ability to charge an electric vehicle at home? Please select an option... = Not sure

And If

We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

Q321 Do you plan to install a charger at your home?

Yes (1)

No (2)

Display This Question:

If Do you plan to install a charger at your home? = No

Q322 Why don't you plan to install a charger at your home? Please select the most important reason.

I just haven't thought about it (1)

It is too expensive (2)

My landlord will not let me (3)

My landlord will let me but I don't want to make the investment (4)

There is not a good location for a charger close enough to a parking space (5)

Other: (6) _____

Display This Question:

If We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

And If

What type of place is your current residence? Please pick the option that best describes your unit. = Building with 4 or fewer units or apartments

Or What type of place is your current residence? Please pick the option that best describes your unit. = Building with 5 or more units or apartments

And If

Which type of vehicle did you use to get to campus last week? = Plug-in hybrid electric vehicle

Or Which type of vehicle did you use to get to campus last week? = All-electric vehicle

Q383 In the next set of questions we would like to know more about your ability to charge an electric vehicle (EV) at your home.

Display This Question:

If Which type of vehicle did you use to get to campus last week? = Plug-in hybrid electric vehicle

Or Which type of vehicle did you use to get to campus last week? = All-electric vehicle

And If

What type of place is your current residence? Please pick the option that best describes your unit. = Building with 4 or fewer units or apartments

Or What type of place is your current residence? Please pick the option that best describes your unit. = Building with 5 or more units or apartments

And If

We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

Q324 Can you charge your EV while at home? (check one)

- Yes, using a free charger for residents of the complex (1)
- Yes, using a paid public charger (2)
- Yes, using an 110V outlet and my car charging cord (3)
- No, the chargers at my complex are too far away from my unit (4)
- No, there are no chargers at my complex (5)
- Other: (6) _____

Display This Question:

If Which type of vehicle did you use to get to campus last week? = Plug-in hybrid electric vehicle

Or Which type of vehicle did you use to get to campus last week? = All-electric vehicle

And If

What type of place is your current residence? Please pick the option that best describes your unit. = Building with 4 or fewer units or apartments

Or What type of place is your current residence? Please pick the option that best describes your unit. = Building with 5 or more units or apartments

And If

We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Drive alone in a car (or other vehicle) Is Selected

Q323 Where do you usually charge your EV?

- At home (1)
- At work (2)
- Somewhere else (3)

End of Block: Add On: EV charging

Start of Block: Add On - Commute Satisfaction/Attitudes & TNCs

Q92 Thanks for staying with us!

Q93 We'd like to ask about your opinions with respect to transportation. There are no right or wrong answers; we want only your true opinions.

To what extent do you agree or disagree with the following statements?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Traveling to campus stresses me out. (Q53_19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Travel time is generally wasted time. (Q53_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like riding a bike. (Q53_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Concerns about climate change affect the choices I make about my daily travel. (Q53_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel safe traveling to campus (Q93_36)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like driving. (Q53_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I need a car to do many of the things I like to do. (Q53_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My schedule makes it hard or impossible for me to use public transit. (Q53_8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel safe biking on campus. (Q53_10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My commute is expensive. (Q53_35)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like using public transit. (Q53_11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I often need to use my own vehicle to travel to different sites during the day.
(Q53_12)

I already bicycle as often as I can. (Q53_14)

I try to limit my driving as much as possible.
(Q53_15)

I often miss out on social or leisure activities because I don't have a way to get there.
(Q93_37)

Getting around is easier than ever with my smartphone.
(Q53_17)

I need to dress professionally for my job.
(Q53_18)

Page Break

Display This Question:

If Which bus do you usually use to get to campus? (If you used more than one, please select the serv...
Unitrans Is Selected

And If

We'd like to ask about your opinions with respect to transportation. There are no right or wrong... = Traveling
to campus stresses me out. [Strongly agree]

Or We'd like to ask about your opinions with respect to transportation. There are no right or wrong... =
Traveling to campus stresses me out. [Somewhat agree]



Q94 What do you find most stressful about using Unitrans to get to campus?

- Uncertainty about my bus picking me up on time (1)
- Uncertainty about my bus arriving to campus on time (2)
- How full the bus will be when it gets to my stop (3)
- Harassment while riding the bus (4)
- Lack of knowledge about bus schedules or routes (7)
- Paying the fare / Showing my pass (9)
- Other: (6) _____

Display This Question:

If What is your primary role at UC Davis? = Undergraduate student (including Post-baccalaureate)

And If

If Which bus do you usually use to get to campus? (If you used more than one, please select the serv... Unitrans
Is Selected



Q95 When deciding whether to use Unitrans, what is the relative importance of the following factors? Your answers will sum to 100%.

- _____ My bus picking me up at its scheduled time (1)
- _____ My bus arriving to campus on time (5)
- _____ Having enough space on the bus when it gets to my stop (2)
- _____ Not being harassed on the bus (3)
- _____ Buses running frequently enough that I don't have to know the schedule (4)
- _____ Bus stops near my home and where I need to go (7)
- _____ Convenience of paying the fare (9)
- _____ Being able to sit down on the bus (10)
- _____ Ability to work on the bus (11)
- _____ Other: (8)

Page Break

Q97 How would you **rate your ability** to ride a bike? In particular, we are interested in **whether you know how to ride a bike**, regardless of whether it is practical or desirable for you to do so as a means of transportation to campus.

- I cannot ride a bike at all because I do not know how (1)
 - I can ride a bike, but I am not very confident doing so (2)
 - I am somewhat confident riding a bike (3)
 - I am very confident riding a bike (4)
-

Q98 In general, how comfortable would you be riding a bike on a **four-lane street (two lanes in either direction) without a bicycle lane**, in daylight and good weather?

- Uncomfortable and I wouldn't ride on it (1)
 - Uncomfortable but I would ride on it (2)
 - Comfortable (3)
-

Page Break

Q108 We're interested in your electric bike!

Q109 Select all the reasons that you bought your electric bike.

To travel farther (1)

To travel faster (4)

To more easily carry cargo or people (2)

To sweat less (5)

Because it's fun (3)

Other: (6) _____

Q110 If you didn't have an electric bike, how would you get to campus on the days you normally ride your e-bike?

- Walk (1)
- Skate or skateboard (2)
- Bike (3)
- Motorcycle or Scooter (4)
- Drive alone in a car (or other vehicle) (5)
- Carpool or vanpool with others going to campus (either as driver or passenger) (6)
- Get a ride (the driver continues to elsewhere) (7)
- Bus (8)
- Train or light rail (9)
- Taxi Services (10)
- Uber or Lyft services (11)
- Other: (12) _____

End of Block: Add On - E-bike Questions - Owners

Start of Block: Add On - E-bike Questions - Familiarity

Q111 Do you know what an electric assist bicycle is? They are also known as "e-bikes".

- Yes (1)
 - No (2)
-

Q112 Have you ever ridden an e-bike?

Yes (1)

No (2)

Q113 Have you ever thought about riding an e-bike to campus?

Yes (1)

No (2)

End of Block: Add On - E-bike Questions - Familiarity

Start of Block: Add On - E-Scooters & E-Skateboards

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Electric skateboard (e-skateboard) Is Selected

Or Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way t... Stand up electric scooter (e-scooter) Is Selected

Or We are interested in your available means of transportation. Select all options that are availabl... = Electric skateboard (e-skateboard)

Or We are interested in your available means of transportation. Select all options that are availabl... = Stand up electric scooter (e-scooter)

Q114 We're interested in your electric skateboard or e-scooter!

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to work. Stand up electric scooter (e-scooter) Is Selected

Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to work. Electric skateboard (e-skateboard) Is Selected

Or We are interested in your available means of transportation. Select all options that are available to you. Stand up electric scooter (e-scooter)

Or We are interested in your available means of transportation. Select all options that are available to you. Electric skateboard (e-skateboard)



Q115 Select all the reasons you bought your electric skateboard or e-scooter.

To travel faster (1)

For convenience (10)

Because it's fun (2)

To sweat less (3)

Because it's cool (13)

I can keep it with me (11)

Other: (9) _____

Display This Question:

If First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to work. Stand up electric scooter (e-scooter) Is Selected

Or First think back to the entire week (Monday, November 7 - Sunday, November 13). Please tell us all the different means of transportation you used at some point on your way to work. Electric skateboard (e-skateboard) Is Selected

Or We are interested in your available means of transportation. Select all options that are available to you. Stand up electric scooter (e-scooter)

Or We are interested in your available means of transportation. Select all options that are available to you. Electric skateboard (e-skateboard)

Q116 If you didn't have an electric skateboard or electric scooter, how would you get to and around campus?

- Walk (1)
- Bike (2)
- Non-electric skateboard (3)
- Non-electric scooter (4)
- Drive alone (5)
- Carpool (6)
- Motorcycle or Vespa-like scooter (7)
- Bus (8)
- Other: (9) _____

End of Block: Add On - E-Scooters & E-Skateboards

Start of Block: Section 13 - Demographics

Q117 A couple more questions about yourself. We use this information to help understand travel choices and how the people taking the survey might represent the UC Davis community as a whole. Your answers are confidential and will not be used for any other purposes.

Q118 In what year were you born?

▼ 1921 (3) ... 2005 (102)

Display This Question:

If What is your primary role at UC Davis? = Staff

Q119 What is your highest level of education completed?

- No formal education (1)
 - Grade school or junior high school (2)
 - High school diploma or equivalent (3)
 - Associates degree or technical school certificate (4)
 - Four-year bachelor's degree (5)
 - Graduate degree(s) (6)
-

Q243 Which categories describe you? Select all that apply.

- American Indian or Alaska Native (1)
 - Asian (2)
 - Black or African American (3)
 - Hispanic, Latino, or Spanish origin (4)
 - Middle Easterner or North African (5)
 - Native Hawaiian or other Pacific Islander (6)
 - White (8)
 - A race, ethnicity, or origin that is not listed (7)
-
- Prefer not to answer (10)
-

Display This Question:

If What is your primary role at UC Davis? = Undergraduate student (including Post-baccalaureate)

And We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Or If

What is your primary role at UC Davis? = Graduate student

And We are interested in your available means of transportation. Select all options that are availabl... = Drive alone in a car (or other vehicle)

Q120 You indicated that you have access to a car. Do you receive financial support from family or other individuals for driving-related expenses such as gas, insurance, and vehicle maintenance?

- No - None at all (1)
- Yes - For some things (2)
- Yes - For most things (3)
- Yes - For everything (4)

End of Block: Section 13 - Demographics

Start of Block: Section 14 - Prize Opt-In

Q121 Please let us know if we may contact you in the future for the following purposes. We will only contact you for the purposes you've approved below.

Q123 As mentioned at the start of the survey, we are offering a chance to win forty \$50 CoHo or UC Davis Bookstore gift cards for survey respondents who wish to enter our drawing. We would need your name and email address in order to participate in the drawing. Would you like to enter your name in our drawing?

- Yes (1)
 - No (2)
-

Q124 May we contact you should we have any questions regarding your survey responses?

Yes (2)

No (1)

Display This Question:

*If As mentioned at the start of the survey, we are offering a chance to win forty \$50 CoHo or UC Dav... = Yes
Or May we contact you should we have any questions regarding your survey responses? = Yes*

Q125 Please provide the following contact information. This information will ONLY be used for the purposes you specified.

Name (1) _____

Your UC Davis email address (2) _____

Q126 Optional: Is there anything else you would like to tell us about transportation at UC Davis? We welcome any additional comments in the space below.

End of Block: Section 14 - Prize Opt-In

Appendix B: Changes from the 2022-23 survey instrument

The following sections have been added, omitted, reduced, or altered:

1. Role (altered): New questions on remote working, commute to locations outside Davis, change in options for mode availability
2. Familiarity with Transportation Services (TS) programs (altered)
3. Safety and Crashes (added)
4. Bike Theft (added)
5. Housing and Hazards (omitted)
6. EV Charging (added)
7. Life satisfaction, well-being and travel experiences (omitted)
8. E-Scooters & E-Skateboards (omitted)

The reference week was scheduled for a similar week as the previous year's survey, and we sent participants two reminders via email: one and two weeks after the initial invitation, respectively.

Appendix C: Text of the recruitment emails

Initial recruitment email:

From: UCD Travel Survey <travelsurvey@ucdavis.edu>

To: <...@ucdavis.edu>

Subject: 2022-2023 UC Davis Campus Travel Survey – tell us about your trip to campus!

Dear UC Davis Student/Faculty/Staff,

You are invited to participate in the 2022-2023 UC Davis Campus Travel Survey. This annual survey provides campus planners with valuable feedback on how people get to campus and their experiences with various transportation programs. It is intended for everyone who works or studies at UC Davis.

Your feedback helps improve the campus!

UC Davis Transportation Services (TS) and graduate students from the Institute of Transportation Studies have used the results from this survey to:

- Identify trends in the way that people get to campus from year to year
- Better understand the factors that encourage biking to campus
- Prioritize infrastructure improvements on campus
- Develop new TS programs to serve the campus community
- Estimate greenhouse gas emissions for travel to the campus

Participating in this research survey takes **10-15 minutes**. Doing so is voluntary. We assure you that **all responses are confidential** and the results will only be published in the aggregate, without connection to any individual. You must be at least 18 years old to complete this survey.

We're going to ask you questions in the following areas:

- Your role at UC Davis
- Your travel to and from campus
- Your experience with campus transportation programs
- Your safety and security when traveling on campus
- Your housing and experience with housing affordability
- Some background information about you

In appreciation for your time, we're offering anyone who completes the survey entry into a drawing for **40 \$50 CoHo or UC Davis Bookstore gift cards!**

To start the survey, click on the link below:

[Take the Survey](#)

Thanks for your participation in this year's survey!

Sincerely,
Mary Croughan
Provost and Executive Vice Chancellor

Reminder recruitment email:

From: UCD Travel Survey <travelsurvey@ucdavis.edu>

To: <...@ucdavis.edu>

Subject: 2022-2023 UC Davis Campus Travel Survey – tell us about your trip to campus!

Dear UC Davis Student/Faculty/Staff,

Last week we invited you to take the 2022-2023 UC Davis Campus Travel Survey. If you finished the survey last week, thank you! Your responses have been recorded, and you can disregard the rest of this message.

If not, we encourage you to complete the survey today. This annual survey provides valuable data about the travel preferences of the entire UC Davis community, and the more who participate, the better the data. Every response matters.

Your feedback helps improve the campus!

UC Davis Transportation Services (TS) and graduate students from the Institute of Transportation Studies have used the results from this survey to:

- Identify trends in the way that people get to campus from year to year
- Better understand the factors that encourage biking to campus
- Prioritize infrastructure improvements on campus
- Develop new TS programs to serve the campus community
- Estimate greenhouse gas emissions for travel to the campus

Participating in this research survey takes **10-15 minutes**. Doing so is voluntary. We assure you that **all responses are confidential** and the results will only be published in the aggregate, without connection to any individual. You must be at least 18 years old to complete this survey.

We're going to ask you questions in the following areas:

- Your role at UC Davis
- Your travel to and from campus
- Your experience with campus transportation programs
- Your safety and security when traveling on campus
- Your housing and experience with housing affordability
- Some background information about you

In appreciation for your time, we're offering anyone who completes the survey entry into a drawing for **40 \$50 CoHo or UC Davis Bookstore gift cards!**

To start the survey, click on the link below:

[Take the Survey](#)

Thanks for your participation in this year's survey!

Sincerely,
Mary Croughan
Provost and Executive Vice Chancellor

Appendix D: Calculation of Average Vehicle Ridership (AVR)

AVR (average vehicle ridership) is a ratio of the number of person-arrivals to private-vehicle-arrivals. If everyone drove alone to campus, the campus AVR would be equal to one. AVR values greater than 1.0 indicate more carpooling and/or use of active modes of transportation.

To compare AVR statistics on the Davis campus with other UC campuses, we calculate AVR using a standard formula developed by the South Coast Air Quality Management District (AQMD) in “Rule 2202 – On Road Motor Vehicle Mitigation Options.”³ We attempt to adhere to the AQMD formula, although our overall survey methodology deviates to some extent from that prescribed by the AQMD.⁴ The AQMD formula excludes weekend travel (considering Monday through Friday only) and excludes on-campus residents (considering travel among off-campus residents only). It includes adjustments for vehicle occupancy and the use of zero-emission vehicles (ZEV).

In particular, we use the following formula:

$$AVR = \frac{\text{Total weekly arrivals}}{\text{weekly vehicle arrivals}} = \frac{\text{arrivals by all modes} + \text{employee telecommuting days} + \text{CWW days}}{\text{drive alone arrivals} + \text{fractional carpool arrivals}}$$

with:

Arrivals by all modes = a count of all respondents arriving by bus, driving, carpooling, getting a ride, walking, biking, skating, and riding transit on Monday, plus the same for Tuesday, Wednesday, etc. through Friday (using Q51 – daily travel).

Employee telecommuting days = a count of respondents telecommuting on Monday, plus those doing so on Tuesday, etc. through Friday. These are based on responses to questions Q37, Q39, and Q40 for any respondents who traveled some days and telecommuted other days. But for respondents who indicated no travel during any of the five days of the reference week (in Q37) and then indicated the reason for no travel was telecommuting (in Q39), we assume the respondent telecommuted all five days of the reference week.

Employee CWW days = a count of respondents reporting that they did not travel on Monday because they had a CWW (compressed work week) day off, plus those who did so for Tuesday, Wednesday, etc. through Friday (using responses to questions Q37 and Q40).

Drive-alone arrivals = a count of respondents arriving by driving alone on Monday, plus those doing so on Tuesday, Wednesday, etc. through Friday (using responses to Q51). As an adjustment for the use of ZEV vehicles, we exclude from the count any arrivals by a respondent who has indicated using an all-electric or fuel cell vehicle for their travel during the reference week (in question Q55).

Fractional carpool arrivals = A count of the fractions of vehicle-arrivals accounted for those arriving in carpools (or getting rides) for each day Monday through Friday. In particular, for each day a respondent carpools (or gets a ride, using Q51) we add to the arrival count a fraction equal to one divided by the

³ As of July 2017, this rule is available online (<http://www.aqmd.gov/docs/default-source/rule-book/reg-xxii/rule-2202.pdf?sfvrsn=4>).

⁴ For instance, the AQMD specifies that response to the survey must be 90 percent response rate, whereas we rely on surveying only a sample and weighting the responses.

total number of people in the carpool (using *Q60*) or the number of passengers dropped off by the driver (using *Q54*). We exclude from the count any arrivals by a respondent who has indicated using an all-electric or hydrogen vehicle (in question *Q55*).

In all cases, the estimated number of arrivals for the entire campus community is a projection. In particular, we weight (and expand) the sample responses by role and gender based on the valid responses to question *Q51*.

We calculate AVR both excluding and including on-campus residents, and by each role group. The AQMD and most other UC campuses exclude on-campus residents and most only calculate AVR for employees rather than for students. The inclusion of student employees can greatly change AVR statistics, though to a different extent at different campuses. We include a question about whether student respondents are also paid employees of UC Davis (question *Q8*) to allow us to estimate AVR including student employees.

Appendix E: Geocoding and network distances

We used the ESRI Streetmap USA dataset to do all of the geocoding and network route assignments. It is based on the TIGER/Line 2000 streets dataset produced by the U.S. Census Bureau, and has been enhanced by ESRI and Tele Atlas. If the exact street was not available, then we geocoded the point to the nearest pre-existing road. In all cases, the differences were minor and expected to be negligible.

Geocoding residential locations

We used address information to geocode points to the ESRI Streetmap USA dataset. First, we used the statistical computing language, R, to filter out empty records and to divide the data into separate tables for each subcategory (On Campus, West Village, Off Campus in Davis, and Outside Davis), and concatenate the street names into a single field. This allowed us to input the data into an appropriate address locator that would be able to automatically geocode as many addresses as possible.

Inputting the data directly into an address locator resulted in successful matching of nearly all addresses. Because there was the potential for a small percentage of addresses to be matched incorrectly by the address locator, we also manually verified that the match address was the same as the input address. We geocoded unmatched addresses by manually placing points in the correct locations, or by modifying the input addresses so that they matched correctly using an automatic address locator.

Network distance

The network route assignments were created using the ArcGIS Network Analyst extension and the ESRI Streetmap USA dataset (the same dataset used to geocode the residential locations). For those living off campus in Davis (excluding West Village) and outside Davis, distances were calculated from the geocoded residential location points to a point located on the UC Davis campus at the corner of Hutchison Drive and California Avenue, near the Silo. The network route assignments were calculated by optimizing for the fastest travel times (based on assumptions about the expected speed of travel on each facility type), which was deemed to produce more realistic routes than optimizing for distance, because it produces routes that favor major roads and highways where possible.

We assign an average distance from campus destinations for all on-campus respondents equal to the mean calculated network distance for on-campus respondents. This distance is equal to 0.77 miles and reflects our best estimate of the average distance from residential locations within the “on campus” area to campus destinations. For the respondents living in the West Village apartments, we assumed that distance from campus is equal to the calculated network distance from the center of the West Village complex to the Silo (traveling along Hutchison Drive). This distance is equal to 1.3 miles and reflects our best estimate of the average distance from residential locations in West Village to campus destinations.

Comparability with results from previous surveys

We used the same procedures to geocode and calculate network distances as were used in the Campus Travel Surveys from 2008-09 through 2017-18, so results from this survey should be comparable with these surveys. Because the 07-08 survey employed a different method both to collect data on the respondents’ residential locations (allowing respondents to click on a map versus typing cross streets into a text field); to geocode points; and to calculate network distances, the estimated distances and calculations based on them (miles traveled and emissions) are not comparable to later survey years.

Appendix F: Imputation of Valid Responses

To make the most out of the available data, the following process was used to impute missing data to question *Q51*, the primary mode used to get to campus for each day of the reference week:

1. Missing answers were only coded for days on which the respondent indicated traveling to campus (*Q38*) but did not indicate a primary mode.
2. In cases where all answers were missing for *Q50* (all modes used to get to campus) and *Q51* (modes used each day), the answer to *Q44* about “usual mode” was imputed for each day traveled in *Q38*.
3. In cases where only one answer was given for *Q50* (all modes used to get to campus), missing answers to *Q51* (modes used each day) were recoded as this answer.
4. In the cases where usual mode was listed and only some answers to *Q51* (modes used each day) were missing, the missing modes were imputed so that the “usual” mode made up the majority and the “secondary” mode made up the minority of days traveled.

Appendix G: Sampling Plan

Table G- 1. Sampling Plan for 2018-19 through 2022-23, Percent Invited

Role	2022-23		Percent Invited				
	Assumed Population	Number Invited	2022-23	2021-22	2020-21	2019-20	2018-19
Student	37,224	15,520	42%	45%	45%	36%	41%
Undergraduate	30,046	11,871	40%	40%	41%	34%	37%
Freshman	4,871	965	20%	15%	25%	26%	42%
Sophomore	5,795	2,777	48%	58%	66%	62%	52%
Junior	7,624	2,815	37%	38%	44%	26%	27%
Senior	11,756	5,314	45%	49%	36%	29%	33%
Graduate	7,178	3,649	51%	65%	65%	46%	60%
Master's	3,532	2,892	82%	94%	100%	76%	100%
PhD	3,646	757	21%	35%	43%	25%	33%
Employee	10,941	2,743	25%	26%	26%	21%	16%
Faculty	1,843	1,590	86%	100%	95%	53%	46%
Staff	9,098	1,153	13%	13%	16%	16%	11%
Overall percent	100%	-	38%	41%	40%	31%	33%
Overall number	48165	18263	-	20169	21,290	17,095	17,888

Table G- 2. Sampling Plan for 2018-19 through 2022-23, Response Rates

Role	2022-23			Actual Response Rate				
	Assumed Population	Number Invited	Target Response	2022-23	2021-22	2020-21	2019-20	2018-19
Student	37,224	15,520	14%	15%	20%	19%	17%	22%
Undergraduate	30,046	11,871	12%	14%	17%	18%	17%	20%
Freshman	4,871	965	37%	36%	42%	41%	27%	28%
Sophomore	5,795	2,777	13%	15%	18%	16%	15%	15%
Junior	7,624	2,815	13%	15%	18%	17%	15%	22%
Senior	11,756	5,314	7%	9%	12%	12%	15%	17%
Graduate	7,178	3,649	19%	20%	26%	22%	19%	27%
Master's	3,532	2,892	12%	12%	17%	15%	16%	21%
PhD	3,646	757	46%	52%	51%	33%	25%	38%
Employee	10,941	2,743	25%	31%	30%	29%	22%	25%
Faculty	1,843	1,590	20%	21%	25%	20%	21%	31%
Staff	9,098	1,153	32%	45%	37%	37%	22%	22%
Overall percent	100%	38%	16%	18%	21%	21%	18%	22%
Overall number	48165	18263	2,838	3,228	4,265	4,506	3,098	4,014

Appendix H: Weighting by Role and Gender

The appropriate weight factor is a ratio of the population share to the sample share for each role group. That is, with N total population, n in the sample, and N_i in role and gender group i in the population (for instance, female freshmen), and n_i of that group i in the sample, we apply the weight factor $W_i = (N_i/N) / (n_i/n)$ to all cases in group i . Applying the weight factors alters the apparent distribution of respondents by role and gender, but the overall sample size is unchanged. In instances where we would like to expand the sample to a projection of the full population, we weight each case by an *expansion* factor E_i , equal to (N_i / n_i) . Applying the expansion factors alters both the distribution of respondents by role, and inflates the sample to the size of the population.

Although the number of valid responses varies from question to question (that is, n and n_i), we use the same set of weight factors for most variables, based on the distribution of roles among the $n = 3,098$ valid responses to question *Q51*, the main question relating to mode choice on each day during the travel week. For variables relying on geocoding of respondents' residential location, we generated a separate set of weight factors, based on the 2,865 cases successfully geocoded (by cross streets and zip code given in questions *Q29* and *Q30*; see "Appendix E: Geocoding and network distances"). Both sets of weights are shown in Table H1.

Table H- 1. Weight Factors, applied by Role, Gender, Mode, and Geocoding

Role	Gender	Population (N)	Factors by Role, Gender, and Mode ^a				Factors by Role, Gender, Mode, and Geocoding ^b			
			Valid Responses (n)	Weight Factor (Ni/N)/(ni/n)	Expansion Factor (Ni/ni)	Weighted Sample Size	Valid Responses (n)	Weight Factor (Ni/N)/(ni/n)	Expansion Factor (Ni/ni)	Weighted Sample Size
Freshman	Woman	2,879	257	0.751	11.202	193	253	0.677	11.379	171
	Man	1,992	88	1.517	22.636	134	86	1.378	23.163	118
Sophomore	Woman	3,529	317	0.746	11.132	237	299	0.702	11.803	210
	Man	2,266	88	1.726	25.750	152	78	1.728	29.051	135
Junior	Woman	4,681	315	0.996	14.860	314	292	0.954	16.031	278
	Man	2,943	94	2.098	31.309	197	85	2.060	34.624	175
Senior	Woman	7,077	365	1.299	19.389	474	326	1.291	21.709	421
	Man	4,679	123	2.549	38.041	314	106	2.626	44.142	278
Master's	Woman	2,059	229	0.603	8.991	138	198	0.619	10.399	122
	Man	1,473	109	0.906	13.514	99	88	0.996	16.739	88
PhD	Woman	1,849	273	0.454	6.773	124	250	0.440	7.396	110
	Man	1,797	122	0.987	14.730	120	110	0.972	16.336	107
Faculty	Woman	787	182	0.290	4.324	53	155	0.302	5.077	47
	Man	1,056	145	0.488	7.283	71	119	0.528	8.874	63
Staff	Woman	5,277	366	0.966	14.418	354	299	1.050	17.649	314
	Man	3,821	155	1.652	24.652	256	121	1.878	31.579	227
Overall	–	48,165	3,228	0	14.921	3,228	2,865	0	16.812	2,865

^a Based on valid responses to Q2 (campus role), Q17 (gender).

^b Based on valid responses to Q2 (campus role), Q17 (gender), and successful geocoding of residential location (from questions Q29 and Q30).