

Fall 2016 Student Transportation Survey Findings

Background

Since 2011, Santa Monica College (SMC) has administered a yearly survey during the fall semester to document the modes of transportations of students who travel to campus. The survey is administered, in part, to respond to the campus-wide greenhouse gas inventory in continued compliance with the American College & University Presidents Climate Commitment made in the 2010-11 academic year.

For each fall semester, a random sample of the student population enrolled in courses (both credit and non-credit) at SMC was invited to participate in the survey. For fall 2016, the sample was selected from a list of all students enrolled in at least one on-ground course that was in session during the first week of November 2016. In total, 8,177 students were emailed an invitation to complete the survey. A total of 808 students completed the survey for a response rate of 9.9%.

The report is structured to follow the order and structure of the administered web-survey. Broader questions are highlighted in blue organizing the report by topic areas; each question is followed by a summary of the relevant data collected through the survey instrument. When relevant, data from either or both the 2014 and 2015 surveys, which collected 804 and 520 student responses, respectively, in the same manner are included.

Survey Findings

How far do students travel to and from campus?

Survey respondents were asked to report their zip code. The distances between the SMC main campus and the center-point of the students' zip codes were calculated. Table 1 summarizes these approximate distances of students' residences from the main campus. The majority of survey respondents, about 7 in 10 reside within 10 miles of campus and nearly all of the respondents (98.9%) were within 30 miles of the SMC main campus.

Table 1. Distance of Students' Residence From SMC

Radius	2014 Percent	2014 Cumulative %	2015 Percent	2015 Cumulative %	2016 Percent	2016 Cumulative %
Within 2 miles	10.1%	10.1%	13.3%	13.3%	10.8%	10.8%
2.1 to 5 miles	24.6%	34.6%	24.1%	37.4%	23.8%	34.6%
5.1 to 10 miles	29.9%	64.5%	25.8%	63.2%	34.9%	69.5%
10.1 to 20 miles	22.6%	87.2%	32.3%	95.5%	27.4%	96.9%
20.1 to 30 miles	10.1%	97.2%	2.9%	98.4%	2.0%	98.9%
30.1 to 40+ miles	2.8%	100%	1.6%	100%	0.5%	99.4%
Total	100%	--	100%	--	100%	100.0%

When and how do students travel to campus?

Students were asked to report the time of arrival to and departure from campus, as well as the mode of transportation used for the trip, for each day of the week (M-F). Students were given the option to specify that they did not travel to the campus on any given day and Table 2 contains, inversely, the proportions of the sample reporting to have traveled to campus daily. If respondents reported carpooling, they were asked to provide the number of passengers in the vehicle. This data was used to categorize the arrival and departure times as either peak or non-peak times and then to compute Average Vehicle Ridership during peak times (summarized in Table 4).

Between 72% and 76% of students reported traveling to campus between Monday and Wednesday, and about 66% on Thursday (see Table 2). Fewer students (22.3%) reported traveling to campus on Friday, which is consistent with the fewer number of classroom sections which meet on Fridays.

Table 2. Proportions of Students Traveling to Campus by Weekday

Day of the Week	2014 Percent traveling to campus	2015 Percent traveling to campus	2016 Percent traveling to campus
Monday	76.6%	75.2%	75.5%
Tuesday	74.0%	76.2%	72.2%
Wednesday	76.0%	75.2%	74.5%
Thursday	73.4%	72.5%	66.3%
Friday	26.6%	32.7%	22.3%

To examine the mode of transportation used by students to travel to and from campus, the data regarding all reported trips across the week (a potential of 10 for each student) were combined. In order for the data to be included in the analysis, students must have provided a mode of transportation and a specific time for each trip. In total, 4,915 trips were included in the analysis. For the fall 2016 version of the survey, an option was added allowing students to mark that they used the city of Santa Monica's new bicycle rental program, the "Breeze Bike Share". There are multiple stations to rent these bicycles throughout the city, including locations on SMC campuses.

About half of the students' sample reported using public transportation to travel to/from campus (see Table 3). The percentage of students using public transportation increased slightly from 2014 to 2016. The next most commonly reported mode of transportation was driving alone which accounted for about 34% of the trips.

Table 3. Trips to Campus by Mode of Transportation

Mode of transportation	2014 Percent	2015 Percent	2016 Percent
Public Transportation (Bus or Train)	44.8%	49.5%	51.7%
Drive alone	36.6%	29.3%	33.9%
Carpool	12.4%	11.4%	8.4%
Breeze Bike Share	-	-	0.4%
Walk, bike, skateboard, etc.	5.4%	9.0%	5.1%
Motorcycle	0.9%	0.9%	0.4%
Total	100.0%	100.0%	100.0%

Of trips that were categorized as "public transportation", about 73% of student marked that their main mode of transportation was a bus, and about 27% marked train (see Table 4).

Table 4. Trips to Campus by Mode of Transportation – Public Transportation Only

Mode of transportation	Percent of Public Transportation	Percent of All Transportation
Bus	72.6%	37.6%
Train	27.4%	14.2%
Total	100%	--

On average, a little over half (58.2%) of the reported trips to/from SMC occurred during “Peak” times, which were defined by two windows of time: between 6AM and 10AM and between 3PM and 7PM (see Table 5). Average Vehicle Ridership (AVR) describes the number of persons per vehicle during peak times only and is computed by dividing the total number of students reporting commuting to and from SMC during peak hours by the total number of vehicles driven to SMC during peak hours. Across the days of the week, the AVR was 2.49 persons per vehicle. In previous years, the AVRs were 2.47 in 2014 and 2.64 in 2015.

Table 5. Commute Times and Average Vehicle Ridership (AVR)

	Monday	Tuesday	Wednesday	Thursday	Friday	M-F Weekdays
Peak	58.9%	58.3%	58.8%	59.1%	51.2%	58.2%
Non-Peak	41.1%	41.7%	41.2%	40.9%	48.8%	41.8%
Total	100%	100%	100%	100%	100%	100%
AVR	2.57	2.49	2.45	2.40	2.60	2.49

Do students feel safe walking/biking to campus?

Students were asked about whether they felt safe walking and biking to SMC and were also given the option to indicate that they do not walk or bike to campus (see Tables 6-7). Among students who walk to campus, 77.6% said they “strongly agreed” or “agreed” that they feel safe while walking to campus. This is a slight increase compared to 2014 (73.5%) and 2015 (70.4%). Among students who bike to campus, 59.0% strongly agreed or agreed that they felt safe while biking to campus. This is a 10.5% and 13.5% increase from 2014 and 2015, respectively.

Table 6. Student Feelings of Safety While Walking to Campus

	2014	2015	2016	
"I feel safe while walking to campus."	I do not travel to campus by walking.	18.8%	20.0%	12.5%
	Strongly Agree	30.4%	26.2%	35.2%
	Agree	43.1%	44.2%	42.4%
	Somewhat Agree	20.6%	21.9%	18.5%
	Somewhat Disagree	3.1%	4.1%	2.4%
	Disagree	1.8%	1.9%	0.6%
	Strongly Disagree	0.9%	4.1%	0.8%
	Total	100%	100%	100%

Table 7. Student Feelings of Safety While Biking to Campus

	2014	2015	2016	
"I feel safe while biking to campus."	I do not travel to campus by biking.	48.1%	58.7%	55.8%
	Strongly Agree	13.1%	13.7%	23.3%
	Agree	35.4%	31.8%	35.7%
	Somewhat Agree	31.7%	32.2%	27.0%
	Somewhat Disagree	9.0%	10.4%	7.0%
	Disagree	7.3%	10.0%	4.2%
	Strongly Disagree	3.6%	1.9%	2.8%
	Total	100%	100%	100%

Students who selected somewhat disagree, disagree, or strongly disagree answers to either question were given an opportunity to specify in an open-ended comment, the reason(s) they feel unsafe. Fourteen students left comments about walking to campus, and 12 left comments about biking to campus.

In regards to walking to campus, most students who commented explained that they mostly felt unsafe walking once it became dark. Students noted that areas around campus lacked sufficient lighting, and there were usually only a small number of other students walking around at that time. A few students also noted that they felt unsafe due to aggressive drivers.

Students who did not feel safe biking to campus overwhelmingly blamed drivers for their fear. Students noted that the local streets are crowded, that drivers honked at them, and that many "do not pay attention" to bicyclists.

In what areas would you like SMC to improve bike services?

Students who biked to campus were asked about which areas of bike services they would like to see improve. The area with the highest percentage of responses was bike lane enforcement (41.3%, see Table 8), followed by bike lanes (40.3%). Only 13.6% of students felt that bike maintenance services needed improvement. As a note, respondents were asked to mark all areas they felt needed improvement, so the percentages do not sum to 100.

Table 8. Bicycle-Related Services in Need of Improvement

In what area(s) would you like SMC to improve bike services? (Select all that apply)	Bike Lane Enforcement (keeping cars out of bike lanes)	41.3%
	Bike lanes	40.3%
	Bike security	31.8%
	Bike Parking	24.6%
	Making biking to/from campus safer	23.9%
	Education and awareness (e.g. workshops and events)	23.1%
	Bike maintenance	13.6%

From which sources do students receive information about transportation options at SMC?

Students were asked to select the sources from which they receive information about transportation options. The sources most successfully reaching students with information about transportation options (see Table 9) were the SMC website (53.6%), word-of-mouth (38.4%) and “Google Maps” (28.1%). Respondents were asked to mark all sources they used, so the percentages do not sum to 100.

Table 9. Sources of Transportation-Related Information at SMC

How do you find out information about transportation options at SMC? (Select all that apply)	SMC website	53.6%
	Word of mouth	38.4%
	Google Maps	28.1%
	E-mail messages	27.2%
	Print materials (brochures, posters, etc.)	24.8%
	Corsair Connect	24.3%
	Big Blue Bus website	20.0%
	New student orientation/VIP Welcome Day	12.7%
	Metro website	12.3%
	In class discussion/presentations	8.8%
	Transit App	8.8%
	Next Bus App	6.9%
	Student club	5.3%
	TV in cafeteria/Cayton Center	3.8%
	Other	2.8%
	Go LA App	1.6%
Twitter alerts from Metro or Big Blue Bus	1.1%	

Which Transportation Agencies Have You Used?

For the 2016 survey, students were prompted to select the transportation agencies they used to get to, or from SMC during the fall 2016 semester. Almost 70% of students reported using Santa Monica’s Big Blue Bus service (see Table 10). Only about 7% of students used the Culver City Bus. Respondents were asked to mark all sources they used, so the percentages do not sum to 100.

Table 10. Transportation Agencies Used in Fall 2016

Which of the following public transportation agencies have you used to get to and/or from campus during the Fall 2016 semester? (Select all that apply)	Santa Monica Big Blue Bus	69.3%
	Metro Los Angeles	38.1%
	None of the above	24.3%
	Culver City Bus	6.8%

SMC Shuttle Services

Students were asked a series of questions about the shuttle services that are offered by SMC. These services provide transportation for SMC students between its different campuses. About 45% of students used the shuttle services during the fall 2016 semester (see Table 11). The most popular shuttle line during the semester was the one that travels to/from the main campus (located at 1900 Pico Boulevard) and the Bundy campus (located at 3171 S. Bundy Drive).

Table 11. SMC Shuttle Services Used

Which SMC shuttle services have you used during the Fall 2016 semester? (Select all that apply)	I did not use an SMC shuttle	60.6%
	Main Campus to/from Bundy	30.2%
	Main Campus to/from Performing Arts Center	9.8%
	Bundy Campus to/from Airport Arts Campus (with stops at the 17th St. Expo Station)	7.1%

Students who used a shuttle in fall 2016 were then asked their level of agreement with seven statements regarding these services. About 78% of students either strongly agreed or agreed that the shuttle drivers are courteous (see Table 12). About 76% marked strongly agree or agree to the statement “overall, I am satisfied with the shuttle services at SMC”. The statement with the largest number of students marking disagree or strongly disagree was “the shuttle makes frequent stops at each location” with 5.7%. Overall, students seemed satisfied with shuttle services at SMC.

Table 12. Satisfaction With SMC Shuttle Services

	Strongly agree	Agree	Somewhat agree	Somewhat disagree	Disagree	Strongly disagree	Do not know/ Not applicable
The shuttle operates on the days and times I need them.	32.8%	34.4%	21.7%	4.5%	2.5%	1.3%	2.9%
The shuttle makes frequent stops at each location.	28.8%	36.2%	18.9%	5.1%	5.4%	0.3%	5.1%
The shuttle gets me to my destination in a reasonable amount of time.	31.5%	38.5%	20.1%	4.1%	1.6%	0.6%	3.5%
The shuttle usually runs on time.	23.3%	39.3%	21.4%	6.1%	1.9%	0.6%	7.3%
The shuttle stops are conveniently located for me.	31.0%	42.2%	16.9%	4.2%	2.2%	0.3%	3.2%
The shuttle drivers are courteous.	37.7%	40.6%	11.5%	4.5%	0.6%	0.6%	4.5%
Overall, I am satisfied with the shuttle services at SMC.	33.8%	42.4%	15.3%	3.2%	0.6%	0.0%	0.0%

Students who did not use a shuttle during the fall 2016 were asked to select the reason(s) they did not. About 81% responded that they simply had no need, 8% responded that there was too large of wait between shuttles, and about 6% because of the timeliness of the shuttles (see Table 13). Less than 1% marked that they stopped using the shuttles because of a previous bad experience.

Table 13. Reasons for Not Using SMC Shuttle Services

What are the reason(s) you have not used SMC's shuttle service? (Select all that apply)	Did not need to use a shuttle.	81.3%
	Other	12.8%
	Frequency of shuttle service (to long of a gap between shuttles).	8.0%
	Timeliness of shuttle (shuttle is/was late).	6.3%
	Bad experience riding the shuttle.	0.6%

Additional Comments

Lastly, students were given an opportunity to provide any additional comments or suggestions related to transportation in an open-ended question. The majority of the comments were generally positive. Students were satisfied about the transportation services available at SMC. Specifically, students expressed satisfaction with the Big Blue Bus, and the ability to ride for free using their student identification.

The most common complaint from students had to do with crowding and insufficient service from the Big Blue Buses and SMC shuttles. Students who use shuttles also voiced concerns with the lack of shuttle service at the Performance Arts Campus later in the evening. As one student noted:

“The shuttle services at SMC end at around 5:15 pm. However, there are classes that go until 6 and later. This makes it very inconvenient for students who don't drive and take the bus/shuttle. Shuttles services should be extended for longer hours to better the experience of students who take the shuttle and rely on the shuttle for transportation back to the main campus.”

Students also had issues with parking on campus; many students commented that parking required them to come to campus early, and many were unable to find any spots open in time for their class. For example, one student commented that:

“I sincerely think SMC needs more parking spots for students, especially during [the] fall and spring semester[s]. Parking at SMC has always been a problem that bugs me and troubles me. For example I have my class at 12:45pm (Tuesday and Thursday) this semester. I will not be able to find a parking spot if I arrive around this time. If I want to drive and park at school, I must arrive early to do so...It is hard for me to understand that why I can't get a parking spot even if I have a valid parking permit. I really hope SMC can come up with a better way with the parking problem.”

Many students also requested financial support for passes on Metro Los Angeles busses and trains, similar to the support received for Big Blue Bus ridership. As one student noted:

‘I love using public transport to get to SMC. I hope soon SMC offers discounted or free fares with the LA Metro, as the Expo Line is the fastest way for me to get to campus, but also the most expensive.’

Summary

The following bullet points summarize the major findings of the study:

- Nearly two-thirds of students reside within 10 miles of SMC.
- Half of the trips to and from SMC occurred during peak commute hours.
- Students reported utilizing public transportation for about half of all trips to and from SMC.
- Average vehicle ridership (AVR) for the week sampled was 2.49 persons per vehicle, which is down slightly from 2015 (2.64).
- Most students reported feeling safe walking and biking to campus.
- About half of students learned about their transportation options through the SMC website.
- About 70% of students used Santa Monica's Big Blue Bus service during the fall 2016 semester.
- Students had generally positive views of SMC's shuttle service.

