Research Brief

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Fall 2018 Student Transportation Survey Findings

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Background

Since 2011, Santa Monica College (SMC) has administered a yearly survey during the fall semester to document the modes of transportation 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. Results from the survey will help the college understand the commute behaviors of SMC students. The findings will also help SMC's Transportation Committee in addressing students' transportation needs.

In previous years, participants were randomly selected from both credit and non-credit courses. For the fall 2018 survey implementation, the survey was distributed to the whole student population of SMC via their campus e-mail. A total of 2,361 surveys were completed and analyzed.

The report is organized in two parts. Part 1 summarizes the results of questions relevant to commute behaviors of SMC students. Part 2 presents the results of questions related to the transportation services available to students.

Results

A. Commute Behaviors of SMC Students

To begin, students were asked to report the zip code of their current residence. The distances between the SMC main campus and the center-point of the students' zip codes were calculated. Figure 1 summarizes the distances of students' residences from the main campus.

The number of students who reside between 20.1 and 30 miles away from SMC main campus has increased by 6.9%. The number of students who reside within 2 miles and 30.1 plus miles away from main campus have also been slowly increasing each fall semester since 2016. However, the percentage of students whose primary residence was between 2.1 and 5 miles away from main campus has dropped by 7.1% from 26.9% to 19.8%.

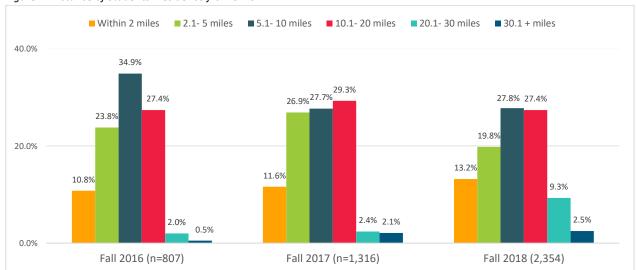


Figure 1. Distance of Students' Residence from SMC

Travel time and mode of transportation. Students were asked to report the time of arrival to and departure from campus. Students were also asked to report the mode of transportation they used for the trip for each day of the week (Oct 22-26, 2018). They were also given the option to specify that they did not travel to campus on any given day. Table 1 contains the proportions of students who have traveled to campus throughout the week. If students reported carpooling, they were asked to provide the number of passengers in the car. The number of passengers provided by students were used to calculate the Average Vehicle Ridership (AVR).

Table 1. Proportions of Students Traveling to Campus by Weekday

| Days of the Week | Fall 2016 %Traveling | Fall 2017 % Traveling | Fall 2018 % Traveling |
|------------------|-------------------------|--------------------------|--------------------------|
| Monday | 75.5% | 65.1% | 71.9% |
| Tuesday | 72.2% | 64.5% | 68.6% |
| Wednesday | 74.5% | 63.2% | 68.1% |
| Thursday | 66.3% | 61.8% | 64.4% |
| Friday | 22.3% | 23.6% | 20.5% |

Overall, the number of students who reported traveling to campus during the week remained mostly consistent except on Friday. There were less students who reported traveling to campus on Friday (20.5%).

This is expected since there are fewer classroom sections that meet on Fridays. In the Fall 2018 semester, there was an average increase of 4.6% in the percentage of student who reported traveling to campus between Monday and Thursday over Fall 2017 semester.

To examine the mode of transportation used by students to travel to and from campus, the data regarding all reported trips across the week 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. For the Fall 2018 semester version of the survey, an option was added allowing students to choose "Electric scooter/Electric bike". The calculation for "Ride-Hailing" service was also modified for the Fall 2018 semester survey results. Students who reported using a "Ride-Hailing" service were included in the percentage of the "Drive Alone" mode of transportation.

In all three fall semesters (i.e. 2016, 2017, 2018), "Public Transportation" has been the most popular mode of transportation to SMC students (see Table 2). In fact, "Public Transportation" usage has increased by 1.7% from 45.6% to 47.5%. On the other hand, "Carpool" and "Non-fuel" (e.g. walk, bike) usages went down by 0.4% and 1.5%, respectively. This may be due to the addition of electric scooter/electric bike option for students.

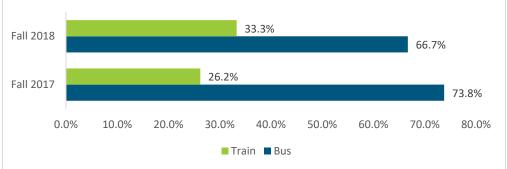
Table 2. Trips to Campus by Mode of Transportation

| Mode of Transportation | Fall 2016 | Fall 2017 | Fall 2018 |
|---|-----------|-----------|-----------|
| Public Transportation (i.e. Bus or Train) | 51.7% | 45.6% | 47.5% |
| Drive Alone | 33.9% | 35.3% | 39.0%* |
| Carpool** | 8.4% | 7.3% | 6.9% |
| Walk, bike, skateboard, etc. (non-fuel) | 5.1% | 6.6% | 5.1% |
| Motorcycle/Moped | 0.4% | 0.5% | 0.6% |
| Electric scooter/Electric bike | | | 0.9% |
| Ride-Hailing Alone (e.g. Uber or Lyft) | | 4.5% | |
| Total | 100% | 100% | 100% |

^{*}Drive Alone: (Drive Alone=35.1%; Ride-Hailing Alone= 3.9%)

Of trips that were categorized as "Public Transportation" about 67% of students marked that their primary mode of transportation was a bus and about 33% of students marked train (see Figure 2). Train usage has increased by 7%, from 26.2% to 33.33%.





^{**} Carpool also includes Waze Carpool, Uber pool, Lyft share

Peak times were defined by two windows of time: 1) between 6AM and 10AM and 2) between 3PM and 7PM (see Table 3). On average, a little over half (56%) of the reported trips to/from SMC occurred during "Peak" times. The percentage of commutes during peak times were consistent throughout the week.

Average Vehicle Ridership describes the number of persons traveling per car during peak time only. To calculate AVR, you divide the total number of students who reported commuting to and from SMC regardless of transportation mode by the total number of cars driven to and from SMC during peak hours. In previous years, the AVRs were 2.49 in 2016 and 2.20 in 2017. The AVR for the Fall 2018 was 2.64, an increase of 0.44 persons per car compared to 2017.

| Table 3. Commute | Times & Average | · Vehicle Ridership (AVR) |
|------------------|-----------------|---------------------------|
| | | |

| | Monday | Tuesday | Wednesday | Thursday | Friday | M-F Weekdays |
|----------|--------|---------|-----------|----------|--------|-----------------|
| Peak | 55.3% | 58.5% | 55.5% | 58.8% | 52.5% | 56.1% |
| Non-Peak | 44.7% | 41.5% | 44.5% | 41.2% | 47.5% | 43.9% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% |
| AVR | 2.68 | 2.66 | 2.60 | 2.67 | 2.60 | 2.64 |

B. Transportation Services

Next, students were prompted with a question to select the transportation agencies they used to get to or from SMC during the Fall 2018 semester (see Table 4). About 41% of students reported using Big Blue Bus service. Only about 5% of students used the Culver City Bus.

Table 4. Transportation Agencies Used in Fall 2018 Semester

| | Santa Monica Big Blue Bus | 41.1% |
|---|---------------------------|-------|
| Which of the following public transportation agencies have you used to get to and/or from campus during the Fall 2018 semester? | None of the above | 18.0% |
| | Train/rail | 20.3% |
| | Metro LA Bus | 16.2% |
| | Culver City Bus | 4.5% |
| | Total | 100% |

SMC Lyft Shared Program. Students were asked a series of questions about the Lyft Shared Program that is offered by SMC. This program provides transportation for SMC students between the Center for Media Design (CMD), Bundy and main campuses. For the Fall 2018 semester, nearly all students indicated that they did not use the Lyft Shared Program (96.0%). When asked why students have not used the program, most of them said that they either did not know it exists or did not know how to use the program.

On the other hand, students who reported they have used the Lyft Shared Program were asked two open-ended questions:

- 1) What was your experience?
- 2) Do you have suggestions to make it a better experience?

The sentiments of students toward the Lyft Shared Program were fairly even. Half of SMC students said that the program was a good 11

It's so amazing. Extremely better than the SMC shuttle service. The Lyft service is way faster than the shuttles. I love it so much!

experience and many of them said that the ride provided them convenience. For example, one student noted, "For the most part I really enjoy this service. It's very convenient for me since I take evening classes". Some students also mentioned that the program is better than the shuttle services because Lyft was "faster" and provided more flexibility in terms of schedule.

Meanwhile, the other half of students said that it was a bad experience because the program charged them money even though the program was advertised as free. As one student explained, "I didn't like the Lyft service because the code didn't' work properly and it made me pay for my ride." The unsatisfactory experience of students was mainly because the code did not work properly or charges were made repeatedly to students even though the program is supposedly free of charge. Nearly all suggestions were to fix the issue in accessing the free ride code for the Lyft Shared Program.

Additional comments related to transportation and commute to/from SMC. Finally, students were given the opportunity to provide any additional comments related to transportation through an open-ended question. More than 1,000 comments were analyzed. A good amount of comments were positive with a significant amount of appreciation for the free ride access for the Big Blue Bus.

Other issues found in the comments included:

Parking issues. For students who have chosen to drive to/from campus, many complained about parking on campus. Students mentioned significant parking congestion and a lack of parking spaces. Some students also expressed their dismay towards the price of parking permits. Students felt that the price is too expensive; particularly given the limited parking spaces on campus. Parking issues seem to be a recurring problem, as it has been mentioned on every transportation survey report written since 2013.

No reasonable public transportation available. Some students expressed that there was a lack of access to reliable transportation from their home to and from SMC. For example, one student noted that "SMC is too far for a public transportation. I live in Woodland Hills. It takes 3 hours one way on public transportation to get to SMC."

Extended bus route(s). The lack of access to reliable transportation may have led to students' sentiments on extended bus route(s). A considerable number of students said that they live too far away from SMC and that extending bus routes to their neighborhood would be really helpful in order to take advantage of the public transportation system. As one of the students suggested, "I

feel like having a bus route or a shuttle available in the valley would be very helpful, especially for those students who live further but still have

on-campus classes."

Discount or free rides on Metro. Similar to previous Student Transportations Survey reports (i.e. 2016 & 2017), students in the Fall 2018 semester also requested financial support for passes on Metro Los Angeles busses and trains.

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I believe SMC should offer free Metro passes for low-income students

Crowded bus or rail rides. Students also expressed their dismay towards crowded bus or rail rides. Some students suggested having more frequent service to avoid the situation.

Lack of awareness of transportation options or information. A number of student respondents also displayed some lack of awareness of the Lyft Shared Program offered by SMC. Students expressed several times that they did not know that the program is available for them to use. In addition, some students mentioned that they did not know how the program works. Students also said that bus schedules and routes should be advertised better around campus.

Electric Scooter partnership. A few students mentioned that partnerships with electric scooter companies should be something SMC considers. As one student explained, "Just a thought. SMC already has a partnership with Lyft, why not those scooters too?"

Highlights

- A total of 2,361 surveys were completed and analyzed.
- In the Fall 2018 semester, there was an average increase of 4.6% in the percentage of students who reported traveling to campus between Monday and Thursday over the Fall 2017 semester.
- In the last three fall semesters (i.e. 2016, 2017, 2018), "Public Transportation" has been the most popular mode of transportation for SMC students.
- Train usage has increased by 7%, from 26.2% to 33.33% compared to Fall 2017.
- The AVR in 2018 went up by 0.44 persons per car from 2.20 to 2.64.
- A large majority of students did not use the Lyft Shared Program (96.0%) during the Fall 2018 semester. Most of the students said that they either did not know it exists or did not know how to use the program.