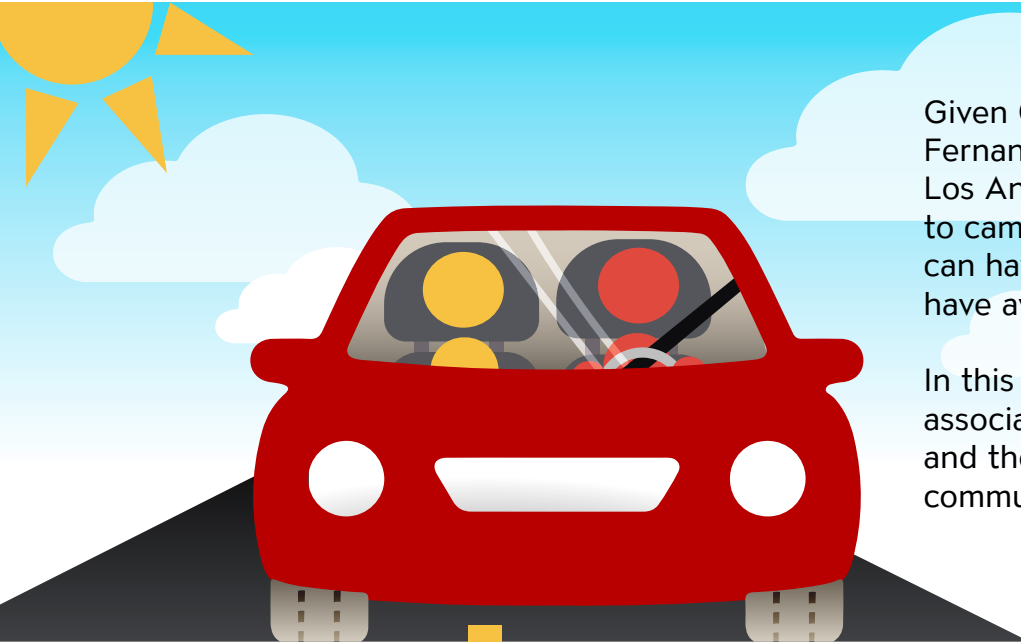


Student Commute Distance & Academic Outcomes



Given CSUN's location in the San Fernando Valley, and, more generally, in Los Angeles County, a student's commute to campus for classes and other activities can have a real impact on the time they have available for schoolwork.

In this report, we investigate the association between academic outcomes and the perceived distance of student commutes to CSUN.

Data

Commute distance data were gathered from the [CSUN Sustainability Program's](#) Spring 2020 Annual Transportation Survey. The survey was conducted between February 17 and March 9, 2020¹. The survey item that is the focus of this report measured students' reported distance from campus in miles.

A total of 2,665 students responded to the 2020 survey. These survey data were merged with semester-level academic and demographic background data compiled by the Office of Institutional Research, resulting in 1,137 undergraduate student observations post merge².

Student background data include:

- gender
- ethnicity
- Pell recipient status
- first-generation college status
- college of major
- entry type (freshman or transfer)
- number of units attempted



We focused on semester GPA as the academic outcome, specifically Fall 2019 GPA, since students' learning environment in the Fall approximated the uninterrupted learning environment that students likely experienced during the early Spring semester, pre-pandemic³. One potential drawback is that the strategy doesn't account for the possibility of changing commutes due to a possible change in residence between Fall 2019 and Spring 2020.

1. The survey closed just two days prior to CSUN's announcement to move to an all-virtual format due to the COVID-19 pandemic

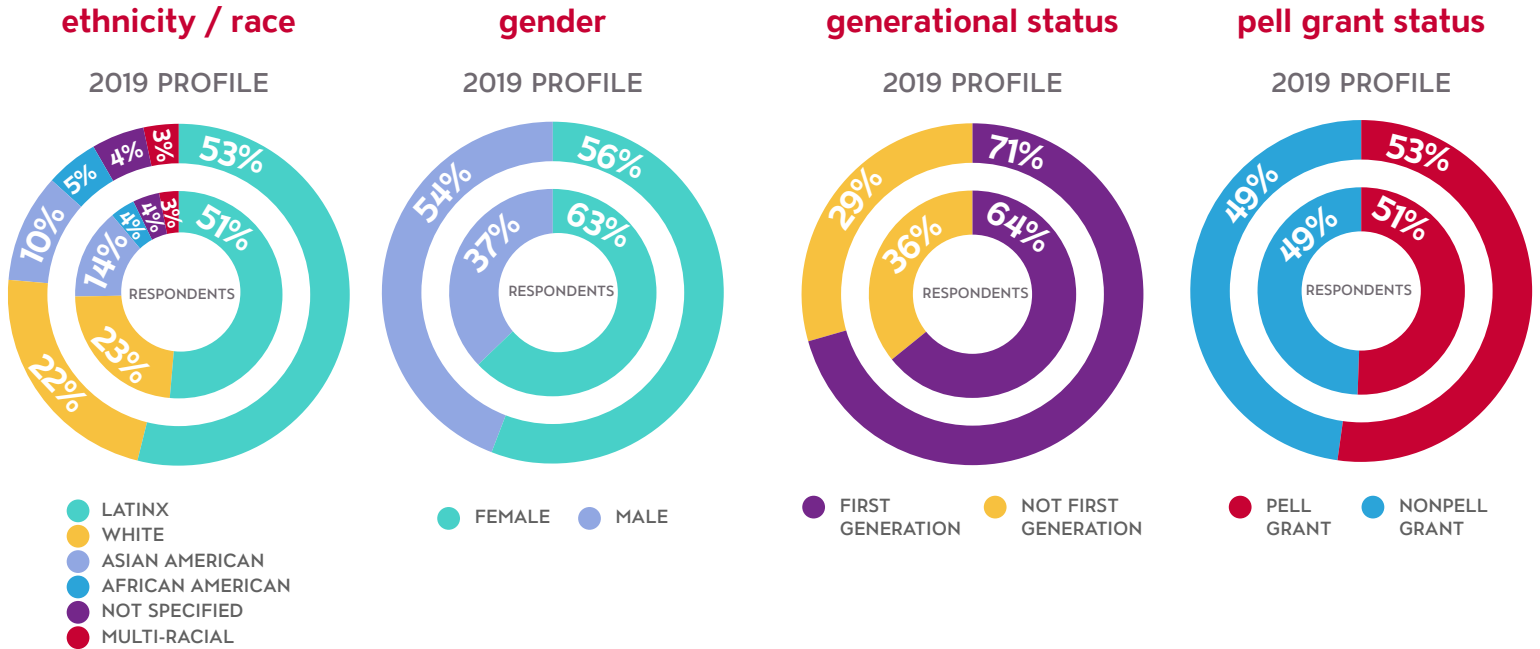
2. The number of observations dropped significantly because the data were matched between the datasets using email addresses provided in the transportation survey. Any observations that did not include a valid email address could not be included.

3. We also conducted analyses for Spring outcomes and found no statistically reliable results, likely owing to the fact that students were not traveling to campus for a significant duration of the semester.

Who Participated in the Annual Transportation Survey?

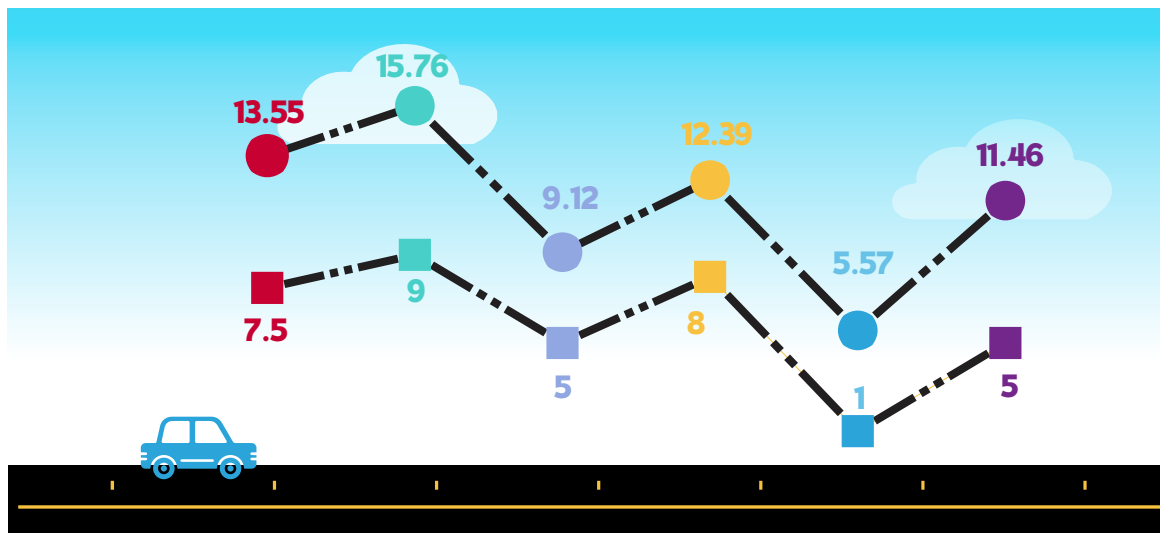
Respondents appear to be generally representative of the demographic make-up of CSUN's student population in Fall 2019, though there were comparatively more female students and fewer first-generation respondents to the survey than in the general student body.

DEMOGRAPHIC COMPARISONS



What is the Average Commute Distance For All Students?

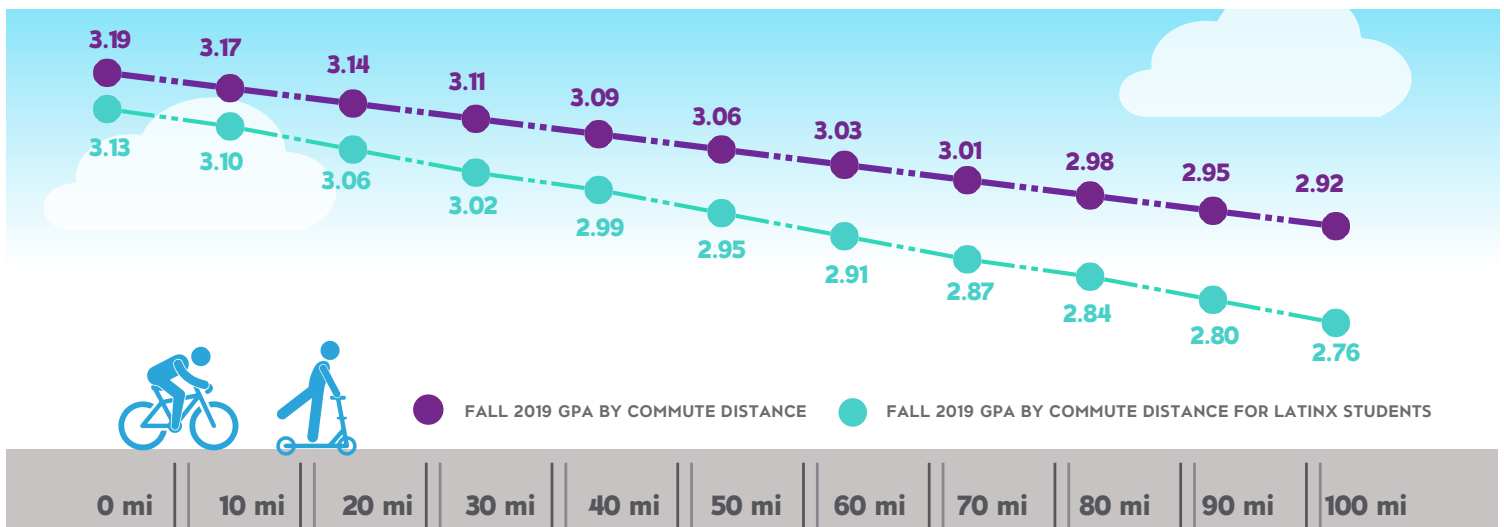
Student responses indicate that Latinx students have the longest commute compared to other race/ethnic groups. In comparison, Black students, on average, have the shortest commute.



Is Commute Distance Associated With Academic Outcomes?

We first examined whether commute distance was associated with semester GPA while accounting for students' demographic characteristics. Distance of commute was statistically reliably associated with academic outcomes, such that students living farther away from campus were more likely to earn lower semester GPAs ($p < .10$).

We also examined the association between commute distance and semester GPA separately by student's race/ethnic group. Among Latinx students, longer commute distances were negatively associated with lower GPA. **For every additional mile a Latinx student lives from campus, semester GPA decreases by .004 grade points.** However, there was no statistically reliable relationship between commute distance and semester GPA among any of the other race/ethnic groups.



Takeaways

Overall, the findings indicate that **longer commute distances are associated with lower semester GPA, and these are largely driven by the longer commutes that Latinx students tend to experience.** As for students from other racial and ethnic backgrounds, the analyses showed that other factors mattered more in predicting term GPA, such as entry GPA and freshman/transfer student status. It is important to note that the relative size of the effect is pretty small (a 0.004 grade point drop per additional mile from campus for Latinx students). Nonetheless, this difference can add up for students who must commute great distances to campus.

It is important to note that because the Transportation Survey was conducted just before CSUN's move to virtual learning during the COVID-19 pandemic, the academic outcomes associated with commute distance reflect pre-pandemic experiences. It will be important to continue to examine these trends as the campus continues to shift post pandemic.

We recognize the possibility of response bias since the commute data are self reported from the Transportation Survey and may therefore not be representative of students in general. As a way to approximate commute distance based on data available from student records, we also ran analyses on estimated commutes, using students' presumed home addresses. These analyses indicated a similar small but statistically reliable effect of commute distance on GPA, though more so for Black/African American students than other groups (see [Addendum](#) for details).

The Office of Institutional Research has previously found that living in on-campus housing, especially living in Living Learning Communities, is associated with higher first-year GPA, higher probability of continuing for a third semester, and lower probability of being on academic probation after the first year. It is important to better understand how the various residency and commute situations for students may interact to impact academic outcomes.