



Office for Institutional Effectiveness  
University of Hawai'i Kapi'olani Community College

# Report on the Kapi'olani Community College Commuter Survey

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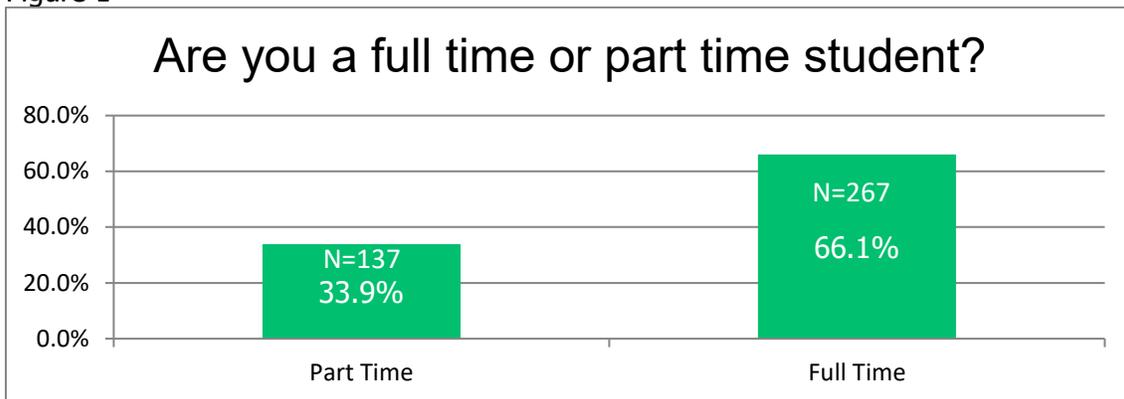
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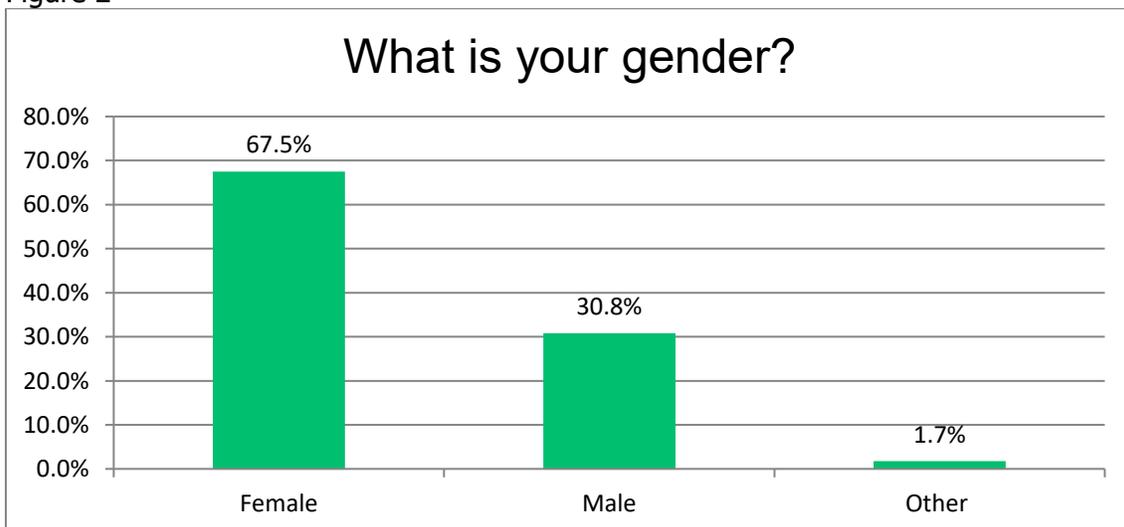
A survey of Kapi'olani Community College student commuting practices was conducted between February 20<sup>th</sup> and March 4<sup>th</sup> 2019. The survey instrument is attached as a link as Appendix A. The survey was conducted online by sending a link to the survey to all students connected to kapiolani-student@lists.hawaii.edu. There were 404 respondents out of 6,187 students enrolled in the Spring 2019 semester for an overall response rate of 6.5%.

Question 1 of the survey asked if the respondent was a full or part time student.  
Figure 1



The majority of respondents were full-time students (66.1%) which is the reverse of the Kapi'olani CC Spring 2019 students as a whole of whom 66.1% were part-time. The response rate for full-time students was (267/2,096) or 12.7% while the response rate for part-time students was (137/4,091) or 3.3%. The response rate for part-time students calls into question the generalizability of the survey results to part time students at the college.

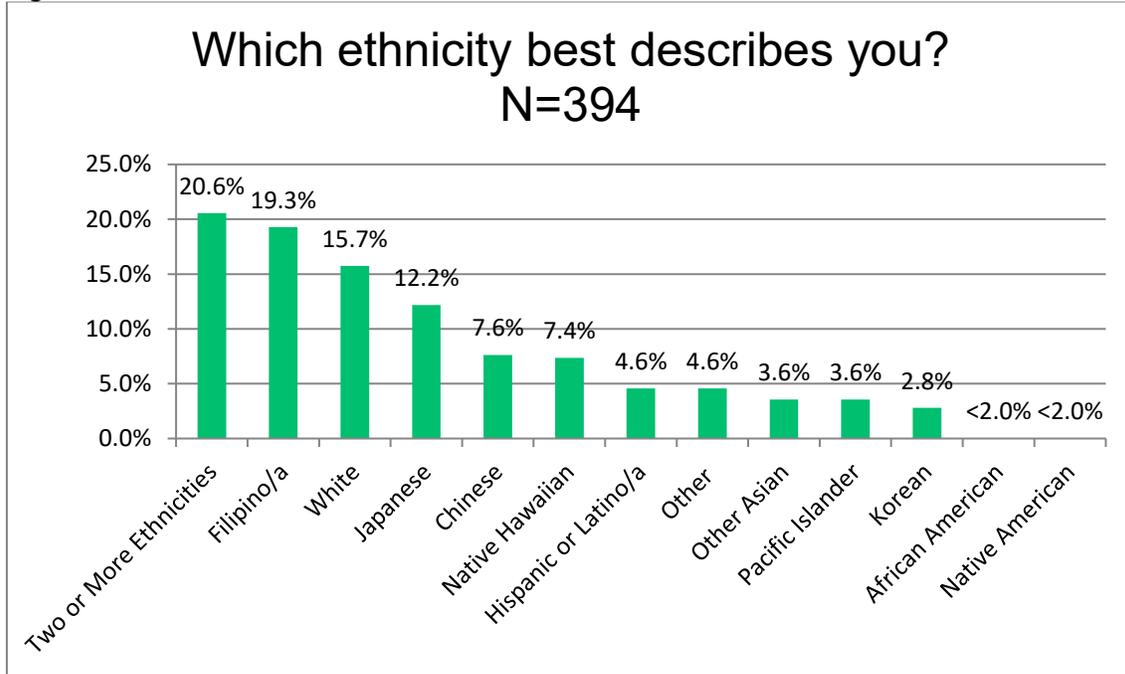
Question 2 asks for the gender of the respondent.  
Figure 2



The proportion of survey respondents identifying themselves as female ( 67.5%) matches approximately the proportion of all female students at Kapi'olani CC in the Spring 2019 semester (59.3%).

Question 3 asks for respondents to declare an ethnic identification.

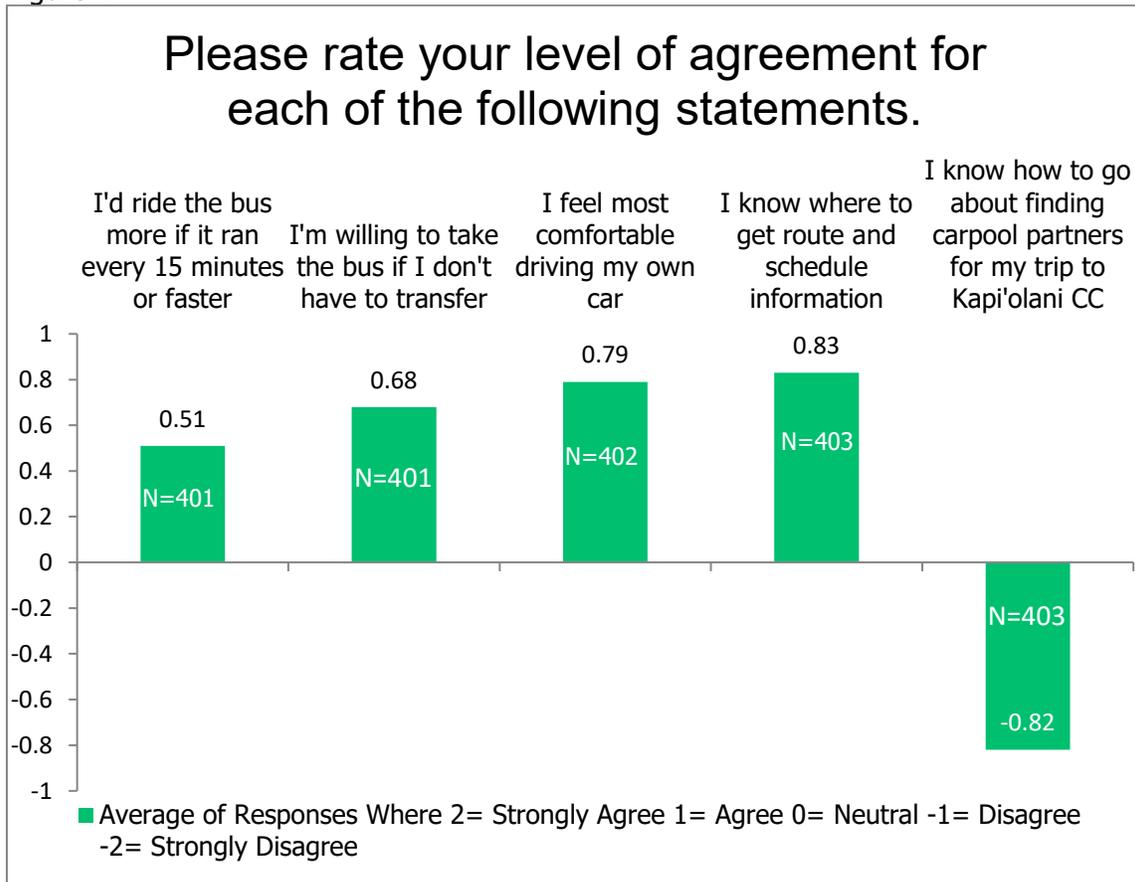
Figure 3



The proportions of respondents within each ethnic category broadly matches the proportion of self-identified ethnicities among students enrolled in the spring 2019 semester, with the exception of Native-Hawaiian students. The proportion of students responding to the commuter survey who declared themselves to be Native Hawaiian was 7.4%. The Percentage of self-identified Native Hawaiian students in the spring 2019 semester total enrollment was 16.7%. Ethnicity for Native Hawaiians for the overall enrollment is calculated by University of Hawai'i system rules which classify a student as Native Hawaiian if they have identified any Native Hawaiian ancestry. Respondents to the commuter survey chose their own ethnic identity, not subject to the methodology that calculates their ethnicity used by the University of Hawai'i system.

Question 4 asked respondents to evaluate a series of statements regarding commuter preferences. The statements were judged using a Likert scale format where 2= Strongly Agree 1= Agree 0= Neutral -1= Disagree and -2= Strongly Disagree. The results are presented in figure 4 below.

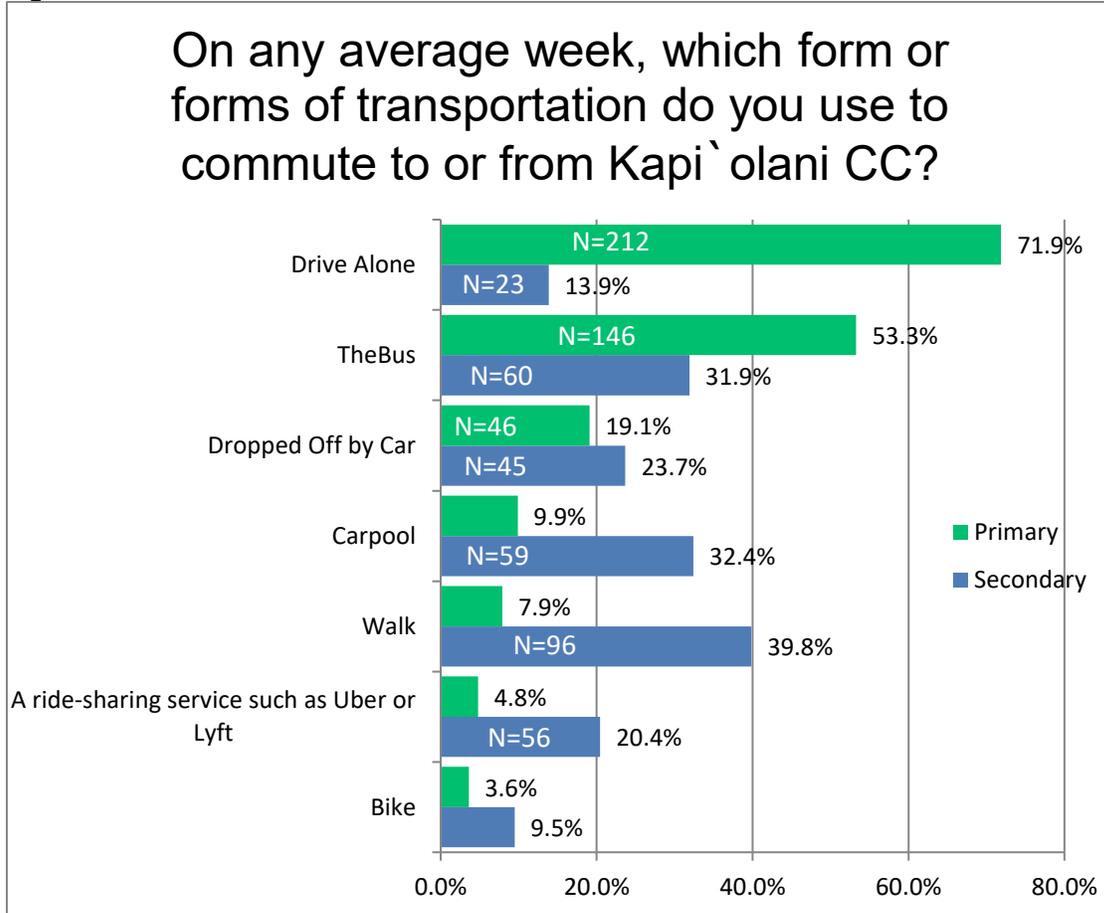
Figure 4



Respondents agreed that they were most comfortable driving their own car and that faster bus service and a direct trip would encourage them to ride the bus. The highest level of agreement was for the statement that they knew where to get route and schedule information for the bus. In contrast to their agreement in differing degrees with the previous statements, respondents disagreed that they knew how to find carpool partners for commuting to Kapi'olani CC.

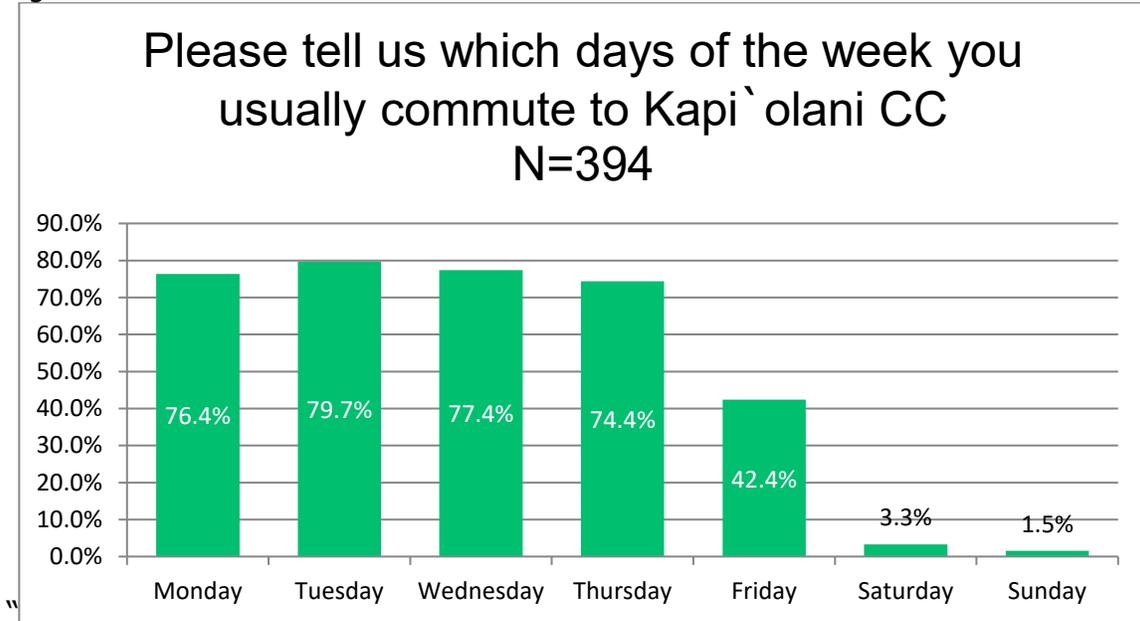
In Question 5, respondents were asked to give their main means of transportation for their commute to Kapi'olani CC. The top means of transportation for commuters was driving solo by car with 71.9% indicating this as their primary method, followed by use of TheBus (53.3% primary method). The top three secondary means of transportation used in their commute to Kapi'olani CC by respondents (dropped off by car 39.8%, carpool 32.4%, and use of a paid ride-sharing service 31.9%) all involve ridesharing.

Figure 5

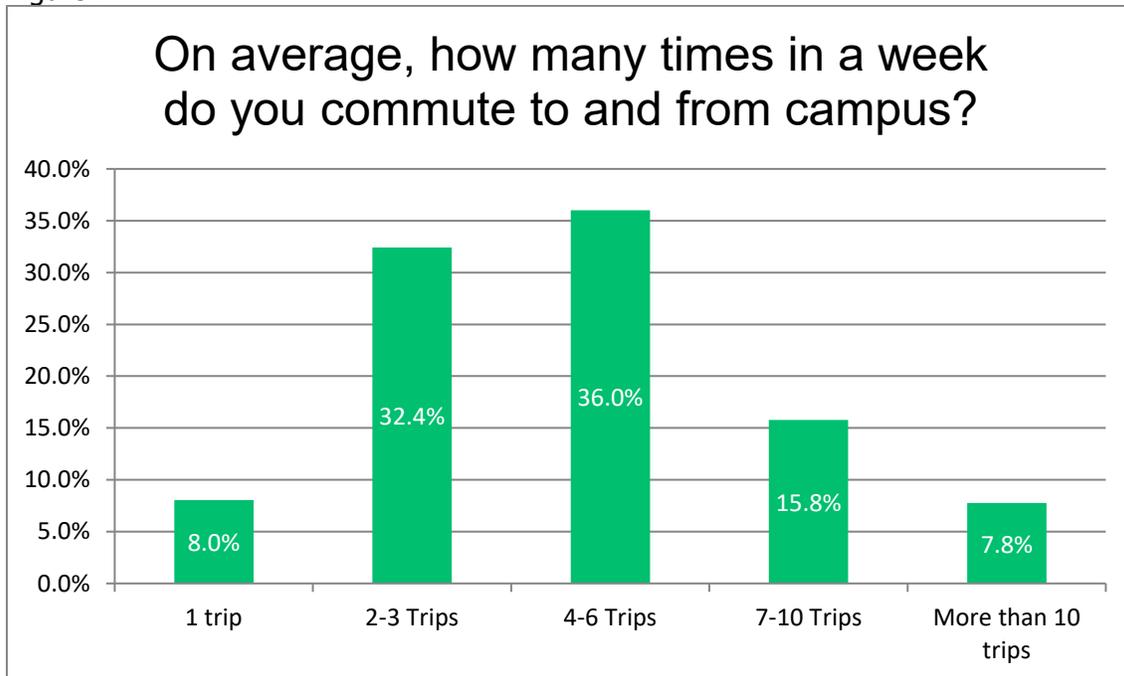


In Question 6 respondents were asked which days of the week they commuted to Kapi`olani CC. Most respondents commute to campus between Monday (76.4%) and Thursday (74.4%) with Tuesday (79.7%) being the peak travel day. Trip frequency falls off on Friday (42.4%) with negligible commuting on the weekend (Saturday 3.3% and Sunday 1.5% of respondents).

Figure 6

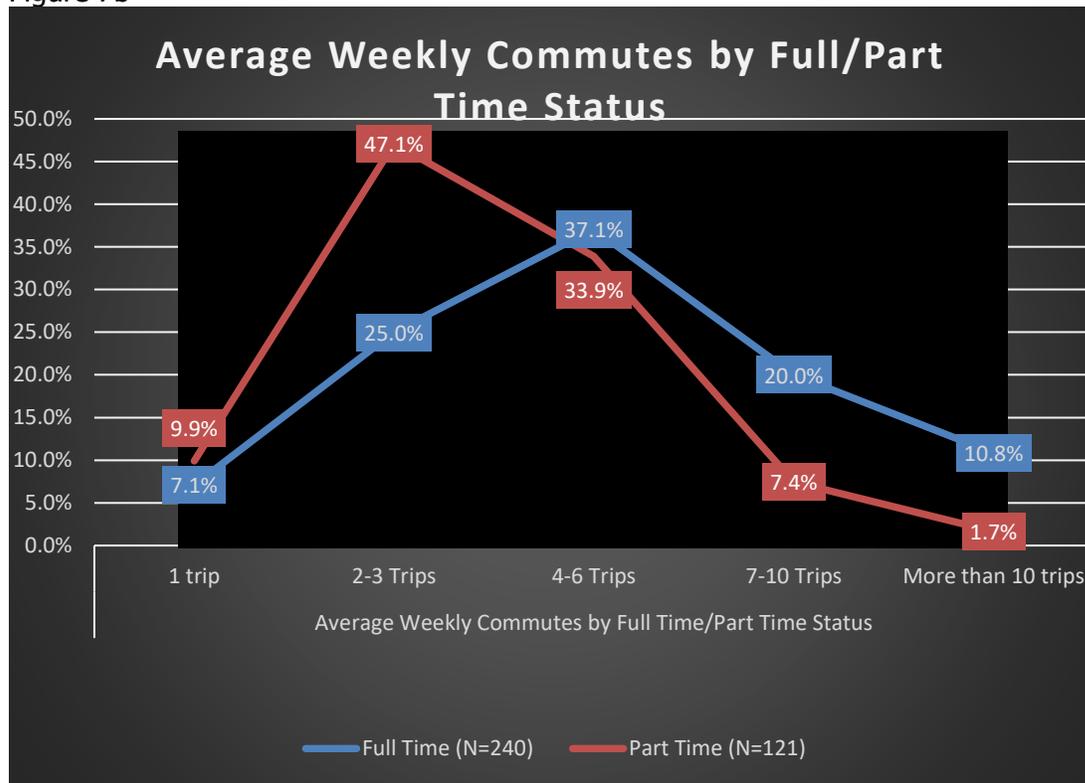


Question 7 asks respondents about the frequency of their commuting to Kapi`olani CC.  
Figure 7



Note that about one in five commuters (23.6%) makes seven or more trips to Kapi`olani CC per week. Who are these frequent flyers? In Figure 7b below the average weekly commute frequency is shown by full/part time status.

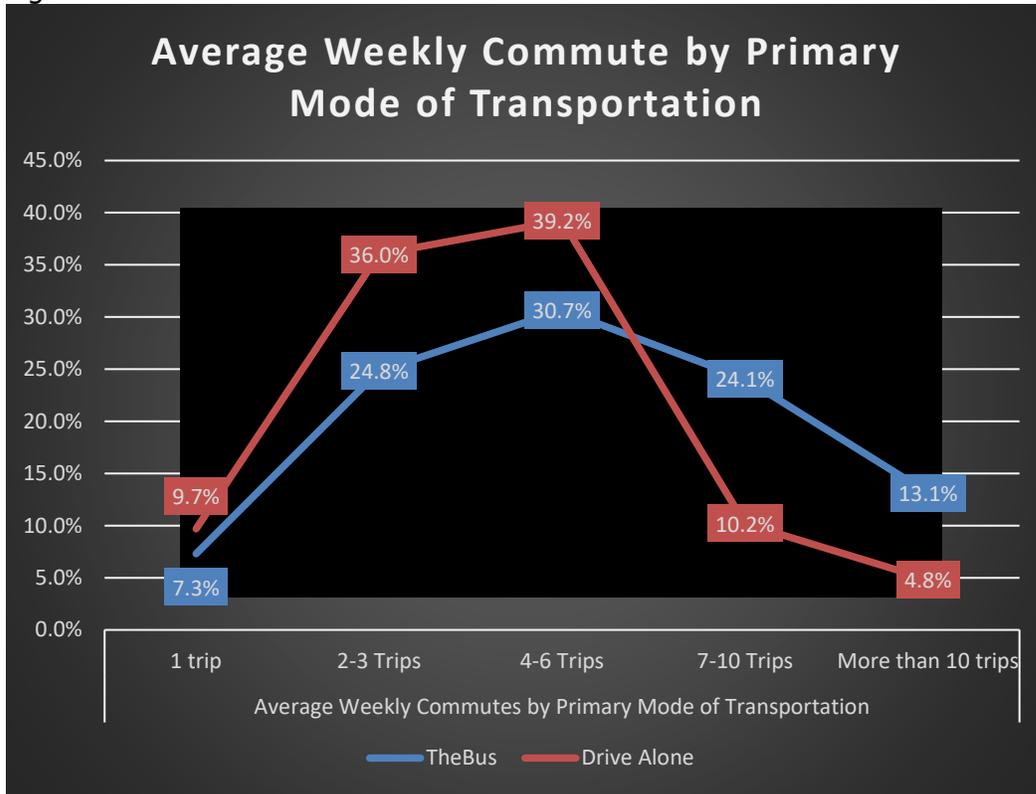
Figure 7b



Commuters with fewer than four trips weekly to Kapi'olani CC are predominantly part-time students, while commuters with more than six trips weekly are predominantly full time students.

In Figure 7c below, the average weekly commute frequency is shown by primary mode of transportation

Figure 7c

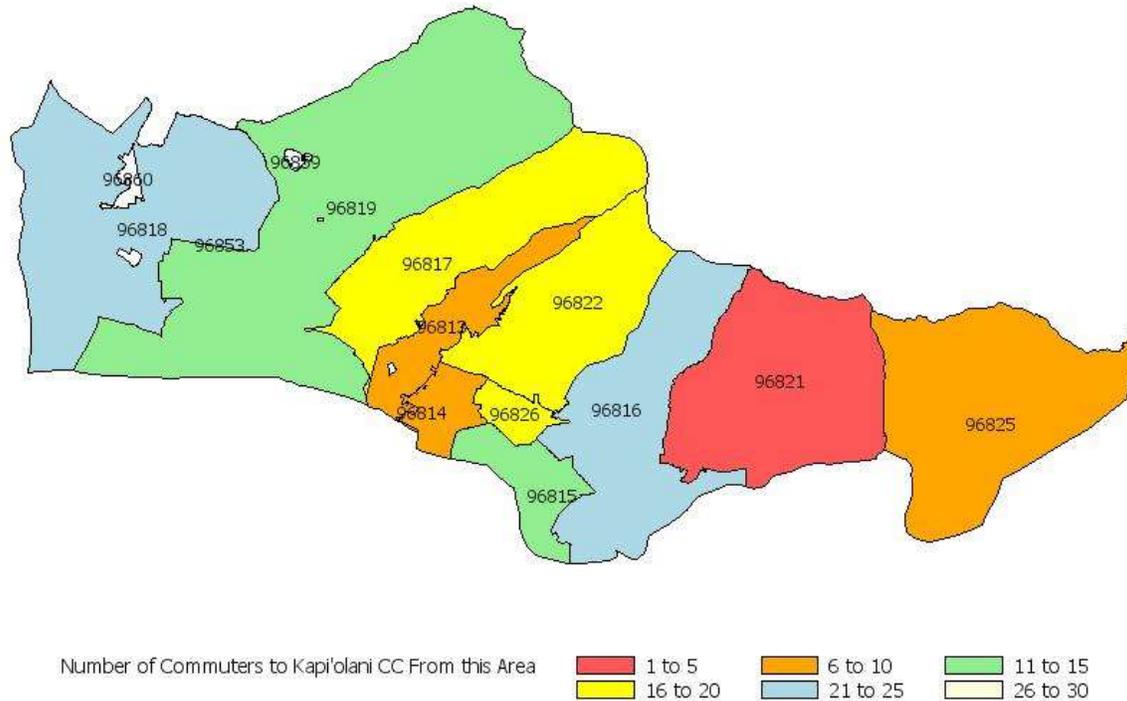


Commuters with fewer than seven trips weekly to Kapi'olani CC are predominantly solo drivers, while commuters with more than six trips weekly are predominantly bus riders.

Question 8 asks respondents for their ZIP code of origin for their commute to Kapi'olani CC. The response data is presented graphically by the categories of Full-Time/Part-Time and Urban Honolulu ZIP of Origin and All other O'ahu Zip of Origin. Kapi'olani CC is located in ZIP code 96816.

Figure 8a

Full-Time Student Commuters from urban Honolulu to Kapi'olani CC, From the 2019 Spring Commuter Survey by ZIP Code Tabulation Area



The ZIP codes from which the greatest number of full time student commutes originate are 96816, which contains Kapi'olani CC, and 96818 (Salt Lake/Joint Base Pearl Harbor Hickam). The next most common origin of commutes by full time students to Kapi'olani CC are ZIP codes 96817 (Nu'uaniu/Kalihi), 96826 (McCully/Mo'ili'iili) and 96822 (Mānoa Valley). Relatively few trips originate from ZIP codes 96813 (Downtown Honolulu), 96814 (Kaka'ako) and 96825 (Hawai'i Kai). The fewest commutes of full time student originate in ZIP 96821, immediately east of Kapi'olani CC (Aina Haina, Niu Valley).

The ZIP codes from which the greatest number of part time Urban Honolulu student commutes originate are 96816, which contains Kapi'olani CC and 96826 (McCully/Mo'ili'iili). The next most common origin of commutes by full time students to Kapi'olani CC are ZIP codes 96813, 96814, 96815, 96817, 96822 and 96825 (Downtown Honolulu, Kaka'ako, Waikīkī, Nu'uaniu/Kalihi, Mānoa and Hawai'i Kai respectively). The fewest commutes of part time student respondents originate in ZIP codes 96818 (Salt Lake/Joint Base Pearl Harbor Hickam), 96819 (Kalihi) and 96821 (Aina Haina/Niu Valley). ZIP codes 96818 and 96819 were in the highest and next-highest areas for full-time commuters to begin their journey to Kapi'olani CC. It appears that propensity to commute to Kapi'olani CC for part time students increases in direct relationship to their proximity to the college.

Figure 8b

Part-Time Student Commuters from urban Honolulu to Kapi'olani CC, From the 2019 Spring Commuter Survey  
by ZIP Code Tabulation Area

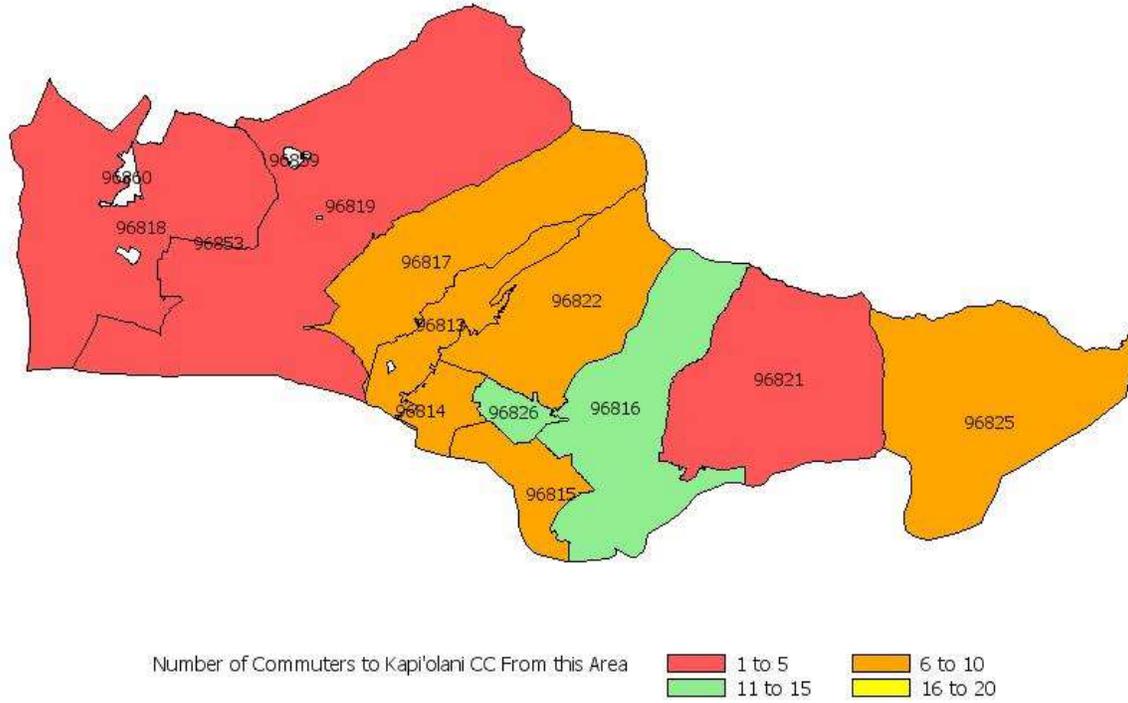
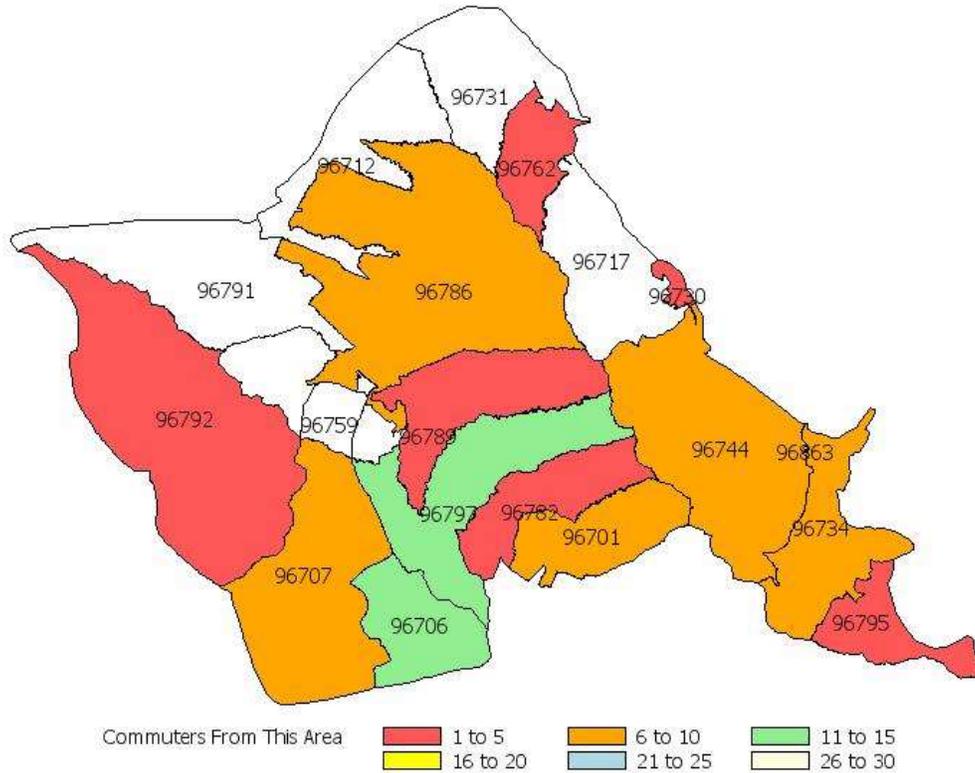


Figure 8c

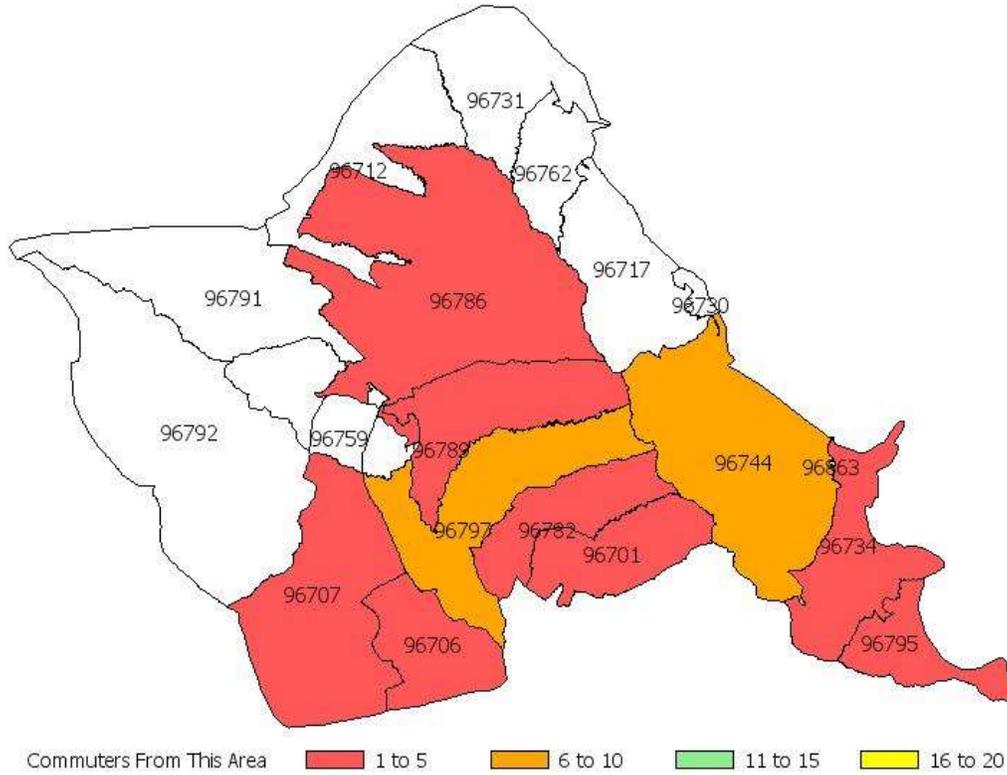
Full-Time Student Commuters to Kapi'olani CC, From the 2019 Spring Commuter Survey, (excluding urban Honolulu)  
by ZIP Code Tabulation Area



The ZIP codes outside of Urban Honolulu from which the greatest number of full time student commutes originate are 96706 (Ewa Beach) and 96797 (Waipahu/Joint Base Pearl Harbor Hickam). The next most common origin of commutes by full time students to Kapi'olani CC are ZIP codes 96744 and 96734 (Kāne'ohe/Kailua), 96707 (Kapolei), 96701 ('Aiea) and 96786 (Wahiawa). Relatively few trips originate from any other O'ahu ZIP codes. ZIP code areas shown on the map with a white background have no commutes to Kapi'olani CC originating from there.

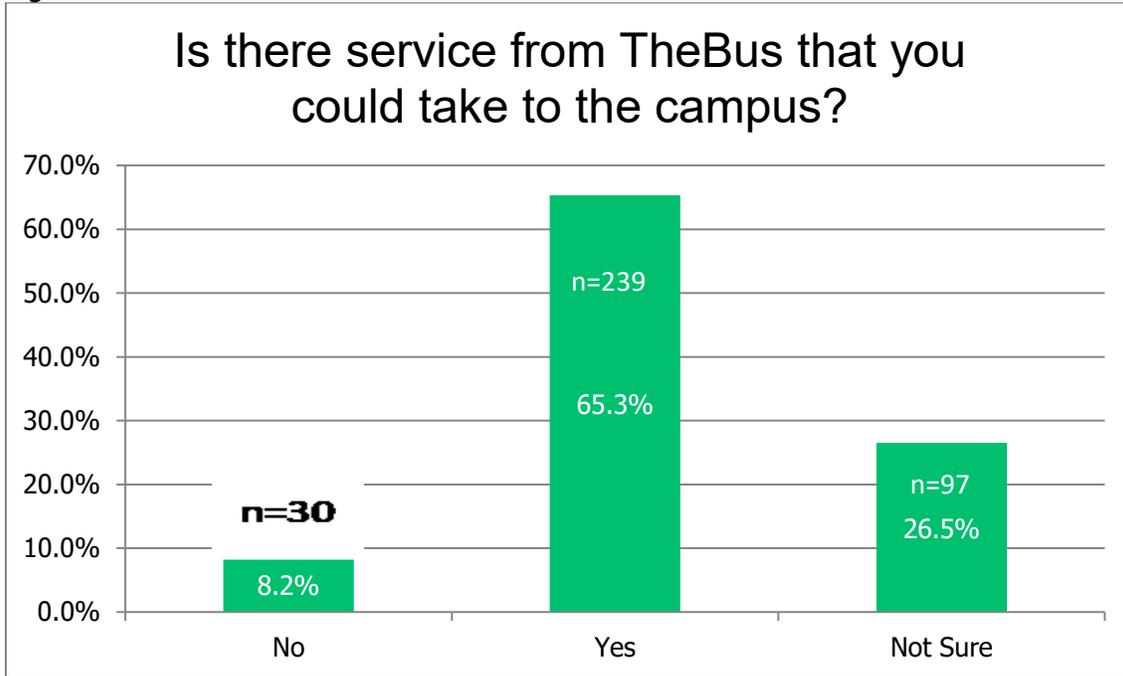
Figure 8d

Part-Time Student Commuters to Kapi'olani CC, From the 2019 Spring Commuter Survey ,(excluding urban Honolulu)  
by ZIP Code Tabulation Area



The ZIP codes from which the greatest number of part time student commutes from outside of Urban Honolulu originate are 96797 (Waipahu/Joint Base Pearl Harbor Hickam) and 96744 (Kāne'ohe). Relatively few trips originate from any other O'ahu ZIP codes. ZIP code areas shown on the map with a white background have no commutes to Kapi'olani CC originating from there.

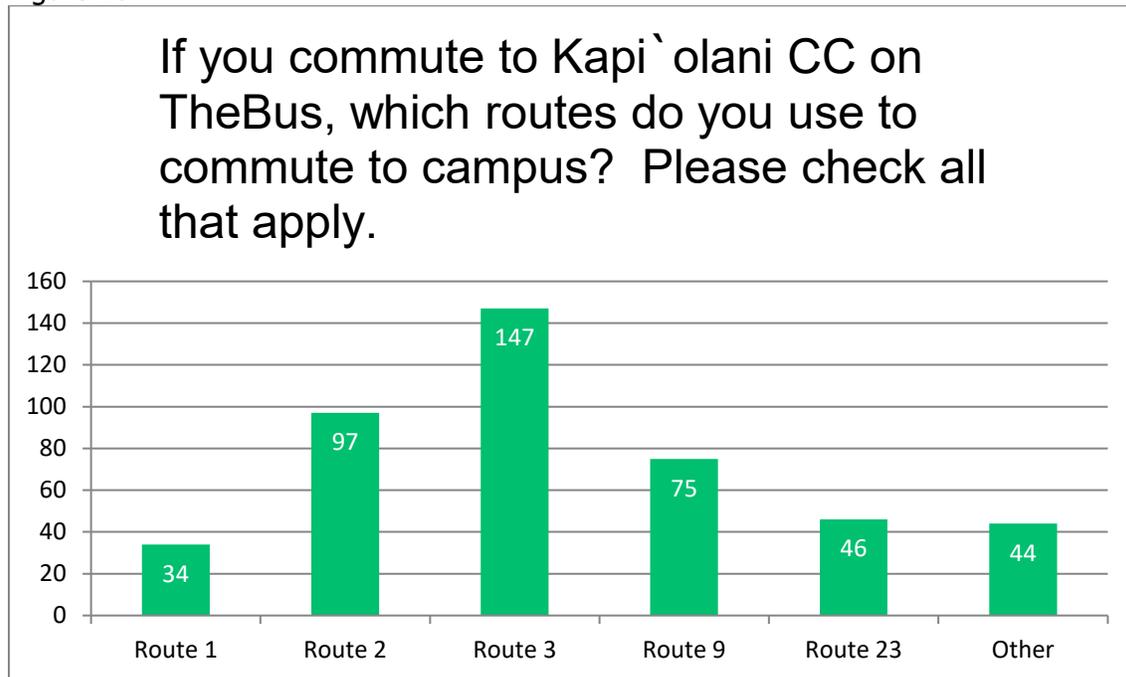
Question 9 asked respondents if they had service from TheBus that they could take to campus.  
Figure 9



Approximately one third (34.7%) of respondents were either not sure or said they had no bus service to Kapi`olani CC despite the comprehensive service available island-wide to residents of O`ahu from TheBus.

Question 10 asked respondents who commute to Kapi`olani CC via TheBus which routes they use.

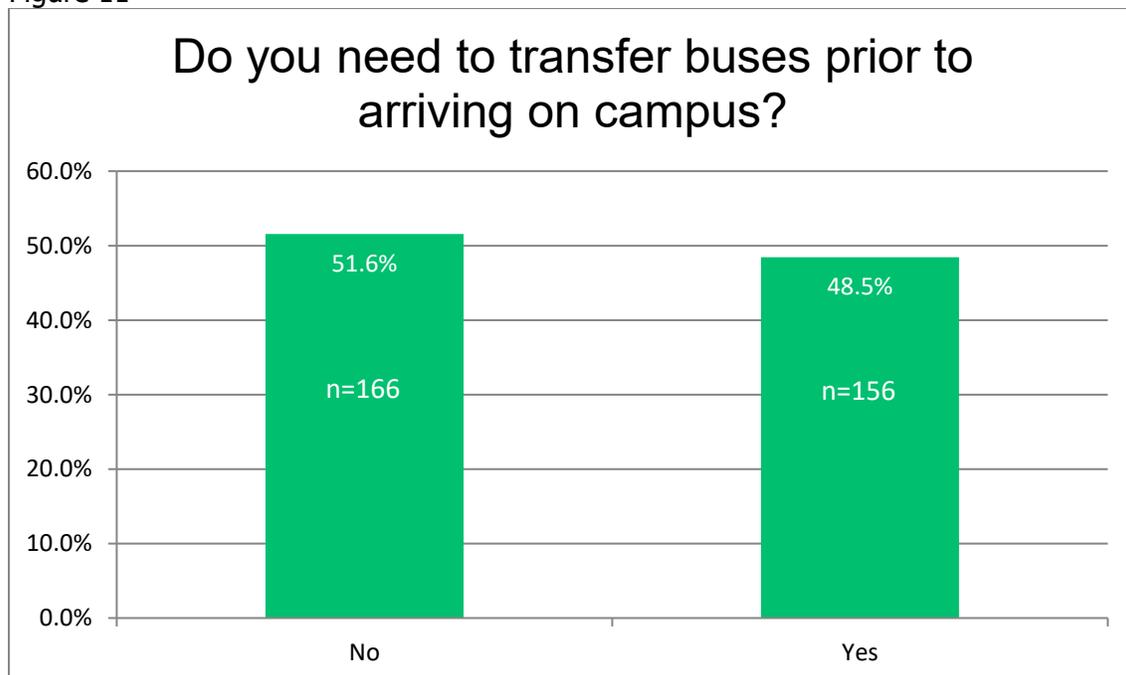
Figure 10



The most used route was the 3 followed by the 2 and the 9 routes in frequency of citation. The most used routes among those not given a response category were the 18/24 and the 13 routes. The 13 and 18/24 routes were cited by respondents commuting to Kapi`olani CC from Mānoa.

Question 11 Asks if the respondent needs to transfer buses during their commute.

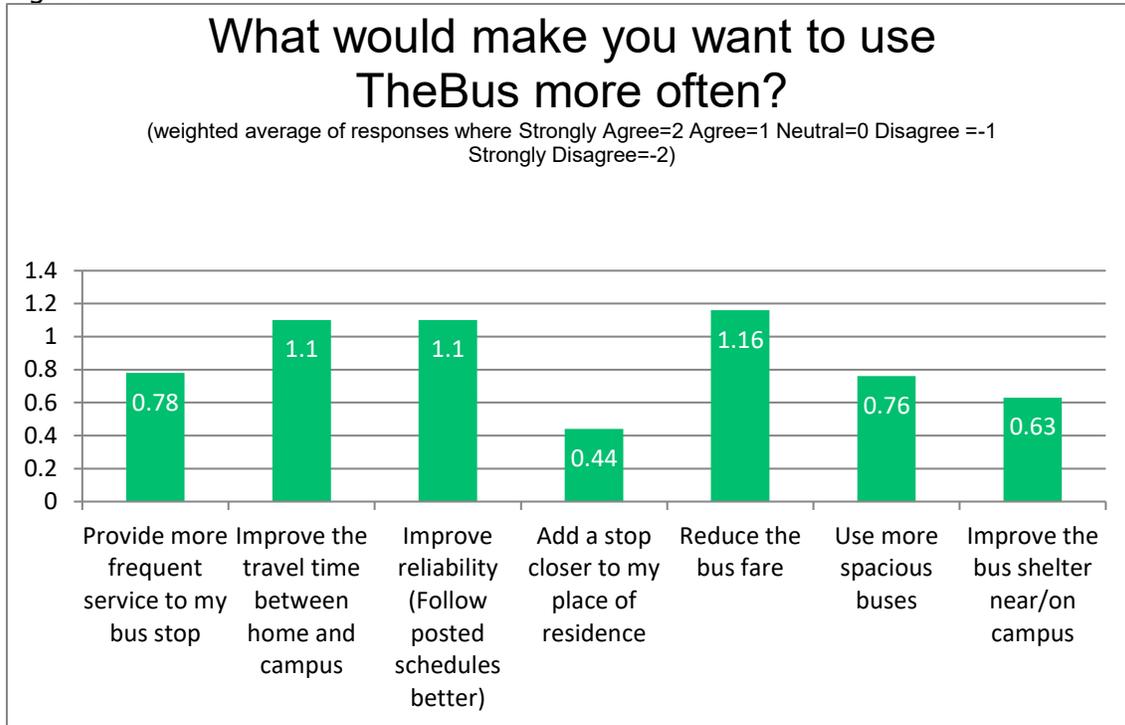
Figure 11



Respondents split evenly between those requiring a transfer to reach Kapi'olani CC and not so burdened with 48.5% of respondents needing to transfer.

Question 12 asked respondents to evaluate a series of statements regarding possible incentives towards bus ridership. The statements were judged using a Likert scale format where 2= Strongly Agree 1= Agree 0= Neutral -1= Disagree and -2= Strongly Disagree. The results are presented in figure 12 below.

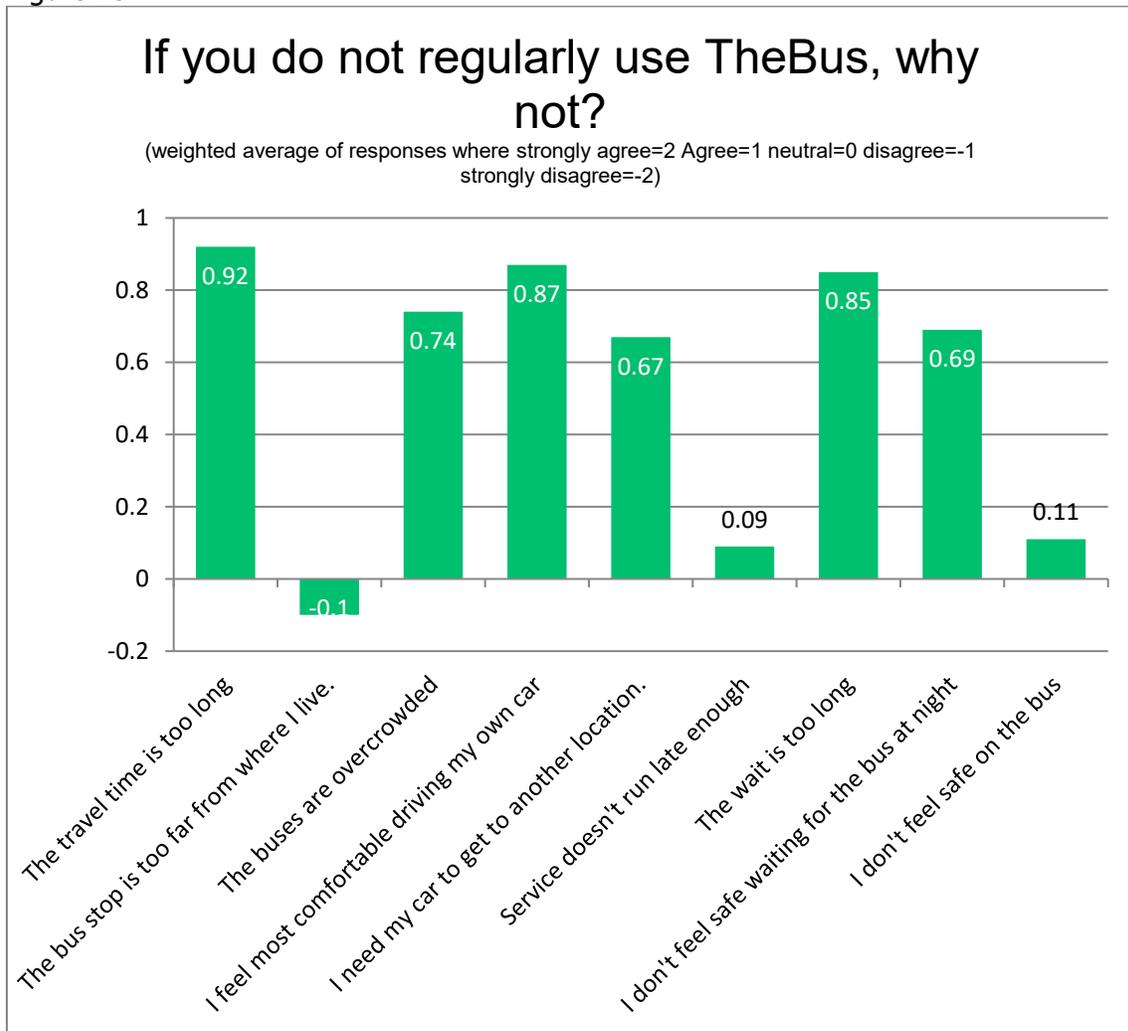
Figure 12



The greatest agreement from respondents with the statements on incentives for bus ridership came for statements regarding travel time, frequency and cost of service. Respondents would like their bus service to be frequent, faithful and free. They were least supportive of having bus stops closer to their residence.

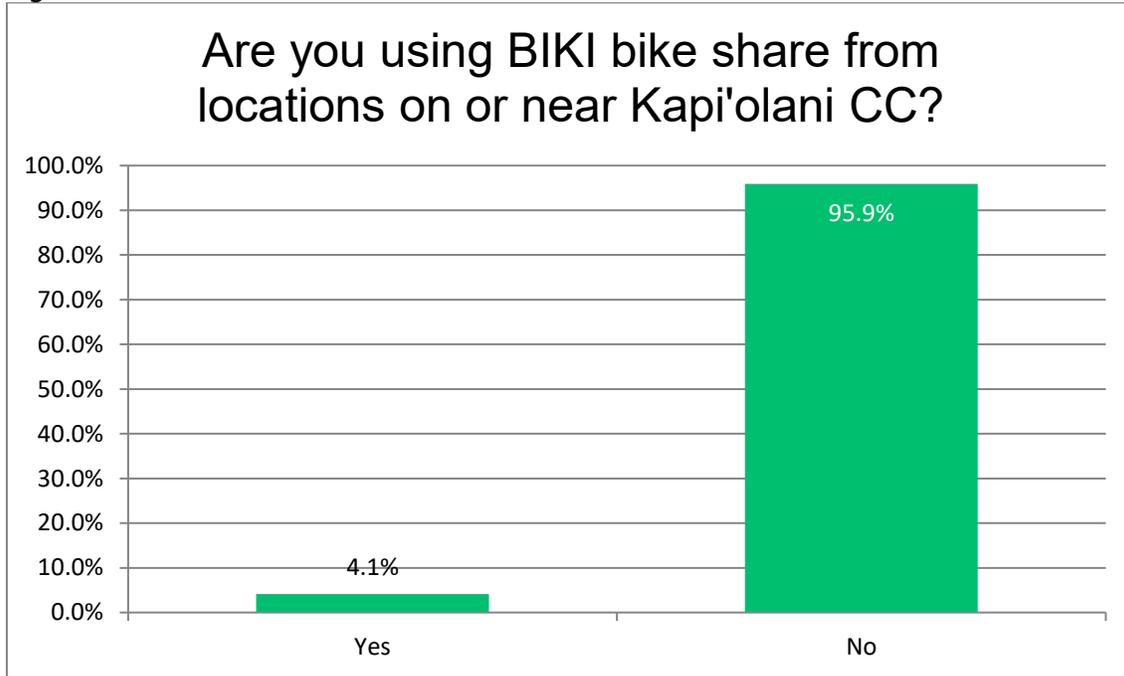
Question 13 asked respondents to evaluate a series of statements regarding possible disincentives towards bus ridership. The statements were judged using a Likert scale format where 2= Strongly Agree 1= Agree 0= Neutral -1= Disagree and -2= Strongly Disagree. The results are presented in figure 13 below.

Figure 13



Statements in Question 13 fell into two groups by respondents answers. One is a group of three statements drawing essentially a neutral response (bus stop is too far from where I live, Service doesn't run late enough and I don't feel safe on the bus). The remaining statements establish the list of grievances people have with TheBus. The discomfort felt by respondents in regards to their safety while waiting for the bus shows no difference between male and female respondents.

Figure 14



The weighted mean responses to Questions 12 and 13 were compared by the categories of primary means of transportation when commuting, necessity of transfer and gender to help identify key items distinguishing commuters. Means to response questions were tested by Student's T-test for significance.

In Table 1 below, fulltime students who primarily commuted on TheBus were compared to fulltime students who rely on driving alone. Bus riders expressed significantly stronger agreement than solo drivers with statements on the aggravations of bus travel and the things necessary to induce bus ridership. Question are rated on the basis that strongly agree=2 Agree=1 neutral=0 disagree=-1 and strongly disagree=-2. Therefore an average response of 2 is the strongest possible affirmation and a response of -2 is the strongest possible rejection of the statement. All differences in means in Table 1 are significant a  $p < .001$ , two-tailed T-test.

Table 1

Question Statement	Bus Primary	Drive Alone Primary
I'd ride the bus more if it ran every 15 minutes or faster	1.301	0.121
I'm willing to take the bus if I don't have to transfer	1.406	0.432
I know where to get route and schedule information	1.462	0.841
The wait is too long	1.515	0.982
I feel most comfortable driving my own car	1.186	0.676
Add a stop closer to my place of residence	1.149	0.664

Note that the respondents who rely on TheBus most are its strongest critics. Waiting for TheBus is not as aggravating if you are driving past the one who is doing this, or so it appears.

In Table 2 below, it can be seen that solo drivers were in greater agreement than bus riders with the following statements.

Table 2

<b>Question Statement</b>	<b>Bus Primary</b>	<b>Drive Alone Primary</b>
I don't feel safe on the bus **	0.746	1.216
I need my car to get to another location. ***	0.015	1.200
Service doesn't run late enough ***	0.000	1.404

Difference in means significant at \* P<.05 \*\* P<.02 \*\*\*P<.001 two tailed t-test

Note that disinclination to ride the bus goes with fear of prospective fellow travelers. The responses to the second and third statements suggest that for students for whom Kapi'olani CC is not their primary focus of the day, the bus is not flexible or convenient enough to meet their transportation requirements. Recall that for part time students commuting on the bus is largely limited to McCully, Mo'ili'iili and Kaimuki residents for whom the trip is about 20-25 minutes one-way by bus.

In Table 3 Part-time students who primarily ride the bus have a near identical support of the same statements as their fulltime student counterparts.

Table 3

<b>Question Statement</b>	<b>Bus Primary</b>	<b>Drive Alone Primary</b>
I'd ride the bus more if it ran every 15 minutes ***	1.425	0.127
I feel most comfortable driving my own car ***	1.361	0.333
Provide more frequent service to my bus stop ***	1.500	0.667
I'm willing to take the bus if I don't have to transfer ***	1.256	0.388
I know where to get route and schedule information ***	1.575	0.730
Add a stop closer to my place of residence ***	0.886	0.175
The wait is too long ***	1.342	0.689

Difference in means significant at \* P<.05 \*\* P<.02 \*\*\*P<.001 two tailed t-test

In Table 4 the statements which have greater agreement from solo drivers than bus riders are shown.

Table 4

<b>Question Statement</b>	<b>Bus Primary</b>	<b>Drive Alone Primary</b>
I don't feel safe on the bus **	0.708	1.194
I need my car to get to another location. ***	-0.130	1.443
Service doesn't run late enough ***	-0.042	1.641

Difference in means significant at \* P<.05 \*\* P<.02 \*\*\*P<.001 two tailed t test

In Figure13, the responses by all respondents to the statements "I don't feel safe on the bus" and "Service doesn't run late enough" were neutral. When parsed by transportation mode we see that solo drivers agree with these statements significantly more than bus drivers.

In Table 5, responses to questions 12 and 13 compared by gender. Significant differences in responses were found on three statements, all where women had stronger agreement.

Table 5

<b>Question Statement</b>	<b>Men</b>	<b>Women</b>
Reduce the bus fare *	-0.055	0.300
The buses are overcrowded **	0.060	0.362
The bus stop is too far from where I live. ***	0.494	0.971

Difference in means significant at \* P<.05 \*\* P<.02 \*\*\*P<.001 two tailed t-test

There were no significant differences in questions regarding perceived safety on the bus, comfort while waiting for the bus.

In Figure13, the responses by all respondents to the statement "The bus stop is too far from where I live" was neutral. When parsed by gender we see that female respondents agree with these statements significantly more than male respondents.

The verbatim responses indicate concern with passengers and people waiting for the bus or "just make house" at the bus stop. The verbatim responses are not identified by gender of respondent. They do suggest women may perceive the walk to the bus stop as a gauntlet of undesirable people and that passing this gauntlet successfully may only serve to land you someone very like this as your seatmate on the bus.

Responses to statements by whether or not the bus rider needs to transfer are in table 6 on the following page.

Table 6

<b>Question Statement</b>	<b>No Transfer</b>	<b>Need to Transfer</b>
Reduce the bus fare *	0.009	0.347
Improve reliability (Follow posted schedules better) *	0.744	1.007
I don't feel safe on the bus *	0.865	1.180
Improve the travel time between home and campus **	0.391	0.686
Add a stop closer to my place of residence ***	0.605	0.929
I feel most comfortable driving my own car ***	0.694	1.034
Use more spacious buses ***	0.662	1.097
Provide more frequent service to my bus stop ***	0.925	1.430

Difference in means significant at \* P<.05 \*\* P<.02 \*\*\*P<.001 two tailed t-test

Here there is a significant difference in perceived safety on the bus between transfer and non-transfer riders. This may point to the environment at major transfer points rather than the journey at the bus itself.

## Summary

Two-thirds of respondents to the survey were full-time students. This is the reverse of the student enrollment as a whole at Kapi`olani CC which is about two-thirds part-time students. The major finding from the survey concerning part-time students may be that the low response indicates a lack of engagement with the issue and with the college. Respondents indicated they did not know how to find carpool partners yet 40% (160 out of 401 respondents) indicated they used some form of ride-sharing (ride-sharing service, carpool, dropped off by car) as their secondary means of commuting to campus. There appears to be potential to expand car pool/ride sharing through promotion of this by the college.

Bus transit is an important transportation option for students. It was the second most relied upon means of transportation, behind solo driving, with 36% (146 of 401) relying primarily upon bus transit to reach campus. It appears to be a preferred option mostly for full-time students. From figure 2 it can be seen that the geographical range for part-time commuters concentrates in ZIP codes 96816 and 96826, a range roughly defined by a 20-25 minute travel time from campus. From figures 1 and 3 a wider range for full-time commuters can be seen, as far as ZIP codes 96707 and 96797 or about a 45 to 50 minute one way trip time.

The choice of mode of transportation of commuters to Kapi`olani CC is related to their enrollment status. Part time students are more likely than full time students to commute by car while bus ridership is the main mode of transportation for full time students. Frequency of weekly commuting is also inversely related to part-time status. The profile of a likely bus commuter is a full-time student who makes frequent trips on a weekly basis to campus. It can be surmised that the greater frequency of weekly trips to campus by full time students indicates a greater focus on the campus and campus activities and a relative lack of competing obligations when compared to part-time students. It may be that the core audience for increased bus ridership via a readily available U-Pass is the 20 to 25% of students who are fulltime students and frequent commuters and the potential for increase ridership lies with persuading the third of students who may or may not be full time and commute to campus with moderate (four to six times a week) frequency, that bus service is a competitive option to driving.

Those respondents most critical of bus ridership are also the respondents who rely on it as their main mode of transportation for commuting. Those dependent on the bus to get to Kapi`olani CC are its severest critics. Those who rely on driving to campus are of indifferent opinion with regards to bus service.

Attracting part-time students to bus ridership would be facilitated by point-to-point express service with a twenty to twenty-five minute or less ride time between points. This may be possible between centers of population such as UH Mānoa or Kāne`ohe MCAS. The future of bus ridership to Kapi`olani CC might be to chain such service routes together to achieve service that is faster, more frequent and a step in the direction of being, if not free, then less costly.

Appendix A

Link to Commuter Survey instrument

[Kapi'olani CC Commuter Survey Instrument](#)

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