

TRANSPORTATION AND PARKING

Transit Analysis 2019



November 2019



Transit Analysis 2019

This analysis is a transit-oriented subsection of the annual Transportation Census. Results based on 2019 data unless noted.

1,785 respondents, selected by random sample

11 work sites

81 total possible questions

30 questions seen by each respondent on average

13 minute average completion time

Plans referenced in this document are available at:
www.ohsu.edu/transportation.

KEY TERMS

TriMet: Marquam Hill, South Waterfront, Market Square Building, Fifth Avenue Building, Marquam II, Marquam Plaza.

C-Tran: Marquam Plaza and Marquam II buildings.

Streetcar: Lower Marquam and Market Square/Fifth Ave combined.

Aerial Tram: Employee Commute Options Survey performed for over two decades and submitted to Oregon Department of Environmental Quality.

Hop Card: Inhouse census of ECO-survey eligible employees distributed annually since 2016. ECO Survey is included in the census.

Work site: A building or collection of buildings that can generally be considered a single commuter destination.



KEY FINDINGS

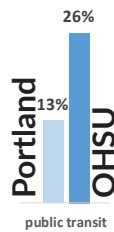


Newer employees take more transit.
 50% of people hired in the last 6 months take transit.
 That number drops to 14% after 5 years.

OHSU employees continue to ride transit at twice the rate of Portlanders generally.

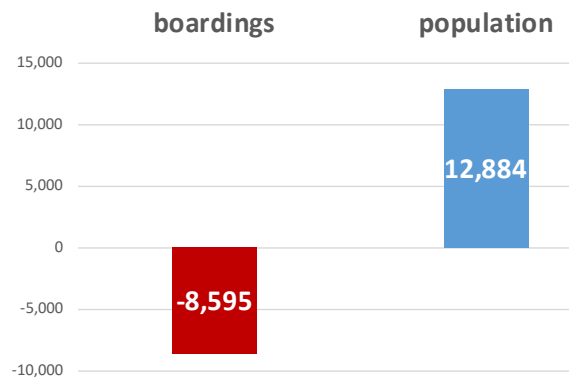
Portland metro area vs OHSU central

based on most recent data available
 Portland: US Census 2017
 OHSU: 2019 data



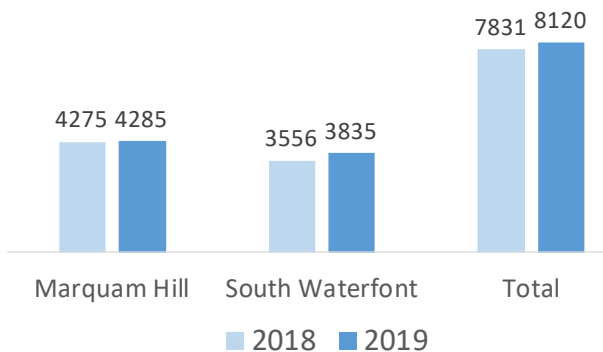
Regionally, transit ridership is on the decline.
 In 2018, TriMet reported 3% fewer average boardings over the previous year, or 8,595 less trips, despite the tri-county area adding 12,884

TriMet boardings and tri-county population 2017 to 2018 change



TriMet on campus

Spring Census
 Average daily on/off
 Does not include Streetcar, C-Tran or Tram



More trips to campus.
 While regionally transit dropped 3%, actual on/offs on OHSU central campuses increased by 3%.

Less transit as a primary mode.
 OHSU employees reported an 8% decrease of transit as a primary mode. This infers that while more people are arriving by transit, more people are also pairing transit with options such as biking and off campus parking.

Summary of limitations

- 5% margin of error.
- Non-employee commuters not represented.
- Increasingly, commuters take multiple modes in one trip.
- Primary mode captures mode traveled farthest, not mode arriving on campus.

2019 TRANSIT RECOMMENDATIONS



The following are transit-specific recommendations supported by the findings of this transit analysis. See the 2019 OHSU Transportation Census for more recommendations.

Decrease travel time to Marquam Hill.

Four years of survey have found travel time to be the greatest barrier. OHSU's largest campus has only one all day line and travel time, by mile, doubles on the inbound approach. Line 8 already has frequent service every 5 minutes during the morning rush. The only value add would be a more direct route, with less stops, from Portland's central transit hub, Pioneer Square. Shuttles, a possible alternative, are not permitted on transit lanes. *Page 6*

Support service everywhere. OHSU riders use every line in the system so any service increases could positively affect OHSU riders. *Page 5*

Enhance outreach on transit options.

Employees increasingly rely on OHSU for commuter information. Roundtrips were recently soft-launched to the Employee Trip Plans. The Trip Plan tool has now progressed to a level that it is ready to be promoted to the OHSU employee community at large. *Page 8*

Explore new Park and Ride sites.

OHSU should reach out to employees on preferred areas for Park and Rides to confirm census findings. Then OHSU can appeal to TriMet to see if new TriMet facilities are feasible. If TriMet cannot launch facilities in these areas, OHSU should consider devoting resources. *Page 14*

Increase options beyond 7pm.

One of OHSU's busiest shift changes is at 7pm but most Marquam Hill lines last pickup just before 7pm. Extending service by just a few minutes would make transit possible for hundreds of employees. *Page 13*

TRANSIT NETWORK



Hundreds use non-TriMet/non-Streetcar transit.

Although a fraction of the whole, C-Tran combined with other services including Columbia County Rider and Charriot connect several hundred of people to campus.

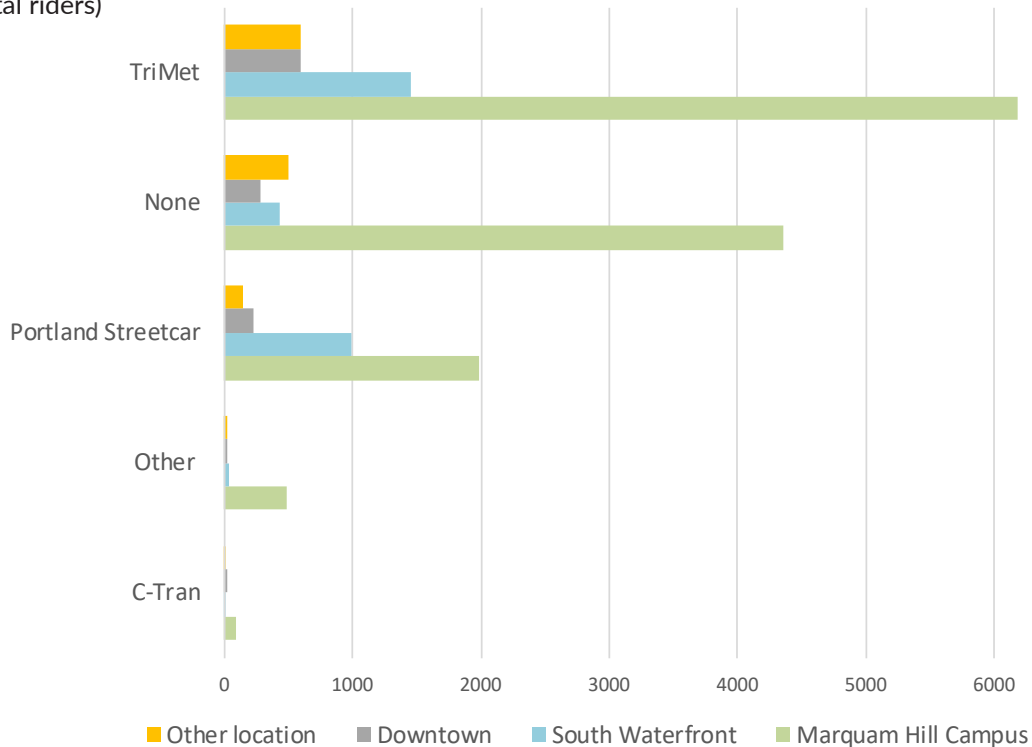
TriMet is most popular but Streetcar is also widely-used.

Portland Streetcar usage is more difficult to track than TriMet or C-Tran because it does not require a special pass (every OHSU badge is valid streetcar fare).

By asking more detailed questions about transit (and not just riders' primary line), this year's census reveals streetcar's popularity among Marquam Hill riders in particular, nearly 2,000 of whom are estimated to use the service.

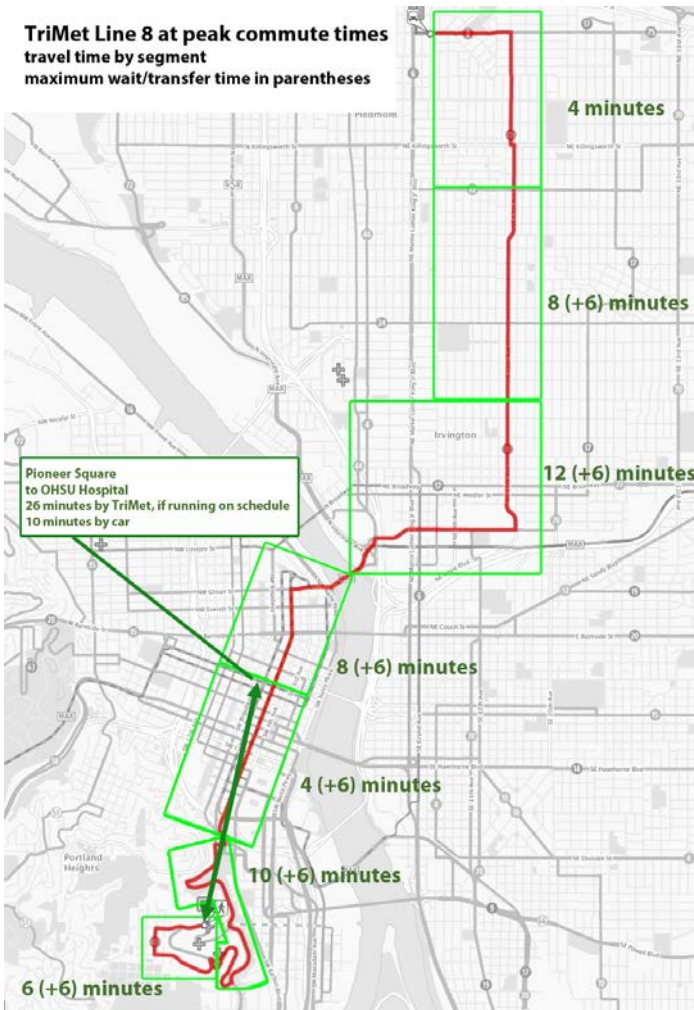
Which transit agencies do you use?

(estimated total riders)



MARQUAM HILL TRANSIT

TriMet Line 8 at peak commute times
travel time by segment
maximum wait/transfer time in parentheses



Fast connections between Marquam Hill and east / west rail lines (Red / Blue / Green) is essential for rider travel times.

While Line 8 is the most popular line to Marquam Hill, the 39 lines cited by less than 1% of respondents is, when combined, the second most popular option.

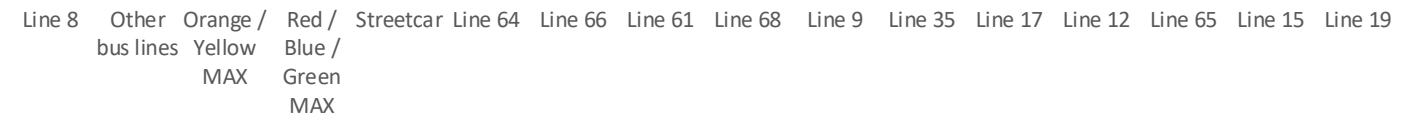
Unlike Line 8, the Yellow Line, and Orange Line, the Red, Blue and Green light rail lines do not provide a direct a connection to Marquam Hill or South Waterfront.



Transit taken to OHSU Marquam Hill

1517 responses, 2016 to 2019

Other bus lines is comprised of 39 bus lines that were cited by 1% or less of respondents



SOUTH WATERFRONT TRANSIT



Tilikum Crossing is by far the most popular transit route to the waterfront.

The popularity of the Orange Line and Bus Lines 9 and 17 prove the success of running lines along Tilikum Crossing. This same popularity has led to overcrowding at Park and Rides along these routes.

Lair Hill bus lines under perform vs more visible bus lines.

The most popular bus lines (35, 9, 17) all stop within view of South Waterfront work sites. Transit lines just a few blocks away (43, 19) are far less popular, which could be due to a lack of awareness of options across the Gibbs Street Pedestrian Bridge.

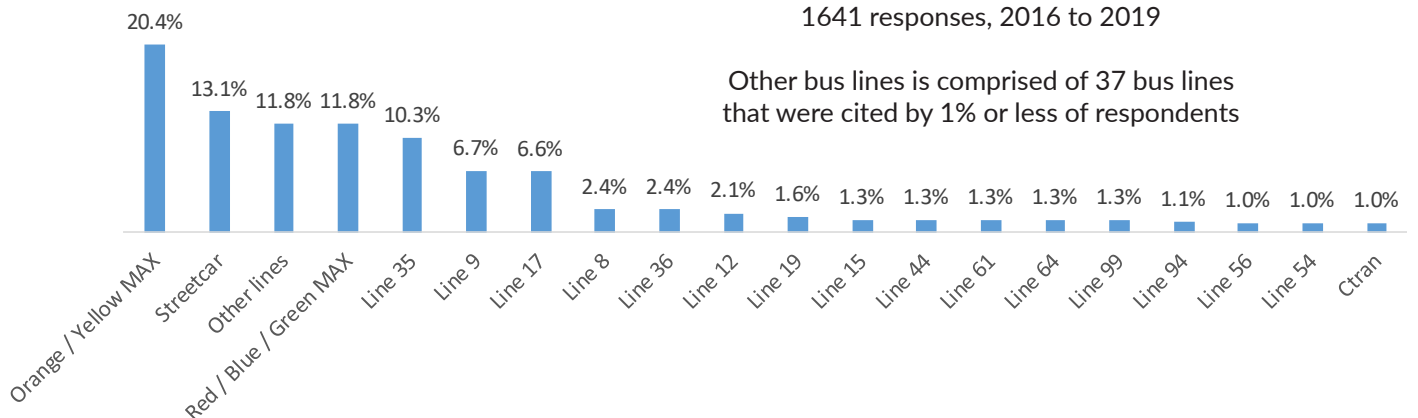
Awareness could be improved via transportation information signage in the South Waterfront campus, and outreach through commonly effective channels.



Transit taken to OHSU South Waterfront

1641 responses, 2016 to 2019

Other bus lines is comprised of 37 bus lines that were cited by 1% or less of respondents

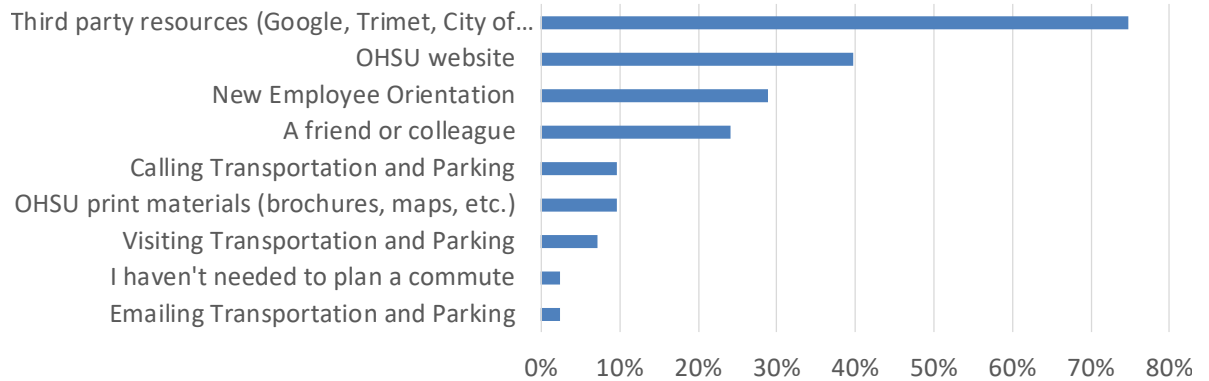


LEARNING TRANSIT



What resources have helped you PLAN a commute for yourself or others (patients, etc)?

(filtered to people who primarily take transit)



OHSU is the most popular resource for transit riders when all OHSU resources are combined.

In January 2019, a trip plan tool was launched to send individualized directions to OHSU employees. By Fall 2019, over 2,000 people had requested and received a trip plan and new features were added such as a refined Park and Ride matching capability and return directions at the end of shift.

Third party resources continue to be a popular method of learning transit.

OHSU has worked the last two years to improve online results, adding necessary detail to buildings, paths and streets in Google Maps.

In Fall 2019, new city addresses were added to a variety of Marquam Hill buildings and private drives were named. New web pages, were created for every building and garage.

New employees take more transit.

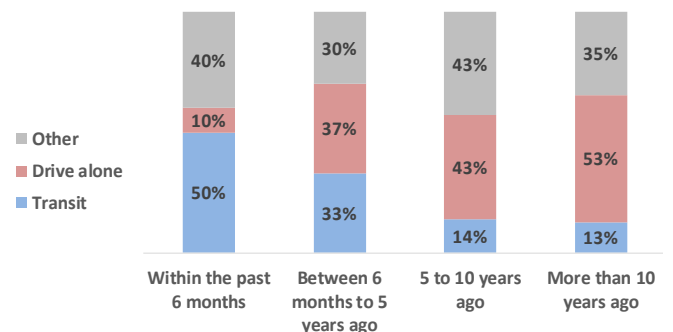
OHSU is either effectively converting riders at hire and/or losing riders the longer they commute.

Factors that may contribute to less long term employees on transit:

- Parking wait lists can be years long
- Raises reduce cost barriers to driving
- Childcare
- Homeownership further from campus

If newer employees ride through the long term, this indicator may eventually favor transit.

When did you begin regularly commuting to OHSU?



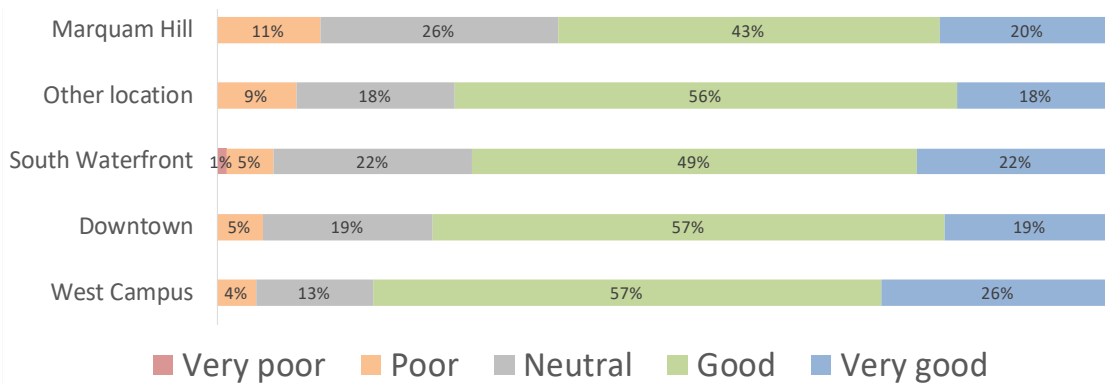
EXPERIENCING TRANSIT

1 in 10 transit riders score their journey to Marquam Hill poorly while only 6 in 10 score the journey good or very good.

The morning route is circuitous while the evening route is frequently stuck in traffic sever enough that some people will deboard the bus and walk the mile to downtown.

JOURNEY:

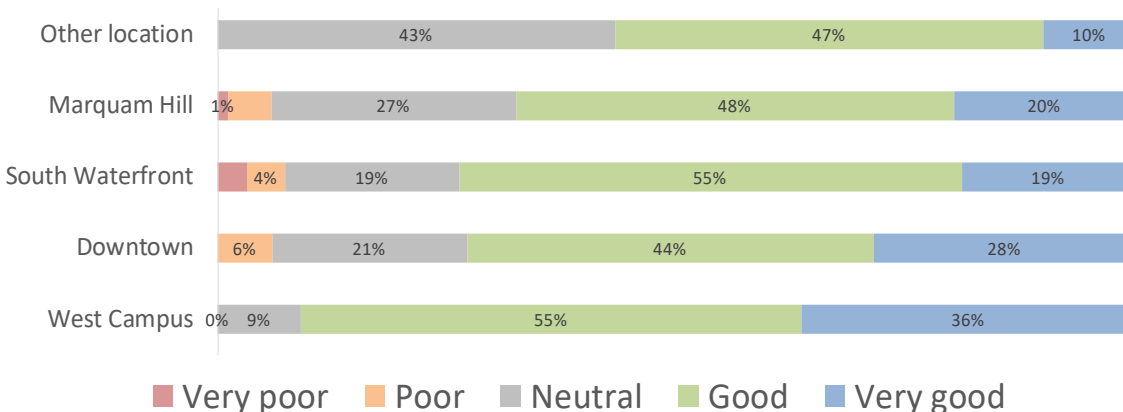
Please rate your experience with transit, including everything external to OHSU (pick up spot, onboard experience, and transit agencies, generally).



When asked about the discounted Transit Pass Program specifically, OHSU employees rate it very highly. Their concerns may instead be a matter of on site facilities which, while generally upkept and modern, lack the informational screens of South Waterfront and the downtown transit mall.

DESTINATION:

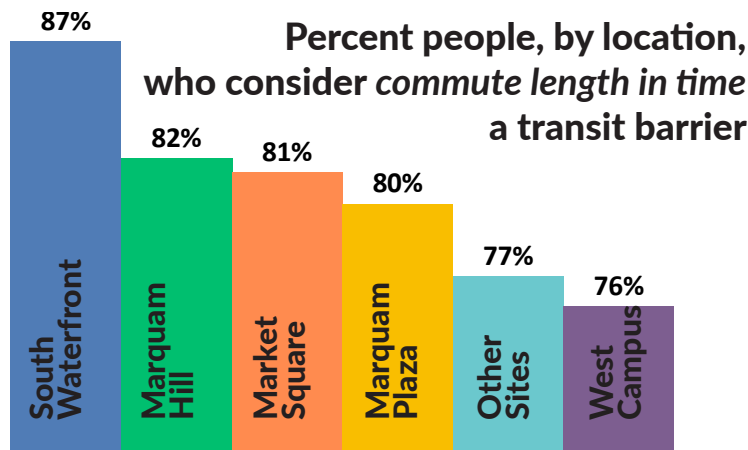
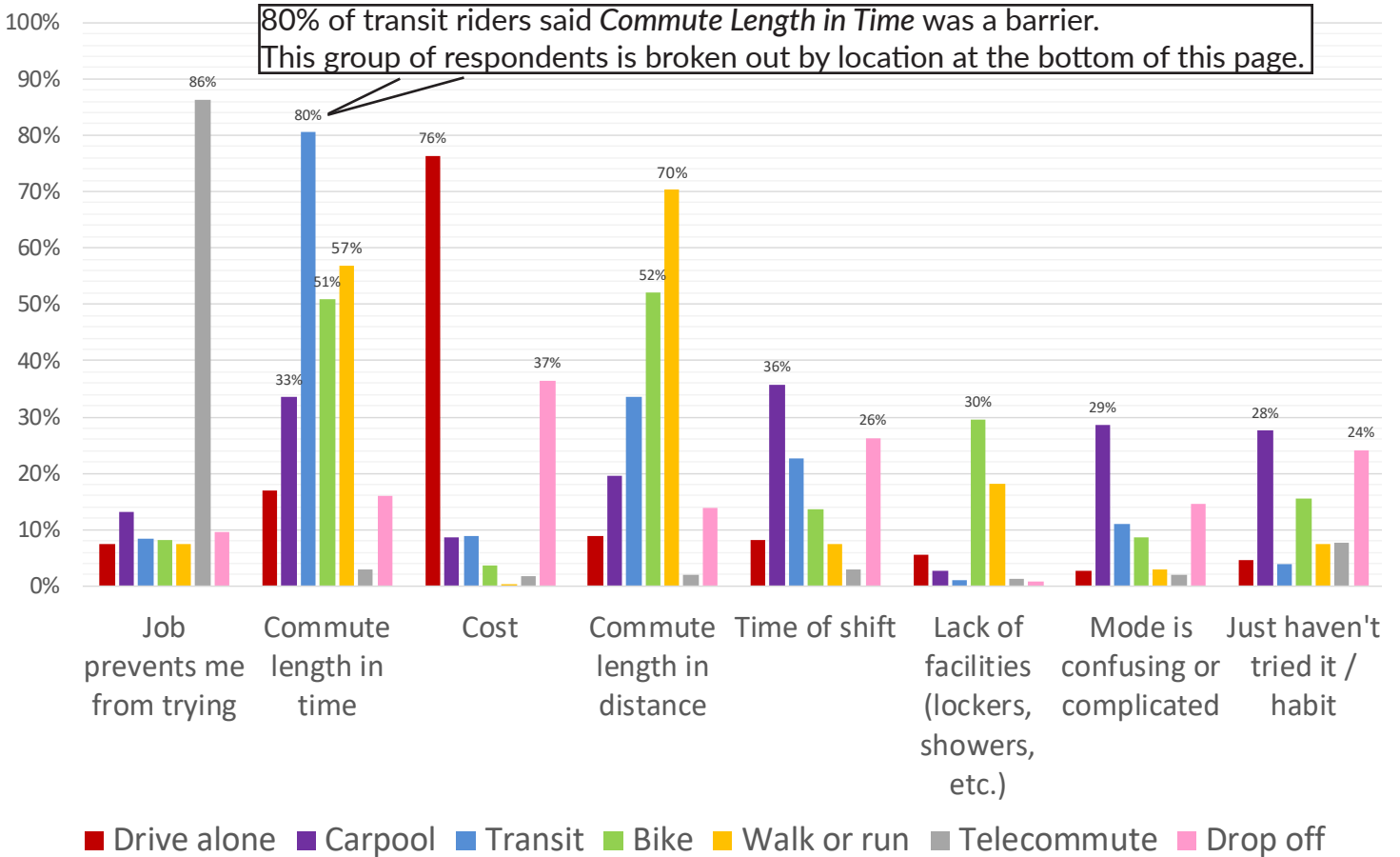
Please rate your experience with on campus transit facilities, the OHSU transit program, on site information, etc.



BARRIERS TO TRANSIT



What prevents you from taking the following modes?



Commute length in time is the greatest barrier to transit, far more than other travel modes.

Areas with many transit options, such as downtown and the waterfront, may need more outreach and trip planning while areas like Marquam Hill and West Campus likely need faster and more direct actual service.

TRANSIT AS A SECONDARY OPTION

People say they would ride transit more if their schedules matched service or if service matched their schedules.

Rain, cold and darkness move people toward transit and away from walking and biking. Conversely, sunshine can compel people away from transit.

Since OHSU doesn't have a weather machine, note the next 3 strongest correlations fall within OHSU's range of influence: work schedule, travel time and OHSU programs.

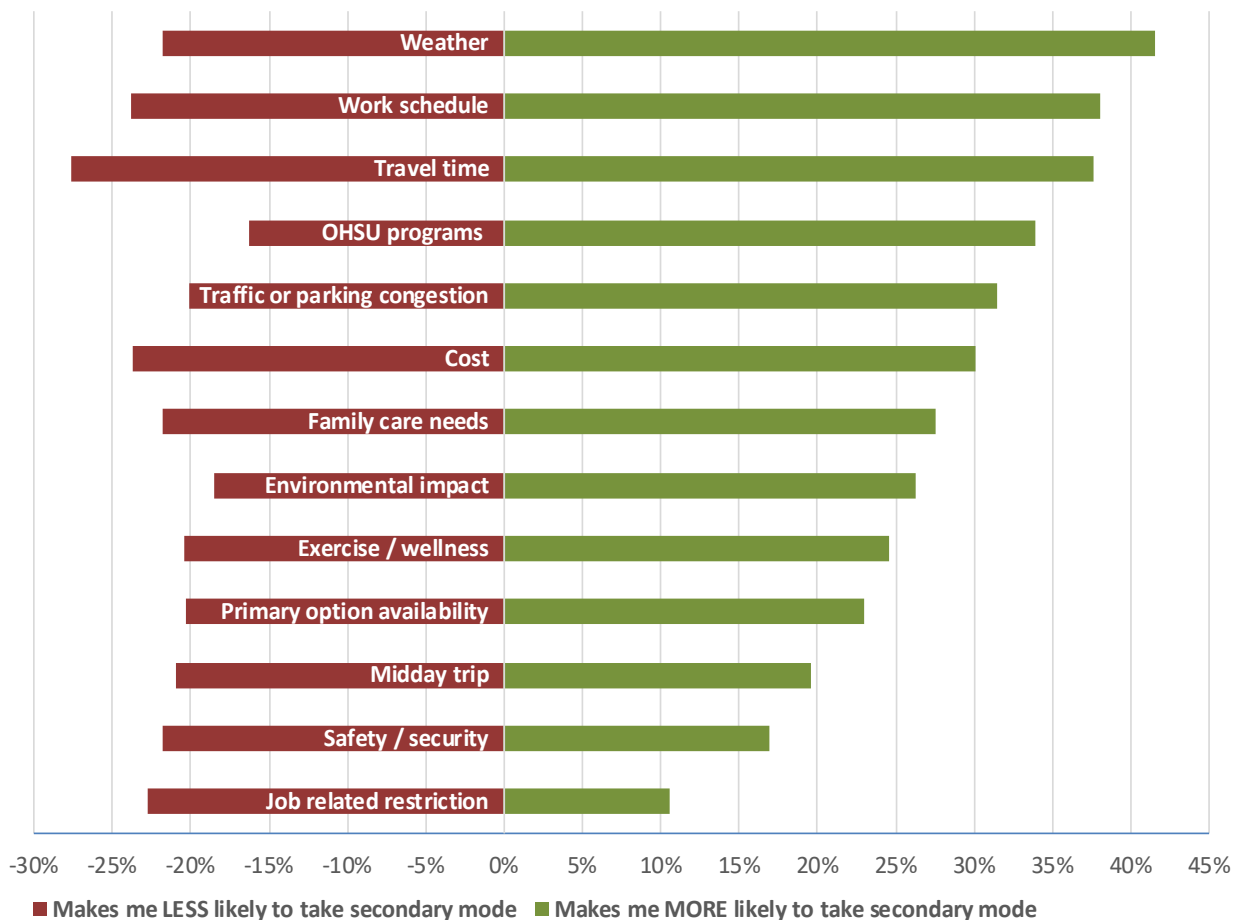
Travel time can only be addressed by rerouting buses or adding a new line.



What makes you choose TRANSIT as your SECONDARY mode of travel?

Select all that apply.

(1232 respondents, results are percent of total respondents)



OPPORTUNITIES AND TRANSIT

People who currently take transit as their primary mode have the most direct experience of what would improve their experience, and thus the experience of new and potential riders.

People traveling outside of rush hour need more frequent service to their transfer lines.

Central campus employees overwhelmingly want buses to arrive more often and be less crowded. This can only be accomplished by adding more buses to OHSU-bound routes.

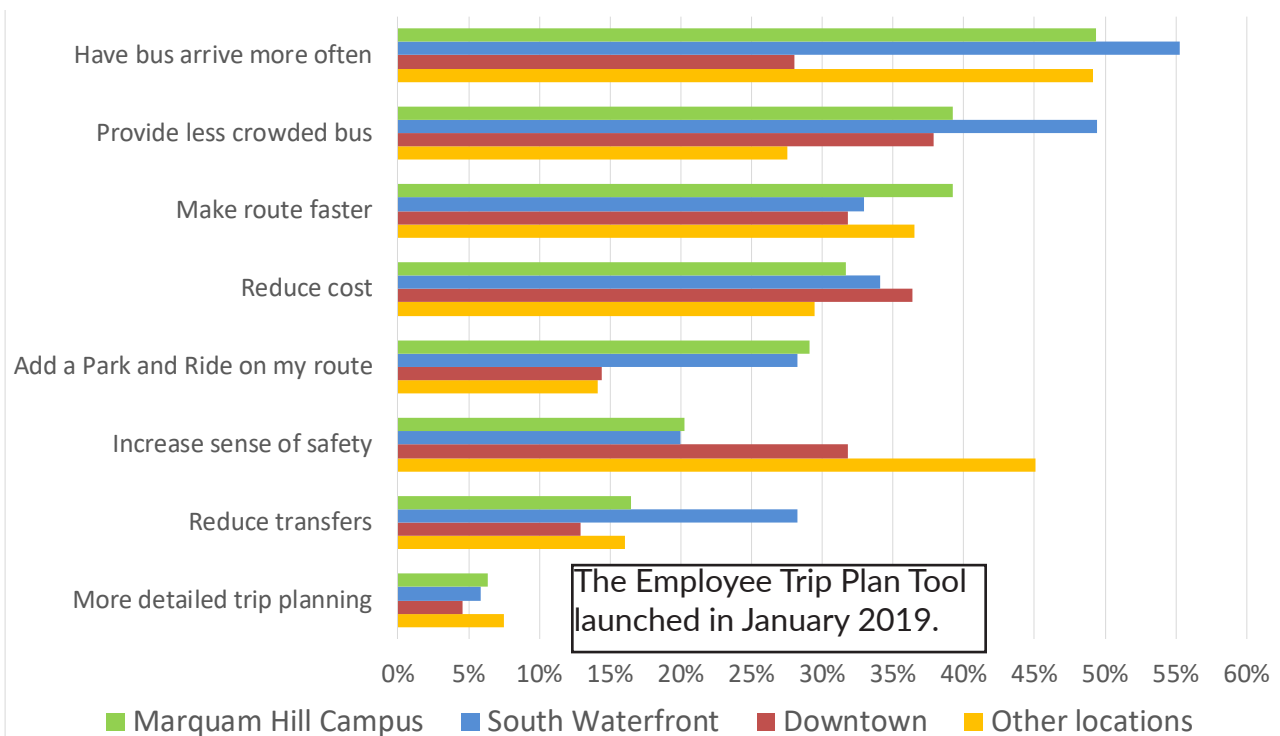
All sites believe a faster route would improve their experience.

These concerns are not necessarily intrinsic to transit as a whole, as Downtown employees, with some 70 lines to choose from, did not cite these concerns with as much frequency. However, employees at Downtown and Other Locations lead with a concern for safety.



Market Square Building is one of the few OHSU sites on the downtown transit mall

What would improve your transit experience?



NIGHT ACCESS TO TRANSIT



Transit riders experience problems getting to work at more than twice the rate of drivers.

Leaving to work is also an issue. Many OHSU employees leave work at 7pm, but only Line 8 and the aerial Tram operate at 7pm or after. Four express lines last pickup at OHSU between 25 to 1 minute before 7pm.

Running just one more Hollywood Express bus and providing parking near the Hollywood neighborhood would provide a vital connection.

Marquam Hill Frequent Transit

12:14am - Line 8 - Dekum

- Service every 15 minutes until 8:45pm
- Service every 30 minutes until 12:14am

Marquam Hill Express Transit

6:35pm - Line 61 - Beaverton

6:54pm - Line 64 - Tigard

5:46pm - Line 65 - Barbur Blvd

6:59pm - Line 66 - Hollywood

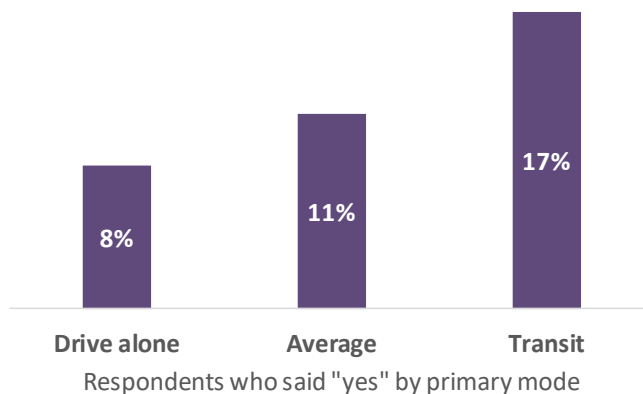
6:45pm - Line 68 - Collins Circle

5:57pm - Line 190 - C-Tran Vancouver

6 out of 10 respondents who have used Lyft Off take transit as their primary or secondary mode.

4 out of 10 respondents who have used Lyft Off do not take transit.

Have you experienced problems getting to your primary work site between 9pm and 6am?



PARK AND RIDE ANALYSIS



People want Park and Rides in Hollywood, Lents, Bethany, North Portland and central Beaverton.

Beginning in 2019, the census asked respondents if a Park and Ride would help their commute, and if so, where.

The resulting data is visualized on the following page.

- Respondent origin zipcodes were grouped by people asking for a Park and Ride and then overlaid on a transit system map.
- This map also included a previous 4 year analysis of over 4,000 survey respondent transportation modes.
- The existing Park and Rides were resized on the map to make them more prominent and Park and Rides with a direct connection to OHSU (one transit line, no transfer) were highlighted green.

Combing this data, we observe:

- Where Park and Rides currently exist
- How people in those zipcodes currently travel
- Where respondents are asking for Park and Rides
 - Hollywood (13, 2 zipcodes)
 - Woodstock / Lents (25, combining 3 zipcodes)
 - Cedar Mill / Bethany (13, 2 zipcodes)
 - North Portland (8, 2 zipcodes)
 - Central Beaverton (8, 2 zipcodes)

Park and Ride Next Steps

1. Expand the survey. This question in particular may be better suited for a larger audience than a random sample because we don't need to know the percent of the whole asking for a Park and Ride. We need a better understanding of the absolute demand. It is recommended that this question be posed in survey on OHSU's internal communication channels. The additional results can be mapped onto this existing visualization.

2. Perform a site analysis. Identify potential facilities based on demand and analyze the existing transit network connected to the potential sites.

3. Talk with TriMet. Share OHSU employee feedback with TriMet and recommend areas for new Park and Rides.

4. Explore OHSU options. If TriMet does not see a possibility for a Park and Ride facility, OHSU can work internally to see if an OHSU parking lot would make sense.

5. Educate riders on options. Options new and old should be communicated through OHSU's internal communications channels and incorporated into trip plans.



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