Transportation Census 2019

The goal of this census is to collect the feedback of daily commuters to improve accessibility for all.

1,785 selected respondents
11 work sites
81 total possible questions
30 questions seen by each respondent on average
13 minute average completion time

The OHSU Transportation Census is conducted in support of the OHSU Transportation Demand Management Plan, the Marquam Hill Plan, and to fulfill requirements of transit partners and the Oregon Department of Environmental Quality.

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

KEY TERMS

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

Lower Marquam: Marquam Plaza and Marquam II buildings.

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

ECO Survey: Employee Commute Options Survey submitted to Oregon Department of Environmental Quality.

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

Census by year

The census was launched in 2016 to improve analysis and modernize reporting methods. Since ECO Survey reporting years every 2 years, in non-ECO years, the survey is limited to locations where OHSU owns and actively manages transportation and parking facilities. In 2019, South Waterfront sites were combined into a single location, streamlining these results and reducing the total required respondents to a ratio comparative with the much larger Marquam Hill Campus.

2016: 13 work sites. 2,047 people surveyed.
2017: 15 work sites. 2,313 people surveyed.
2018: 4 work sites. 1,078 people surveyed.
2019: 11 work sites. 1,785 people surveyed.
2019 CENSUS KEY FINDINGS

Factors contributing to key findings are discussed on the following page.

OHSU continues to outpace local and industry trends in reducing driving alone.
The latest U.S. census (2018) saw a 59% drive alone to work rate for Portland vs OHSU's 40% rate.

Marquam Hill employees who primarily drive alone report an increase of 3% over 2018.
This finding is in line with an increases to OHSU employee parking capacity as well as regional trends.
Nearly half of people who primarily drive alone to Marquam Hill use a secondary mode.

Adding one person to a vehicle vastly improved the experience for respondents.
This is true even when OHSU factors are excluded.
15% of people rated their drive alone experience as very good, compared to 55% of carpool.

Fewer people took transit as a primary mode, but transit remains popular overall.
41% take transit (at least some of the time) making it the most popular alternative to driving.
However 26% take transit primarily, an 8% decline from 2018. People still ride bus and rail but they are using other modes for longer distances. This finding is in line with regional trends.
People said OHSU made them more likely to use transit at a rate of 41%, the highest of any mode.

Waterfront walk trips rose at the same rate that waterfront bike trips fell.
Walk trips to waterfront locations rose by 7%, the same percentage at which bike trips fell.
This could be due to the introduction of a cash incentive for walking.
Some people who may have previously biked to earn an incentive appear to now choose walking.

Telework is the highest rated experience and a direct replacement to driving.
90% of people who telework to Marquam Hill report their back up mode as driving.
Downtown leads OHSU for teleworking, exceeding regional trends.

METHODOLOGY

Summary of limitations
• 5% margin of error.
• Patients, students, contractors, volunteers, float employees and visitors not represented.
• Increasingly, commuters take multiple modes in one trip.
• Primary mode captures mode traveled farthest, not mode arriving on campus.

Summary of progress on methodology
• Data validation ensures ensure random sample integrity.
• Follow up questions refined the analysis of travel behavior.
• Answer choice randomization reduces answer bias.
• Survey invitation and incentives for completion are mode neutral.
• Two changes to the ECO question have been reviewed and approved by DEQ and TriMet: Carpool and people "dropped off" have been differentiated. "Streetcar" has been added to transit.
• Mode split is tracked by both daily trips and overall primary mode.

Recommendations for future surveys
• Ask respondents to describe multiple mode trips in more exact detail. Which modes did a traveler use, for what distance, and what mode arrived on campus?
• Refine benchmarks. Set single occupancy vehicle goals for the end destination, central locations and the region.
KEY FINDINGS

FACTORS

Drive alone trips to OHSU appear to have risen since last year. Although the increase (1%) is within the margin of error (5%), a discussion of factors currently affecting drive alone trips is constructive for identifying solutions.

OHSU FACTORS

1. **How data is collected:** The ECO Survey defines “primary mode” as the mode taken for the longest portion of the trip, not the mode that arrives on campus. So a person that drives 4 miles to off site parking at an off site facility, and then takes the bus 3 miles to campus, is primarily driving. As people rely more on offsite parking, it is possible to decrease vehicle miles traveled and vehicles on campus, while still counting trips as drive alone.

2. **OHSU central campus parking capacity increased by 8%** (KCRB garage, Rood Family Pavilion garage and Opera parking lot) or 373 new spaces for employees. The survey-eligible population of South Waterfront and Marquam Hill combined is 12,383 people. If 373 of those people filled the 373 new parking spaces, this projects an increase to the drive alone rate of 3%.

   Additionally, Marquam Hill employees with long term parking were moved to new South Waterfront sites. Their stalls were replaced by daily parking, which tends toward a higher drive alone rate.

REGIONAL FACTORS

1. **Rising housing costs** mean more people living further from work.

2. **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 people. This problem is particularly acute at Marquam Hill, which experiences travel times double the network average for the last mile of hill bound bus service.

   U.S. Census reported a 1% decline in Portland transit ridership from 13% to 12%.

3. **Transit barriers:** According to census respondents, the leading barrier to taking transit is length of commute and this is an issue that has not been resolved. TriMet’s last mile to Marquam Hill can take, including transfers, up to 25 minutes.

4. **Regionally, biking is at its lowest rate in 12 years.** U.S. Census reported a 1% decline from last year to 5%.

<table>
<thead>
<tr>
<th>TriMet boardings and tri-county population</th>
<th>2017 to 2018 change</th>
</tr>
</thead>
<tbody>
<tr>
<td>boardings</td>
<td>population</td>
</tr>
<tr>
<td>320,723</td>
<td>1,812,756</td>
</tr>
<tr>
<td>change</td>
<td>-8,595</td>
</tr>
<tr>
<td>percent change</td>
<td>1%</td>
</tr>
<tr>
<td>312,128</td>
<td>1,825,650</td>
</tr>
</tbody>
</table>

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All 2018 recommendations were launched prior to this report. Level of completion evaluated below. Some 2019 recommendations are a continuing phase of a multi-year strategy, such as promoting telecommuting.

**TRANSIT:** Add off campus parking where Park and Rides are at capacity or unavailable to reduce travel time.

* A new facility opened at Portland Opera House. More are under evaluation. Park and Rides were added to Trip Plans. [complete]

**BIKING:** Identify a central site for showers and lockers.

* In 2018, OHSU piloted bike valet and showers on Marquam Hill and is currently building a new badge access bike facility on Marquam Hill that is within the lowest elevation garage and closest to the Terwilliger bike lane. [complete]

**CARPOOL:** Educate users on alternatives to driving when ride share is unavailable via trip plans and other resources.

* Ride share programs integrated into employee trip plans, now distributed to over 2,000 people. [complete]

**DRIVING:** To benchmark a narrow annual goal, the method of defining the single occupancy rate should be refined.

* Within the census, people are now asked about their arriving mode, leaving mode, their primary and their secondary. In addition to the census, OHSU collects license plate scans, daily sales and follows traffic counts. [complete]

**TELECOMMUTE:** Promote flexible telework. Encourage employees to work off site at high congestion times.

* Following 2018’s census, OHSU leadership added telecommuting to the institution’s 2025 Priorities. [complete]

**WALKING:** Increase engagement with MyCommute.

* Walking wayfinding was piloted during the 2018 Tram shutdown and on-street facility concerns were addressed with PBOT. Multiple events were launched to promote active modes and over one hundred people earned prizes. [complete]
2019 CENSUS RECOMMENDATIONS

Previous findings informed the OHSU TDM Strategy Dashboard. 2019 Recommendations inform the future course of TDM strategies. Associated strategies are noted after each recommendation.

OHSU TDM Strategies

POLICY
P0.1- Goals, Performance Measures, and Monitoring
P0.2- Active Workplace Culture and Training
P0.3- Staffing Support
P0.4- Telecommuting
P0.5- Housing Assistance
P0.6- Daily Services and Amenities

TRANSIT
T.1- Transit Service Improvements
T.2- Access to Transit Improvements
T.3- Regional Water Taxi Service
T.4- Downtown Tram/Gondola Connection

PEDESTRIAN
PN.1- Pedestrian Access Improvements
PN.2- Pedestrian Safety Program
PN.3- Pedestrian Rewards Program

BICYCLE
B.1- Bike Access Improvements
B.2- Bike Parking Improvements
B.3- Bike Share Program
B.4- Bike Rewards Program

SHARED MOBILITY
SM.1- Employee and Patient Lyft Program
SM.2- Internal and Dynamic Carpooling
SM.3- Enhanced Car Share Program

PARKING
P.1- Permits and Daily Pricing
P.2- Employee Parking Operations
P.3- Patient Parking Experience
P.4- Valet Parking Service
P.5- Parking Safety and Security
P.6- Carpool Parking Program
P.7- Expand Parking Supply
P.8- Facility Access Control and Enforcement
P.9- Data Collection/Reporting

PROGRAMS/COMMUNICATIONS
PC.1- Mobility Communications
PC.2- Daily Financial Incentives
PC.3- Commute Challenges
PC.4- Employee Commute Platform
PC.5- Wayfinding Improvements

Working off site: Promote and support telework, compressed work weeks and flexible schedules. Elevate promotion in a variety of channels including online, print, at meetings and orientation. 2019 census: Telework is strongly favored and replaces driving. PO.4

Community partners: Support regional network improvements. OHSU works with partners such as Metro, PBOT, TriMet and ODOT. Plans that support OHSU’s goals include Southwest in Motion, Central City in Motion, the Division Transit Project, Portland’s Bike Plan and PedPDX. 2019 census: Employees are most affected by external barriers. T.1, T.2

Marquam Hill: Enhance connections through shuttles, faster transit, ride share, and bike and walk facilities. Since 2018, OHSU has launched real time arrivals and a badge-on system for shuttles. A car share pilot was tested. On-street bike and walking wayfinding was piloted during the 2018 Tram shutdown. 2019 census: Marquam Hill’s last mile is a challenge for congestion, travel time and sense of safety. T.4, PN.1, B.1

Off peak: Support off peak options by expanding carpool and off peak transit. Following previous feedback, OHSU advocated successfully for expanded off peak transit service. Scoop access and usage has steadily grown since 2018. Both Scoop and TriMet depend on ridership so the 2019 challenge will be to sustain and accelerate the momentum. 2019 census: Scoop is rated highly by users but a large potential population of drivers could still improve their commute experience and save money. SM.1, SM.2, SM.3

Communications: Enhance outreach via trip plans. In 2018: 1.) Trip plans launched; Distributed to over a thousand employees. 2.) OHSU.edu/visit overhauled; Dozens of new wayfinding pages added (one for each facility). 3.) Nine transportation program cards designed; Distributed. For 2019, upgrade trip plans and enhance marketing content. 2019 census: Employees increasingly rely on Transportation and Parking as their commuter resource via a variety of channels. PC.1, PC.2, PC.3, PC.4, PC.5

Campus community: Events, commute champions and forums. Since 2018, events and challenges were launched in-person and on MyCommute. OHSU launched a communication platform called OHSU Now. By elevating Commute Champions, OHSU can encourage first person experts to assist peers with information that may not require a centralized communicator but would benefit from in-person encouragement. 2019 census: While top down communication has improved, employees still seek peer-to-peer engagement. PC.3

Active campus: Increase access to lockers, showers, secure bike parking, e-bike share and policies supporting active commutes. New facilities launched at Rood Family Pavilion and Casey Eye Institute. Valet piloted at Student Center. 2019 census: Facilities that help keep property safe and help people arrive clean and ready for work are essential to commuter decision. PO.2, B.1, PC.5
Respondents rated their primary commute experience by their journey (the transportation network and non-OHSU services) and the destination (on campus facilities and resources).

As with last year's survey, telecommute rated highest. This feedback supports OHSU’s institutional goal of increasing working off site.

Bike and carpool rated higher for destination than journey. However biking also tied drive alone for least number of people reporting a very good destination experience. Employees who bike continue to ask for conveniently located showers, locker rooms and badge access facilities.

Transit and Dropped Off rate higher for journey than destination. This supports feedback that people enjoy transit if the travel time is reasonable. If the travel time isn’t reasonable, transit is likely no longer their primary mode.

Drive alone: More rate positively than negatively however it rates lower than any other mode, particularly carpool.

Commuters who don’t drive alone consistently report a more positive experience on their journey to work. Sharing positive experiences may help support alternatives to driving alone.

OHSU has a significant influence in how people choose their transportation options. The biggest influences:

37% say OHSU causes them to drive less while 42% say OHSU causes them to take transit more.

OHSU, according to respondents, has a positive influence on walk, run, bike transit and drop offs and negative influence on telework, carpool, and driving alone.

OHSU has a variety of programs, facilities, policies, rewards and locations that may affect your use of a travel mode.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Telecommute</th>
<th>Walk or run</th>
<th>Bike</th>
<th>Transit</th>
<th>Carpool</th>
<th>Dropped off</th>
<th>Drive alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>OHSU causes them to drive less</td>
<td>60%</td>
<td>63%</td>
<td>41%</td>
<td>78%</td>
<td>75%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>OHSU causes them to take transit more</td>
<td>18%</td>
<td>23%</td>
<td>45%</td>
<td>12%</td>
<td>17%</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>I use this mode LESS often in part due to OHSU factors</td>
<td>-24%</td>
<td>-14%</td>
<td>-13%</td>
<td>-11%</td>
<td>-12%</td>
<td>-15%</td>
<td>-47%</td>
</tr>
<tr>
<td>OHSU factors do not affect how often I use this mode</td>
<td>-24%</td>
<td>-14%</td>
<td>-13%</td>
<td>-11%</td>
<td>-12%</td>
<td>-15%</td>
<td>-47%</td>
</tr>
<tr>
<td>I use this mode MORE often in part due to OHSU factors</td>
<td>16%</td>
<td>16%</td>
<td>14%</td>
<td>15%</td>
<td>11%</td>
<td>14%</td>
<td>11%</td>
</tr>
</tbody>
</table>
OVERALL RESULTS

ECO population: 14,294
Respondents: 1,785

Overall results combine the 11 work zones surveyed. Responses corrected for sample weight.
“Central work zones” combines Marquam Hill, South Waterfront, Lower Marquam, and Market Square/Fifth Ave.

OHSU central
2018 to 2019

Portland vs OHSU
OHSU 2019
Portland 2018 via US Census

2019 Primary Mode by Location

<table>
<thead>
<tr>
<th>Marquam Hill</th>
<th>South Waterfront</th>
<th>Market Square or Fifth Avenue Building</th>
<th>West Campus</th>
<th>Marquam Plaza or Marquam I</th>
<th>Richmond Clinic</th>
<th>Orenco</th>
<th>Beaverton Knight Cancer Institute</th>
<th>Gabriel Park</th>
<th>Russell Street Clinic</th>
<th>IPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>12012</td>
<td>2206</td>
<td>1121</td>
<td>934</td>
<td>249</td>
<td>143</td>
<td>113</td>
<td>108</td>
<td>48</td>
<td>92</td>
</tr>
<tr>
<td>Telecommute</td>
<td>3%</td>
<td>4%</td>
<td>7%</td>
<td>4%</td>
<td>7%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Walk</td>
<td>7%</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Bike</td>
<td>16%</td>
<td>12%</td>
<td>32%</td>
<td>26%</td>
<td>7%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Transit</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
<td>9%</td>
<td>4%</td>
<td>0%</td>
<td>8%</td>
<td>12%</td>
<td>0%</td>
</tr>
<tr>
<td>Carpool</td>
<td>26%</td>
<td>12%</td>
<td>7%</td>
<td>4%</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Dropped off</td>
<td>3%</td>
<td>12%</td>
<td>4%</td>
<td>7%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Drive alone</td>
<td>45%</td>
<td>26%</td>
<td>39%</td>
<td>40%</td>
<td>51%</td>
<td>71%</td>
<td>83%</td>
<td>93%</td>
<td>94%</td>
<td>83%</td>
</tr>
</tbody>
</table>

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**OVERALL RESULTS**

Knowing how many people choose an option *some of the time* helps us understand who could take an option *more often*, given the right conditions.

## HOW PEOPLE TRAVEL TO OHSU

*2019 CENSUS, ALL SITES*

<table>
<thead>
<tr>
<th>WHAT PEOPLE MIGHT DO</th>
<th>PRIMARY OR SECONDARY OPTION</th>
<th>PRIMARY OPTION ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8% WALK</strong></td>
<td>1,103</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,267</td>
<td></td>
</tr>
<tr>
<td><strong>9% CARPOOL</strong></td>
<td>1,040</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,570</td>
<td></td>
</tr>
<tr>
<td><strong>11% TELECOMMUTE</strong></td>
<td>568</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,746</td>
<td></td>
</tr>
<tr>
<td><strong>13% DROPPED OFF</strong></td>
<td>544</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,194</td>
<td></td>
</tr>
<tr>
<td><strong>17% BIKE</strong></td>
<td>1,962</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,879</td>
<td></td>
</tr>
<tr>
<td><strong>41% TRANSIT</strong></td>
<td>3,921</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,824</td>
<td></td>
</tr>
<tr>
<td><strong>69% DRIVE ALONE</strong></td>
<td>6,287</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11,439</td>
<td></td>
</tr>
</tbody>
</table>

### People tend to just walk to OHSU or do not walk to OHSU at all.

### Some 50% more people carpool *sometimes* than *most of the time*.

### Three times as many people are *flexible* teleworkers than *full time* teleworkers.

### Drop Off is much more popular as a *secondary option* than as a *primary option*.

### Roughly a thousand people bike who don’t consider biking their *primary option*.

### 4 in 10 people take transit. 1 in 4 *primarily* take transit.

### 29% of people who *sometimes* drive, *usually* don’t.
Marquam Hill is the highest elevation campus in Portland with 24/7 operations—making alternatives to driving a challenge.

Historically, Marquam Hill has outpaced regional non-driving. However, setting a high bar means year by year, alternative trips are a challenge to grow and sustain.

Most people don’t take only one mode; Most people don’t want to take one mode. By graphing a complex mode split, we identify opportunities to help people use preferred options.

A diverse mode split doesn’t require people take new modes; Just making secondary and preferred options possible with greater frequency.

Portland vs OHSU Marquam Hill
Based on most recent data available
Portland: US Census 2017
OHSU: 2019 data

<table>
<thead>
<tr>
<th>Mode</th>
<th>Portland 2017</th>
<th>OHSU 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>47%</td>
<td>57%</td>
</tr>
<tr>
<td>Public transit</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Bike</td>
<td>6%</td>
<td>15%</td>
</tr>
<tr>
<td>Walk</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>Carpool</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>Telecommute</td>
<td>24%</td>
<td>9%</td>
</tr>
<tr>
<td>Drive alone</td>
<td>57%</td>
<td>41%</td>
</tr>
<tr>
<td>Public transit</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Bike</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Walk</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Carpool</td>
<td>10%</td>
<td>16%</td>
</tr>
<tr>
<td>Telecommute</td>
<td>10%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Marquam Hill by year
- Drive alone
- Public transit
- Bike
- Walk
- Carpool
- Telecommute
- Drive alone
- Public transit
- Bike
- Walk
- Carpool
- Telecommute

Marquam Hill is the highest elevation campus in Portland with 24/7 operations—making alternatives to driving a challenge.

Historically, Marquam Hill has outpaced regional non-driving. However, setting a high bar means year by year, alternative trips are a challenge to grow and sustain.

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South Waterfront skews higher than the city average for walking and biking but lower than OHSU overall, despite a flat campus with developed infrastructure. Since 2018, 3 buildings, 2 parking garages, 1 bike parking facility and 1 shower facility have opened in South Waterfront.

The waterfront workforce is largely hands-on vocations including patient care, research and logistics—making working offsite difficult or not possible in many roles.
Downtown was considered as two work zones where OHSU distributes parking permits and provides shuttle service: 1.) Market Square Building / Fifth Avenue Building, and 2.) Marquam Plaza / Marquam II Building.

Portland vs OHSU Downtown

Downtown consistently rates high for telecommuting, which buffers these sites from a higher drive alone rate despite a lower than average rate of walking and biking. Downtown departments include technology and finance, two roles particularly suited to working off site.
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