

**METRO EMERGING TRENDS STUDY** 

## **Executive Summary**



The Emerging Transportation Trends Study identifies major changes in transportation that we expect the region to face during the coming decade following the COVID-19 pandemic and other recent disruptions.

# Planning during a time of change

We are living through a time of rapid change, marked by a global pandemic that affected nearly every aspect of life. These changes have challenged the conventional wisdom around how we work, live and travel. Many more people are now teleworking and shopping online than seemed possible a few years ago. Formerly bustling downtowns were empty through most of 2020. Some streets closed to cars and filled up with bicycles, pedestrians, and restaurant seating. Some of these changes are already rolling back as society recovers from the pandemic. Others appear likely to last. The Emerging Transportation Trends Study examines how eight of these trends could continue to impact the greater Portland region. This study forecasts how long each trend will last, how it will affect people's travel behavior and how it will impact progress toward the region's climate, safety, and equity goals.

The goal of this study is to help Metro and its partners account for these trends during the 2023 update to the Regional Transportation Plan (RTP). The study focuses on understanding the impact of external forces and does not account for the impact of actions that agencies are taking to address these trends. Metro and its partners can assess whether current policies and programs are adequate to meet regional goals as travel changes. These fact sheets summarize key trends and their impacts on regional goals.

### Measuring how trends impact regional goals and performance measures

### EQUITY

The pandemic widened disparities in health, employment and education for people of color and people who earn low incomes. People of color and people who earn low incomes were also less likely to be able to work from home and shop online than white and affluent people. This study qualitatively examines impacts of the trends on equity. The analysis considers whether trends have disproportionate negative impacts on people of color and people who earn low incomes and whether the benefits of these trends are accessible to all.

VEHICLE MILES TRAVELED (VMT) & TRANSIT RIDERSHIP Vehicle Miles Traveled (VMT) per capita measures how much people drive. It is an important indicator of congestion, safety and greenhouse gas (GHG) emissions. Increasing transit ridership is critical to reducing VMT, congestion and emissions equitably and effectively. People traveled less overall during the pandemic, but transit use fell more sharply than driving. This study forecasts VMT and transit ridership based on national and regional data to assess impacts on climate and congestion.

### SAFETY

Fatal crashes increased during the pandemic. People grew concerned about being exposed to COVID. People also grew concerned about encountering racism and threatening behavior from other people when traveling. This study qualitatively examines how these changes are likely to impact crash risks and personal safety over the next decade. - Potential increase/decrease ONo impact Impact is positive Impact is negative

## Trends, outlooks and impacts

Trend	Short Term Outlook (5-10 Years)	Long Term Outlook (20 Years)	Equity	Safety	VMT	Transit
Declining transit service & ridership	Transit service is trending back toward pre-pandemic levels. Agencies restructure service to focus on people who are still riding transit. 10-30% of people who stopped using transit during the pandemic don't return.	Transit service increases as envisioned in regional plans. Ridership increases too, but it could lag behind service because some people who stopped using transit during the pandemic don't return due to behavior change or health concerns.	•	Ø	0-2%	10- 30%
Increasing remote work/ work from home	14% of workers telework regularly, compared to 8% before the pandemic.	Up to a third of the workforce teleworks, but only 10% of low-income workers do so.	•	<b>e</b>	0-6%	Ø
Increasing online shopping	People replace 16-36% of their shopping trips with delivery. This has mixed impacts on VMT. Delivery trips are shorter than in-person shopping trips, but ordering online tends to generate more trips because of frequent returns, rush deliveries, and other factors.	People replace 25-50% of their in-person shopping trips with deliveries. Only 20% of people with low-incomes shop online.	•	•	1-2%	•
More affordable and efficient electric vehicles	More people will own electric vehicles (EVs), but Oregon is not on track to meet its 2030 EV adoption targets. Electric bicycles are increasingly popular and useful for longer trips.	EVs technology is cheaper, more efficient, and more ubiquitous. EVs make up the majority of the vehicle fleet, can drive farther on a charge, and charge more quickly.		Θ	٥	•
Increasing concerns about personal safety	People are increasingly concerned about health, policing, and other travelers' unsafe or threatening behavior when they are using the transportation system.	<i>We do not have sufficient information to create a long- term forecast for this trend.</i>	Ø		٥	Ø
Increasingly unsafe streets	Fatal crashes in the Portland region increased during the pandemic, while crashes resulting in serious injuries fell. Streets will likely become safer as more people start using them again, but fatal crash rates may remain higher than average.	<i>We do not have sufficient information to create a long- term forecast for this trend.</i>	•	•	0	Θ
Increasing recreational cycling	The number of recreational cyclists will increase slightly, particularly in communities that had lower levels of cycling before the pandemic.	We do not have sufficient information to create a long- term forecast for this trend.		Θ		Θ

**TRANSIT RECOVERY** 

# Transit ridership may recover slowly.

Transit service will likely not recover to pre-pandemic levels during the next five years, and some people who stopped using transit during the pandemic may never come back. However, increasing transit ridership is critical to meeting regional goals. Agencies need to refocus the transit system around how people now travel while continuing to increase and improve transit service.



### **BEFORE THE PANDEMIC**

## Transit ridership was in a slight decline.

Nationally, transit ridership declined by 4% between 2010 and 2019 (8% per capita). TriMet, the region's largest transit agency, also saw its ridership decrease 4% over this time period. However, ridership began to increase during the year before the pandemic hit.

## DURING THE PANDEMIC

Ridership fell and agencies reduced service.

Between February and April 2020, regional transit ridership dropped by 69%. TriMet responded by reducing service by 20%. By fall 2021, service returned to 90% of pre-pandemic levels, but ridership was still down by about 50%.

### FOLLOWING THE PANDEMIC

### Car ownership and driving could increase.

People who started working from home will no longer commute on transit, and others may avoid transit due to public health concerns. This could lead people to buy cars or replace trips they would have taken on transit with driving.

### Key assumptions and findings

### ASSUMPTIONS

- Service will return to prepandemic levels between 2025 and 2027. After that, service will increase as envisioned in the 2018 Regional Transportation Plan.
- In 2025, 10-30% of prior transit riders will not have returned, and transit service will still be 2-4% below pre-pandemic levels.
- Transit fares will increase by \$0.10 every other year.
- Restructuring will make transit service 5-10% more efficient.

### EFFECTS ON TRAVEL

- Reduced service will decrease transit trips by **2-6%**. Some of these trips will shift to vehicles, increasing VMT per capita by **0-1%** until service levels reach pre-pandemic conditions.
- Transit service and ridership levels (see chart at right) will be lower than expected under the 2018 Regional Transportation Plan, which anticipated a near-doubling of transit service and a doubling of ridership between 2015 and 2040.

#### ASSUMED SERVICE AND RIDERSHIP CHANGES



2015 2020 2025 2030 2035 2040 2045 Note: transit ridership data is current as of 2021 and does not reflect recent observed changes



### WHAT IT MEANS FOR TRAVEL

### Agencies need to continue to refocus service on those who still rely on transit while also increasing transit service.

Source: TriMet

During the pandemic, ridership held steadier on routes that have more people of color and people with low incomes and routes that serve arterials with a mix of jobs, housing, shops and other destinations. If people continue to work from home, we expect to see fewer commute trips during peak hours and more errands throughout the day.

TriMet prioritized serving those who were still riding during the pandemic, and plans to continue to do so as it updates its service plan. But recovering from the pandemic-era ridership slump and meeting the region's transit ridership goals will require broader action, potentially including rethinking how transit serves the region's centers, finding resources to increase service, and redesigning streets to keep buses moving.

### **Effects on RTP priorities**

#### **CLIMATE & MOBILITY**



Lower-than-expected levels of transit service and higher-

than-expected vehicle use will likely increase congestion and greenhouse gas emissions.

#### SAFETY

Transit is one of the safest ways to travel on a per-mile basis. People driving cars are much more likely to die, be injured or harm others while traveling than transit riders. Our streets will likely become less safe if more people shift from taking transit to driving.

#### EQUITY

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Interstate Rose Quarter

Expo Center

Service Alert



Agencies have made efforts to focus service on riders who most rely on

transit, but long-term reductions in transit service and ridership could have disproportionate impacts on people of color and people with low incomes, who are more likely to depend upon transit. 🗐 🙆 🖉 🤫 🦓 🄄 🏟

**REMOTE WORK** 

## Remote work is here to stay.

The pandemic caused a massive surge in working from home and this trend is likely to continue. It may change when and where we travel, but not necessarily how much we travel.

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### **BEFORE THE PANDEMIC**

Remote workers were a sliver of the workforce.

Before the pandemic, remote workers accounted for 8% of the workforce in the Portland region and just over 7% statewide.

### DURING THE PANDEMIC

Working from home skyrocketed.

By May 2020, over 35% of workers in Oregon were working remotely due to COVID-19. This decreased to 18% of workers by the end of the year, down from the peak but still over double pre-pandemic levels.

### **FOLLOWING THE PANDEMIC**

### Work from home will remain common.

Remote work is likely to continue to decline as offices reopen, but will remain much more prevalent than it was before the pandemic, and will continue to increase over time. This could create long-term changes in travel patterns.

### Key assumptions and findings

### ASSUMPTIONS

- The share of the Oregon workforce that will permanently work from home in 2025 is predicted to be 14%, up from 8% before the pandemic
- Remote work is likely to decline from the 2020 peak over the next five years as offices reopen, but will increase over the 20year horizon as employers allow for more flexibility.

### **EFFECTS ON TRAVEL**

 The increase in remote work will decrease the share of work trips in the peak hours on transit and in personal vehicles, decreasing 2025 VMT and transit ridership by 0-6%.

#### **OREGON REMOTE WORK LEVELS**



2010 2015 2020 2025 2030 2035 2040 2045



### WHAT IT MEANS FOR TRAVEL

### More teleworking could mean fewer trips during rush hour and more throughout the day.

People who work from home do not commute, but they run errands and make other trips throughout the workday. Even if the share of people working from home doubles, VMT per capita will likely only decline by less than 6%. Fewer commute trips could allow transportation agencies to redistribute some of the resources that they had planned to spend on keeping the region moving during rush hour, potentially making more funding available for other projects. Source: Microsoft

Not all workers are able to telework. Low-income workers are much more likely to do their jobs in person. As agencies plan for more teleworking, they need to maintain access to jobs for those who need it.

### **Effects on RTP priorities**

#### **CLIMATE & MOBILITY**



As working from home increases, vehicle trips

decrease - particularly during rush hour, when vehicles typically emit more pollution because they are stuck in traffic. This means fewer greenhouse gas emissions and less congestion during peak hours. It also raises the question of how transit might best serve riders who are taking more midday trips and commuting less.

#### SAFETY

With prolonged working from home, travel may occur at different times of the day. The overall amount of traffic is not likely to change, but if local and arterial streets see more traffic from teleworkers running errands, it could create additional conflicts between vehicles and pedestrians, bicyclists, and transit riders.

#### EQUITY



Only some people have the option to work

remotely. Almost twice as many workers with high incomes say they are able to work from home compared to those with low incomes. Providing access to internet and other services that support teleworking could help workers with low incomes connect to career opportunities in this new environment.



E-COMMERCE

## E-commerce means more deliveries.

During the pandemic, people started buying more goods online to avoid the health risk of going to the store. The increase in online shopping is reshaping how goods move through the region.



### **BEFORE THE PANDEMIC**

People were buying more goods online.

Between 2015 and 2019, the share of retail goods bought online increased from 7% to 11%, an increase of roughly 1% per year.



### DURING THE PANDEMIC Online sales spiked.

The share of goods bought online peaked at 15% in 2020, and has since declined a few percentage points as stores reopened and health risks receded.



### **FOLLOWING THE PANDEMIC**

## New types of businesses are moving online.

The current dip in online sales is likely temporary. People are now used to shopping online, and more companies are focusing on online sales. This study forecasts that online sales will increase to 20% market share by 2025 and continue to grow thereafter.

### Key assumptions and findings

### **EFFECTS ON TRAVEL**

- In-person shopping trips represent less than 10% of total VMT in the Metro region, and some shopping trips will be replaced by delivery trips.
- An online delivery generates up to 12x fewer VMT than a trip to the store. VMT reductions from delivery are more modest in communities where people can walk, bike, take transit or only drive a short distance to the store.
- Compared to **9%** of in-store purchases, **15%-30%** of online goods are returned.
- Same-day shipping increases VMT, and not all online purchases replace a trip to the store. This offsetts some of the VMT reductions from consolidated delivery trips.
- By 2025, online shopping is projected to reduce VMT by up to 1% and transit ridership by up to 2%.

#### E-COMMERCE AS A PERCENT OF NATIONAL RETAIL SALES



2015 2020 2025 2030 2035 2040 2045



#### WHAT THIS MEANS FOR TRAVEL

### Delivery trips will replace some personal shopping trips, and these new trips have different demands on our roads.

Source: Fehr & Peers

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The increase in online shopping has mixed effects on vehicle travel, and it can be hard to distinguish these impacts from the general increase in shopping-related trips due to more consumer spending. On one hand, delivery trips are typically shorter than people's trips to the store, because companies make multiple deliveries in a single trip. On the other hand, people are more likely to return goods that they buy online and make rush orders that require companies to split a single order into multiple deliveries, creating more trips per item purchased. Growth in delivery trips is also altering the ways that retailers, restaurants, and grocery stores use space and resources for parking, pickup, delivery, and stock storage.

### **Effects on RTP priorities**

#### **CLIMATE & MOBILITY**



Online delivery trips are usually consolidated and

occur outside of peak hours, reducing congestion. Delivery trips are shorter than in-person shopping trips, but many consumers are drawn to online shopping by sameday delivery, easy returns, and the convenience of shopping from home - all of which lead to more trips. Because of these conflicting factors, online shopping produces a modest reduction in VMT and emissions.

### SAFETY

Aggressive schedules may encourage delivery drivers to prioritize speed over safety. Deliveries may also bring more large vans and medium-size delivery trucks onto neighborhood streets. Delivery drivers who are independent contractors and not commercially trained may also be less experienced than licensed commercial drivers.

#### EQUITY



People with higher incomes are more likely to shop

online than people with low incomes. Improving access to goods and services can benefit everyone, but people typically pay a premium for the convenience of shopping online. People with low incomes and people of color are also more likely to face technological, financial and cultural barriers to shopping online.



**VEHICLE ELECTRIFICATION** 

# Get ready to plug in.

Oregon has set ambitious targets to increase the number of electric vehicles (EVs) on the road. Whether or not the state meets these targets, we are likely to see many more EVs in the years to come.



#### **BEFORE THE PANDEMIC**

### EV use was growing exponentially.

Between 2010 and 2020, the number of EVs on Oregon's roads grew from 670 to 33,600. E-bikes and e-scooters also became more popular and widely available, both for purchase and through bike- and scooter-share systems like those in Portland.

## DURING THE PANDEMIC

## EVs remained popular, and e-bikes boomed.

Between 2019 and 2021, EV sales grew by 3.6%, outperforming sales of gas-powered vehicles. E-bike sales skyrocketed, growing by 240% - almost four times more than regular bike sales grew.



### FOLLOWING THE PANDEMIC EV use will keep growing.

The batteries that power EVs and e-bikes are likely to become more efficient and cheaper to manufacture. EV and e-bike sales will continue to increase as these vehicles become more affordable and efficient.

### Key assumptions and findings

- Our forecast is based on historical growth in EV sales and on anticipated changes to EV cost and range. It does not account for the many clean vehicle and fuel policies that support Oregon's EV targets.
- By 2030, the State of Oregon aims to have 50% of new vehicles sold and 25% of all vehicles be EVs.
- EV/ZEV registrations in Oregon have grown by around **30%** each year since 2015.
- After declining at the beginning of the pandemic, shared e-bike and e-scooter use in the City of Portland rebounded to more than **double** pre-pandemic usage.
- Cities with shared e-bike fleets reported that e-bikes were used twice as frequently as regular bicycles.

#### OREGON EVS AS A PERCENT OF CAR OWNERSHIP





### WHAT THIS MEANS FOR TRAVEL

## **EV** adoption is accelerating, but a broader approach to electrification could help meet State goals.

Over the long term, EVs are forecast to become the default choice for many car buyers, but currently their additional cost and limited range restricts their appeal. Cheaper, more efficient batteries should remove these barriers. However, these

changes are expected to take 10 to 20 years, and Oregon is aiming for 25% EV adoption by 2030. The State has adopted several clean vehicle and fuel policies in order to meet this target. In the Portland region, expanding chaging - particularly in

multifamily buildings - will be critical to providing equitable access to EVs. High levels of bicycle use and successful bike- and scooter-share systems create an opportunity to further electrify transportation using e-bikes and e-scooters.

Source: Fehr & Peers

### **Effects on Metro's RTP priorities**

#### **CLIMATE & MOBILITY**



EVs will gain appeal as technology improves, but

not enough to meet state targets - and meeting these targets is critical to meeting our regional GHG goals. The region should follow along as the state tracks EV deployment in Oregon so that we can identify whether agency partners need to take additional action to meet our GHG targets.

### SAFETY



This trend is not likely to affect safety outcomes.

#### EQUITY



The higher costs of EVs and  $\bigtriangledown$ lack of charging options in multi-unit dwellings pose additional barriers for people with low incomes. Oregon offers significant rebates for people with low incomes who purchase a new or used EV. The region should monitor whether these rebates are leading to equitable EV adoption.

A supplement to the 2023 RTP Update



PERSONAL SAFETY IN PUBLIC

## Personal safety is a growing concern.

People of color are increasingly likely to be concerned for their safety when traveling due to fear of harassment and discrimination, and concerns about health and unsafe behavior are on the rise for many travelers.

#### **BEFORE THE PANDEMIC**

### Safety was a concern for people of color.

People of color were more likely to be concerned for their personal safety when walking and taking transit.

### DURING THE PANDEMIC

## Many people felt unsafe, especially people of color.

Black people grew more mistrustful of police in the wake of George Floyd's killing, Asian immigrants experienced more racism in public, and people who continued to rely on transit - who are more likely to be people of color - dealt with new health concerns.

### **FOLLOWING THE PANDEMIC**

## Increased safety concerns seem likely to linger.

Recent polling suggests that Oregonians continue to be highly concerned about public safety. Even though much of society is now reopening following the pandemic, people also continue to be concerned about health risks when riding transit.

### Key assumptions and findings

We analyzed this trend qualitatively by reviewing existing research. Here are some of the important findings from that research:

- TriMet surveyed riders about safety in 2020. Overall more riders reported feeling safe riding transit than feeling unsafe - but people of color were much more likely than white riders to say they feel unsafe.
- Riders' top safety concerns were other riders' unsafe behavior and a lack of staff presence.
- During the pandemic, the biggest factors in determining whether or not someone would choose to ride transit are: occupation, pre-pandemic mode choice, walking time to the nearest station, and health concerns.
- Race, gender and age play major roles in perceptions of safety when traveling.
- Numerous surveys and focus groups from the Portland region have found that people of color are more concerned for their safety than other travelers when

walking, bicycling or taking transit.

- Crashes are disproportionately located in communities of color and communities with lower incomes. In 2020, **60%** of the region's fatal crashes and **66%** of severe injury crashes occurred in the communities with the highest concentrations of people of color and people earning low incomes.
- Focus groups conducted by the City of Portland found that inadequate street lighting was the #1 safety concern for Black pedestrians.

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WHAT THIS MEANS FOR TRAVEL

## We may need to invest more in helping travelers feel safe in order for our investments in climate and equity to pay off.

Source: TriMet

People are feeling less safe when traveling for reasons including increased crashes, COVID risks, and the behavior of other travelers. Concerns is particularly high among people of color, who are more likely to live in a neighborhood with unsafe streets, work in an in-person job, or to be harassed while traveling. It is hard to estimate how these feelings impact travel. However, many of our planned investments in bus service and access to transit - rely on people feeling safe enough to use them. We may need to invest more in safety for these projects to deliver their intended benefits - and broader changes to the economy and social services may be needed to fully address safety concerns.

### Effects on Metro's RTP priorities

### **CLIMATE & MOBILITY**



Increasing transit ridership is critical to meeting the region's GHG reduction

goals. Safety is an important concern for people who already ride transit, but it doesn't seem to be as big of a factor in whether or not people choose to ride. Investing in safety alone may not have a big impact on transit ridership - but improved transit service will likely draw more riders and reduce more emissions if people feel safe.

### SAFETY

Transportation agencies in the region have been working to prioritize safety for people of color travelers, and transit agencies have invested extensively in public health measures to keep riders safe during the COVID-19 pandemic. In spite of these measures, safety is a pressing concern for many travelers.

### EQUITY



People of color are significantly more likely

to be concerned for their safety when walking, bicycling, or taking public transportation. Transportation investments in communities of color may not benefit residents if these safety concerns are not addressed.



SEVERE AND FATAL CRASHES

## Fatal crashes are going up.

More people died in crashes during the pandemic, even though people were driving less.

#### **BEFORE THE PANDEMIC**

### Traffic death and injury rates were on the rise.

The rate of fatal crashes in the region increased by 76% between 2011 and 2019, and severe injury crashes increased by 13%. In 2018, the region set a goal to eliminate all traffic fatalities and severe injuries by 2035.

## Traffic deaths increased even as people drove less.

Between 2020 and 2021, fatal crashes in the region increased by 20%, even as people were driving less and severe injury crashes fell by 26%. Emptier streets and impaired driving contributed to the rise in deadly crashes.

#### **FOLLOWING THE PANDEMIC**

### There is reason for both hope and concern.

Vehicles are already speeding less as the streets fill up again, but some of the other trends discussed here - especially lowerthan-anticipated transit ridership - could lead to more driving and more crashes in the long term.

### Key assumptions and findings

We analyzed this trend qualitatively by reviewing existing research. Here are some of the important findings from that research.

- During the first half of 2021, U.S. crash-related fatalities increased 18%, from 1.06 per 100 million vehicle miles traveled (VMT) to 1.25 per 100 million VMT.
- As of November 2021, fatal crash rates in Oregon were 1.64 fatalities per 100 million VMT, higher than national rates.
- Crashes are disproportionately located in BIPOC and low-income communities. In 2020, 60% of the region's fatal crashes and 66% of severe injury crashes occured in the communities with the highest concentrations of people of color and people earning low incomes.
- Nationally, traffic fatalities reached a **16-year high** in 2021. The percent of fatal crashes that involved alcohol increased by **22%** between 2019 and 2021, and average speeds increased on almost every type of road.
- Between 2019 and 2021, fatal crashes in U.S. urban areas increased by over 4x as much as in rural areas. Urban local and collector streets saw the biggest increase in fatal crashes, followed by urban interstates and urban arterials.



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### WHAT THIS MEANS FOR TRAVEL

### More work will be needed to reduce fatal crashes.

Traffic on the region's roads is still below pre-pandemic levels, but not by much. Unless the region takes more comprehensive action to reduce crashes, we could continue to see high levels of fatal and serious crashes. During the pandemic, many agencies in the region took steps to make streets safer, such as reducing speed limits, calming traffic and dedicating certain streets for pedestrians and bicyclists. These design changes are important, but ource: Portland Police Department

they need to be combined with speed management strategies, advanced vehicle and alcohol detection technologies, and other approaches to address the many factors contributing to high levels of fatal and injury crashes.

### **Effects on RTP priorities**

#### **CLIMATE & MOBILITY**



Crashes contribute to congestion and GHG emissions. Estim<u>ates</u>

suggest that eliminating roadway crashes could translate into 21.4 billion hours in traffic time saved nationally and a 2% reduction in emissions by 2035. High crash rates may also deter people from walking and bicycling, since pedestrians and cyclists are more vulnerable to crashes.

### SAFETY

Traffic fatality rates in Oregon have been consistently high over the last 13 months; higher than national averages - in spite of the growing adoption of Vision Zero policies throughout the state and region.

#### EQUITY



People walking and biking in communities of color and/or lower-income communities

face greater risk of injury and death. In the Metro region, risk of dying in a motor-vehicle involved crash is higher for people of color, people over 65 or people with low-incomes. A majority of pedestrian deaths and high-injury corridors are in communities with higher densities of people of color, people with low incomes and people with limited English proficiency.



**RECREATIONAL BICYCLING** 

# Bicycling experienced a boom.

More people turned to recreational bicycling and other types of outdoor exercise when gyms and sports clubs closed down during the pandemic.

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### **BEFORE THE PANDEMIC**

### The Portland region was known for bicycling.

In 2015, more people commuted by bicycle in the Portland region than in any other US metro area, which also made bicycling a popular form of recreation.

### IN THE PANDEMIC

## Recreational biking grew in popularity.

Many of the region's trails saw increased usage during the early days of the pandemic, and across the US bike sales boomed. Some agencies dedicated streets to bicycling and walking to meet the new demand for outdoor recreation.

### FOLLOWING THE PANDEMIC

## Recreational biking continues to increase.

According to data collected by Strava, an exercise tracking app, total bicycle miles traveled in the Metro region have increased by 51% since before the pandemic, most of those leisure trips.

### Key assumptions and findings

- Nationally, bicycles make up a \$5.3 billion industry. Between 2019 and 2021, bicyle sales grew by **67%**, and e-bike sales grew by **240%**.
- Users of Strava, an app commonly used to track recreational bike rides, logged close to twice as many trips during summer 2020 as during summer 2019 (see chart).
- In 2020, approximately **10%** of people tried bicycling for the first time or tried riding in a new way, such as using a bike for transportation.
- The City of Portland's Slow Streets program has provided greater opportunity for people to travel safely on low-traffic streets, thus potentially promoting more recreational biking.
- 86% of cities that have implemented slow street programs intend to make them permanent fixtures of future bike networks.

#### CHANGE IN STRAVA BIKE TRIPS, 2019-2020





WHAT THIS MEANS FOR TRAVEL

### More people on bikes instead of in cars can translate to reduced driving and greenhouse gas emissions.

The growth in recreational biking during the pandemic is expected to continue, which can lead to improvements in mobility, climate, and public health. If more people decide to start biking or continue the riding habits that they picked up during the pandemic, there will potentially be more demand for better and safer biking infrastructure. Many jurisdictions across the US, including the Metro region, have already dedicated streets for active transportation. These changes may become permanent fixtures of the transportation system—further incentivizing greener modes of travel.

### **Effects on RTP priorities**

#### **CLIMATE & MOBILITY**



People who bicycle for fun and exercise are more likely to try riding to work

or for errands, which has the potential to reduce congestion and emissions. They are also more likely to advocate for improvements to bicycle infrastructure, which can help other travelers feel comfortable bicycling.

### SAFETY

The pandemic-era bicycling boom has already led to safety improvements to the region's streets. Portland is installing permanent infrastructure and keeping speeds low on some of the Slow Streets that it created during the pandemic. Research suggests that seeing more cyclists helps noncyclists feel safe trying bicycling.

#### EQUITY



Bikes are much cheaper to buy and maintain than cars

or trucks. However, gaps in bicycling infrastructure - which often occur in communities where people of color and people with low incomes live - create barriers to bicycling for many people. Safe, comfortable bikeways are benefits that should be shared by everyone.

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