

# 2023 *Service Plan*



**Draft – Proposed for Board Adoption  
October 2022**

# ***Introduction***

## **2023 Service Plan**

At Sound Transit, we evaluate our service every year and propose changes to improve performance, respond to ridership trends and make the most of our resources. The Service Plan typically outlines proposed changes to ST Express, Sounder and Link in response to changes in ridership, operating conditions, and any major route service restructures coinciding with a major high-capacity transit opening. The Service Plan is also used to approve any “major service changes” as defined by Sound Transit-adopted policy and informs Sound Transit’s operating budget.

This year’s Service Plan, however, will be different from years past. The 2023 Service Plan formalizes emergency service reductions that occurred in the last year resulting from the transit operator shortage. Reflecting national trends, this regional challenge has significantly affected our ability to deliver both current service levels as well as the planned service increases adopted in last year’s service plan.

The Service Plan includes an overview of current ridership trends, proposed major service changes for Board adoption, a Title VI service equity analysis and public engagement report.

We presented a draft of major service changes for public comment from July 26 through August 16, 2022. A significant portion of the public outreach focused on how the operator shortage has impacted riders and priorities for service restoration as operators become available. A public hearing on the 2023 Service Plan was scheduled for October 20, 2022.

# Planning Context

## Operator shortages required emergency service reductions

Over the course of summer and the start of fall 2021, the number of trips canceled due to operator shortage had slowly been increasing. This led to unpredictable service for passengers as cancellations changed day-to-day. In November 2021, Sound Transit implemented an emergency service reduction on Pierce Transit–operated ST Express due to severe staffing shortages.

In October 2021, Pierce Transit, the operator for several South King and Pierce County ST Express bus routes, notified Sound Transit that an emergency reduction would be necessary due to the staffing shortages. This emergency reduction was implemented on November 7, 2021. Those cuts were followed by similar reductions on ST Express routes operated by Community Transit and to a lesser degree, King County Metro in Spring 2022. Sound Transit’s operating model prevents Sound Transit from easily redeploying operators from one part of the region to another. By having different operating partners serve different regions, the ST service district yields varying levels of service for riders.

Reductions primarily came during peak periods to avoid canceling trips when service is less frequent and to avoid changing span of service. Weekend service remains unchanged. This follows trends of weekend ridership returning faster to pre-pandemic levels and new demand spread throughout the weekday.

By March 2022, Sound Transit reduced weekday service by approximately 20% on Pierce Transit–operated routes 10% on Community Transit operated service and by 5% on King County Metro operated service.

## Mitigation strategies

We employed the following strategies to mitigate the impacts of the operator shortage:

- **Implement a full systematic schedule change to reduce ad-hoc cancellations:** by implementing a full schedule change that matches staffing levels, service can operate more reliably with fewer short-notice cancellations. In addition, frequencies can be rebalanced to avoid major gaps in schedules.
- **Reduce frequency during peak periods:** when headways are the shortest, transit runs less often to avoid reducing span of service or reducing during periods when service is infrequent.
- **Prioritize Saturday and Sunday service:** service on weekends generally operates less frequently than on weekdays, with many routes operating with 30-minute or shorter headways. Any reductions would cause excessive wait times. At the same time, ridership on weekends is returning at a faster rate than on weekdays. As such, weekend service has remained unchanged.
- **Coordinate on shared corridors to avoid duplication:** We worked with King County Metro and Pierce Transit on shared corridors to avoid duplication of service. On Route 580, Pierce Transit local service replaced nearly all canceled trips, allowing efficient use of operators at both agencies. Between Federal Way and Seattle, King County Metro Route 177 replaced some canceled Route 577 trips.

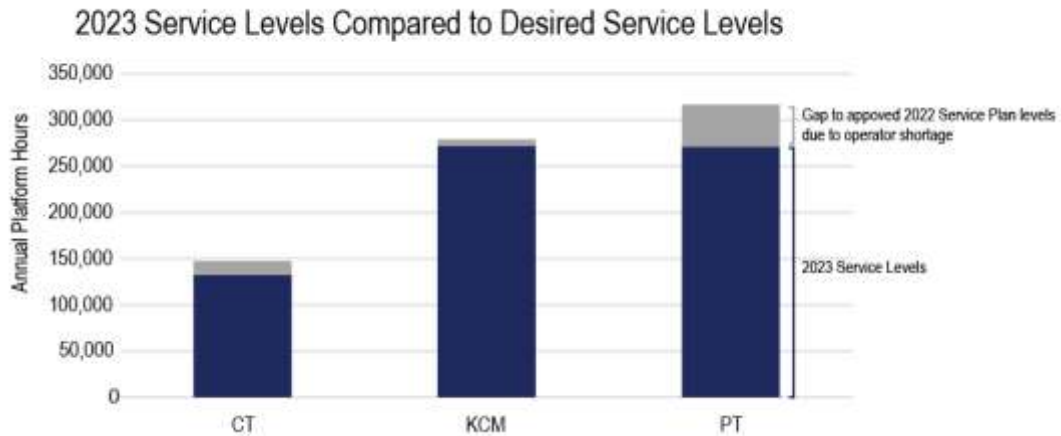
We are working closely with our partner agencies to mitigate these changes by coordinating service on shared corridors between transit agencies. We transferred Route 566 operations from Pierce Transit to King County Metro to avoid further reductions on other Pierce County and South King ST Express service. We have also restored Sounder trips on the S Line earlier than originally planned and brought back full pre-pandemic levels of service at the September 2022 service change.

Our operating partners continue their efforts to recruit and train new operators. When operator numbers increase and we can maintain current service levels reliably without cancellations, we'll begin to add more service at our regularly scheduled March and September service changes.

### Operator shortages pause planned service improvements

The emergency reductions prevented implementation of the Board-adopted 2022 Service Plan, which focused on increasing headways to every 15 minutes all day on key South King and Pierce County trips as well as other midday and weekend service increases across the entire region (full details are available in the [2022 Service Plan document](#)). The operator shortage in the Puget Sound region and nationwide resulted in the need to reduce scheduled service levels to ensure schedules remain reliable for passengers despite fewer number of daily trips, which are resulting in approximately 10 percent less service than the budgeted 2022 Service Plan.

It is our goal to deliver the improvements outlined in the 2022 Service Plan as soon as the regional workforce stabilizes and we have the necessary operators available to deliver reliable service to our passengers. Until then, this service plan is focused on formalizing the emergency service reductions on South King and Pierce County routes implemented in November of 2021.



# Major Service Changes

## Formalization of emergency major service changes required

While all ST Express routes are being impacted by operator availability, the following routes meet the definition of a major service change, as defined by the *Sound Transit Disparate Impact and Disproportionate Burden Policy* (Resolution No. R2022-19). Formalizing emergency major service changes that last more than a year is a requirement by both FTA- and Sound Transit Board–adopted Major Service Change definition (see callout box below).

- **Route 566 (Auburn-Overlake):** operating every 20-40 minutes to be timed with Sounder trains at Kent until operator availability improves.
- **Route 580 (Puyallup-South Hill Sounder Connector):** most trips between Puyallup and South Hill replaced by Pierce Transit Route 400. Elimination of the Lakewood-Puyallup variant that previously operated with limited trips. This variant had very low ridership and allows deployment operators to routes serving more riders. An additional two trips on Sounder S Line were added, and 574, 592, and 594 continue to provide service at discontinued stops with higher frequency.
- **Route 590 (Tacoma-Seattle):** operating every 10-12 minutes during peak periods until operator availability improves.
- **Route 592 (DuPont/Lakewood-Seattle):** operating every 30 minutes until operator availability improves.
- **Route 592 (DuPont/Lakewood-Seattle):** operating every 30 minutes until operator availability improves.

Formalizing the major service changes outlined in the 2023 Service Plan:

- Fulfills the Sound Transit Board-adopted and FTA requirements surrounding a major service change that will last more than a year.
- Recognizes the long-term effects of the operator shortage that could last several years in order to regain the staff required to provide the desired levels of service.
- Provides riders with a schedule that can reliably be delivered based on current staffing levels instead of publishing an overly optimistic schedule with frequent ad-hoc cancelations.

While Pierce Transit–operated ST Express routes were the first to be impacted by the operator shortages, both King County Metro and Community Transit are seeing similar staffing shortages, with additional emergency reductions occurring during 2022. An additional set of major service changes may need to be formalized in the next year.

### What is a major service change?

A major service change is defined as:

- A change in service levels on an individual route that adds or eliminates more than 25% of the route's weekly revenue hours.
- A stop, move or elimination with no a replacement within a quarter mile for bus or a half mile for rail stations.

Some exclusions include changes to route numbers, replacement service by another route (as long as frequencies, fares, transfer options and span of service are similar or better), or temporary changes of less than 12 months in duration.

A major service change requires Sound Transit Board approval and a Title VI equity analysis.

Emergency service changes that cross a major change threshold must be formalized and adopted if it lasts longer than a year.

## **Title VI service equity analysis**

Consistent with Sound Transit's newly adopted Disparate Impact and Disproportionate Burden policy (Board Resolution No. R2022-19), a Title VI analysis was completed at two levels of analysis. The first evaluated each major service change individually. The second systemwide analysis compared benefits and impacts to Title VI protected & non-protected populations on all routes with changes over multiple years.

The individual route analysis found adverse effects and all major changes requiring formalization have either a disparate impact or disproportionate burden. Sound Transit's operating model where three operating partners serve different regions in the ST service district has resulted in varying levels of service for riders. As Pierce Transit-operated ST Express has had the most severe impacts of the operator shortages in late 2021, with many of the routes serving Title VI protected populations above the Sound Transit district average.

Several mitigations have been implemented to soften the impacts of reduced service levels, including transferring a route between operating partners, coordinating schedules routes on shared corridors and restoring Sounder S Line trips to pre-pandemic service levels.

The results of the systemwide analysis did not identify any findings. The analysis results show that the distribution of benefits for service additions exceeds 80% for protected populations and the distribution of impacts of service reductions do not exceed 20% for protected populations. Therefore, the systemwide analysis does not identify any disparate impacts or disproportionate burdens based on the cumulative service changes implemented between September 2020 and March 2023.

The full Title VI service equity analysis is available in the Appendix.

# Route-by-Route Changes

## Routes with frequency changes

### Route 566 (Auburn-Redmond Tech)

Route 566 (Auburn/Kent – Redmond Tech) is currently operating every 20-40 minutes in peak hours and peak direction (northbound a.m., southbound p.m.) with trips allowing for coordinated transfers with Sounder S Line trains. The route was transferred to King County Metro operations in March 2022 to avoid further service reductions on Route 566 and other parts of the network.

	Approved service levels proposed in 2022 Service Plan	Current levels until operator availability improves
Peak hours	20 min	20-40 min

### Route 577 (Federal Way-Seattle)

Route 577 is currently operating every 10-12 minutes during peak hours, and the proposed service levels from the 2022 Service Plan to increase service to every 15 minutes or fewer all day between Federal Way and Seattle is deferred until operator availability improves.

	Pre-pandemic service levels	Service levels proposed in 2022 Service Plan between Federal Way and Seattle	Current levels until operator availability improves
Peak hours	6 min	6-8 min	10-12 min
Midday	30 min	15 min	30 min
Evenings	30 min	30 min	30 min
Late nights	30 min	30 min	30 min
Weekends	30-60 min	15-30 min	30-60 min

**Route 590 (Tacoma-Seattle)**

Route 590 is currently operating every 10 minutes during peak hours, and the proposed levels in the 2022 Service Plan to every 15 minutes or better all day between Tacoma and Seattle are deferred until operator availability improves.

	Pre-pandemic service levels	Service levels proposed in 2022 Service Plan between Tacoma and Seattle	Current levels until operator availability improves
Peak hours	6 min	6-9 min	10-12 min
Midday	30 min	15 min	30 min
Evenings	30 min	30 min	30-60 min
Late nights	30 min	30 min	30 min
Weekends	30-60 min	15-30 min	30-60 min

**Route 592 (DuPont/Lakewood-Seattle)**

Route 592 is currently operating every 20-40 minutes during peak hours until operator availability improves.

	Pre-pandemic service levels	Service levels proposed in 2022 Service Plan	Current levels until operator availability improves
Peak hours	20 min	20 min	30 min.



## Routes with alignment changes

### Route 580 (South Hill-Puyallup Sounder Connector)

Route 580 primarily acts as a shuttle to remote Sounder parking lots (Red Lot and South Hill Park-and-Ride Lot) when the Puyallup Station garage is full. After the Puyallup Station's new 500-space garage opens later this year and station-adjacent parking capacity increases, most Route 580 trips would be replaced by Pierce Transit Route 400, which operates parallel to Route 580.

#### *Trip reduction and replacement with PT local service*

Pierce Transit Route 400 would replace most Route 580 trips. By consolidating and coordinating these services, Sound Transit and Pierce Transit could maintain onward connections for nearly all peak-hour Sounder trains between Puyallup Station and the nearby parking facilities while shifting bus operators to other routes with a higher number of cancellations, including many routes serving the same areas.

#### *Lakewood-South Hill segment elimination*



This route section between Lakewood and Puyallup was originally intended to connect riders from Lakewood to some of the select Sounder trips that run partial trips between Tacoma and Seattle. The section between Lakewood and South Hill is proposed to move from temporary suspension to elimination.

Pre-pandemic, this section only served 3 passengers per day in the morning and 28 in the afternoon, compared to the 856 passengers that took the route. Post-pandemic, when service was restored briefly before the emergency reductions in November 2021, this segment averaged 1 occasional passenger in the morning and 2 passengers in the afternoon.

The segment elimination would result in no loss coverage. Routes 574, 592 and 594 serve both Lakewood Station and SR 512 Park and Ride with more frequent service, providing service to both Downtown Seattle and connections to Sounder. In addition, an additional roundtrip on Sounder S Line between Lakewood and Seattle was restored at the September 2022 service change.

### Other routes affected by operator shortages

Nearly all ST Express routes are being affected by operator shortages across the entire network. While the formalization of emergency service changes is occurring for mostly routes in South King County and Pierce County, other corridors are also experiencing reduced service. In March 2022, reductions were made on Community Transit-operated ST Express serving the I-5 North corridor, and the number of ad-hoc trip cancellations has increased over the summer to a degree where a second round of formalized reduction may be necessary.

## Engagement Summary

In July and August 2022, an online open house and survey collected input to understand how the operator shortage has impacted riders and people’s priorities for future service restorations as operators staffing levels improve in the future. We distributed information and engaged current riders at four in-person events at major transit hubs that were severely impacted by service reductions. The online open house and survey were translated into seven languages.

The survey was open from July 26 to Aug. 16, 2022. The survey received 319 responses. The online open house provided information about the ongoing operator shortage. The survey asked about riders’ current travel patterns, including the time of day and days of the week they travel.

The survey also asked about how current operator shortages have impacted people’s rides, with many respondents experiencing longer wait and travel times. Several commenters mentioned the need for better real-time trip cancellation information on signage. In addition, riders were able to provide their priorities for future service restoration when operators become available, including the time periods to add service first.

A full engagement report can be found in the Appendix, while key highlights are included in the following section.

### How recent operator shortages are affecting riders

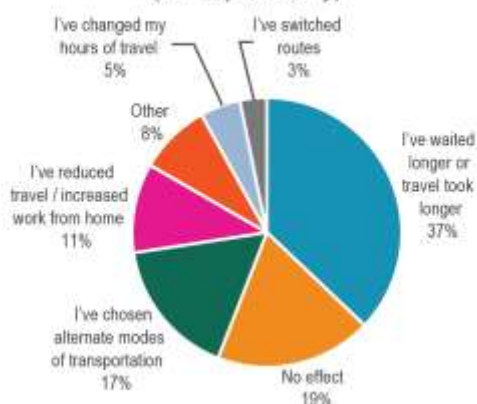
The outreach surrounding the 2023 Service Plan focused on how recent operator shortages have affected our riders as well as their priorities on how service would be restored.

Most ST Express riders have noticed longer travel times and wait times. Some have chosen alternate routes or reduced travel.

In addition, some riders expressed frustration over the lack of available information on specific trip cancellations. During in-person outreach at transit centers, several passengers did not know that trip-specific cancellations are published on the Sound Transit website.

How have service reductions affected your trips?

(ST Express only)



### Priorities for restoring service

A part of the outreach centered on where service should be added as operators come online. Given the slow rate of onboarding new operators, we will only be able to incrementally add service. Because the survey skewed mostly towards riders who use the service during peak periods, 46% of ST Express riders wanted weekday peak hour service to be restored. However, 54% of ST Express riders would prioritize off-peak hours (evenings, weekends and midday).

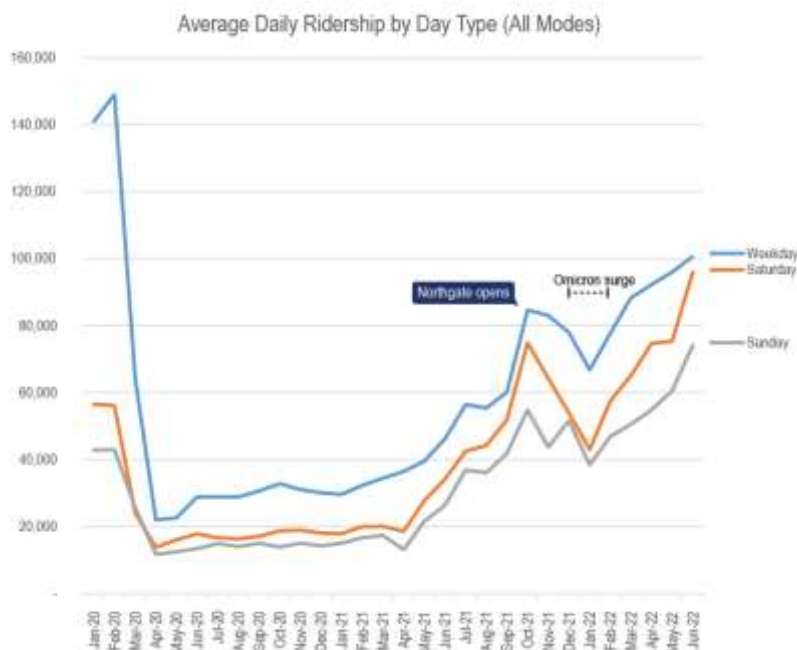
As operator levels rebound and we add trips, what times of day are most important to you?



# Recent ridership trends

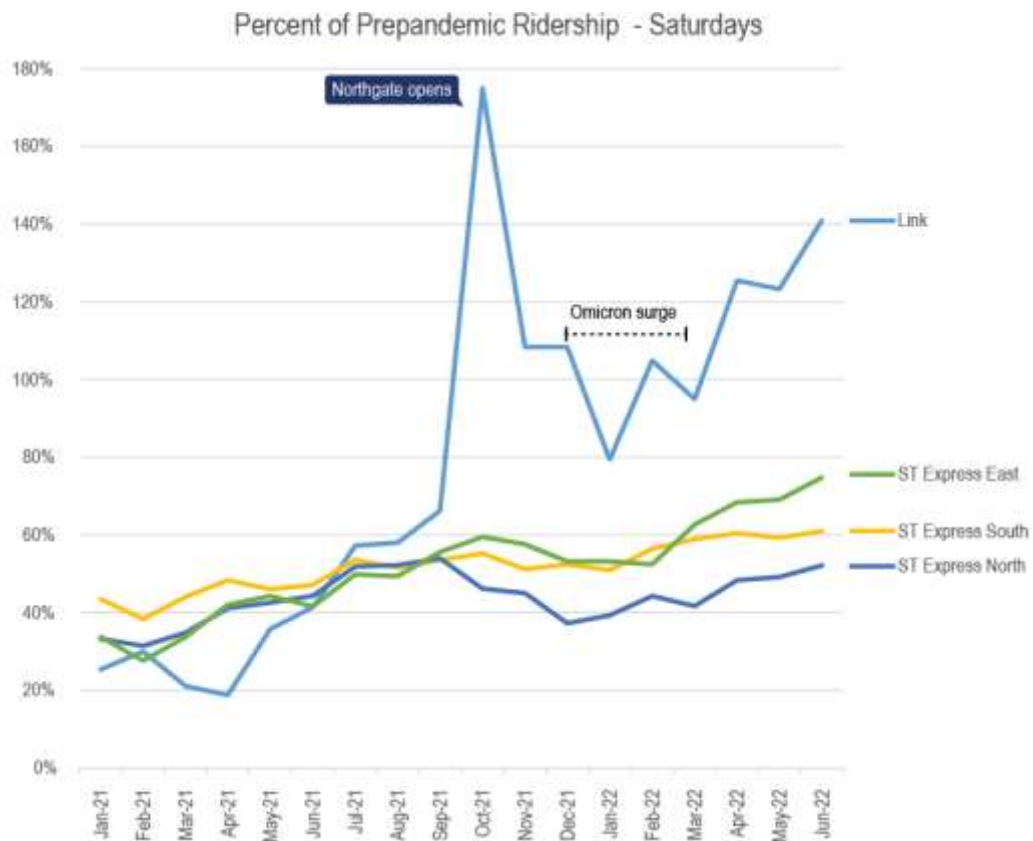
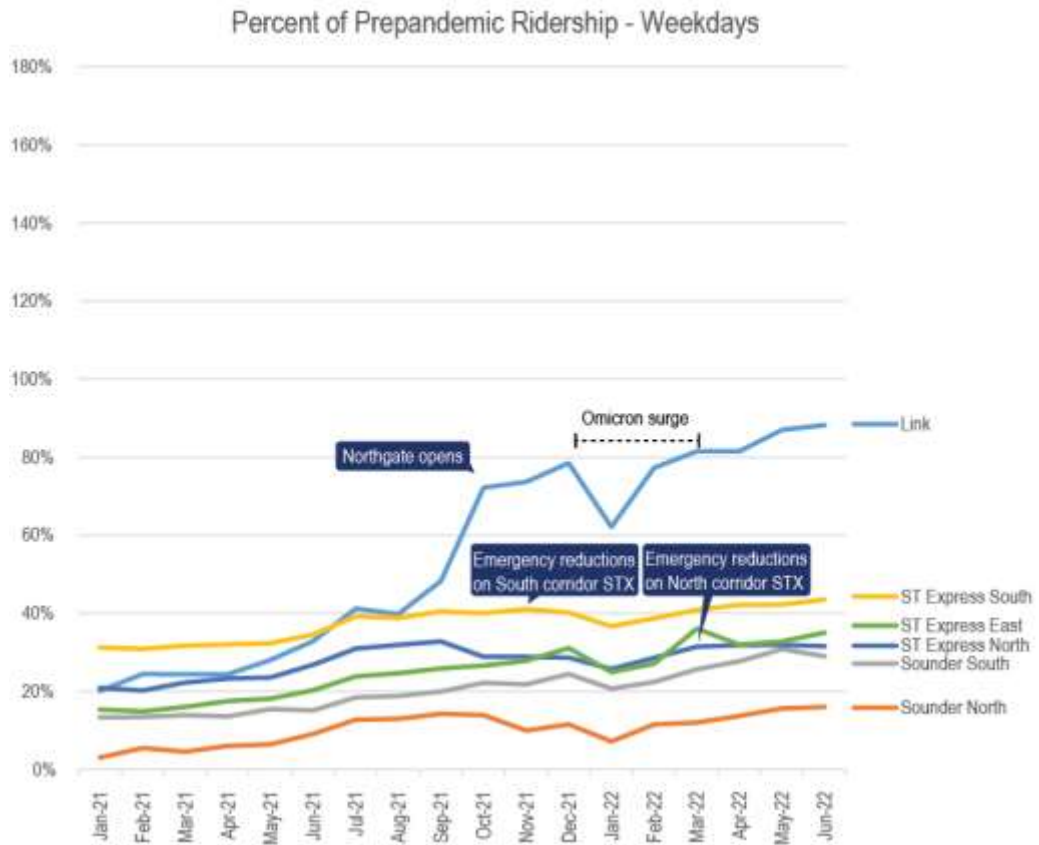
Ridership continues to grow since the height of the COVID-19 pandemic as people return to activities and restrictions are lifted. A number of key trends are arising, many of which have influenced where we have allocated the limited number of operators.

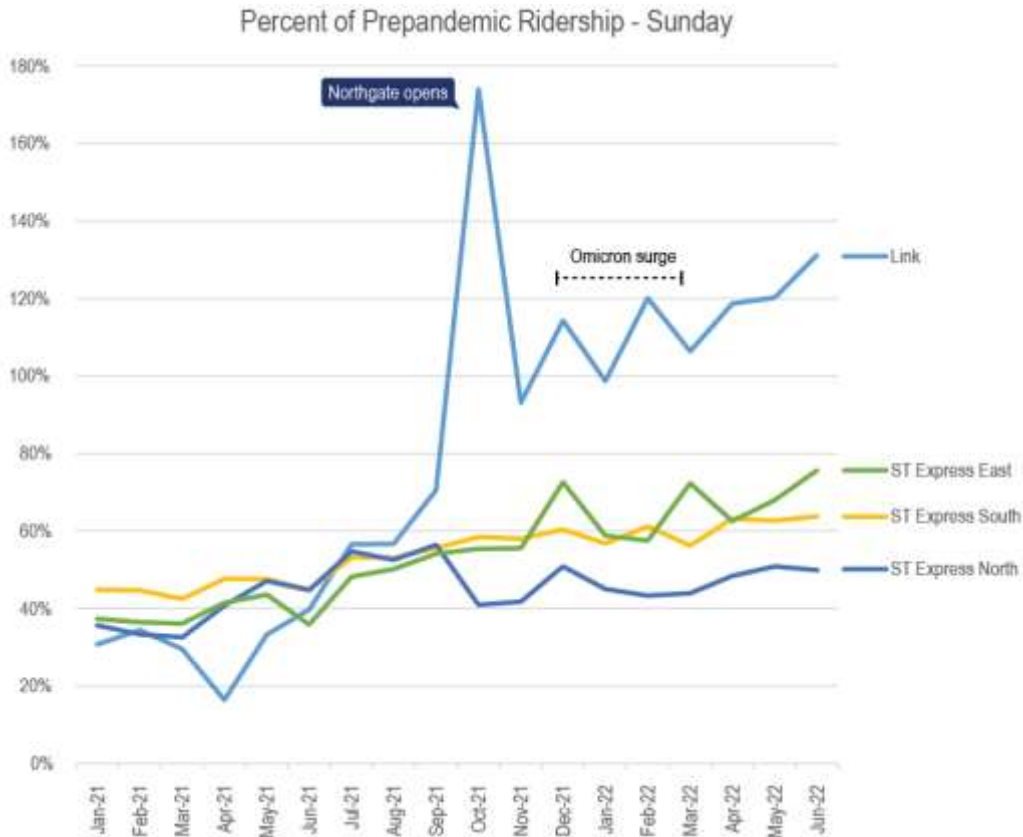
## Weekend ridership growth outpacing weekday



Weekend ridership has returned at a faster rate compared to weekdays. Despite service levels on weekends being generally less than on weekdays, weekend ridership is quickly approaching similar total numbers for weekdays, with a significant part of that growth being on Link light rail. This trend is consistent with return-to-office numbers and many companies continuing to allow workers to work hybrid. A significant part of the ridership increase has been from workers who still need to commute regularly, including at nontraditional peak hours, and those traveling for nonwork purposes.

Percent of Pre-pandemic Ridership, June 2022			
	Weekday	Saturday	Sunday
Link *	88%*	141%*	131%*
Sounder North^	16%		
Sounder South^	29%		
ST Express South	44%	61%	64%
ST Express North	32%	52%	50%
ST Express East	35%	75%	76%
* In October 2021, the Northgate Link Extension opened, adding 3 new stations. As a result, we can attribute above pre-pandemic ridership levels to the opening of these new stations.			
^ Sounder operates weekdays only			





**Weekend ridership beginning to level off on routes with reductions and cancellations**

Weekend ridership on ST Express serving the South and North corridors has begun to level off in mid-2022, which are the corridors currently impacted by operator shortages. ST Express serving the East Side, however, has continued to grow throughout the summer. While a number of factors can contribute to fluctuations in ridership, a number of service delivery issues including trip cancellations and reductions on Pierce Transit and Community Transit-operated ST Express are likely contributors for this trend.

Additionally, ST Express serving the South corridor historically has had lower weekend service levels with many routes operating at 30-minute headways that are too infrequent for the “walk-up” 15-minute service that some other corridors have. This disparity in frequencies was originally planned to be addressed in the 2022 Service Plan by adding service on key South Corridor routes but is currently delayed due to the operator shortage.

## **Ridership growth on Link coincides with the opening of the Northgate Link Extension**

Currently, weekday Link ridership is slightly above 80% of pre-pandemic ridership. However, a significant part of that increase is due to the Northgate Link Extension opening. As a result, we can't directly compare pre-pandemic and current ridership, as ridership after October 2021 includes three new stations as well as a restructured bus network where many riders are transferring at the new stations to other ST Express bus, Community Transit, or King County Metro routes.

With the opening of Northgate Link, there was a concurrent dip in ridership on some of the I-5 North routes that previously operated to Downtown Seattle but since the opening of the Northgate Link Extension are terminating at Northgate and require a transfer to Downtown Seattle. Many riders are opting to use Community Transit and ST Express Route 510, which still offer one-seat rides to Downtown Seattle.

## **Ridership trends mirror COVID-19 pandemic surges**

While October 2021 saw a significant ridership increase with the Northgate Link Extension opening, ridership declined from November 2022 through February 2022 due to the Omicron variant of COVID-19.

# ***Appendix***

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# ***2023 Service Plan***

## **Public Engagement Report**

# 2023 Service Plan Comment Report

## *Background*

Every year, Sound Transit evaluates service performance and proposes changes to improve performance, respond to ridership trends and use taxpayer resources efficiently. This report provides a summary of public feedback on the 2023 Service Plan, which will formalize service reductions due to the significant operator shortage impacting service levels. In July and August 2022, the project team administered an online survey to better understand how the operator shortage has impacted riders, and what people’s priorities are for when more operators become available. The team hosted a virtual open house, distributed information online, and talked to riders at transit centers to collect public input.

The survey received a total of 319 responses and was offered in eight languages: Vietnamese, Tagalog, Spanish, Russian, Simplified Chinese, Traditional Chinese, Korean, and English. The survey included questions about current and anticipated future transit use, a proposed ST Express route alignment change and ST Express service frequency reductions for 2023. There were also demographic questions to inform a Title VI analysis.

Sound Transit conducted in-person outreach to encourage riders to participate in the 2023 Service Plan survey. Outreach was conducted near Pierce Transit-operated ST Express routes (560, 566, 574, 577/578, 580, 586, 590/594, 592, and 595) in August 2022 as these are the routes currently most impacted by operator **shortage**. The project team passed out over 200 fliers to transit riders at these stations.

## *2023 Service Plan overview*

During the COVID-19 pandemic, transit agencies across the region, including Sound Transit, had to reduce service. In last year’s 2022 Service Plan, Sound Transit proposed and approved service increases on a number of key routes, but persistent pandemic challenges and operator shortages delayed those improvements. Operator shortages made emergency service reductions necessary on several routes, including some where there had been planned service increases.

While the goal remains to deliver the improvements outlined in the 2022 Service Plan, Sound Transit is required by the FTA and Sound Transit Board adopted policy to retroactively formalize emergency reductions that have taken place due to widespread workforce challenges.

The following service changes were implemented on an emergency basis in November 2021 and will be formalized as part of the 2023 Service Plan:

- Decreased frequency on ST Express routes 566, 577, 590, and 592 during peak hours on weekdays until operator availability improves.
- An alignment change on ST Express route 580 eliminating service from South Hill to Lakewood and most trips replaced by parallel Pierce Transit local service.

## Key takeaways

Although ridership decreased during the peak of the pandemic in 2020, ridership has generally been increasing. About 30% of the respondents (93 people) who took the survey ride every day, while most ride a few times a week or infrequently. Concerns about the frequency of service is the most significant role, with riders either returning or continuing to commute for in-person work.

The pandemic has resulted in a significant shift in how, where, and when people work. Apart from essential jobs, many workplaces have adjusted their in-office requirements to accommodate more flexible schedules and remote work. While morning and evening commutes remain the most needed service, there is an emerging interest in increasing midday service to accommodate workers with more flexible hours.

## Specific route notes

Survey participants were asked to indicate what ST routes they normally use. ST Express received a total of 193 responses. The ST Express routes that received the highest levels of engagement were Route 550 (Bellevue-Seattle) with 37 responses, Route 578 (Puyallup/Federal Way – Seattle) with 35 responses, Route 594 (Lakewood/Tacoma – Seattle) with 35 responses, Route 590 (Tacoma – Seattle) with 32 responses, Route 574 (Lakewood – SeaTac) with 32 responses, Route 577 (Federal Way – Seattle) with 28 responses, and Route 512 (Everett – Northgate) with 28 responses.

Link Light Rail lines received a total of 174 responses despite Link not currently being impacted by operator shortage. Of the 174 responses, 97% (161 people) use the 1 Line (Northgate - Angle Lake). Eight percent of respondents (13 respondents reported using the T Line (Tacoma Dome – Theatre District).

Sounder Trains lines received a total of 79 responses. Of the 79 responses, 85% (65 people) reported using the Sounder S Line (Seattle – Lakewood/Tacoma) and 18% (14 people) reported using the Sounder N Line (Everett – Seattle).

## Results by survey question

### Which Sound Transit routes do you normally take (select up to 5)?

The ST Express routes that respondents normally take are listed below and ranked highest to lowest by the quantity of responses. Respondents could select more than one option. The letter n indicates the total number of responses.

ST Express Route use ranked by quantity of responses (n=193)					
550	37	554	16	586	8
578	35	510	13	511	7
594	35	522	12	532	7
590	32	535	12	513	6

574	32	595	11	580	5
577	28	566	10	596	2
512	28	592	9	556	1
560	22	542	8		

Write-in responses included the following routes: 556, 580, and 596. ST Express Route 545 was not included as an option for selection on the online survey.

Link Light Rail use ranked by quantity of responses (n=174)	
1 Line (Northgate - Angle Lake)	161
T Line (Tacoma Dome – Theatre District)	13

Sounder Train use ranked by quantity of responses (n=79)	
Sounder S Line (Seattle – Lakewood/Tacoma)	65
Sounder N Line (Everett – Seattle)	14

## Key takeaways from open-ended comments

**Recognizing that this survey was primarily seeking feedback on the current service levels of ST Express routes since operator shortages have not impacted Link or Sounder service, respondents were invited to share additional thoughts or concerns through three open-ended comment boxes.**

**Since this survey sought to get feedback on the impact of operator shortages, data gathered from open-ended comments only includes responses from survey respondents who indicated that they use ST Express Routes. The sections below summarize the main themes that respondents shared. For each open-ended question, many respondents expressed multiple themes that were individually counted.**

### How have service reductions affected your trips?

Of the 319 people who took the survey, four percent of survey respondents (13 people) provided additional information to the question, “How have service reductions affected your trip?” The top themes are defined below, and the key takeaways are included within each theme.

**Time:** includes comments about service at various times of the day, days of the week, weekend service, special event service, frequency, on-time service, the timing of connections, reliability, service delays, and cancellations.

- Of the 13 people who provided a response to this question, 54% of respondents (seven people) expressed concern about the accuracy of schedules, wait times, cancellations, and missed connections.

**Alternative modes of transportation:** includes comments about alternative modes of travel such as rideshare services, carpooling, and electric vehicles.

- Of the 13 people who provided a response to this question, 31% of respondents (four people) reported using alternative modes of transportation due to canceled trips or missed connections.

**Specific route:** comments mentioning a specific route by route number or route name or comments that called for a new route from a specific origin and destination point.

- Of the 13 people who provided a response to this question, 23% of respondents (three people) mentioned using ST Express Route 510 and 590.
  - A rider also indicated using ST Express routes to connect to the Sounder S Line and Skagit 90X.

## Do you expect your travel priorities from Question 2 to change within the next year? If so, how?

Of the 319 people who took the survey, 25% percent of survey respondents (82 people) provided additional information to the question, “Do you expect your travel priorities to change within the next year? If so, how?” Of the participants who answered the question, 58% (48 people) indicated no, 20% (17 people) indicated yes, and 16% (13 people) indicated that they anticipate minor changes or conditional changes that will impact their travel priorities. Four percent (three respondents) indicated that they were unsure about their travel priorities changing. The top themes presented are defined below, and the key takeaways are included within each theme.

**No:** includes comments from participants who do not expect their travel priorities to change.

- Of the 82 people who provided a response to this question, 58% of respondents (48 people) provided “no” as a response.

**Yes:** includes comments from participants who expect their travel priorities to change.

- Of the 82 people who responded to this question, 20% (17 people) indicated that their travel priorities will change within the next year. The breakdown is below:
  - Six respondents indicated that they plan on adding more trips or increasing travel in the future.
  - Five people listed travel for work or school as a reason their priorities will change.
  - Two respondents listed location changes such as moving homes/work offices that will accommodate travel by transit.
  - Two respondents listed a preference to use ST Express routes 550 and 535 more frequently.
  - Two respondents indicated a preference for driving or an alternative mode of transportation.

**Minor/conditional:** includes comments from participants who expect minor changes to their travel priorities or anticipate forthcoming changes that will impact their travel priorities.

- Of the 82 people who provided a response to this question 16% of respondents (13 people) indicated that they anticipate minor changes or conditional changes that will impact their travel priorities. Almost all respondents indicated that their transit use would increase if service frequency was increased. The following routes were mentioned: 574, 577, 578.

## What else would you like to tell us?

Of the 319 people who took the survey, 28% of survey respondents (91 people) chose to respond to the question, “What else would you like to tell us?” The top themes are defined below, and the key takeaways are included within each theme.

**Time:** includes comments about service at various times of the day, days of the week, weekend service, special event service, frequency, on-time service, the timing of connections, reliability, service delays, and cancellations.

- Of the 90 people who provided a response to this question, 44% of respondents (40 people) expressed frustration with cancellations, missed connections, and a need for more accurate schedules to reduce wait times and improve reliability for transfers.

**Specific route:** includes comments mentioning a specific route.

- Of the 90 people who provided a response to this question, 42% of respondents (38 people) suggested extending the hours of the day that service operates on their preferred transit routes.
  - Some of the responses also provided suggestions to improve access between neighborhoods, specific locations, and cities. The locations mentioned were Southwest Everett, Gig Harbor, and Burien to Bellevue.

**Fares:** includes comments about increasing/decreasing fares, peak and off-peak fares, fees for bags, etc.

- Of the 90 people who responded to this question, 10% of respondents (nine people) supported making fares more affordable and urged stronger fare enforcement practices. One person inquired about the possibility to charge two riders on one Orca Card.

**Communications:** includes comments about station alerts, ST notifications, and customer service support

- Of the 90 people who responded to this question, eight percent of respondents (seven people) suggested improving communications and customer support for schedule changes. This included comments about increasing alerts and announcements to inform passengers about service changes.

**Safety:** comments about lighting, traffic safety, criminal activity at on or around transit facilities, comments about lack of police presence on transit or at transit centers

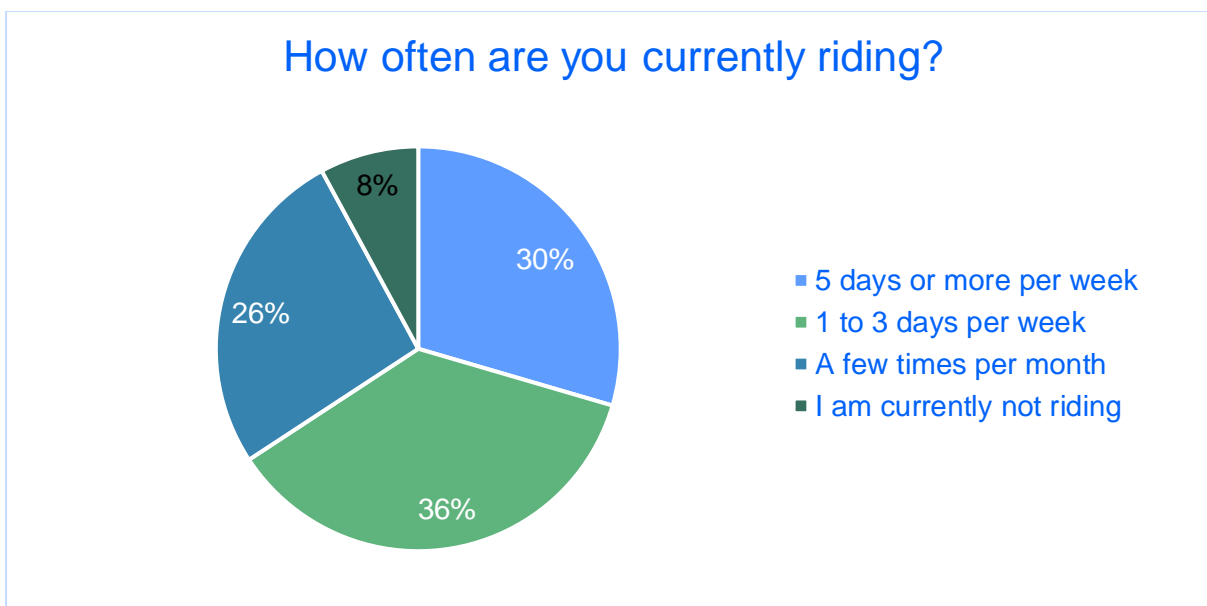
- Of the 90 people who responded to this question, seven percent of respondents (six people) indicated they did not feel safe due to a lack of security at transit locations or indicated feeling unsafe due to criminal activity occurring near transit locations.

## General multiple choice survey questions

A few survey questions asked respondents to provide general information about their transit use. Below are responses from the survey.

### How often are you currently riding?

Of the 315 people who responded to this question, 36 % use transit one to three days per week, 30% use transit five days or more per week, 26% use transit a few times per month and eight percent of respondents are not currently riding.

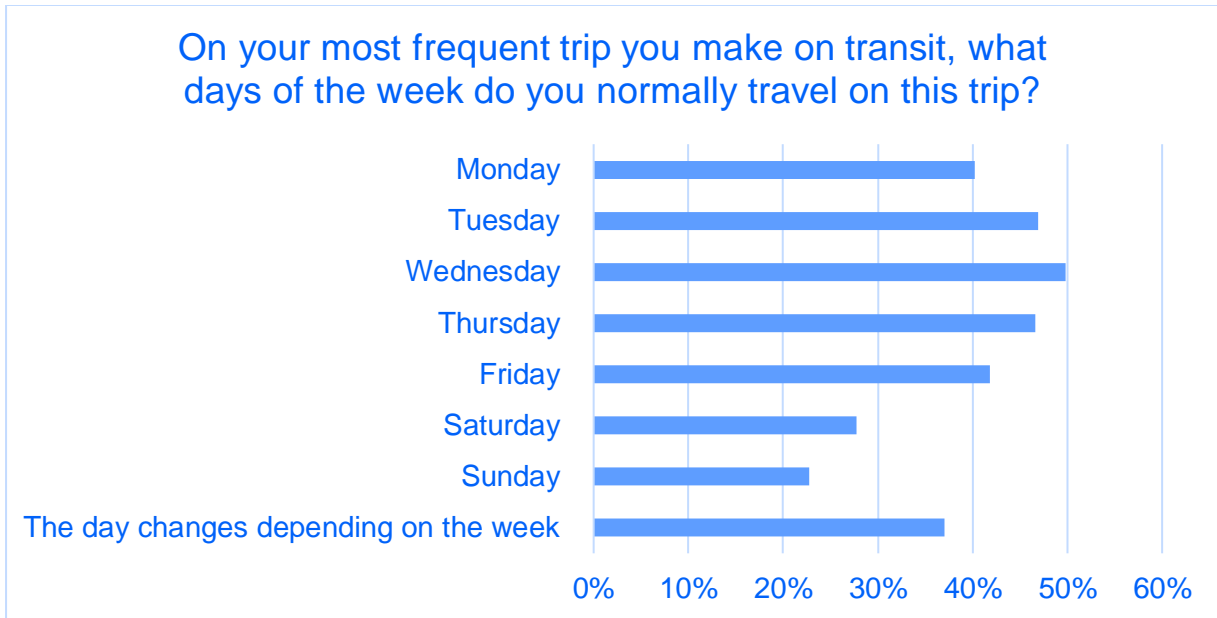


### On your most frequent trip you make on transit, what days of the week do you normally travel on this trip? (Please select all that apply)

Respondents could select multiple options for this question. The most popular day of the week for travel ranked highest to lowest was:

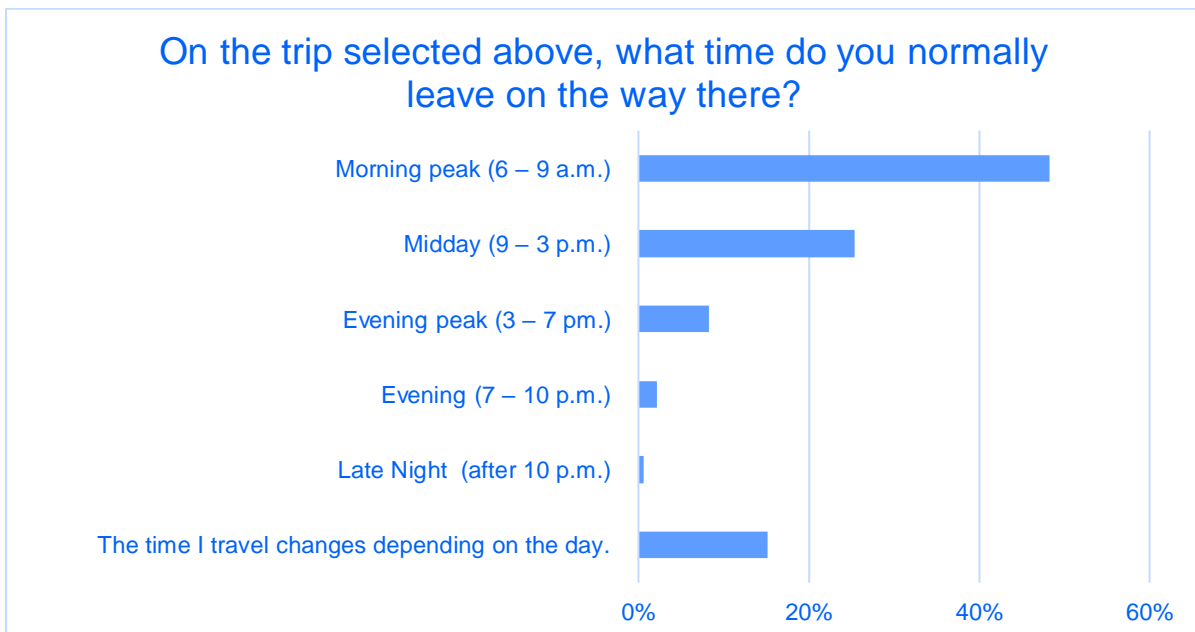
- Wednesday (155 responses)
- Tuesday (146 responses)
- Thursday (145 responses)
- Friday (130 responses), and
- Monday (125 responses).

A significant number of respondents (115 responses) also reported that the day of the week they normally travel changes depending on the week. This may be partly due to the increased number of transit users who work remotely and have hybrid work options. The least popular days for commuting and regular travel were Saturday (86 responses) and Sunday (71 responses). Ridership data also suggests that weekend ridership has returned closer to pre-pandemic levels faster than weekday ridership.



**On the trip selected above, what time do you normally leave on the way there?**

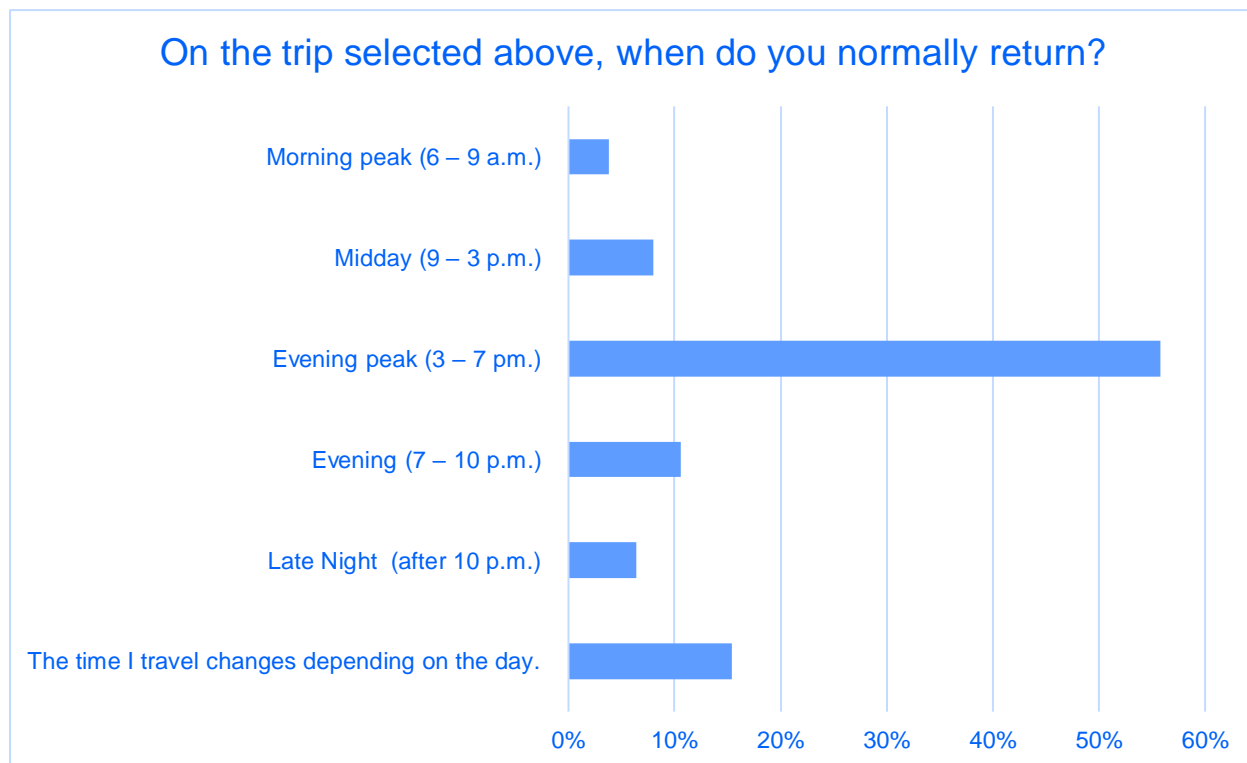
Of the 315 people who responded to this question, 48% (152 respondents) normally take transit during the AM peak commute timeframe (6:00 - 9:00 AM). There was also significant use of midday service (9:00 - 3:00 PM) by 25% of respondents (80 respondents). Moreover, 15% (48 respondents) have travel times that vary depending on the day, continuing to make the case that travel choices are varying more than in the past. Of the respondents, 10% (33 respondents) use transit during the evening (7:00 – 10:00 PM) and late at night (after 10:00 PM) This is likely a reflection of the shifts that are happening across the workforce to accommodate the demand for more flexible work schedules and continued remote work in response to Covid safety measures.





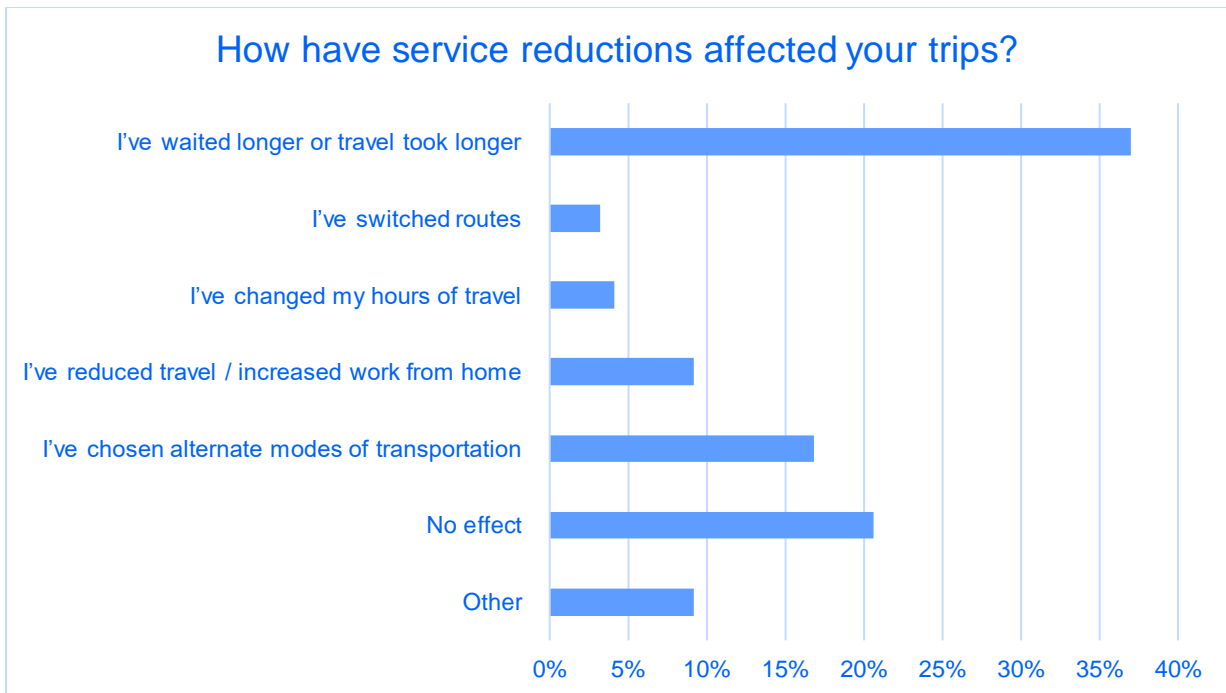
## On the trip selected above, when do you normally return?

There were 312 people who responded to the question regarding their return time on transit. There were 56% (174 respondents) who normally take transit during the PM peak commute timeframe (3:00 -7:00 PM). There were 15% (48 respondents) of people who have travel times that vary depending on the day. Similarly, 10% percent (33 respondents) commute in the evening (7:00 – 10:00 PM). Eight percent (25 respondents) start their return commute during midday (9:00 – 3:00 PM), six percent (20 respondents) during the late night (after 10:00 PM), and less than four percent (12 respondents) take their return commute during the morning peak (6:00 – 9:00 AM). This is likely a reflection of the shifts that are happening across the workforce to accommodate the demand for more flexible work schedules and continued remote work in response to Covid safety measures



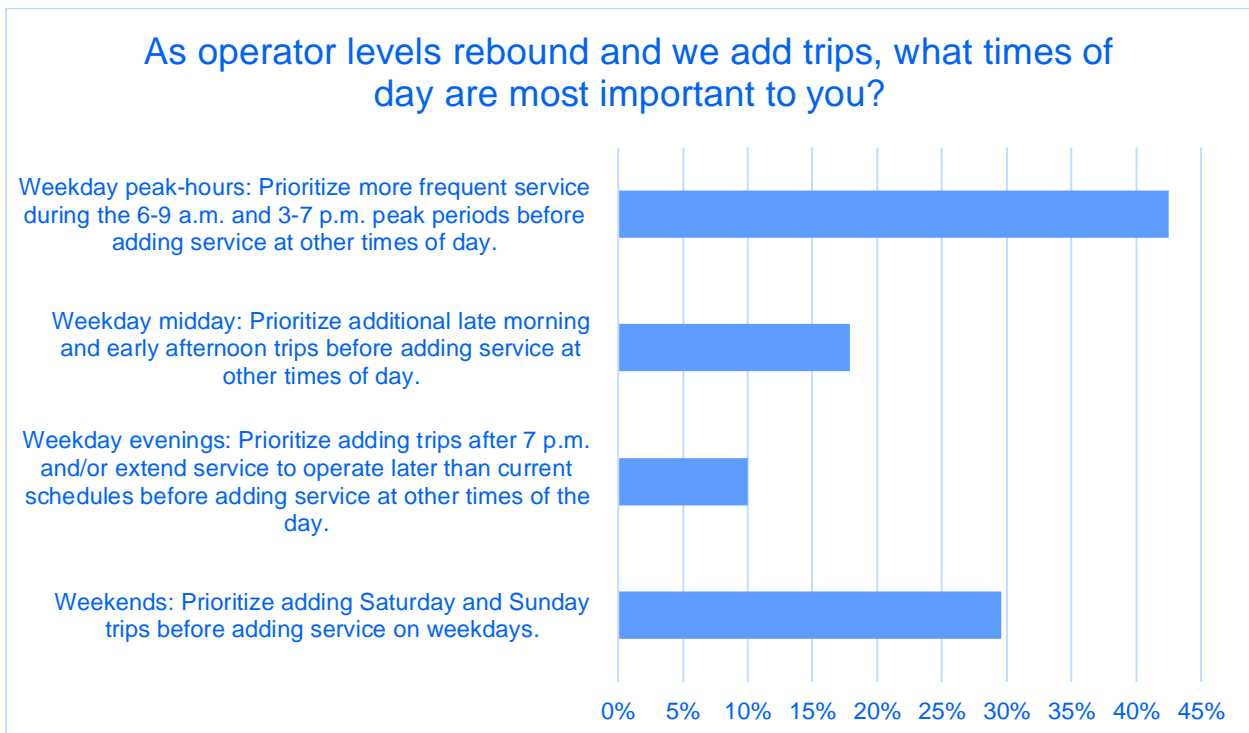
## How have service reductions affected your trips?

Of the 316 people who responded to this question, 37% reported waiting longer or travel took longer, 20% have not been affected, 17% chose alternative modes of transportation, nine percent reduced travel/increased work from home, four percent changed their hours of travel, and three percent have switched routes. Respondents also had the opportunity to write in comments about how they have been impacted by service reductions.



## As operator levels rebound and we add trips, what times of day are most important to you?

Of the 301 people who responded to this question, 42% prioritized weekday peak hours (6-9 a.m. and 3-7 p.m.), 30% prioritized weekend trips, 18% prioritized additional late morning and early afternoon trips, and 10% prioritized weekday evenings (after 7 p.m.).



## ***Responses by route***

The routes below show the demographics of transit users who responded to the online survey indicating that they road one of the ST Express lines that were impacted by operator shortage in 2021. **Overall, 192 surveys were received from individuals who indicated that they use ST Express Routes.**

### **Route 560**

Of the 192 survey responses, 11% (22 people) listed route 560 as a route they normally take. Most of them were white, non-Hispanic, and male, between the ages of 19 and 49. Most of the respondents indicated they did not have a disability and there were no individuals that are reliant on accessibility features. Most respondents make \$100,000+ per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the 22 respondents who rode Route 560:

- Nine people indicated that they've waited longer, or travel took longer.
- Three respondents indicated that service reductions had no effect.
- Two people changed the hours that they travel.
- Two people choose alternative modes of transportation.
- Two either reduced travel or increased work from home, and
- Two people switched routes.

Only one person selected “other” as an option and indicated that they rarely use public transportation. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. Eighty-one percent of respondents (18 people) shared that adding weekend trips (nine people) and adding weekday peak-hour trips (nine people) are most important to them. Weekday evenings and weekday midday trips were least important.

### **Route 566**

Of the 192 survey responses, five percent (10 people) listed route 566 as a route they normally take. This route was evenly split among male and female users. Most of them were white, non-Hispanic, between the ages of 50 and 64. Most of the respondents indicated they did not have a disability. Those who did, use the following accessibility features: priority seating and automated stop announcements. Most respondents make between \$50,000 to \$74,999 per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the 10 people who ride Route 566:

- Five people indicated that they've waited longer, or travel took longer.

Only one respondent indicated that service reductions had no effect, one person shared that they had changed the hours that they travel, and one person contributed to choosing alternative modes of transportation. Another person said they reduced travel or increased work from home. One person also selected “other” as an option and indicated that they have been late to work due to service reductions.

As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. Ninety percent of respondents (nine people) shared that adding weekday peak hour are most important to them. Adding weekend trips was least important.

### **Route 574**

Of the 192 survey responses, 17% (32 people) listed route 574 as a route they normally take. Most users identified as white, male, non-Hispanic, and between the ages of 35 and 49. Most of the respondents

indicated they did not have a disability. Those who did, use the following accessibility features: priority seating and automated stop announcements. Most respondents make between \$50,000 to \$74,999 per year.

Respondents were asked to indicate how service reductions have affected their trips and of the 32 respondents who ride Route 574:

- 29% of respondents (nine people) indicated that they've waited longer, or travel took longer.
- 23% of respondents (seven people) indicated that service reductions had no effect.
- 10% (three people) changed the hours that they travel.
- 16% chose alternative modes of transportation.
- 13% (four people) reduced travel/increased work from home.

Two people also selected other as an option and indicated that they have been experiencing longer trips in addition to other factors. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. Twenty-eight people responded to this question. Seventy one percent of respondents (20 people) shared that adding weekday peak hours (10 people) and weekend trips (10 people) are the most important. Weekday midday trips and weekday evening trips were least important.

## Route 577

Of the 192 survey responses, 15% (28 people) listed route 577 as a route they normally take. There was considerable overlap (22 people) who take route 577 and route 578. Most users identified as white, male, non-Hispanic, and between the ages of 35 and 49. Most of the respondents indicated they did not have a disability. Those who did, use the following accessibility features: priority seating automated stop announcements and assistance from the operator to board. Most respondents make between 100,000 to \$149,999 per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the 28 people who ride Route 577:

- Eleven people indicated that they've waited longer or travel took longer.
- Five people indicated that service reductions had no effect.
- Five people chose alternative modes of transportation.
- Four people reduced travel or increased work from home.
- Two people changed the hours that they travel.
- Two people switched routes.

No respondents selected other as an option. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. Sixty percent of respondents (17 people) shared that adding weekday peak hours is most important. Twenty-one percent (six people) also shared that weekday midday trips are important to them. Weekday evening trips were least important.

## Route 578

Of the 192 survey responses, 18% (35 people) listed route 578 as a route they normally take. There was considerable overlap (22 people) who take route 577 and route 578. Most users identified as white, male, non-Hispanic, and between the ages of 35 and 49. Most of the respondents indicated they did not have a disability. Those who did, use the following accessibility features: priority seating automated stop announcements, assistance from the operator to board, and disabled parking at park-and-rides/light rail stations. Most respondents make between \$75,000 to \$99,999 per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the 35 respondents who take Route 578:

- Fourteen people who indicated that they've waited longer or travel took longer.
- Ten people indicated that service reductions had no effect.
- Four people chose alternative modes of transportation.
- Two people reduced travel and increased work from home.
- Two people changed the hours that they travel.
- Two people switched routes.

One respondent selected other as an option and expressed safety concerns at transit facilities. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them.

Forty percent of respondents (14 people) shared that adding weekday peak hours is most important. Twenty-one percent of survey respondents (10 people) also shared that weekend trips are important to them. Weekday evening trips and weekday midday trips were least important.

## **Route 580**

Route 580 was one of the least used routes selected on the survey. Of the 192 survey responses, less than three percent (five people) listed route 580 as a route they normally take. Only two people agreed to provide demographic information. The two respondents were white and non-Hispanic. The respondents identified as female and male between the ages of 19-24 and 50- 64. One respondent uses priority seating on transit. They make between \$50,000 - \$149,999 per year. Most respondents make between \$75,000 to \$99,999 per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the five people that ride the Route 580:

- Two people chose alternative modes of transportation.

One person indicated they waited longer or travel took longer, one switched routes, and one indicated they reduced travel or work from home. No respondents selected other as an option. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them.

Sixty percent of respondents (three people) shared that adding weekday peak trips is most important and 40% of respondents (two people) reported adding weekend trips is important.

## **Route 586**

Of the 192 survey responses, four percent (eight people) listed route 586 as a route they normally take. Five respondents agreed to provide additional demographic information. Almost all survey respondents also use route 594. Respondents identified as Asian/Asian American (two), American Indian/Alaskan Native/White (one), and Black and African American (one). No respondents were Hispanic. Two respondents shared that they use the following accessibility features on transit: lift, ramp, and priority seating. Most respondents (three people) make between \$15,000 and \$100,000+ per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the eight people who ride Route 586:

- Two people indicated they waited longer or travel took longer.
- Two people changed their hours of travel.

One person indicated no effect and one person selected other as an option, however their response was incomprehensible. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them.

Thirty-seven percent of respondents (three people) shared that adding weekday peak trips is most important, 25% of respondents (two people) shared that adding weekend trips is important and 25% of respondents (two people) shared that weekday midday trips is important. Adding weekday evening trips was least important.

## Route 590

Of the 192 survey responses, 17% percent (32 people) listed route 590 as a route they normally take. There was considerable overlap (20 people) who take route 590 and route 594. Most users identified as white and respondents were almost evenly split among those who identified as male (10 people) and female (nine people). No one identified as Hispanic. Respondents were between the ages of 35 and 64. Most of the respondents indicated they did not have a disability. Those who did, use the following accessibility features: priority seating and lift/ramp. Most respondents make between \$50,000 to \$149,999 per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the 32 people who rode the Route 590:

- Ten people indicated they waited longer or travel took longer.
- Seven people reduced travel/work from home.
- Six people indicated no effect.
- Three people chose alternative modes of transportation.
- Three people selected other as an option and listed inconsistencies with trip schedules, and
- One person switched routes.

As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. Fifty-six percent of respondents (18 people) shared that adding weekday peak trips is important, 28% of respondents (nine people) reported adding weekend trips is important, 12% (four people) indicated that weekday midday trips are important. Weekday evening trips were least important.

## Route 592

Of the 192 survey responses, five percent (nine people) listed route 592 as a route they normally take. Seven individuals provided demographic information most of whom were white, non-Hispanic, between the ages of 35 and 64. Respondents were almost evenly split among those who identified as male (four people) and female (three people). Three respondents indicated they have a disability and use the following accessibility features: priority seating and lift/ramp. Most respondents make between \$100,000 to \$149,999 per year.

Respondents were asked to indicate how service reductions have affected their trips. Of the nine people who rode Route 592:

- Three people. waited longer or travel took longer.
- Three people reduced travel/work from home.
- Three people indicated no effect.

As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. Eight people responded to this question and responses were evenly split by 25% (two people) who prioritized adding trips during weekday peak, weekend, weekday midday and weekday evening times.

## Route 594

Of the 192 survey responses, 18% (35 people) listed route 594 as a route they normally take. Most of them were white, non-Hispanic, and male, between the ages of 35 and 49. Most of the respondents indicated they did not have a disability. Those who did, use the following accessibility features: priority seating and lift/ramp. Most respondents make between \$50,000 to \$149,999 per year. The features that were used are priority seating, lift/ramp, automated stop announcements, wheelchair securement, bus lowering/kneeling features, and assistance from the operator. Almost all respondents indicated that they did not want to provide their household income.

Respondents were asked to indicate how service reductions have affected their trips. Of the 35 people who responded that they rode Route 594:

- Thirteen people waited longer or travel took longer.
- Seven people indicated no effect.
- Six people selected other as an option and listed inconsistencies with trip schedules.
- Five people indicated they reduced travel or work from home.
- Two people chose alternative modes of transportation.

One person changed hours of travel, and one person switched routes. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. Thirty-three people responded to this question. Thirty-six percent of respondents (12 people) shared that adding weekend trips is important, 33% (11 people) shared weekday peak trips are important, and 15% of respondents (five people) indicated that weekday midday trips are important and 15% of weekday evening trips are important.

## Route 595

Of the 192 survey responses, six percent (11 people) listed route 595 as a route they normally take. Most respondents were white, non-Hispanic, male, between the ages of 35 and 49, and only one respondent reported using transit accessibility features. Those features included a lift/ramp, automated stop announcements, wheelchair assistance, priority seating, and assistance from the operator. There was an array of responses provided for total household income. The range was less than \$10,000 to \$149,000.

Respondents were asked to indicate how service reductions have affected their trips. Of the 11 people who rode Route 595:

- Three people indicated no effect to their route use.
- Two people indicated they waited longer or travel took longer.
- Two people selected other as an option and listed cancellations and inconsistencies with trip schedules.
- Two people indicated they reduced travel or work from home.

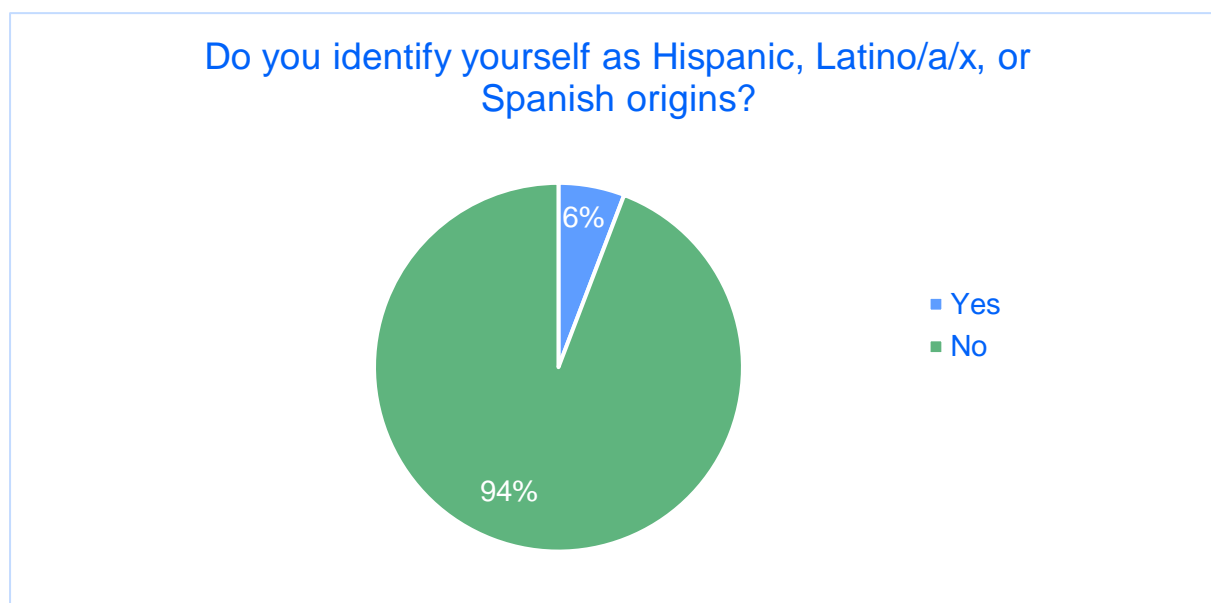
One person changed hours of travel and one person switched routes. As operator levels rebound and more trips are added, respondents were asked to share what times of day are most important to them. 36% of respondents (four people) shared that adding weekday peak trips are important, 27% (three people) indicated weekday midday trips are important, 18% (two people) shared weekday evening trips are important and 15% of respondents (two people) indicated that adding weekend trips are important.

# Demographic Analysis of Survey Participants

*Participants were asked at the end of the survey if they could provide answers to some basic demographic questions. Of the 319 responses, 210 participants agreed to answer eight demographic questions on the survey.*

## Do you identify yourself as Hispanic, Latino/a/e or of Spanish origins?

Six percent of total respondents self-identified as Hispanic or Latino/a/x and 94.2% did not identify as Hispanic, or Latino/a/x. Based on the information provided, there is likely an underrepresentation of the Hispanic and Latino/a/x community within the Sound Transit service area which is 10.3%, which is defined using US Census data within the Sound Transit tax district boundary.



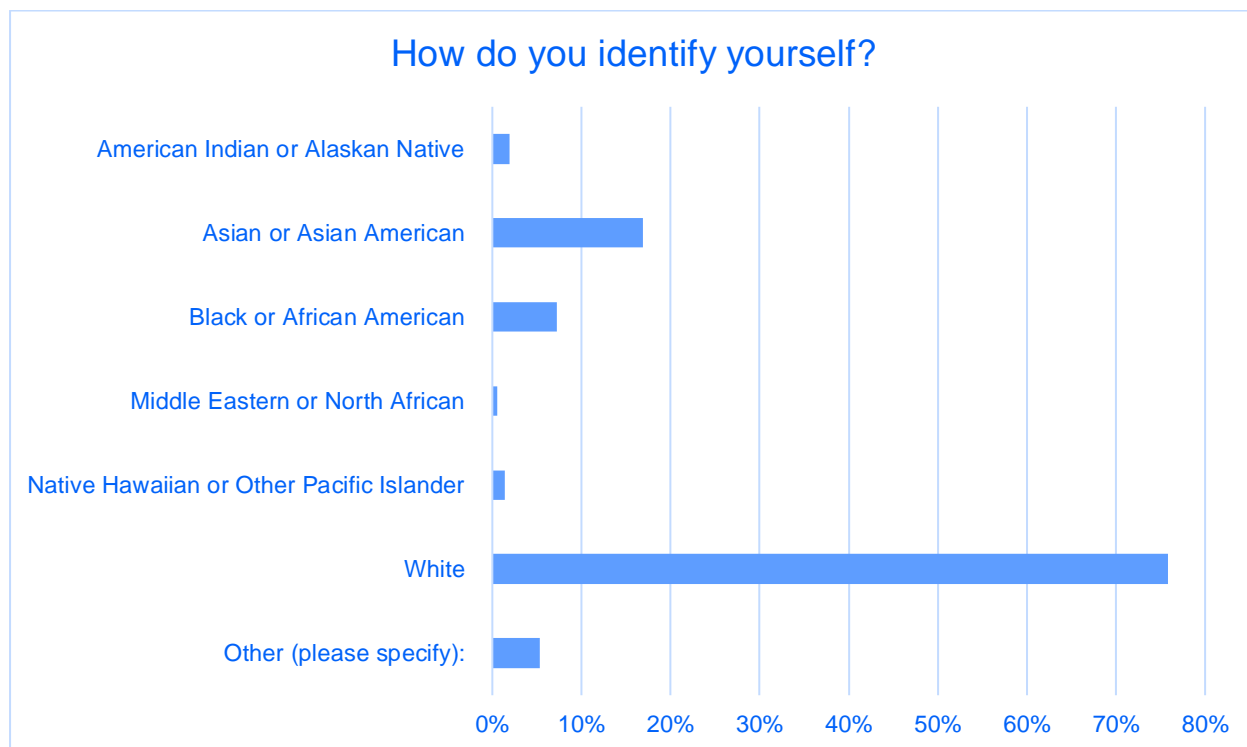
## How do you identify yourself?

Two hundred and twenty-six people or 71% of survey respondents provided an answer to the question, "How do you identify yourself?", and 75.8% identified as white, 16.9% as Asian or Asian American, 7.2% as Black or African American, 5.3% as other, and 1.9% as American Indian or Alaskan Native. Ten people selected "Other – Write In" as the response to this question. Two of those responses aligned with the provided categories. The remaining eight write-in responses included Jewish (two), American Indian/Multi-Racial (two), Multiracial (two), Iranian (one), and Terran (one).

Although individuals who identified as white were significantly overrepresented in the survey, the results align closely with the overall racial demographics of the Sound Transit district service boundary area and general Seattle regional demographic distribution, with 62% of people in the area identifying as white, 14% identifying as Asian or Asian American, 6% of people identifying as Black or African American, and 2% identifying as Native American or Alaskan Native. This may indicate that onboard rider surveys may



be better suited for gathering feedback from racially diverse riders and individuals with lower incomes than fully online surveys.

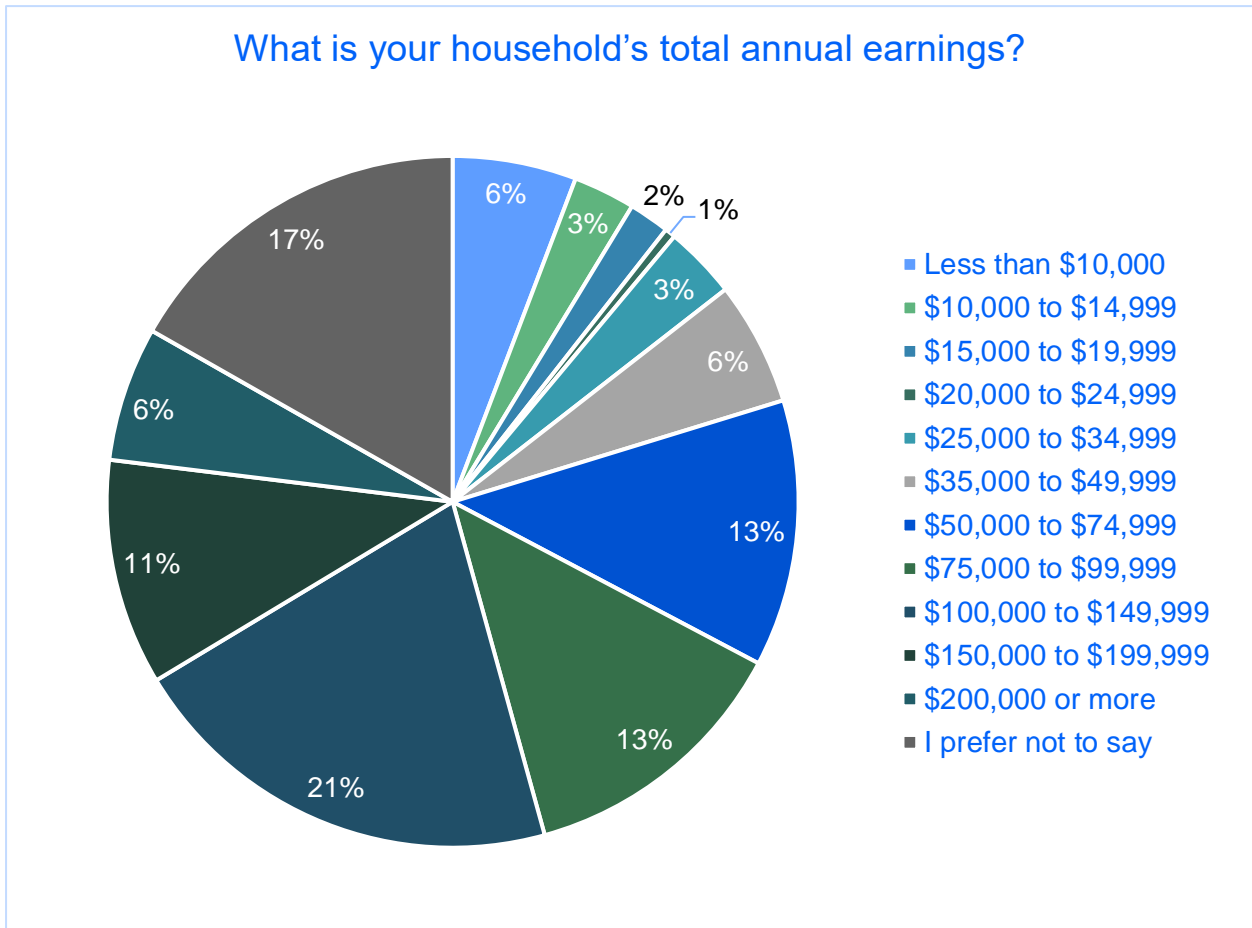


### What is your home zip code?

Two hundred and four people or 64% of survey respondents provided an answer to the question, "What is your home zip code?" The most common home zip codes selected were: 98118, 98125, 98001, 98402, 98023, 98115, 98133, and 98144. Two people or less than one percent of survey respondents did not have a home zip code or reported they were unsheltered. Four people or less than 1% of survey respondents preferred not to answer.

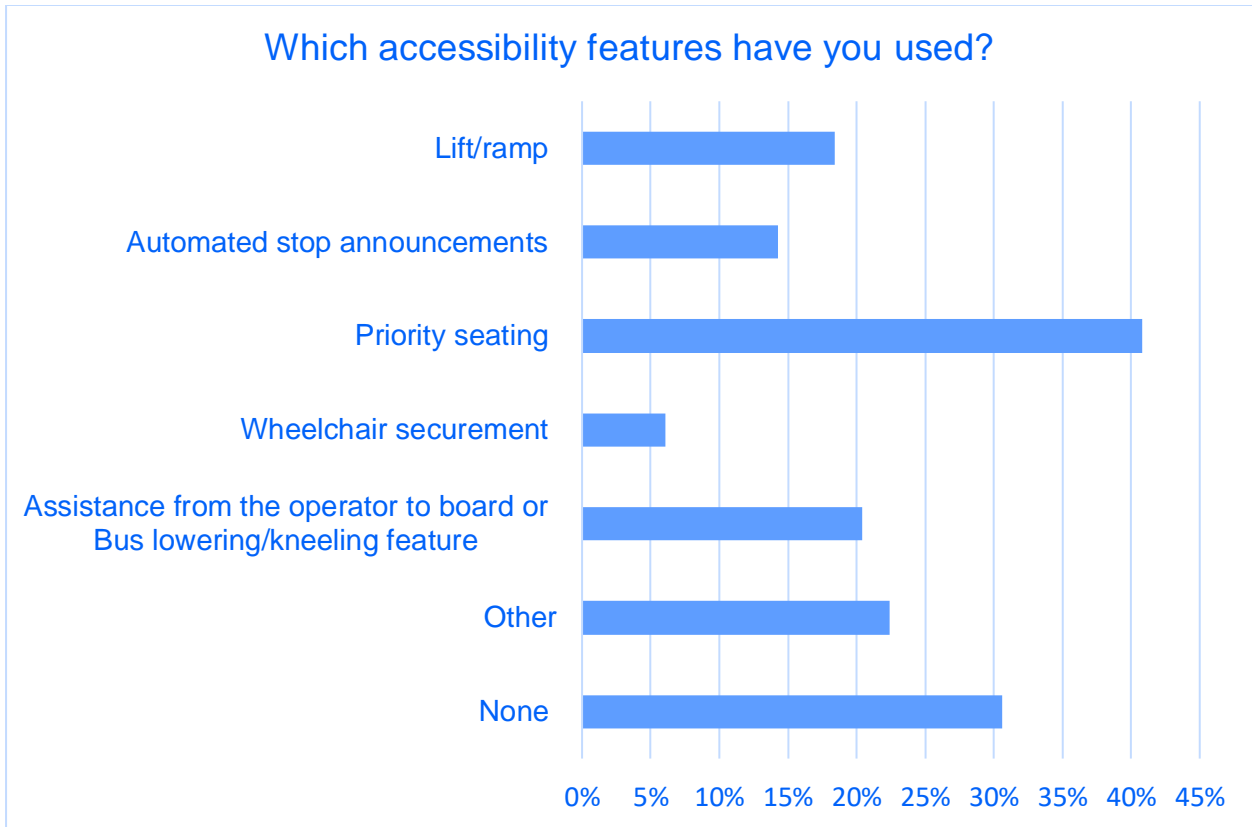
### What is your household's total annual earnings?

Two hundred and eight people or 65% of survey respondents provided an answer to the question, "What is your household's total annual earnings?" 17% preferred not to state their household income; 21% had household incomes above \$100,000; 26% had household incomes between \$50,000 and \$100,000, and 20% had incomes under \$50k. In some cases, the results differ slightly from the overall racial demographics of the Sound Transit service area in general, with 46% of households in the area who make more than \$100,000, 28% between \$50,000 and \$100,000, and roughly 20% below \$50,000.



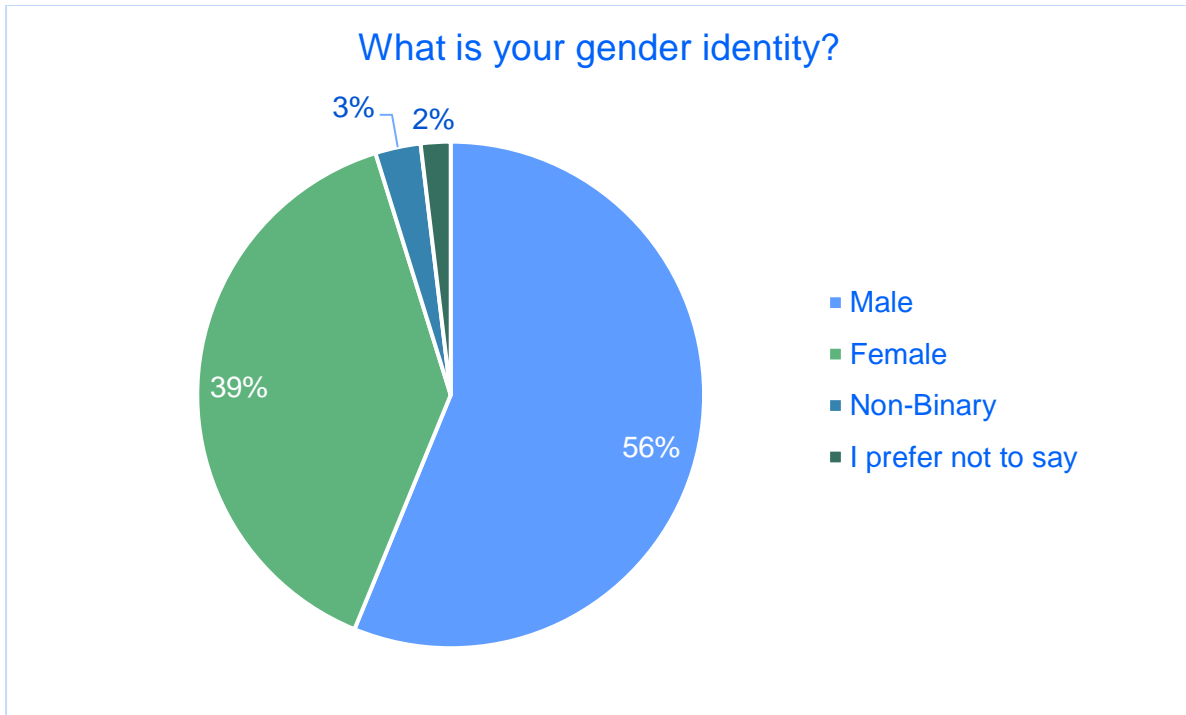
### Which of the following Sound Transit accessibility features have you used?

Seventy-five people or 23% of survey respondents provided an answer to the question, “Which of the following Sound Transit accessibility features have you used?” Forty-one percent used priority seating; 30% did not use any accessibility features; 20% used assistance from the operator to board a bus using the lowering/kneeling feature; 18% used a lift/ramp; 14% used automated stop announcements; 6% used wheelchair securement. Eleven respondents selected the “Other” write-in a response option. Those responses included: enforcement of priority seating (two), accessible parking (two), navigation support (two), printed maps (one), PCA support (one), lifted seats (one), mobility and hearing support (one) and a question about accessibility features available for autistic passengers.



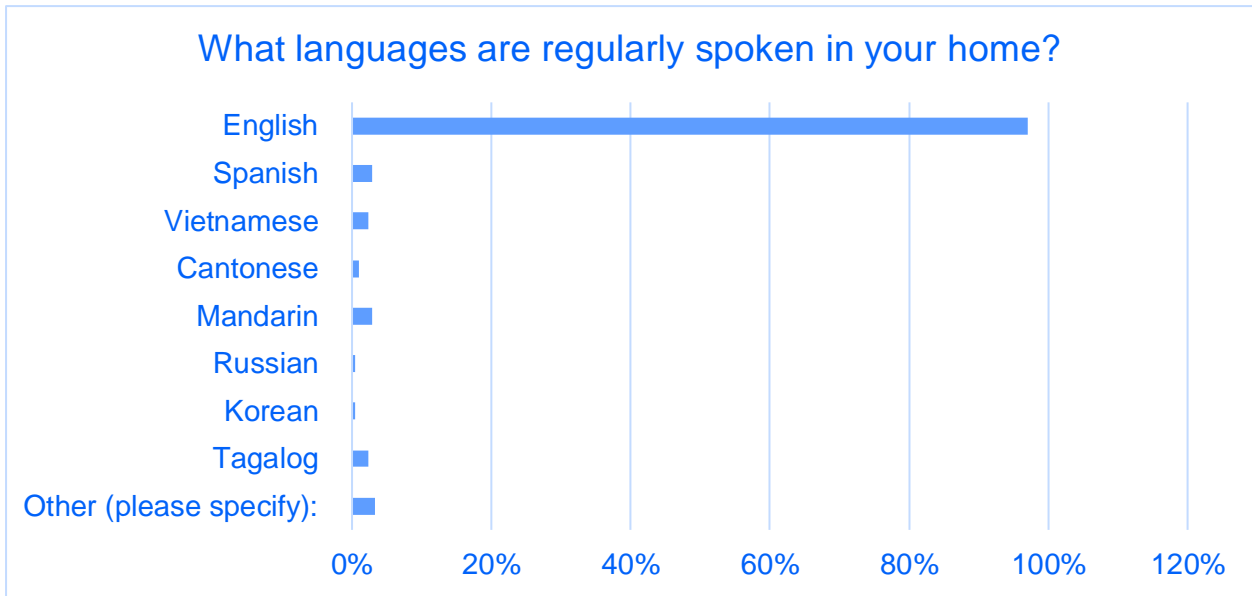
## What is your gender identity?

Two hundred and ten people or 65% of survey respondents provided an answer to the question, “What is your gender identity?” Fifty-six percent of participants (118 respondents) identified as male, 39% (82 respondents) identified as female, three percent (six participants) identified as non-binary, and two percent (four participants) did not provide a response to the question. The results skewed more male engagement compared to those who identified as female and non-binary. Overall demographics gathered on participant gender is significantly different from individuals in the Sound Transit service area with 50% identifying as male and 50% identifying as female.



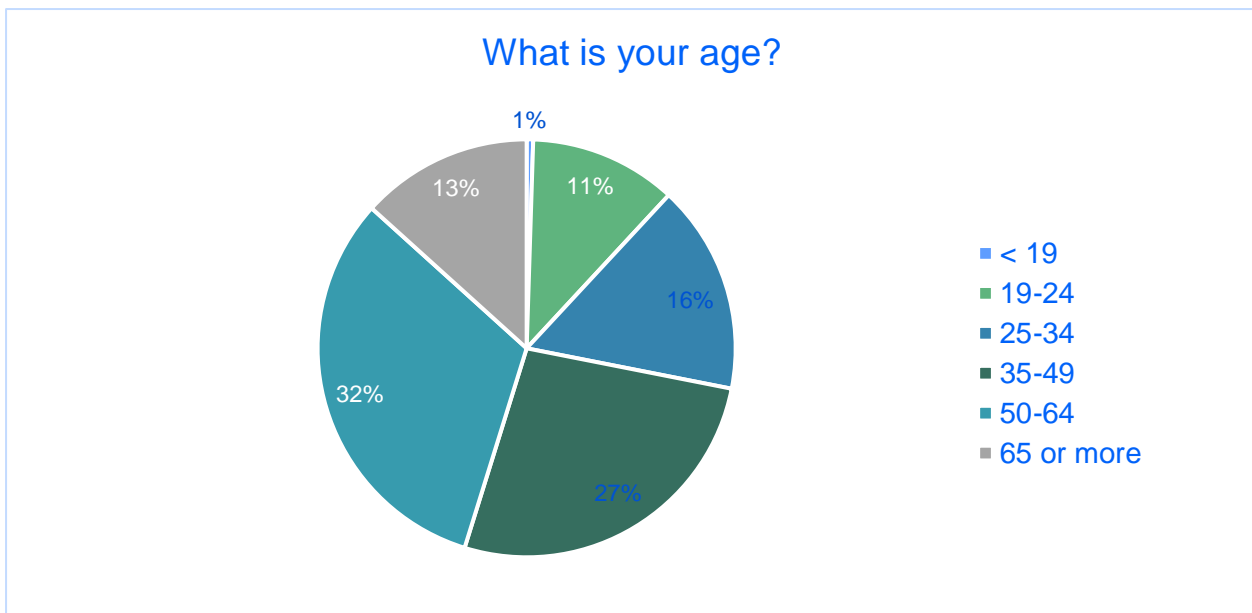
## What languages are regularly spoken in your home?

Two hundred and thirty-six people or 74% of survey respondents provided an answer to the question, "What languages are regularly spoken in your home?" Ninety-seven of the participants (203 respondents) reported English; three percent (six respondents) reported Spanish; three percent (six respondents) reported Mandarin; two percent (five respondents) reported Vietnamese; two percent (five responses) reported Tagalog; one percent (two respondents) reported Cantonese. Other languages that respondents reported speaking at home include Russian, Dutch, American Sign Language (ASL), French, Japanese and Norwegian. (Respondents could choose multiple options.) Survey results show a greater representation of individuals who speak another language other than English in comparison to the Sound Transit service area Overall, with two percent of people in the area speaking Spanish, one percent speaking Chinese, Vietnamese and Russian, and zero percent speaking Tagalog, French or Japanese.



## What is your age?

Of the 210 people who provided information about their age, fewer than one percent of respondents are under the age of 19 (one person), 11% (24 people) were between 19 and 24, 16% of participants (34 people) were between 25 and 34, 27% of participants (56 people) were between 35 and 49, 32% (67 people) were between 50 and 64, 13% of participants (28 people) were 65 or older. The predominant age range of survey participants is 35-64. In comparison to the overall age demographics of the Sound Transit service area, 24% are 19 and under, 23% are between 20 and 34, 21% are between 35 and 49, 19% are between 50 and 64, and 13% are 65 and over. The 20 – 34 age category from gathered from the 2020 demographics data was not an option participants could select on the survey. Overall, the results skewed older with less representation from people who are 19 and under.



## Appendix A: ST Express Route demographic tables

The routes below show the demographics of ST Express users who responded to the online 2023 Service Plan Survey. Sound Transit conducted in-person outreach to encourage riders to respond to the online survey. Outreach was conducted near Pierce Transit-operated ST Express (560, 566, 574, 577/578, 580, 586, 590/594, 592, and 595).

Respondents who selected an ST Express Route they normally use had the option not to respond to demographic survey questions they did not want to answer. Additionally, respondents could select multiple options to describe their race and ethnicity. An option to provide a write-in response was available to respondents to share their racial/ethnic identity and the Sound Transit accessibility features they use, if applicable. In some cases, survey respondents indicated they have a disability, but did not select an accessibility feature they use on public transportation. These caveats contributed to cases where the number of responses fluctuate.

### Route 560

	# of respondents	% of total (n=22)
What is your age?		
Under 19	0	
19-24	4	18%
25-34	2	9%
35-49	4	18%
50-64	3	13%
65 or more	1	4%

	# of respondents	% of total (n=22)
What is your gender identity?		
Male	11	50%
Female	4	18%
I prefer not to say/Did not answer	7	32%
Non-binary		
I prefer to self-describe		

	# of respondents	% of total (n=22)

Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		
No	15	68%

	# of respondents	% of total (n=22)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	4	18%
White	12	55%
American Indian or Alaskan Native		
Black or African American	1	4%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=22)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None	14	64%
Bus lowering/kneeling features		
Automated stop announcements		
Priority seating		
Lift/ramp		
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screen reader		
Assistance from the operator to board		
Other (please specify)	One respondent indicated they use an accessibility feature but did not disclose the feature they use.	

	# of respondents	% of total (n=22)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999	3	13%
\$100,000 to \$149,999	3	13%
\$75,000 to \$99,999	2	9%
\$50,000 to \$74,999	2	9%
\$35,000 to \$49,999		
\$25,000 to \$34,999		
\$20,000 to \$24,999		
\$15,000 to \$19,999		
\$10,000 to \$14,999	1	4%
Less than \$10,000	3	13%
I prefer not to say	1	4%

## Route 566

	# of respondents	% of total (n=10)
What is your age?		
Under 19		
19-24	1	10%
25-34	1	10%
35-49	1	10%
50-64	7	70%
65 or more		

	# of respondents	% of total (n=10)
What is your gender identity?		
Male	5	50%
Female	5	50%
I prefer not to say		



Non-binary		
I prefer to self-describe		

	# of respondents	% of total (n=10)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		
No	10	100%

	# of respondents	% of total (n=10)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	2	20%
White	8	80%
American Indian or Alaskan Native		
Black or African American	1	10%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=10)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None	7	70%
Bus lowering/kneeling features		
Automated stop announcements	1	10%
Priority seating	1	10%
Lift/ramp		
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screen reader		

Assistance from the operator to board		
Other (please specify)	Someone indicated that they use an accessibility feature but did not indicate what feature they use.	

	# of respondents	% or total (n=10)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999	1	10%
\$100,000 to \$149,999	2	20%
\$75,000 to \$99,999	2	20%
\$50,000 to \$74,999	2	20%
\$35,000 to \$49,999	1	10%
\$25,000 to \$34,999		
\$20,000 to \$24,999		
\$15,000 to \$19,999		
\$10,000 to \$14,999		
Less than \$10,000	2	20%
I prefer not to say		

## Route 574

	# of respondents	% of total (n=32)
What is your age?		
Under 19	1	3%
19-24	2	6%
25-34	1	3%
35-49	10	31%
50-64	4	12%
65 or more	1	3%

	# of respondents	% of total (n=32)
What is your gender identity?		
Male	13	41%
Female	6	19%
I prefer not to say	1	3%
Non-binary	2	6%
I prefer to self-describe		

	# of respondents	% of total (n=32)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		
No	32	100%

	# of respondents	% of total (n=32)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	2	6%
White	18	56%
American Indian or Alaskan Native		
Black or African American	2	6%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=32)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None	15	47%
Bus lowering/kneeling features		
Automated stop announcements	2	6%
Priority seating	4	12%

Lift/ramp	3	9%
I'd prefer not to say		
Other (please specify)		
Wheelchair securement	1	3%
Screen reader		
Assistance from the operator to board	2	6%
Other (please specify)	Accessibility features for Autistic people Space to put a shopping cart (floor or lifted seats)	

	# of responses	% or total (n=32)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999	1	3%
\$100,000 to \$149,999	3	9%
\$75,000 to \$99,999	1	3%
\$50,000 to \$74,999	4	12%
\$35,000 to \$49,999		
\$25,000 to \$34,999	1	3%
\$20,000 to \$24,999		
\$15,000 to \$19,999	1	3%
\$10,000 to \$14,999	3	9%
Less than \$10,000	2	6%
I prefer not to say	5	16%

## Route 577

	# of respondents	% of total (n=28)
What is your age?		
Under 19		
19-24	2	7%

25-34	2	7%
35-49	6	21%
50-64	2	7%
65 or more	5	18%

	# of respondents	% of total (n=28)
What is your gender identity?		
Male	10	36%
Female	5	18%
I prefer not to say	1	4%
Non-binary	1	4%
I prefer to self-describe		

	# of respondents	% of total (n=28)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes	1	4%
No	16	57%
	# of respondents	% of the total (n=28)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	7	25%
White	10	36%
American Indian or Alaskan Native		
Black or African American	1	4%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=28)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		

None	13	46%
Bus lowering/kneeling features		
Automated stop announcements	1	4%
Priority seating		
Lift/ramp	1	4%
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screen reader		
Assistance from the operator to board	1	4%
Other (please specify)		

	# of respondents	% of total (n=28)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999	1	4%
\$100,000 to \$149,999	4	8%
\$75,000 to \$99,999	3	11%
\$50,000 to \$74,999	2	7%
\$35,000 to \$49,999	1	4%
\$25,000 to \$34,999	1	4%
\$20,000 to \$24,999		
\$15,000 to \$19,999		
\$10,000 to \$14,999		
Less than \$10,000	2	8%
I prefer not to say	3	11%

## Route 578

	# of respondents	% of total (n=35)
What is your age?		

Under 19		
19-24	4	11%
25-34	2	6%
35-49	9	26%
50-64	2	6%
65 or more	7	20%

	# of respondents	% of total (n=35)
What is your gender identity?		
Male	15	43%
Female	7	20%
I prefer not to say		
Non-binary	2	6%
I prefer to self-describe		

	# of respondents	% of total (n=35)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes	2	6%
No	22	63%

	# of respondents	% of total (n=35)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	4	12%
White	18	51%
American Indian or Alaskan Native		
Black or African American	2	6%
Native Hawaiian or Other Pacific Islander		
Other (please specify):	2	6%
Write In:	Jewish, Multiracial	

	# of respondents	% of total (n=35)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None		
Bus lowering/kneeling features	1	3%
Automated stop announcements	2	6%
Priority seating	1	3%
Lift/ramp		
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screeener reader		
Assistance from the operator to board	1	3%
Other (please specify)		

	# of respondents	% or total (n=35)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999	1	3%
\$100,000 to \$149,999	4	12%
\$75,000 to \$99,999	5	14%
\$50,000 to \$74,999	4	12%
\$35,000 to \$49,999	3	8%
\$25,000 to \$34,999	1	3%
\$20,000 to \$24,999		
\$15,000 to \$19,999		
\$10,000 to \$14,999		
Less than \$10,000	3	8%
I prefer not to say	3	8%



## Route 580

	# of respondents	% of the total (n=5)
What is your age?		
Under 19		
19-24	1	20%
25-34		
35-49		
50-64	1	20%
65 or more		

	# of respondents	% of the total (n=5)
What is your gender identity?		
Male	1	20%
Female	1	20%
I prefer not to say		
Non-binary		
I prefer to self-describe		

	# of respondents	% of total (n=5)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		
No	2	40%

	# of respondents	% of the total (n=5)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American		
White	2	40%
American Indian or Alaskan Native		

Black or African American		
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of the total (n=5)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None		
Bus lowering/kneeling features		
Automated stop announcements		
Priority seating	1	20%
Lift/ramp		
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screen reader		
Assistance from the operator to board		
Other (please specify)		

	# of respondents	% or total (n=5)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999		
\$100,000 to \$149,999	1	20%
\$75,000 to \$99,999		
\$50,000 to \$74,999	1	20%
\$35,000 to \$49,999		
\$25,000 to \$34,999		
\$20,000 to \$24,999		

\$15,000 to \$19,999		
\$10,000 to \$14,999		
Less than \$10,000		
I prefer not to say		

## Route 586

	# of respondents	% of the total (n=8)
What is your age?		
Under 19		
19-24		
25-34		
35-49	4	50%
50-64	1	12%
65 or more		

	# of respondents	% of the total (n=8)
What is your gender identity?		
Male	3	37%
Female	2	25%
I prefer not to say		
Non-binary		
I prefer to self-describe		

	# of respondents	% of the total (n=8)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		
No	4	50%

	# of respondents	% of the total (n=8)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	2	25%

White	1	12%
American Indian or Alaskan Native	1	12%
Black or African American	1	12%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		
	# of respondents	% of the total (n=8)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None		
Bus lowering/kneeling features		
Automated stop announcements		
Priority seating	2	25%
Lift/ramp	1	12%
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screeener reader		
Assistance from the operator to board		
Other (please specify)		

	# of respondents	% or total (n=8)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999		
\$100,000 to \$149,999	2	25%
\$75,000 to \$99,999		
\$50,000 to \$74,999	1	12%
\$35,000 to \$49,999		
\$25,000 to \$34,999		

\$20,000 to \$24,999		
\$15,000 to \$19,999	1	12%
\$10,000 to \$14,999		
Less than \$10,000		
I prefer not to say		

## Route 590

	# of respondents	% of total (n=32)
What is your age?		
Under 19		
19-24	2	6%
25-34	3	9%
35-49	6	18%
50-64	7	21%
65 or more	1	3%

	# of respondents	% of total (n=32)
What is your gender identity?		
Male	10	31%
Female	9	28%
I prefer not to say		
Non-binary		
I prefer to self-describe		

	# of respondents	% of total (n=32)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		
No	18	56%

	# of respondents	% of total (n=32)

Do you identify yourself as (Please check all that apply)		
Asian or Asian American	3	9%
White	13	41%
American Indian or Alaskan Native		
Black or African American	3	9%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=32)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None		
Bus lowering/kneeling features		
Automated stop announcements		
Priority seating	2	6%
Lift/ramp	1	3%
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screen reader		
Assistance from the operator to board		
Other (please specify)		

	# of respondents	% or total (n=32)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999		
\$100,000 to \$149,999	4	12%
\$75,000 to \$99,999	2	6%

\$50,000 to \$74,999	6	19%
\$35,000 to \$49,999	2	6%
\$25,000 to \$34,999		
\$20,000 to \$24,999		
\$15,000 to \$19,999	1	3%
\$10,000 to \$14,999	1	3%
Less than \$10,000	2	6%
I prefer not to say	3	9%

## Route 592

	# of respondents	% of the total (n=9)
What is your age?		
Under 19		
19-24	1	11%
25-34		
35-49	3	33%
50-64	2	22%
65 or more	1	11%

	# of respondents	% of total (n=9)
What is your gender identity?		
Male	4	44%
Female	3	33%
I prefer not to say		
Non-binary		
I prefer to self-describe		

	# of respondents	% of total (n=192)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		

No	7	77%
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	# of respondents	% of total (n=9)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	1	11%
White	6	66%
American Indian or Alaskan Native	1	11%
Black or African American	1	11%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=9)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None		
Bus lowering/kneeling features		
Automated stop announcements		
Priority seating	1	11%
Lift/ramp	2	22%
I'd prefer not to say		
Other (please specify)		
Wheelchair securement		
Screen reader		
Assistance from the operator to board		
Other (please specify)		

	# of respondents	% of total (n=9)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		



\$150,000 to \$199,999	1	11%
\$100,000 to \$149,999	3	33%
\$75,000 to \$99,999	2	22%
\$50,000 to \$74,999		
\$35,000 to \$49,999		
\$25,000 to \$34,999		
\$20,000 to \$24,999		
\$15,000 to \$19,999		
\$10,000 to \$14,999		
Less than \$10,000	1	11%
I prefer not to say		

## Route 594

	# of respondents	% of total (n=35)
What is your age?		
Under 19		
19-24	1	3%
25-34	3	9%
35-49	9	26%
50-64	6	17%
65 or more	3	9%

	# of respondents	% of total (n=35)
What is your gender identity?		
Male	14	40%
Female	6	17%
I prefer not to say		
Non-binary	2	6%
I prefer to self-describe		
Did not answer		

	# of respondents	% of total (n=35)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		
Yes		
No	21	60%

	# of respondents	% of total (n=35)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American	3	9%
White	16	46%
American Indian or Alaskan Native	1	3%
Black or African American	2	6%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=35)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None		
Bus lowering/kneeling features		
Automated stop announcements	2	6%
Priority seating	4	12%
Lift/ramp	2	6%
I'd prefer not to say		
Other (please specify)		
Wheelchair securement	1	3%
Screen reader		
Assistance from the operator to board	1	3%

Other (please specify)	space to put shopping cart (floor or lifted seats), asking drivers for help navigating
------------------------	--

	# of respondents	% of total (n=35)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999		
\$100,000 to \$149,999	2	6%
\$75,000 to \$99,999	4	12%
\$50,000 to \$74,999	4	12%
\$35,000 to \$49,999	2	6%
\$25,000 to \$34,999		
\$20,000 to \$24,999		
\$15,000 to \$19,999	1	3%
\$10,000 to \$14,999	2	6%
Less than \$10,000		
I prefer not to say	6	17%

## Route 595

	# of respondents	% of total (n=11)
What is your age?		
Under 19		
19-24	2	18%
25-34	2	18%
35-49	3	27%
50-64	1	9%
65 or more		

	# of respondents	% of total (n=11)
What is your gender identity?		
Male	7	64%
Female	1	9%
I prefer not to say		
Non-binary		
I prefer to self-describe		

	# of respondents	% of total (n=11)
Do you identify yourself as Hispanic, Latino/a/x, or of Spanish origins?		

Yes		
No	7	64%

	# of respondents	% of total (n=11)
Do you identify yourself as (Please check all that apply)		
Asian or Asian American		
White	7	64%
American Indian or Alaskan Native		
Black or African American	1	9%
Native Hawaiian or Other Pacific Islander		
Other (please specify):		
Write In:		

	# of respondents	% of total (n=11)
Which of the following Sound Transit accessibility features have you used? (Check all that apply)		
Large print signs		
None		
Bus lowering/kneeling features		
Automated stop announcements	1	9%
Priority seating	1	9%
Lift/ramp	1	9%
I'd prefer not to say		
Other (please specify)		
Wheelchair securement	1	9%
Screen reader		
Assistance from the operator to board	1	9%
Other (please specify)		

	# of respondents	% or total (n=11)
What is your household's total annual earnings? (Choose one)		
\$200,000 or more		
\$150,000 to \$199,999		
\$100,000 to \$149,999	1	9%
\$75,000 to \$99,999	1	9%
\$50,000 to \$74,999	1	9%
\$35,000 to \$49,999	1	9%
\$25,000 to \$34,999		
\$20,000 to \$24,999		
\$15,000 to \$19,999	1	9%
\$10,000 to \$14,999		

Less than \$10,000	2	18%
I prefer not to say	1	9%

## Appendix B: All comments

The following section includes all open-ended comments received as part of the 2023 Service Plan Online Open House regarding the 2023 Service Plan.

I had to leave earlier the before just to ensure I reach my connection on time. Your schedule does not match the train.
BOTH: increased work from home AND changed mode-- bicycle. It's a combination that I make work.
Bought an electric vehicle
Depending on the trip I've either waited longer or used another form of transport
I can't get to Seattle as early as I'd like. Too often the train runs just late enough to miss the evening ferry at Mukilteo adding at least 30 minutes to my commute
I hardly ever go on public transportation anymore so I wouldn't comment on it
I no longer commute so I haven't been affected by service reductions
I take the 3:58 590 buses in and the 2:35 train home.
I'm moving so I don't pay taxes on this.
I've had to use Uber/Lyft and have had to be rescued by my partner because I was stranded due to canceled trips.
I've waited longer, required longer to get there, switched to alternative modes to keep my schedule, and reduced travel/WFH.
It's hard to say since I travel through 3 transit agencies, and they've all had significant changes in routes and schedules. I come from Thurston County, and the bus I take doesn't go to the Tacoma Dome station, therefore my trips usually take longer now. It's a roughly 330-minute increase on most trips. I travel from Olympia to Seattle.
Late to work
Missed connections
Missing connection to Skagit 90X when 510 is canceled
No midmorning service.
No security. Random violence. I'm done for now.
O pedir hase carpulr
Siempre tarde, aún tomando más tiempo.
The Northgate station has opened, and we have taken the local rail headed south to connect to Seattle at Northgate Station
The reduced routes are not the problem, it's sound transits' inability to enforce fares to folks many of whom have drug or mental issues and hence create dangerous conditions on for paying responsible customers.
all of these- longer travel, switched routes, reduced travel, different modes
canceled trips have been the biggest headache as they are inconsistent on which trips are canceled from day to day
no habia servicio despues de las 5 pm
No
Unknown at this time
This question is unclear. Nothing is going to change about my commute.
No change in priorities
No
No
I expect to resume commuting on a more regular schedule.

Seeing some minor changes on some of these major routes and then adding service to what hours of the day is necessary
No
Yes, due to remote school/work patterns increasing, my typical morning/afternoon commutes have become less predictable and structured. I predict needing to travel more frequently during non-peak hours during the mid-day, as well as on weekends.
My priorities will change slightly as I will be moving to a new area with different services available to me, but my core priorities will not.
No
I'm not sure yet- but hope to use transit more again as I settle into another new norm
Maybe
Yes. I'll ride more.
No
Frequency cannot be continued to be sacrificed at all costs
No
Yes, I expect to work more often
Yes, we may get an even. Our company pays for charging and there is no charging at the park and ride.
No
No
Yes, more people are taking the link because gas prices keep going up
Not sure which one is question 2. I expect to keep riding daily, and I hope the service can be reliable.
No
No
I may get a new job and would be commuting more frequently.
No
Available drivers
I expect no changes
No
Demand and supply should be the priority! During Fall through winter, I will be cautious to take late afternoon trips. Seattle has had so much turmoil and unresolved methods of how to improve safety within communities and walking to and from stations to catch the rail and transport services.
I would love some later and weekend trains! Also, more out of S Tacoma a bit later!
no
No.
No
no
I expect to increase my riding
I expect to ride the bus more frequently with increased frequency (and therefore reliability). Reverse commute trips are needed, though, instead of deadheading back. Advertising that you're adding trips but then only giving them to peak direction doesn't help me.
No
Yes. More frequent travels as a return to office resumes.
No
I don't know
No

Need mid-morning service, otherwise, I must drive.
I might move closer to the light rail.
Yes, I plan to start coming back into the office at least once a week. However, my route has been changed so I will need to rethink my options.
Remote worker
Nope
No
I hope I can skip this question because my needs as a person who occasionally rides Sound Transit are not as significant as someone who rides it daily. As long as the 594 runs at least once every half-hour during the typical morning, daytime, and evening hours, then I can make it to my Seattle appointments on time and visit family. But I have more flexibility than someone who relies on Sound Transit daily.
No
I'm willing if you guys could try to expand the 574 to have 30-minute service in the morning on the weekends before the weekday schedule
No not at this time
For reference, during the pandemic, I was forced to work fully remotely, and only in June 2022 was I able to start commuting again. I drove for the first few weeks and only now in July/August am I stabilizing on Tuesday/Thursday consistent commute via Train during peak time.
No
If you do not add earlier and later buses, I'll have to drive and park.
Yes because of the inconsistencies of route 566. Please bring back the 567 route.
None
I look forward to an increase in my use with both COVID safety increasing and service upgrades.
yes, as I learn more about the options. Still trying to find out which routes are accessible
No
No, open schedule so tries to wait till after rush/work hours.
No
No changes
Yes, new opportunity to commute using Link
no
No
no
no
No.
No
No.
No
No
I plan on taking 535 more frequently than 560
No changes -- I ride when I have to go into the city. I've long maintained four types of people drive into the city, although I was thinking of Chicago at first: (1) people who have to because it's their job, (2) people who are unfortunate and don't have an alternative, (3) people who live there, and (4) people who are just plain stupid. However, I live and work in the suburbs so transit for me is an "as-needed" amenity.
Light Rail Lynnwood Open in 2024.



Questions aren't numbered.
If I travel more often by bus, I would also use the express bus in the early evening (after meeting for dinner).
They should remain the same. Given some unreliability with the 560, I have been taking my car to work more often.
No
I'll just wait longer for the bus and the light rail.
Providing consistent service throughout the day and week makes transit a more appealing option for my infrequent travels since they occur outside of traditional commuting patterns.
Increase
No.
As COVID becomes less of an issue I anticipate adding additional evening and weekend trips for leisure. I may also change jobs that would put me in transit during normal peak hours.
I plan to use the new east link extension to commute to work.
As I remote work more, I will need trips mid-day to Seattle and/or back during the afternoon hours and/or weekend times for personal not work-related items.
I'll probably be traveling more often on regular weekday peak-hour trips.
Was there a question labeled two?
No.
Yes, increases the frequency.
I live near the future Judkins Park light rail station, so when Link Line 2 opens I expect to use it almost daily to commute to work (my hours are flexible, so this doesn't always fall during peak hours) and on many weekend days.
No, I do not expect them to change
Only if service disruptions persist
No
Maybe as I plan to commute more by bus but I will continue to do weekend trips
No
I'm getting a car
No more work from home
If you can get the 577 up to speed and let me off in SoDo or CID in the afternoons on the way home instead of sitting stuck on I-5 waiting for the Seneca exit, I would take the bus 5 days a week.
With the pandemic still an issue, I cringe at the idea that service cuts will result in more crowded buses that travel the 578 route. If service hours are cut, I may simply drive farther to a more reliable transit service or drive to the destination.
No.
This question is worded poorly. The questions are not numbered, so I'm not sure what priorities from "Question 2" are referring to.
I don't see question 2.
No
no
I use the 550 to get to theaters in downtown Seattle, typically evenings on any day of the week, and occasionally matinees. I volunteer at many theaters as well as subscribe to some.
I'm still going to ride transit.
Depends if Skagit 90X will extend its service to Northgate.
It isn't very clear on which is Q2, you should mark each Q relevantly since questions dynamically appear based on results. I assume it's the "how often". Yes, I expect to ride more frequently this year.

I would prefer to increase the number and change the type of trips I take on the 1 line, but the frequency is usually too slow to make short trips.
No
I was going to say maybe I just schedule adjustments on several routes that operate Pierce Transit
No.
Since the questions were not #ed, I'm not sure how to answer this.
No
podria contar con poder ir a lugares que por ahora no puedo.
No
No
Soon I'll be looking for other ways to get around. I am physically disabled and use a walker. Most stops don't have benches anymore and I can't stand too long waiting on the buses especially on the weekends because the weekend buses don't run as often making me unable to go anywhere on the weekends
Yes, planning on moving closer to Seattle so express routes will be used less
No
No.
Maybe, dependent on Covid since I work from home mostly
No
No
As the world continues reopening, I expect wants and needs out of the house to continue expanding. Going into the office more often, doing more on nights and weekends, and activities expanding further out from home.
No
Mesiento segura en el transporte público y me es difícil cambiar mis horarios de trabajo son barriales y
Hope to travel more when my son goes back to school.
No
More early-morning buses would be nice. More people start/leave work around 5 am
No
No, weekends are the worst
Possibly, it comes to what my work wants us to do. Currently, I'm working Tuesday, Thursday and some weeks Friday also.
I expect to more rely on peak-hour service
No
Retirees enjoy going from Kent to Seattle or Tacoma for part of the day.
No
N/A
If you do not add earlier and later buses, I'll have to drive and park.
Frequency needs to be improved on Link 1 Line throughout the day. Many crowded trips!
I now work remotely, so any travel I do is for errands (including medical appointments), volunteering, and social activity.
I literally changed my work schedule because you guys couldn't keep drivers for my regular time. Knowing that you'd cancel the trips, but refusing to use the larger buses, forcing us to all shove into a smaller bus. Telling your customers, they have to check daily to see if their bus has been canceled is just bad business, especially when you cancel it right before the trip.
The 522 is listed as a high-frequency bus but more often than not there are 20-minute frequencies between buses. Considering Lake City Way is a huge transit corridor for the most part only served by

<p>the 522, this level of frequency is much too low in my opinion. Due to how scheduling works, the 522 arrival times also do not always match what OneBusAway says, and I have often missed my bus because it comes 5-7 minutes before OneBusAway indicated. That combined with the low frequency and the need to transfer at Roosevelt Station makes travel down the Lake City corridor frustrating.</p>
<p>There is far too much drug use on the trains. I have seen and taken pictures of people smoking and inhaling drugs during trips, putting others around them in jeopardy. Why doesn't Sound Transit address this?</p>
<p>Get rid of the homeless</p>
<p>You need to enforce fares. Your buses are disgusting. People are allowed to camp out on the buses and just ride around. No civilized society wants to deal with this nonsense and lax response from sound transit. You're going to run out of your paying customers in favor of drug-addicted crazy non-paying people... You can't run a business like that</p>
<p>Seeing some minor changes on some of these major routes and then adding service to hours of the day that are necessary.</p>
<p>Fix the escalators!!!</p>
<p>It's really difficult to not know the balance on my card when tapping, I would like this feature back. Using the train is hard without the ETAs on the boards in the stations. I have also noticed on the street level link cars; are being affected by lights more now than before.</p>
<p>This is a suggestion for long-term planning related to improving service levels, but I believe Link light rail should focus on eventually grade-separating all parts of the system, which would immediately see improved service times, having eliminated the slowdowns through the Rainier Valley (level crossings). Prevention of collisions and deaths would immeasurably improve public transit and Link's reputation too. Eventually, this can enable automated train service, which brings benefits the SkyTrain in Vancouver or the REM (future) in Montreal enjoys: minimal cost and flexibility of running/deploying additional trains, extremely low headways due to precise train coordination and oversight, safety and energy efficiency as the human element/error in operation and braking are eliminated, grade-separation making it possible to consider fare gates instead of proof of payment enforcement (which is a challenge facing ST), the possibility of full-height platform screen doors like at SeaTac airport or alternatively waist-height barriers that Honolulu will have.</p>
<p>Focus less on peak hours with schedules – post-COVID travel patterns are different for many</p>
<p>Weekdays already have decently usable service. It would be better to try to address routes that operate hourly or less</p>
<p>Speed up expanding the light rail</p>
<p>Thank you for all that you do!</p>
<p>Southside needs better connectivity. Poor connectivity with Pierce Transit leads to long transfer times between Sounder or 590/4 and local Pierce Transit busses.</p>
<p>ST should take the lead to change federal law to create more talent pipelines for operators, reduce the age to 18 from 21 and lift the ban on marijuana usage. ST may need to private contract out operators that are not employed by ST partners, like those who have retired but could still operate a vehicle</p>
<p>Thank you for your excellent service</p>
<p>Light rail earlier and later service.</p>
<p>I'm frustrated that East Link will open later than expected. I was hoping to use it to get to work</p>
<p>No.</p>
<p>Trains more often would be amazing</p>
<p>Having buses run only hourly makes it hard to travel. If you miss one bus, you have to wait a whole hour for the next one.</p>
<p>Please continue with transit security.</p>
<p>(1) Why does the 512 not go to downtown Everett? (2) The Ash Way loop-de-loops are particularly annoying and time-consuming; I would love an express option that maybe sent a few trips a day straight from Everett to Lynnwood to Northgate. That's most of the ridership there and I think you send buses deadhead already (I live in Seattle and work in Everett)</p>

<p>Would love light rail in Ballard. Light Rail is fast, clean, and efficient but I have to take another bus to get to any station from my house. If there was one in Ballard it would cut my travel time in half.</p>
<p>I'm concerned that I don't see the 586 starting at the Tacoma Dome. That's going to be a problem if it's not a typo.</p>
<p>The drivers on 550 have always been kind and patient, thank you!!</p>
<p>I have flights that come in at 8 and it's hard to wait by the hour after that time instead of every 30 min.</p>
<p>Please bring the frequency of the RT 560 to 15 mins every day! Also, transfer this route to King County Metro.</p>
<p>I live in the Issaquah Old Town area. The 554 needs a stop along Newport or on Sunset west of Front Street. The bus passes a large residential area and doesn't stop until east of Front Street in front of city hall. There are no other stops between the Issaquah Transit Center and the Issaquah Highlands. I have to walk all the way back to Newport and Sunset and then walk up the hill into my neighborhood. There is at least one other person in their 50s or 60s that has a similar walk when getting off at the City Hall stop. Thank you.</p>
<p>There needs to be a priority of services, meaning that the more customers who take the rail service will keep the process up to date and attempt more options.</p>
<p>Sound transit is fantastic. Thank you!</p>
<p>We love the convenience of taking the bus to Seattle for mini vacations. The fare is very reasonable and even if the fares increased, it would still be more economical than driving in heavy traffic and paying for costly and unsafe parking in the city. However, because of where we live, we need to take Pierce Transit to the Lakewood Transit Center and then walk to the Lakewood Sounder station to pick up the 590 or 592. so that is a small issue for us. Since we can't park at the Sounder station overnight, we can't drive to the station and leave the car. We don't travel frequently enough for this to affect our travels. Having overnight parking or a shuttle between Lakewood Towne Center and the Sounder station would be a gift for us and perhaps others as well.</p>
<p>Build a closer station. I drive 30 minutes to the train</p>
<p>Put the OMF on the Midway landfill, not in Federal Way!</p>
<p>Most of the drivers are great! Want them to know this. Thank you</p>
<p>I work a reverse commute. I take the 577 FROM Downtown Seattle TO Federal Way in the morning and return in the afternoon. The current service levels are not reflective of two-way travel and only reflect peak-direction travel. In the mornings it's better, I have a 7:24, 7:38, 7:50, and 8:10 bus I can choose from, but in the afternoons it's half-hour headways (4:15, 4:45, 5:15, 5:45), plus whatever traffic-related delay is applicable that day. Also, stop exiting the 577/578 at Seneca. The first stop Downtown is a mile north of the International District and about 3/4 mile north of the commercial core where the bus stops when leaving town. So, like yesterday, for example, our bus was sitting in stop-and-go traffic all the way from Spokane Street instead of taking the SoDo Busway or exiting at Edgar Martinez Drive/4th Ave. As a result of this routing, my PM commute takes 30 minutes longer than my AM commute. This unacceptable delay is one reason I drive as frequently as I do, it turns my commute from an hour to 90 minutes compared to 40 minutes to drive. Please, I don't know why service planners don't think 577/578 users work in Downtown, and as a result, you skip most of it, but we're not all Amazon workers in SLU. Please, serve the CID and Commercial Core with the 577/578 from now on.</p>
<p>Please don't take away the express buses when the light rail goes live in Federal Way. The light rail would increase travel times to downtown dramatically.</p>
<p>Would love light rail extended beyond the south of Tacoma.</p>
<p>Please add the fourth run back to the 595</p>
<p>Nothing</p>
<p>Some of the bus stops downtown are really unsafe. I have nearly been assaulted several times.</p>
<p>Keep 545 going to downtown Seattle. Connections at UW are awful evenings and with bridge openings and construction</p>

1) Enforce customers to pay fares 2) Deny access if clients appear to be dangerous in mental or drug-altering mindsets
Better notifications. Some bus drivers choose not to use the HOV lane all the way during peak hours and it's frustrating.
Needing way more buses for the sunrise
If the south sounder could leave a little earlier so it gets to Seattle before a quarter to six that would make it less of a hassle trying to catch a bus uptown to make it to work. Or add an earlier train that gets there a little after 5:30.
Provide public restrooms at main stops/stations
If the Sounder could run both directions on a more regular basis, that would make my commute a lot easier. Even more so if it started running on weekends. If I travel on a weekday, then I travel north in the morning and south in the evening, and it feels like the Sounder does the opposite.
Please keep up the good work. I appreciate each and every one of you!!
I was considering if you guys could Elijah 577 on the weekends and then I only have Route 578 And having every 30 minutes between Puyallup and Seattle
You need more Gig Harbor buses! And to run later both ways!
Public real-time visibility (OneBusAway and the like) makes as much or more difference than capacity. I'd love to see more accurate and more detailed visibility. For example, the Link station signs are often wrong or blank and even when they are working, they don't give any indicator of how crowded/full the next train is.
You need the 596 to match the train schedule so we are not waiting for buses to get to work and get home again. This is what my transportation tax \$ are supposed to be spent on, transportation.
Bring back 567
I would like the homeless off the trains
Thank you! For making public transit a reality in our communities -- still so very far to go here in South King County, but SO MUCH progress as well. For the good of our communities and indeed our very earth itself, this is vital work!
please make these routes accessible!! Cannot safely board the tall buses or use my shopping cart on them! Also, would like better connections to get from Lakewood Transit Center to Lakewood Station. Wish stops were more clearly labeled
My morning trip is at 5:33 am.
Retired - travel to visit or shop
Take the bus 'off the road and make everyone pay
Love having masks available on the bus! A North/ South light rail on the Eastside of Lake WA is much needed at least for commuting!!
Many 9 to 5 workers will continue to work from home. Public transit operators will need to pursue a marketplace that goes well beyond just the 9 to 5 office workers.
Please add electric car charging to all major park and rides. Please proactively communicate canceled ST Express bus routes. Often these buses only come every 30 min, and if they are canceled, we can be late for work.
Bring back bus 179
Route 566 from Bellevue to Renton is awful Thursday afternoons at 5:20pm. Either no show, or 20 minutes late. It always happens on Thursdays.....
More available trips South late night on weeknights.
Change seats from fabric to plastic. People urinate on them and are passed out sleeping on seats. More security on trains to feel safer.
I do not have a set schedule. More frequency week-round, all day, and late at night is more important to me than the high peak at any one or two times.
Please increase the frequency of the light rail. I just returned from a trip to Vancouver, and the difference in train frequency between the cities is appalling.

<p>I recognize your current limitations, but part of the problem with the overall regional transit situation is that it focuses on getting commuters downtown. Even local services are focused on suburban downtowns. Typical commute-hour frequency is what it needs to be off-peak in order for a system to be viable, off-peak service -- if there even is any -- is not at all convenient for most purposes.</p>
<p>none</p>
<p>Add the Federal Way TC to the routing of the 590/594 OR have select trips serve Federal way. If you do this with route 512, you can do the same with the 590-series. This way frequency can be salvaged, and it gives riders more options when trips are canceled.</p>
<p>While operator shortages continue, consider eliminating or changing service on peak-only routes (especially ones that duplicate other routes) to preserve service on all-day routes and reduce canceled trips.</p>
<p>Please consider switching the 560 operators from Pierce Transit to King County Metro. The route does not touch Pierce County, the PT operators tend to be rude, and there have been many problems over the years. Metro operators would be a good fit for this King County-only route. Thank you.</p>
<p>You need a direct connection from Seattle to Tacoma earlier in the morning. I "reverse" commute in that I commute from Seattle in the morning to Tacoma and back in the late afternoon. It's strange that there's a bus from Seattle to Federal Way and Puyallup nearly an hour before there's one from Seattle to Tacoma, the second-largest city in the region. An earlier southbound Sounder train or 594 southbound ST bus would be nice on weekdays. Also, when the Mariners/Seahawks are playing etc., you should really react to that and increase the frequency of Link and local bus services to alleviate crowding.</p>
<p>When possible, focus on restoring 1 line service.</p>
<p>Please prioritize grade separation of all transit, especially with the inexpensive painted transit-only lanes. Making transit fast and reliable is the only sure way to increase ridership amidst driver shortages.</p>
<p>We need more routes and times</p>
<p>Overnight service between Seattle and the East Side - even once an hour - would be a huge plus. For example, trips to and from the airport from the east side are basically impossible via transit if you have a 6 am flight or arrive back at SeaTac after 11:45 pm, which is when the 560 is no longer running.</p>
<p>I ride the 590 departing from Tacoma to Seattle M-F. Normally I take the 4:58 bus. For several months now, without any advance warning, this bus is canceled. This causes excessive wait times. When the next bus arrives, not all riders can get on because the bus is full, which causes riders to have to wait even longer!! This is not acceptable. We pay for our monthly passes in advance and expect there to be service. Instead of canceling the same bus route on most days why not rotate cancellations so riders aren't put at risk with COVID still highly contagious and cancel other trips before and after this time?</p>
<p>This is a big push to get people out of their cars and mass transit. Nudge people out of the rural areas and move them into the cities. All referenced by the WEF. Don't worry, I'm spreading the word on these 'future' long term plans. Just wait until the 'masses' wake up.</p>
<p>You did not include any service planning for East Link. Please clarify if this means Sound Transit anticipates East Link will NOT open in 2023 as scheduled.</p>
<p>Bus cancellations on the 510 have often left me waiting for up to an hour for another bus. While the service is great when I'm on it, day-of route cancellations leave me either waiting in the heat on the curb or scrambling to adjust plans. Should the day-to-day inconsistency continue I'll need to re-evaluate my commuting options, including driving (which no one wants!).</p>
<p>Please provide accurate updates on the east link extension. If the east link extension is supposed to open in 2023, where was it in the service review?</p>
<p>I'm not using the Link as often as I'd like because I can't rely on getting there by bus from my home - the bus I would take to get to the Link station currently has multiple trips canceled every day. When I do take Link, I drive to the transit center, which I would really rather not do. I understand that these buses are under KC/Metro's control, not yours. I'm not expecting you to do anything about it; I just thought it might be a useful data point as you gather information about factors affecting ST ridership.</p>
<p>Work with your partner agencies to address operator shortage by hiring and retaining more: increase wages and implement POP fare collection with an inspection to improve speed and security. Improve</p>

network efficiency: convert Route 545 hours to Route 542 hours; delete Star Lake and Kent Des Moines from Route 574 stop pattern. Have routes 574 and 594 specialize in Tacoma and duplicate less. Add Route 566 to the East Link project; it need not duplicate East Link between Bellevue and RTS.
More late-night routes, please. It's unfortunate to have to leave events early to catch the last train or Uber from the airport after a red eye.
A regular Saturday train to Seattle (not just for sporting events) would be a welcome addition to the Sounder schedule. It might infuse Seattle (or even Kent) with some revenue.
We need 6-minute headways (at most!) if we want people to ride Link rather than drive. We should be paying whatever we need to pay train operators to make this happen. Also, why is Line 2 not included in the service plan for 2023?
N/A
The frequent cancellation of the Southbound 594 from Seattle departing at 6:15 a.m. has been very difficult. I also know at least one frequent disabled rider has been very negatively affected.
Pls be on time
With BRT being delayed again, can we get some kind of improvement to increase the speed of the 560 route? It takes over an hour to go from Burien to Bellevue with the Renton Spur and the completely unnecessary loop through SeaTac Departures. PLEASE find a way to make this route more efficient. Bellevue is a major commuting hub, and this is the only fast connection for S/SW county folks there.
Nothing
Where to complain when the bus doesn't come in time?
Clean the busses
The service levels identified for the 577/578 are inaccurate. The 577 doesn't even run after 8:10, and it's half-hour headways all day.
Restore Saturday and Sunday route 532/535 service between Everett and Bellevue.
There is a transit dead zone on SR-9 and SR-522, and yet there is enormous rush hour traffic coming from SR-9 (SB) and SR-522 (WB) feeding onto SB I-405. These commuters have no transit options and add to congestion on I-405. Why don't you provide commute hour BRT to serve those areas? You could relocate the Woodinville P&R to one of the underdeveloped parcels on SR 522 and/or find a parcel on Hwy 9 to serve as a P&R.
In addition to increasing transit operators, ST customer service is often nonexistent or too slow to respond. Federal Way thankfully often has a supervisor present and available when I travel, but there are endless instances of little to zero updates during MASSIVE service interruptions. Very basics like a staffed twitter account that replies quickly during all operating hours (not just M-F, 9-5) should be a given. Station communication (digital or even someone announcing updates) that actually is contextual should be a given for those without cell phones. ST is so slow to update people on what is going on it is beyond infuriating and an embarrassment. Please get that area of your operation together. People won't trust that transit will get them where they want to go quickly and efficiently with repeated instances of that occurring. Those that have other travel options will take them and those that don't have a choice are left suffering.
Please give southwest Everett comparable local service that you're giving Bellevue. Presently, we have a total of 1 local stop (E. Casino Rd & Evergreen Way) and 1 obscure Park & Ride served while you breeze by stops on West Casino Road and skip the busy South Everett Park & Ride. If you can add Ash Way, LTC, and Mountlake Terrace as stops, you can add South Everett P&R to the 513's routing. Further, if the Link is going out to West Casino Road, so can the 513, even if it only stops at 4 locations: 18th, Hall Park, 5th, and Evergreen. Fair is fair.
prioritize keeping stations safe/clean and elevators/escalators operational
Please make the ORCA readers display your account balance and if you have successfully checked in / out for the light rail. I know a lot of people don't pay at all for the light rail, and I haven't been checked once since Northgate station opened. There are a lot of people freeloading on this expensive project and Sound Transit needs to send the message that that is unacceptable. Lastly, please display the projected arrival times for the trains. The "trains are arriving every x minutes" sound clips are not

<p>useful. Some bus stops have this feature, and the trains should too. Not to mention that this feature is commonplace for any modern train infrastructure elsewhere. Thank you. The light rail is still awesome.</p>
<p>Does trip planning include transfers from bus to monorail? I used to drive to Seattle Center for volunteering (Book-It, Seattle Shakespeare in the Center Theater, and Whim at Cornish Playhouse) and to attend the Seattle Rep performances. With nearly all of the close-in free parking gone, I either have to pay a lot for parking, or I just don't attend performances or volunteer. Which is a big shame. I miss out on a lot that I'd like to see. Figuring out the 550 bus schedule connections to the monorail, going to and from Seattle Center, seems just too daunting. I don't even know how often the monorail runs. When I've taken it in the past, it was definitely NOT frequent enough in the later evening!</p>
<p>More evening routes please,</p>
<p>Improve customer commutations. Play station messages that are relevant to passengers. Nobody cares about random safety messages.</p>
<p>I would like to see 510 extend its service in the morning after 08:15 from Everett (The 90X arrives in Everett at 08:25). Or consider if Skagit 90X can do a codeshare (like airlines) and run 510 on behalf of Sound Transit during midday.</p>
<p>Build a ped tunnel under the tracks in Sumner.</p>
<p>I was pleasantly surprised that I could make a Federal Way to TCC trip with one transfer. The timing was right for me to go from 586 to 595. In the past, this could have taken four separate buses.</p>
<p>I wouldn't say increase service on routes That have to be necessary trips let's say after 7 PM let's say the bus starts to run hourly on weekdays, for example, I was going to say try to add a 30-minute between those types of service hours</p>
<p>I may have to find an entirely different way to get to and from work if I keep getting stranded by canceled bus trips. And since I don't drive, my options are limited.</p>
<p>I have not owned a car for nearly 14 years because I prefer to utilize and fund public transit. I would ride sounder trains often if they ran both directions during more/most hours of the day vs. being biased to only support fans to/from sporting events. Many of us actually travel to Sounder locations for a myriad of other reasons. :(</p>
<p>I will likely not return to using mass transit after starting a new job soon. This is due to the pending cancelation of 545. A formerly 25min trip from my neighborhood to Seattle will be a 50min trip because of this cancellation. I am very, very disappointed. In a previous job, I rode 545 daily.</p>
<p>Me encantaria tener conversaciones y no formularios:- hay ucho mas temas e inquietudes, basados en necesidades propias.</p>
<p>mong rằng cò nhiều chuyến để thời gian đợi không lâu. Tôi cũng mong giá xe giảm</p>
<p>Needs a better fare system that cost less</p>
<p>Please work harder at enforcing fares and other laws. Showing the public that your agency expects good boundaries will help you hire and keep more operators.</p>
<p>Please extend light rail service to 2:30 am on Friday on Saturday nights. Closing at 12:30 is far too early when bars close later. There are quite a few drunk drivers as a result</p>
<p>Clean up the trash at the bus stops. Add benches to all bus stops. Put a trash can at every bus stop. I'm from Houston TX and I can honestly say that Washington has the worst and trashiest bus stops I've ever seen</p>
<p>Please fix the elevators and escalators. I got trapped in an elevator at Westlake yesterday. I was using the elevator because both escalators are broken.</p>
<p>I would like the ability to charge for two riders on my orca card</p>
<p>PLEASE make repairing the elevators and escalators in the Link light rail stations a top priority! This is an accessibility/ADA issue for those of us with disabilities.</p>
<p>You're thieves!</p>
<p>We need more light rail especially out to the Discovery Park area.</p>
<p>The service proposal has no frequency in the entire south half of the service area creating a functional disparity.</p>



El servicio en el link lighth rail, es deficiente. Siempre tarde, aunque supuestamente los trenes corren cada 8 minutos. No es el confiable y en las tardes saturado. No
I like your express service, sometimes I would like more runs in Seattle/Tacoma.
I'm beyond excited for more Link stations to come online, but especially as the line splits service times need to be speedy and reliable so that I'm not losing 10 minutes during peak commute at every station/transfer.
Please prioritize keeping Puyallup to Lakewood trips on the 580 over South Hill lot trips when trains are not running to Lakewood.
Get some security at the light rail stations and on the trains.
I don't understand why you made the floating train a priority when Mercer Island doesn't want it, and the south sound is desperate for easier ways to use transit.
Que los buses pasen a tiempo y pongan más transporte para el su más de seattle a tacoma y de tacoma al sur gracias.
Please run Link all night. So many of us who work in the nightclub industry can't get home on transit and we would actually be a regular user group. The same goes for nightclub patrons. Please partner with the scooter share companies to prioritize scooter deployment at Link stations and major transit hubs. Northgate in particular.
Looking forward to more Light Link services. Need more security on all buses and trains.
Instead of every hour after 8 pm, keep it in the half-hour point
I am excited for Link to come to Federal Way.
Have better security and lower prices for full-paying people. Too much free stuff instead of charging everyone a fair price.
Add more frequency and more riders will come
Frequencies/span of service should never be worse on Sunday than Saturday.
Sound Transit is robbing the lower middle class.
It's a great service that I utilize so I don't have to drive into Seattle and deal with parking hassles, and issues finding free parking downtown Seattle.
I will begin to commute from Bellevue to Boeing Everett, and having reliable and fast transit will help me avoid needing to rely on my car
My disability prevents me from driving. I rely on transit to get around. Reduced frequency greatly increases the time it takes to travel on transit.
Thanks
I know this survey is for next year's service, but I still want to tell you that I'm looking forward to ten years from now when the Link will connect from Tacoma to the airport as well as Tacoma to Seattle and so forth. As I recently shared through email, the light rail is the only way I'm going to the airport by myself. I don't take the bus to the airport because I would miss my flight if there were to be a bad accident on the freeway and it's too risky. And I also want to point out that I normally go to Seattle for concerts and sports games so I would enjoy riding the Link from Tacoma to Seattle and back doing those things as well.
Too unsafe to ride!
Please add service until 2:30 am on Friday and Saturday nights. Light rail closing before the bars do is creating unsafe drinking and driving in Seattle
Que es importante que metan más rutas pero los fines de semana Sábado y Domingo también. Que en muchas terminales hay gente que asusta que no necesariamente utiliza el transporte y solo andan rondando por ahí, fumando o drogándose y no hace sentir seguridad al viajar especialmente al esperar en las paradas de camiones. Deberían negar el derecho de transporte a personas que es obvio que están alcoholizadas o delgadas muchos de ellos tienen olor fuerte que se percibe cuando se suben gracias
Please increase service for Sounder Train to weekends! And more security/law enforcement on Light Rail. Such an excellent resource that can be scary to use!

You need the 596 to match the train schedule so we are not waiting for buses to get to work and get home again. This what my transportation tax \$ are supposed to be spent on, transportation.

## Appendix C: Comment Code Matrix

<b>Question: Do you expect your travel priorities to change within the next year? If so, how? (Other – write-in)</b>	
<b>Code</b>	<b>Guidance</b>
<b>Yes</b>	Comments indicating a change in travel priorities or yes as a response
<b>No</b>	Comments indicating no change in priorities or no as a response
<b>Unsure</b>	Comments mentioning “I don’t know” “not sure” or “unsure”
<b>Minor change</b>	Comments indicating a minor or slight change in travel priorities
<b>Conditional</b>	Includes comments from participants who anticipate potential changes that will impact their travel priorities and conditional circumstances that would impact their travel priorities
<b>Specific routes</b>	Comments mentioning an ST Express Route

<b>Question: What else would you like to share with us?</b>	
<b>Code</b>	<b>Comment coding guidance</b>
<b>Time</b>	Comments about time of day, days of the week, weekend service, special event service, frequency, on-time service, the timing of connections, reliability, service delays, and cancellations
<b>Communications</b>	Includes station alerts, ST notifications and customer service support
<b>COVID impacts</b>	Comments related to service and ridership impacts due to COVID, safety concerns specific to COVID, mask enforcement, cleanliness, and public health
<b>Safety</b>	Comments about lighting, traffic safety, criminal activity at on or around transit facilities, comments about lack of police presence on transit or at transit centers
<b>Transit facilities/amenities</b>	Comments about park and ride, transit centers, bike parking, bus stop amenities including a seat or shelter
<b>Location</b>	Comments about connections between neighborhoods to specific locations, cities, destinations etc. Includes access to housing, connectivity to other transit agencies, jobs, medical services, universities, airports, etc.
<b>Equity</b>	Consideration of transit-dependent, low-income, essential workers, service workers, swing shift or late-night workers. Could include mention of fare enforcement discrimination, police presence on transit. Could also include mention of service to historically marginalized communities. Includes accessibility needs of people with disabilities
<b>Fares</b>	Increasing/decreasing fares, peak and off-peak fares, fee for bags, etc.
<b>Specific routes</b>	Comments mentioning a specific route – depending on # of comments we may further tabulate this by route

<b>Question: How have service reductions affected your trips? (Other – write-in)</b>	
<b>Code</b>	<b>Comment coding guidance</b>
<b>Time</b>	Comments about the time of day, days of the week, weekend service, special event service, frequency, on-time service, the timing of connections, <a href="#">reliability</a> , <a href="#">service delays</a> , and <a href="#">cancellations</a>

<b>Alternative modes of transportation</b>	Includes comments about alternative modes of travel such as rideshare services, carpooling, and electric vehicles
<b>Specific routes</b>	Comments mentioning a specific route – depending on # of comments we may further tabulate this by route

# ***2023 Service Plan***

## **Title VI Service Equity Analysis**

## ***Executive Summary***

As part of the annual Service Plan, Sound Transit conducts a service equity analysis to ensure that changes to transit service are consistent with the Civil Rights Act of 1964, DOT Title VI regulations, FTA 4702.1B and policies defined by the Sound Transit Board of Directors.

The 2023 Service Plan and the corresponding equity analysis is focused on formalizing the emergency service reductions on South King and Pierce County routes implemented in November of 2021. This work also corresponds to the FTA directive outlined in the Title VI Circular Chapter IV, Section 7, that any major service change that lasts longer than 12 months is considered permanent and requires a service equity analysis.

Consistent with Sound Transit's newly adopted *Disparate Impact and Disproportionate Burden* policy (Board Resolution No. R2022-19), a Title VI analysis was completed at two levels of analysis. The first evaluated each major service change individually. The second systemwide analysis compared benefits and impacts to Title VI protected & non-protected populations on all routes with changes over multiple years.

The **individual route analysis** found adverse effects and all major changes requiring formalization have either a disparate impact or disproportionate burden. Sound Transit's operating model where three operating partners serve different regions in the ST service district has resulted in varying levels of service for riders. As Pierce Transit-operated ST Express has had the most severe impacts of the operator shortages in late 2021, with many of the routes serving Title VI protected populations above the Sound Transit district average.

Several **mitigations** have been implemented to soften the impacts of reduced service levels, including: transferring Route 566 (Auburn-Overlake) operations to King County Metro to avoid further reductions on other Pierce Transit-operated routes, coordinating schedules with parallel Pierce Transit and King County Metro routes on shared corridors, and early restoration of Sounder S Line trips to pre-pandemic service levels (and the maximum number of trips allowed under Sound Transit's agreement with BNSF). Service design alternatives to the adopted service cuts to ST Express service in South King and Pierce County are also described, as well as the reasoning for why they were ultimately not pursued.

The results of the **systemwide analysis** did not identify any findings. The analysis results show that the distribution of benefits for service additions exceeds 80% for protected populations and the distribution of impacts of service reductions do not exceed 20% for protected populations. Therefore, the systemwide analysis does not identify any disparate impacts or disproportionate burdens based on the cumulative service changes implemented between September 2020 and March 2023.

The following summarizes the results of the Title VI equity analysis of proposed major service included in the 2023 Service Plan. Additional detail and explanation are included in the following document.

Summary of 2023 Service Plan Title VI Service Equity Analysis				
Route	Service Change Requiring Formalization	Title VI Protected Populations	Adverse Effects	Mitigations
566	<ul style="list-style-type: none"> <li>Operating every 20 -40 min, timed with Sounder trains at Kent, until operator availability improves.</li> </ul>	<ul style="list-style-type: none"> <li><b>Minority:</b> District average: 41.7% Route 566 service area: 55.4%</li> <li><b>Low Income:</b> ST District average: 20.7% Route 566 service area: 23.3%</li> </ul>	<ul style="list-style-type: none"> <li>Disparate impact</li> <li>No disproportionate burden</li> </ul>	<ul style="list-style-type: none"> <li>Transfer of operations to King County Metro to avoid further reductions on Route 566.</li> <li>Early Restoration of Sounder S Line trips</li> </ul>
580	<ul style="list-style-type: none"> <li>Most trips between Puyallup and South Hill replaced by Pierce Transit Route 400.</li> <li>Elimination of the Lakewood-Puyallup variant that previously operated with limited trips. This variant had very low ridership and allows deployment operators to routes serving more riders.</li> <li>An additional two trips on Sounder S Line were added</li> <li>574, 592, and 594 continue to provide service at discontinued stops with higher frequency</li> </ul>	<ul style="list-style-type: none"> <li><b>Minority:</b> District average: 41.7% Route 580 service area: 41.4% before the change in routing, 25.9% after the change in routing</li> <li><b>Low Income:</b> ST District average: 20.7% Route 580 service area: 28.4% before the change in routing, 17.9% after the change in routing.</li> </ul>	<ul style="list-style-type: none"> <li>No disparate impact</li> <li>Disproportionate burden</li> </ul>	<ul style="list-style-type: none"> <li>Replacement of trips by PT Route 400 where nearly all Sounder trains continue to have an on-going connection.</li> <li>An additional two trips on Sounder S Line were added</li> <li>Re-allocation of operators to other routes serving the areas.</li> </ul>
590	<ul style="list-style-type: none"> <li>Operating every 10-12 min during peak periods until operator availability improves.</li> </ul>	<ul style="list-style-type: none"> <li><b>Minority:</b> District average: 41.7% Route 590 service area: 44.4%</li> <li><b>Low Income:</b> ST District average: 20.7% Route 590 service area: 29%</li> </ul>	<ul style="list-style-type: none"> <li>No disparate impact.</li> <li>Disproportionate burden</li> </ul>	<ul style="list-style-type: none"> <li>Early restoration of S Line trips</li> </ul>
592	<ul style="list-style-type: none"> <li>Operating every 30 min until operator availability improves.</li> </ul>	<ul style="list-style-type: none"> <li><b>Minority:</b> District average: 41.7% Route 566 service area: 51.7%</li> <li><b>Low Income:</b> ST District average: 20.7% Route 566 service area: 31.6%</li> </ul>	<ul style="list-style-type: none"> <li>Disparate impact.</li> <li>Disproportionate burden</li> </ul>	<ul style="list-style-type: none"> <li>Early restoration of S Line trips.</li> </ul>

## ***Policies and Definitions***

The section below describes Sound Transit’s approved policies for conducting and identifying major service changes, as well as for assessing their impacts on Title VI populations to ensure that changes to transit service are consistent with the Civil Rights Act of 1964, DOT Title VI regulations, FTA 4702.1B and policies defined by the Sound Transit Board of Directors.

The FTA is responsible for ensuring that federally supported transit services and related benefits are distributed by recipients of FTA assistance in a manner consistent with Title VI, Section 601 of the Civil Rights Act of 1964, which states: No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

**Disparate impact:** A facially neutral policy or practice that disproportionately affects members of a group identified by race, color or national origin pursuant to FTA guidelines.

**Disproportionate burden:** A policy or practice that disproportionately affects low-income populations more than non-low-income populations pursuant to FTA guidelines.

**Low-income population:** A population whose household income is at or below the poverty guidelines set by the Department of Health and Human Services level utilized by the regional transit fare program to determine low-income reduced fare eligibility.

**Minority population:** A population who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino and/or Native Hawaiian/Pacific Islander.

### **Major service change**

Any single change in service on an individual bus or rail route that would add or eliminate more than 25 percent of the route’s weekly revenue service hours, permanently move the location of a bus stop by more than a quarter mile or rail station by more than a half mile and/or close or eliminate a bus stop or rail station without a replacement of any kind within a quarter mile for bus stops or a half mile for rail stations. A major service change excludes:

- Replacement of an existing transit service by a different route, mode or contractor providing a service with the same headways, fare, transfer options, span of service and stops, so long as an analysis is completed that provides evidence that the replacement level service is equal to or better than the existing Sound Transit service; or
- Changes to route numbers without any other changes to the route characteristics; or
- Changes to service or new services considered to be temporary, where temporary is defined as less than 12 months in duration.

The agency conducts an equity analysis of all proposed major service changes to determine adverse effects and equitable distribution of benefits. For major service changes:

- **Adverse effects** are a geographical or time-based reduction in service, which includes, but is not limited to, span of service changes, frequency of service changes, route segment elimination and rerouting or route elimination.



- **Benefits** are a geographical or time-based addition of service, which includes, but is not limited to, an increase in span, frequency, and service coverage.

### **Changes to a Single Line or Route**

When a proposed major service change to a single line or route creates a potential adverse effect, a disparate impact or disproportionate burden occurs when the percentage of the adversely affected minority or low-income population in the service area of the line or route exceeds the percentage of the minority or low-income population within the Sound Transit district by at least five percentage points (e.g., 15 percent of the population adversely affected is low-income compared to a district low-income population of 10 percent).

### **Systemwide Service Reductions**

When a systemwide potential adverse effect occurs due to major service changes on more than one line or route, the agency determines if the collective service reductions create a disparate impact or disproportionate burden by comparing the percentage of the service area's minority or low-income population adversely affected by the major service reductions to the percentage of the district's non-minority or non-low-income population adversely affected.

- a. If the percentage of the minority or low-income population adversely affected is 20 percent or greater than the percentage of the non-minority or non-low-income population adversely affected (e.g., 12 percent or more of the minority population is adversely affected while 10 percent or less of the non-minority population is adversely affected), the reductions create a disparate impact or disproportionate burden.
- b. Collective service reductions include both service reductions under consideration for the next year and implemented service reductions in the past two years, both major and minor service changes.

### **Systemwide Service Additions**

When a systemwide potential adverse effect occurs due to major service changes on more than one line or route, the agency determines if the collective service additions create a disparate impact or disproportionate burden by comparing the percentage of the minority or low-income population who benefit from the major service additions to the percentage of the district's non-minority or non-low-income population who benefits from the service additions.

- c. If the percentage of the minority or low-income population benefited is 80 percent or less than the percentage of the non-minority or non-low-income population benefited (e.g., eight percent or less of the minority population benefits while 10 percent or more of the non-minority population benefits), the changes create a disparate impact or disproportionate burden.
- d. Collective service additions include both service additions under consideration for the next year and implemented service additions in the past two years, both major and minor service changes.

## **Public Engagement Process for Setting the Major Service Change Policy**

Sound Transit conducts public outreach regarding major service changes, fare changes, and maintenance facility location selections, including the agency’s steps to avoid, reduce, or mitigate any adverse effects and modify proposals to determine if potential effects were removed or lessened.

In March 2022, Sound Transit commenced a public engagement campaign related to the setting of a disparate impact and disproportionate burden (DIDB) policy and revisions to the agency’s major service change policy. The public engagement effort consisted of presentations to the Transportation Access Coalition and the Citizens Accessibility Advisory Council, a public website dedicated to sharing information on the proposed DIDB Policy, a survey to solicit feedback that was translated into the transit district’s top six Title VI languages and was made available on the website, and social media posts and a press release to drive traffic to the website. The purpose of these efforts was to receive input from interested parties prior to a public hearing process in which affected individuals and groups could also provide comments directly to Board members.

### Demographic Analysis Methodology

The following sections describe the data definitions and methodologies used by Sound Transit to develop estimates for Title VI populations within the Sound Transit service area. Sound Transit uses census demographic data to identify Title VI protected populations by route and for the total district service area. Sound Transit uses the most recent five-year demographic estimates available from American Community Survey (ACS).

### Service Area Methodology

Most transit agencies in the United States define their service area as a buffered distance around each of their transit routes. Given the unique service characteristics of Sound Transit service – limited stops connecting regional urban and employment centers – the agency defines its service area based on a radial distance from each transit stop, rather than the transit route alignment.

Service Area Definitions	
Stop Type	Service Area in Miles
Bus stop without parking	0.25
Rail stop without parking	1.0
Bus facility with parking	2.5
Rail station with parking	5

Title VI Protected Populations	
Title VI Protected Populations	Percentage of District Populations
Minority	41.7%
Low Income	20.7%
Limited English Proficiency	10.3%

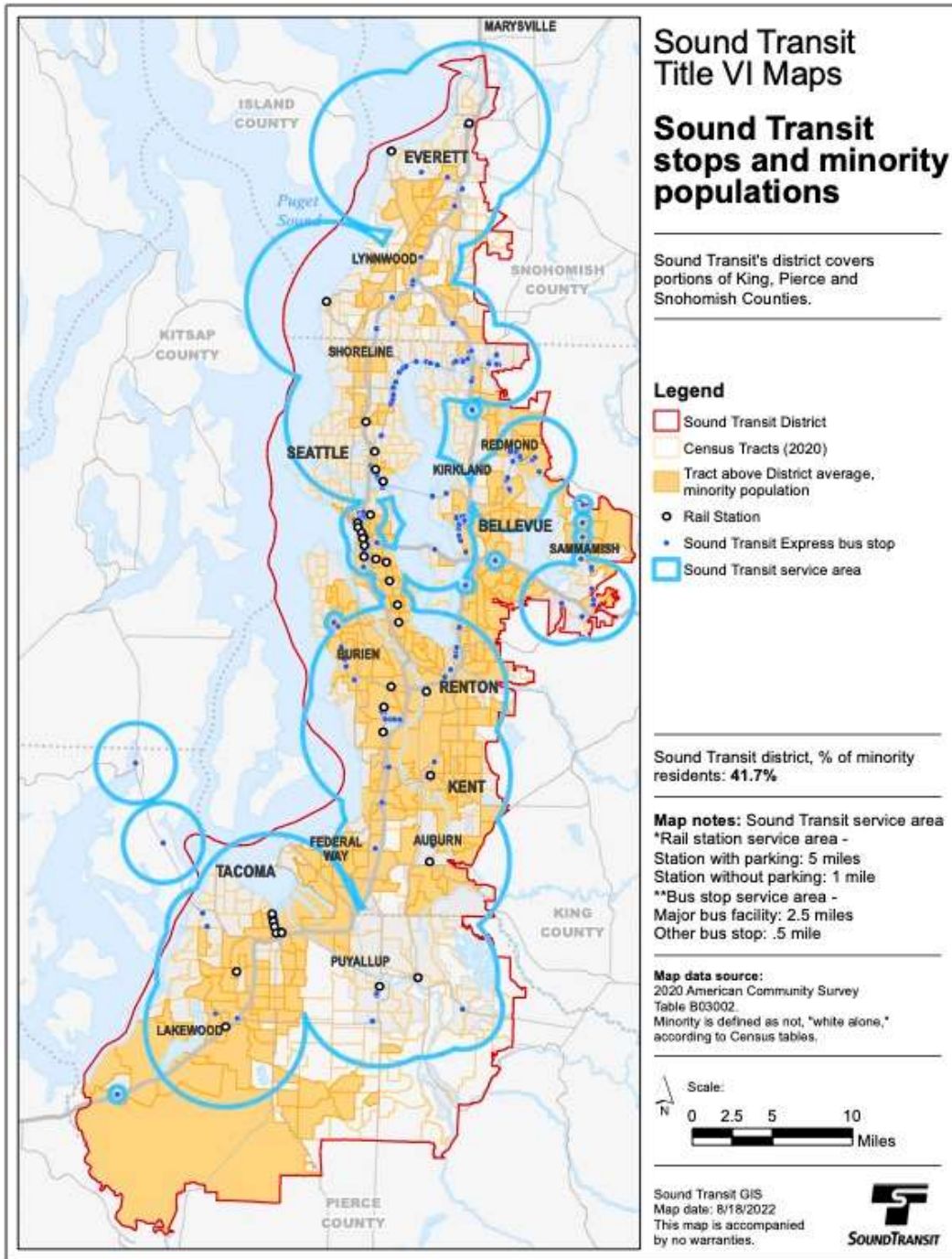
## Title VI Protected Populations by Route

The table below displays the Title VI protected populations by route for each of Sound Transit’s service types. Title VI protected routes are highlighted when they exceed five percent of the district Title VI population average or the policy threshold used to evaluate potential major service changes. Additional population data is available in the appendix.

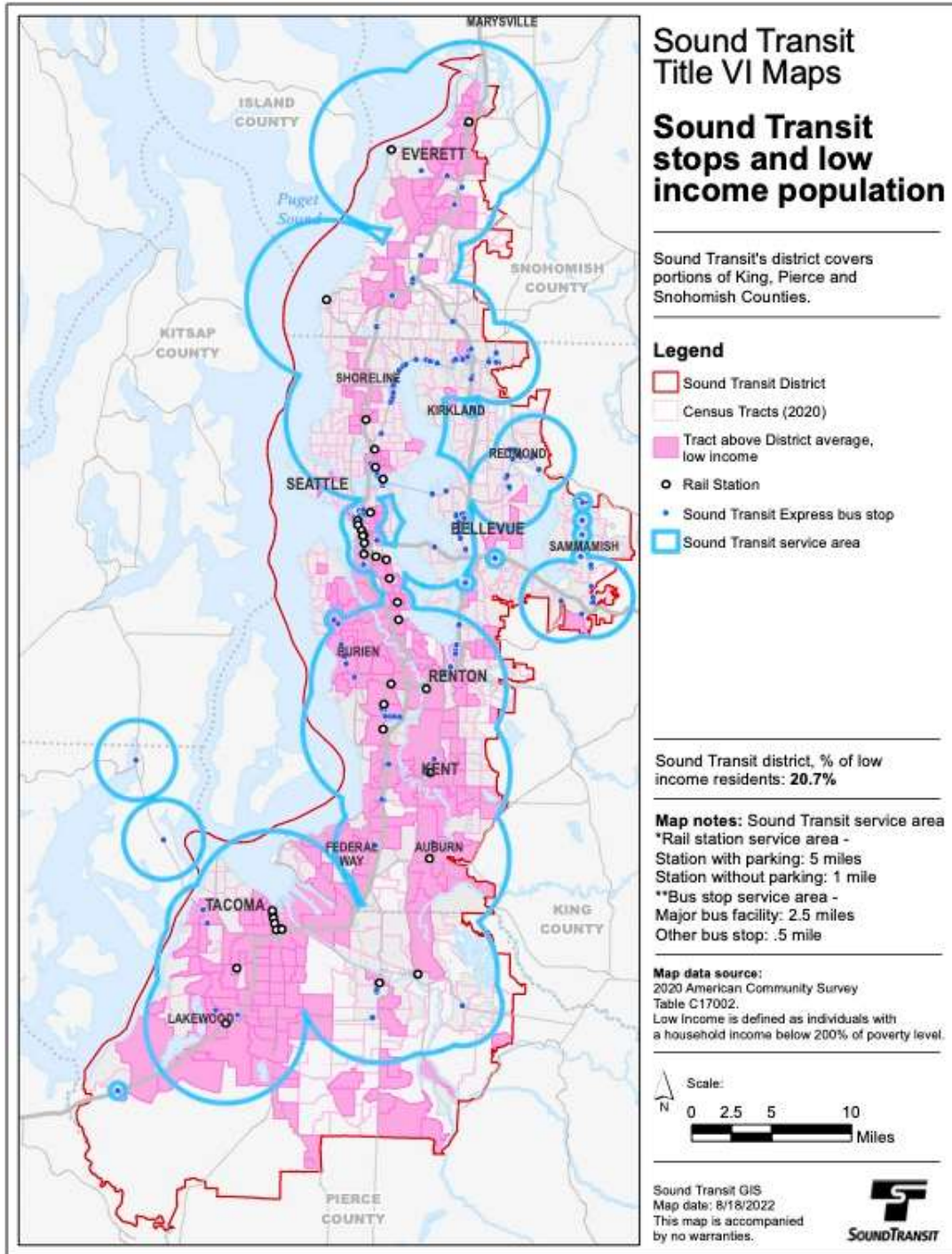
*Note about Low-Income Population Percentage:* Sound Transit previously defined household income below 150 percent poverty level and low-income. In 2022, the agency updated the definition of low-income to a household income below 200 percent of the poverty level. The updated 200 percent is in line with the evaluation ORCA (region fare payment) uses to evaluate households that qualify for a reduced fare payment.

<b>Title VI Protected Populations by Route</b>			
<b>Route</b>	<b>Minority Population</b>	<b>Low-Income Population</b>	<b>Limited English Proficiency (LEP)</b>
<b>Express Bus</b>			
510	39.6%	23.2%	11.2%
511	36.3%	18.7%	10.2%
512	36.9%	20.9%	10.8%
513	37.4%	20.4%	11.2%
522	31.6%	13.8%	8.1%
532	41.1%	20.9%	12.5%
535	38.2%	15.7%	10.7%
542	43.0%	18.0%	10.7%
545	46.8%	14.6%	10.9%
550	45.0%	17.6%	9.5%
554	45.0%	15.4%	9.6%
556	41.9%	15.4%	9.4%
560	55.9%	24.0%	18.7%
566	55.4%	23.3%	16.7%
574	53.4%	33.4%	14.4%
577	50.4%	26.2%	13.0%
578	43.5%	24.6%	10.8%
580	25.9%	28.4%	4.7%
586	49.0%	33.6%	12.8%
590	44.4%	29.0%	7.9%
592	51.7%	31.6%	9.3%
594	49.0%	32.6%	9.1%
595	37.3%	24.6%	6.1%
596	20.5%	15.8%	2.4%
<b>Commuter Rail</b>			
N Line	36.5%	22.4%	10.6%
S Line	47.6%	26.3%	12.3%
<b>Light Rail</b>			
1 Line	44.3%	22.7%	11.8%
<b>Street Car</b>			
T Line	43.1%	27.4%	8.5%
<b>District Average</b>	<b>41.7%</b>	<b>20.7%</b>	<b>10.3%</b>

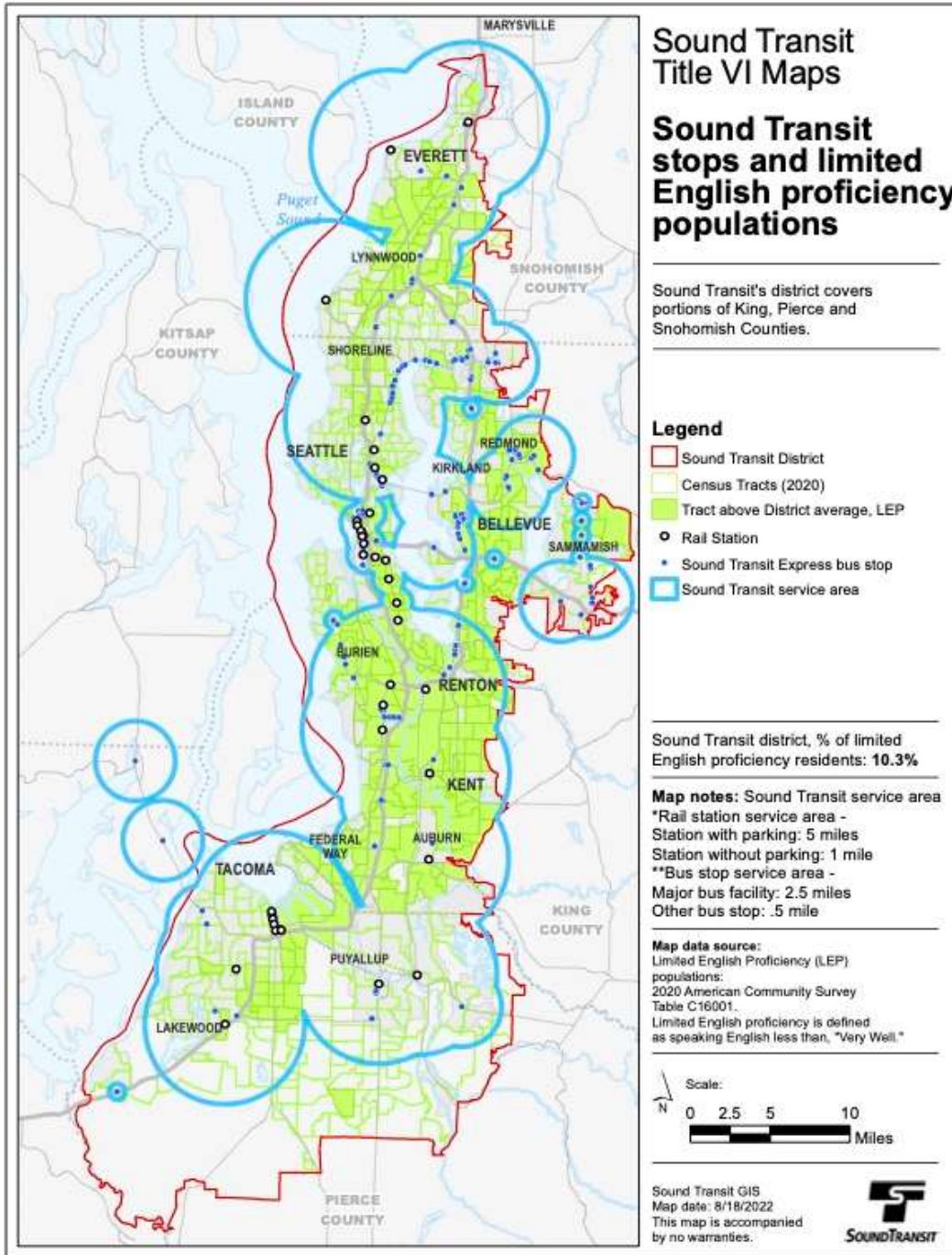
## Map of Title VI Minority Population for Sound Transit Service Area



## Map of Title VI Low Income Population for Sound Transit Service Area



## Map of Title VI Limited English Proficiency Population for Sound Transit Service Area



# ***2023 Planning Context & Process***

## **Operator Shortages Required Emergency Service Reductions**

ST Express is operated by three local partner agencies under an intergovernmental agreement. Community Transit operates ST Express routes in Snohomish County through a contract with First Transit. King County Metro operates ST Express routes in King County. Pierce Transit operates ST Express routes in Pierce County.

Over the course of summer 2021 and into fall 2021, the number of trips canceled due to operator shortage had slowly been increasing across the system. This led to unpredictable service for passengers as cancellations changed day-to-day. In October 2021, Pierce Transit, the operator of several South King and Pierce County ST Express bus routes, notified Sound Transit that an emergency reduction to service would be required due to severe staffing shortages.

Sound Transit's existing operating model reduces the agency's ability to respond to operator shortages consistently across the system. By having different operating partners serve different regions in the ST service district yields varying levels of service for riders as staffing levels varying partner to partner. Operator shortages were more severe on ST Express routes operated by Pierce Transit, which has a significantly higher concentration of Title VI routes than Sound Transit's other operating partners, Community Transit and King County Metro.

To overcome this challenge, Sound Transit worked with Pierce Transit to identify which trips to remove from the schedules to ensure a reliable service for our customers. Overall, Sound Transit reduced service by approximately 20% of weekday service on Pierce Transit-operated routes by March 2022 (this percentage also includes the transfer of operations of Route 566 to KCM). And because workforce constraints proved to be a regional issue, Sound Transit's other operating partners were also affected. This led Sound Transit to cut Community Transit's operated service by 10 percent and King County Metro operated service by 5 percent.

To reduce the impact of service reductions on our riders, Sound Transit worked with its operating partners to identify lower ridership trips (see more details on route productivity in the appendix) to remove from the schedule, identify shared corridors to develop service delivery efficiencies, and apply an overall strategy that would impact the fewest passengers while delivering less service. Sound Transit also worked closely with operating partners to prioritize the maintenance of predictable headways, the existing span, and placed emphasis on protecting priority Title VI populations and higher ridership ST Express routes.

## **Operator Shortages Pause Planned Service Improvements**

The emergency reductions prevented implementation of the board adopted 2022 Service Plan which focused on increasing service all day (a summary of the 2022 service plan may be found in the appendix of this document and full details are available in the [2022 Service Plan document](#)). In fact, operator shortages over the past year made emergency service reductions necessary on several routes, including some, where the agency had planned to increase service.

It is our goal to deliver the improvements outlined in the 2022 Service Plan as soon as the regional workforce stabilizes, and we have the necessary operators available to deliver reliable service to our passengers. Until then, this service plan, and the corresponding equity analysis is focused on formalizing the emergency service reductions on South King and Pierce County routes implemented in November of 2021.



# Individual Route Analysis of Major Service Changes

The **individual route analysis** evaluates each major service change on a route-by-route basis and **found adverse effects and all major changes requiring formalization have either a disparate impact or disproportionate burden.** Sound Transit’s operating model where three operating partners serve different regions in the ST service district has resulted in varying levels of service for riders. As Pierce Transit-operated ST Express has had the most severe impacts of the operator shortages in late 2021, with many of the routes serving Title VI protected populations above the Sound Transit district average.

Several **mitigations** have been implemented to soften the impacts of reduced service levels, including: transferring Route 566 (Auburn-Overlake) operations to King County Metro to avoid further reductions on other Pierce Transit-operated routes, coordinating schedules with parallel Pierce Transit and King County Metro routes on shared corridors, and early restoration of Sounder S Line trips to pre-pandemic service levels (and the maximum number of trips allowed under Sound Transit’s agreement with BNSF). Service design alternatives to the adopted service cuts to ST Express service in South King and Pierce County are also described, as well as the reasoning for why they were ultimately not pursued.

Major Service Change Analysis Summary					
Route	Proposed Change	Type of Change	Adverse Effect	Disparate Impact	Disproportionate Burden
566-Auburn/Kent-Redmond Tech	Continue to operate at emergency reduction service levels of 20-40 min in peak hours and peak direction (northbound AM and southbound PM) primarily timed with Sounder service at Kent.	Major	Yes	Yes	No
580-South Hill-Puyallup	Operate select trips only, spaced between Pierce Transit 400 local trips. Most Sounder trains would be met by either an ST Express 580 or PT 400 at Puyallup. Section between South Hill and Lakewood eliminated.	Major	Yes	No	Yes
590-Tacoma-Seattle	Continue to operate at emergency reduction service levels of 10 min in the peak, 30 min midday, and 30 min on weekends.	Major	Yes	No	Yes
592-DuPont/Lakewood-Seattle	Continue to operate at emergency reduction service levels of every 30 min in the peak.	Major	Yes	Yes	Yes

## Methodology

When a proposed major service change to a single line or route creates a potential adverse effect, a disparate impact or disproportionate burden occurs when the percentage of the adversely affected minority or low-income population in the service area of the line or route exceeds the percentage of the minority or low-income population within the Sound Transit district by at least five percentage points (e.g., 15 percent of the population adversely affected is low-income compared to a district low-income population of 10 percent).

## Identifying Major Service Changes

Any single change in service on an individual bus or rail route that would add or eliminate more than 25 percent of the route’s weekly revenue service hours, permanently move the location of a bus stop by more than a quarter mile or rail station by more than a half mile and/or close or eliminate a bus stop or rail station without a replacement of any kind within a quarter mile for bus stops or a half mile for rail stations.

Revenue Hour Change September 2021 to November 2021				
Route	September 2021 Revenue Hours	November 2021 Revenue Hours	Percentage Reduced	Type of Change
566-Auburn/Kent-Redmond Tech	340	245	28%	Major
577-Federal Way-Seattle	317	265	16.4%	Minor
580-South Hill-Puyallup	40	21	48%	Major
590-Tacoma-Seattle	430	300	30.2%	Major
592-DuPont/Lakewood-Seattle	240	170	29.1%	Major

The emergency service reductions implemented in November 2021 are listed in the table below. Based on the definition of Major service changes, **Route 566 Auburn/Kent-Redmond, Route 580 South Hill-Puyallup, Route 590 Tacoma-Seattle, and Route 592 Lakewood-Seattle** are major service changes and require a Title VI equity analysis. The following section evaluates each route-level major service change for adverse effects, disparate impacts, and disproportionate burdens.

## Route 566-Auburn/Kent-Redmond Tech (Major Service Change)

### Service Change Proposal:

Formalize a 20-40-minute headway in peak hours and peak direction (northbound AM and southbound PM) for route 566. Route 566 will be primarily timed with Sounder trains at Kent station.

### Why Are We Proposing these Changes?

Operator shortages prompted an emergency reduction in service in November 2021. Due to the ongoing constraint to the regional workforce, Sound Transit will codify this emergency service reduction until regional workforce conditions improve.

### What Does This Mean for Passengers?

Some passengers will wait longer for service in the AM and PM peak.

### Title VI Populations:

- **Minority Population:** ST District average: 41.7% Route 566 service area: 55.4%
- **Low Income:** ST District average: 20.7% Route 566 service area: 23.3%
- **LEP:** ST District average: 10.3% Route 566 service area: 16.7%

### Title VI Evaluation:

The emergency reduction in revenue hours exceeds 25% and is therefore a Major Service Change subject to Title VI analysis. In this case, there is an adverse effect because the service change is an overall reduction in service. **Because the route 566 Auburn-Redmond service minority population exceeds the Sound Transit district average by more than 5%, there is a disparate impact.** However, because route 566 Auburn-Redmond low-income population exceeds the Sound Transit district average by 2.6% (less than the established 5% threshold) there is no disproportionate burden.

### Mitigations:

- To reduce the impact of the service cut, Sound Transit transferred operations of ST Express Route 566 Auburn-Redmond from Pierce Transit to its other operating partner, King County Metro. The transfer was completed as part of the March 2022 service change because King County Metro, at the time, demonstrated a greater workforce capacity. It should be noted that the route was transferred with an already existing reduction in service. However, moving the service to King County Metro helped avoid further reductions to Route 566-Auburn-Redmond and other South King and Pierce County routes.
- Sound Transit has restored train 1507 (2:35pm from Seattle to Tacoma) and train 1520, 4:06pm from Tacoma to Seattle on September 20, 2021, on the S line. In September 2022, Sound Transit will restore train 1518 (from Lakewood), and train 1505 (from Seattle) also on

Route 566 (Auburn/Kent – Redmond Tech)		
	Approved and target service levels for 577 and 578 between Federal Way and Seattle	Current levels until operator availability improves
Weekdays		
Peak hours (6-9 a.m. and 3-7 p.m.)	20 min.	20-40 min.

A table comparing current service level operator availability and approved target service levels for Route 566.

the S line. The added trips provide additional capacity and options for passengers in South King and Pierce County and return S line operations to pre-pandemic levels.

- Partner transit agencies are working to recruit and train new operators. Sound Transit is supporting this effort by working within our current operating contract to improve working conditions, including enhancing pay, incorporating bonuses into the pay structure, and working to remove barriers to employment. Sound Transit is also meeting with partners monthly to support hiring strategies. As new operators join the workforce, the agency will continue to assess staffing levels and restore service at its scheduled March and September service changes over the next few years. Sound Transit also continues to work closely with other agencies in the region to develop service efficiencies including, coordinating services on shared corridors between transit agencies. Until the workforce levels stabilize, Sound Transit is focusing on making strategic cuts to ensure a predictable service delivery for most passengers.

### **What Did We Hear from the Public?**

*“Overnight service from between Seattle and the East Side—even once an hour—would be a huge plus.”*

*“Bring back the 567”*

### **How has the plan changed since the initial proposal?**

Sound Transit is moving forward with this proposal, as it is the least discriminatory alternative. Sound Transit explored service consolidation (see alternatives on page 20) in South King and Pierce County to mitigate the need for service reductions. The plan, however, required a complex reorientation of service that would require an increase in service hours thereby necessitating more operators, an existing constraint.

Operator shortages continue in the Puget Sound region and are expected to last an additional 18-24 months. As soon as workforce conditions improve, Sound Transit will deliver planned improvements as part of the board adopted 2022 Service Plan (See appendix for more details on the 2022 Service Plan).

## Route 580- South Hill- Puyallup (Major Service Change)

### Service Change Proposal:

Formalize an overall reduction in service and the elimination of service between South Hill and Lakewood. Route 580 South Hill-Puyallup now operates only select trips spaced between Pierce Transit’s 400 local route. Most of Sounder trips are now met by either an ST Express 580 bus or a PT 400 bus at Puyallup. The section of service between South Hill and Lakewood has been eliminated.

### Why Are We Proposing these Changes?

Operator shortages prompted an emergency reduction in service in November 2021. Due to the ongoing constraint to the regional workforce, Sound Transit will codify this emergency service reduction until regional workforce conditions improve.

In addition, poor ridership productivity necessitated a cut to this service in an order to save hours for routes with higher ridership in Pierce County. See annual ridership figure in the appendix below.

### What Does This Mean for Passengers?

Fewer trips during the day connecting passengers to Sounder. No connection between South Hill and Lakewood.

### Title VI Populations:

- **Minority Population:** ST District average: 41.7% Route 580 service area: 41.4% before the change in routing, 25.9% after the change in routing
- **Low Income:** ST District average: 20.7% Route 580 service area: 28.4% before the change in routing, 17.9% after the change in routing.
- **LEP:** ST District average: 10.3% Route 580 service area: 7.9% before the route change, 4.7% after.

### Title VI Evaluation:

The emergency reduction in revenue hours exceeds 25% and is therefore a Major Service Change subject to Title VI analysis. In this case, there is an adverse effect because the service change is an overall reduction in revenue hours. In addition, by removing a segment of Route 580 South Hill-Puyallup, the route’s coverage has been reduced. **Because route 580 South Hill- Puyallup original service area low-income population exceeds the Sound Transit district population by more than 5%, there is a disproportionate burden.** However, because route 580 South Hill-Puyallup original service area minority population does not exceed the Sound Transit district average by there is no disparate impact.

Route 580 (South Hill – Puyallup)	
Proposed Route 580 changes	
Weekdays	
Peak hours (6-9 a.m. and 3-7 p.m.)	Operate select trips only, spaced between Pierce Transit 400 local trips. Most Sounder trains would be met by either an ST Express 580 or PT 400 at Puyallup. Section between South Hill and Lakewood eliminated.

A table showing proposed operation changes to Route 580 during peak weekday hours.

### **Mitigations:**

- Sound Transit published Pierce Transit 400 series bus, Puyallup-Tacoma, in route 580 South Hill- Puyallup’s schedule. The parallel local route also meets Sounder trips and provides added capacity within the corridor, as well as added regional coverage by connecting passengers to Tacoma.
- Sound Transit has restored train 1507 (2:35pm from Seattle to Tacoma) and train 1520, 4:06pm from Tacoma to Seattle on September 20, 2021, on the S line. In September 2022, Sound Transit will restore train 1518 (from Lakewood), and train 1505 (from Seattle) also on the S line. The added trips provide additional capacity and options for passengers in South King and Pierce County and return S line operations to pre-pandemic levels.
- Partner transit agencies are working to recruit and train new operators. Sound Transit is supporting this effort by working within our current operating contract to improve working conditions, including enhancing pay, incorporating bonuses into the pay structure, and working to remove barriers to employment. Sound Transit is also meeting with partners monthly to support hiring strategies. As new operators join the workforce, the agency will continue to assess staffing levels and restore service at its scheduled March and September service changes over the next few years. Additionally, Sound Transit also continues to work closely with other agencies in the region to develop service efficiencies including, coordinating services on shared corridors between transit agencies. Cuts to Route 580 South Hill-Puyallup allowed Sound Transit to preserve higher ridership routes like 590-Tacoma-Seattle and 592-DuPont/Lakewood-Seattle that serve a similar market (see route ridership levels in the appendix). Until, workforce levels stabilize, Sound Transit is focusing on making strategic cuts to ensure a predictable service delivery for most passengers.

### **What Did We Hear from the Public?**

*“Please prioritize keeping Puyallup to Lakewood trips on the 580 over South Hill lot trips when trains are not running to Lakewood.”*

### **How has the plan changed since the initial proposal?**

Sound Transit is moving forward with this proposal, as it is the least discriminatory alternative. Sound Transit explored service consolidation (see alternatives on page 20) in South King and Pierce County to mitigate the need for service reductions. The plan, however, required a complex reorientation of service that would require an increase in service hours thereby necessitating more operators, an existing constraint.

Operator shortages continue in the Puget Sound region and are expected to last an additional 18-24 months. As soon as workforce conditions improve, Sound Transit will deliver planned improvements as part of the board adopted 2022 Service Plan (See appendix for more details on the 2022 Service Plan).

## Route 590-Tacoma-Seattle (Major Service Change)

### Service Change Proposal:

Formalize a reduction in service in the peak, the midday, and on weekends. The 590 now operates every 10 minutes in the AM and PM peak, every 30 minutes in the midday, and every 30 minutes on weekends.

### Why Are We Proposing these Changes?

Operator shortages prompted an emergency reduction in service in November 2021. Due to the ongoing constraint to the regional workforce, Sound Transit will codify this emergency service reduction until regional workforce conditions improve.

#### What Does This Mean for Passengers?

Some passengers will wait longer for service in the AM and PM peak, middays and on weekends.

### Title VI Populations:

- **Minority Population:** ST District average: 41.7%  
Route 590 service area: 44.4%
- **Low Income:** ST District average: 20.7%  
Route 590 service area: 29%
- **LEP:** ST District average: 10.3%  
Route 566 service area: 7.9%

### Title VI Evaluation:

The emergency reduction in revenue hours exceeds 25% and is therefore a Major Service Change subject to Title VI analysis. In this case, there is an adverse effect because the service change is an overall reduction in service. **Because the 590 Tacoma-Seattle low-income population exceeds the Sound Transit service area by more than 5%, there is a disproportionate burden.** However, because the 590 Tacoma-Seattle minority population exceeds the Sound Transit district average by 2.7% (less than the 5% threshold) there is no disparate impact.

### Mitigations:

- Sound Transit has restored train 1507 (2:35pm from Seattle to Tacoma) and train 1520, 4:06pm from Tacoma to Seattle on September 20, 2021, on the S line. In September 2022, Sound Transit will restore train 1518 (from Lakewood), and train 1505 (from Seattle) also on the S line. The added trips provide additional capacity and options for passengers in South King and Pierce County and return S line operations to pre-pandemic levels.
- Partner transit agencies are working to recruit and train new operators. Sound Transit is supporting this effort by working within our current operating contract to improve working conditions, including enhancing pay, incorporating bonuses into the pay structure, and working to remove barriers to employment. Sound Transit is also meeting with partners monthly to support hiring strategies. As new operators join the workforce, the agency will

Route 590 (Tacoma – Seattle)		
	Approved and target service levels for 590 and 594 between Tacoma and Seattle	Current levels until operator availability improves
Weekdays		
Peak hours (6-9 a.m. and 3-7 p.m.)	6-9 min.	10 min.
Midday (9-3 p.m.)	35 min.	30 min.
Evenings (7 p.m.-10 p.m.)	30 min.	30 min.
Late nights (after 10 p.m.)	30 min.	30 min.
Weekends	15-30 min.	30 min.

A table comparing current service level operator availability and approved target service levels for Route 590.

continue to assess staffing levels and restore service at its scheduled March and September service changes over the next few years. Sound Transit also continues to work closely with other agencies in the region to develop service efficiencies including, coordinating services on shared corridors between transit agencies. Until the workforce levels stabilize, Sound Transit is focusing on making strategic cuts to ensure a predictable service delivery for most passengers.

### **What Did We Hear from the Public?**

*“I ride the 590 departing from Tacoma to Seattle M-F. Normally I take the 4:58 bus. For several months now, without any warning, this bus is cancelled. This causes excessive wait times. When the next bus arrives, not all riders can get on because the bus is full, which causes riders to wait even longer! This not acceptable. We pay our monthly passes in advance and expect there to be service. Instead of cancelling the same bus route on most days why not rotate cancellations so riders aren’t put at risk with COVID and cancel other trips before and after this time”*

*“I literally changed my work schedule because you guys couldn’t keep drivers for my regular time. Knowing that you’d cancel the trips, but refusing to use the larger buses, forcing us all to shove into a smaller bus. Telling your customers they have to check daily to see if their bus has been cancelled is just bad business, especially when you cancel it right before the trip.”*

### **How has the plan changed since the initial proposal?**

Sound Transit is moving forward with this proposal, as it is the least discriminatory alternative. Sound Transit explored service consolidation (see alternatives on page 20) in South King and Pierce County to mitigate the need for service reductions. The plan, however, required a complex reorientation of service that would require an increase in service hours thereby necessitating more operators, an existing constraint.

Operator shortages continue in the Puget Sound region and are expected to last an additional 18-24 months. As soon as workforce conditions improve, Sound Transit will deliver planned improvements as part of the board adopted 2022 Service Plan (See appendix for more details on the 2022 Service Plan).



## Route 592-DuPont/Lakewood-Seattle (Major Service Change)

### Service Change Proposal

Formalize a reduction in service in the peak. The 592 now operates every 30 minutes in the AM and PM peak.

### Why Are We Proposing these Changes?

Operator shortages prompted an emergency reduction in service in November 2021. Due to the ongoing constraint to the regional workforce, Sound Transit will codify this emergency service reduction until regional workforce conditions improve.

### What Does This Mean for Passengers?

Some passengers will wait longer for service in the AM and PM peak.

### Title VI Populations:

- **Minority Population:** ST District average: 41.7% Route 566 service area: 51.7%
- **Low Income:** ST District average: 20.7% Route 566 service area: 31.6%
- **LEP:** ST District average: 10.3% Route 566 service area: 9.3%

### Title VI Evaluation:

The emergency reduction in revenue hours exceeds 25% and is therefore a Major Service Change subject to Title VI analysis. In this case, there is an adverse effect because the service change is an overall reduction in service. **Because the 592 DuPont/Lakewood-Seattle minority and low-income populations exceed the Sound Transit service area by more than 5%, there is a disparate impact and a disproportionate burden.**

### Mitigations:

- Sound Transit has restored train 1507 (2:35pm from Seattle to Tacoma) and train 1520, 4:06pm from Tacoma to Seattle on September 20, 2021, on the S line. In September 2022, Sound Transit will add back train 1518 (from Lakewood), and train 1505 (from Seattle) also on the S line. The added trips provide additional capacity and options for passengers in South King and Pierce County and return S line operations to pre-pandemic levels.
- Partner transit agencies are working to recruit and train new operators. Sound Transit is supporting this effort by working within our current operating contract to improve working conditions, including enhancing pay, incorporating bonuses into the pay structure, and working to remove barriers to employment. Sound Transit is also meeting with partners monthly to support hiring strategies. As new operators join the workforce, the agency will continue to assess staffing levels and restore service at its scheduled March and September service changes over the next few years. Additionally, Sound Transit also

Route 592 (DuPont/Lakewood – Seattle)		
	Approved and target service levels for 592	Current levels until operator availability improves
Weekdays		
Peak hours (6-9 a.m. and 3-7 p.m.)	20 min.	30 min.

A table comparing current service level operator availability and approved target service levels for Route 592.

continues to work closely with other agencies in the region to develop service efficiencies including, coordinating services on shared corridors between transit agencies. Cuts to Route 580 South Hill-Puyallup allowed Sound Transit to preserve higher ridership routes like 590-Tacoma-Seattle and 592-DuPont/Lakewood-Seattle that serve a similar market. Until, workforce levels stabilize, Sound Transit is focusing on making strategic cuts to ensure a predictable service delivery for most passengers.

### **What Did We Hear from the Public?**

*“More available trips South late night on weeknights”*

*“We love the convenience of taking the bus to Seattle for mini vacations. The fare is very reasonable and even if the fares increase, it would still be more economical than driving in heavy traffic and paying for costly and unsafe parking in the city. However, because of where we live, we have to take Pierce Transit to the Lakewood Transit Center and then walk to Lakewood Sounder station to pick up the 590 or 592...Having overnight parking or a shuttle between Lakewood Towne Center and the Sounder station would be a gift for us and perhaps others as well.”*

### **How has the plan changed since the initial proposal?**

Sound Transit is moving forward with this proposal, as it is the least discriminatory alternative. Sound Transit explored service consolidation (see alternatives on page 20) in South King and Pierce County to mitigate the need for service reductions. The plan, however, required a complex reorientation of service that would require an increase in service hours thereby necessitating more operators, an existing constraint.

Operator shortages continue in the Puget Sound region and are expected to last an additional 18-24 months. As soon as workforce conditions improve, Sound Transit will deliver planned improvements as part of the board adopted 2022 Service Plan (See appendix for more details on the 2022 Service Plan).

## Alternatives Considered

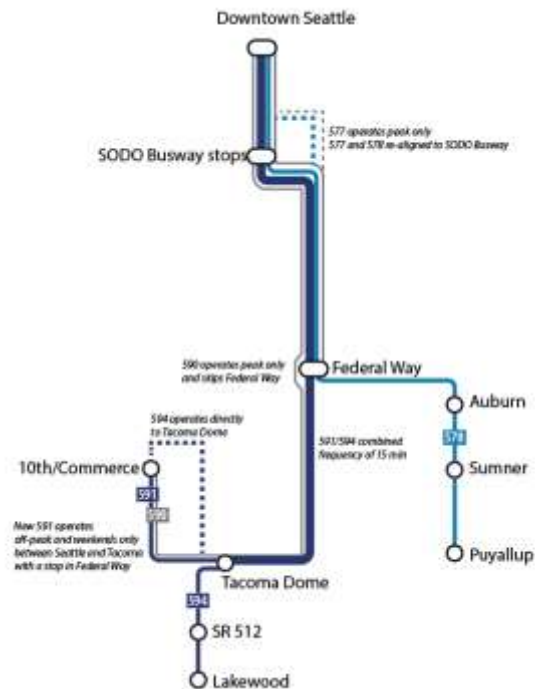
Sound Transit considered several alternative service adjustment scenarios for ST Express service in South King and Pierce County. Below is a summary of the most viable alternative Sound Transit Service Planning developed to respond to disruptions caused by operator shortages.

### Consolidate South King and Pierce County ST Express Service

A consolidation of service in South King and Pierce County was explored to improve service efficiency without having to reduce service on existing routes in South King and Pierce County.

In this scenario:

- **Route 590:** Operates during peak periods express between Tacoma Dome and Seattle. Frequencies during peak periods are approximately every 10 minutes.
- **Route 577:** Operates during peak periods, express between Federal Way and Seattle. Service is re-aligned to operate via SODO Busway to maintain consistency with other routes.
- **Route 578:** Would revert to aligning to the Sounder schedule (no AM peak service from Puyallup, no PM peak service from Seattle).
- **New Route 591:** Operates between Seattle and 10<sup>th</sup>/Commerce in Tacoma with stops at Federal Way and Tacoma Dome Station. Operates only on midday, reverse peak, evenings, and weekends when peak hour express variants 577 and 590 are not running.
- **Route 594:** Operates directly to Tacoma Dome (skips Downtown Tacoma) and stops in Federal Way en route to Seattle. Operates during the same hours as currently.



### Benefits

- Preserves non-stop service during peak hours, however, the span of service would decline compared to existing conditions to preserve operational resources.
- Service would be every 15 minutes or better from Tacoma and Federal Way to Seattle
- Federal Way passengers would have access to SODO, Stadium, and the International District, which currently is not served in the northbound direction.

### Tradeoffs

- Would require additional service hours and thereby more operators, which is an existing constraint.
- Route 594 Lakewood passengers no longer would have direct access to Downtown Tacoma, however, service would be more direct to Tacoma Dome Station.
- Off-peak and reverse peak Tacoma 590/594 passengers would have slower trips with the additional stop in Federal Way. Time penalty: 6-8 minutes.
- Federal Way, Puyallup/Auburn/Sumner passengers would have slightly slower travel times due to using the SODO Busway as opposed to staying on I-5. Travel time penalty: 2 minutes southbound, 4-8 minutes northbound.
- Scenario adds additional route variants, which may be confusing to new and existing riders who will have to navigate between multiple service and stopping patterns
- This route consolidation is large in scope akin to a major service restructure.

## **Conclusion**

This alternative was ultimately not considered for implementation because its success required additional service hours that existing workforce conditions would not allow. Moreover, the implementation of this change is similar to a full-scale bus restructure, which will be implemented in a few years as part of the Federal Way Link Extension project. Given the balance of tradeoffs, the implementation of this alternative was not pursued.

## Route 577-Federal Way- Seattle (Minor Service Change)

While this service change is an overall reduction in service, it is not considered a major service change because the reduction in revenue hours does not exceed 25%. Details are included for reference.

### Service Change Proposal

Formalize a reduction in service in the peak, midday and in the evenings. The 577 now runs every 10-12 minutes in the AM and PM peak, every 30 minutes midday, and every 30-60 minutes in the evenings.

### Why Are We Proposing these Changes?

Operator shortages prompted an emergency reduction in service in November 2021. Due to the ongoing constraint to the regional workforce, Sound Transit will codify this emergency service reduction until regional workforce conditions improve.

### What Does This Mean for Passengers?

Some passengers will wait longer for service throughout the day.

### Title VI Populations:

- **Minority Population:** ST District average: 41.7% Route 577 service area: 55.4%
- **Low Income:** ST District average: 20.7% Route 577 service area: 50.4%
- **LEP:** ST District average: 10.3% Route 577 service area: 13%

### Title VI Evaluation:

While this service change is an overall reduction in service, it is not considered a major service change because the reduction in revenue hours does not exceed 25%. Therefore, this change is not subject to Title VI analysis.

### What Did We Hear from the Public?

*“In addition to increasing transit operators, ST customer service is often non-existent or too slow to respond. Federal Way thankfully often has a supervisor present and available when I travel, but there are endless instance of little to zero updates during MASSIVE service interruptions. Very basic- like a staffed twitter account that replies quickly during all operating hours (not just M-F, 9-5) should be a given. Station communication (digital or even someone announcing updates) that is contextual should be a given for those without cell phones. ST is so slow to update people on what is going on it is beyond infuriating and an embarrassment. Please get that area of your operation together. People won’t trust that transit will get them where they want to go quickly and efficiently with repeated instance of that occurring.”*

Route 577 (Federal Way – Seattle)		
	Approved and target service levels for 577 and 578 between Federal Way and Seattle	Current levels until operator availability improves
Weekdays		
Peak hours (6-9 a.m. and 3-7 p.m.)	6-8 min.	10-12 min.
Midday (9-3 p.m.)	15 min.	30 min.
Evenings (7 p.m.-10 p.m.)	30 min.	30-60 min.
Late nights (after 10 p.m.)	30 min.	30 min.
Weekends	15 min.	30-60 min.

A table comparing current service level operator availability and approved target service levels for Route 577.

*“I recognize your current limitations, but part of the problem with overall regional transit situation is that it focuses on getting commuters downtown. Even local services are focused on suburban downtowns. Typical commute-hour frequency is what it needs to be off-peak in order for a system to be viable, off-peak service—if there even is any—is not at all convenient for most purposes”*

**How has the plan changed since the initial proposal?**

Sound Transit is moving forward with this proposal, as it is the least discriminatory alternative. Sound Transit explored service consolidation (see alternatives on page 20) in South King and Pierce County to mitigate the need for service reductions. The plan, however, required a complex reorientation of service that would require an increase in service hours thereby necessitating more operators, an existing constraint.

Operator shortages continue in the Puget Sound region and are expected to last an additional 18-24 months. As soon as workforce conditions improve, Sound Transit will deliver planned improvements as part of the board adopted 2022 Service Plan (See appendix for more details on the 2022 Service Plan).

## Conclusion of Individual Route Analysis

The **individual route analysis** found adverse effects and all major changes requiring formalization have either a disparate impact or disproportionate burden. Sound Transit's operating model where three operating partners serve different regions in the ST service district has resulted in varying levels of service for riders. As Pierce Transit-operated ST Express has had the most severe impacts of the operator shortages in late 2021, with many of the routes serving Title VI protected populations above the Sound Transit district average.

Several **mitigations** have been implemented to soften the impacts of reduced service levels, including: transferring Route 566 (Auburn-Overlake) operations to King County Metro to avoid further reductions on other Pierce Transit-operated routes, coordinating schedules with parallel Pierce Transit and King County Metro routes on shared corridors, and early restoration of Sounder S Line trips to pre-pandemic service levels (and the maximum number of trips allowed under Sound Transit's agreement with BNSF). Service design alternatives to the adopted service cuts to ST Express service in South King and Pierce County are also described, as well as the reasoning for why they were ultimately not pursued.

# ***Systemwide Service Analysis***

The systemwide analysis compares benefits and impacts to Title VI protected & non-protected populations on all routes with changes over multiple years. This marks the first time Sound Transit completed a systemwide analysis based on the new Title VI policy, adopted by the Board of Directors in August 2022. **The results of the systemwide analysis did not identify any findings.**

The systemwide analysis evaluates service reductions and service additions separately. The analysis shows that the distribution of benefits to protected populations exceeds 80% for protected populations and the reduction of service to protected populations does not exceed 20% of the distribution. Therefore, the systemwide analysis did not identify any adverse effects to protected populations over the course of September-March 2023. The following sections step through the analysis process for each analysis.

## **Methodology**

In order to conduct the system wide analysis, the percentage of low-income and non-low-income populations impacted by the change are compared to the overall district using a ratio. The analysis begins by identifying the populations affected by service changes and summarizing into totals for people experiencing increased service and people experience reduced service. Then the total affected populations are compared to the total population to calculate a percentage. Next, the threshold test evaluates the population comparison percentage to test for equity impacts.

## **Identifying Systemwide Service Reductions and Additions**

The first step in the analysis identifies service reductions and additions by route. The following table shows the total change in scheduled weekly revenue hours between September 2020 and March 2023 for each route. When weekly revenue hours increased, this change is identified as an addition. When weekly revenue hours decrease, this change is identified as a reduction. In the following analysis steps, the totals for the routes in each group will be used to evaluate systemwide reductions and additions.

The policy defines the timeframe for the analysis to evaluate all changes implemented in past two years and proposed changes for next year. The first six months of the COVID-19 pandemic would fall within the analysis time frame. Given the unique conditions of the initial six months of the COVID-19 pandemic, including frequent and unplanned changes to service, this evaluation begins in September 2020 to provide a more stable baseline, rather than a full two year look back to March 2020. For reference, the table below shows revenue hours for each service change during the analysis timeframe, including unscheduled emergency reductions.

Overall, the table shows a gradual service recovery following service reductions during the height of the pandemic. The recovery is interrupted by the ongoing operator shortages, however, we still see a modest growth in revenue service hours from September 2020 to the proposed service levels in March 2023.



<b>Scheduled Weekly Revenue Hours by Service Change September 2022 – March 2023</b>									
<b>Route</b>	<b>September 2020</b>	<b>March 2021</b>	<b>October 2021</b>	<b>November 2021 (Emergency Change)</b>	<b>March 2022</b>	<b>September 2022</b>	<b>March 2023</b>	<b>Change in Weekly Revenue Hours September 2022 to March 2023</b>	
510	191	193	193	193	183	171	171	-20	Reduction
511	140	121	142	142	113	291	291	151	Addition
512	1,061	968	1,035	1,035	951	898	898	-163	Reduction
513	82	64	118	118	123	116	116	33	Addition
522	1,634	1,655	2,083	2,083	2,060	2,060	2,074	439	Addition
532	140	133	135	135	133	129	129	-12	Reduction
535	326	319	420	420	412	405	405	79	Addition
542	834	834	769	769	769	769	769	-64	Reduction
545	1,754	1,748	1,753	1,753	1,633	1,633	1,633	-121	Reduction
550	1,794	1,792	1,792	1,792	1,690	1,690	1,690	-103	Reduction
554	1,189	1,189	1,189	1,189	1,142	1,142	1,142	-48	Reduction
556*	-	-	102	102	103	103	103	103	Addition
560	620	620	665	660	656	660	394	-227	Reduction
566	327	317	334	243	209	209	209	-118	Reduction
574	756	774	763	459	768	770	626	-130	Reduction
577	261	311	315	263	271	287	235	-26	Reduction
578	689	701	714	692	687	706	568	-121	Reduction
580	37	33	42	17	13	13	21	-16	Reduction
586	107	122	116	118	127	120	127	20	Addition
590	375	448	430	298	323	329	369	-6	Reduction
592	249	244	241	169	177	171	203	-46	Reduction
595	64	852	856	704	842	862	625	-275	Reduction
596	40	55	55	20	54	66	58	-6	Reduction
1 Line <sup>^</sup>	1,122	n/a	1,985	1,985	2,130	2,130	2,130	1,009	Addition
N Line	26	26	26	26	26	26	26	0	N/A
S Line	115	115	165	165	177	183	183	68	Addition
T Line	195	195	195	195	195	195	497	302	Addition
*Route 556 was suspended between September and October 2021.									
<sup>^</sup> Data for 1 Line not available for March 2021 given numerous emergency operational changes due to pandemic impacts.									

## Systemwide Service Reductions Analysis

When a systemwide potential adverse effect occurs due to major service changes on more than one line or route, the agency determines if the collective service reductions create a disparate impact or disproportionate burden by comparing the percentage of the service area’s minority or low-income population adversely affected by the major service reductions to the percentage of the district’s non-minority or non-low-income population adversely affected.

Collective service reductions include both service reductions under consideration for the next year and implemented service reductions in the past two years, both major and minor service changes.

The following table shows the total change in weekly revenue hours between September 2020 and March 2023 for each route with a service reduction. The population columns then identify the total Title VI protected and non-Title VI protected populations affected by the service reduction for each route.

<b>Populations Affected by Service Reductions September 2020 to March 2023</b>						
<b>Route</b>	<b>Change in Weekly Revenue Hours</b>	<b>Total Population</b>	<b>Minority Population</b>	<b>Non-Minority Population</b>	<b>Low-Income Population</b>	<b>Non-Low-Income Population</b>
510	-20	319,700	126,600	193,100	74,200	245,500
512	-163	536,200	197,900	338,300	112,100	424,100
532	-12	342,700	140,800	201,900	71,600	271,100
542	-64	85,900	36,900	49,000	15,500	70,400
545	-121	232,600	108,900	123,700	34,000	198,600
550	-103	103,700	46,700	57,000	18,300	85,400
554	-48	163,200	73,400	89,800	25,100	138,100
560	-227	187,100	104,600	82,500	44,900	142,200
566	-118	319,200	176,800	142,400	74,400	244,800
574	-130	337,200	180,100	157,100	112,600	224,600
577	-26	149,500	75,300	74,200	39,200	110,300
578	-121	265,700	115,600	150,100	65,400	200,300
580	-16	84,400	21,900	62,500	15,100	69,300
590	-6	146,200	64,900	81,300	42,400	103,800
592	-46	154,600	79,900	74,700	48,900	105,700
595	-275	231,800	113,600	118,200	75,600	156,200
596	-6	251,600	93,800	157,800	61,900	189,700
<b>Population Percentage Affected by Reduction<sup>1</sup></b>		<b>47%</b>	<b>48%</b>	<b>45%</b>	<b>48%</b>	<b>46%</b>

<sup>1</sup> Percentage affected by reduction calculated by summing the populations served by each route with a reduction, then divided by the sum of populations served by all routes to calculate a percentage. Note that some routes have overlapping service areas.

## Analysis

If the percentage of the minority or low-income population adversely affected is 20 percent or greater than the percentage of the non-minority or non-low-income population adversely affected (e.g., 12 percent or more of the minority population is adversely affected while 10 percent or less of the non-minority population is adversely affected), the reductions create a disparate impact or disproportionate burden.

Using the data collected in the above table the following percentages were calculated for populations adversely affected by a service reductions compared with the total population in the service area of all routes:

- Minority population adversely affected: 48%
- Non-Minority population adversely affected: 45%
- Low-Income population adversely affected: 48%
- Non-Low-Income population adversely affected: 46%

### Disparate Impact

To evaluate for a potential disparate impact, the percentage of minority population adversely affected is compared to the percentage of non-minority population adversely affected using a ratio. **Because the result of six percent is not 20 percent or greater, no disparate impact was identified.**

Minority Population Adversely Affected	Non-Minority Population Adversely Affected	Ratio Comparison	Threshold for Disparate Impact
48%	45%	$48\% \div 45\% = 6\%^1$	20% or greater
<sup>1</sup> In order to compare with the policy threshold the ratio calculation is shown as the difference from 100%.			

### Disproportionate Burden

To evaluate for a potential disproportionate burden, the percentage of low-income population adversely affected is compared to the percentage of non-low-income population adversely affected using a ratio. **Because the result of three percent is not 20 percent or greater, no disproportionate burden was identified.**

Low-Income Population Adversely Affected	Non- Low-Income Population Adversely Affected	Ratio Comparison	Threshold for Disproportionate Burden
48%	43%	$48\% \div 43\% = 3\%^1$	20% or greater
<sup>1</sup> In order to compare with the policy threshold the ratio calculation is shown as the difference from 100%.			

## Systemwide Service Additions

When a systemwide potential adverse effect occurs due to major service changes on more than one line or route, the agency determines if the collective service additions create a disparate impact or disproportionate burden by comparing the percentage of the minority or low-income population who benefit from the major service additions to the percentage of the district’s non-minority or non-low-income population who benefits from the service additions.

Collective service additions include both service additions under consideration for the next year and implemented service additions in the past two years, both major and minor service changes.

The following table shows the total change in weekly revenue hours between September 2020 and March 2023 for each route with a service addition. The population columns then identify the total Title VI protected and non-Title VI protected populations affected by the service addition for each route.

<b>Populations Benefited by Service Additions September 2020 to March 2023</b>						
<b>Route</b>	<b>Change in Weekly Revenue Hours</b>	<b>Total Population</b>	<b>Minority Population</b>	<b>Non-Minority Population</b>	<b>Low-Income Population</b>	<b>Non-Low-Income Population</b>
511	151	399,600	145,100	254,500	74,700	324,900
513	33	484,500	181,200	303,300	98,800	385,700
522	439	136,100	43,000	93,100	18,800	117,300
535	79	238,300	91,000	147,300	37,400	200,900
556	103	130,700	54,800	75,900	20,100	110,600
586	20	184,700	90,500	94,200	62,100	122,600
1 Line	1,009	940,600	416,700	523,900	213,500	727,100
S Line	68	1,203,200	572,700	630,500	316,400	886,800
T Line	302	300,100	129,300	170,800	82,200	217,900
<b>Population Percentage Benefited by Addition<sup>1</sup></b>		<b>49%</b>	<b>48%</b>	<b>50%</b>	<b>48%</b>	<b>49%</b>
<sup>1</sup> Percentage benefiting from service addition calculated by summing the populations served by each route with a service addition, then divided by the sum of populations served by all routes to calculate a percentage. Note that some routes have overlapping service areas.						

## Analysis

If the percentage of the minority or low-income population benefited is 80 percent or less than the percentage of the non-minority or non-low-income population benefited (e.g., eight percent or less of the minority population benefits while 10 percent or more of the non-minority population benefits), the changes create a disparate impact or disproportionate burden.

Using the data collected in the above table the following percentages were calculated for populations benefiting from service additions compared with the total population in the service area of all routes:

- Minority population benefiting: 48%
- Non-Minority population benefiting: 50%
- Low-Income population benefiting: 48%
- Non-Low-Income population benefiting: 49%

### Disparate Impact Test

To evaluate for a potential disparate impact, the percentage of minority population adversely affected is compared to the percentage of non-minority population adversely affected using a ratio. **Because the result of 97 percent is greater than the 80 percent or less threshold, no disparate impact was identified.**

Minority Population Benefiting	Non-Minority Population Benefiting	Ratio Comparison	Threshold for Disparate Impact
48%	50%	$48\% \div 50\% = 97\%$	80% or less

### Disproportionate Burden Test

To evaluate for a potential disproportionate burden, the percentage of low-income population adversely affected is compared to the percentage of non-low-income population adversely affected using a ratio. **Because the result of 98 percent is greater than the 80 percent or less threshold, no disparate impact was identified.**

Low-Income Population Benefiting	Non- Low-Income Population Benefiting	Ratio Comparison	Threshold for Disproportionate Burden
48%	49%	$48\% \div 49\% = 98\%$	80% or less

## Conclusion

The systemwide analysis evaluates service reductions and service additions separately. For service additions, the analysis shows that the distribution of benefits to protected populations exceeds 80% for protected populations. For service reductions the adverse impacts to protected populations does not exceed 20% for protected populations. Therefore, the systemwide analysis did not identify any adverse effects to protected populations over the course of September-March 2023.

# Appendix

## Route Productivity 2019-2021

The table below shows the ridership productivity of routes with service changes reviewed in this analysis. All route experienced an initial decline in ridership due to the pandemic. While Route 580 South Hill-Puyallup, had the largest decline among routes represented, many routes in the southern corridor continued to perform well despite pandemic conditions like Route 577 Federal Way-Seattle and Route 590 Tacoma-Seattle.

Route 566 Auburn/Kent-Redmond Ridership			
Year	2019	2020	2021
Annual Ridership	339,003	134,183	99,158
Avg Daily	1,329	524	390
Route 577 Federal Way-Seattle Ridership			
Year	2019	2020	2021
Annual Ridership	488,576	205,331	179,154
Avg Daily	1,916	802	705
Route 580 South Hill-Puyallup Ridership			
Year	2019	2020	2021
Annual Ridership	220,000	65,498	17,187
Avg Daily	864	256	68
Route 590 Tacoma-Seattle Ridership			
Year	2019	2020	2021
Annual Ridership	671,192	237,353	208,932
Avg Daily	2,632	256	823
Route 592 DuPont/Lakewood-Seattle Ridership			
Year	2019	2020	2021
Annual Ridership	195,863	68,293	49,983
Avg Daily	768	267	197

## ST Service Area Title VI Routes and Population

Route	Total Population	Non-Minority Population	Minority Population		Limited English Proficiency (LEP) <sup>1</sup>		Non Low-Income Population	Low-Income Population	
510	319,700	193,100	126,600	39.6%	35,800	11.2%	245,500	74,200	23.2%
511	399,600	254,500	145,100	36.3%	40,800	10.2%	324,900	74,700	18.7%
512	536,200	338,300	197,900	36.9%	57,900	10.8%	424,100	112,100	20.9%
513	484,500	303,300	181,200	37.4%	54,300	11.2%	385,700	98,800	20.4%
522	136,100	93,100	43,000	31.6%	11,000	8.1%	117,300	18,800	13.8%
532	342,700	201,900	140,800	41.1%	42,800	12.5%	271,100	71,600	20.9%
535	238,300	147,300	91,000	38.2%	25,500	10.7%	200,900	37,400	15.7%
542	85,900	49,000	36,900	43.0%	9,200	10.7%	70,400	15,500	18.0%
545	232,600	123,700	108,900	46.8%	25,400	10.9%	198,600	34,000	14.6%
550	103,700	57,000	46,700	45.0%	9,900	9.5%	85,400	18,300	17.6%
554	163,200	89,800	73,400	45.0%	15,700	9.6%	138,100	25,100	15.4%
556	130,700	75,900	54,800	41.9%	12,300	9.4%	110,600	20,100	15.4%
560	187,100	82,500	104,600	55.9%	35,000	18.7%	142,200	44,900	24.0%
566	319,200	142,400	176,800	55.4%	53,300	16.7%	244,800	74,400	23.3%
574	337,200	157,100	180,100	53.4%	48,600	14.4%	224,600	112,600	33.4%
577	149,500	74,200	75,300	50.4%	19,400	13.0%	110,300	39,200	26.2%
578	265,700	150,100	115,600	43.5%	28,700	10.8%	200,300	65,400	24.6%
580	84,400	62,500	21,900	25.9%	4,000	4.7%	69,300	15,100	17.9%
586	184,700	94,200	90,500	49.0%	23,600	12.8%	122,600	62,100	33.6%
590	146,200	81,300	64,900	44.4%	11,500	7.9%	103,800	42,400	29.0%
592	154,600	74,700	79,900	51.7%	14,400	9.3%	105,700	48,900	31.6%
594	231,800	118,200	113,600	49.0%	21,100	9.1%	156,200	75,600	32.6%
595	251,600	157,800	93,800	37.3%	15,300	6.1%	189,700	61,900	24.6%
596	63,300	50,300	13,000	20.5%	1,500	2.4%	53,300	10,000	15.8%
Souder North	373,600	237,200	136,400	36.5%	39,600	10.6%	289,900	83,700	22.4%
Souder South	1,203,200	630,500	572,700	47.6%	148,000	12.3%	886,800	316,400	26.3%
Link	940,600	523,900	416,700	44.3%	111,000	11.8%	727,100	213,500	22.7%
Tacoma Link	300,100	170,800	129,300	43.1%	25,500	8.5%	217,900	82,200	27.4%
ST District Average	<b>3,205,600</b> <sup>3</sup>		<b>1,336,700</b>	<b>41.7%</b>	<b>330,200</b>	<b>10.3%</b>		<b>663,600</b>	<b>20.7%</b>

<sup>1</sup> Limited English is defined as speaking English, "Less than very well."  
<sup>2</sup> Low Income defined as 200% poverty level and below.  
<sup>3</sup> Published district total population estimate, 2020.

## 2022 Service Plan Summary

The table below summarizes the service improvements approved by the Board of Directors in the 2022 Service Plan. Implementation of the service improves is deferred until operator availability improves. Full details are available in the [2022 Service Plan document](#).

Route	Is Title VI Protected Population Higher than the ST District Average (2019 Census)?			Type Service Change	Change in Weekly Platform Hours	Percentage Change in Platform Hours
	Minority	Low-Income	LEP			
535	No	No	No	Service Increase	114	29.3%
T Link	Yes	Yes	No	Service Increase	302.6	152.5%
590	Yes	Yes	No	Service Increase	220	30.1%
592	Yes	Yes	No	Add new stops	10	2.9%
Sounder S	Yes	Yes	Yes	Service Increase	40	44.4%
550	Yes	No	Yes	Service Increase on Sundays with reallocation of mid-day service	0	0%
560	Yes	Yes	Yes	Service Increase	90	11.2%
574	Yes	Yes	Yes	Service Increase	15	1.6%
577	Yes	Yes	No	Service Increase	51	9.4%
578	Yes	Yes	No	Service Increase	67	8.2%
594	Yes	Yes	No	Service Increase Coordinated Schedule with Route 590	-40	-4.1%



## Route-Level Title VI Population Maps

