trends in transit insights

Comparison of Time of Day Bellevue Transit Ridership Pre-(2019) and Post-(2023) COVID.
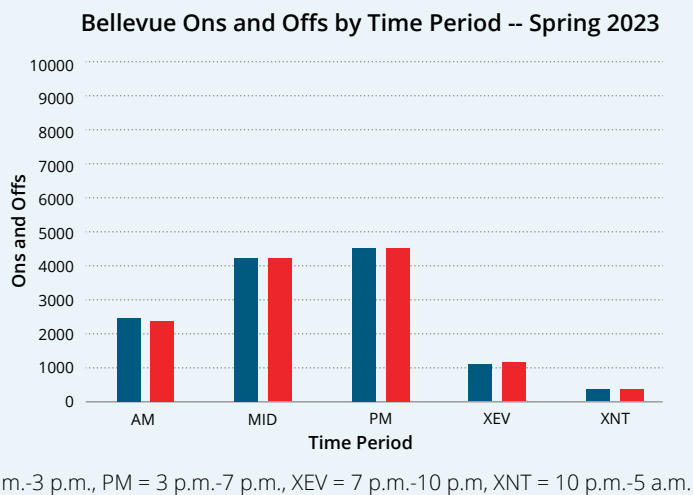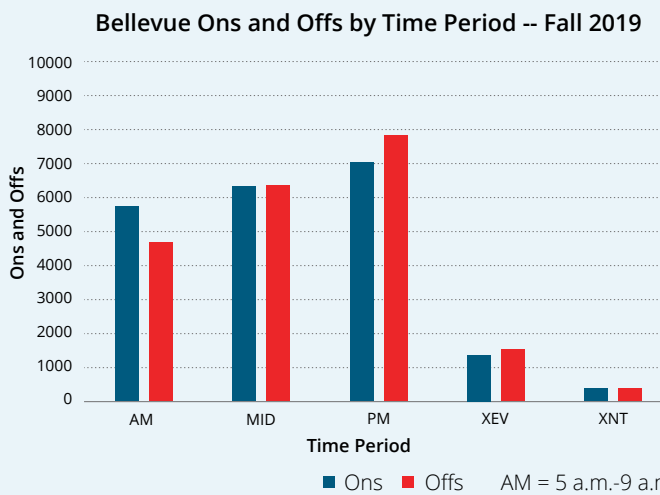
Subject

This Trends in Transit Insight will delve into when riders in Bellevue are using transit service and how that has changed since the pandemic.

Analysis Methodology

For this analysis, we are using summarized stop-level Automatic Passenger Counter (APC) data provided by King County Metro that includes all King County Metro-operated transit service serving stops within Bellevue. Ridership from Sound Transit Routes 532, 535 and 560 are not included in the analysis and may have ridership profiles that conflict with or lessen the conclusions reached below. We will look at two different ridership measures during each weekday time period (see footer):

1. Total boardings and alightings at stops in Bellevue
2. Average boardings and alightings at stops in Bellevue per trip, to account for different amounts of service.

Total Ridership by Time of Day

Bellevue Ons and Offs by Time Period -- Fall 2019

Bellevue Ons and Offs by Time Period -- Spring 2023

■ Ons ■ Offs   AM = 5 a.m.-9 a.m., MID = 9 a.m.-3 p.m., PM = 3 p.m.-7 p.m., XEV = 7 p.m.-10 p.m, XNT = 10 p.m.-5 a.m.

Subject

- Ons and offs have gone down during all time periods.
- The AM Peak has experienced the largest drop in ons and offs of over 50%.
- Midday and PM Peak have experienced a drop in ons and offs of about 30-35%.
- Evening has experienced a drop in ons and offs of about 20%, while the night is similar (i.e. less than 10% change) in ons and offs.
- The large drop in AM peak ridership is indicative of changes in ridership patterns where many people appear to be travelling later in the morning.
- There used to be an imbalance in ons and offs during the peak periods where more people were boarding than alighting in the AM Peak and more people were alighting than boarding in the PM Peak. This indicates that there were more people travelling on transit out of Bellevue than into Bellevue in the AM Peak and the reverse in the PM Peak. It appears that this imbalance has disappeared and there are now a similar number of people riding transit into Bellevue as out of Bellevue during the peak periods.

Average Ridership per Trip by Time of Day

Bellevue Ons and Offs per trip by Time Period -- Fall 2019
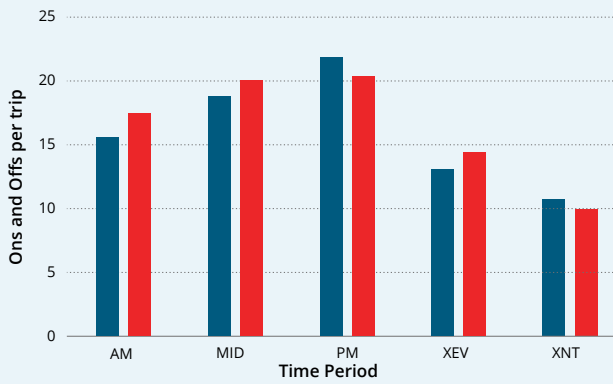
Bellevue Ons and Offs per trip by Time Period -- Spring 2023
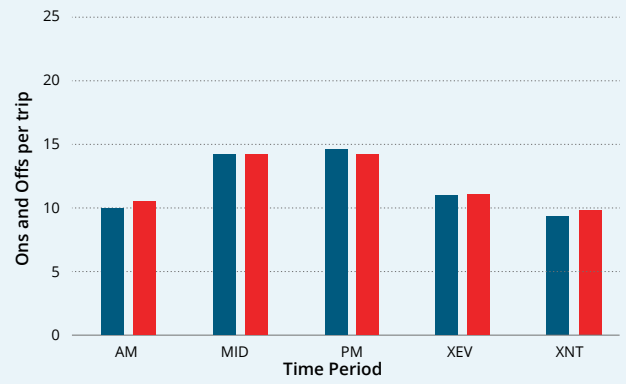
■ Ons ■ Offs   AM = 5 a.m.-9 a.m., MID = 9 a.m.-3 p.m., PM = 3 p.m.-7 p.m., XEV = 7 p.m.-10 p.m, XNT = 10 p.m.-5 a.m.

One-way peak period routes only factor into the expected type of demand. For example, a peak-only route designed to carry Bellevue residents to jobs in Seattle only factor into the ons per trip category in the morning since the route is unlikely to have anyone getting off at a stop in Bellevue.

Observations:

• Peak (AM & PM) period ons and offs per trip have fallen 30-40%.

• Midday ons and offs per trip have fallen 25-30%.

• Evening and night ons and offs per trip have fallen 5-20%.

• The significant decrease in trip ridership indicates that peak period ridership has suffered the biggest impact from the pandemic.

• The AM Peak is now less productive than Midday, PM Peak or Evening.

Conclusions

▶ Ridership patterns have changed significantly because of the pandemic, with the AM Peak suffering the largest drop in ridership. Industry research suggests that many people continue to work remotely or to flex their schedules to travel later in the morning. This data appears to agree with industry research, without being able to conclusively prove the connection.

▶ The historic double peak in ridership during the AM and PM peak periods appears to have been replaced by a single peak period between 9 a.m. and 7 p.m. This change in ridership patterns represents an opportunity for regional transit providers to operate more efficiently as peak service overlays would not have to return to the garages during the midday period and could spend more of their time serving customers.

▶ There is now a balance in the number of people using transit to travel into and out of Bellevue, instead of the historic pattern of more people using transit to leave Bellevue in the morning and return in the afternoon. This represents an opportunity for regional transit providers to operate more efficiently as buses can serve a similar number of riders in both directions instead of having buses run with significantly fewer riders in one direction.

▶ Ridership trends are consistent with the Bellevue Transit Master Plan vision of frequent all-day transit connections instead of a focus on AM and PM peak transit connections.