Portland Mobility Dashboard

This dashboard is built using publicly available data from the City of Portland's Open Data Catalog and reflects information current as of August 2025. The following datasets were used:

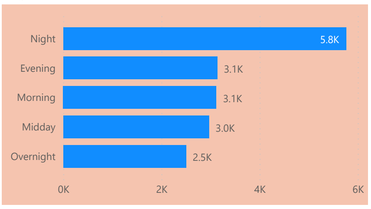
- *Traffic Signals — infrastructure details, ownership, and category*
- *Average Daily Traffic (ADT) — vehicle volume across time blocks and weekdays*
- *High Crash Corridors — binary indicators of crash presence by corridor and mode*
- *Neighborhood Boundaries — used for potential spatial slicing or mapping context*

Please note that data may be subject to change, and this dashboard is intended for informational and analytical purposes only. It should not be used for official planning or decision-making without consulting current, authoritative sources.

Key Traffic Metrics

3.01K
Average ADT Volume

7
Avg % Trucks



Analyst Summary – Insights from Portland Traffic Patterns

The traffic volume analysis reveals that **nighttime hours see the highest activity**, particularly on Sundays, suggesting patterns linked to weekend travel, late-night logistics, or return commutes. Contrary to expectations, **weekday mornings do not dominate**, with **Midday and Evening** blocks showing consistently high volumes — possibly due to **flexible work schedules, school runs, or delivery services.**

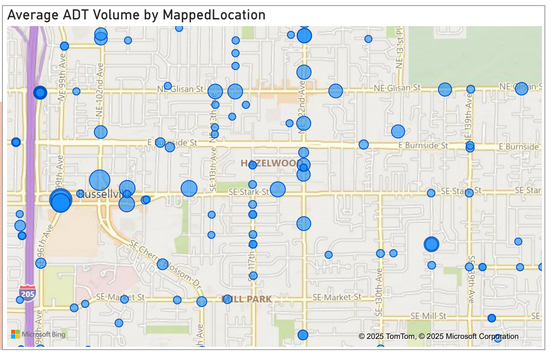
The **heatmap distinctly highlights Sunday nigh**t as the most trafficked time slot across all days, underscoring a potential behavioral trend in end-of-week movement.

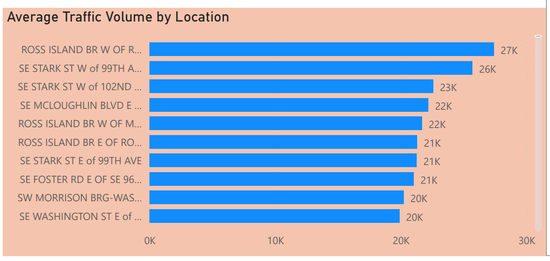
Location-specific data shows traffic clustering around **key bridges and corridors**, especially the **Ross Island Bridge and SE Stark Street**, affirming their role as critical arteries in the city's transportation network.

Meanwhile, the map of volume hotspots demonstrates that **traffic density is widely dispersed**, particularly across **East Portland** — a sign that infrastructure planning should prioritize distributed investments, not just central business corridors

Weekday	Evening	Midday	Morning	Night	Overnight	**Total**
Monday	2,791.10	3,060.60	4,116.96	1,879.25	3,336.00	**3,064.37**
Tuesday	3,297.82	3,125.23	2,444.02	7,805.82	5,128.28	**3,166.06**
Wednesday	2,824.31	1,903.33	1,516.36		3,806.71	**1,979.44**
Thursday		4,649.00	5,110.00		958.00	**2,239.56**
Friday					1,771.53	**1,771.53**
Saturday		2,858.00			1,904.58	**1,939.89**
Sunday	3,366.11	3,404.46	4,206.00	10,033.00	2,464.24	**3,428.39**
Total	**3,134.46**	**2,966.96**	**3,117.16**	**5,760.19**	**2,500.00**	**3,005.46**

Traffic Volume Hotspots Across Portland





High Crash Corridors by Mode

This section visualizes Portland's **High Crash Network** — a Data set published by the City of Portland to identify the most dangerous corridors for people **driving, walking, and bicycling.**

According to the City's official summary:

"The High Crash Network includes Portland's most dangerous streets and intersections for people driving, walking, and bicycling. This data set delineates the streets which are among the top 20 crash streets for motor vehicles, pedestrians, and bicyclists. Many streets are high crash streets for multiple transportation modes. Together, they form a network of 30 high crash streets."

What the Dashboard Shows

Because the data set contains binary flags (Y / N) rather than crash counts, this section uses a matrix-style table with:

- Corridor name (e.g., SE Stark St, N/NE Sandy Blvd)
- ✓ / ✗ indicators showing crash presence for:
- Motor vehicle crashes
- Bicycle crashes
- Pedestrian crashes

CorridorName	CorridorLength	Crash_Bike	Crash_Motor	Crash_Ped
E/W Burnside St	6.785539961	✓	✓	✓
N Interstate Ave	3.701769029	✓	✗	✗
N/NE Fremont St	3.153966101	✓	✓	✗
N/NE Killingsworth St	3.041759446	✓	✓	✓
N/NE Lombard St	5.480684484	✓	✓	✓
NE 102nd Ave	1.098137245	✗	✗	✓
NE Airport Way	3.106561005	✗	✓	✗
NE Columbia Blvd	4.496167324	✗	✓	✗
NE Glisan St	3.149940238	✓	✓	✓
NE Halsey St	2.816342124	✗	✓	✓
NE Marine Dr	6.811585272	✗	✓	✗
NE Martin Luther King Jr Blvd	2.403496795	✓	✗	✓
NE/SE 122nd Ave	3.080534897	✓	✓	✓
NE/SE 82nd Ave	4.201353124	✓	✓	✓
NE/SE Sandy Blvd	3.909234403	✓	✓	✓
SE 7th Ave	0.499455406	✓	✗	✗
SE 92nd Ave	1.852834169	✗	✗	✓
SE Cesar E Chavez Blvd	1.574453975	✗	✗	✓
SE Division St	3.612614314	✓	✓	✓
SE Foster Rd	2.701752643	✓	✓	✓
SE Hawthorne Blvd	1.145261933	✓	✗	✓
SE Holgate Blvd	2.77055208	✓	✓	✓
SE Powell Blvd	3.932425388	✓	✓	✓
SE Stark St	4.406791884	✓	✓	✓
SW 4th Ave	0.569557387	✗	✗	✓
SW Barbur Blvd	2.755819195	✗	✓	✗
SW Beaverton-Hillsdale Hwy	1.050543563	✗	✓	✗
SW Capitol Hwy	2.021974559	✓	✗	✗
SW Terwilliger Blvd	2.119899213	✓	✗	✗
SW/N/NE Broadway	2.01408816	✓	✓	✓

Traffic Signal Infrastructure Overview

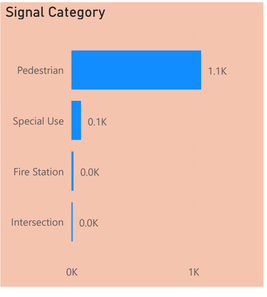
1158
Total Signals

959
Old Signals

0.02
Pct Metered

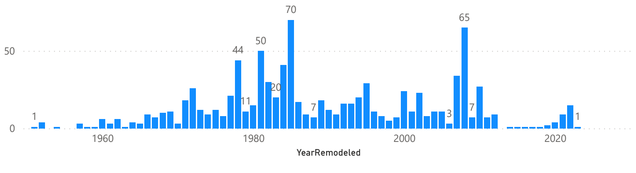
24
Modern Controllers

70.98
Pct Old (>30y)



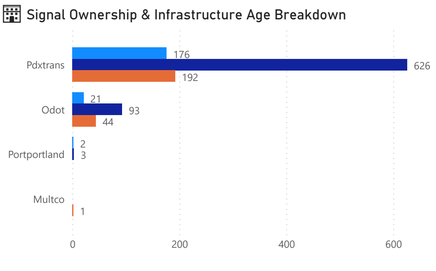
The traffic signal infrastructure in Portland shows clear signs of aging and limited modernization. Of the 1,158 total traffic signals, **959 have not been remodeled in over 20 years**, reflecting a widespread reliance on legacy infrastructure. Even more striking, **over 70% of signals haven't been updated in more than 30 years**, suggesting potential risks in reliability and efficiency. Only **24 signals feature modern controllers**, and a mere 0.02% are metered, indicating minimal deployment of smart or adaptive traffic systems. The majority of signals are dedicated to **pedestrian use**, followed by a small number for special purposes, fire stations, and intersections. These insights highlight a pressing opportunity for targeted investment in traffic technology upgrades to improve safety, efficiency, and preparedness for future urban mobility demands.

Signal Infrastructure Remodel Trends (1950–2025)



This chart highlights the distribution of traffic signal remodels in Portland across the last seven decades. Peak remodeling activity occurred in the **1980's and early 2000's**, followed by a noticeable decline in recent years. The **drop after 2010** indicates limited recent investment in upgrading signal infrastructure, which aligns with earlier insights showing that **over 70% of signals are over 30 years old.** This aging trend reinforces the need for a proactive modernization strategy to ensure reliability and accommodate future mobility technologies.

Signal Ownership & Infrastructure Age Breakdown



Traffic signal ownership in Portland is concentrated among a few key entities, with the majority of signals falling under a single managing organization. When segmented by modernization status, the data shows that most signals across all ownership groups are still classified as **"Old" or "Unknown,"** with only a limited number updated to modern standards. This highlights a potential opportunity for coordinated infrastructure upgrades across jurisdictions to improve overall traffic system reliability and safety.