

Elevator Outages at Accessible SEPTA Stations

Greater Philadelphia Area, 2017-2019

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Project & Data Information

[UnlockedMaps](#) (originally *UnlockPhilly*) maps urban rail transit with accessibility as the focus, showing real-time elevator status to help those relying on elevators, such as wheelchair users, with their commute. Elevator status is fetched from transit authorities' websites via API calls.

This preliminary exploration focuses on recorded outage data for train lines operated by the Southeastern Pennsylvania Transportation Authority (SEPTA) in the Greater Philadelphia area in the 24-month period from March 2017 - March 2019.

Questions & Significance

- How accessible are stations around Philadelphia?
- How often are elevators at those stations out of service?

Many people depend on working, accessible stations to get around. Analysis of recorded outages helps **advocacy efforts**:

- ❑ Make more stations and lines accessible
- ❑ Identify pressure points—stations that need more maintenance and upkeep

Fig. 1 : Accessible SEPTA stations

- ❑ Lines running through Center City generally have a higher ratio of stations with elevators
- ❑ More Regional Rail lines and Norristown HSL stations need to be upgraded with ramps/elevators
- Users reliant on accessible stations can get around Center Philadelphia fairly well but would struggle to reach outer neighborhoods and surrounding suburbs on public transit

Full interactive version of Figure 1 at <https://trunganh-nguyen.github.io/septa-stations/>

Figure 1: Wheelchair accessible SEPTA stations
Greater Philadelphia area

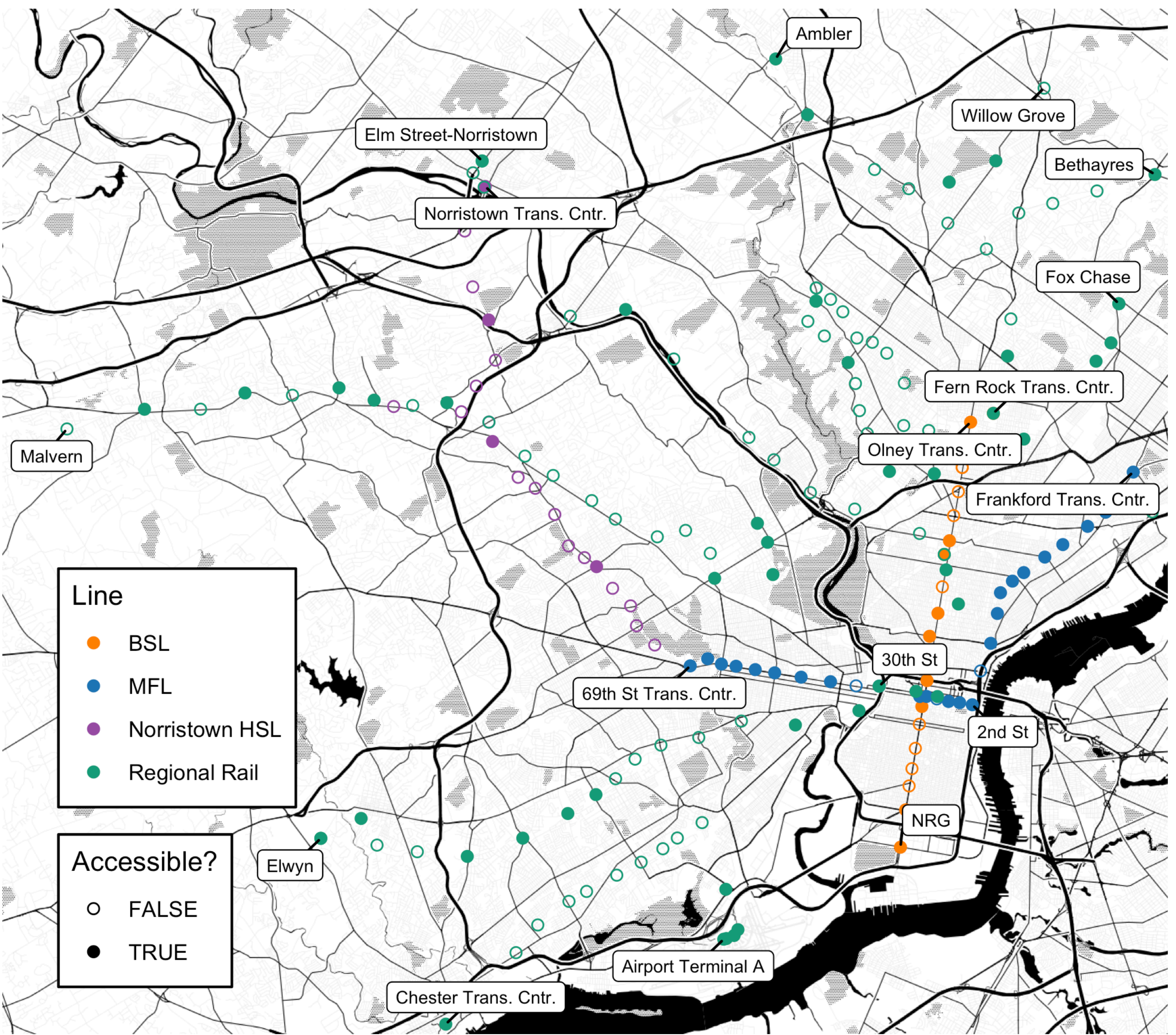


Fig. 2 : Accessible SEPTA stations (cont.)

- ❑ As of 2019, out of 237 SEPTA stations, only 122 are accessible—slightly more than half
- ❑ Trolley and bus stops are excluded from the analysis
- ❑ BSL, which runs through Center City, has less than half of its stations made accessible. This line is a potential pressure point that needs upgrading
- ❑ While some service lines have a high percentage of accessible stations, such as Fox Chase, Cynwyd, and MFL, others are in sore need of upgrades to improve access to those reliant on ramps or elevators (Chestnut Hill East in particular has 0 accessible station)

Figure 2: Accessible SEPTA stations by service line
(as of 2019)

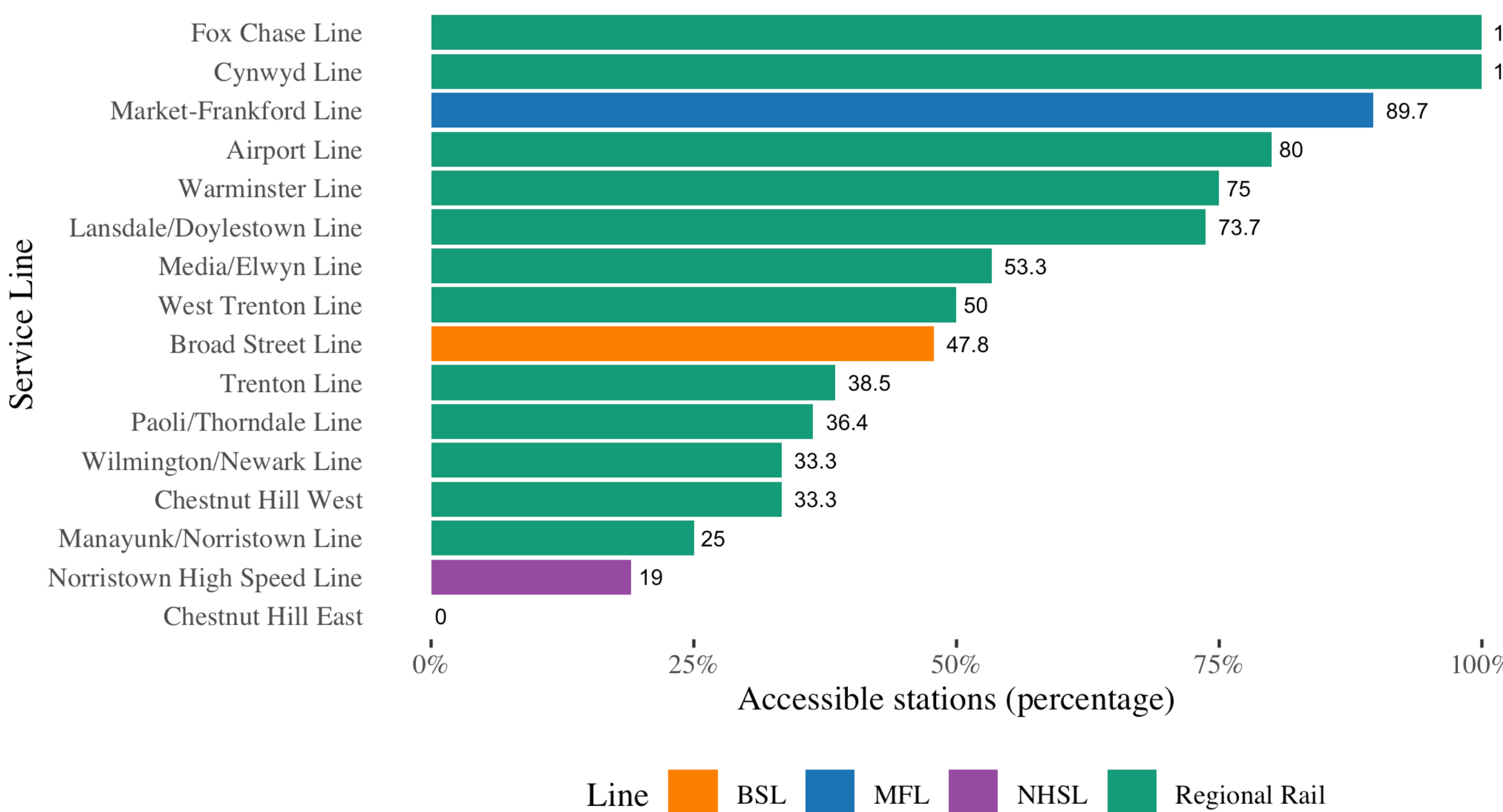


Fig 3: Total days of outages by stations

- ❑ In the 24-month period, 40 stations (32.5% of all accessible stations) reported at least 1 elevator outage
- ❑ 56th Street station elevator performed the worst
- ❑ Top 5 worst performers are all MFL stations, each with over 100 days of outage in 24 months
- ❑ 23 stations (almost 60%) with reported outages are MFL ones

Fig 4: Outages by stations and date

- Figure 3 shows every single point of data in the dataset
- ❑ 8th Street station had the worst streak of outage lasting 85 days from March - May 2017
- ❑ 56th Street station's elevators have a particularly bad record, repeatedly breaking down starting from November 2018 to the end of the period included

Figure 3: Elevator outages at SEPTA stations
Greater Philadelphia area, 24-month total (March 2017-March 2019)

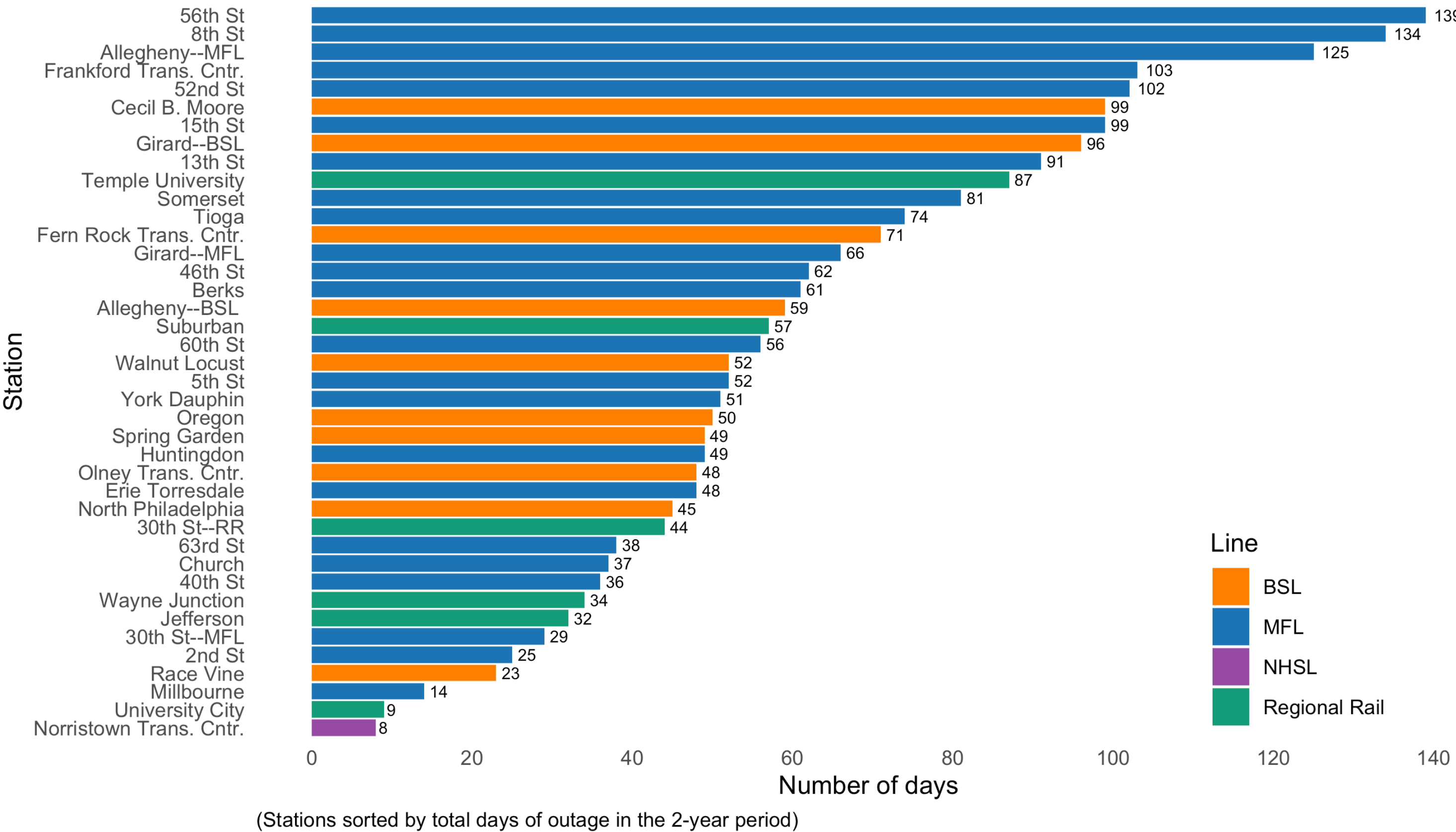
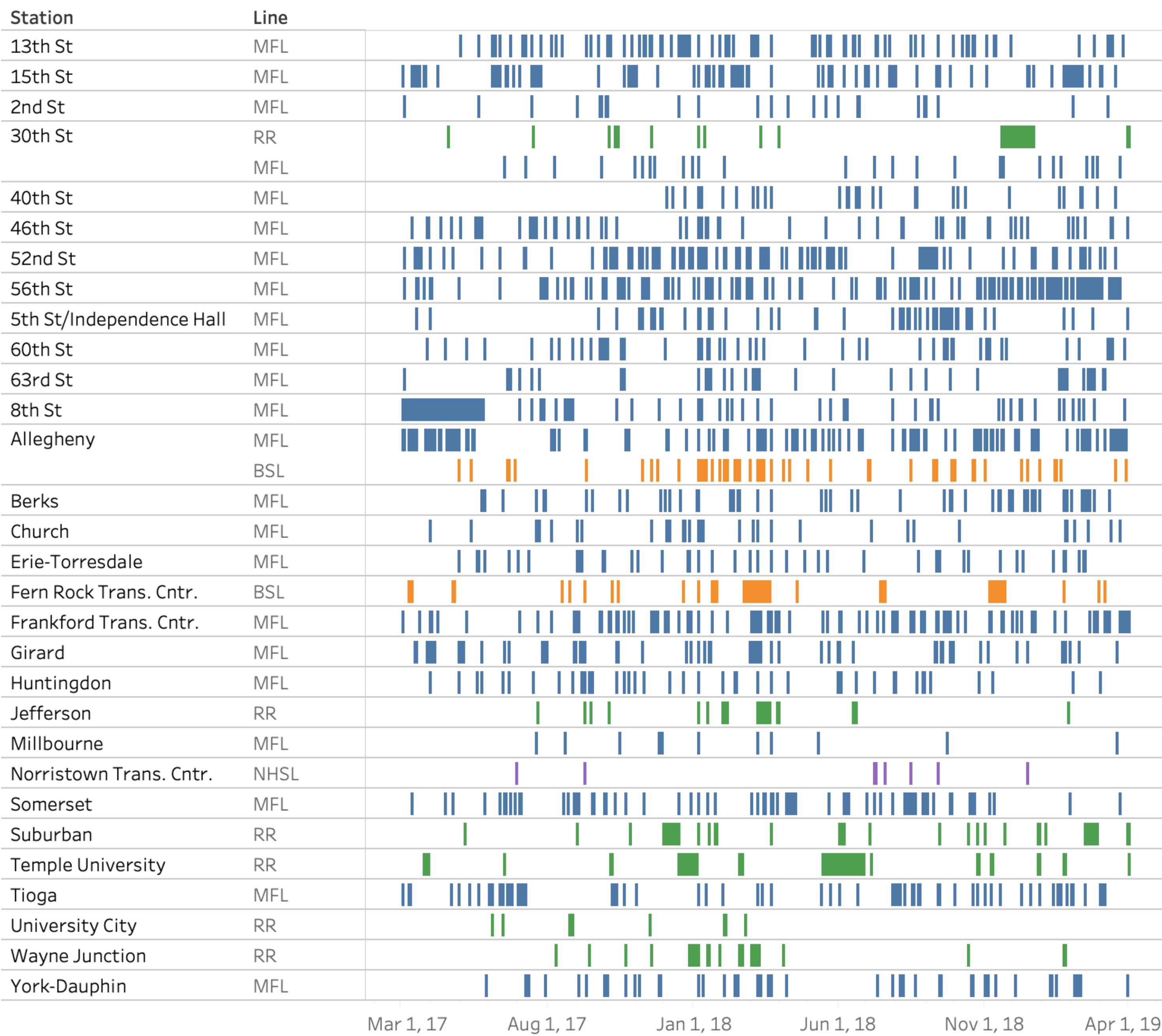


Figure 4: Elevator outages at SEPTA stations by date
(March 2017 - March 2019)



Acknowledgment

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