WHAT ARE YOUR COMMUTING HABITS?

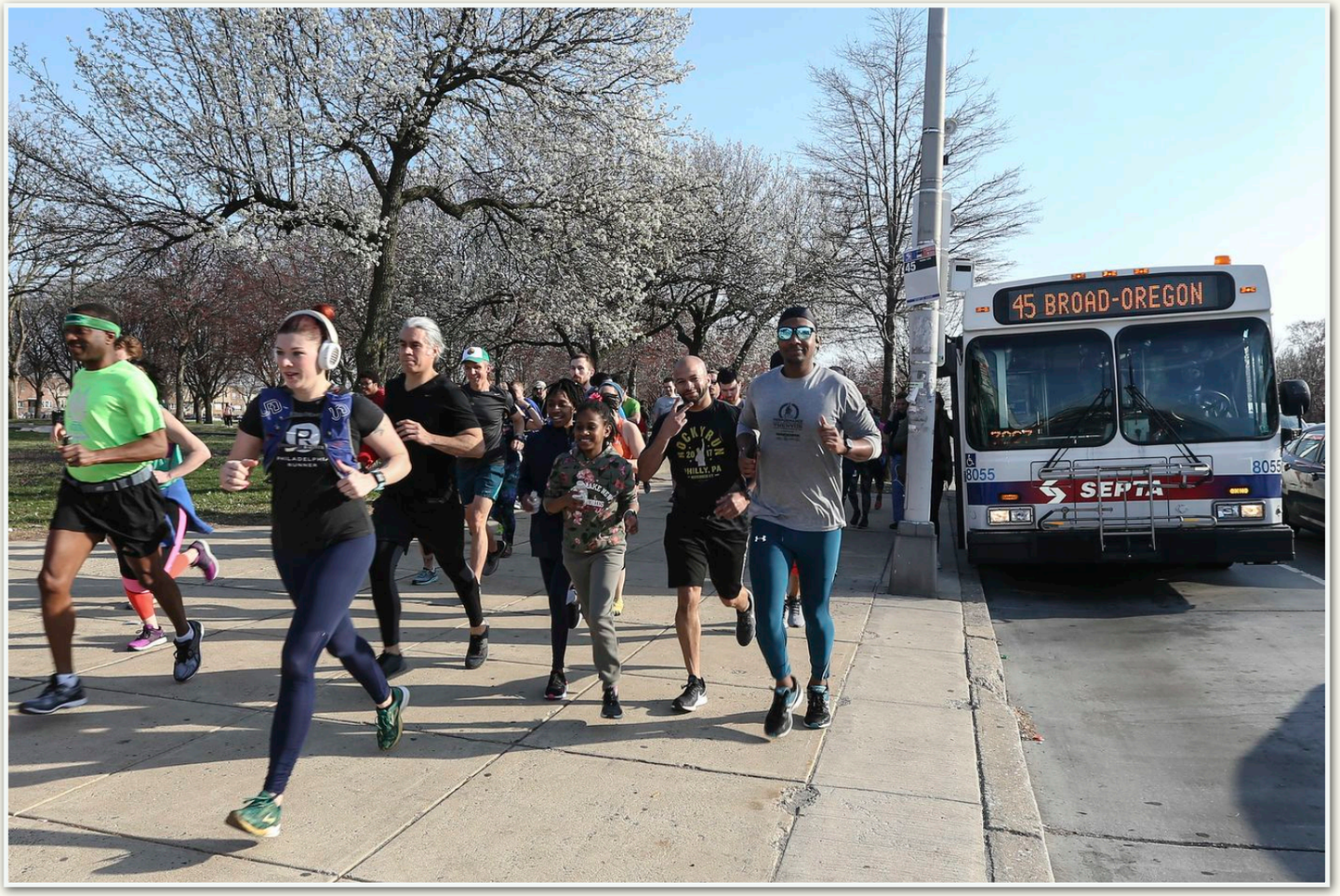
Learning about commuting habits through visualizations.

I USED TO HATE PUBLIC TRANSPORTATION

Slow, confusing, and disgusting.

“If the concourses don’t smell like urine, they smell like bleach.”

"Sixty-five percent of Philadelphia's 83 bus routes run late."

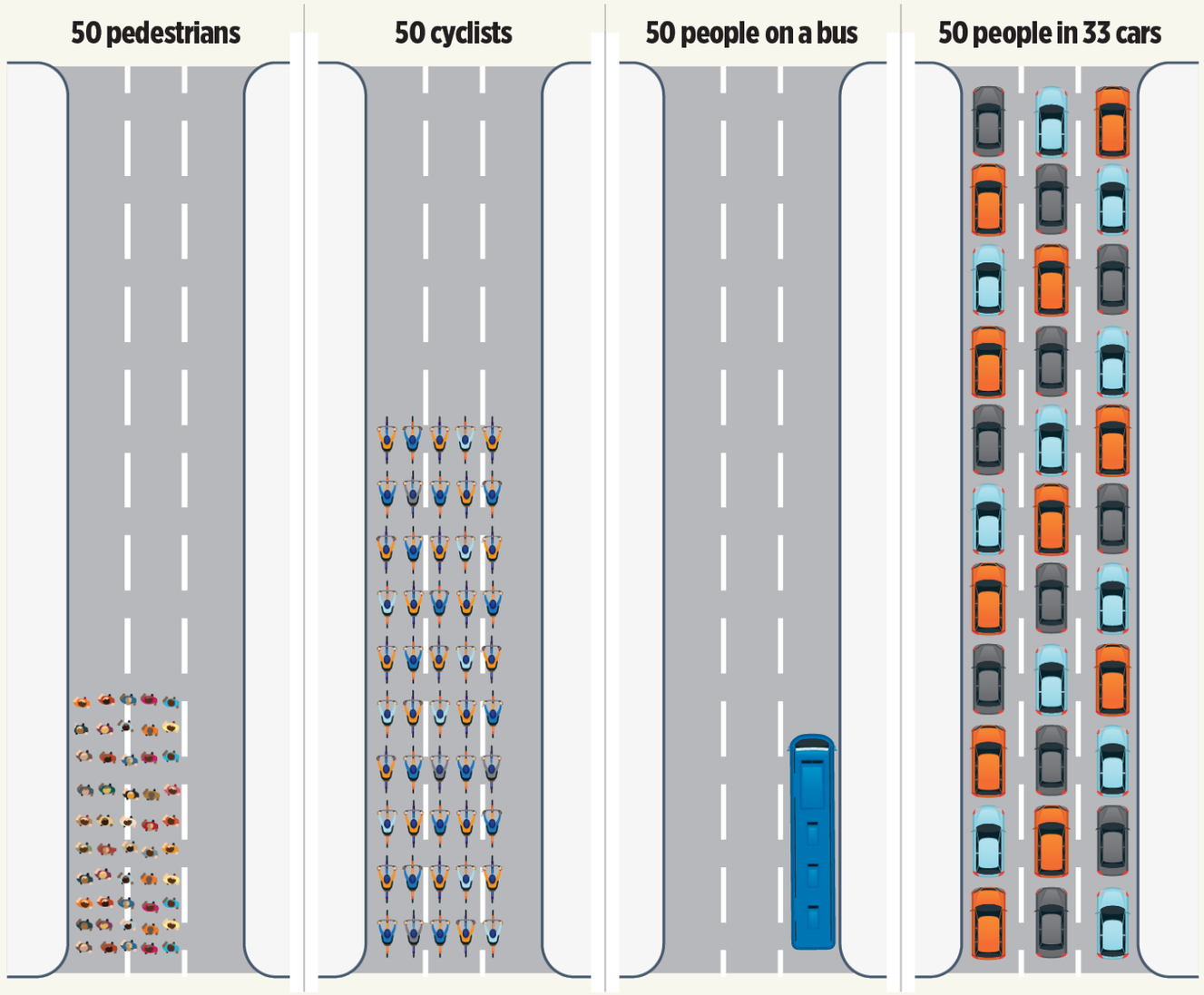


People trying to out-run a SEPTA bus.

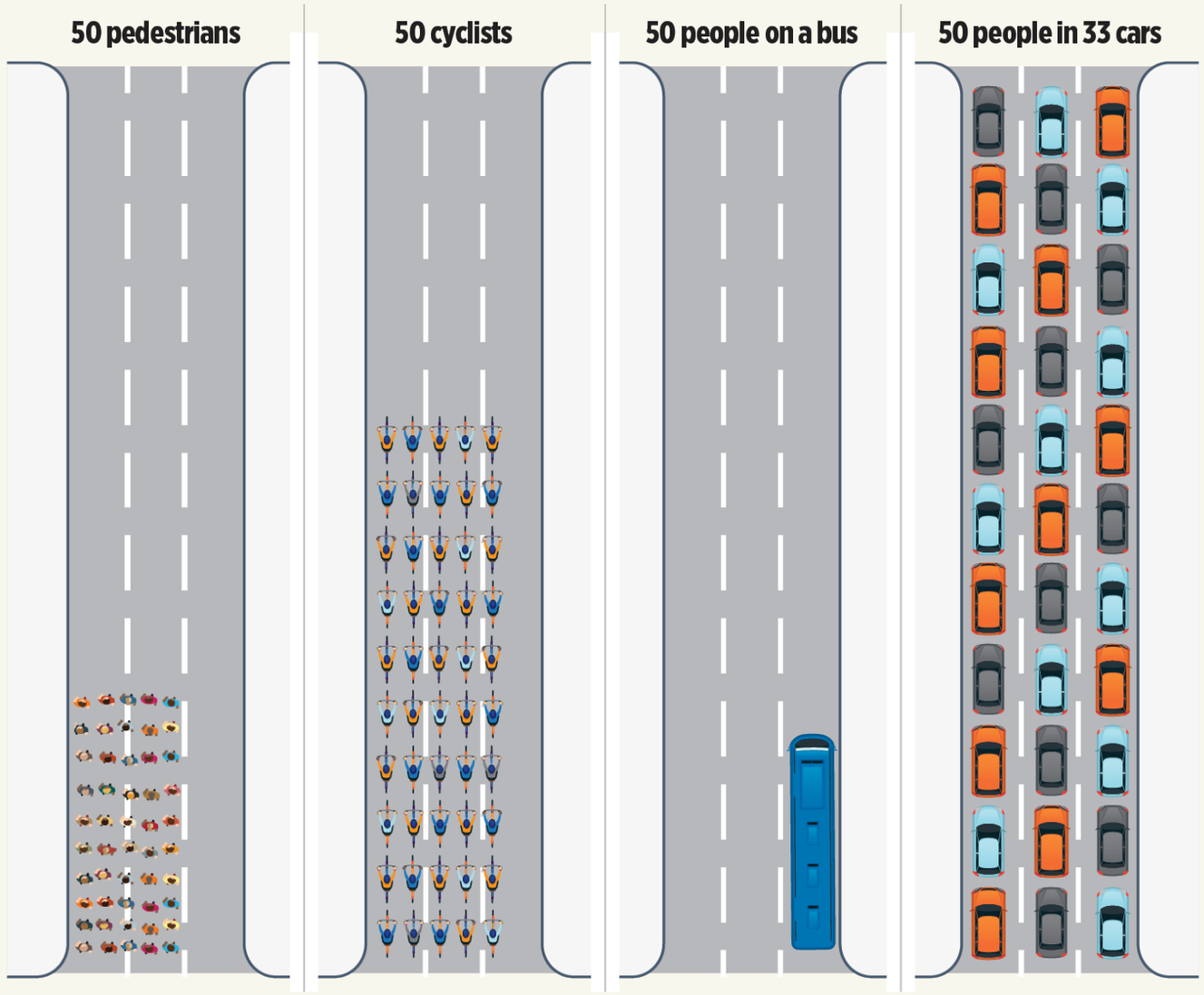
BUT I'VE STARTED TO APPRECIATE IT MORE

There are some benefits to riding public transportation.

Cheaper than the alternatives.



Fewer cars in the streets which means less traffic.

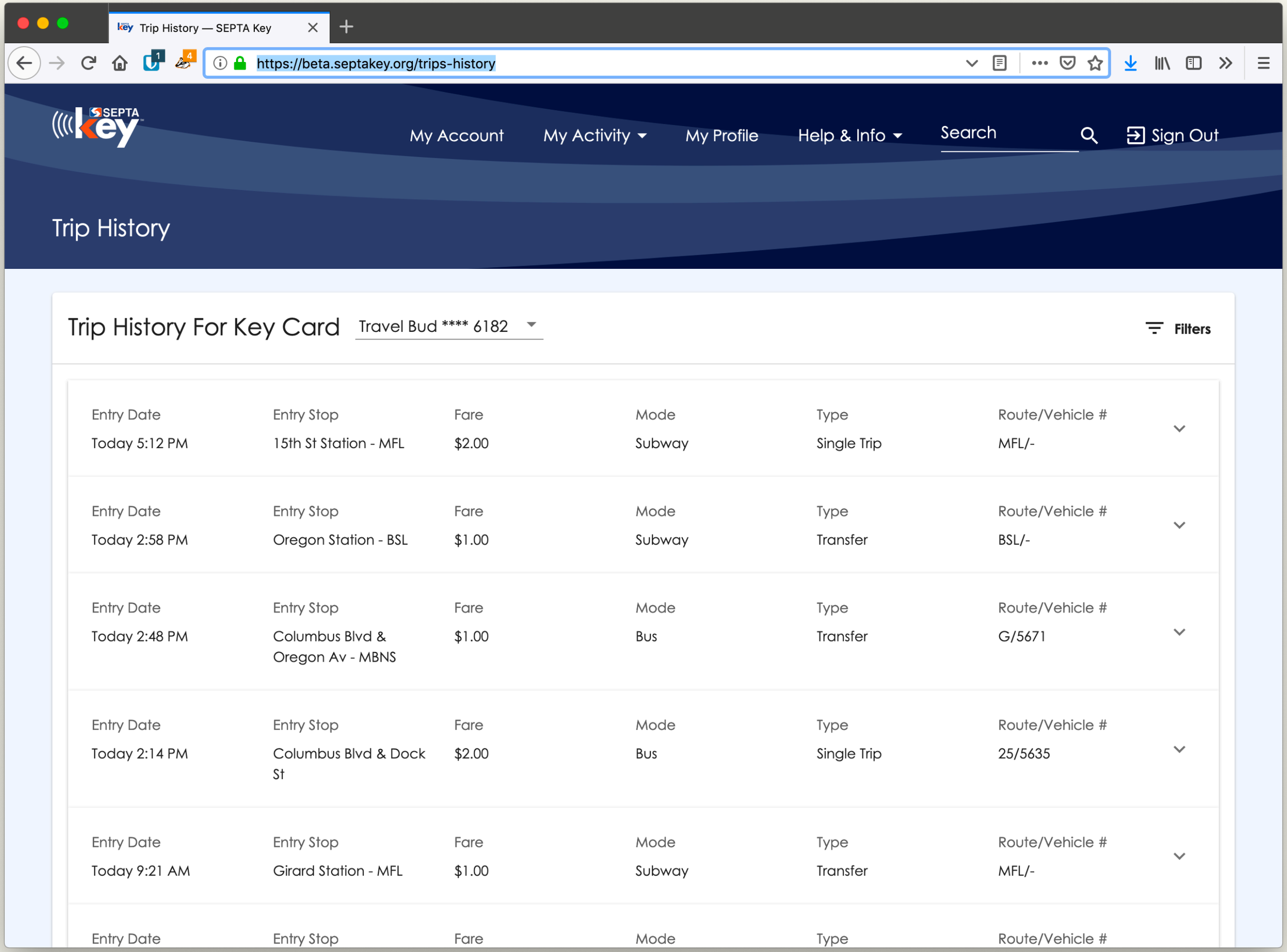


"A bus with just 7 passengers is more fuel-efficient; a full bus is 6 times more efficient; a full train is 15 times more efficient as compared to the average car"

Accessibility. All SEPTA buses are wheelchair accessible and they also have over 100 accessible stations.

WHERE DO YOU GET THE DATA?

(It involves a lot of copy-pasting.)


Trip History — SEPTA Key
https://beta.septakey.org/trips-history
SEPTA key
My Account
My Activity
My Profile
Help & Info
Search
Sign Out
Trip History
Trip History For Key Card
Travel Bud **** 6182
Filters
Entry Date
Entry Stop
Fare
Mode
Type
Route/Vehicle #
Today 5:12 PM
15th St Station - MFL
$2.00
Subway
Single Trip
MFL/-
Today 2:58 PM
Oregon Station - BSL
$1.00
Subway
Transfer
BSL/-
Today 2:48 PM
Columbus Blvd & Oregon Av - MBNS
$1.00
Bus
Transfer
G/5671
Today 2:14 PM
Columbus Blvd & Dock St
$2.00
Bus
Single Trip
25/5635
Today 9:21 AM
Girard Station - MFL
$1.00
Subway
Transfer
MFL/-

Ting Wi-Fi VPN 8:55 PM 24%

Select Rides Cancel

Mar 22, 8:04 PM
2.5mi • 14m
$5.67
Shared

Mar 21, 9:59 AM
1.74mi • 7m
$7.45

Mar 17, 3:43 PM
2.4mi • 9m
$8.60

Mar 16, 5:33 PM
1.06mi • 5m
$6.93

Mar 14, 9:57 AM
1.75mi • 5m
$7.15

Mar 12, 7:52 PM
1.78mi • 7m
$5.38
Shared

Mar 08, 9:45 PM
1.09mi • 5m
$4.74
Shared

7 rides selected
From Mar 8, 2019

$45.92
To Mar 22, 2019

Send report

Ting Wi-Fi VPN 8:55 PM 24%

Inbox

From: Lyft
To: Jag Talon
Hide

Lyft Ride Report
March 22, 2019 at 10:36 PM

Ride Report

June 9, 2018 - March 22, 2019

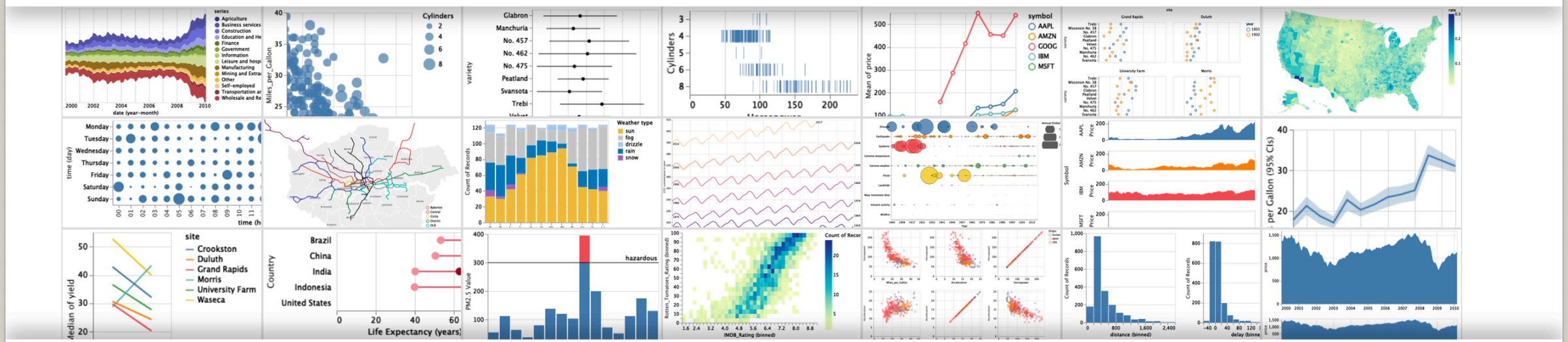
We attached the ride report you requested.

We have attached a CSV file detailing your rides. However, a PDF version of the receipts could not be attached since it was too large. Please select fewer rides and try again.

NOW WHAT? WHAT DO WE DO WITH THE EXCEL SHEET?

(It involves a lot of JavaScript.)

Vega-Lite – A Grammar of Interactive Graphics



Vega-Lite is a high-level grammar of interactive graphics. It provides a concise JSON syntax for rapidly generating visualizations to support analysis. Vega-Lite specifications can be compiled to Vega specifications.

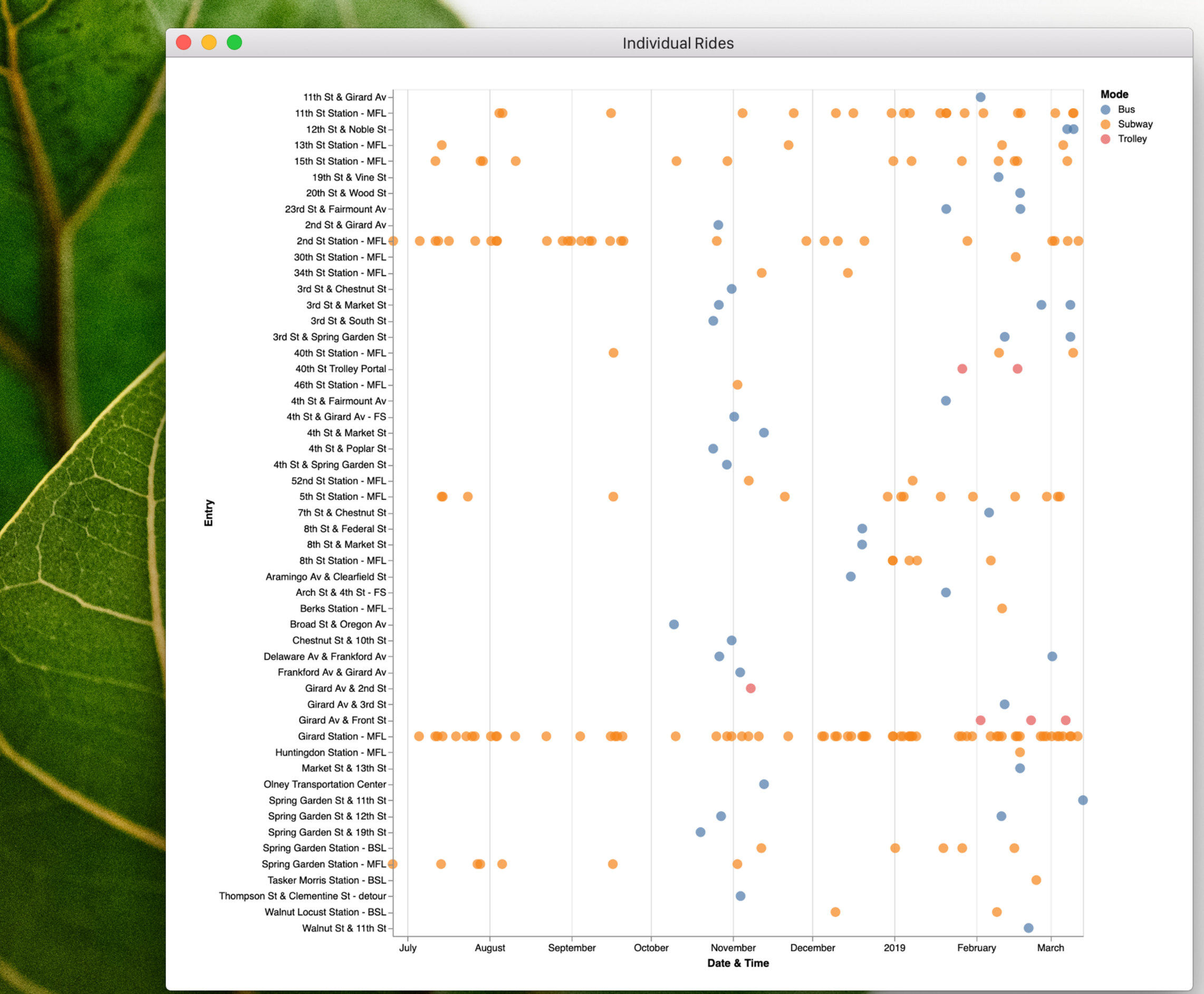
Vega-Lite specifications describe visualizations as mappings from data to **properties of graphical marks** (e.g., points or bars). The Vega-Lite compiler **automatically produces visualization components** including axes, legends, and scales. It then determines properties of these components based on a set of **carefully designed rules**. This approach allows specifications to be succinct and expressive, but also provide user control. As Vega-Lite is designed for analysis, it supports **data transformations** such as aggregation, binning, filtering, sorting, and **visual transformations** including stacking and faceting. Moreover, Vega-Lite specifications can be **composed** into layered and multi-view displays, and made **interactive with selections**.

Get started
Latest Version: 3.2.1

Try online

Read our introduction article to Vega-Lite v2 on Medium, watch our OpenVis Conf talk about the new features in Vega-Lite v2, check out the documentation and take a look at our example gallery.

Example


Individual Rides
Mode
Bus
Subway
Trolley
Entry
11th St & Girard Av
11th St Station - MFL
12th St & Noble St
13th St Station - MFL
15th St Station - MFL
19th St & Vine St
20th St & Wood St
23rd St & Fairmount Av
2nd St & Girard Av
2nd St Station - MFL
30th St Station - MFL
34th St Station - MFL
3rd St & Chestnut St
3rd St & Market St
3rd St & South St
3rd St & Spring Garden St
40th St Station - MFL
40th St Trolley Portal
46th St Station - MFL
4th St & Fairmount Av
4th St & Girard Av - FS
4th St & Market St
4th St & Poplar St
4th St & Spring Garden St
52nd St Station - MFL
5th St Station - MFL
7th St & Chestnut St
8th St & Federal St
8th St & Market St
8th St Station - MFL
Aramingo Av & Clearfield St
Arch St & 4th St - FS
Berks Station - MFL
Broad St & Oregon Av
Chestnut St & 10th St
Delaware Av & Frankford Av
Frankford Av & Girard Av
Girard Av & 2nd St
Girard Av & 3rd St
Girard Av & Front St
Girard Station - MFL
Huntingdon Station - MFL
Market St & 13th St
Olney Transportation Center
Spring Garden St & 11th St
Spring Garden St & 12th St
Spring Garden St & 19th St
Spring Garden Station - BSL
Spring Garden Station - MFL
Tasker Morris Station - BSL
Thompson St & Clementine St - detour
Walnut Locust Station - BSL
Walnut St & 11th St
July
August
September
October
November
December
2019
February
March
Date & Time

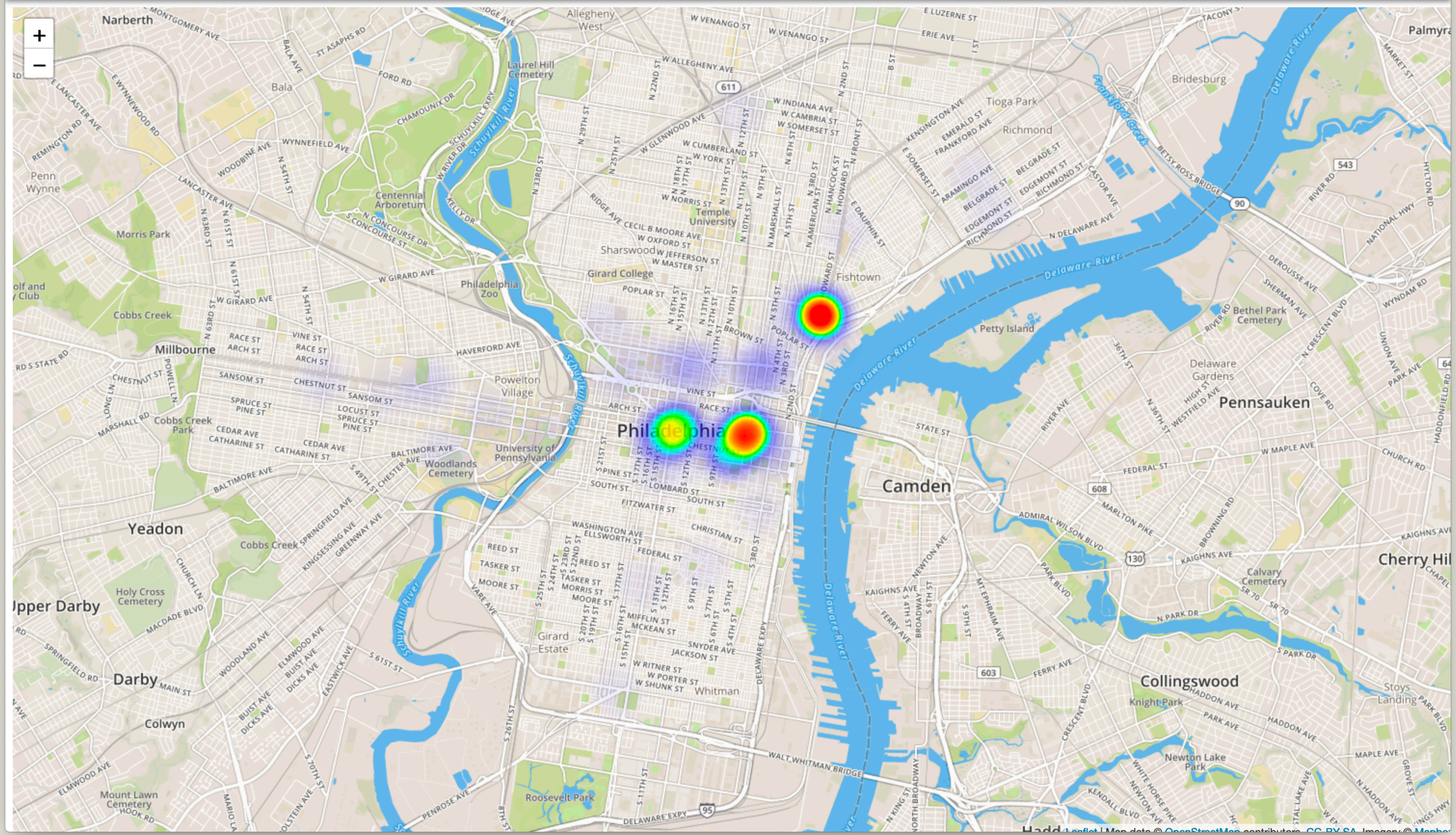
SEPTA Rides

https://codepen.io/jagtalon/full/zXPwLN

SEPTA Rides

A PEN BY Jag Talon

Fork | Change View



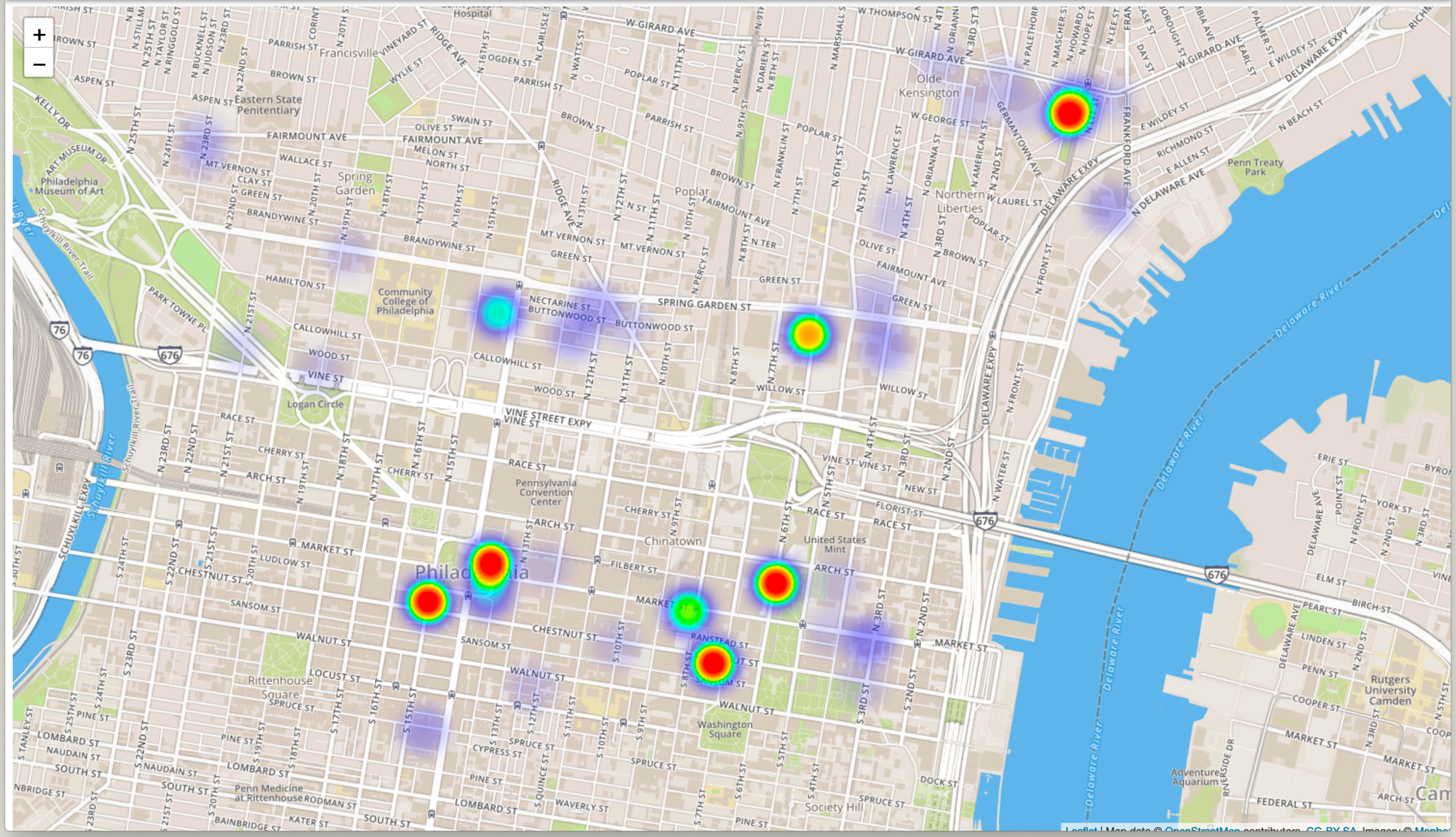
SEPTA Rides

https://codepen.io/jagtalon/full/zXPwLN

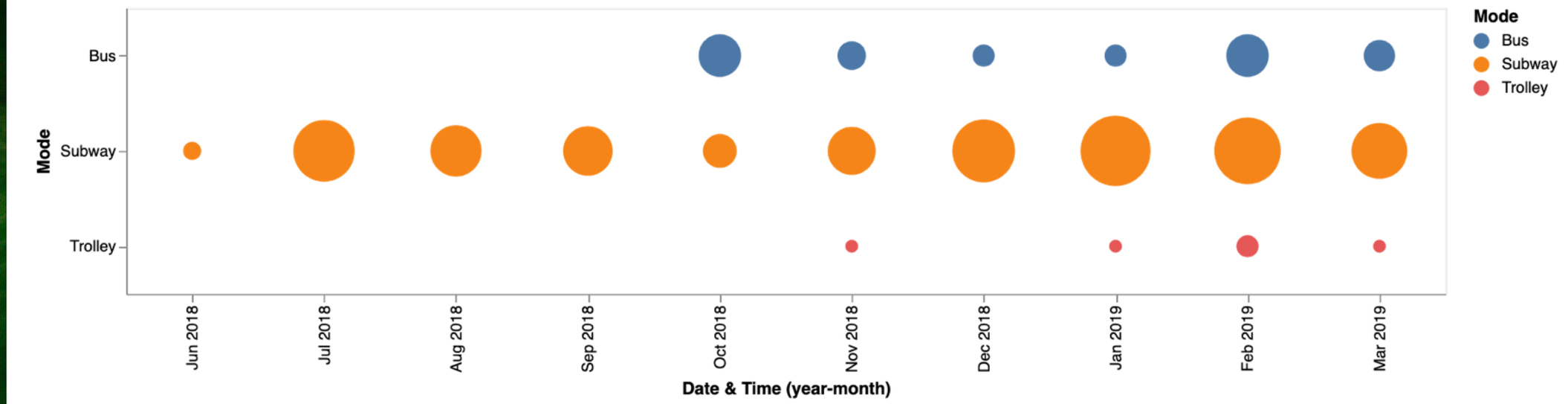
SEPTA Rides

A PEN BY Jag Talon

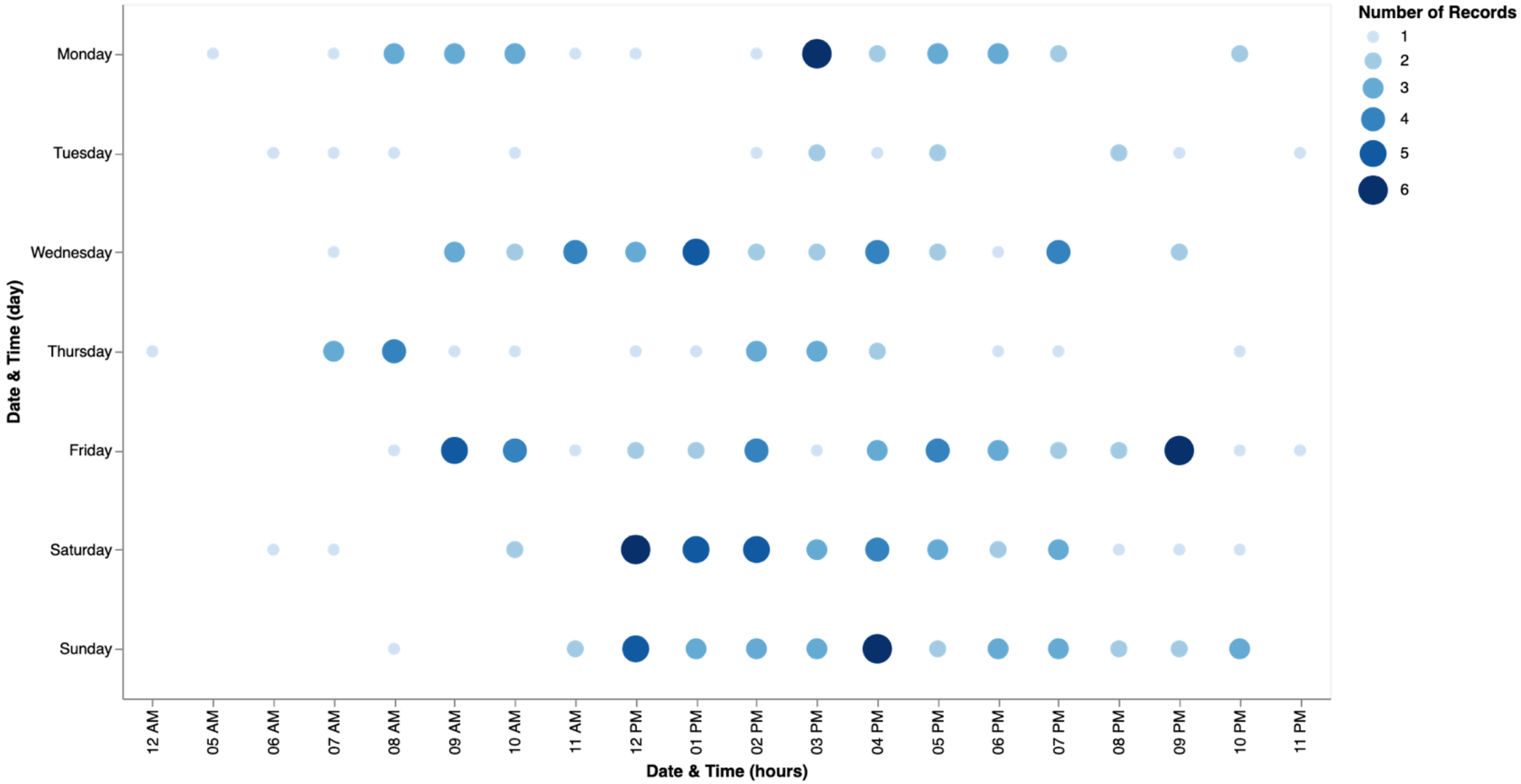
Fork | Change View



Where I Ride The Most



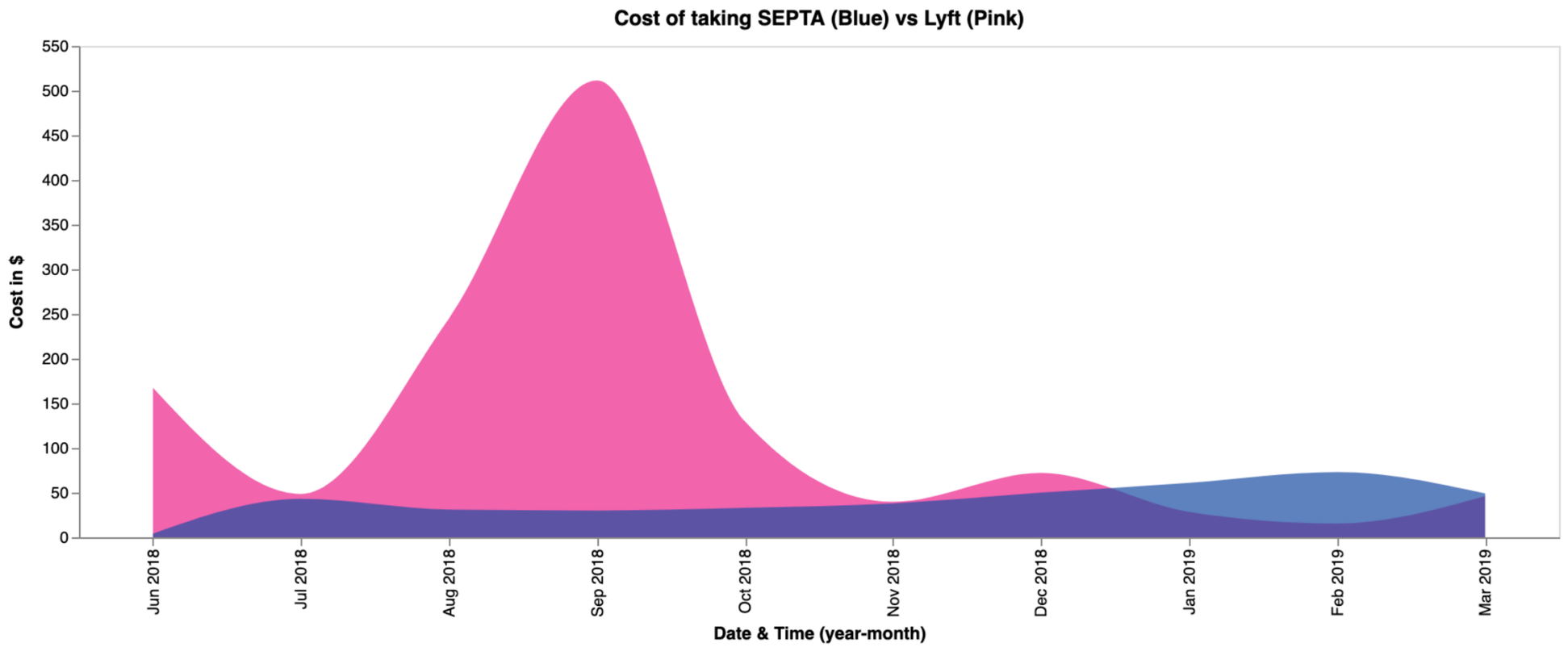
Punch Card


Number of Records
1
2
3
4
5
6
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Date & Time (day)
12 AM
05 AM
06 AM
07 AM
08 AM
09 AM
10 AM
11 AM
12 PM
01 PM
02 PM
03 PM
04 PM
05 PM
06 PM
07 PM
08 PM
09 PM
10 PM
11 PM
Date & Time (hours)

SEPTA vs. Lyft / Jag Talon / Obs

https://observablehq.com/@jagtalon/septa-vs-lyft

120%



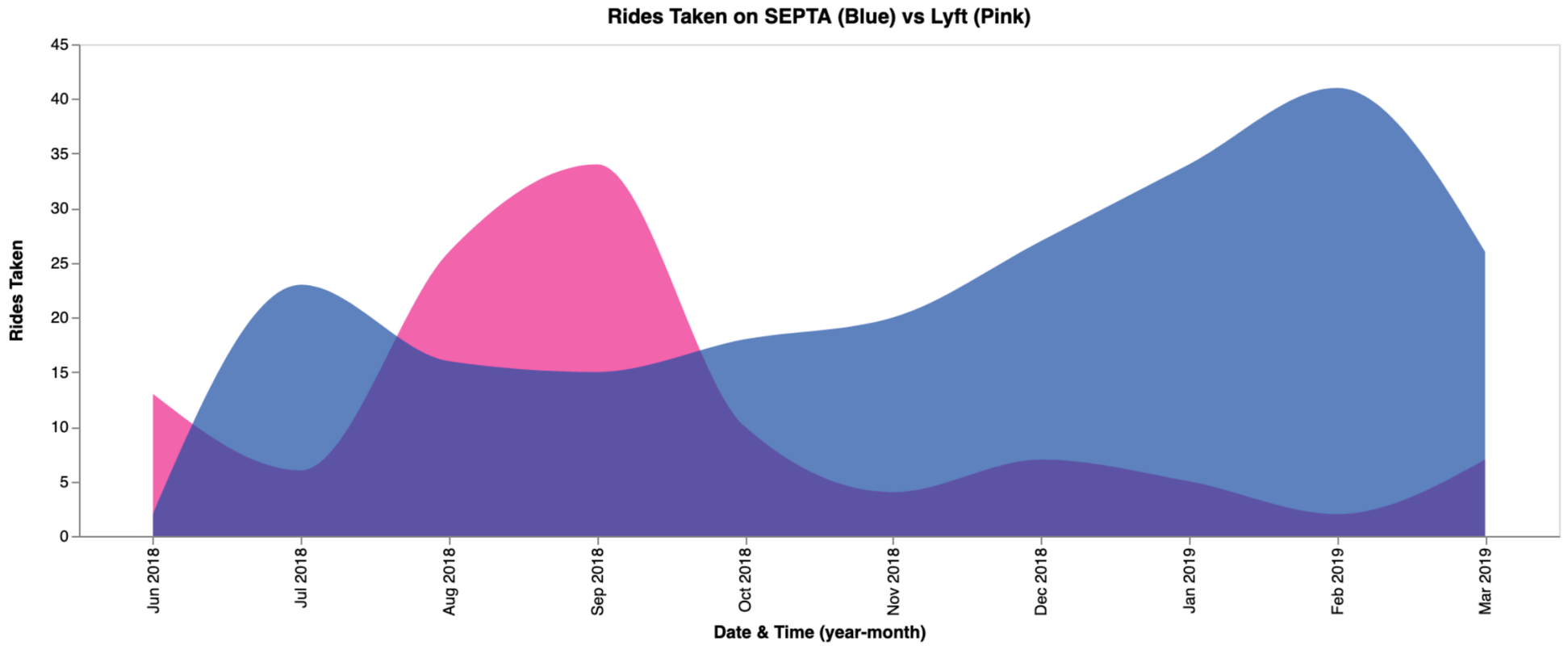

```
vegalite({
  title: "Cost of taking SEPTA (Blue) vs Lyft (Pink)",
  data: {
    url: "https://gist.githubusercontent.com/jagtalon/ac385392893262f10f43c63e782807cc
/raw/26dd2ce6bf36de4f0f822138942d6e4cb74629e0/septa_lyft.csv",
    parse: {
      "Date & Time": "date",
      "Cost": "number"
    }
  },
  autosize: "fit",
  width: width,
  height: 400,
  encoding: {
```

?

SEPTA vs. Lyft / Jag Talon / Obs

https://observablehq.com/@jagtalon/septa-vs-lyft

120%

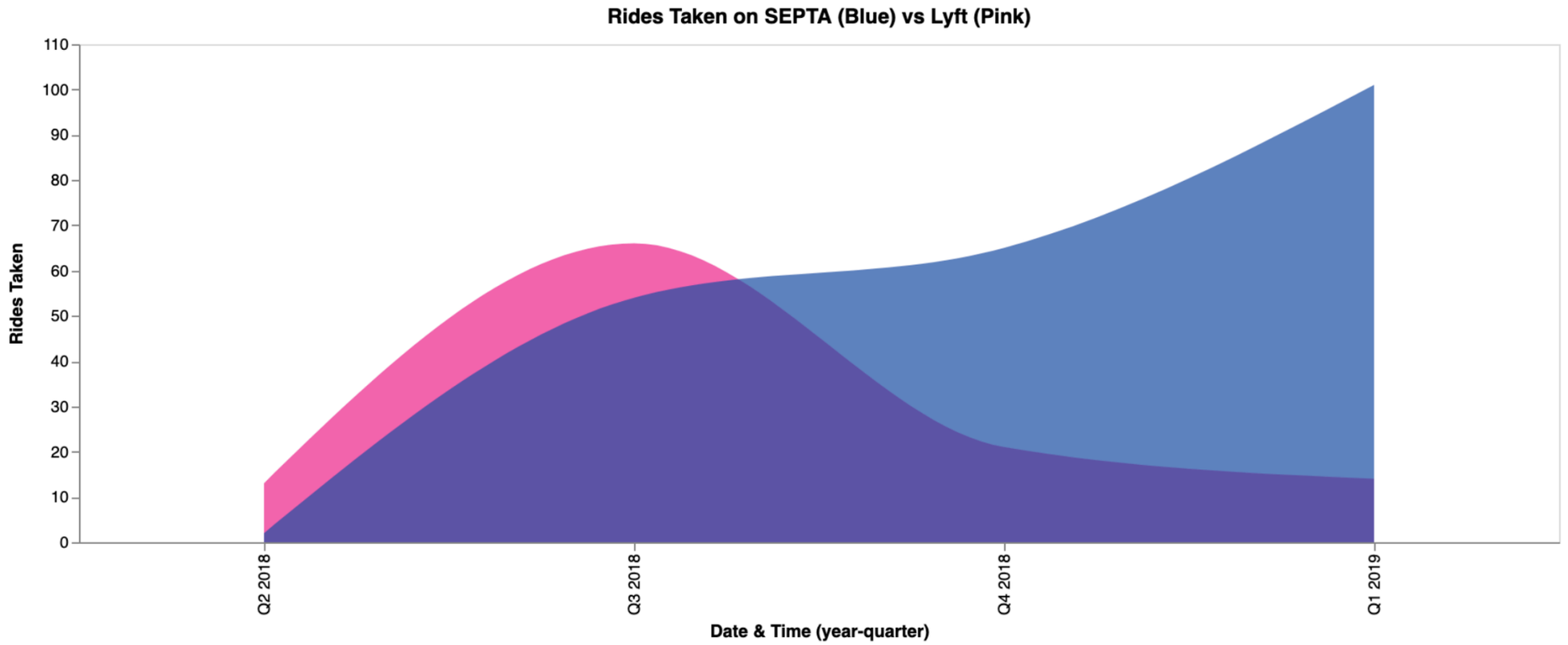



```
vegalite({
  title: "Rides Taken on SEPTA (Blue) vs Lyft (Pink)",
  data: {
    url: "https://gist.githubusercontent.com/jagtalon/ac385392893262f10f43c63e782807cc
/raw/26dd2ce6bf36de4f0f822138942d6e4cb74629e0/septa_lyft.csv",
    parse: {
      "Date & Time": "date",
      "Cost": "number"
    }
  },
  autosize: "fit",
  width: width,
  height: 400,
  encoding: {
    x: {
```

SEPTA vs. Lyft / Jag Talon / Obs

https://observablehq.com/@jagtalon/septa-vs-lyft

120%




```
vegalite({
  title: "Rides Taken on SEPTA (Blue) vs Lyft (Pink)",
  data: {
    url: "https://gist.githubusercontent.com/jagtalon/ac385392893262f10f43c63e782807cc
/raw/26dd2ce6bf36de4f0f822138942d6e4cb74629e0/septa_lyft.csv",
    parse: {
      "Date & Time": "date",
      "Cost": "number"
    }
  },
  autosize: "fit",
  width: width,
  height: 400,
  encoding: {
    x: {
```

BONUS ROUND

There's another public transportation
that we're not talking about …

Indego Bikes!

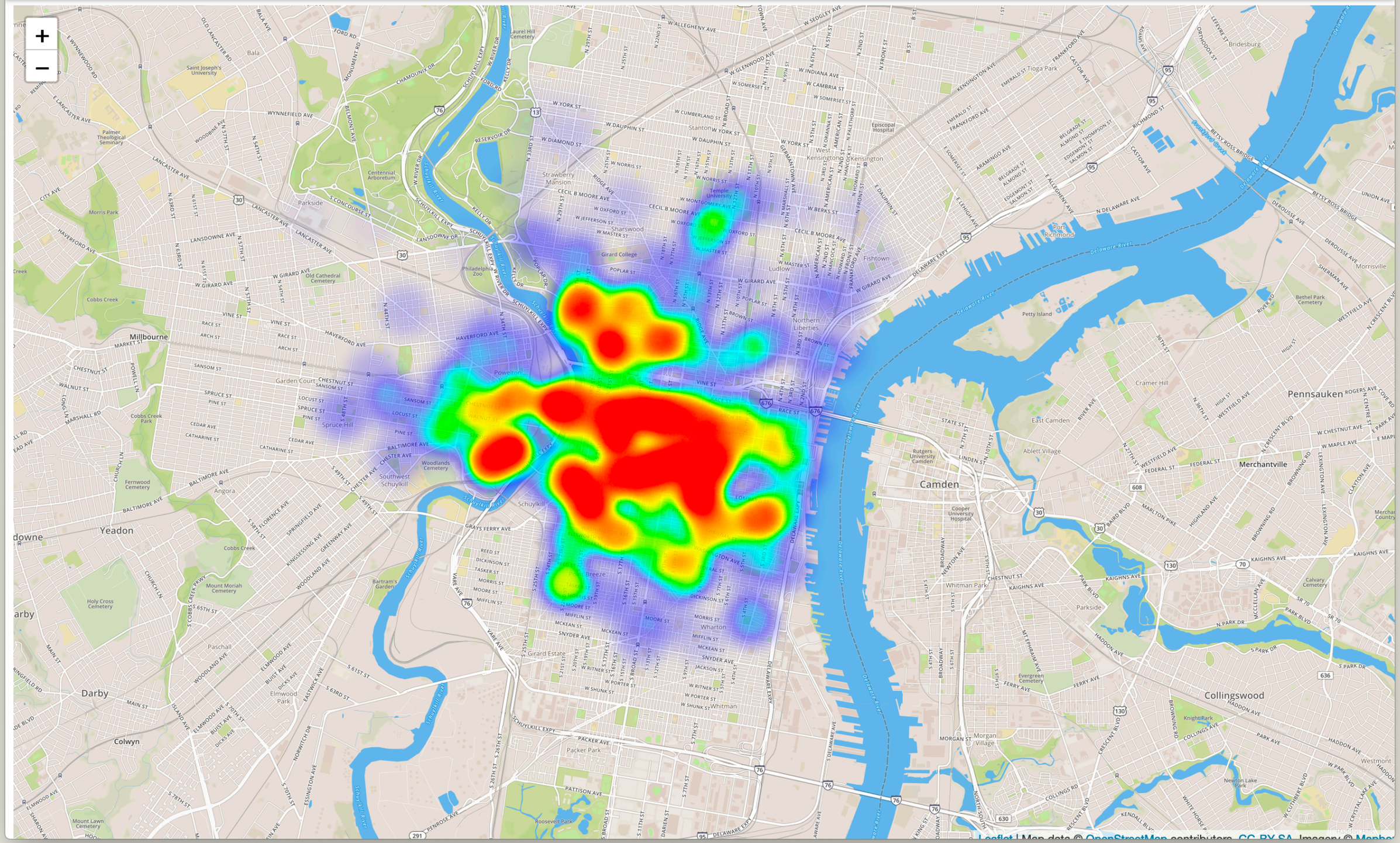
Indego Rides

https://codepen.io/jagtalon/full/Nmwvrv

Indego Rides

A PEN BY Jag Talon

Fork | Change View



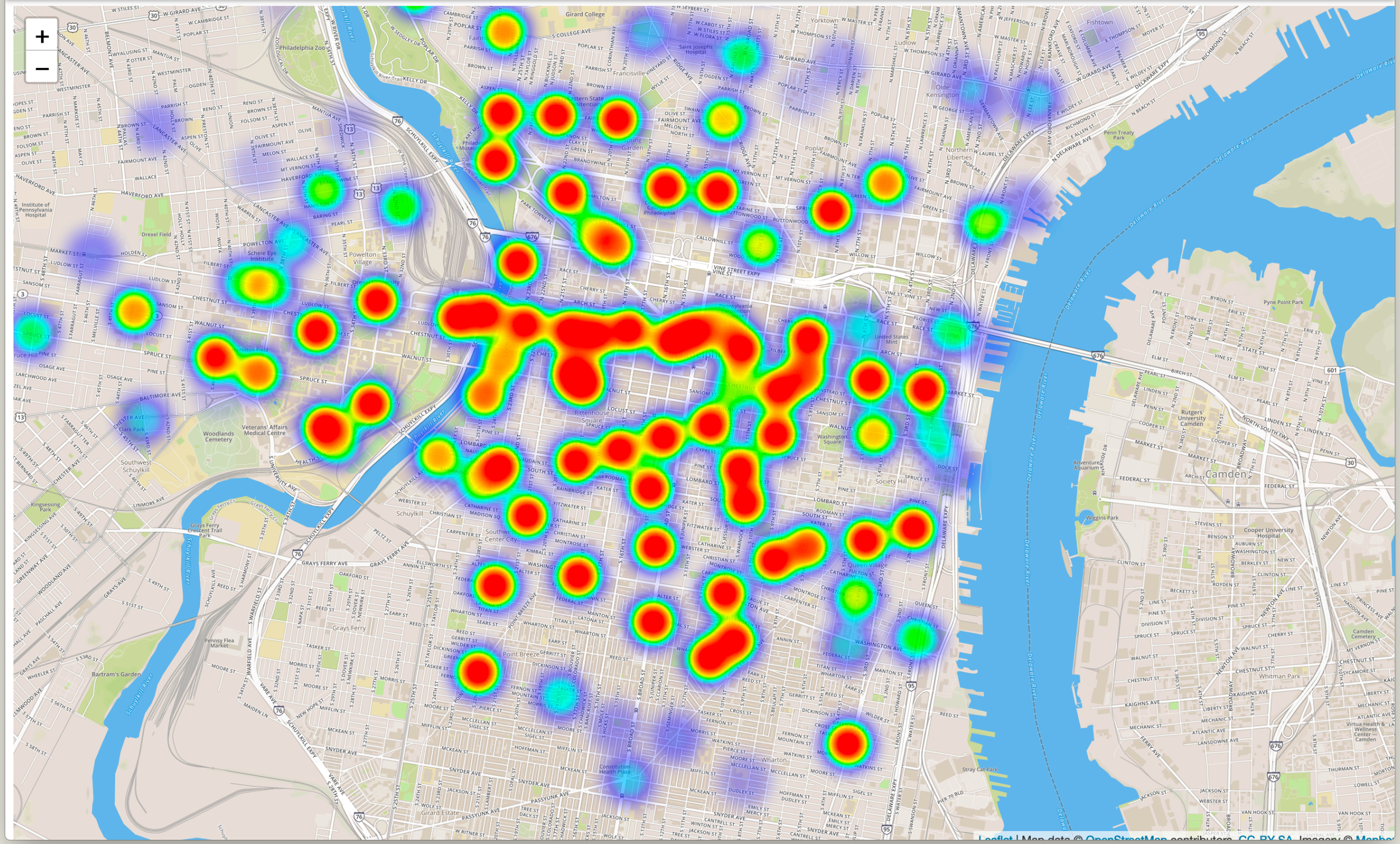
Indego Rides

https://codepen.io/jagtalon/full/Nmwvrv

Indego Rides

A PEN BY **Jag Talon**

Fork | Change View



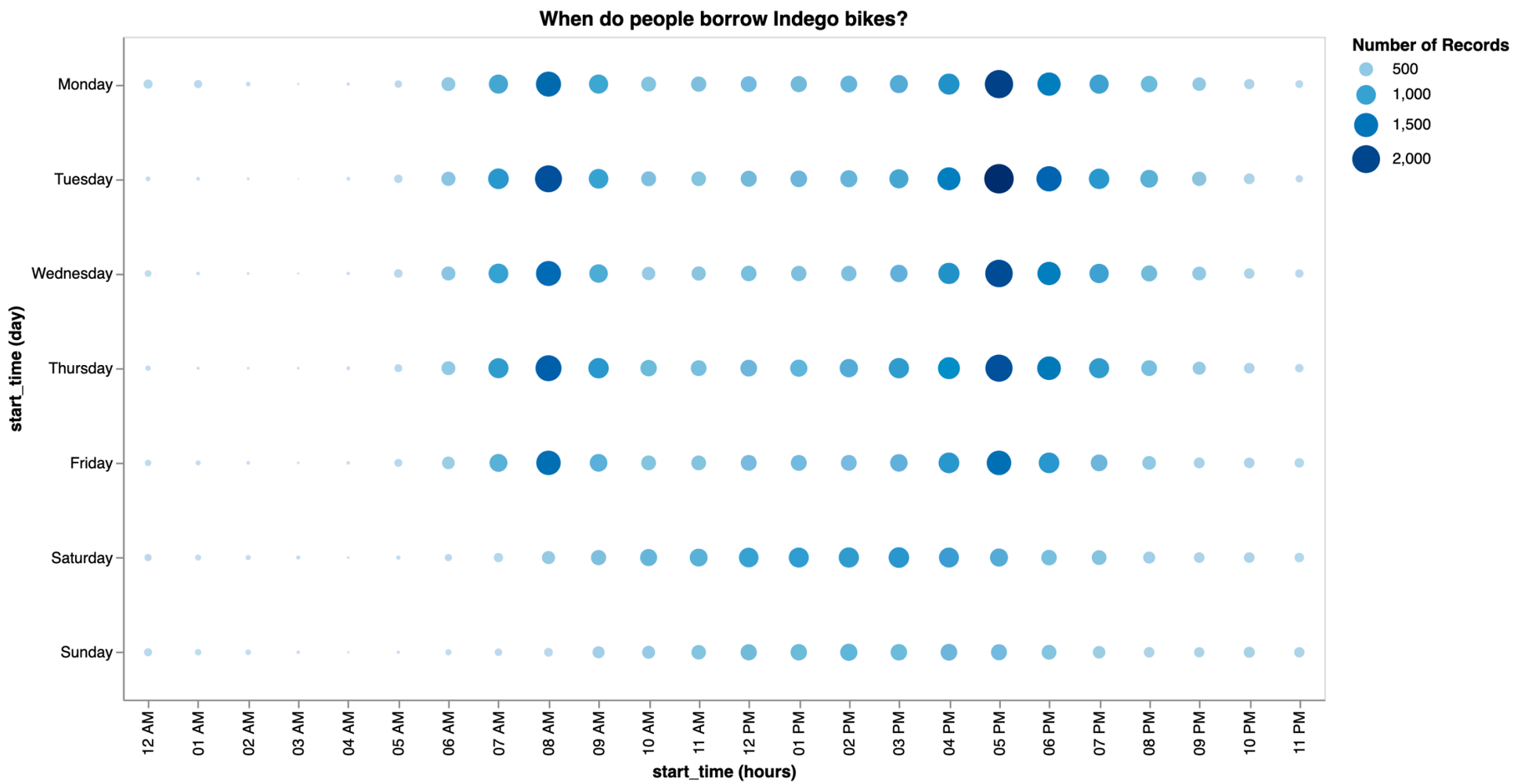
QUESTION:

When do people borrow Indego bikes?

SEPTA Trip Data / Jag Talon / O

https://observablehq.com/@jagtalon/septa-analysis

120%




```
vegalite({
  title: "When do people borrow Indego bikes?",
  data: {
    url: "https://f002.backblazeb2.com/file/jagtalon/SEPTA/indego-trips-2018-q1.csv",
    parse: {"start_time": "date"}
  },
  mark: "circle",
  autosize: "fit",
  width: width,
  height: 500,
```