



Info Challenge 2025

Team: IC25005

Asher Nguyen, Luke Roskelley, Olivia Fermo,
Mekhi Mudie, Brian Solomon

01

Abstract

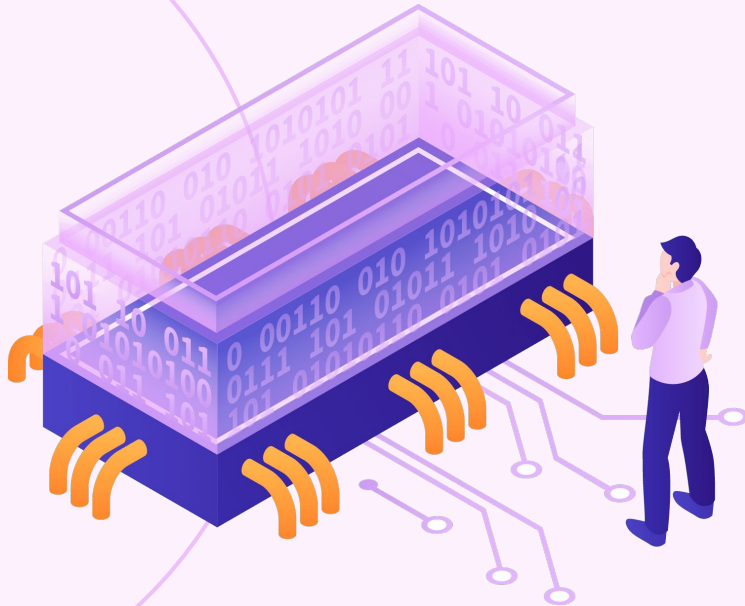




Crime vs Non-Tap Ridership

02

Sources



Crime CSV from...

DATA CATALOG

 / / District of Columbia

[Datasets](#)

Search datasets...

District of Columbia

Engage with the District of Columbia through government open data.

[read more](#)

Followers

Datasets

0

1.7k

1,787 datasets found

Crime Incidents in 2024 ~ 894 recent views

The dataset contains a subset of locations and attributes of incidents reported in the ASAP (Analytical Services Application) crime report database by the District of Columbia...

[HTML](#)
[ArcGIS GeoServices REST API](#)
[OGC WMS](#)
[CSV](#)
[ZIP](#)
[GeoJSON](#)
[1 more in dataset](#)

10

ArcGIS GeoServices REST API

LOGC WMS

SV

IP

oJSON

1 more in dataset

Order by:

Popular

[illegible]

Metro Station information from...

Washington Metropolitan Area Transit Authority

Metrorail Ridership Summary

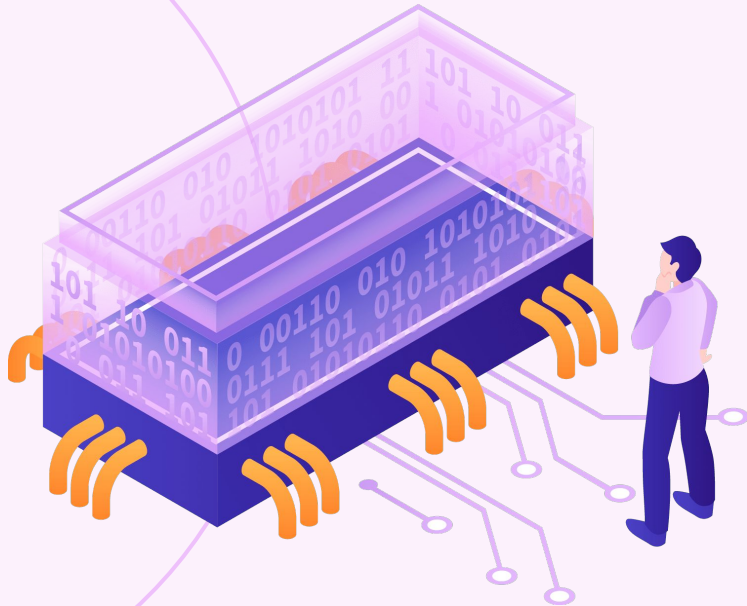
▼ < Entries by Day of Week Avg Daily Entries by Station/TI... Avg Daily Tap/NonTap Entries ... Daily Rail Entries Over Time Total Entries and Exits by >			
Metrorail Ridership			
Average Daily Entries - Tap and NonTap			
Station Name	F	Avg Daily Tapped Entries	Avg Daily NonTapped En. F
Columbia Heights		7,885	590
Ronald Reagan Washingto.		5,273	585
Union Station		14,089	564
Foggy Bottom-GWU		13,446	413
Gallery Place		12,667	394
Fort Totten		7,187	376
Rhode Island Ave		4,255	354
NoMa-Gallaudet U		9,810	351
Dulles Airport		1,968	349
Anacostia		3,804	342
Georgia Ave-Petworth		4,239	339
Dupont Circle		10,222	338
Shaw-Howard U		3,256	322
L'Enfant Plaza		10,167	302
Hyattsville Crossing		2,859	297
Metro Center		13,437	295
Brookland-CUA		4,166	285
Navy Yard-Ballpark		8,258	280
Takoma		3,266	279
U Street		4,613	276
Greenbelt		2,974	274
Benning Road		1,767	271
Farragut North		10,629	268
Minnesota Ave		1,495	267
McPherson Sq		7,094	260
Tenleytown-AU		3,928	255
Shady Grove		5,659	255
Silver Spring		4,323	248
Farragut West		9,767	245
Suitland		2,361	243
Potomac Ave		2,393	238
Stadium-Armory		1,786	231
Waterfront		3,330	229
West Hyattsville		2,376	226

Tap&NontapDOTW .XLSX ☆ 📄 ☁										
File Edit View Insert Format Data Tools Help										
🔍 ↶ ↷ 🖨 🗑 100% ▼ \$ % .0 .00 123 Defaul... - 11 +										
M20 ▼ fx										
	A	B	C	D	E	F	G	H	I	
1	Station TappedNonTappedDaily EntriesPercentage of NonTap to Total									
2	Ronald R	5,149	571	5,720	9.98%					
3	Union Sta	12,182	535	12,716	4.20%					
4	Columbia	7,217	525	7,742	6.79%					
5	Gallery Pl	12,127	382	12,509	3.05%					
6	Foggy Bo	11,849	370	12,219	3.03%					
7	Dulles Air	1,977	351	2,328	15.07%					
8	Fort Totten	6,247	331	6,577	5.03%					
9	Dupont Ci	9,640	317	9,957	3.18%					
10	Rhode Isl	3,803	314	4,116	7.62%					
11	NoMa-Ga	8,899	314	9,213	3.40%					
12	Georgia A	3,763	300	4,063	7.38%					
13	Anacostia	3,208	297	3,504	8.47%					
14	Shaw-Hov	2,950	283	3,233	8.76%					
15	Hyattsville	2,581	281	2,862	9.82%					
16	Navy Yarc	8,149	275	8,424	3.26%					
17	Metro Cer	11,714	267	11,981	2.22%					
18	L'Enfant F	8,907	263	9,171	2.87%					
19	U Street	4,522	254	4,776	5.33%					
20	Greenbelt	2,702	245	2,947	8.32%					
21	Brookland	3,579	241	3,820	6.31%					
22	Takoma	2,844	241	3,085	7.82%					
23	McPherson	2,222	222	2,444	9.08%					

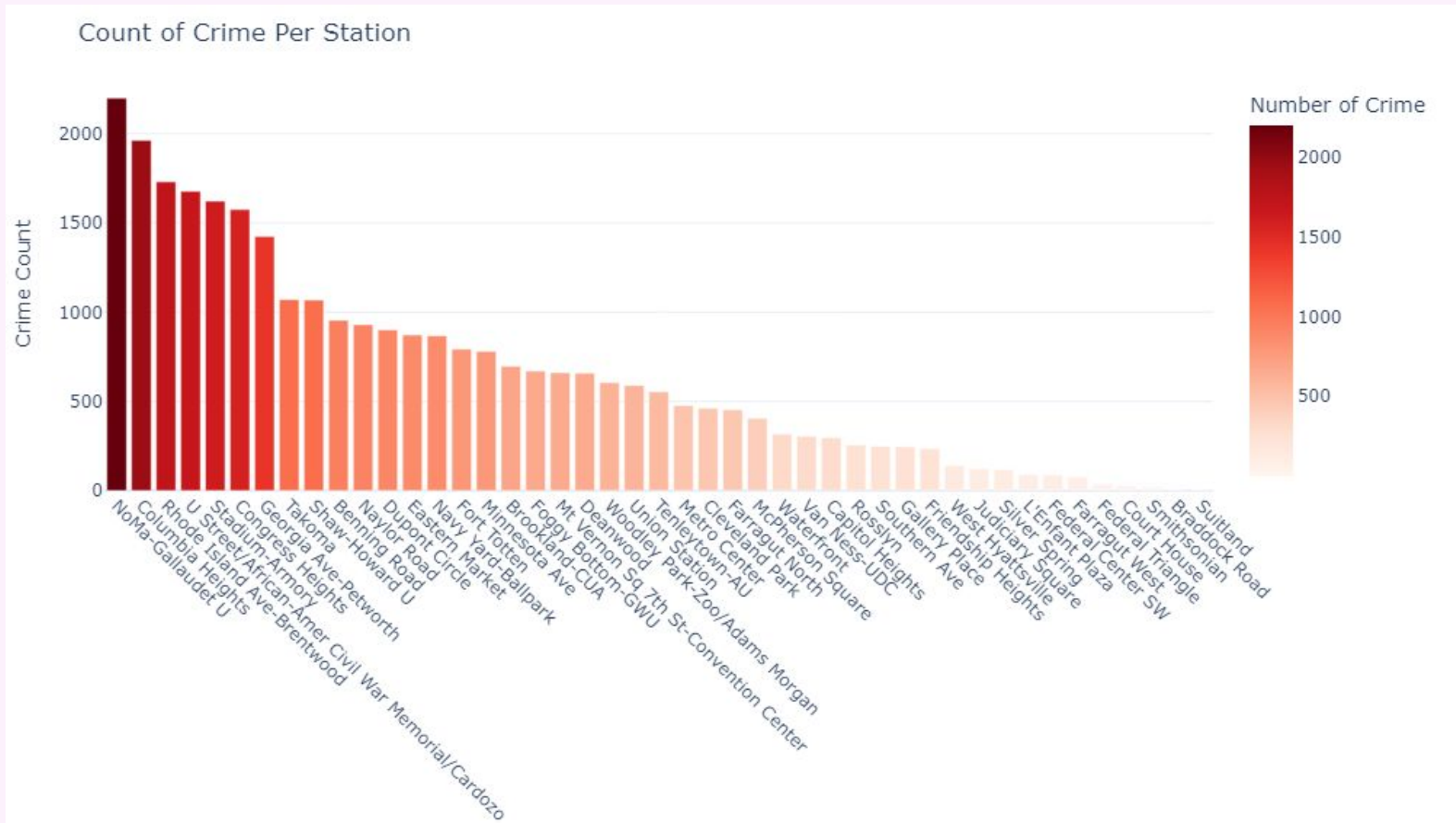
<https://www.wmata.com/initiatives/ridership-portal/Metrorail-Ridership-Summary.cfm>

03

Findings

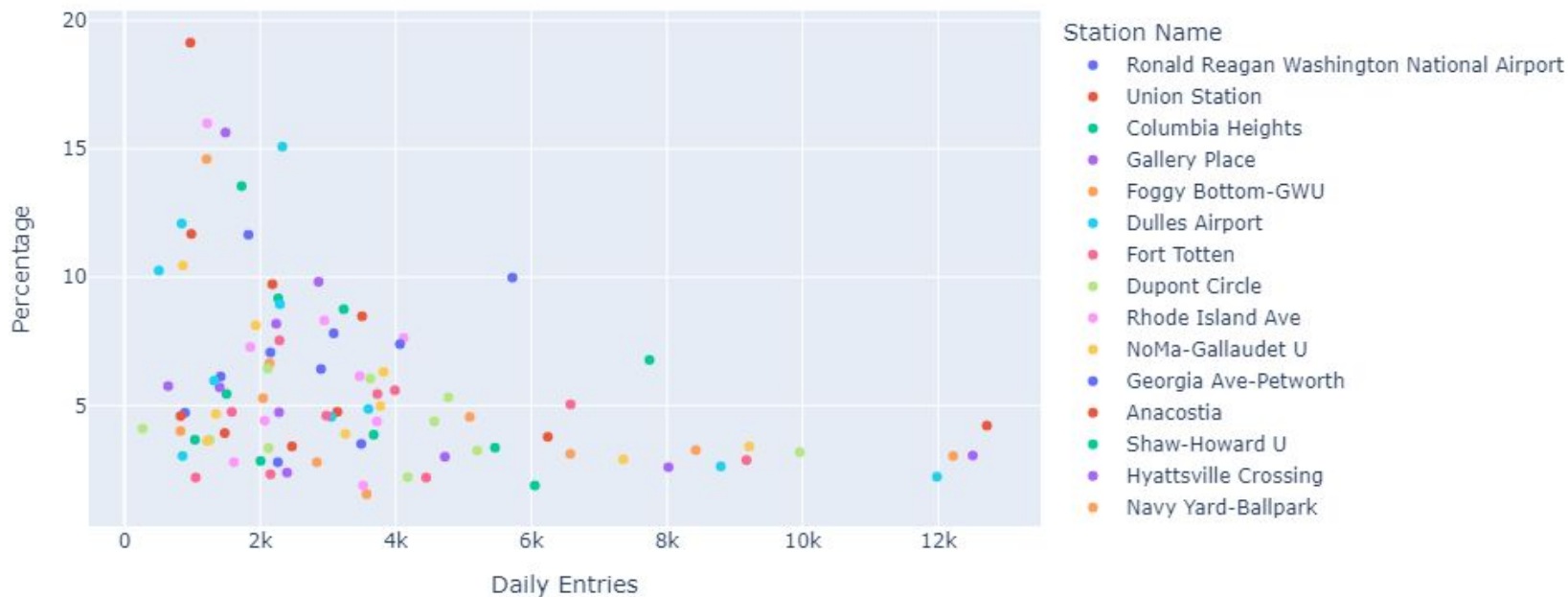


Crimes per Station

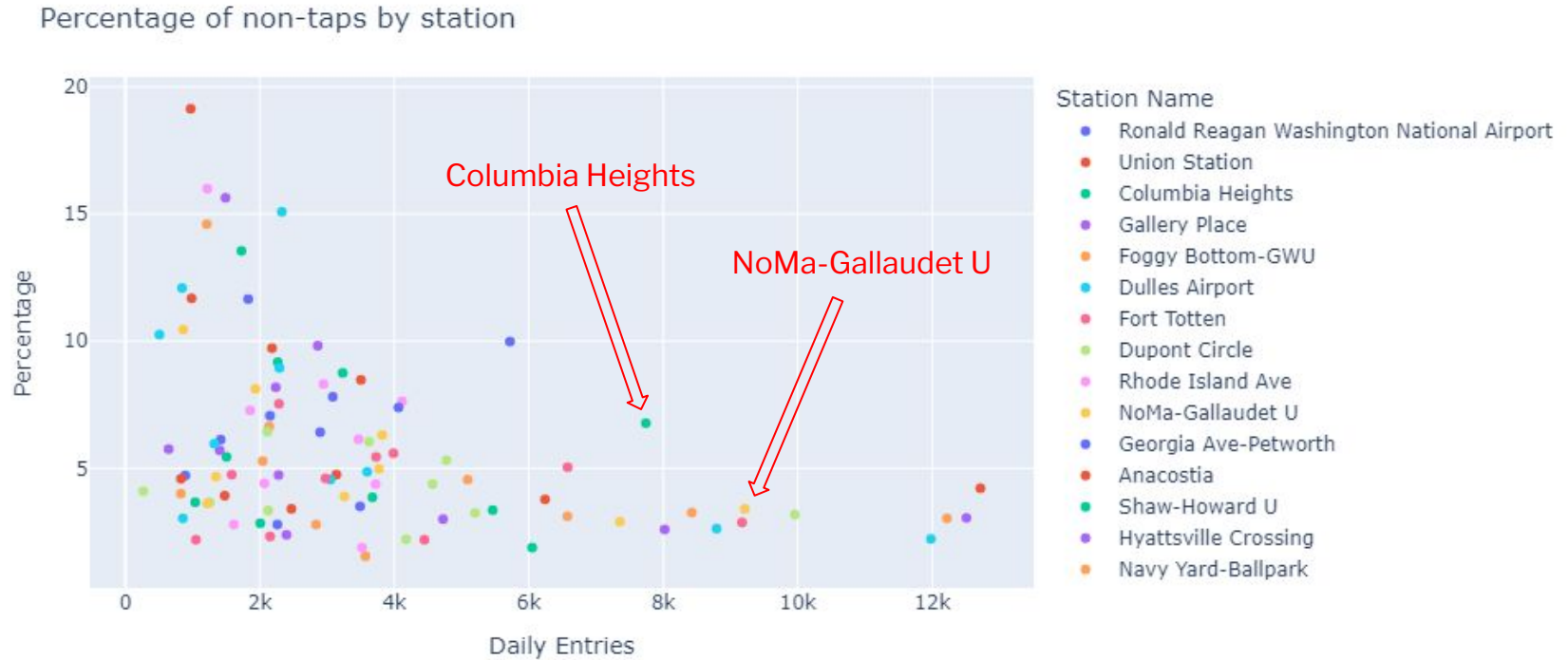


%Non-Taps vs Daily Entries

Percentage of non-taps by station



%Non-Taps vs Daily Entries



%Non-Taps vs Daily Entries

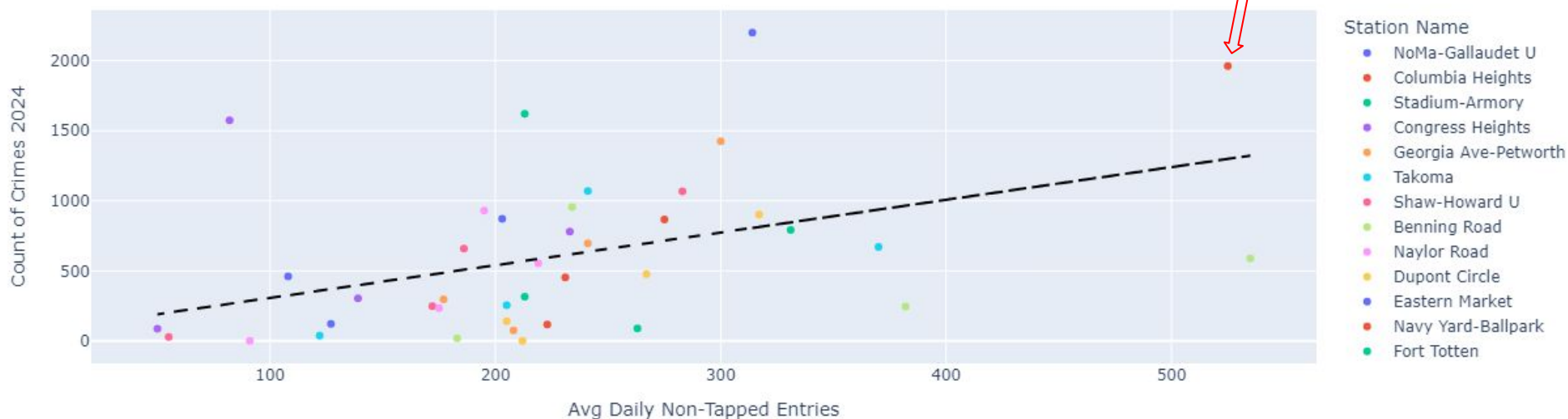


Crimes vs # of non-taps

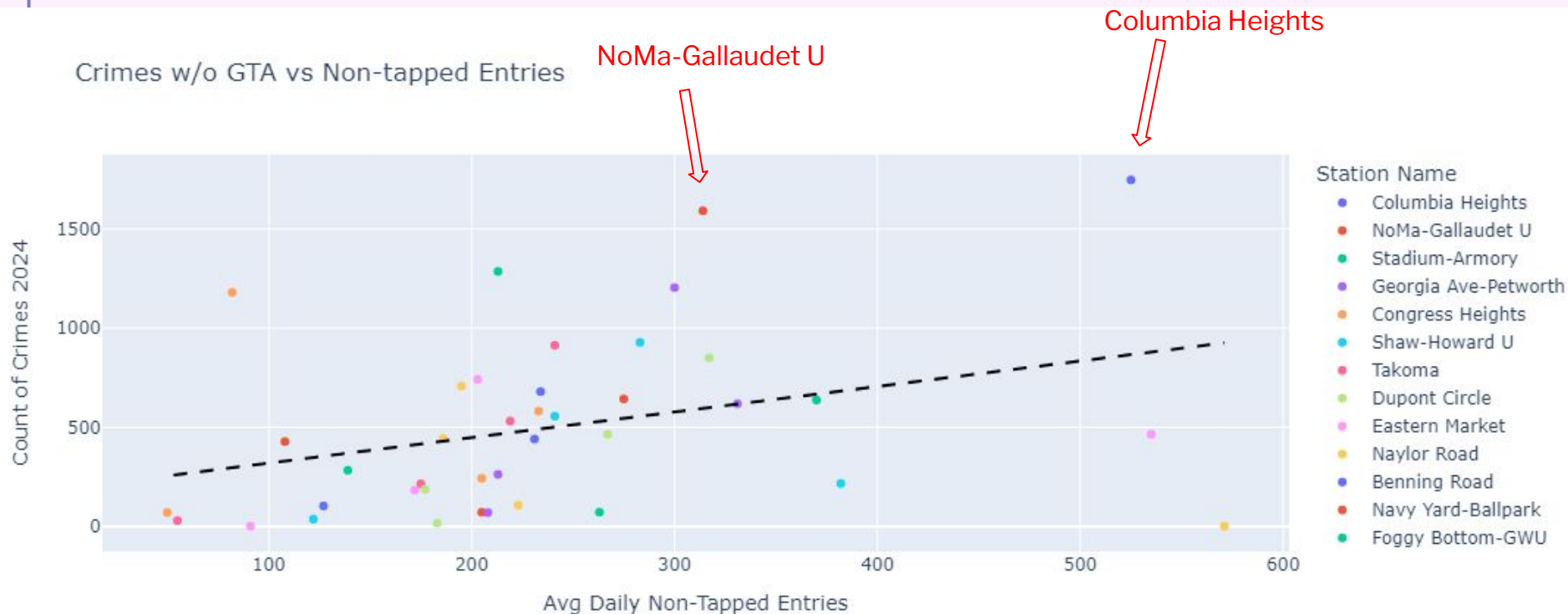
NoMa-Gallaudet U

Columbia Heights

Total Crimes vs Non-tapped Entries

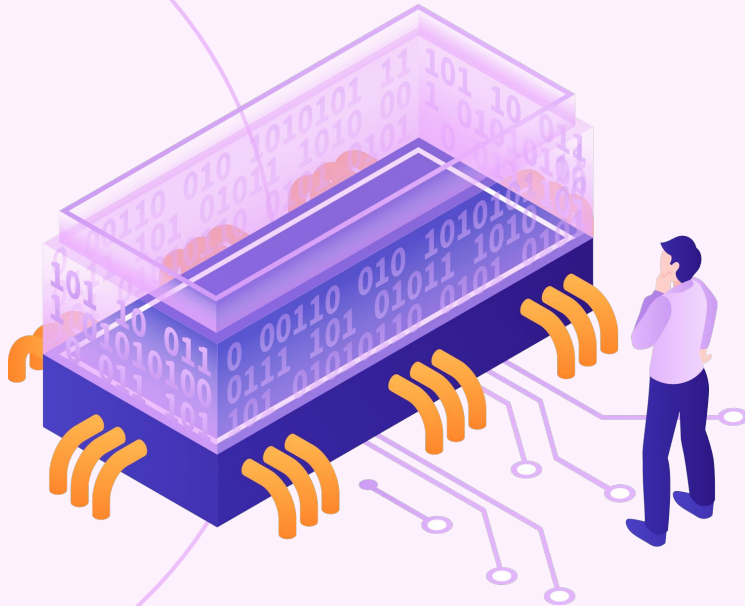


Crime vs non-tap w/out GTA

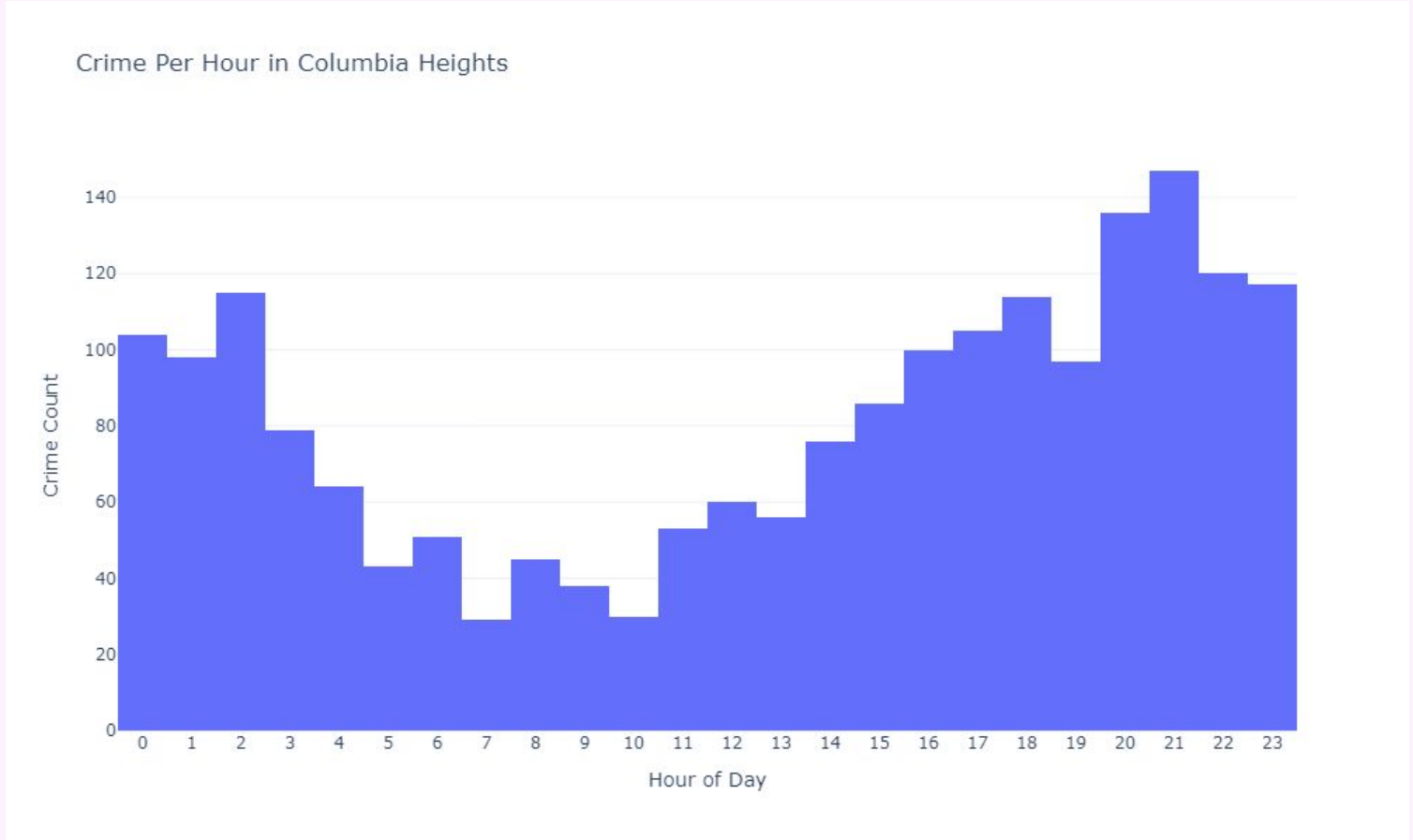


04

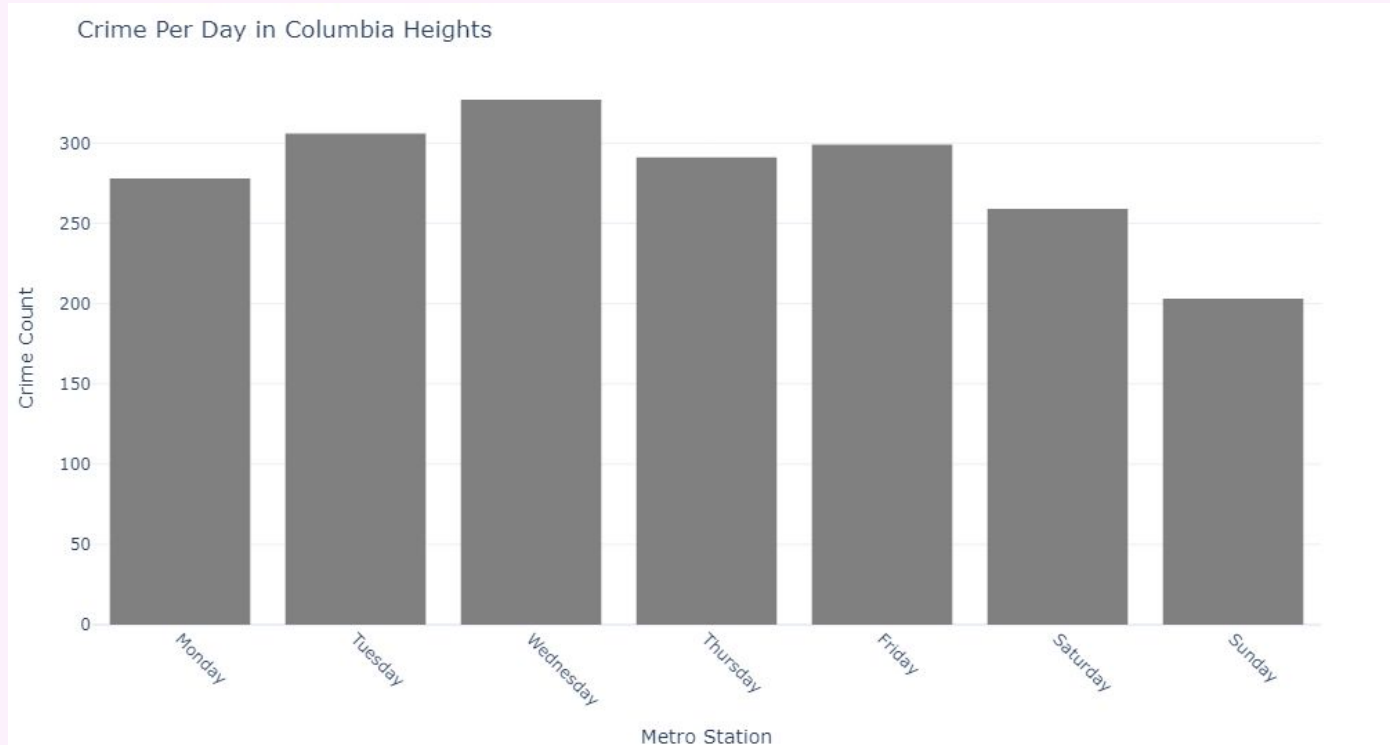
Focusing on Columbia Heights



Number of Crimes Per Hour in Columbia Heights, 2024



of Crimes Per Day in Columbia Heights, 2024



Money Lost due to Non taps per Week

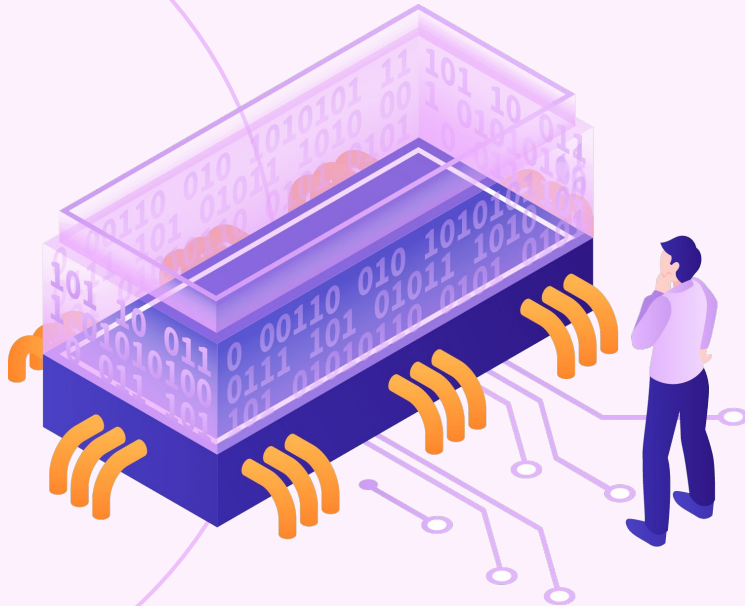
- Average cost Weekday (\$2.25-\$6.75)
- N (total avg non taps per week) = 16,757
- R (avg cost of a Metro Ride) = \$4.50
- $R * N * 52 = \text{Average \$ lost due to non taps per year}$
- Average \$ lost due to non taps per year = \$3,921,123.97

Station	Tapped	NonTapped	Daily Ent	Percentage	Estimated Amount Lost From Non-Taps				TOTAL LOST PER WEEK	TOTAL NON TAPS		
Ronald Re	5,149	571	5,720	9.98%	\$ 2,569.7				\$ 75,406.	16,757		
Union Sta	12,182	535	12,716	4.20%	\$ 2,405.6							
Columbia	7,217	525	7,742	6.79%	\$ 2,364.6							
Gallery Pl	12,127	382	12,509	3.05%	\$ 1,719.2				TOTAL AVERAGE LOST PER YEAR			
Foggy Bo	11,849	370	12,219	3.03%	\$ 1,667.0				\$ 3,921,1			
Dulles Air	1,977	351	2,328	15.07%	\$ 1,578.7							
Fort Totte	6,247	331	6,577	5.03%	\$ 1,487.6							
Dupont Ci	9,640	317	9,957	3.18%	\$ 1,426.8							
Rhode Isl	3,803	314	4,116	7.62%	\$ 1,411.4							
NoMa-Ga	8,899	314	9,213	3.40%	\$ 1,411.1							
Georgia A	3,763	300	4,063	7.38%	\$ 1,349.7							
Anacostia	3,208	297	3,504	8.47%	\$ 1,335.4							
Shaw-Hov	2,950	283	3,233	8.76%	\$ 1,274.1							
Hyattsville	2,581	281	2,862	9.82%	\$ 1,264.5							
Navy Yarc	8,149	275	8,424	3.26%	\$ 1,235.3							
Metro Cer	11,714	267	11,981	2.22%	\$ 1,199.4							
L'Enfant F	8,907	263	9,171	2.87%	\$ 1,184.3							
U Street	4,522	254	4,776	5.33%	\$ 1,144.9							
Greenbelt	2,702	245	2,947	8.32%	\$ 1,103.7							
Brookland	3,579	241	3,820	6.31%	\$ 1,085.4							
Takoma	2,844	241	3,085	7.82%	\$ 1,085.1							
McPherson	2,822	232	3,054	7.60%	\$ 1,078.8							



05

Conclusion



Conclusion

Our Proposal

- **Proof of Concept**
- **Specific Allocation of Metro Resources**
- **Location and Time Based Security Measures**



Thank You!

