

Public Recycling Bins in the NYC Boroughs



EDA Project Presentation

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30 September 2021

Background



Background



Goal



sanitation

- Find the ratio of people per bin in each New York borough
- Provide suggestions to further improve the recycling opportunities in New York



Database



Database

MTA Stations

- Stations' Boroughs



Public Recycling Bins

- Number of Bins

MTA Turnstiles

- Daily Traffic

- Feb 1st to April 25th, 2020



MTA Turnstiles



MTA Turnstiles



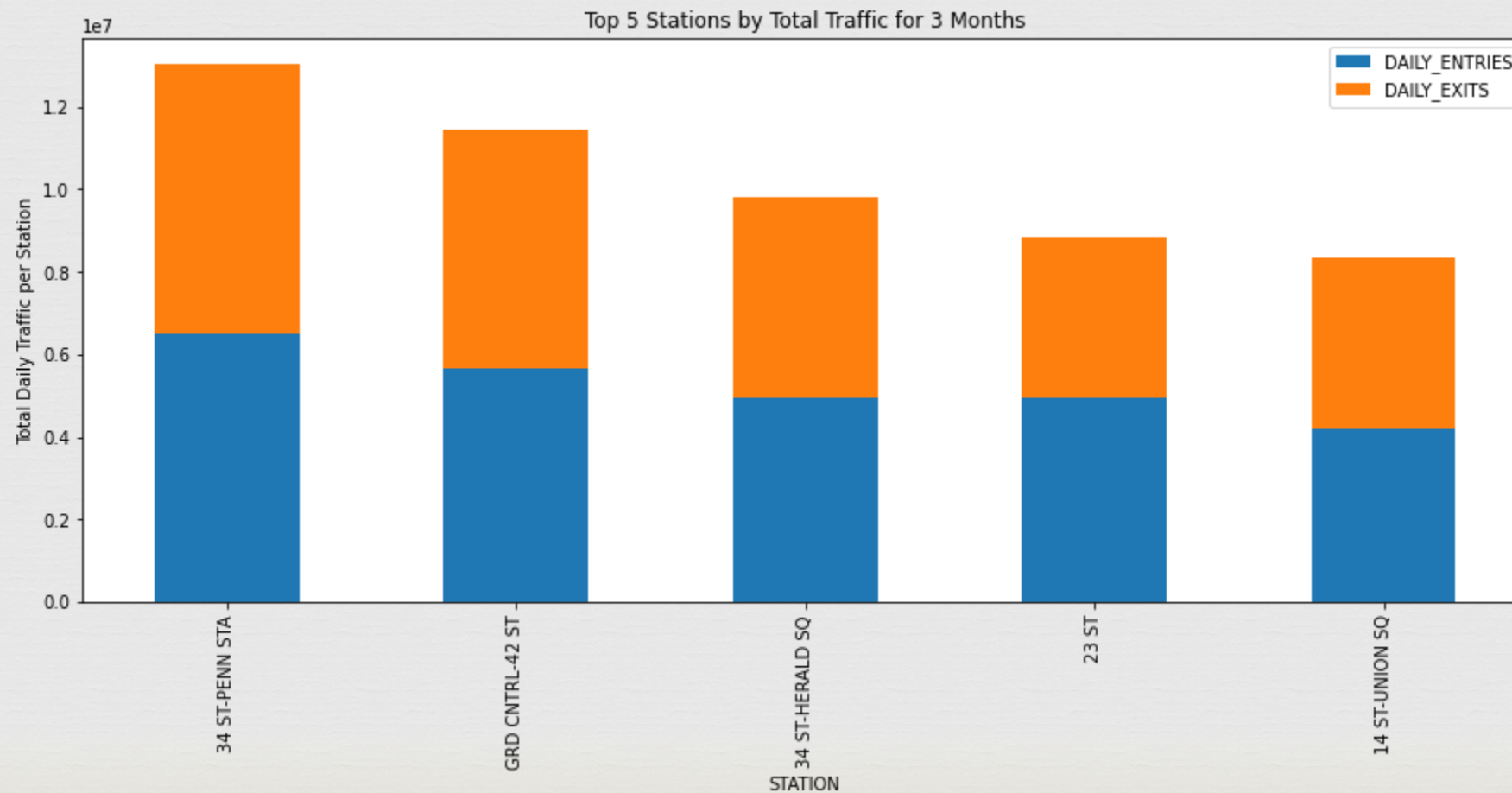
	C/A	UNIT	SCP	STATION	LINENAME	DIVISION	DATE	TIME	DESC	ENTRIES	EXITS
0	A002	R051	02-00-00	59 ST	NQR456W	BMT	01/25/2020	03:00:00	REGULAR	7356095	2493703
1	A002	R051	02-00-00	59 ST	NQR456W	BMT	01/25/2020	07:00:00	REGULAR	7356105	2493714
2	A002	R051	02-00-00	59 ST	NQR456W	BMT	01/25/2020	11:00:00	REGULAR	7356170	2493761
3	A002	R051	02-00-00	59 ST	NQR456W	BMT	01/25/2020	15:00:00	REGULAR	7356333	2493812
4	A002	R051	02-00-00	59 ST	NQR456W	BMT	01/25/2020	19:00:00	REGULAR	7356581	2493862
...
206171	TRAM2	R469	00-05-01	RIT-ROOSEVELT	R	RIT	04/17/2020	05:00:00	REGULAR	5554	514
206172	TRAM2	R469	00-05-01	RIT-ROOSEVELT	R	RIT	04/17/2020	09:00:00	REGULAR	5554	514
206173	TRAM2	R469	00-05-01	RIT-ROOSEVELT	R	RIT	04/17/2020	13:00:00	REGULAR	5554	514
206174	TRAM2	R469	00-05-01	RIT-ROOSEVELT	R	RIT	04/17/2020	17:00:00	REGULAR	5554	514
206175	TRAM2	R469	00-05-01	RIT-ROOSEVELT	R	RIT	04/17/2020	21:00:00	REGULAR	5554	514

MTA Turnstiles



	STATION	DATE	DAILY_ENTRIES	DAILY_EXITS	TOTAL_TRAFFIC
0	1 AV	01/26/2020	5886.0	6500.0	12386.0
1	1 AV	01/27/2020	16326.0	18845.0	35171.0
2	1 AV	01/28/2020	17627.0	19885.0	37512.0
3	1 AV	01/29/2020	18010.0	20137.0	38147.0
4	1 AV	01/30/2020	18117.0	20421.0	38538.0
...
31359	ZEREGA AV	04/13/2020	257.0	313.0	570.0
31360	ZEREGA AV	04/14/2020	326.0	413.0	739.0
31361	ZEREGA AV	04/15/2020	290.0	411.0	701.0
31362	ZEREGA AV	04/16/2020	303.0	396.0	699.0
31363	ZEREGA AV	04/17/2020	315.0	399.0	714.0

MTA Turnstiles



MTA Turnstiles

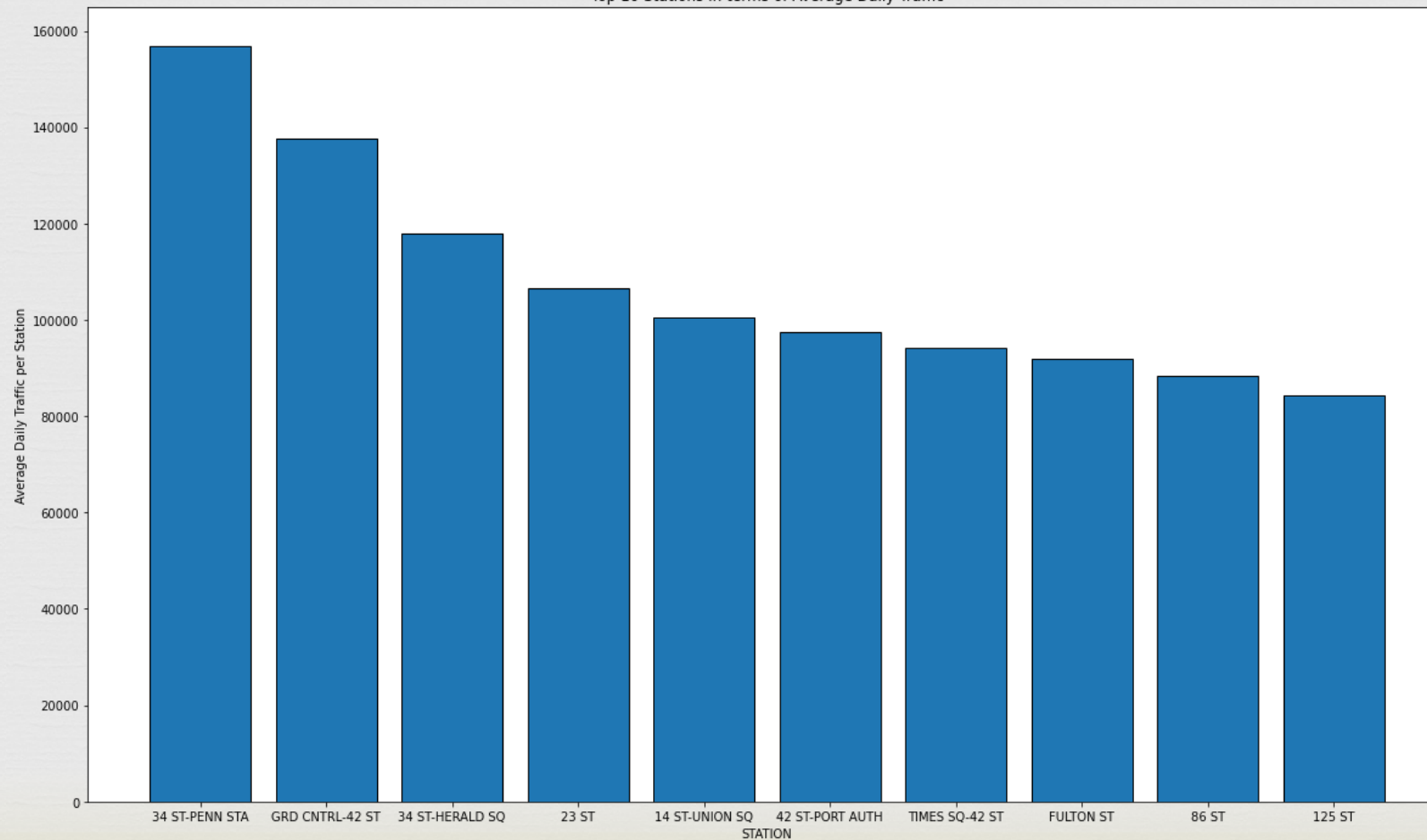


	STATION	AVERAGE_DAILY_TRAFFIC
0	34 ST-PENN STA	156966.0
1	GRD CNTRL-42 ST	137692.0
2	34 ST-HERALD SQ	118001.0
3	23 ST	106617.0
4	14 ST-UNION SQ	100467.0
...
373	AQUEDUCT RACETR	893.0
374	BEACH 98 ST	524.0
375	TOMPKINSVILLE	379.0
376	BEACH 105 ST	277.0
377	BROAD CHANNEL	212.0

MTA Turnstiles



Top 10 Stations in terms of Average Daily Traffic



MTA Stations



MTA Stations



Station ID	Complex ID	GTFS Stop ID	Division	Line	Stop Name	Borough	Daytime Routes	Structure	GTFS Latitude	GTFS Longitude	North Direction Label	South Direction Label
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MTA Stations



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MTA Stations



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Stop Name	Borough
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MTA Stations



	STATION	AVERAGE_DAILY_TRAFFIC	Borough
0	34 ST-PENN STA	156966.0	Manhattan
1	GRD CNTRL-42 ST	137692.0	Manhattan
2	34 ST-HERALD SQ	118001.0	Manhattan
3	23 ST	106617.0	Manhattan
4	14 ST-UNION SQ	100467.0	Manhattan
...
373	AQUEDUCT RACETR	893.0	Queens
374	BEACH 98 ST	524.0	Bronx
375	TOMPKINSVILLE	379.0	Staten Island
376	BEACH 105 ST	277.0	Queens
377	BROAD CHANNEL	212.0	Queens

Public Recycling Bins



Public Recycling Bins



	Borough	Site type	Park/Site Name	Address	Latitude	Longitude
0	Bronx	Subproperty	227th St. Plgd	E 227 St/Bronx River Pkway	40.890849	-73.864224
1	Bronx	Subproperty	Allerton Ballfields	Allerton Ave & Moshulu Pkway	40.848891	-73.877128
2	Bronx	Outdoor	Arthur Ave & E 187 St	Arthur Ave & 187 St	40.855570	-73.887565
3	Bronx	Outdoor	Barstow Mansion	895 Shore Road, Pelham Bay Park	40.871864	-73.805549
4	Bronx	Subproperty	Bradley Playground	2001-2017 Bronx Park E	40.851889	-73.868549
...
540	Staten Island	Indoor	West Brighton Pool	899 Henderson Ave	40.637121	-74.119287
541	Staten Island	Outdoor	Willowbrook Park	Willowbrook Park	40.603832	-74.158697
542	Staten Island	Outdoor	Willowbrook Park	Willowbrook Park	40.603828	-74.161250
543	Staten Island	Outdoor	Wolfe's Pond	Wolfe's Pond	40.517368	-74.190913
544	Staten Island	Outdoor	Wolfe's Pond	Wolfe's Pond	40.518652	-74.187310

Public Recycling Bins



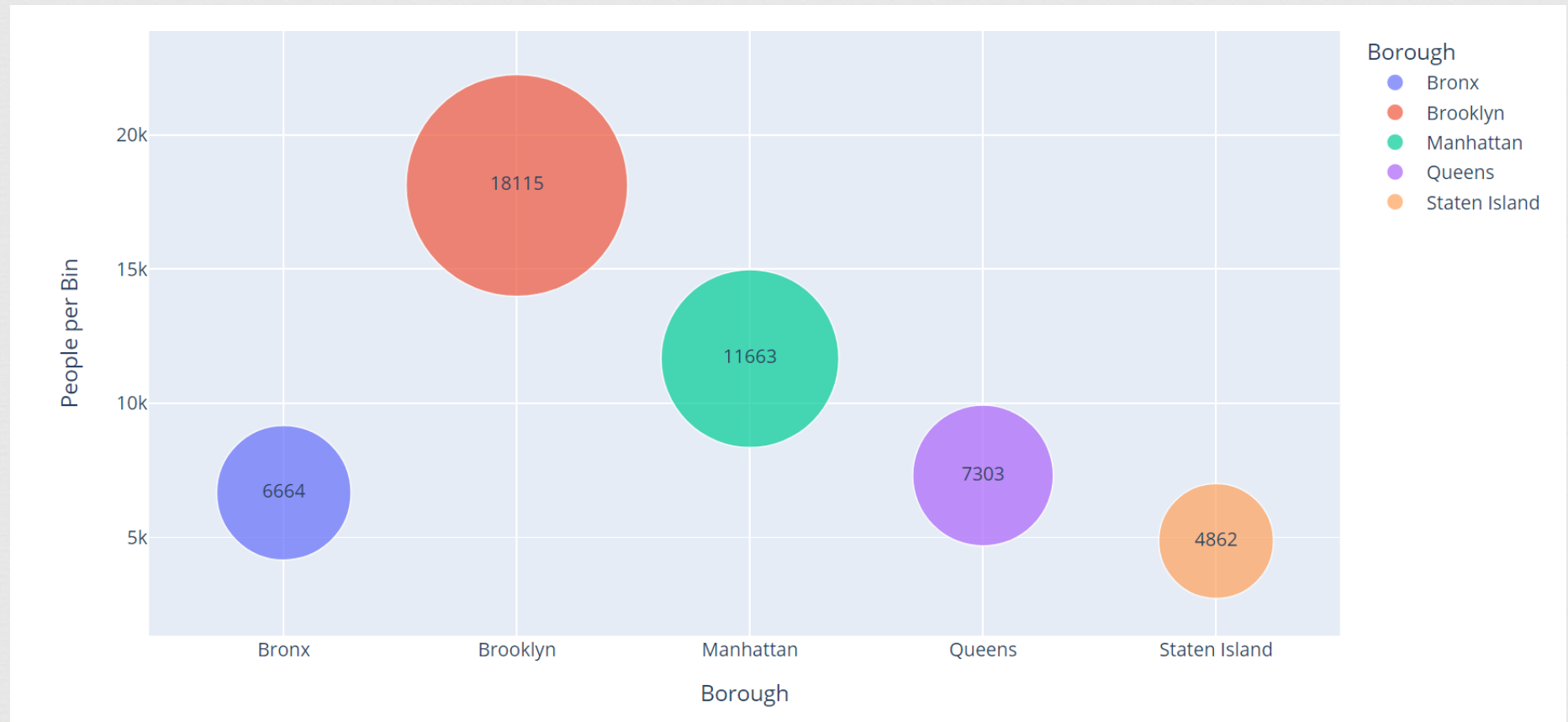
	STATION	AVERAGE_DAILY_TRAFFIC	Borough	Bins
0	34 ST-PENN STA	156966.0	Manhattan	184
1	GRD CNTRL-42 ST	137692.0	Manhattan	184
2	34 ST-HERALD SQ	118001.0	Manhattan	184
3	23 ST	106617.0	Manhattan	184
4	14 ST-UNION SQ	100467.0	Manhattan	...
...	117
373	AQUEDUCT RACETR	893.0	Queens	117
374	BEACH 98 ST	524.0	Bronx	117
375	TOMPKINSVILLE	379.0	Staten Island	117
376	BEACH 105 ST	277.0	Queens	117
377	BROAD CHANNEL	212.0	Queens	184

Public Recycling Bins



	Borough	Bins	Average Daily Traffic	People per Bin
0	Bronx	108	719694.0	6664.0
1	Brooklyn	94	1702854.0	18115.0
2	Manhattan	184	2146054.0	11663.0
3	Queens	117	854500.0	7303.0
4	Staten Island	42	204197.0	4862.0

Public Recycling Bins



Conclusion



Conclusion



- ❧ Increase the number of recycling bins in Brooklyn and Manhattan



Recommendations



- ❧ Consider bins coordinates
- ❧ Consider borough area
- ❧ Consider bins types



Thank You

