

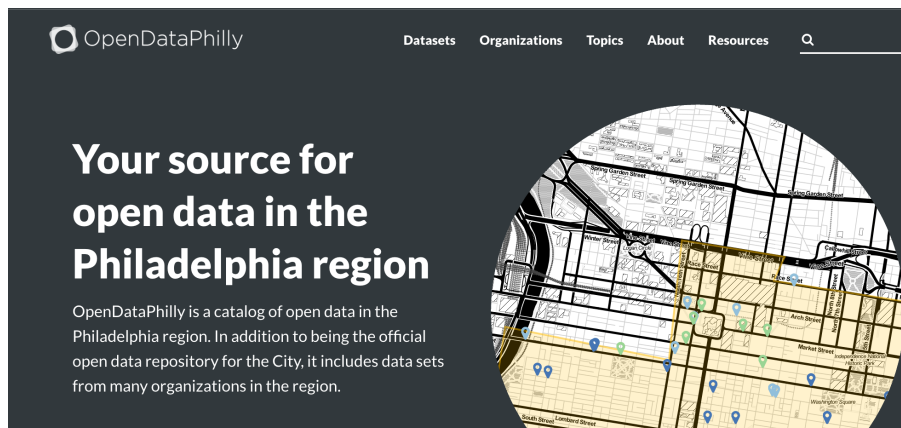
Goal: Direct access to current and historical data in raw CSV format.

(For now, let's start with traffic data)

- Location
- Description
- Date and time

Example:

lat	lng	desc	zip	title	timeStamp	twp
40.1211818	-75.351975	HAWS AVE; NORRISTOWN; 2015-12-1	19401	Fire: GAS-ODOR/LEAK	2015-12-10 17:40:00	NORRISTOWN
40.2580614	-75.26468	BRIAR PATH & WHITEMARSH LN; HA	19446	EMS: DIABETIC EMERGENCY	2015-12-10 17:40:00	HATFIELD TOWNSHI
40.2978759	-75.581294	REINDEER CT & DEAD END; NEW HAI	19525	EMS: BACK PAINS/INJURY	2015-12-10 17:40:00	NEW HANOVER
40.251492	-75.60335	CHERRYWOOD CT & DEAD END; LOWER POTTSGROVE	EMS: DIZZINESS	2015-12-10 17:40:01	LOWER POTTSGROV	
40.2890267	-75.39959	MAIN ST & OLD SUMNEYTOWN PIKE;	19438	EMS: SYNCOPAL EPISODE	2015-12-10 17:40:01	LOWER SALFORD
40.116153	-75.343513	AIRY ST & SWEDE ST; NORRISTOWN;	19401	EMS: CARDIAC EMERGENCY	2015-12-10 17:40:01	NORRISTOWN
40.1821111	-75.127795	LAUREL AVE & OAKDALE AVE; HORSH	19044	EMS: NAUSEA/VOMITING	2015-12-10 17:40:01	HORSHAM
40.2172859	-75.405182	COLLEGEVILLE RD & LYWISKI RD; SKII	19426	EMS: RESPIRATORY EMERGENCY	2015-12-10 17:40:01	SKIIPACK
40.2534732	-75.283245	CANNON AVE & W 9TH ST; LANSDAL	19446	EMS: HEAD INJURY	2015-12-10 17:40:01	LANSDALE
40.1023985	-75.291458	BLUEROUTE & RAMP I476 NB TO CHI	19462	Traffic: VEHICLE ACCIDENT -	2015-12-10 17:40:01	PLYMOUTH
40.2319898	-75.251892	RT202 PKWY & KNAPP RD; MONTGOMERY; 2015-12-10	19401	Traffic: VEHICLE ACCIDENT -	2015-12-10 17:40:01	MONTGOMERY
40.2237777	-75.235399	STUMP RD & WITCHWOOD DR; MON	18936	Traffic: VEHICLE ACCIDENT -	2015-12-10 17:40:02	MONTGOMERY
40.1741312	-75.098491	BYBERRY AVE & S WARMINSTER RD; I	19040	Traffic: VEHICLE ACCIDENT -	2015-12-10 17:40:02	UPPER MORELAND
40.062974	-75.135914	OLD YORK RD & VALLEY RD; CHELTEN	19027	Traffic: VEHICLE ACCIDENT -	2015-12-10 17:40:02	CHELTENHAM
40.0972222	-75.376195	SCHUYLKILL EXPY & CROTON RD UNDERPASS; UPPER M	19401	Traffic: VEHICLE ACCIDENT -	2015-12-10 17:40:02	UPPER MERION
40.0841613	-75.308386	BROOK RD & COLWELL LN; PLYMOUT	19428	Traffic: VEHICLE ACCIDENT -	2015-12-10 17:40:02	PLYMOUTH



Reference:
<https://www.opendataphilly.org/>

Contact Info: Mike Chirico mchirico@gmail.com

This is what we have today:

SECTION II- GENERAL INFO.	Dec 2015	Dec 2014	YTD2015	YTD2014
15. WEAPONS VIOLATIONS	1	0	10	7
16. TOTAL POLICE SERVICES	1,908	1,718	23,645	24,784
17. DRUGS VIOLATIONS	6	3	75	82
18. PFA SERVICE	7	1	31	23
19. DOMESTIC DISTURBANCES	44	38	472	411
20. REFERRED TO DET. DIV.	156	201	1,788	2,155
21. ASSAULT (SIMPLE)	9	3	90	112
22. RECOVERED STOLEN AUTOS	1	0	11	14
23. RECOVERED BICYCLES	1	1	14	19
24. ALARMS REPORTED	143	143	1,940	2,061
25. SUICIDES REPORTED	0	0	2	3
26. ATTEMPTED SUICIDES	0	1	4	8
27. AUTO ACCIDENTS	152	122	1,477	1,460
28. VEHICLES INVOLVED	251	198	2,559	2,670
29. ACCIDENT INJURIES	19	11	209	212
30. PEDESTRIAN INJURIES	1	2	15	11
31. FATALITIES - AUTO ACCIDENTS	0	1	2	2

Where are these accidents? How many accidents are in the same location? What's the time/date etc. Having the datetime could help correlation with traffic patterns and weather conditions. But, the data needs to be in raw (.csv) format.

This is a great idea. It's current data; however, there's no history.

<http://www.montcopa.org/webcad>

* RSS feed.

Active Incident Dispatch Status

Incident Status

The following active incidents are dispatched from the Emergency Operations Center in Eagleville.
The contents are updated at five minute intervals from the CAD (Computer Aided Dispatch) system.

Last Updated 1/31/2016 3:59:21 PM screen refresh rate is every 4 minutes

Fire Incidents

Incident No.	Incident Type	Incident Location	Municipality	Dispatch Time	Station
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EMS Incidents

Incident No.	Incident Type	Incident Location	Municipality	Dispatch Time	Station
E1606440	RESPIRATORY EMERGENCY	OSBOURNE AVE & MIRIAM AVE	ABINGTON	2016-01-31 15:52:53	381
E1606439	SUBJECT IN PAIN	CHESTNUT HILL RD & HARMONYVILLE RD	CHESTER COUNTY	2016-01-31 15:51:03	EMS
E1606438	SEIZURES	KESWICK AVE & WELDON AVE	ABINGTON	2016-01-31 15:44:36	383
E1606437	ALTERED MENTAL STATUS	NORRISTOWN RD & RADCLIFF LN	LOWER GWYNEDD	2016-01-31 15:43:20	351
E1606436	GENERAL WEAKNESS	EBENEZER ST & PRICE ST	LOWER MERION	2016-01-31 15:40:50	313
E1606435	HEAD INJURY	SUMMIT ST & COLONIAL AVE	FRANCONIA	2016-01-31 15:40:16	339
E1606434	RESPIRATORY EMERGENCY	MAIN ST & 4TH ST	EAST GREENVILLE	2016-01-31 15:39:14	369
E1606432	NAUSEA/VOMITING	CHARLOTTE ST & LOMARA DR	NEW HANOVER	2016-01-31 15:22:02	332
E1606431	RESPIRATORY EMERGENCY	VILLAGE DR & N GULPH RD	UPPER MERION	2016-01-31 15:18:17	317
E1606430	GENERAL WEAKNESS	BUTLER PIKE & MAPLE DR	WHITEMARSH	2016-01-31 15:14:10	318
E1606429	OVERDOSE	ORCHARD LN & INDIAN LN	BERKS COUNTY	2016-01-31 15:06:11	EMS

Traffic Incidents

Incident No.	Incident Type	Incident Sub Type	Incident Location	Municipality	Dispatch Time
P16055656	DISABLED VEHICLE		RUPERT RD & EVERGREEN RD	LIMERICK	2016-01-31 14:45:27
P16055625	VEHICLE FIRE		EXTENSION PENNSYLVANIA TPKE & SCHULTZ RD UNDERPASS	WORCESTER	2016-01-31 14:18:16
P16055600	VEHICLE ACCIDENT		HARLEYVILLE PIKE & PARK AVE	LOWER	2016-01-31

Traffic: VEHICLE ACCIDENTS

12-10-2015 to 01-31-2016

241 reported by Active Incident Dispatch Status

EASTON RD & RAMP S EASTON
RD TO RT309 9 counts

EASTON RD & SPRINGHOUSE LN
5 counts

TOWNSHIP LINE RD &
OLD YORK RD 3 counts

LIMEKILN PIKE &
GREENWOOD AVE
4 counts

OLD YORK RD & E
CHURCH RD 4 counts

CHELTENHAM AVE &
OGONTZ AVE, 8 counts

CHELTENHAM AVE & 79TH
AVE 18 counts

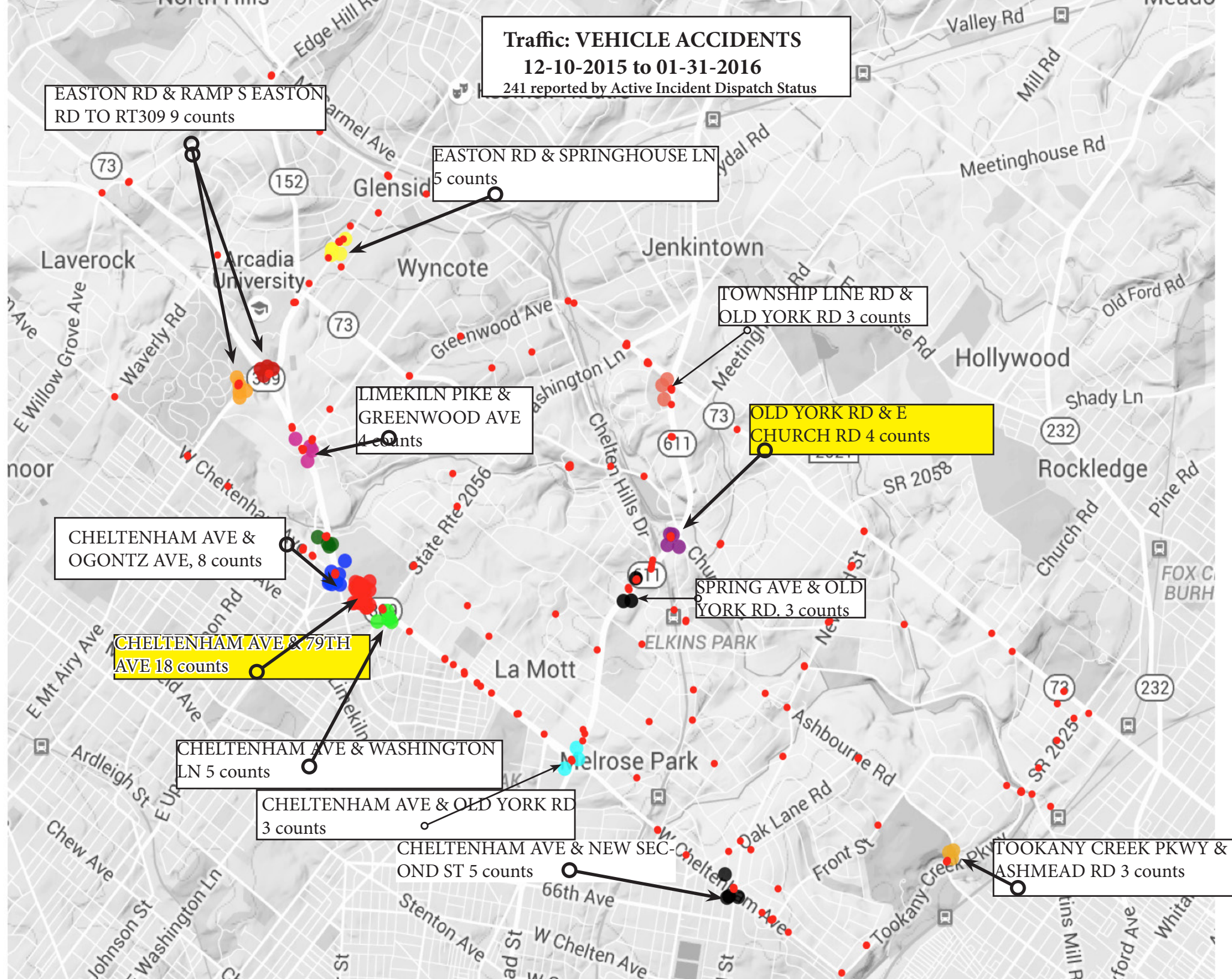
SPRING AVE & OLD
YORK RD. 3 counts

CHELTENHAM AVE & WASHINGTON
LN 5 counts

CHELTENHAM AVE & OLD YORK RD
3 counts

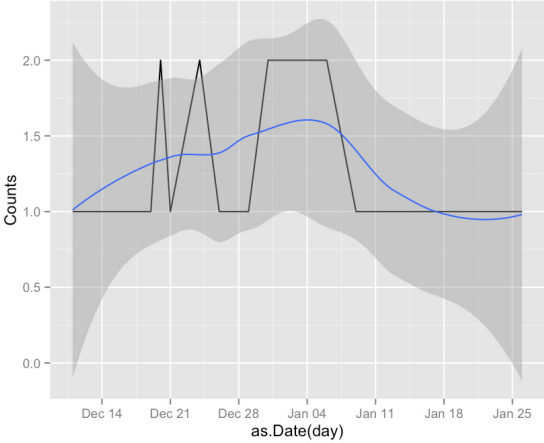
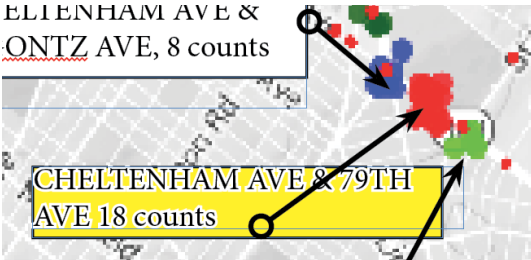
CHELTENHAM AVE & NEW SEC-
OND ST 5 counts

TOOKANY CREEK PKWY &
ASHMEAD RD 3 counts



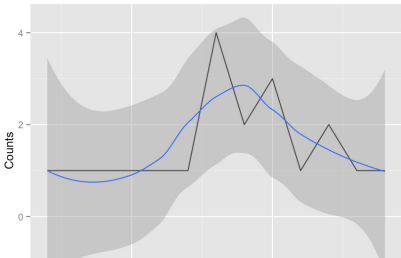
Let's just look at one case: CHELTENHAM AVE & 79TH

	day	Counts
1	2016-01-26 00:00:00	1
2	2016-01-17 00:00:00	1
3	2016-01-16 00:00:00	1
4	2016-01-13 00:00:00	1
5	2016-01-09 00:00:00	1
6	2016-01-06 00:00:00	2
7	2015-12-31 00:00:00	2
8	2015-12-29 00:00:00	1
9	2015-12-26 00:00:00	1
10	2015-12-24 00:00:00	2
11	2015-12-21 00:00:00	1
12	2015-12-20 00:00:00	2
13	2015-12-19 00:00:00	1
14	2015-12-11 00:00:00	1



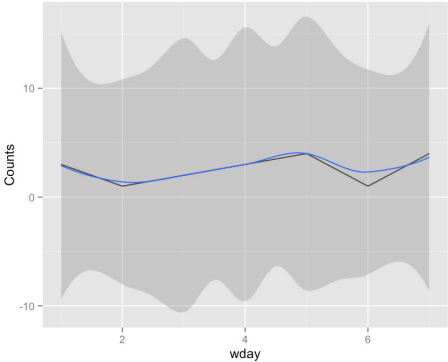
If you look at the hour, its' mostly
in the afternoon

	hr	Counts
1	13	4
2	15	3
3	14	2
4	17	2
5	7	1
6	10	1
7	11	1
8	12	1
9	16	1
10	18	1
11	19	1



What about Day
of week. (Sunday is 1)

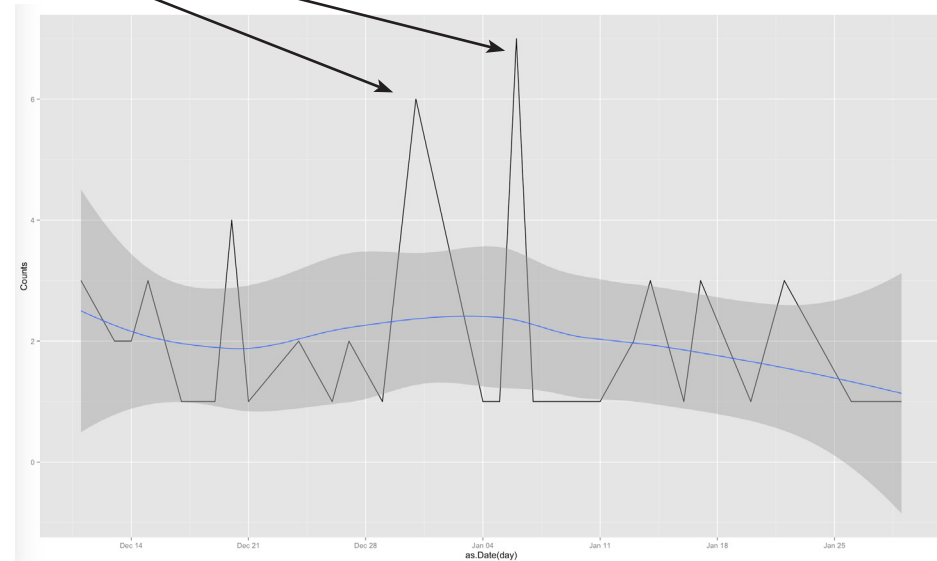
wday	Counts
Mon	1
Fri	1
Tues	2
Sun	3
Wed	3
Thurs	4
Sat	4



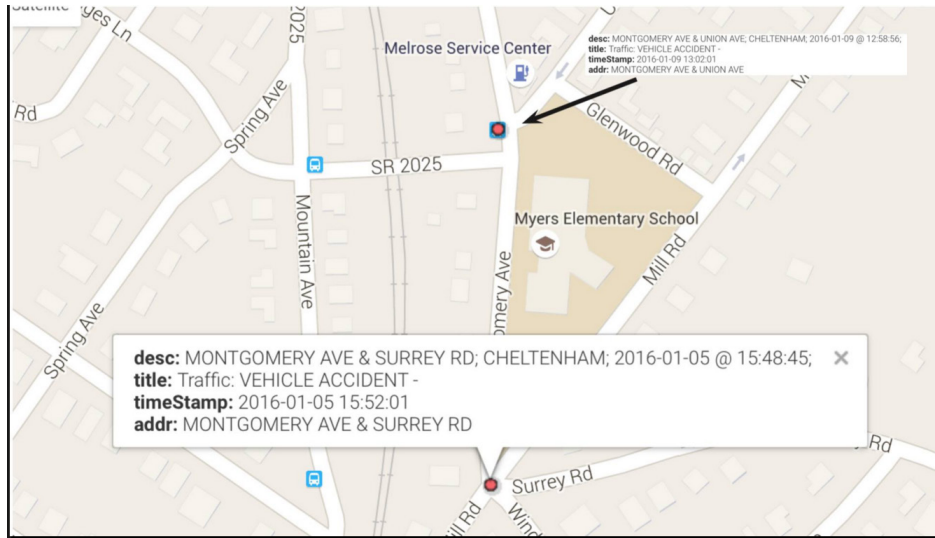
Characteristics of all Repeats - was it a one time event? Or, are the accidents spread out.

A few peaks, but after these two,
it spreads out.

day	Counts
2016-01-06 00:00:00	7
2015-12-31 00:00:00	6
2015-12-20 00:00:00	4
2015-12-11 00:00:00	3
2015-12-15 00:00:00	3
2016-01-14 00:00:00	3
2016-01-17 00:00:00	3
2016-01-22 00:00:00	3
2015-12-13 00:00:00	2
2015-12-14 00:00:00	2
2015-12-24 00:00:00	2
2015-12-27 00:00:00	2
2016-01-13 00:00:00	2
2016-01-15 00:00:00	2



This is an example of traffic problems around a local school.



Gabrielle maybe going to the “Public Safety Meeting” on Feb 3rd, but public January stats won’t be available until March. Looking at January data, she has a valid concern (note the two accidents above).



Gabrielle Kaplan-Mayer

January 20 at 8:19am · Melrose Park

I had another wonderful morning of people in their cars honking at my son and me as we moved from our home on Union Ave to his van. If you are one of those people who cut-through Union Avenue between 8-8:15am, I ask you to read my blog and consider how it feels for a child with autism and his parent to be honked at. You don't live on our street--all you need to do is go down Montgomery Ave to avoid our 2-minute or less delay. When I moved here, I though Cheltenham was an understanding community. I hope you will help spread the word and make sure that is true:



Gabrielle Kaplan-Mayer Mike, let me know when it is and my husband or I will arrange to be there. It is the honking but also the speeding. We worry that our child could be hit by a car.

[Like](#) · [Reply](#) · January 20 at 11:47am

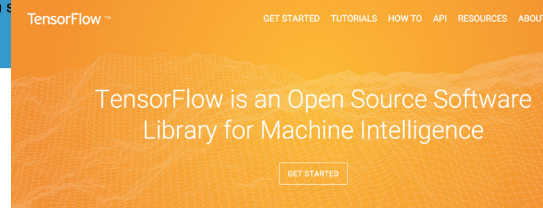
You Wouldn't Be Honking at My Son If You Knew the Full Story

Traffic (why?)

- Critical areas – schools have pedestrians and increased traffic.
- Everyone drives, and maybe crowdsourcing problems? (“That corner is dangerous...”). 2 way stop signs at intersections creates confusion. Compare to 4 way stop signs. Or, maybe it forces traffic to slow down?
- Property damage and injuries – maybe the most serious public safety problem. How would you know? Abington claims it is...look at our numbers compared to Abington.
- Driving patterns maybe somewhat predictable – drive the same route over and over...maybe candidate for pattern matching
- Vehicles may move in waves...out from the city after 12pm...note how the top accident hours increase on average, as one moves away from the city.
- If you can predict patterns, within reasonable confidence intervals, then, you maybe able to intelligently deploy resources to prevent some accidents.
- The real issue might be driving behavior. People drive too fast. Getting this data out...not just telling people to drive slow...might weigh in on this argument.

What's next?

After getting the raw data, leverage Machine Learning to automate pattern finding. Then, figure out ways to communicate complex patterns through the web and smart phones.



About TensorFlow

TensorFlow™ is an open source software library for numerical computation using data flow graphs. Nodes in the graph represent

TensorFlow: Open source machine learning

