

The background of the slide is a detailed, light gray map of Los Angeles County, showing a dense network of streets and highways. A semi-transparent white rectangular box is centered on the map, containing the title and subtitle text.

CRIME WATCH

A tool to keep you safe | Los Angeles County

Group 9 | DSE241 | 2018

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Crime in Los Angeles

Violent crime in L.A. jumps for third straight year as police deal with gang, homeless issues



By CINDY CHANG MAYA LAU
DEC 30, 2016 | 3:10 PM



Crime rates down in California, up in L.A. County, during period of criminal justice reform



By MAKEDA EASTER
DEC 05, 2017 | 5:40 PM



- Crime has been steadily increasing in LA County
- According to the LAPD, violence is the second leading cause of death for young people in America
- Juvenile violence and crime triple in the hour immediately after school

Datasets

Crime in Los Angeles

Source: City of Los Angeles

- Crime Data from 01/01/2010 to 09/09/2017
- ~237000 rows, 26 cols (53mb)
- Victim age 18 and under
- Includes type of crime, location, victim sex/age/ethnicity, crime status (continuing investigation/criminal arrested, etc.), modus operandi codes (stolen goods, vandalism, etc.)
- Los Angeles district shapefiles

<https://www.kaggle.com/cityofLA/crime-in-los-angeles/data>

In [33]: `crimedata.head()`

executed in 48ms, finished 19:53:38 2018-02-01

Out[33]:

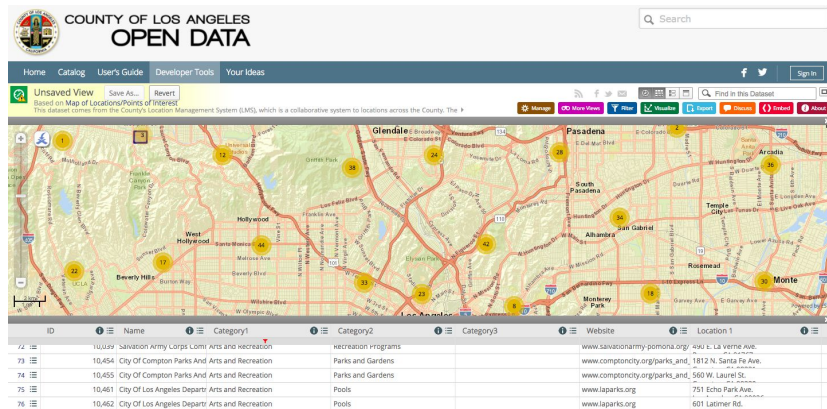
ID	DR Number	Date Reported	Date Occurred	Time Occurred	Area ID	Area Name	Reporting District	Crime Code	Crime Code Description	MO Codes	Victim Age	Victim Sex	Victim Descent	Premise Code
2	418	2013-03-19	2013-03-18	2030	18	Southeast	1823	510	VEHICLE - STOLEN	1402 0325	12.0	NaN	NaN	101.0
14	121504289	2013-01-06	2013-01-06	2030	15	N Hollywood	1511	442	SHOPLIFTING - PETTY THEFT (\$950 & UNDER)	0917 0419 0429 0417	18.0	M	O	404.0
18	130100509	2013-01-02	2013-01-02	1500	1	Central	185	624	BATTERY - SIMPLE ASSAULT	0917 0419 0429 0417	18.0	F	H	406.0
25	130100532	2013-01-09	2013-01-09	1120	1	Central	192	626	INTIMATE PARTNER - SIMPLE ASSAULT	2000 0416	18.0	F	B	701.0

Map of Locations in Los Angeles

Source: County of Los Angeles Open Data

- Locations of points (latitudes, longitude) of interest in LA county
- Parks, libraries, schools, other govt facilities, etc.

<https://data.lacounty.gov/Administration/Map-of-Locations-Points-of-Interest/m2sb-tzx8>



Tasks

Problem/Question	Solution
Not much is known about LA crimes involving youth victims (< 19 year olds).	Create Crime Watch, a tool to explore and present crimes geographically, by crime type, over time, and crime which is dynamic and interactive
Working with different data types, how will the data be integrated?	Process data, interpret shapefiles files properly, and join on district ids (thankfully data wrangling is minimal).
Which schools are in the most dangerous locations?	Develop a geographic visual to select a school location and specify the radius of interest, this will allow for understanding the incidences of crime within a certain radius from the school.
Which districts in the county should city government pay more attention to?	Overlay of districts on Crime Watch highlight problem areas where the city may want to devote resources to improving.
How have districts in the county changed over time in regards to incidences and rates of crime involving youth victims?	An animated heatmap of LA country over time will display how and where crime has evolved?

Implementation

Filters bar:

- Year
- Crime
- Crime Status
- Victim (Age, Sex, Ethnicity)
- District
- etc.

*Filter bar will be hidden using menu bar

Dynamic cross filtering

General Layout

Key Visualization

By district
By radius from point
Overall death tolls
Rates over time

Callout Metrics/KPIs:

- Top crimes by category
- Most dangerous district
- Number of deaths
- Number of crime incidents by category
- etc.

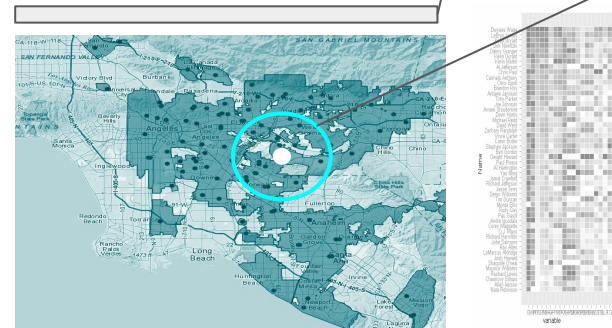
Select locations
(schools, parks,
etc.)

*Distance
mapping with
radius filter

Crime Watch by District



Crime Watch by Location



Heatmap
of crimes
by type

Stakeholders



Parents and families



Law enforcement



Policy makers



ANY QUESTIONS?