CHICAGO POLICE

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Welcome to Chicago's Analytics Page!

Here we will be addressing the following Problem Definition

"Identify strategies to reduce crime rates in Chicago by 30% in the next 1 Year by analyzing the correlation between education quality and crime rate to enable strategic actions."

Plan of Action,

1) Helping the Chief of Police understand the timeline of crime in Chicago's westside and south side between 2012-2016 (Temporal Analysis Dashboard)

2) Help the Mayor understand the proportion of students graduating high schools and dropping out. Which students are more likely to dropout. (DropOutvsGrad dashboard)

3) Map out elementary schools in th city and show a comparison of areas with high/poor performance based on race, population, annual income and number of students(Spacial Dashboard)

Crime Data Summary:
This dataset reflects reported incidents of crime (with the exception of murders where data exists for each victim) that occurred in the City of Chicago from 2012 to 2016.

Scope:
Time Period(s): 2012-2016

Description of Variables :

ID - Unique identifier for the record
Case_Number - The Chicago Police Department RD Number (Records Division Number), which is unique to the incident
Date - Date when the incident occurred; this is sometimes a best estimate
Block - The partially redacted address where the incident occurred, placing it on the same block as the actual address
IUCR - The Illinois Uniform Crime Reporting code. This is directly linked to the Primary Type and Description.
Primary_Type - The primary description of the IUCR code
Description - The secondary description of the IUCR code, a subcategory of the primary description
Location_Description - Description of the location where the incident occurred
Arrest - Indicates whether an arrest was made
Domestic - Indicates whether the incident was domestic-related as defined by the Illinois Domestic Violence Act
Beat - Indicates the beat where the incident occurred. A beat is the smallest police geographic area - each beat has a dedicated police beat car. Three to five beats make up a police sector, and three sectors make up a police district. The Chicago Police Department has 22 police districts.
District - Indicates the police district where the incident occurred.
Ward - The ward (City Council district) where the incident occurred.
Community_Area - Indicates the community area where the incident occurred. Chicago has 77 community areas.
FBI_Code - Indicates the crime classification as outlined in the FBI's National Incident-Based Reporting System (NIBRS).
X_Coordinate - The x coordinate of the location where the incident occurred in State Plane Illinois East NAD 1983 projection. This location is shifted from the actual location for partial redaction but falls on the same block
Y_Coordinate - The y coordinate of the location where the incident occurred in State Plane Illinois East NAD 1983 projection. This location is shifted from the actual location for partial redaction but falls on the same block
Year - Year the incident occurred
Updated_On - Date and time the record was last updated
Latitude - The latitude of the location where the incident occurred. This location is shifted from the actual location for partial redaction but falls on the same block
Longitude - The longitude of the location where the incident occurred. This location is shifted from the actual location for partial redaction but falls on the same block
Location - The location where the incident occurred in a format that allows for creation of maps and other geographic operations on this data portal. This location is shifted from the actual location for partial redaction but falls on the same block

Education Data Summary

Chicago Public Schools (CPS) – Report Card Data This dataset shows all school-level performance data used to create CPS School Report Cards for the2012-2016.

Metrics used are described as follows: for the entire list got to https://data.cityofchicago.org/api/assets/AAD41A13-BE9A-4E67-B0F5-B9E711EC0C9F?download=true

5 YearGraduation Rate

The five-year cohort graduation rate follows a group of students who enter Chicago Public Schools (CPS) as freshmen and calculates the percent of these students who graduate within five years after their freshman year. For example, the 2006 rate tracks ninth grade students who started in CPS in the 2001-12 school year and graduated from CPS by August of the 2005-16 school year.

How is the rate calculated?
The rate is calculated by dividing the number of students from an adjusted ninth grade cohort who graduated over the five year time period by the total number of students in that cohort

Example Calculation
School A had 725 ninth grade students enrolled during the 2011-12 school year. Twenty of these were repeating the ninth grade. Twenty-five of them transferred out of CPS and were verified in a new school during the five years following the 2011-12 school year. The adjusted ninth grade cohort for this school was: Cohort9th adj. = 725 – 20 – 25 = 680 students During the five years following the 2011-12 school year, 286 of these 680 students dropped out and 364 graduated. Of the remaining 45 students, 5 were unverified transfers as of August 2016, and twenty-five were still enrolled in CPS as of the end of the 2015-16 school year. School A 's Five-Year Cohort Graduation Rate in 2016 was: Graduation Rate5-year cohort = 364 / 680 = 53.5%

5 Year DropOut Rate

What is the Five-Year Cohort Dropout Rate? The five-year cohort dropout rate follows a group of students who enter Chicago Public Schools (CPS) as freshmen and calculates the percent of these students who drop out within five years after their freshman year. For example, the 2006 rate tracks ninth grade students who started in CPS in the 2001-12 school year and dropped out of CPS by August of the 2005-16 school year.

How is the rate calculated?
The rate is calculated by dividing the number of students from an adjusted ninth grade cohort who dropped out over the five year time period by the total number of students in that cohort.

Example Calculation School A had 725 ninth grade students enrolled during the 2011-12 school year. Twenty of these were repeating the ninth grade. Twenty-five of them transferred out of CPS and were verified in a new school during the five years following the 2011-12 school year. The adjusted ninth grade cohort for this school was: Cohort9th adj. = 725 – 20 – 25 = 680 students During the five years following the 2011-12 school year, 286 of these 680 students dropped out and 364 graduated. Of the remaining 45 students, 5 were unverified transfers as of August 2016, and twenty-five were still enrolled in CPS in the 2015-16 school year. School A's Five-Year Cohort Dropout Rate in 2016 was: Dropouts = 286 ("true" dropouts) + 5 (unverified transfer students) = 291 Dropout Rate5-year cohort = 291 / 680 = 42.8%

Student Growth Rating
Overall score of the school based on growth factors

Student Attainment Rating
Overall score of the school based on attainment of students

Racial Ethnicity of Students - Based on cast, religion and race

Population data of Chicago - for each zipcode

Avg annual income - For each zipcode

Introduction | Temporal Analysis | Proportion Analysis | Spacial Dashboard

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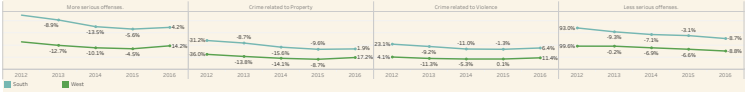
CRIME DASHBOARD

Crime Severeness: All

Region: Multiple values

Crime Severity by Year



Crimes by Time of the Day..

Primary Type	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
BATTERY	2%	2%	3%	3%	4%	4%	5%	4%	5%	6%	5%	5%	5%	5%	5%	5%	6%	5%	5%	5%	4%	3%	2%	2%
THEFT	2%	3%	4%	6%	5%	5%	7%	5%	6%	6%	6%	6%	6%	5%	5%	4%	4%	3%	5%	2%	2%	1%	1%	1%
BURGLARY	3%	5%	7%	7%	6%	6%	7%	5%	5%	5%	5%	5%	4%	4%	4%	3%	3%	3%	4%	2%	2%	2%	2%	2%
NARCOTICS	1%	1%	2%	2%	5%	7%	7%	6%	6%	5%	5%	4%	7%	10%	8%	7%	6%	5%	3%	1%	1%	0%	0%	0%
CRIMINAL DAMAGE	2%	3%	3%	4%	4%	3%	4%	3%	4%	4%	5%	5%	6%	6%	6%	7%	5%	6%	4%	4%	4%	3%	3%	2%
ASSAULT	1%	2%	4%	4%	5%	5%	6%	5%	6%	7%	6%	6%	6%	6%	6%	5%	5%	4%	3%	3%	2%	2%	1%	1%
ROBBERY	2%	2%	2%	3%	3%	4%	4%	4%	4%	5%	6%	6%	6%	6%	6%	6%	6%	5%	5%	4%	3%	3%	3%	2%
MOTOR VEHICLE THEFT	3%	4%	4%	4%	4%	3%	4%	3%	3%	4%	4%	5%	6%	6%	7%	7%	8%	6%	5%	3%	2%	2%	2%	2%
OTHER OFFENSE	2%	3%	4%	7%	6%	6%	7%	5%	5%	5%	5%	5%	5%	6%	5%	5%	4%	3%	4%	2%	2%	1%	1%	1%
DECEPTIVE PRACTICE	1%	2%	5%	11%	7%	5%	11%	5%	5%	6%	5%	4%	3%	4%	3%	2%	1%	1%	11%	1%	1%	1%	1%	1%
CRIMINAL TRESPASS	1%	2%	3%	4%	4%	6%	6%	5%	5%	6%	6%	6%	7%	7%	7%	6%	5%	4%	3%	2%	2%	2%	1%	1%
WEAPONS VIOLATION	1%	1%	2%	2%	3%	4%	4%	4%	4%	5%	4%	4%	6%	8%	8%	9%	7%	6%	3%	2%	1%	1%	1%	0%
PUBLIC PEACE VIOLATION	3%	2%	2%	3%	4%	5%	6%	6%	5%	7%	6%	5%	6%	8%	8%	7%	6%	6%	3%	2%	2%	1%	1%	0%
CRIM SEXUAL ASSAULT	3%	2%	2%	3%	2%	2%	3%	2%	2%	3%	4%	3%	4%	4%	5%	5%	6%	6%	11%	1%	1%	1%	1%	1%
OFFENSE INVOLVING CHILDREN	1%	2%	4%	5%	3%	5%	3%	5%	5%	6%	6%	7%	7%	6%	5%	3%	3%	2%	17%	1%	1%	1%	1%	1%
PROSTITUTION	4%	5%	8%	4%	3%	2%	3%	2%	2%	0%	1%	1%	4%	7%	12%	11%	22%	6%	4%	2%	3%	2%	1%	1%
INTERFERENCE WITH PUBLIC OFFIC...	0%	1%	1%	2%	3%	4%	4%	3%	3%	4%	5%	8%	7%	9%	9%	8%	8%	7%	5%	4%	3%	2%	1%	0%
HOMICIDE	2%	3%	2%	3%	2%	2%	4%	4%	4%	4%	5%	5%	5%	5%	6%	5%	6%	6%	7%	6%	5%	4%	3%	3%
ARSON	4%	3%	2%	2%	2%	2%	2%	2%	3%	2%	3%	2%	3%	2%	5%	4%	6%	6%	5%	3%	3%	3%	2%	2%
SEX OFFENSE	2%	3%	5%	5%	4%	3%	6%	4%	4%	5%	5%	4%	4%	4%	4%	4%	3%	3%	12%	3%	2%	2%	2%	2%

Crimes in Locations by Time of the Day

The heat map below shows the crimes by location types and time of the day. The highlights are as follows:
1) Sidewalks and Parking Lots register most crimes between 1500 hrs to 2000 hrs.
2) Crimes on street are more likely to happen between 1800 hrs and 2200 hrs.
3) Data shows high probability of crimes happening in Small Retail Stores between 12 PM to 5 PM.

Location Description	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
STREET	2%	2%	3%	3%	3%	4%	4%	4%	4%	4%	5%	5%	6%	6%	7%	7%	7%	6%	6%	4%	3%	3%	2%	2%
RESIDENCE	2%	3%	5%	7%	6%	5%	7%	5%	5%	5%	5%	4%	5%	4%	4%	4%	4%	4%	6%	3%	2%	2%	2%	2%
APARTMENT	2%	4%	5%	6%	5%	5%	5%	4%	4%	4%	5%	4%	5%	4%	4%	5%	5%	5%	5%	4%	3%	3%	2%	2%
SIDEWALK	1%	1%	2%	2%	4%	5%	5%	5%	5%	7%	6%	6%	7%	7%	7%	6%	6%	5%	4%	3%	2%	2%	1%	1%
OTHER	2%	2%	4%	7%	5%	5%	8%	5%	6%	6%	6%	6%	6%	5%	4%	4%	3%	3%	5%	2%	2%	2%	1%	1%
PARKING LOT/GARAGE(NON.RESID.)	2%	3%	4%	4%	5%	5%	6%	6%	6%	6%	6%	6%	7%	6%	6%	5%	5%	4%	3%	2%	2%	2%	1%	1%
RESIDENTIAL YARD (FRONT/BACK)	2%	2%	3%	4%	4%	4%	5%	4%	5%	6%	5%	5%	6%	6%	6%	6%	6%	4%	5%	3%	2%	2%	1%	1%
ALLEY	1%	2%	3%	3%	4%	5%	5%	5%	5%	6%	5%	5%	6%	7%	7%	6%	6%	5%	4%	3%	3%	2%	1%	1%
SMALL RETAIL STORE	1%	1%	2%	4%	6%	7%	8%	8%	8%	8%	8%	8%	7%	7%	4%	3%	2%	1%	1%	1%	1%	1%	1%	1%
RESIDENCE-GARAGE	3%	4%	4%	5%	4%	3%	5%	3%	4%	4%	4%	5%	6%	6%	6%	6%	7%	4%	6%	3%	2%	2%	2%	2%

Crimes in Locations by Day of the Week

The heat map below shows the top 10 location types by crime and day of the week. The highlights are as follows:
1) More crimes are reported on streets, residence and sidewalks during weekends

Location Description	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
STREET	34K	34K	34K	33K	36K	37K	36K
RESIDENCE	26K	26K	26K	27K	27K	26K	25K
APARTMENT	20K	20K	20K	20K	20K	21K	21K
SIDEWALK	18K	18K	18K	18K	19K	18K	18K
OTHER	5K	5K	5K	5K	5K	5K	4K
PARKING LOT/GARAGE(NON.RESID.)	4K	4K	4K	4K	4K	4K	4K
ALLEY	4K	3K	3K	3K	4K	4K	3K
RESIDENTIAL YARD (FRONT/BACK)	3K	3K	3K	3K	3K	3K	4K
SMALL RETAIL STORE	2K	2K	2K	2K	2K	2K	2K
RESIDENCE-GARAGE	2K	2K	2K	2K	2K	2K	2K

Crimes Types by Day of the Week

The heat map below shows the top 10 location types by crime and day of the week. The highlights are as follows:
1) Battery crimes are most on weekends
2) Burglary is most on Fridays 3) Narcotics, Motor Vehicle Theft are high on Weekends and mostly occurs on Streets.

Crime Severeness	Primary Type	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
More serious offenses.	ASSAULT	14%	14%	14%	14%	13%	15%	15%
	BATTERY	14%	13%	13%	13%	14%	16%	17%
	BURGLARY	15%	15%	15%	15%	16%	12%	11%
	MOTOR VEHICLE THEFT	15%	14%	14%	14%	15%	14%	14%
	ROBBERY	15%	14%	15%	14%	15%	14%	13%
	THEFT	15%	15%	15%	14%	15%	14%	13%
Less serious offenses.	ASSAULT	15%	15%	15%	15%	14%	13%	13%
	CRIMINAL DAMAGE	14%	13%	14%	13%	15%	16%	16%
	DECEPTIVE PRACTICE	16%	16%	16%	15%	17%	11%	9%
	NARCOTICS	14%	15%	15%	15%	16%	13%	13%
	OTHER OFFENSE	15%	15%	15%	15%	15%	13%	13%
Crime related to Property	BURGLARY	15%	15%	15%	15%	16%	12%	11%
	MOTOR VEHICLE THEFT	15%	14%	14%	14%	15%	14%	14%
	THEFT	15%	15%	15%	14%	15%	14%	13%
Crime related to Violence	ASSAULT	14%	14%	14%	14%	13%	15%	15%
	BATTERY	14%	13%	13%	13%	14%	16%	17%
	ROBBERY	15%	14%	15%	14%	15%	14%	13%

Crime types by Month

1) Looking at the aggregated data, it can be inferred that the crimes peak during the May, June, July and August Months.
2) The peaks are seen in Robberies, Weapon violations and Sexual Assaults.
3) The sexual assaults also peak in January which kind of stands out in the data.

Primary Type	January	February	March	April	May	June	July	August	September	October	November	December
ARSON	7%	6%	9%	9%	10%	9%	11%	10%	8%	8%	7%	7%
ASSAULT	7%	6%	9%	8%	10%	10%	9%	9%	9%	9%	7%	7%
BATTERY	7%	6%	8%	8%	10%	10%	10%	9%	8%	8%	7%	7%
BURGLARY	8%	6%	7%	7%	8%	9%	10%	10%	9%	9%	9%	9%
CONCEALED CARRY LICENSE VIOL...	7%	5%	10%	8%	10%	10%	10%	7%	7%	15%	5%	7%
CRIM SEXUAL ASSAULT	9%	6%	8%	7%	8%	10%	10%	9%	8%	8%	8%	7%
CRIMINAL DAMAGE	7%	6%	8%	9%	9%	9%	10%	9%	9%	9%	8%	7%
CRIMINAL SEXUAL ASSAULT	46%	8%			31%				8%	8%		
CRIMINAL TRESPASS	8%	7%	9%	9%	9%	9%	9%	9%	8%	9%	7%	7%
DECEPTIVE PRACTICE	9%	8%	9%	9%	8%	8%	8%	9%	8%	8%	8%	8%
GAMBLING	1%	2%	5%	9%	11%	15%	15%	17%	14%	8%	3%	1%
HOMICIDE	7%	5%	6%	7%	10%	10%	10%	11%	10%	8%	9%	7%
HUMAN TRAFFICKING	15%	4%	4%	8%	4%	12%	12%	12%	15%	12%		4%
INTERFERENCE WITH PUBLIC OFFI...	7%	7%	8%	8%	10%	10%	9%	10%	9%	8%	7%	6%
INTIMIDATION	5%	6%	10%	7%	10%	8%	10%	11%	10%	9%	5%	9%
KIDNAPPING	8%	7%	8%	8%	8%	10%	8%	10%	9%	8%	8%	8%
LIQUOR LAW VIOLATION	8%	8%	11%	9%	9%	11%	8%	10%	9%	7%	7%	4%
MOTOR VEHICLE THEFT	9%	7%	8%	7%	8%	9%	9%	9%	8%	8%	8%	9%
NARCOTICS	9%	9%	10%	9%	9%	8%	9%	8%	8%	8%	7%	6%
NON - CRIMINAL	3%	16%		3%	10%	16%	6%	16%	13%	6%	6%	3%
NON-CRIMINAL	6%	9%	18%	3%	3%	6%	12%	9%	6%	12%	9%	6%
NON-CRIMINAL (SUBJECT SPECIFI...	13%	13%										13%
OBSCENITY	13%	7%	9%	8%	11%	6%	8%	5%	5%	8%	10%	8%
OFFENSE INVOLVING CHILDREN	12%	8%	9%	8%	8%	9%	8%	8%	8%	8%	7%	8%
OTHER NARCOTIC VIOLATION	9%	18%						27%	18%	9%	9%	9%
OTHER OFFENSE	8%	8%	9%	9%	9%	9%	9%	9%	8%	8%	8%	7%
PROSTITUTION	9%	8%	9%	9%	9%	9%	10%	9%	8%	8%	8%	5%
PUBLIC INDECENCY	7%	10%	3%	3%	13%	7%	13%	13%	13%		13%	3%
PUBLIC PEACE VIOLATION	7%	7%	9%	9%	11%	10%	9%	8%	9%	9%	7%	6%
ROBBERY	8%	5%	6%	7%	9%	8%	10%	9%	9%	9%	9%	10%
SEX OFFENSE	12%	6%	7%	7%	10%	10%	9%	9%	9%	8%	6%	6%
STALKING	8%	5%	8%	7%	7%	9%	8%	9%	12%	8%	9%	10%
THEFT	8%	6%	8%	8%	9%	9%	10%	10%	9%	9%	8%	8%
WEAPONS VIOLATION	7%	6%	8%	8%	9%	10%	10%	10%	9%	8%	7%	7%

Predicting location of the type of crimes

1) This helps us understand the relationship between the type of crime and locations.
2) We can see Battery crimes happen in residencial property 3) Thefts and Criminal damages are most likey to happen on the streets

Primary Type	ALLEY	APARTMENT	BAR OR TAVERN	CTA TRAIN	DEPARTMENT STORE	GAS STATION	GROCERY FOOD STORE	OTHER	PARK PROPERTY	PARKING LOT/ GARAGE(N.	RESIDENCE	RESIDENCE PORCH/ HALLWAY	RESIDENC.	RESIDENTIAL YARD (FR CNT/BACK)	RESTAURA.	SCHOOL, PUBLIC, BUILDING	SIDEWALK	SMALL RETAIL STORE	STREET	VEHICLE NOT-COMMERCIAL
ARSON	5%	12%	0%		0%	0%	1%	3%	0%	2%	21%	5%	9%	3%	1%	1%	0%	1%	14%	22%
ASSAULT	3%	17%	0%	0%	0%	1%	1%	3%	1%	2%	18%	4%	0%	3%	2%	5%	17%	1%	22%	1%
BATTERY	2%	27%	0%	0%	0%	1%	0%	2%	1%	1%	22%	3%	0%	2%	1%	4%	18%	1%	15%	1%
BURGLARY	0%	38%	0%		0%	0%	0%	3%	0%	0%	38%	0%	14%	0%	2%	1%	0%	2%	0%	0%
CRIM SEXUAL ASSAULT	8%	29%	0%	0%	0%	0%	0%	5%	2%	1%	37%	2%	1%	2%	0%	1%	3%	0%	5%	4%
CRIMINAL DAMAGE	2%	16%	0%	0%	0%	1%	0%	3%	0%	4%	22%	1%	4%	3%	1%	1%	1%	1%	37%	2%
CRIMINAL TRESPASS	1%	13%	0%	0%	1%	11%	3%	6%	1%	7%	16%	7%	2%	7%	6%	2%	3%	4%	9%	1%
DECEPTIVE PRACTICE	0%	13%	0%	0%	2%	3%	1%	13%	0%	1%	49%	0%	0%	0%	3%	1%	2%	3%	7%	0%
HOMICIDE	8%	9%				1%			2%						1%				79%	

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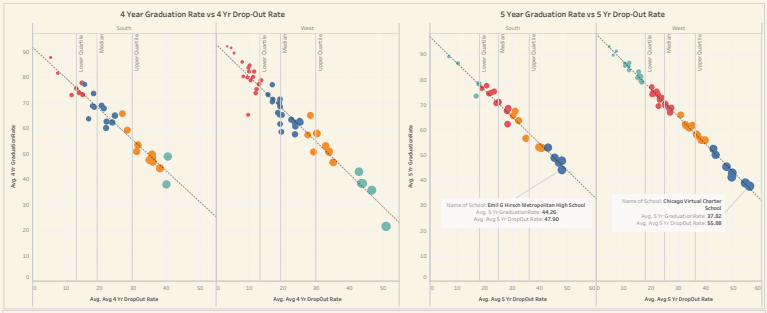
Analyzing Proportions

SCATTER PLOTS

Which students are most likey to drop-out?

Here we are trying to understand the **proportion** of students graduating high schools versus dropping out. Date range for analysis is 2012-16.
Avg 4/5yr graduation and dropout rate shows inverse linear relationship.
Exploring highlighted schools in the respective regions could be a good starting point

Conclusion:
Students in the schools above the upper Quartile are most likely to DropOut.

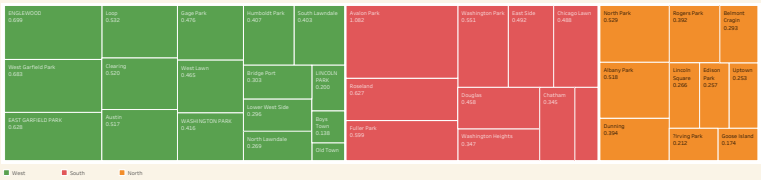


Tree Maps

1)DropOutRates - We are taking the ratio of 4 yr and 5 yr dropOut rate vs the 4yr and 5yrs Graduaton rates and showing the tree map of Community areas from where the students are most likely to DropOut.
2) The data also shows the DropOut ratios for each region individually.
3) Englewood in West, Avalon Park in South and North Park in North have the highest dropOut rates in the past 5 yrs and are most likely to produce DropOuts in the future

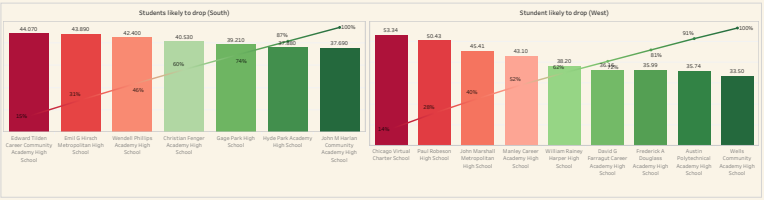
Dropout Vs Graduation Rates
Looking at 4 Yrs. Graduation rate versus 4 Yr. Dropout rate and same for 5 Year Dropout and Graduation rate we can infer that despite of maximum criminal activity prevailing more in west region the school count and Schools with higher graduation rates are more when compared to south region.
The probable cause for high dropout rates of those schools are:
i. Families Involvement is less
ii. Collaborative Teachers is either Neutral or Weak
iii. School Safety is week.

Conclusion: So students from the Community Areas with higher dropout rates are more likely to be affected and likely to drop out in the future too. To justify our analysis we have tried to show this with Pareto chart showing schools where students are more likely to dropout. e.g Englewood, Avalon Park and North Park in West, South and North resp.



Using Pareto Analysis

1) We are using the aggregation of 4 and 5 Yr Dropout rates of 2012-1016 find the top schools with highest dropout rates based on their agg dropout rates.
Conclusion: School in red have the hiest dropOut rates are most likely to produce dropouts in the future.



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Community Area: All

Student Attainment Rating: 2 to 5 and Null values

Student Growth Rating: All values

Region: All

Features:

This Dashboard has integrated filters for ease of analysis. Clicking on o ne items applies fillers on all the related items.
The fillers on top like Attainment and Growth applies to all the maps on the dashboard.

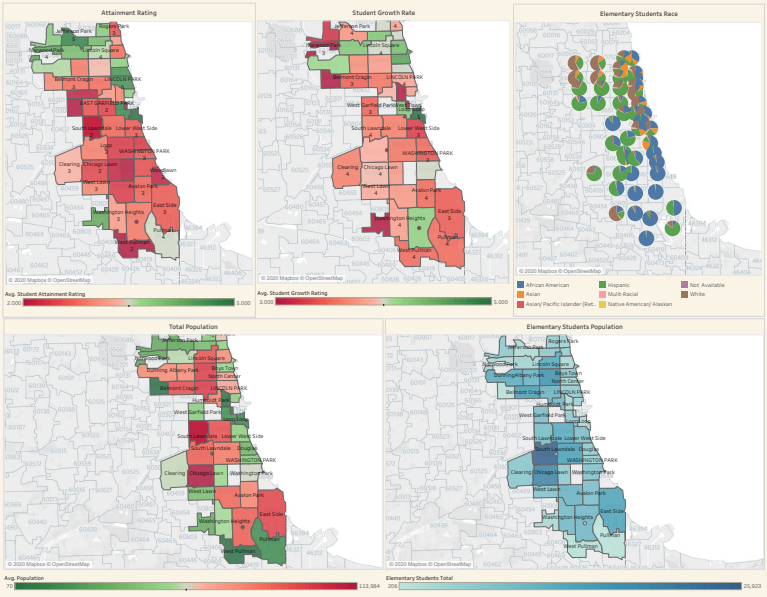
Highlights:

1) Austin, west pullman and west town have the lowest
attainment score whereas loop, rogers park and west town have the lowest growth rate.
2) In northern region students of Hispanic race are more followed by white race students with an average attainment rating of 3 and average growth rate of 2.8. the average population of this region is 75000 with annual salary of 42576 which is highest of all the regions
3) Loop and Rogers park are dominating with Hispanic , African American and little Asian.
4) In southern region students of African American race are maximum followed by Hispanic with average student attainment rating of 2.5 and growth rating of 3.8 having an average population of 80000

Conclusion:

1) We could see that Racial Student majority does not have a direct affect on the Student Attainment rating or the Student Growth rate

2) Whereas densely populated areas have high growth rates bit lower attainment rates. e.g Washington Park and South Lawndale.



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Welcome to Chicago's Analytics Page!

Here we are addressing the following Problem Statement,

"Identify strategies to reduce crime rates in Chicago by 30% in the next 1 Year by analyzing the correlation between education quality and crime rate to enable strategic actions"

Plan of Action

1) Helpng the Chief of Police understand the timeline of crime in Chicago's westside and south side between 2012-2016 (Temporal Analysis Dashboard)

2) Help the Mayor understand the proportion of students graduating high schools and dropping out. Which students are more likely to dropout. (DropOutvsGrad dashboard)

3) Map out elementary schools in th city and show a comparison of areas with high/poor performance based on race, population, annual income and number of students(Spatial Dashboard)

Crime Data Summary:
This dataset reflects reported incidents of crime that occurred in the City of Chicago from 2012 to 2016.

Scope:
Time Period(s): 2012-2016

Description of Variables :

ID - Unique identifier for the record
Case_Number - The Chicago Police Department RD Number (Records Division Number), which is unique to the incident
Date - Date when the incident occurred; this is sometimes a best estimate
Block - The partially redacted address where the incident occurred, placing it on the same block as the actual address
IUCR - The Illinois Uniform Crime Reporting code. This is directly linked to the Primary Type and Description.
Primary_Type - The primary description of the IUCR code
Description - The secondary description of the IUCR code, a subcategory of the primary description
Location_Description - Description of the location where the incident occurred
Arrest - Indicates whether an arrest was made
Domestic - Indicates whether the incident was domestic-related as defined by the Illinois Domestic Violence Act
Beat - Indicates the beat where the incident occurred. A beat is the smallest police geographic area - each beat has a dedicated police beat car. Three to five beats make up a police sector, and three sectors make up a police district. The Chicago Police Department has 22 police districts.
District - Indicates the police district where the incident occurred.
Ward - The ward (City Council district) where the incident occurred.
Community_Area - Indicates the community area where the incident occurred. Chicago has 77 community areas.
FBI_Code - Indicates the crime classification as outlined in the FBI's National Incident-Based Reporting System (NIBRS).
X_Coordinate - The x coordinate of the location where the incident occurred in State Plane Illinois East NAD 1983 projection. This location is shifted from the actual location for partial redaction but falls on the same block
Y_Coordinate - The y coordinate of the location where the incident occurred in State Plane Illinois East NAD 1983 projection. This location is shifted from the actual location for partial redaction but falls on the same block
Year - Year the incident occurred
Updated_On - Date and time the record was last updated
Latitude - The latitude of the location where the incident occurred. This location is shifted from the actual location for partial redaction but falls on the same block
Longitude - The longitude of the location where the incident occurred. This location is shifted from the actual location for partial redaction but falls on the same block
Location - The location where the incident occurred in a format that allows for creation of maps and other geographic operations on this data portal. This location is shifted from the actual location for partial redaction but falls on the same block

Education Data Summary

Chicago Public Schools (CPS) – Report Card Data This dataset shows all school-level performance data used to create CPS School Report Cards for the2012-2016.

Metrics used are described as follows: for the entire list got to https://data.cityofchicago.org/api/assets/AAD41A13-BE8A-4E67-B1F5-86E711E09D5F?download=true

5 YearGraduation Rate

The five-year cohort graduation rate follows a group of students who enter Chicago Public Schools (CPS) as freshmen and calculates the percent of these students who graduate within five years after their freshman year. For example, the 2016 rate tracks ninth grade students who started in CPS in the 2011-12 school year and graduated from CPS by August of the 2015-16 school year.

How is the rate calculated?
The rate is calculated by dividing the number of students from an adjusted ninth grade cohort who graduated over the five year time period by the total number of students in that cohort

Example Calculation
School A had 725 ninth grade students enrolled during the 2011-12 school year. Twenty of these were repeating the ninth grade. Twenty-five of them transferred out of CPS and were verified in a new school during the five years following the 2011-12 school year. The adjusted ninth grade cohort for this school was: Cohort9th adj. = 725 – 20 – 25 = 680 students During the five years following the 2011-12 school year, 286 of these 680 students dropped out and 364 graduated. Of the remaining 45 students, 5 were unverified transfers as of August 2016, and twenty-five were still enrolled in CPS as of the end of the 2015-16 school year. School A's Five-Year Cohort Graduation Rate in 2016 was: Graduation Rate5-year cohort = 364 / 680 = 53.5%

5 Year DropOut Rate

What is the Five-Year Cohort Dropout Rate? The five-year cohort dropout rate follows a group of students who enter Chicago Public Schools (CPS) as freshmen and calculates the percent of these students who drop out within five years after their freshman year. For example, the 2016 rate tracks ninth grade students who started in CPS in the 2011-12 school year and dropped out of CPS by August of the 2015-16 school year.

How is the rate calculated?
The rate is calculated by dividing the number of students from an adjusted ninth grade cohort who dropped out over the five year time period by the total number of students in that cohort.

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Student Growth Rating
Overall score of the school based on growth factors

Student Attainment Rating
Overall score of the school based on attainment of students

Racial Ethnicity of Students - Based on cast, religion and race

Population data of Chicago - for each zipcode

Avg annual income - For each zipcode

Crime Severity by Year

Crimes by Time of the Day..

Primary Type	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
BATTERY	2%	2%	3%	3%	4%	4%	5%	4%	5%	6%	5%	5%	5%	5%	5%	5%	6%	5%	5%	5%	4%	3%	2%	2%
THEFT	2%	3%	4%	6%	5%	5%	7%	5%	6%	6%	6%	6%	6%	5%	5%	4%	4%	3%	5%	2%	2%	1%	1%	1%
BURGLARY	3%	5%	7%	7%	6%	6%	7%	5%	5%	5%	5%	5%	4%	4%	4%	3%	3%	3%	4%	2%	2%	2%	2%	2%
NARCOTICS	1%	1%	2%	2%	5%	7%	7%	6%	6%	5%	5%	4%	7%	10%	8%	7%	6%	5%	3%	1%	1%	0%	0%	0%
CRIMINAL DAMAGE	2%	3%	3%	4%	4%	3%	4%	3%	4%	4%	5%	5%	6%	6%	6%	6%	7%	5%	5%	4%	4%	3%	3%	2%
ASSAULT	1%	2%	4%	4%	5%	5%	6%	5%	6%	7%	6%	6%	6%	6%	6%	5%	5%	4%	3%	2%	2%	2%	1%	1%
ROBBERY	2%	2%	2%	3%	3%	4%	4%	4%	4%	5%	6%	6%	6%	6%	6%	6%	6%	5%	5%	4%	3%	3%	3%	2%
MOTOR VEHICLE THEFT	3%	4%	6%	4%	4%	3%	4%	3%	4%	4%	5%	5%	6%	7%	7%	8%	6%	5%	3%	3%	2%	2%	2%	2%
OTHER OFFENSE	2%	3%	4%	7%	6%	6%	7%	5%	5%	5%	5%	5%	5%	6%	5%	5%	4%	3%	4%	2%	2%	1%	1%	1%
DECEPTIVE PRACTICE	1%	2%	5%	10%	7%	5%	10%	5%	5%	5%	5%	4%	4%	4%	3%	2%	1%	1%	10%	1%	1%	1%	1%	1%
CRIMINAL TRESPASS	1%	2%	3%	4%	4%	6%	6%	5%	5%	6%	6%	6%	7%	7%	7%	6%	5%	4%	3%	2%	2%	2%	1%	1%
WEAPONS VIOLATION	1%	1%	2%	2%	3%	4%	4%	4%	4%	5%	4%	4%	4%	6%	6%	8%	8%	7%	7%	6%	3%	2%	1%	1%
PUBLIC PEACE VIOLATION	0%	1%	2%	3%	4%	5%	6%	6%	5%	7%	6%	5%	6%	8%	8%	7%	6%	5%	3%	3%	2%	1%	1%	0%
CRIM SEXUAL ASSAULT	3%	2%	2%	3%	2%	2%	3%	2%	2%	2%	4%	3%	4%	4%	5%	5%	6%	5%	10%	5%	6%	5%	4%	4%
OFFENSE INVOLVING CHILDREN	1%	2%	4%	5%	5%	3%	5%	3%	5%	6%	6%	7%	7%	6%	5%	3%	2%	2%	4%	1%	1%	1%	1%	1%
PROSTITUTION	4%	5%	8%	4%	3%	2%	3%	2%	2%	2%	0%	1%	1%	4%	7%	12%	23%	10%	6%	4%	2%	2%	1%	1%
INTERFERENCE WITH PUBLIC OFFIC..	0%	1%	1%	2%	3%	4%	4%	3%	3%	4%	5%	6%	7%	9%	9%	8%	8%	7%	5%	4%	3%	2%	1%	0%
HOMICIDE	2%	3%	2%	3%	2%	2%	4%	4%	4%	4%	5%	5%	5%	5%	6%	5%	6%	6%	7%	6%	5%	4%	3%	3%
ARSON	4%	3%	2%	2%	2%	2%	2%	2%	2%	3%	2%	3%	2%	5%	4%	6%	6%	5%	8%	7%	8%	7%	7%	6%
SEX OFFENSE	2%	3%	5%	5%	4%	3%	5%	4%	4%	4%	5%	5%	4%	4%	4%	4%	4%	3%	3%	3%	2%	2%	2%	2%

Crimes in Locations by Time of the Day

The heat map below shows the crimes by location types and time of the day. The highlights are as follows:
1) Sidewalks and Parking Lots register most crimes between 1500 hrs to 2000 hrs.
2) Crimes on street are more likely to happen between 1800 hrs and 2200 hrs.
3) Data shows high probability of crimes happening in Small Retail Stores between 12 PM to 5 PM.

Location Description	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5
STREET	2%	2%	3%	3%	3%	4%	4%	4%	4%	4%	5%	5%	6%	6%	7%	7%	7%	6%	6%	4%	3%	2%	2%	2%
RESIDENCE	2%	3%	5%	7%	6%	5%	7%	5%	5%	5%	5%	5%	5%	4%	4%	4%	4%	4%	6%	3%	2%	2%	2%	2%
APARTMENT	2%	4%	5%	6%	5%	5%	5%	5%	4%	4%	4%	5%	4%	5%	4%	4%	5%	5%	5%	4%	3%	3%	2%	2%
SIDEWALK	1%	1%	2%	2%	4%	5%	5%	5%	5%	6%	7%	6%	6%	7%	7%	7%	6%	6%	5%	4%	3%	2%	2%	1%
OTHER	2%	2%	4%	7%	5%	5%	8%	5%	6%	6%	6%	6%	6%	6%	5%	4%	4%	3%	3%	5%	2%	2%	2%	1%
PARKING LOT/GARAGE(NON.RESID.)	2%	3%	4%	4%	5%	5%	6%	6%	6%	6%	6%	6%	7%	7%	6%	6%	5%	5%	4%	3%	2%	2%	2%	1%
RESIDENTIAL YARD (FRONT/BACK)	2%	2%	3%	4%	4%	4%	5%	4%	5%	6%	5%	5%	6%	6%	6%	6%	6%	4%	5%	3%	2%	2%	1%	1%
ALLEY	1%	2%	3%	3%	4%	5%	5%	5%	5%	6%	5%	5%	6%	7%	7%	6%	6%	5%	4%	3%	3%	2%	1%	1%
SMALL RETAIL STORE	1%	1%	2%	4%	6%	7%	8%	8%	8%	8%	8%	8%	7%	7%	4%	3%	2%	1%	1%	1%	1%	1%	1%	1%
RESIDENCE-GARAGE	3%	4%	4%	5%	4%	3%	5%	3%	4%	4%	4%	5%	6%	6%	6%	6%	7%	4%	6%	3%	2%	2%	2%	2%

Crimes in Locations by Day of the Week

The heat map below shows the top 10 location types by crime and day of the week. The highlights are as follows:
1) More crimes are reported on streets, residence and sidewalks during weekends

Location Description	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
STREET	34K	34K	34K	33K	36K	37K	36K
RESIDENCE	26K	26K	26K	27K	27K	26K	25K
APARTMENT	20K	20K	20K	20K	20K	21K	21K
SIDEWALK	18K	18K	18K	18K	19K	18K	18K
OTHER	5K	5K	5K	5K	5K	5K	4K
PARKING LOT/GARAGE(NON.RESID.)	4K	4K	4K	4K	4K	4K	4K
ALLEY	4K	3K	3K	3K	4K	4K	3K
RESIDENTIAL YARD (FRONT/BACK)	3K	3K	3K	3K	3K	3K	4K
SMALL RETAIL STORE	2K	2K	2K	2K	2K	2K	2K
RESIDENCE-GARAGE	2K	2K	2K	2K	2K	2K	2K

Crimes Types by Day of the Week

The heat map below shows the top 10 location types by crime and day of the week. The highlights are as follows:
1) Battery crimes are most on weekends
2) Burglary is most on Fridays 3) Narcotics, Motor Vehicle Theft are high on Weekends and mostly occurs on Streets.

Crime Severeness	Primary Type	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
More serious offenses.	ASSAULT	14%	14%	14%	14%	13%	15%	15%
	BATTERY	14%	13%	13%	13%	14%	16%	17%
	BURGLARY	15%	15%	15%	15%	16%	12%	11%
	MOTOR VEHICLE THEFT	15%	14%	14%	14%	15%	14%	14%
	ROBBERY	15%	14%	15%	14%	15%	14%	13%
	THEFT	15%	15%	15%	14%	15%	14%	13%
Less serious offenses.	ASSAULT	15%	15%	15%	15%	14%	13%	13%
	CRIMINAL DAMAGE	14%	13%	14%	13%	15%	16%	16%
	DECEPTIVE PRACTICE	16%	16%	16%	15%	17%	11%	9%
	NARCOTICS	14%	15%	15%	15%	16%	13%	13%
	OTHER OFFENSE	15%	15%	15%	15%	15%	13%	13%
Crime related to Property	BURGLARY	15%	15%	15%	15%	16%	12%	11%
	MOTOR VEHICLE THEFT	15%	14%	14%	14%	15%	14%	14%
	THEFT	15%	15%	15%	14%	15%	14%	13%
Crime related to Violence	ASSAULT	14%	14%	14%	14%	13%	15%	15%
	BATTERY	14%	13%	13%	13%	14%	16%	17%
	ROBBERY	15%	14%	15%	14%	15%	14%	13%

Crime types by Month

1) Looking at the aggregated data, it can be inferred that the crimes peak during the May, June, July and August Months.
2) The peaks are seen in Robberies, Weapon violations and Sexual Assaults.
3) The sexual assaults also peak in January which kind of stands out in the data.

Primary Type	January	February	March	April	May	June	July	August	September	October	November	December
ARSON	7%	6%	9%	9%	10%	9%	11%	10%	8%	8%	7%	7%
ASSAULT	7%	6%	9%	9%	10%	10%	9%	9%	9%	9%	7%	7%
BATTERY	7%	6%	8%	8%	10%	10%	10%	9%	8%	8%	7%	7%
BURGLARY	8%	6%	7%	7%	8%	9%	10%	10%	10%	9%	9%	9%
CONCEALED CARRY LICENSE VIOL..		5%	10%	8%	10%	18%	10%	7%	7%	15%	9%	7%
CRIM SEXUAL ASSAULT	9%	6%	8%	7%	8%	10%	10%	9%	8%	8%	8%	7%
CRIMINAL DAMAGE	7%	6%	8%	8%	10%	9%	10%	9%	9%	8%	8%	7%
CRIMINAL SEXUAL ASSAULT	40%	8%			21%				8%	8%		
CRIMINAL TRESPASS	8%	7%	9%	9%	9%	9%	9%	9%	8%	9%	7%	7%
DECEPTIVE PRACTICE	9%	8%	9%	9%	8%	8%	8%	9%	8%	8%	8%	8%
GAMBLING	1%	2%	5%	9%	11%	15%	15%	17%	14%	8%	3%	1%
HOMICIDE	7%	5%	6%	7%	10%	10%	10%	11%	10%	8%	9%	7%
HUMAN TRAFFICKING	10%	4%	4%	8%	4%	12%	12%	12%	15%	12%		4%
INTERFERENCE WITH PUBLIC OFFI..	7%	7%	8%	8%	10%	10%	9%	10%	9%	8%	7%	6%
INTIMIDATION	5%	6%	10%	7%	10%	8%	10%	11%	10%	9%	9%	9%
KIDNAPPING	8%	7%	8%	8%	8%	10%	8%	10%	9%	8%	8%	8%
LIQUOR LAW VIOLATION	8%	8%	11%	9%	9%	11%	8%	10%	9%	7%	7%	4%
MOTOR VEHICLE THEFT	9%	7%	8%	7%	8%	9%	9%	9%	8%	8%	8%	9%
NARCOTICS	9%	9%	10%	9%	9%	8%	9%	8%	8%	8%	7%	6%
NON - CRIMINAL	3%	16%		3%	10%	16%	6%	16%	13%	6%	6%	3%
NON-CRIMINAL	6%	9%	18%	3%	3%	6%	12%	9%	6%	12%	9%	6%
NON-CRIMINAL (SUBJECT SPECIFI..	23%	23%										23%
OBSCENITY	13%	7%	9%	8%	11%	6%	8%	5%	5%	8%	10%	8%
OFFENSE INVOLVING CHILDREN	12%	8%	9%	8%	8%	9%	8%	8%	8%	8%	7%	8%
OTHER NARCOTIC VIOLATION	9%	18%						27%	18%	9%	9%	9%
OTHER OFFENSE	8%	8%	9%	9%	9%	9%	9%	9%	8%	8%	8%	7%
PROSTITUTION	9%	8%	9%	9%	9%	9%	10%	9%	8%	8%	8%	5%
PUBLIC INDECENCY	7%	10%	3%	3%	13%	7%	13%	13%	13%		13%	3%
PUBLIC PEACE VIOLATION	7%	7%	9%	9%	11%	10%	9%	8%	9%	9%	7%	6%
ROBBERY	8%	5%	6%	7%	9%	8%	10%	9%	9%	9%	9%	10%
SEX OFFENSE	12%	6%	7%	7%	10%	10%	9%	9%	9%	8%	6%	6%
STALKING	8%	5%	8%	7%	7%	9%	8%	9%	12%	8%	9%	10%
THEFT	8%	6%	8%	8%	9%	9%	10%	10%	9%	9%	8%	8%
WEAPONS VIOLATION	7%	6%	8%	8%	9%	10%	10%	10%	9%	8%	7%	7%

Predicting location of the type of crimes

1) This helps us understand the relationship between the type of crime and locations.
2) We can see Battery crimes happen in residencial property. 3) Thefts and Criminal damages are most likey to happen on the streets

Primary Type	ALLEY	APARTMENT	BAR OR TAVERN	CTA TRAIN	DEPARTMENT STORE	GAS STATION	GROCERY FOOD STORE	OTHER	PARK PROPERTY	PARKING LOT/ GARAGE(N..	RESIDENCE	RESIDENCE PORCH/ HALLWAY	RESIDENTIAL YARD (FR ONT/BACK	RESTAURA..	SCHOOL, PUBLIC, BUILDING	SIDEWALK	SMALL RETAIL STORE	STREET	VEHICLE NON-COMMERCIAL
ARSON	5%	12%	0%		0%	0%	1%	3%	0%	2%	21%	5%	9%	3%	1%	1%	0%	1%	14%	22%
ASSAULT	3%	17%	0%	0%	0%	1%	1%	3%	1%	2%	18%	4%	0%	3%	2%	5%	17%	1%	22%	1%
BATTERY	2%	27%	0%	0%	0%	1%	0%	2%	1%	1%	22%	3%	0%	2%	1%	4%	18%	1%	15%	1%
BURGLARY	0%	38%	0%		0%	0%	0%	3%	0%	0%	38%	0%	14%	0%	2%	1%	0%	2%	0%	0%
CRIM SEXUAL ASSAULT	8%	29%	0%	0%	0%	0%	0%	5%	2%	1%	37%	2%	1%	2%	0%	1%	3%	0%	5%	4%
CRIMINAL DAMAGE	2%	16%	0%	0%	0%	1%	0%	3%	0%	4%	22%	1%	4%	3%	1%	1%	1%	1%	27%	2%
CRIMINAL TRESPASS	1%	13%	0%	0%	1%	11%	3%	6%	1%	7%	16%	7%	2%	7%	6%	2%	3%	4%	9%	1%
DECEPTIVE PRACTICE	0%	13%	0%	0%	2%	3%	1%	13%	0%	1%	49%	0%	0%	0%	3%	1%	2%	3%	7%	0%
HOMICIDE	8%	9%					1%		2%						1%				79%	
INTERFERENCE WITH PUBLIC OFFICER	6%	2%	0%	0%	0%	1%	0%	1%	1%	4%	2%	1%	0%	2%	0%	0%	25%	0%	52%	3%
MOTOR VEHICLE THEFT	2%	0%	0%	0%	0%	0%	2%	0%	3%	0%	7%	2%	0%	1%	3%	0%	0%	0%	79%	1%
NARCOTICS	7%	3%	0%	0%	0%	1%	0%	1%	1%	1%	3%	4%	2%	0%	2%	0%	1%	38%	0%	30%	5%
OFFENSE INVOLVING CHILDREN	0%	25%			0%	0%	0%	0%	3%	0%	1%	57%	1%	0%	1%	0%	2%	3%	0%	5%	0%
OTHER OFFENSE	1%	17%	0%	0%	0%	0%	1%	0%	6%	0%	1%	42%	1%	0%	1%	1%	1%	6%	1%	19%	2%
PROSTITUTION	1%	0%					0%		1%	1%	0%	0%	0%		0%	0%		18%		80%	0%
PUBLIC PEACE VIOLATION	4%	4%	0%	0%	0%	0%	1%	0%	2%	2%	2%	6%	1%	0%	2%	0%	9%	29%	0%	36%	1%
ROBBERY	7%	2%	0%	0%	1%	0%	2%	1%	2%	1%	3%	2%	2%	1%	2%	1%	0%	41%	2%	29%	1%
SEX OFFENSE	4%	19%	0%	0%	1%	0%	0%	0%	4%	2%	1%	37%	2%	0%	2%	1%	5%	10%	1%	8%	2%
THEFT	1%	8%	1%	1%	4%	2%	3%	6%	1%	5%	14%	2%	1%	4%	2%	3%	5%	5%	5%	50%	3%
WEAPONS VIOLATION	7%	9%	0%	0%	0%	1%	0%	1%	1%	2%	12%	3%	0%	6%	0%	3%	21%	0%	30%	3%

CHICAGO POLICE

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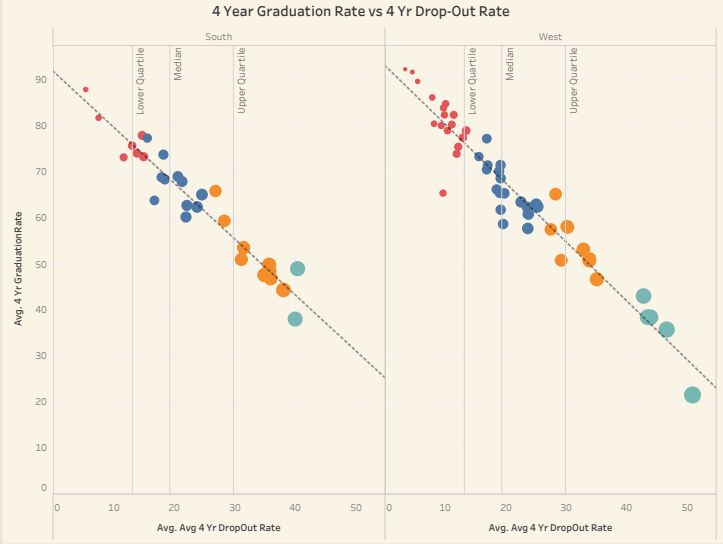
Analyzing Proportions

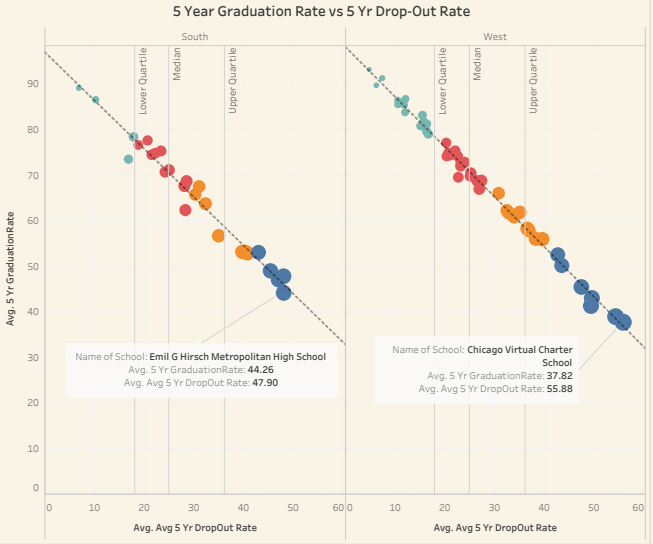
SCATTER PLOTS

Which students are most likey to drop-out?

Here we are trying to understand the **proportion** of students graduating high schools versus dropping out. Date range for analysis is 2012-16.
Avg 4/5yr graduation and dropout rate shows inverse linear relationship.
Exploring highlighted schools in the respective regions could be a good starting point

Conclusion:
Students in the schools above the upper Quartile are most likely to DropOut.





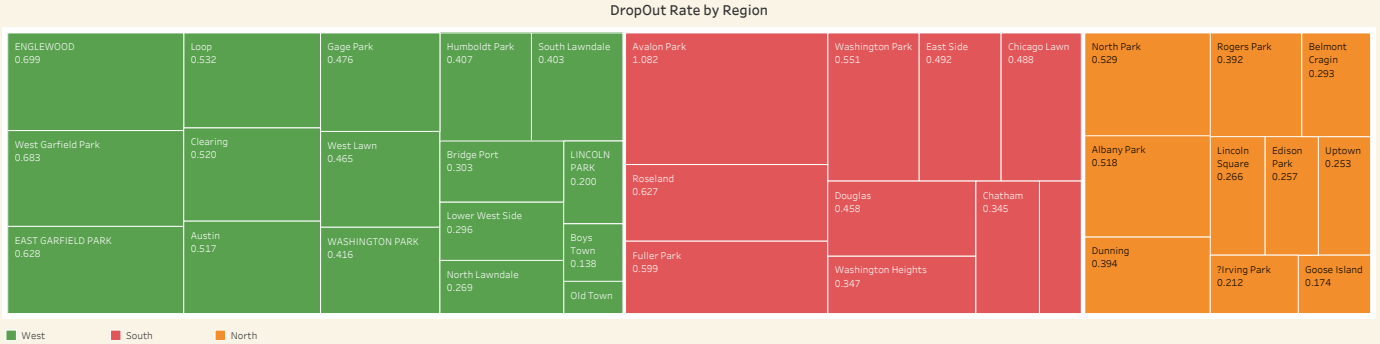
Tree Maps

1)DropOutRates - We are taking the ratio of 4 yr and 5 yr dropOut rate vs the 4yr and 5ys Graduaton rates and showing the tree map of Community areas from where the students are most likely to DropOut.
2) The data also shows the DropOut ratios for each region individually.
3) Englewood in West, Avalon Park in South and North Park in North have the highest dropOut rates in the past 5 yrs and are mostlikely to produce DropOuts in the future

Dropout Vs Graduation Rates
Looking at 4 Yrs. Graduation rate versus 4 Yr. Dropout rate and same for 5 Year Dropout and Graduation rate we can infer that despite of maximum criminal activity prevailing more in west region the school count and Schools with higher graduation rates are more when compared to south region.
The probable cause for high dropout rates of those schools are:

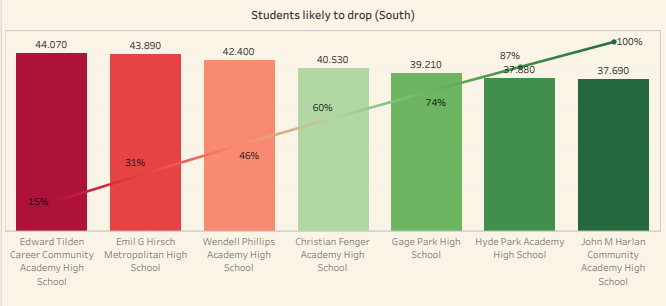
i. Families Involvement is less
ii. Collaborative Teachers is either Neutral or Weak
iii. School Safety is week.

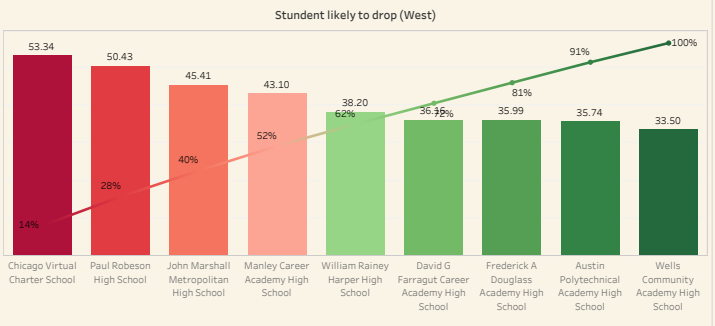
Conclusion: So students from the Community Areas with higher dropout rates are more likely to be affected and likely to drop out in the future too. To justify our analysis we have tried to show this with Pareto chart showing schools where students are more likely to dropout. e:g Englewood, Avalon Park and North Park in West, South and North resp.



Using Pareto Analysis

1) We are using the aggregation of 4 and 5 Yr Dropout rates of 2012-1016 find the top schools with highest dropout rates based on their agg dropout rates.
Conclusion: School in red have the hiest dropOut rates are most likely to produce dropouts in the future.





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Community Area: All

Student Attainment Rating: 2 to 5 and Null values

Student Growth Rating: All values

Region: All

Features:

This Dashboard has integrated filters for ease of analysis. Clicking on o ne items applies filters on all the related items.
The filters on top like Attainment and Growth applies to all the maps on the dashboard.

Highlights:

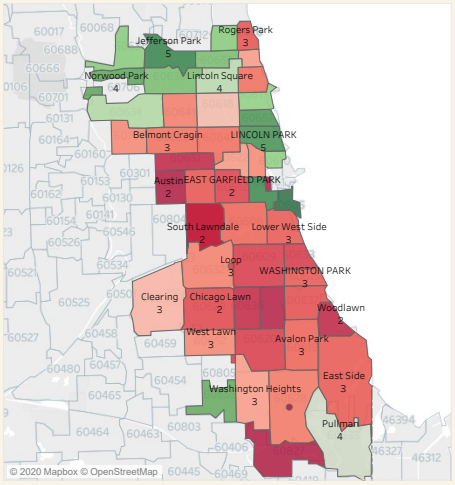
1) Austin, west pullman and west town have the lowest attainment score whereas loop, rogers park and west town have the lowest growth rate.
2) In northern region students of Hispanic race are more followed by white race students with an average attainment rating of 3 and average growth rate of 2.8. the average population of this region is 75000 with annual salary of 42576 which is highest of all the regions
3) Loop and Rogers park are dominating with Hispanic , African American and little Asian.
4) In southern region students of African American race are maximum followed by Hispanic with average student attainment rating of 2.5 and growth rating of 3.8 having an average population of 80000

Conclusion:

1) We could see that Racial Student majority does not have a direct affect on the Student Attainment rating or the Student Growth rate

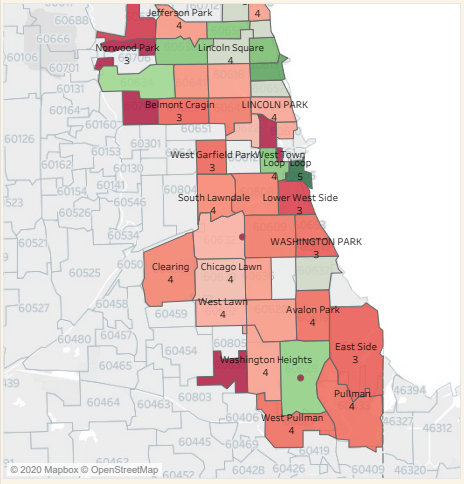
2) Whereas densely populated areas have high growth rates bit lower attainment rates. e:g Washington Park and South Lawndale.

Attainment Rating



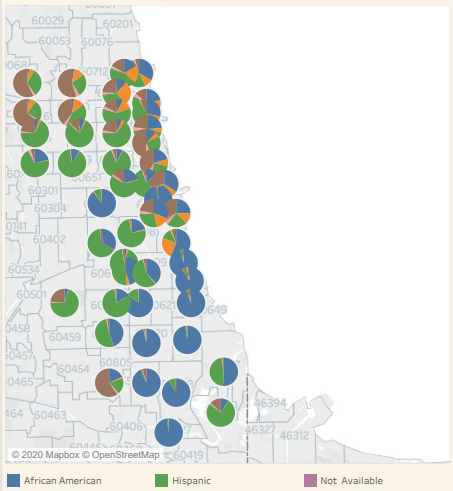
Avg. Student Attainment Rating: 2.000 – 5.000

Student Growth Rate



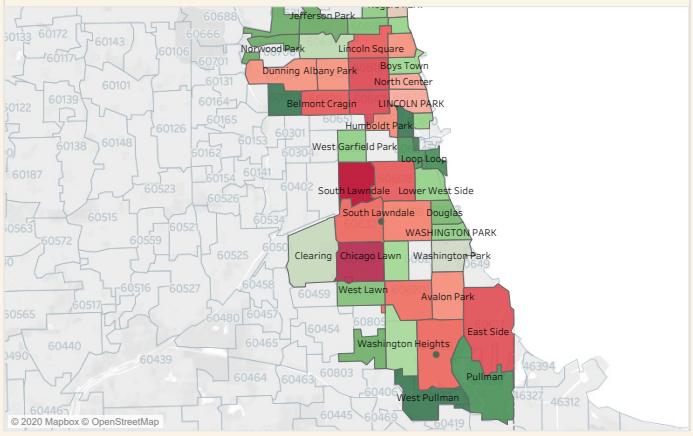
Avg. Student Growth Rating: 3.000 – 5.000

Elementary Students Race



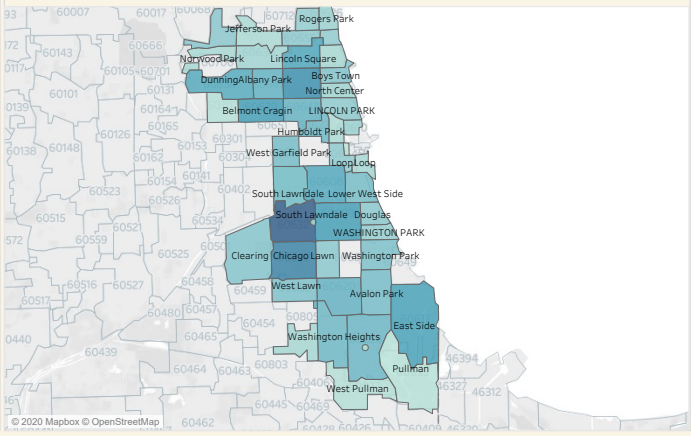
African American, Hispanic, Not Available, Asian, Mulit-Racial, White, Asian/ Pacific Islander (Ret.., Native American/ Alaskan

Total Population



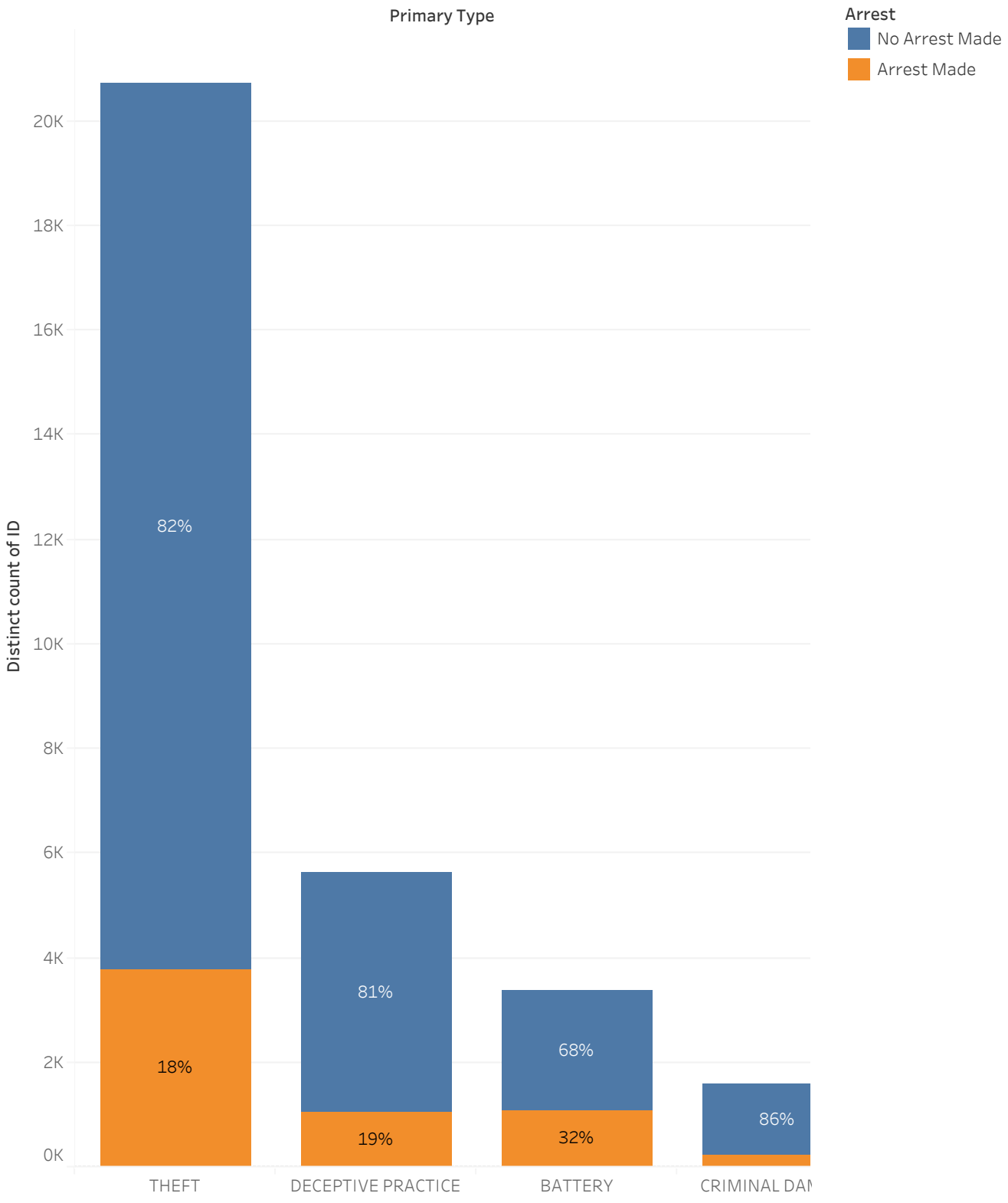
Avg. Population: 70 – 113,984

Elementary Students Population



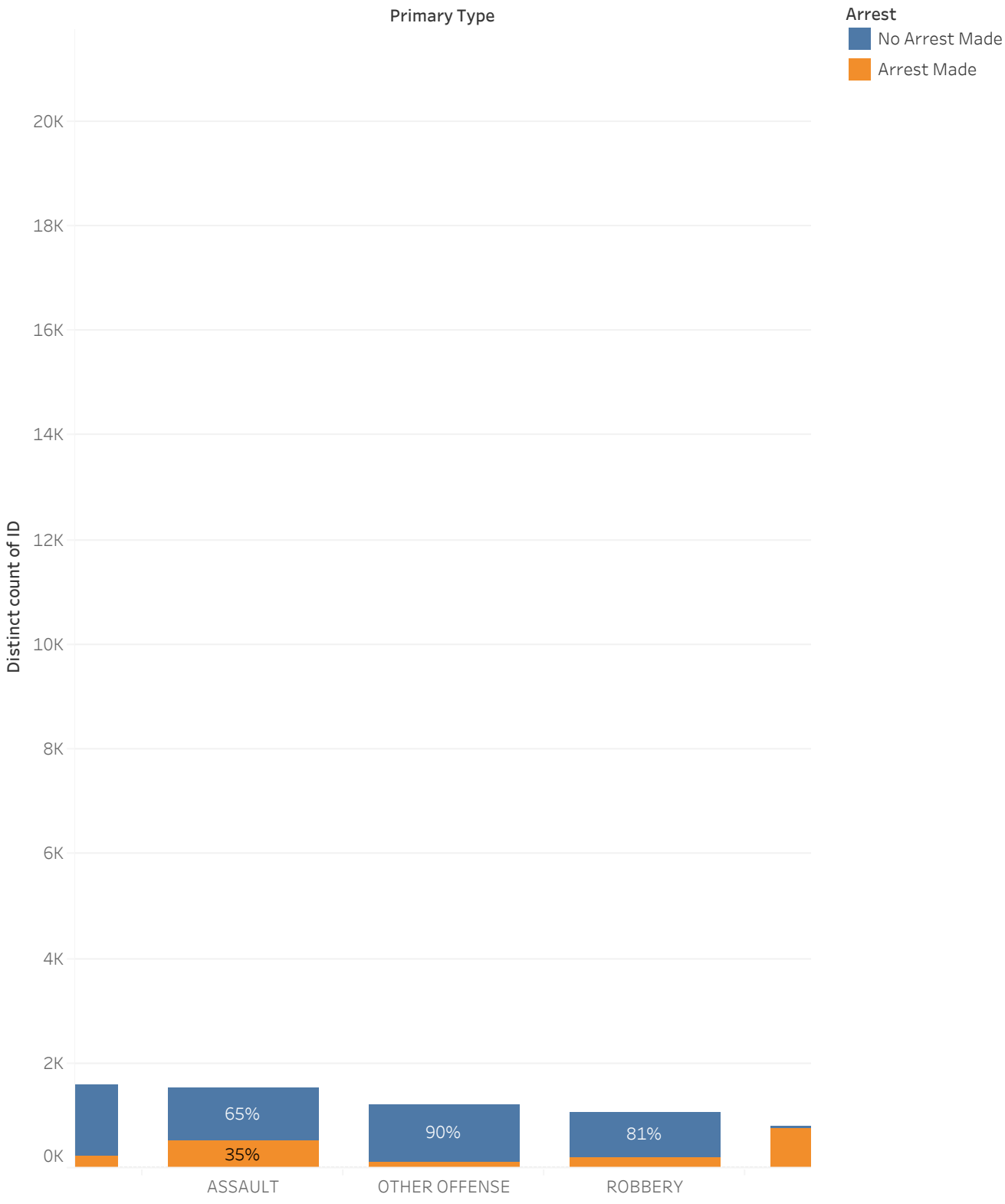
Elementary Students Total: 206 – 25,923

Sheet 21



Distinct count of ID for each Primary Type. Color shows details about Arrest. The marks are labeled by % of Total Distinct count of ID. The data is filtered on Community area, which keeps Loop. The view is filtered on Primary Type, which keeps 10 of 33 members.

Sheet 21



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