

# Discipline in Greater St. Louis High Schools

An analysis of discipline events in four High  
Schools in the Greater St. Louis area during  
2015





# The question

It is often discussed in education that there is a problem of bias when discipline is imposed on students.

I was interested in looking at potential bias of:

- sex
- race
- disability



# Where did the data come from?

The Civil Rights Data Collection

A biennial survey required by U.S. Department of Education's Office for Civil Rights (OCR) of all public agency schools

**ED.gov** CIVIL RIGHTS Data Collection

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**School Name:**

**District:**

**City:**

**Zip Code:**

**State:**

**Survey Year(s):**

☐ 2000 ☐ 2004 ☐ 2006 ☐ 2009 ☐ 2011 ☐ 2013 ☐ 2015 ☒ 2017

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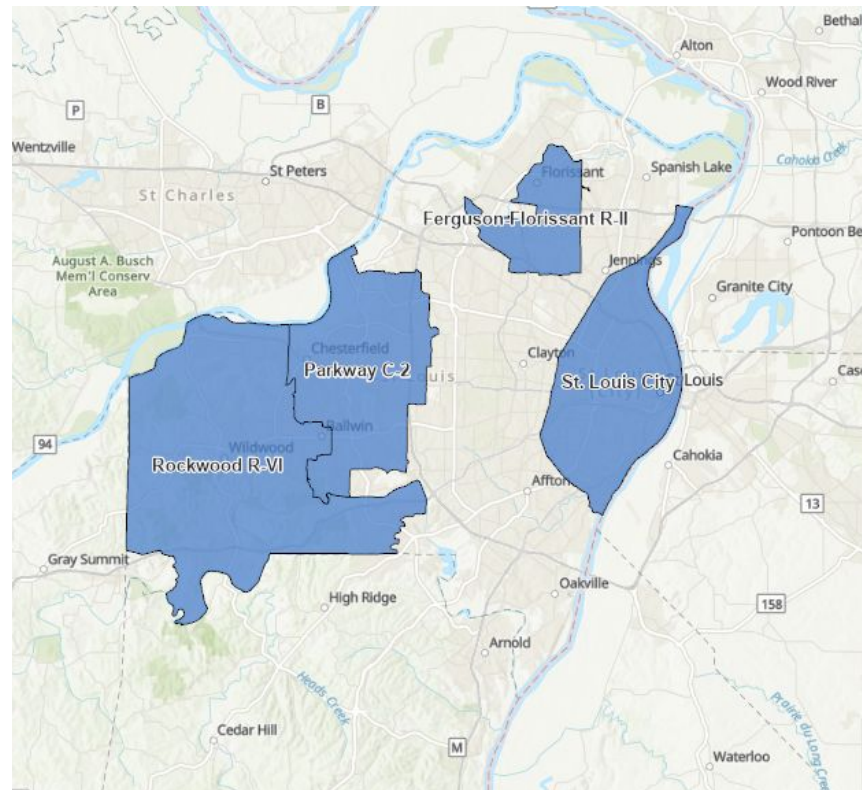


# Schools of Interest

## Greater St. Louis Area

- St. Louis City Public Schools
- Ferguson-Florissant Public Schools
- Parkway Public Schools
- Rockwood Public Schools

For 2015

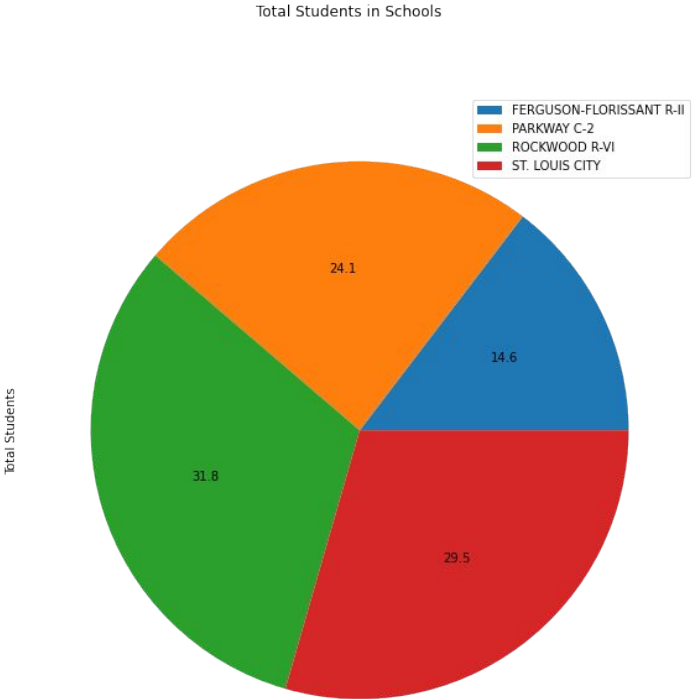




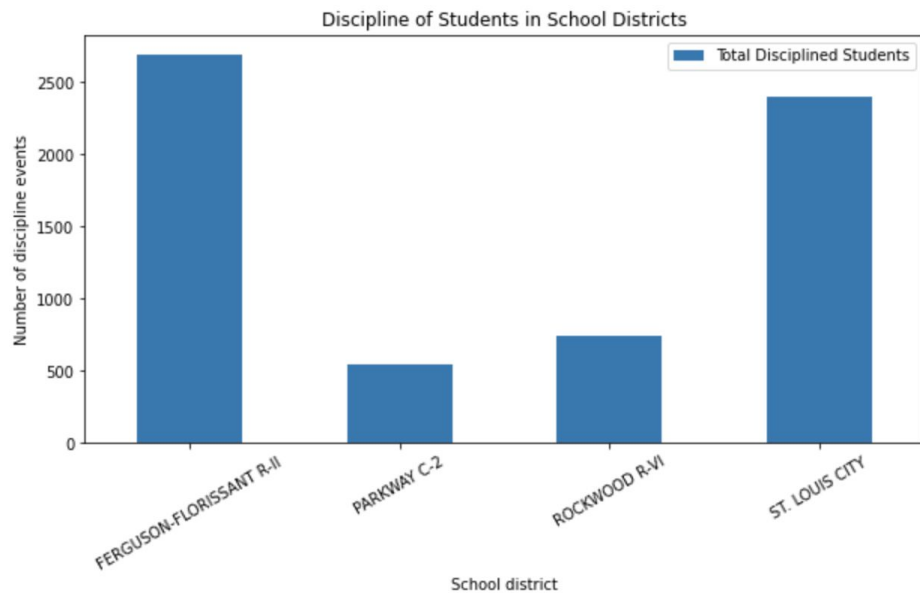
# Let's look at some Data

Exploratory data:

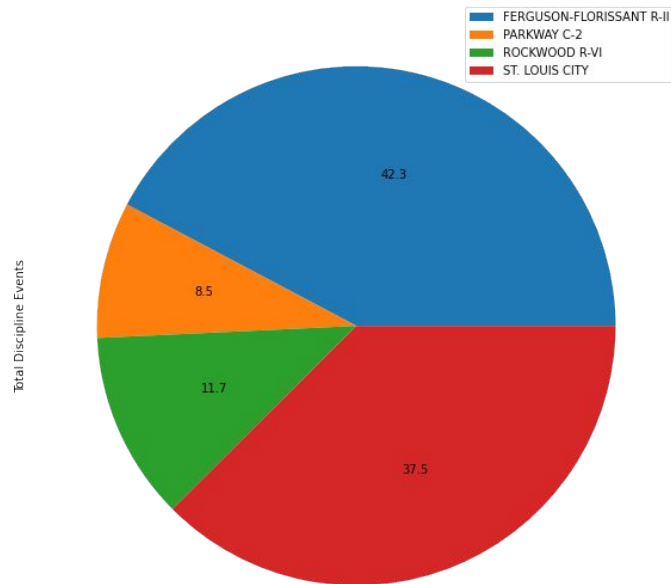
Number of Schools		Number of Districts	
0	27	4	
		Total Students	
LEA			
FERGUSON-FLORISSANT R-II		3353.0	
PARKWAY C-2		5524.0	
ROCKWOOD R-VI		7290.0	
ST. LOUIS CITY		6751.0	



# Discipline events in schools

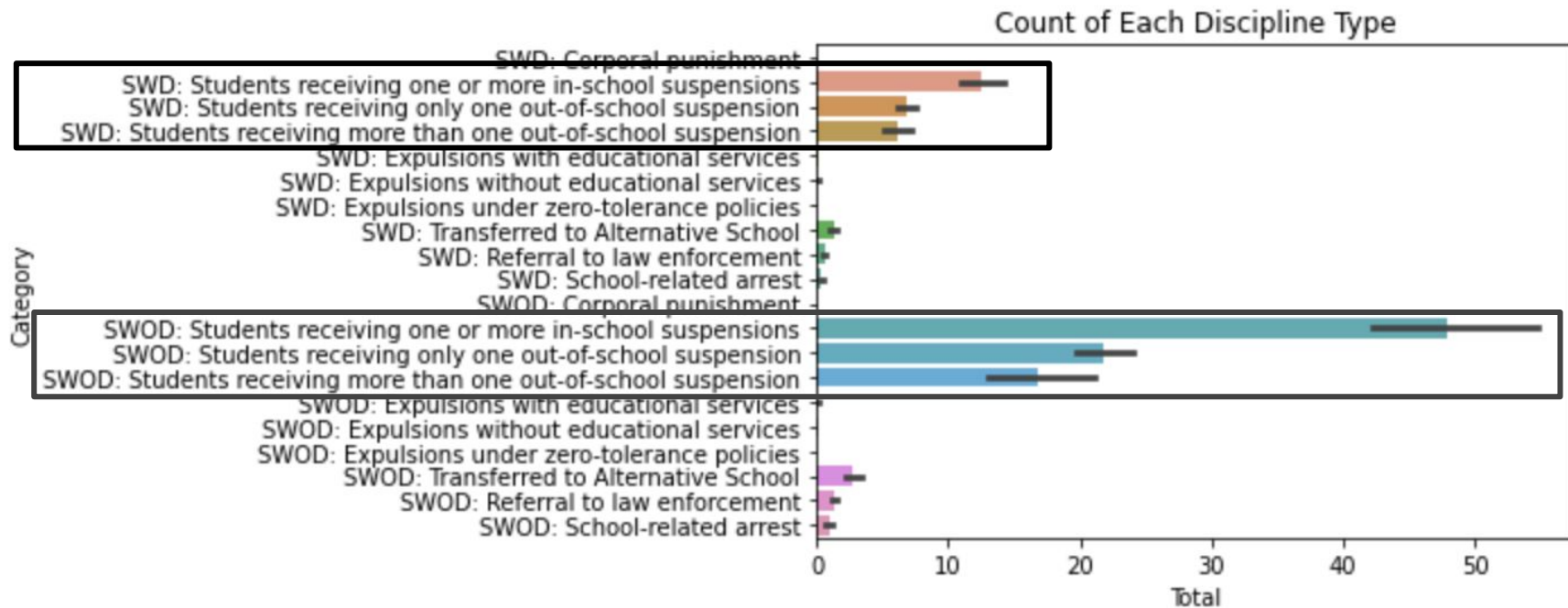


Discipline Events in Schools





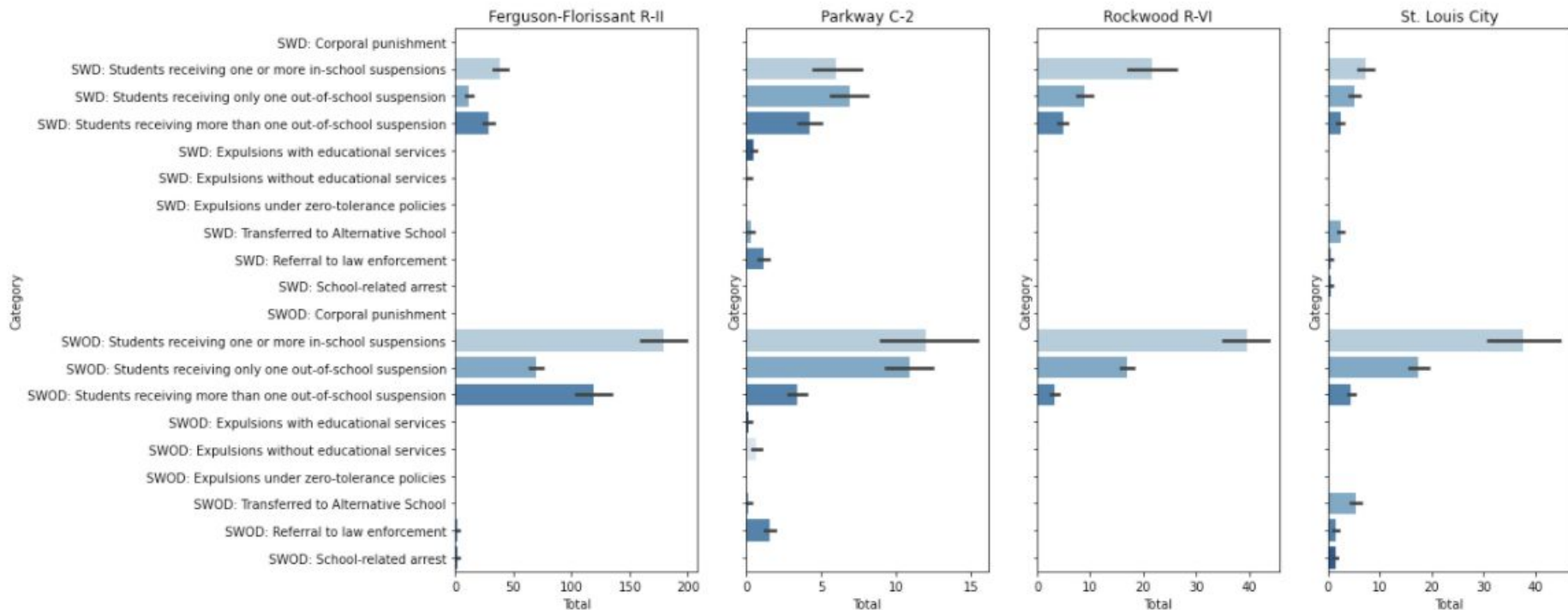
# What kind of discipline?





# How did each school compare?

Count of Discipline Categories





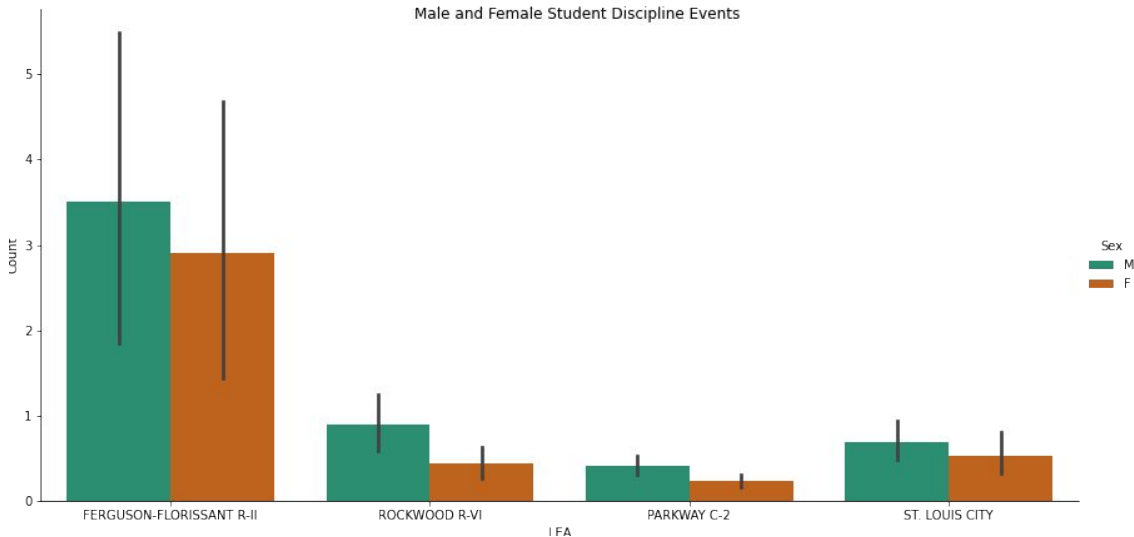


# Gender Demographics and Discipline

Total Students

LEA	Sex	Total Students
FERGUSON-FLORISSANT R-II	F	1720.0
	M	1633.0
PARKWAY C-2	F	2714.0
	M	2810.0
ROCKWOOD R-VI	F	3605.0
	M	3685.0
ST. LOUIS CITY	F	3395.0
	M	3356.0

Male and Female Student Discipline Events



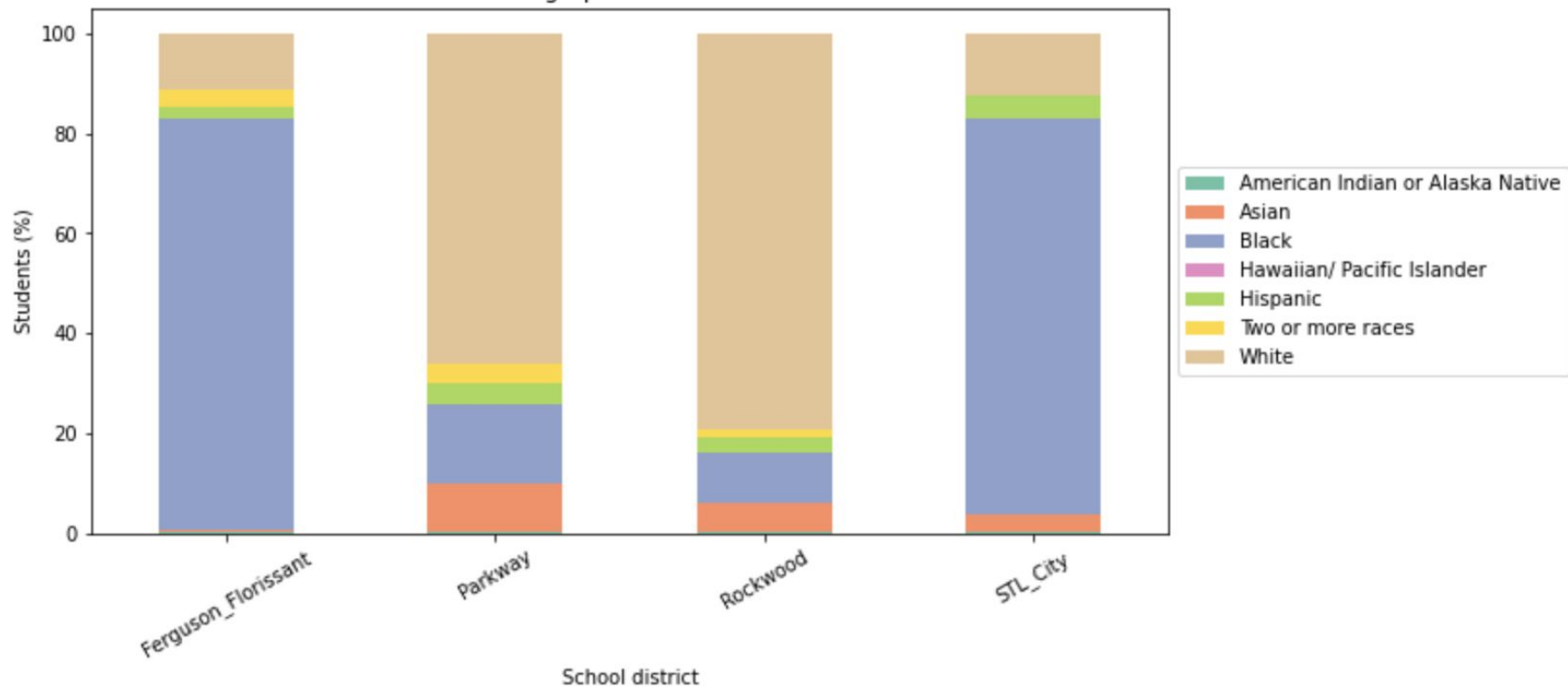


# Racial Demographics

	Ferguson_Florissant	Parkway	Rockwood	STL_City
Race				
American Indian or Alaska Native	0.18%	0.14%	0.19%	0.39%
Asian	0.48%	9.74%	5.86%	3.54%
Black	82.22%	15.73%	9.93%	79.04%
Hawaiian/ Pacific Islander	0.12%	0.11%	0.11%	0.00%
Hispanic	2.24%	4.31%	3.14%	4.53%
Two or more races	3.40%	3.67%	1.58%	0.00%
White	11.36%	66.29%	79.19%	12.50%

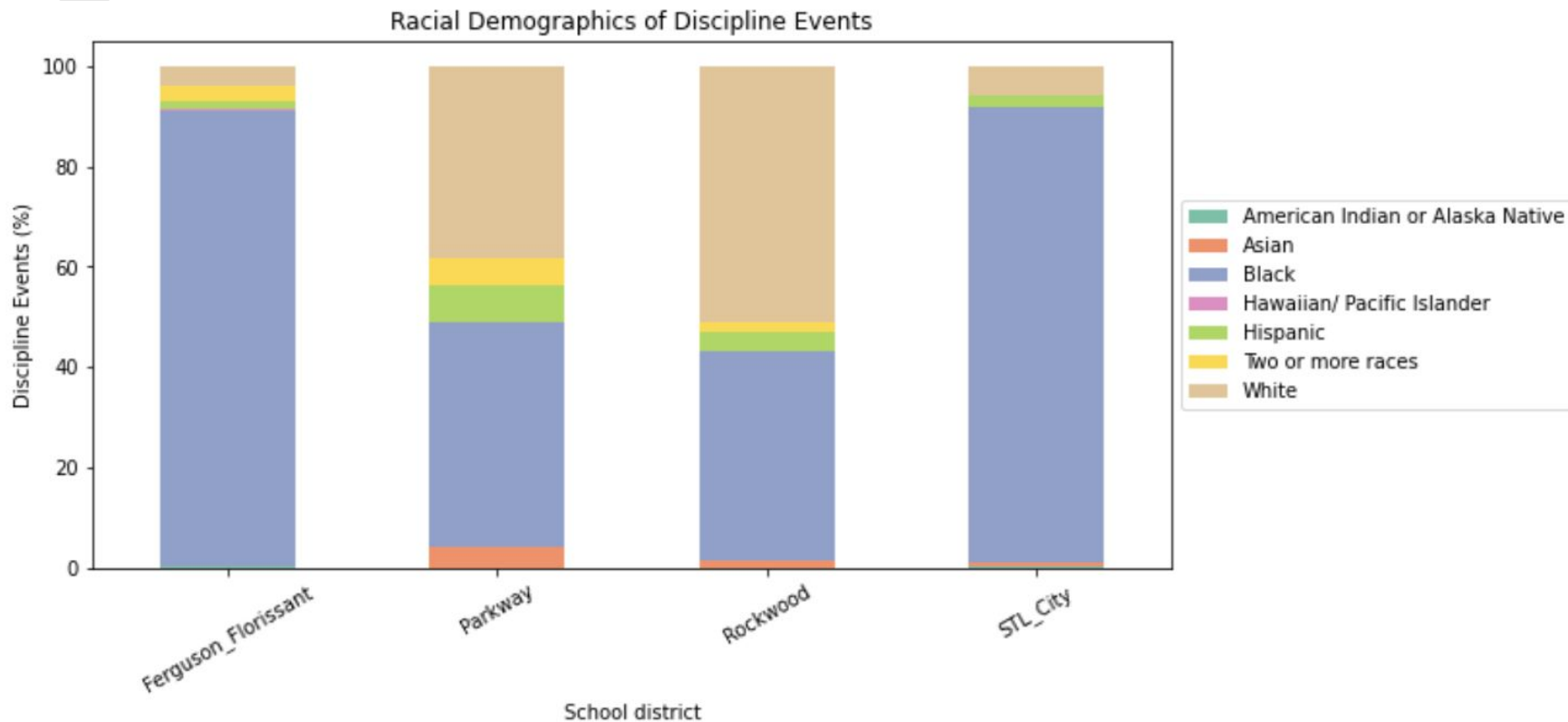


Racial Demographics of School Districts





# Racial Demographics and Discipline





# Racial Demographics and Discipline

	Ferguson_Florissant	Parkway	Rockwood	STL_City
Race				
American Indian or Alaska Native	0.30%	0.00%	0.00%	0.25%
Asian	0.15%	4.07%	1.61%	0.67%
Black	90.71%	44.81%	41.42%	90.96%
Hawaiian/ Pacific Islander	0.15%	0.00%	0.00%	0.00%
Hispanic	1.56%	7.22%	3.89%	2.18%
Two or more races	3.05%	5.56%	1.88%	0.00%
White	4.09%	38.33%	51.21%	5.94%



# Considerations with the dataset(s)

LEA	Ferguson_Florissant	Parkway	Rockwood	STL_City
Race				
American Indian or Alaska Native	6	8	14	26
Asian	16	538	427	239
Black	2757	869	724	5336
Hawaiian/ Pacific Islander	4	6	8	0
Hispanic	75	238	229	306
Two or more races	114	203	115	0
White	381	3662	5773	844

Repeats- each incidence of discipline is not necessarily a unique student

Raw counts of discipline by race

LEA	Ferguson_Florissant	Parkway	Rockwood	STL_City
Race				
American Indian or Alaska Native	8	0	0	6
Asian	4	22	12	16
Black	2441	242	309	2174
Hawaiian/ Pacific Islander	4	0	0	0
Hispanic	42	39	29	52
Two or more races	82	30	14	0
White	110	207	382	142



# Patterns and Questions to Consider

## Patterns

- The relationship between number of students and number of discipline events does not appear to be proportional
- There is no statistical difference between the discipline counts of male and female students
- Black students make up a much larger count of discipline events than other races

## Questions

- How do these patterns compare across years?
- How do the patterns compare across more schools in the Greater STL region?
- What are the demographics of the community surrounding the school?



**To see more image files and Python code see below:**

[https://github.com/cmantooth/GreaterSTL\\_School\\_Analysis](https://github.com/cmantooth/GreaterSTL_School_Analysis)

All images in this file were generated by the author using ArcGIS, Matplotlib, and Seaborn