

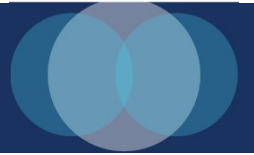


CRIME DATA REVIEW

CRIME RATE ANALYSIS OF COMPARABLE CITIES

CITY OF SAINT PAUL

BUSINESS INTELLIGENCE TEAM



- The City of Saint Paul's Business Intelligence Team is housed within the Office of Technology and Communications (OTC).
 - Three Business Intelligence Developers with more than 25 combined years federal, state, county, city, law enforcement and private sector data analytics experience.
- The team provides City departments with tools, processes, and analysis to help turn data into actionable information to enable more effective operational, strategic, and policy decision-making.



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RESEARCH QUESTIONS



The following research questions guided our analysis:



How have rates of violent crime in Saint Paul changed over time?



How do rates of violent crime in Saint Paul compare to peer cities, potentially over time?



How has investment in the police department in Saint Paul changed over time?

METHODOLOGY



What we did, and why we did it.



Macro Trend Analysis

Using existing data, compared Saint Paul to cities with similar populations and characteristics.



Statistical Analysis

To establish whether Saint Paul's crime rates are statistically different or similar to like-cities and population groupings.

To identify a representative set of like-cities based on population characteristics that are predictive indicators of crime.

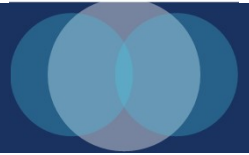


Sources

Exclusively publicly available:

- Census Bureau
- Uniform Crime Reporting (UCR)
 - Published Budgets
- Improving Crime Data Project

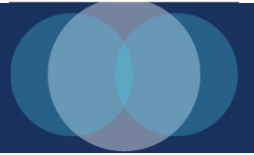
SELECTION OF LIKE-SIZED CITIES



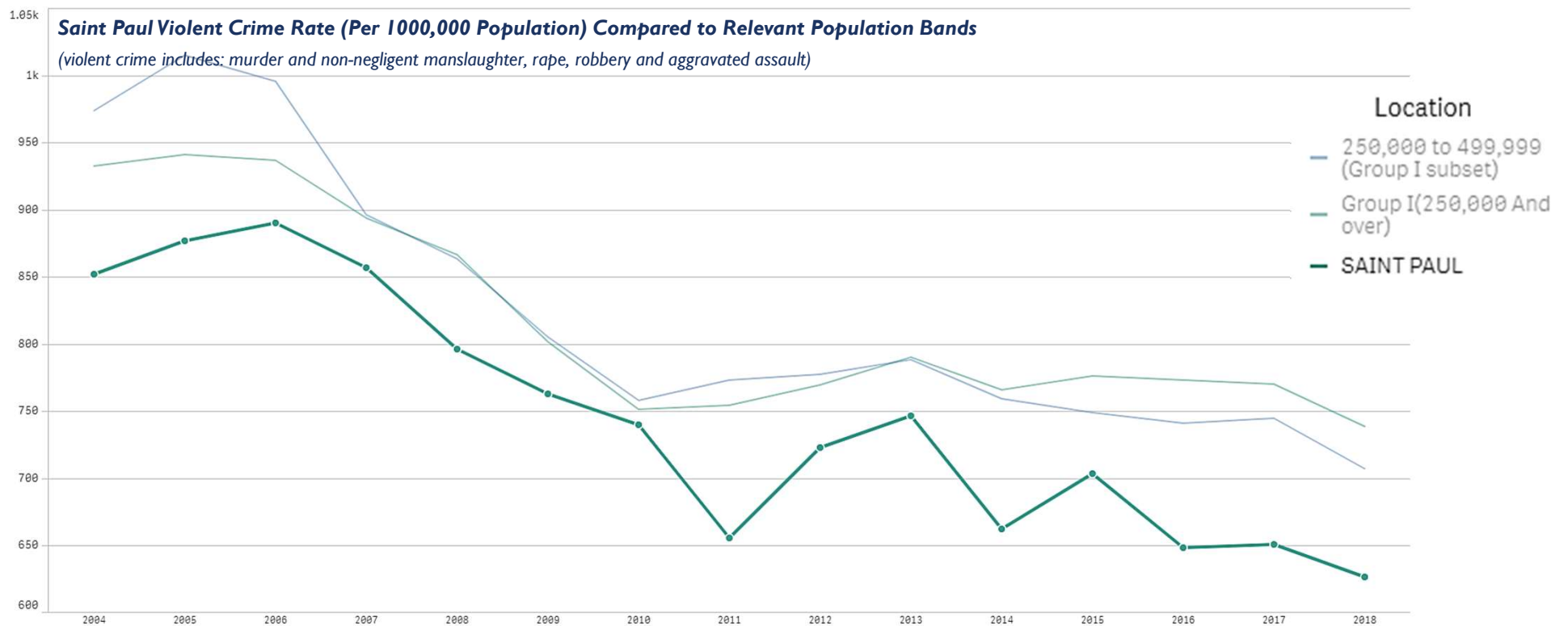
- Saint Paul is included in two relevant FBI population bands, cities of populations between 250,000 to 500,000, and cities with populations of 250,000 or more.
- We selected a representative segment from a group of cities with populations between 225,000 and 500,000 with higher and lower 2018 violent crime rates.
 - Cities with **higher** violent crime rates selected: St. Louis, MO; Kansas City, MO; Oakland, CA; Anchorage, AK; and Minneapolis, MN
 - Cities with **lower** violent crime rates selected: Chandler, AZ; Hialeah, FL; Irvine, CA



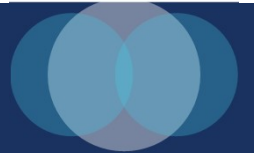
FINDING ONE



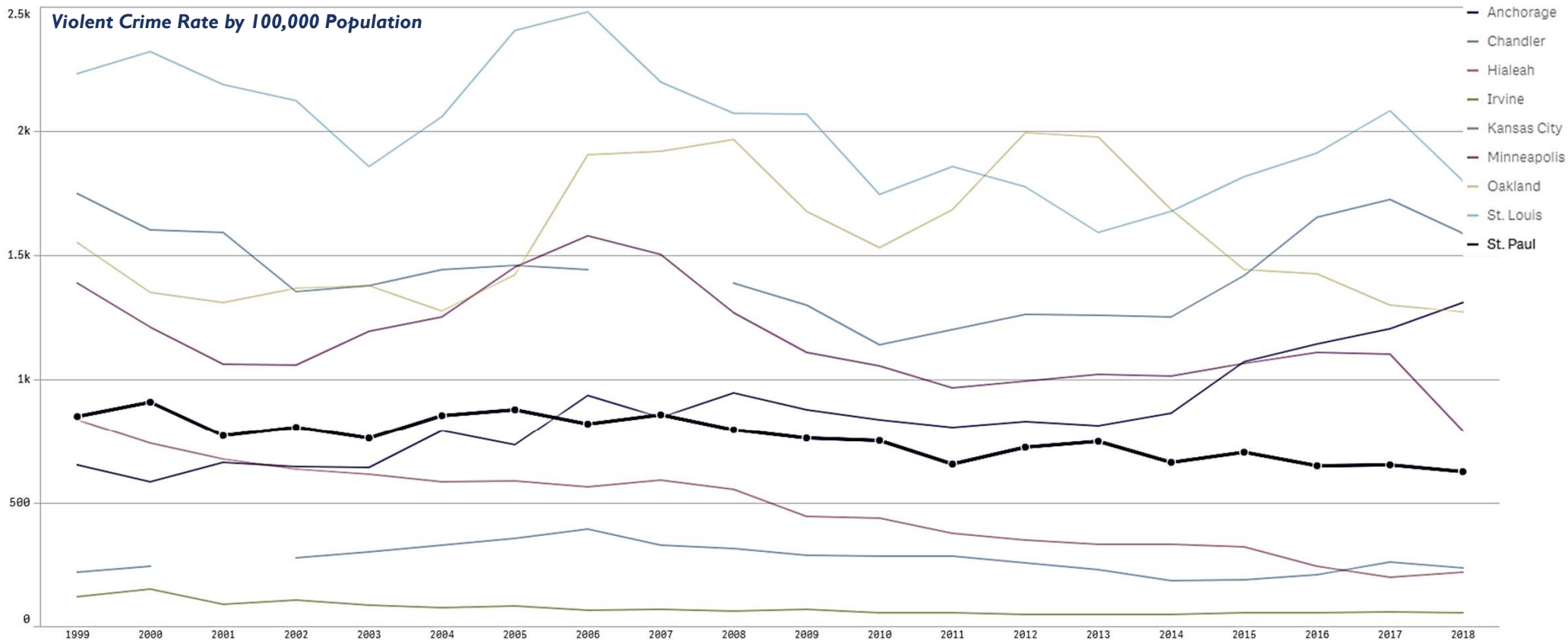
Violent crime rates in Saint Paul have trended downward since 1995, have not deviated from national trends, and remain consistent with what is happening in other cities nationwide.



FINDING ONE



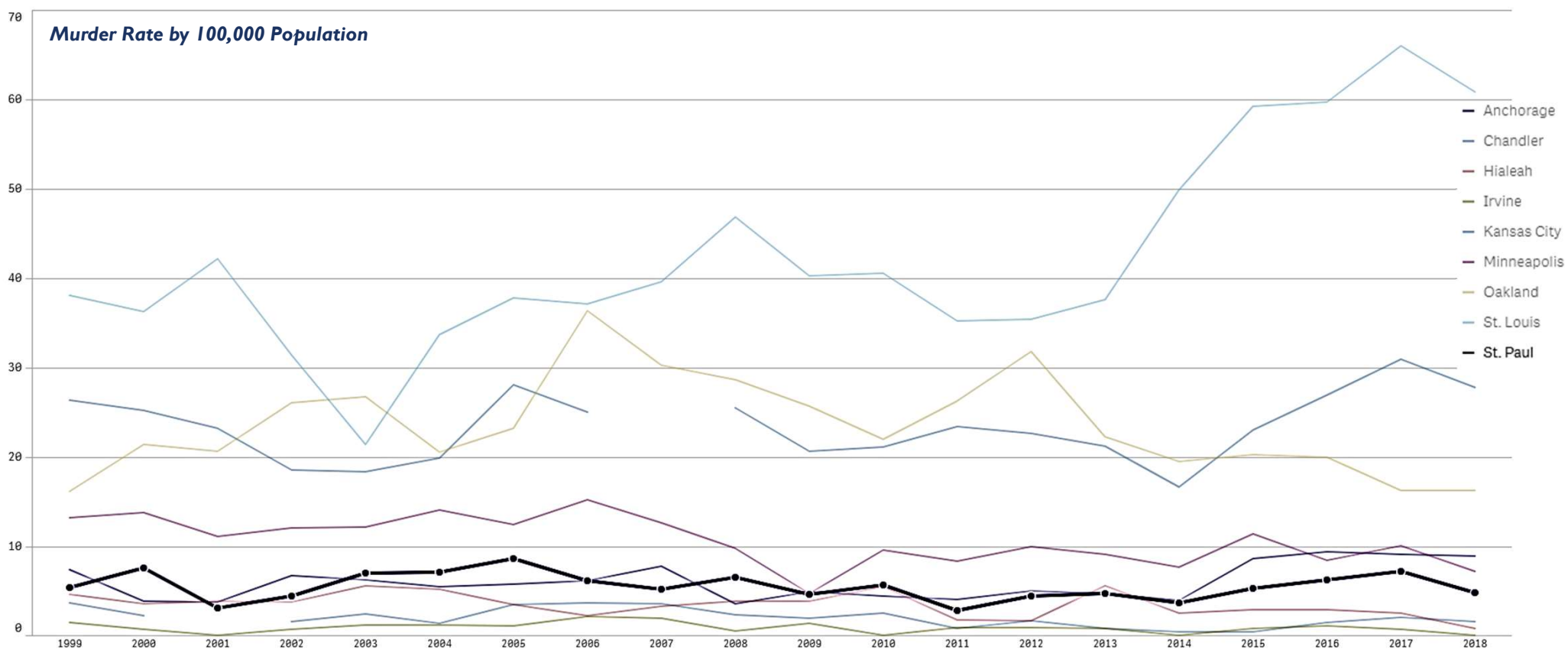
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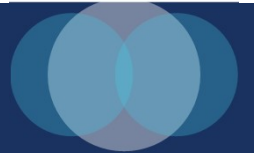
FINDING TWO



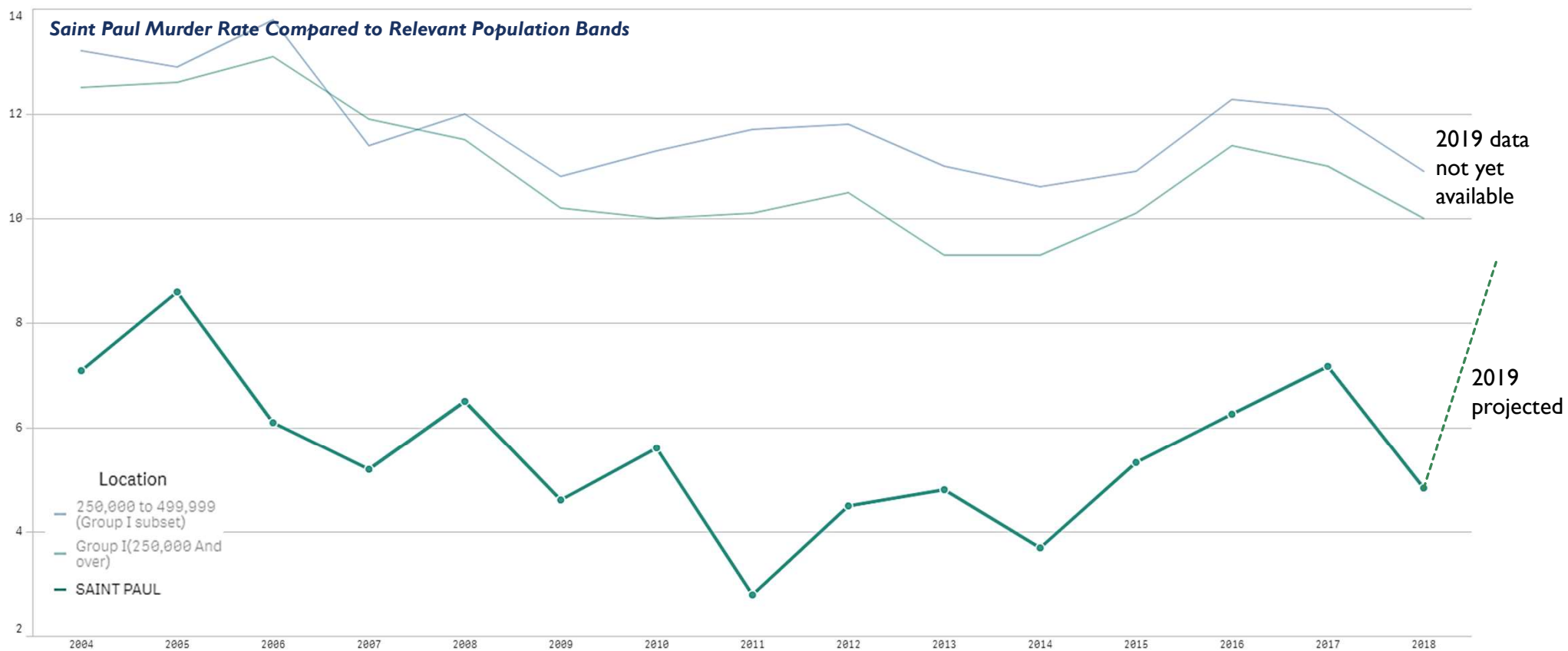
Saint Paul's murder rate remains below selected cities.



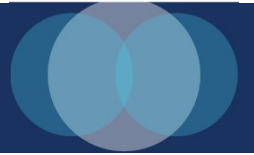
FINDING THREE



Saint Paul's murder rate is consistently below the trend for like-sized cities.

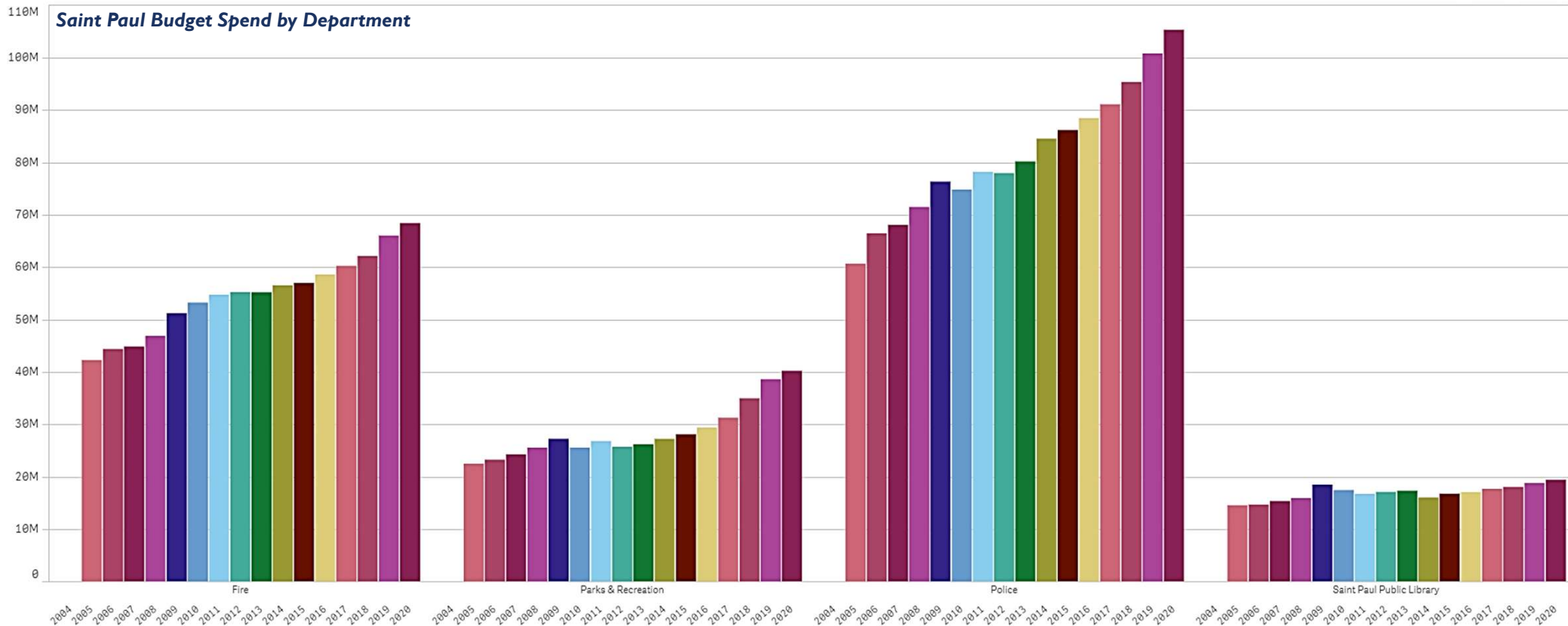


FINDING FOUR



The Saint Paul Police Department budget has increased by 73 percent from 2004 to 2018 as compared to the Fire Department at 62 percent, Parks at 79 percent, and Saint Paul Public Library at 33 percent.

Saint Paul Budget Spend by Department



FINDING FIVE



Saint Paul's murder rate was significantly lower than the 2017 average of other cities of similar size, while the rape, burglary, and vehicle rates were significantly higher.

Statistical Significance of 2017 Saint Paul Crime Rates vs. Other Cities of Similar Size (population of 225,000-500,000)

Type (Crimes per 100k)	Mean	Standard Deviation	St. Paul	Statistically significantly different from other cities in the group?
Violent Crime Rate	650.21	425	650.81	Statistically Expected Outcome
Murder Rate	11.28	11.16	7.17	Significantly Different (Low)
Rape Rate	56.96	31.55	70.75	Significantly Different (High)
Robbery Rate	205.46	146.77	227.26	Statistically Expected Outcome
Aggravated Assault Rate	387.99	267.33	345.62	Statistically Expected Outcome
Property Crime Rate	3401.40	1269.53	3565.42	Statistically Expected Outcome
Burglary Rate	607.36	316.14	741.45	Significantly Different (High)
Theft Rate	2356.39	869	2144.47	Statistically Expected Outcome
Vehicle Theft Rate	437.64	270.02	679.5	Significantly Different (High)

FINDING SIX



For demographic indicators that have shown to impact crime rates, in 2017 Saint Paul was statistically higher, or within the expected outcome of other cities of similar size.

Statistical Significance of 2017 Saint Paul Demographics vs. Other Cities of Similar Size (population of 225,000-500,000)

Demographic Indicator	Mean	Standard Deviation	St. Paul	Statistically significantly different from other cities in the group?
Population Density	4209.1	3284.8	5787.23	Significantly Different (High)
Population Between Ages 15 and 24	23.20	3.52	25.6	Significantly Different (High)
No High School Degree, Ages 25 and Over	14.14	7.37	13.6	Statistically Expected Outcome
Unemployment Rate, Ages 20 to 64	6.69	2.20	5.90	Statistically Expected Outcome
Unemployment Disparity: African American and White Populations	1.17	.73	2.95	Significantly Different (High)
Poverty Rate	18.22	6.42	20.4	Statistically Expected Outcome

The background is a dark, atmospheric photograph of a city skyline, likely New York City, with various skyscrapers and a bridge visible. A large, semi-transparent teal Venn diagram with three overlapping circles is centered on the image. The word "THANK YOU" is written in white, bold, sans-serif capital letters across the center of the Venn diagram.

THANK YOU