

**Understanding the Relationship
Between Race or Gender and
Citations or Arrests in Wyandotte County, KS**

A CAPSTONE PROJECT REPORT IN THE
Science of Public Health

Presented to the Faculty of the University of Missouri – Kansas City

In partial fulfillment of the requirements for the degree of

Bachelor of Science in Public Health

By

Hattie Saltzman

Kansas City, Missouri

2020

Copyright

Hattie Saltzman

2020

Table of Contents

Abstract	4
Introduction	5
<i>Background</i>	5
<i>Wyandotte County</i>	7
<i>Purpose</i>	8
<i>Public Health Theory</i>	9
Methods	11
Results	12
<i>Edwardsville</i>	12
<i>Bonner Springs</i>	16
<i>Kansas City, KS</i>	20
Conclusion	29
<i>Strengths and Limitations</i>	29
<i>Discussion</i>	30
<i>Implications</i>	31
Acknowledgements	36
References	37
Appendix	41
<i>Difficulties Obtaining Data</i>	41

Abstract

Objective: Racial injustice in policing has recently received much attention. Yet, there is little objective evidence on the link between racial injustice and policing in Kansas City. Therefore, the purpose of this study was to understand the relationship between race or gender and citations or arrests in Wyandotte County, KS by identifying if differences existed by demographic groups.

Methods: Citation data were obtained for Edwardsville and Bonner Springs from the respective municipal courts. Arrest data were obtained for Kansas City, KS from the Kansas City, KS Police Department. 2-proportion, 2-tailed Z-test was conducted to understand differences in citation or arrest rates by race and gender.

Results: In all three cities, Black individuals were cited or arrested more than White individuals. White individuals were cited or arrested more than Hispanic individuals. In Edwardsville and Kansas City, males were cited or arrested more than females ($p < 0.001$). In Edwardsville and Kansas City, the proportion of White individuals cited or arrested was less than the White proportion of the population. The proportion of Black individuals cited or arrested was greater than the Black proportion of the population. The proportion of males cited or arrested was greater than the male proportion of the population. The proportion of females cited or arrested was less than the female proportion of the population ($p < 0.001$). In Bonner Springs and Kansas City, the proportion of Hispanic individuals cited or arrested was less than the Hispanic proportion of the population ($p < 0.05$; $p < 0.001$, respectively).

Conclusion: Findings identified several troubling disparities, especially when comparing White and Black individuals, males and females, Black proportions of citations or arrests and proportions of the population, and male proportions of citations or arrests and proportions of the population. This indicates a need for further research into the causes of these disparities and a need for interventions that focus on these at-risk populations.

Introduction

Background

When police brutality is mentioned in the United States in 2020, most will think of the Black Lives Matter movement. To those not directly affected by police brutality, it feels like a recent problem, or to some, a nonexistent one, completely forgetting the centuries of systemic racism minorities have faced in this country. Starting in the 16th century and lasting through most of the 19th, more than 12 million people were taken from Africa and brought to the Americas through the Transatlantic Slave Trade. Even once slavery was made illegal in 1865, forms of it and the racism behind it persisted. There were not many places for freed slaves to go, and many of them became sharecroppers, which was essentially slavery under a different name. Then there were Jim Crow laws, poll taxes, segregation, redlining, and too many atrocities to name (Solly, 2020). Black individuals have suffered at the hands of those in power since before America was a country. Today, police brutality is just another arm of a long-standing issue that has never been properly addressed. The small steps of progress seen make way for new issues and cause for new movements and protests, such as Black Lives Matter. The movement focuses mainly on police relations with Black individuals and other people of color, but behind that is a demand for true change and an end to the ongoing discrimination in the United States (Mineo, 2015).

Minorities are overrepresented in the U.S. criminal justice system, meaning they are frequently the majority of prison populations or arrest data despite being a smaller proportion of the overall population. Some argue this is because minority individuals commit more crimes than White individuals, but studies consistently show there is more to it than that, such as heavier police presence in minority neighborhoods and unconscious bias (Schleiden, Soloski, Milstead, & Rhynehart, 2020). The differing opinions on why minority groups are overrepresented do raise

a good point, however, and many studies on the issue discuss two theories: differential involvement, where minorities commit more crimes than White individuals, and differential selection, where the criminal justice system treats minorities differently than White individuals. To the point on a heavier police presence in minority neighborhoods, the differential involvement theory would claim that this increased presence is due to the neighborhood having higher rates of crime, while the differential selection theory would claim there are more minority arrests because they are policed more frequently (McCarter, 2018; Shleiden, Soloski, Milstead, & Rhynehart, 2020). Both theories are worth exploring due to the potential implications each could have on public health practice.

The importance of reducing this overrepresentation of minorities cannot be understated. Individuals involved with the criminal justice system face increased difficulties throughout life, including reduced socioeconomic status, lower education levels achieved, and trouble maintaining employment. These difficulties create problems at the community level as well. They have been linked to increased rates of unemployment, greater dependence on welfare, and even an increase in the spread of infectious disease. As minorities are involved with the criminal justice system at a disproportionate rate to White individuals, they are also experiencing these difficulties at a disproportionate rate (Schleiden et al., 2020). Furthermore, disparities seen at the citation and arrest stage are much smaller than the disparities seen at the incarceration stage. The outcome of the initial encounter with law enforcement is the main influence on racial disparities at more severe levels (Pettit & Gutierrez, 2018).

Another group overrepresented in the criminal justice system is males (Gase et al., 2016). Current research tends to focus on Black males specifically as they are a particularly high-risk group (Fielding-Miller, Cooper, Caslin & Raj, 2018). Studies that discuss gender disparities in

the criminal justice system without attaching race or sex crimes are few and far between, signifying a gap in the literature. Most available studies of this nature are over twenty years old, making them unsuitable for modern study. Trends in current research do suggest being male is a risk factor for contact with the criminal justice system. A longitudinal study analyzing racial disparities in arrests found that participants who were male were more likely to be arrested regardless of race (Gase et al., 2016). Other research found males are fifteen times as likely to be incarcerated as females. Females are more likely than males to avoid charges, convictions, and incarcerations, leading to a large disparity between males and females. This is interesting as typically males experience more privilege than females in nearly every context except the criminal justice system (Starr, 2012).

This study refers to gender as male and female due to the labels used in the data and not as a reflection of which genders are present in society. It recognizes that the categorization of gender as a male-female binary is a poor reflection of these individuals. It is important to note that, while outside the scope of this study, transgender and nonbinary individuals experience disparities in the criminal justice system which require intervention and further study (Stotzer, 2014).

Wyandotte County

Wyandotte County, Kansas is comprised of three cities: Edwardsville, Bonner Springs, and Kansas City. Edwardsville and Bonner Springs are both relatively small, with 4,462 and 7,796 individuals in 2019, respectively. Kansas City's population is larger with 152,818 individuals in 2019. Wyandotte County was chosen for analysis due to a substantial minority population and a recent increase in public interest in police and minority relations. For example, a task force aimed at improving the relationship between police and the residents of Kansas City,

KS was formed in the summer of 2020 in response to protests in the area following the death of George Floyd and other Black individuals who were in police custody across the United States. The Kansas City police department has faced allegations of racism and sexual misconduct. There are four Black police officers in the department, and in December 2019 one of them sued the Unified Government of Wyandotte County and Kansas City, KS for race and gender discrimination, saying the department tended to discipline Black officers but not White officers for similar misconduct (Fortino, 2020). While the task force hopes to address these topics, its implementation has not gone without criticism. Invited to be on the task force are the Wyandotte County sheriff, the Kansas City, KS police chief, and mayor David Alvey – but not the Wyandotte County district attorney Mark Dupree, who is Kansas' first Black DA and has a history of pushing for police reform. The reason given for not inviting Dupree is that officials wanted the task force to remain objective, and since Dupree has made his stance known he should not be included – however, critics were quick to point out that the Wyandotte County sheriff had expressed his opinion in the past and was still present. These critics view this decision as a major oversight and are not confident the task force will lead to real change (Bernard, 2020). To date, public forums are all that have come of the task force, so it remains to be seen what action may come.

Purpose

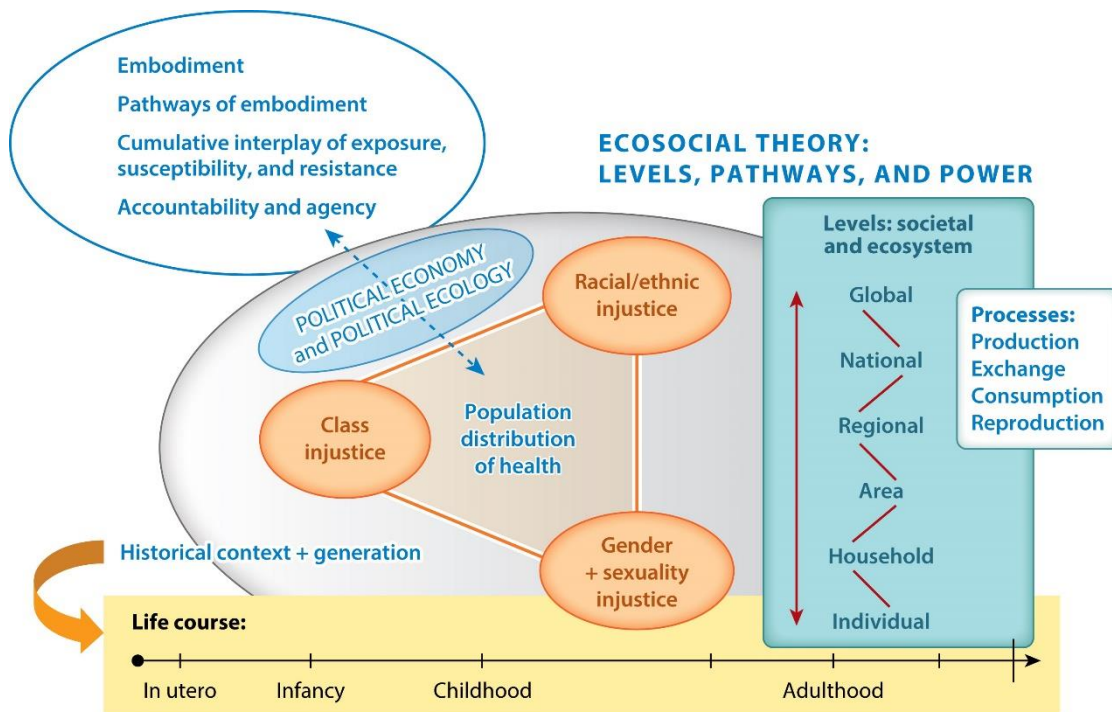
The purpose of this study was to understand the relationship between race or gender and citations or arrests in Wyandotte County, KS. Citation data from Edwardsville and Bonner Springs, KS and arrest data from Kansas City, KS was used to determine if there were differences in citation or arrest rates between demographic groups. It was hypothesized that individuals who are White or female would have lower arrest or citation rates than minority

individuals or males in Wyandotte County, and that minority individuals and males would be arrested or cited at a rate disproportionate to their percentage of the population. The null hypothesis was that there would be no difference in arrest or citation rates between demographic groups in Wyandotte County, and that each group would be cited or arrested at a rate equal to their proportion of the population. This was designed with the goal of identifying possible disparities between these demographic groups and to find solutions to these differences, should any be discovered.

Public Health Theory

In this study, ecosocial theory (pictured below) serves as a guiding framework. Ecosocial theory, first described in 1994 by Nancy Krieger, describes the levels of influence that impact inequality (Krieger, 1994). Ecosocial theory has four core constructs: embodiment, pathways of embodiment, cumulative interplay between exposure, susceptibility, and resistance, and accountability and agency. Embodiment refers to the process of individuals absorbing their experiences (exposures) throughout their lives biologically. These exposures can be positive or negative and as such have positive and negative effects on the body. This is considered especially in the context of the effect of inequality on the health of individuals. An important aspect of embodiment is its cumulative effect – each exposure compounds on the last (Krieger, 2005). Pathways of embodiment refer to these exposures. Cumulative interplay between exposure, susceptibility, and resistance is how these exposures accumulate in the body and how the individual responds. Accountability and agency describe the responsibility researchers, individuals, and the system have in addressing disparities (Krieger, 2012). The theory ultimately describes how these exposures result in health disparities.

In the context of this study, citations and arrests (and contact with the criminal justice system in general) are considered pathways to embodiment; exposure to the justice system and legal system is linked to worse health outcomes (Duarte, Salas-Hernández & Griffin, 2020). The way political systems are structured allows for varying treatment of different demographic groups, resulting in some demographics having more contact with the criminal justice system than others. Over time this culminates in health disparities among demographic groups as the disadvantaged are over-exposed to the criminal justice system and experience negative health outcomes at a higher rate as a result. The results of this study should be evaluated by this description.



Methods

This protocol was approved by the University of Missouri – Kansas City International Review Board.

Data were requested from the three cities that Wyandotte County is comprised of: Edwardsville, Bonner Springs, and Kansas City, KS. The data available varied by city. In Edwardsville, demographic data for citations were obtained from the year 2008 through September of 2020 and indicated race (N = 4,582) and gender (N = 4,599). Some Edwardsville citations had race but not gender, resulting in a difference of 17 citations between the two. In Bonner Springs, demographic data for citations were obtained from the year 2000 through 2019 and indicated race (N = 64,080). In Kansas City, demographic data for arrests were obtained from April 5, 2016 through September 30, 2020 and indicated race and gender (N = 24,556). Ultimately, 2016 and 2020 Kansas City data were excluded due to not having complete years for comparison, as well as 105 citations in Bonner Springs due to the race of the individual being unclear.

Excel was used to separate the data for easier analysis. The data for Edwardsville and Bonner Springs were not separated by year, so the total citation count was averaged by year and population demographic data obtained from the American Community Survey (ACS) from the years 2010-2018 were averaged to determine what the typical proportions were for the different groups being analyzed (United States Census Bureau, 2018a; United States Census Bureau, 2018b, respectively). Because Edwardsville had differing total citation counts between race and gender, the differing counts were averaged separately, and calculations were run using the citation count applicable (i.e. race calculations used the average yearly citation count of race indicated citations). The data for Kansas City were separated by year and required no population

averaging. ACS data were pulled for 2017, 2018, and 2019 (United States Census Bureau, 2019). The data were organized in Excel by total counts for citations, arrests, and individuals for each city (as applicable), separated by race and gender. The data were analyzed in two ways. First, total citations/arrests by demographic and total demographic population between two groups (i.e. White arrests of total White population to Black arrests of total Black population) were compared to determine if there was a significant difference between races or genders. Second, the proportion of citations/arrests by demographic to the proportion of the population by demographic (i.e. proportion of White arrests of total arrests to proportion of White population of total population) were compared to determine if there was a significant difference between the proportion of citations/arrests that group holds and the proportion of the population they occupy. These comparisons were conducted using a 2-proportion, 2-tailed Z-test function in Excel.

Results

Edwardsville

Comparing Difference Between Two Groups:

Proportion of Average Yearly Demographic Population to Proportion of Average Yearly Demographic Citation

In Edwardsville, for citations from 2008 through September 2020 (see *Table 1.1*), White individuals were cited an average of 313.0 times per year and account for 79.7% of the total yearly average citation count. White individuals comprise, on average, 87.6% of the total population in Edwardsville with 3,810 of 4,348 individuals. Black individuals were cited an average of 71.2 times per year and account for 18.1% of the total yearly average citation count. Black individuals were, on average, 5.7% of the total Edwardsville population with 248

individuals. Hispanic individuals were cited an average of 5.1 times per year, which is 1.3% of the total average yearly citation count. With 255 individuals, Hispanic individuals were 5.9% of the population on average. 8.2% of the White population was cited each year, 28.7% of the Black population was cited each year, and 2% of the Hispanic population was cited each year.

Statistically significant differences were found when comparing these results between two groups. Comparing White and Black individuals, Black individuals were shown to be cited significantly more than White individuals ($Z = -10.7, p < 0.001$). Comparing White and Hispanic individuals, White individuals were shown to be cited significantly more than Hispanic individuals ($Z = 3.6, p < 0.001$).

Males were cited 285.7 times on average per year, making up 72.5% of the average total yearly citations. With 2,090 individuals on average, males were 48.1% of the population. Females were cited an average of 108.4 times per year and were 27.5% of the average total yearly citations. Females were 51.9% of the average total population with 2,258 individuals (United States Census Bureau, 2018b). Males were cited at a significantly higher rate than females ($Z = 10.2, p < 0.001$).

Figure 1.1 displays the citation rate per 100,000 in Edwardsville. White individuals were cited at a rate of 8,215 per 100,000. Black individuals were cited at a rate of 28,629 per 100,000. Hispanic individuals were cited at a rate of 1,961 per 100,000. Males were cited at a rate of 13,684 per 100,000. Finally, females were cited at a rate of 4,783 per 100,000.

Black individuals were cited at a rate 348.5% higher than White individuals, White individuals were cited at a rate 418.9% higher than Hispanic individuals, and males were cited at a rate 286.1% higher than females. In other words, for each White individual cited, nearly 349

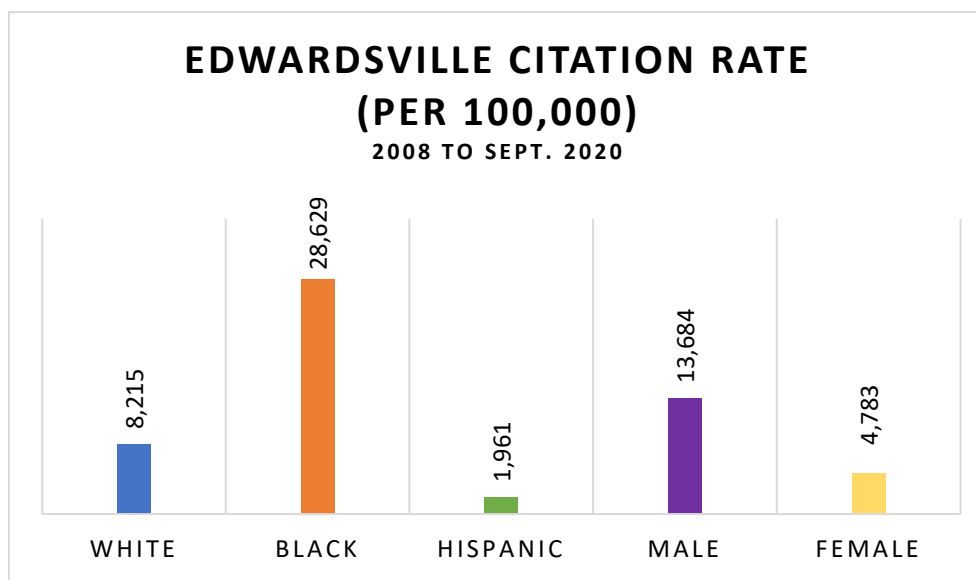
Black individuals were cited. For each Hispanic individual cited, nearly 419 White individuals were cited. For each female cited, 286 males were cited.

Table 1.1 Displays statistical significance of difference of population proportion to citation proportion values between two groups in Edwardsville

EDWARDSVILLE	Avg. Population	% of Total Population	Avg. Citation/Year	% of Total Avg. Yearly Citation	Avg. Demographic Citation % of Avg. Demographic Population %
White	3,810	87.6%	313.0	79.6%	8.2%
Black	248	5.7%	71.2	18.1%	28.7%***
White	3,810	87.6%	313.0	79.6%	8.2%***
Hispanic	255	5.9%	5.1	1.3%	2.0%
Male	2,090	48.1%	285.7	72.5%	13.7%***
Female	2,258	51.9 %	108.4	27.5%	4.8%

Note. Population data obtained from the American Community Survey for the years 2010 through 2018 and averaged. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 0.0% of the population. Percentages of total population were calculated using the average total population of 4,348. Percentages of total citation were calculated using the average total yearly citation count of 392.6 (race indicated) and 394.0 (gender indicated), which was calculated by averaging 4,582 race indicated citations and 4,599 gender indicated citations by 11.67 years (2008 – September 2020). The remaining 1.0% of race indicated citations are attributed to the excluded populations.
 Statistical significance calculated using a 2-proportion, 2-tailed Z test.
 *** $p < 0.001$

Figure 1.1 Displays citation rate per 100,000 in Edwardsville



Difference in Proportion of Population Compared to Proportion of Citation by Group

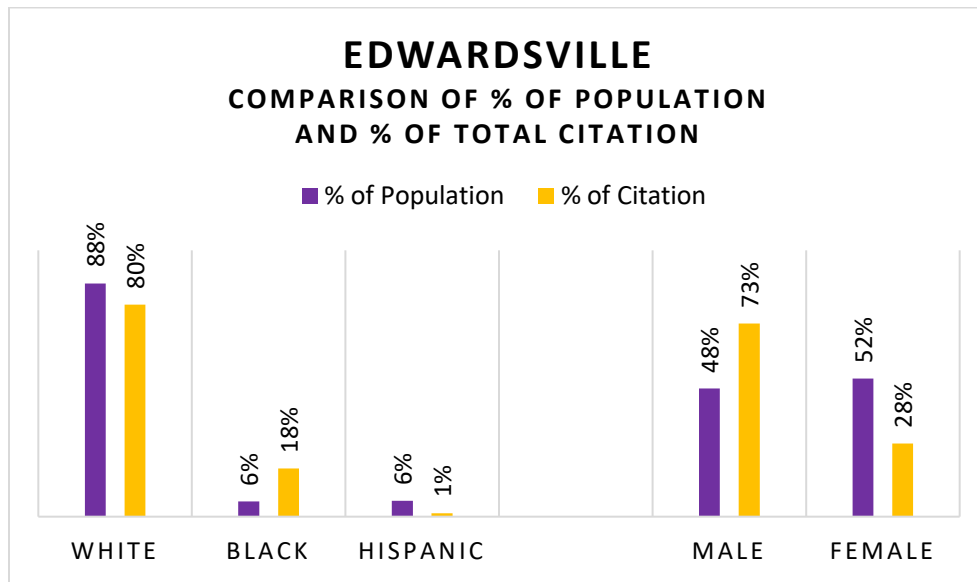
Table 1.2 compares the proportion of the total citation count for one group to the same group’s proportion of the total population. White individuals were 87.6% of the population and 79.6% of the total average yearly citations. This shows White individuals were cited significantly less than the proportion of the population they occupy ($Z = 4.0, p < 0.001$). Within the Black population, Black individuals were shown to be cited significantly more than the proportion of the population they occupy, a comparison of 5.7% to 18.1% ($Z = -3.3, p < 0.001$). The Hispanic population was not shown to be cited significantly more or less than their proportion of the population, making up 5.9% of individuals in Edwardsville and 1.3% of citations ($Z = 1.5, p = 0.7$). Males were shown to be cited significantly more than their proportion of the population, making up 48.1% of the population and 72.5% of citations ($Z = -7.7, p < 0.001$). Lastly, females were shown to be cited significantly less than their proportion of the population, making up 51.9% of the population and 27.5% of citations ($Z = 4.9, p < 0.001$). This data can be seen visually in Figure 1.2.

Table 1.2 Displays statistical significance of difference in population proportion and citation proportion within one group

EDWARDSVILLE	<i>White</i>	<i>Black</i>	<i>Hispanic</i>	<i>Male</i>	<i>Female</i>
<i>Average Population</i>	3,810	248	255	2090	2258
<i>% of Total Population</i>	87.6%	5.7%	5.9%	48.1%	51.9%
<i>Average Citation per Year</i>	313.0	71.2	5.1	285.7	108.4
<i>% of Total Citation per Year</i>	79.6%	18.1%	1.3%	72.5%	27.5%
<i>P Value</i>	0.000052***	0.00093***	0.663562	<0.001***	<0.001***

Note. Population data obtained from the American Community Survey for the years 2010 through 2018 and averaged. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 0.0% of the population. Percentages of total population were calculated using the average total population of 4,348. Percentages of total citation were calculated using the average total yearly citation count of 392.6 (race indicated) and 394.0 (gender indicated), which was calculated by averaging 4,582 race indicated citations and 4,599 gender indicated citations by 11.67 years (2008 – September 2020). The remaining 1.0% of race indicated citations are attributed to the excluded populations. Statistical significance calculated using a 2-proportion, 2-tailed Z test. *** $p < 0.001$

Figure 1.2 Displays difference in population proportion and citation proportion by group



Bonner Springs

Comparing Difference Between Two Groups:

Proportion of Average Yearly Demographic Population

to Proportion of Average Yearly Demographic Citation

In Bonner Springs, among citations given from 2000 to 2019 (see *Table 2.1*), White individuals were cited an average of 2,921.2 times per year, which is 87.7% of the total average citations given each year. The White population, with 6,437 individuals on average, were 86.6% of the total average population of 7,430. Black individuals were cited an average of 309.3 times per year, or 9.2% of the total average citations per year. The Black population comprised 7.6% of the total average population with 567 individuals. Hispanic individuals were cited an average of 128.9 times per year, which was 3.8% of the total average citations given each year. The Hispanic population was 9.3% of the total average population with 692 individuals. On average, 45.4% of the White population were cited each year, 54.6% of the Black population were cited

each year, and 18.6% of the Hispanic population were cited each year. Comparing these groups, statistically significant differences were found when comparing these results between groups. Black individuals were cited significantly more than White individuals ($Z = -4.2, p < 0.001$). Hispanic individuals were cited significantly less than White individuals ($Z = 13.5, p < 0.001$).

Figure 2.2 displays the citation rate per 100,000 in Bonner Springs. White individuals were cited at a rate of 45,394 per 100,000. Black individuals were cited at a rate of 54,497 per 100,000. Hispanic individuals were cited at a rate of 18,642 per 100,000. Black individuals were cited at a rate 120% higher than White individuals and White individuals were cited at a rate 243.5% higher than Hispanic individuals, meaning for each White individual cited, 120 Black individuals were cited, and for each Hispanic individual cited, roughly 243 White individuals were cited.

Table 2.1 Displays statistical significance of difference of population proportion to citation proportion values between two groups in Bonner Springs

BONNER SPRINGS	Avg. Population	% of Total Population	Avg. Citation/Year	% of Total Avg. Yearly Citation	Avg. Demographic Citation % of Avg. Demographic Population %
White	6,437	86.6%	2,921.2	86.7%	45.4%
Black	567	7.6%	309.3	9.2%	54.6%***
White	6,437	86.6%	2,921.2	86.7%	45.4%***
Hispanic	692	9.3%	128.9	3.8%	18.6%

Note. Population data obtained from the American Community Survey for the years 2010 through 2018 and averaged. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 0.0% of the population. Percentages of total population were calculated using the average total population of 7,430. Percentages of total citation were calculated using the average total yearly citation count of 3,372.6, which was calculated by averaging 64,080 citations by 19 years (2000 – 2019). The remaining 0.3% of citations are attributed to the excluded populations.
 Statistical significance calculated using a 2-proportion, 2-tailed Z test.
 *** $p < 0.001$

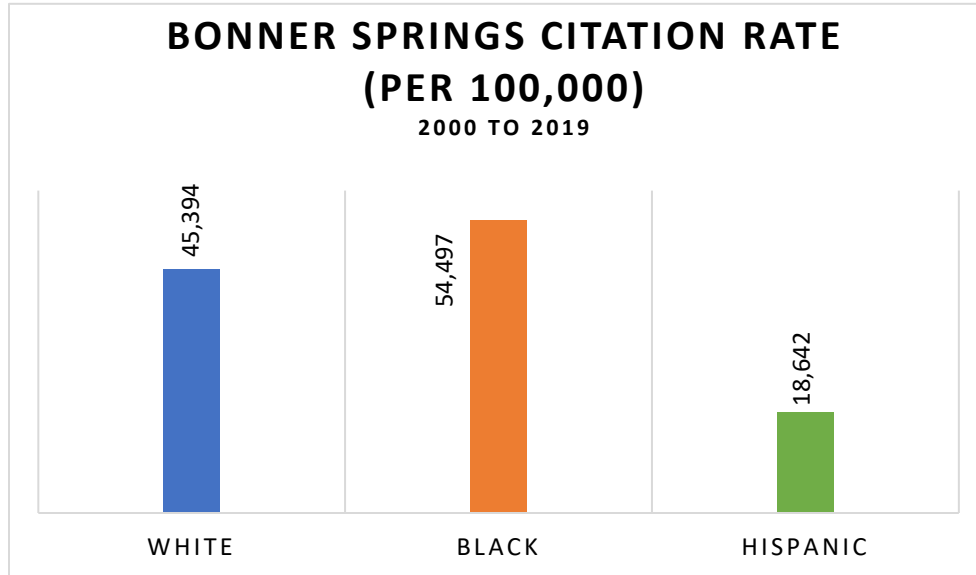
Figure 2.1 Displays citation rate per 100,000 in Bonner Springs*Difference in Proportion of Population Compared to Proportion of Citation by Group*

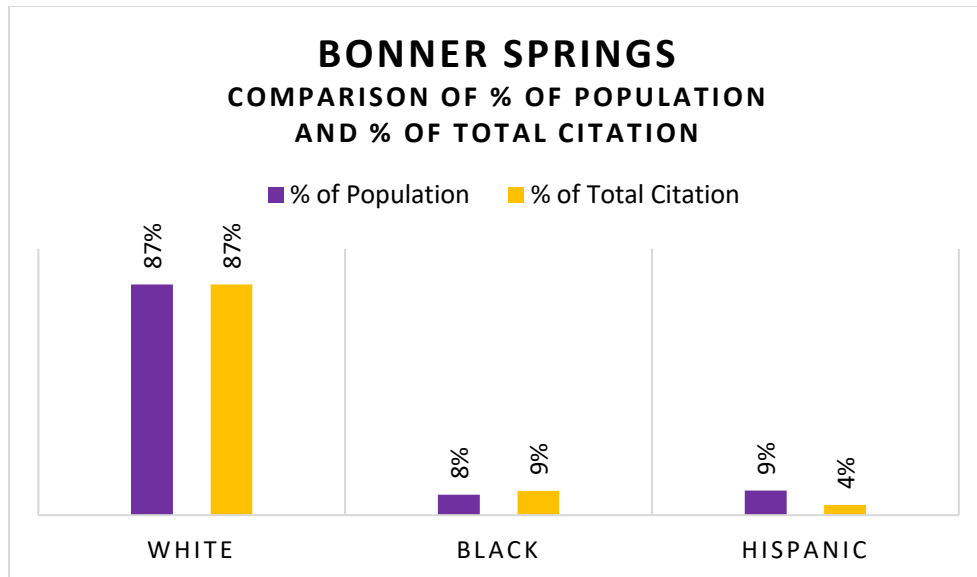
Table 2.2 compares the proportion of the total citation count for one group to the same group's proportion of the total population. White individuals were, on average, 86.6% of both the total population and the total yearly citations. Black individuals were, on average, 7.6% of the total population and 9.2% of the total yearly citations. Hispanic individuals were, on average, 9.3% of the total population and 3.8% of the total yearly citations. No statistically significant differences were found between the White and Black respective proportions of the population and their respective proportions of yearly citations ($Z = -0.01, p = 0.98$; $Z = -0.8, p = 0.4$). Hispanic individuals were found to be cited at a proportion that was significantly less than their proportion of the population ($Z = 2.1, p < 0.05$). This is displayed visually in *Figure 2.2*.

Table 2.2 Displays statistical significance of difference in population proportion and citation proportion within one group

BONNER SPRINGS	<i>White</i>	<i>Black</i>	<i>Hispanic</i>
<i>Average Population</i>	6,437	567	691
<i>% of Total Population</i>	86.6%	7.6%	9.3%
<i>Average Citation per Year</i>	2922.2	309.3	128.9
<i>% of Total Citation per Year</i>	86.6%	9.2%	3.8%
<i>P Value</i>	0.989628	0.426614	0.039976*

Note. Population data obtained from the American Community Survey for the years 2010 through 2018 and averaged. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 0.0% of the population. Percentages of total population were calculated using the average total population of 7,430. Percentages of total citation were calculated using the average total yearly citation count of 3,372.6, which was calculated by averaging 64,080 citations by 19 years (2000 – 2019). The remaining 0.3% of citations are attributed to the excluded populations. Statistical significance calculated using a 2-proportion, 2-tailed Z test. * $p < 0.05$

Figure 2.2 Displays difference in population proportion and citation proportion by group



Kansas City, KS

Comparing Difference Between Two Groups:

*Proportion of Yearly Demographic Population
to Proportion of Yearly Demographic Arrest*

In Kansas City, KS in 2017 (see *Table 3.1*), White individuals were 59.6% of the total population with 89,973 individuals, and 54.7% of total arrests made with 4,596 arrests. Black individuals were 23.3% of the total population with 35,200 individuals, and 43.8% of total arrests with 3,695 arrests made. Hispanic individuals were 31.1% of the total population with 47,007 individuals, and 18.0% of total arrests with 1,515 arrests made. Males were 49.4% of the population with 74,690 individuals and were 69.2% of arrests with 5,816 arrests made. Females were 50.6% of the population with 76,352 individuals and were 30.5% of the arrests with 2,564 arrests made. 5.1% of the White population was arrested, 10.5% of the Black population, 3.2% of the Hispanic population, 7.6% of the male population, and 3.3% of the female population. Comparing these results to each other, statistically significant differences were found. The difference in arrests between White and Black individuals was significant, with Black individuals arrested more than White individuals ($Z = -34.3, p < 0.001$). The difference in arrests between White and Hispanic individuals was also significant, with the Hispanic population having fewer arrests than the White population ($Z = 16.0, p < 0.001$). Males and females also showed a significant difference, with males having more arrests than females ($Z = 37.4, p < 0.001$).

In *Figure 3.1*, the arrest rate in 2017 is displayed. White individuals were arrested at a rate of 5,167 per 100,000. Black individuals were arrested at a rate of 10,469 per 100,000. Hispanic individuals were arrested at a rate of 3,223 per 100,000. Males were arrested at a rate of

7,786 per 100,000. Females were arrested at a rate of 3,358 per 100,000. Based on this data, Black individuals were arrested at a rate 202.6% higher than White individuals, so in 2017, for each White person arrested, around 202 Black individuals were arrested. White individuals were arrested at a rate 160.3% higher than Hispanic individuals, so for each Hispanic person arrested, 160 White individuals were. Males were arrested at a rate 231.9% higher than females, so for each female arrested, nearly 232 males were.

In 2018, White individuals were 57.9% of the population with 88,067 individuals. They were 55.4% of total arrests with 4,647 arrests. Black individuals were 23.5% of the population with 35,809 individuals and were 43.6% of total arrests with 3,663 arrests. Hispanic individuals were 29.9% of the population with 45,511 individuals and 19.0% of total arrests with 1,598 arrests. Males were 49.4% of the population with 74,690 individuals and 69.2% of arrests with 5,816 arrests. Females were 50.6% of the population with 76,352 individuals and were 31.5% of arrests with 2,642 arrests. Based on this data, 5.3% of the White population was arrested, 10.2% of the Black population, 3.5% of the Hispanic population, 7.6% of the male population, and 3.4% of the female population. Black individuals were arrested significantly more than White individuals ($Z = -31.6, p < 0.001$), Hispanic individuals were arrested significantly less than White individuals ($Z = 14.5, p < 0.001$), and males were arrested significantly more than females ($Z = 35.5, p < 0.001$).

In *Figure 3.1*, the arrest rate in 2018 is displayed. White individuals were arrested at a rate of 5,277 per 100,000. Black individuals were arrested at a rate of 10,229 per 100,000. Hispanic individuals were arrested at a rate of 3,511 per 100,000. Males were arrested at a rate of 7,610 per 100,000. Females were arrested at a rate of 3,449 per 100,000. Black individuals were arrested at a rate 193.8% higher than White individuals, so in 2018, for each White person

arrested, nearly 194 Black individuals were. White individuals were arrested at a rate 150.3% higher than Hispanic individuals, so for each Hispanic person arrested, 150 White individuals were. Males were arrested at a rate 220.6% higher than females, so for each female arrested, 220 males were.

In 2019, White individuals were 54.5% of the population with 83,268 individuals and 51.7% of arrests made with 4,006 arrests. Black individuals were 23.2% of the population with 35,424 individuals and 47.5% of arrests made at 3,680 arrests. Hispanic individuals were 31.2% of the population with 47,619 individuals and 18.2% of arrests made with 1,411 arrests. Males were 49.6% of the population with 75,802 individuals and 69.5% of arrests with 5,392 arrests. Females were 50.4% of the population with 77,016 individuals and 31.5% of arrests made with 2,360 arrests. 4.8% of the White population was arrested, 10.4% of the Black population, 3.0% of the Hispanic population, 7.1% of the male population, and 3.1% of the female population. White individuals were arrested significantly more than Black individuals ($Z = 35.7, p < 0.001$), Hispanic individuals were arrested significantly less than White individuals ($Z = 16.1, p < 0.001$), and males were arrested significantly more than females ($Z = 36.1, p < 0.001$).

In *Figure 3.1*, the arrest rate in 2019 is displayed. White individuals were arrested at a rate of 4,981 per 100,000. Black individuals were arrested at a rate of 10,388 per 100,000. Hispanic individuals were arrested at a rate of 2,963 per 100,000. Males were arrested at a rate of 7,113 per 100,000. Females were arrested at a rate of 3,064 per 100,000. Black individuals were arrested at a rate 208.5% higher than White individuals, so for 2019, for each White person arrested, 208 Black individuals were. White individuals were arrested at a rate 160.1% higher than Hispanic individuals, so for each Hispanic person arrested, 160 White individuals were.

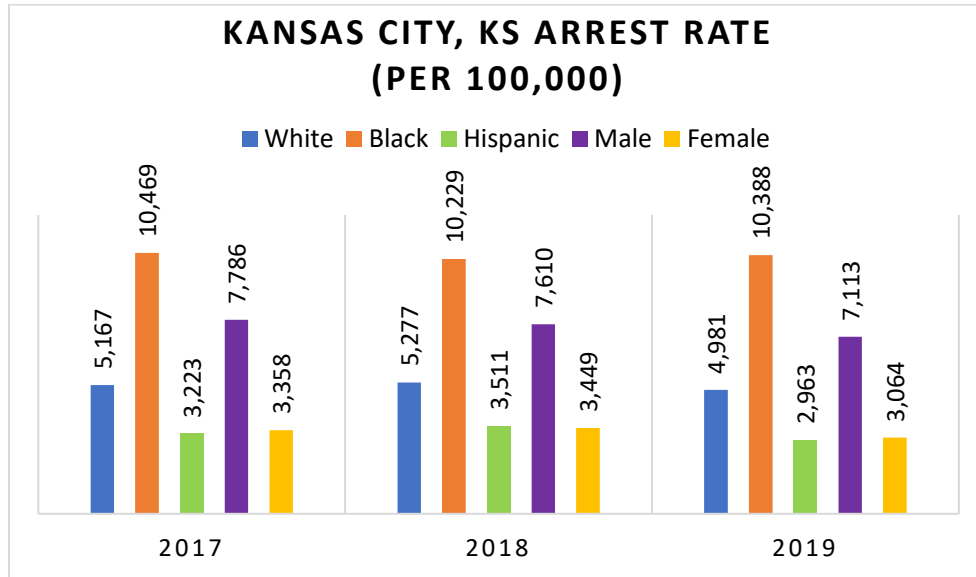
Males were arrested at a rate 232.1% higher than females, so for each female arrested, 232 males were.

Table 3.1 Displays statistical significance of difference of population proportion to citation proportion values between two groups in Kansas City, KS by year

KANSAS CITY, KS		<i>Population</i>	<i>% of Total Population</i>	<i>Arrest</i>	<i>% of Total Arrest</i>	<i>Demographic Arrest % of Demographic Population %</i>
2017	<i>White</i>	89,973	59.6%	4,596	54.7%	5.1%
	<i>Black</i>	35,200	23.3%	3,685	43.8%	10.5%***
	<i>White</i>	89,973	59.6%	4,596	54.7%	5.1%***
	<i>Hispanic</i>	47,007	31.1%	1,515	18.0%	3.2%
	<i>Male</i>	74,690	49.4%	5,816	69.2%	7.6%***
	<i>Female</i>	76,352	50.6%	2,564	30.5%	3.3%
2018	<i>White</i>	88,067	57.9%	4,647	55.4%	5.3%
	<i>Black</i>	35,809	23.5%	3,663	43.6%	10.2%***
	<i>White</i>	88,067	57.9%	4,647	55.4%	5.3%***
	<i>Hispanic</i>	45,511	29.9%	1,598	19.0%	3.5%
	<i>Male</i>	75,465	49.6%	5,743	68.4%	7.6%***
	<i>Female</i>	76,604	50.4%	2,642	31.5%	3.4%
2019	<i>White</i>	83,268	54.5%	4,006	51.7%	4.8%
	<i>Black</i>	35,424	23.2%	3,680	47.5%	10.4%***
	<i>White</i>	83,268	54.5%	4,006	51.7%	4.8%***
	<i>Hispanic</i>	47,619	31.2%	1,411	18.2%	3.0%
	<i>Male</i>	75,802	49.6%	5,392	69.5%	7.1%***
	<i>Female</i>	77,016	50.4%	2,360	31.5%	3.1%

Note. Population data obtained from the American Community Survey for the years 2017, 2018, and 2019. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 5.5% of the total population. Percentages of total population were calculated using the total population count listed in the ACS for 2017, 2018, and 2019, which were 151,042, 152,069, and 152,818, respectively. Percentages of total arrest were calculated using the total yearly arrest counts for the same years, which were 8,408, 8,393, and 7,755, respectively. Statistical significance calculated using a 2-proportion, 2-tailed Z test. *** $p < 0.001$

Figure 3.1 Displays citation rate per 100,000 in Kansas City, KS by year



Difference in Proportion of Population Compared to Proportion of Arrest by Group

Table 3.2 compares the proportion of the total citation count for one group to the same group’s proportion of the total population in 2017. White individuals were 59.2% of the total population and 54.7% of the total arrests. This difference was found to be statistically significant, with White individuals being arrested significantly less than would be expected by their proportion of the population ($Z = 6.1, p < 0.001$). Black individuals were 23.2% of the population and 43.8% of arrests. This difference was statistically significant with Black individuals being arrested significantly more than would be expected by their proportion of the population ($Z = -27.5, p < 0.001$). Hispanic individuals were 30.9% of the population and 18.0% of arrests. This difference was statistically significant as Hispanic individuals were arrested less than would be expected by their proportion of the population ($Z = 10.7, p < 0.001$). Males were 41.9% of the population and 69.2% of the arrests, which was a statistically significant difference showing males were arrested significantly more than their proportion of the population ($Z = -29.5, p < 0.001$). Females were 50.2% of the population and 30.5% of arrests, which was a

statistically significant difference showing females were arrested significantly less than their proportion of the population ($Z = 19.6, p < 0.001$). *Figure 3.2* displays this visually.

Table 3.2 Displays statistical significance of difference in population proportion and citation proportion within one group in 2017

<i>Kansas City, KS 2017</i>	<i>White</i>	<i>Black</i>	<i>Hispanic</i>	<i>Male</i>	<i>Female</i>
<i>Population</i>	89,973	35,200	47,007	74,690	76,352
<i>% of Total Population</i>	59.2%	23.2%	30.9%	41.9%	50.2%
<i>Arrest</i>	4,596	3,685	1,515	5,816	2,564
<i>% of Total Arrest</i>	54.7%	43.8%	18%	69.2%	30.5%
<i>P Value</i>	<0.001***	<0.001***	<0.001***	<0.001***	<0.001***

Note. Population data obtained from the 2017 American Community Survey. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 5.5% of the total population. Percentages of total population were calculated using the total population count listed in the ACS of 151,042. Percentages of total arrest were calculated using the total 2017 arrest count of 8,408.
 Statistical significance calculated using a 2-proportion, 2-tailed Z test.
 *** $p < 0.001$

Figure 3.2 Displays difference in population proportion and citation proportion by group in 2017

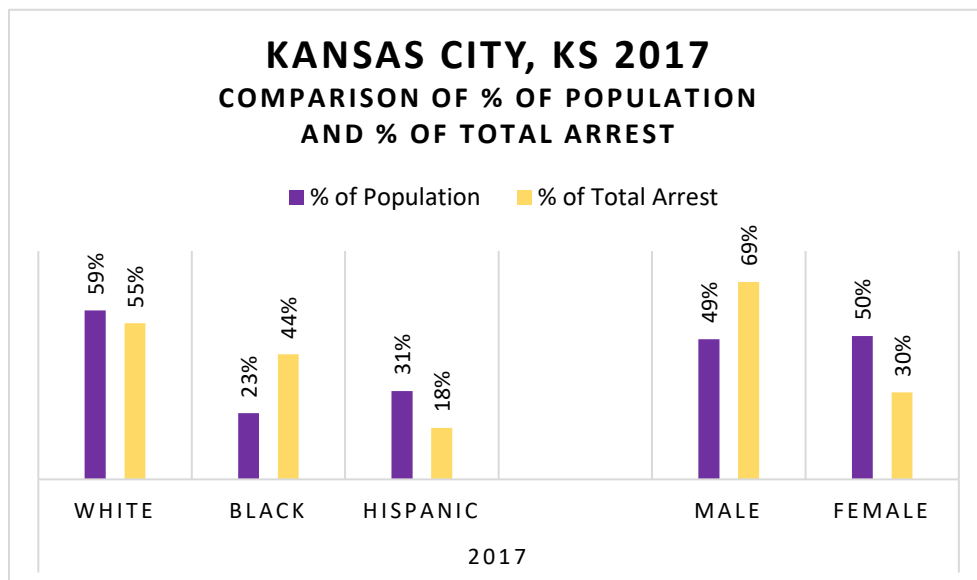


Table 3.3 compares the proportion of the total citation count for one group to the same group's proportion of the total population in 2018. White individuals were 57.9% of the total population and 55.4% of the total arrests. This difference was found to be statistically significant, with White individuals being arrested significantly less than would be expected by their proportion of the population ($Z = 3.4, p < 0.001$). Black individuals were 23.5% of the population and 43.6% of arrests. This difference was statistically significant with Black individuals being arrested significantly more than would be expected by their proportion of the population ($Z = -26.6, p < 0.001$). Hispanic individuals were 29.9% of the population and 19.0% of arrests. This difference was statistically significant as Hispanic individuals were arrested less than would be expected by their proportion of the population ($Z = 9.4, p < 0.001$). Males were 49.6% of the population and 68.4% of the arrests, which was a statistically significant difference showing males were arrested significantly more than their proportion of the population ($Z = -27.5, p < 0.001$). Females were 50.4% of the population and 31.5% of arrests, which was a statistically significant difference showing females were arrested significantly less than their proportion of the population ($Z = 19.1, p < 0.001$). *Figure 3.3* displays this visually.

Table 3.3 Displays statistical significance of difference in population proportion and citation proportion within one group in 2018

Kansas City, KS 2018	<i>White</i>	<i>Black</i>	<i>Hispanic</i>	<i>Male</i>	<i>Female</i>
<i>Population</i>	88,067	35,809	45,511	75,465	76,604
<i>% of Total Population</i>	57.9%	23.5%	29.9%	49.6%	50.4%
<i>Arrest</i>	4,647	3,663	1,598	5,743	2,642
<i>% of Total Arrest</i>	55.4%	43.6%	19.0%	68.4%	31.5%
<i>P Value</i>	0.000619***	<0.001***	<0.001***	<0.001***	<0.001***

Note. Population data obtained from the 2018 American Community Survey. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 5.5% of the total population. Percentages of total population were calculated using the total population count listed in the ACS of 152,069. Percentages of total arrest were calculated using the total 2018 arrest count of 8,393.

Statistical significance calculated using a 2-proportion, 2-tailed Z test.

*** $p < 0.001$

Figure 3.3 Displays difference in population proportion and citation proportion by group in 2018

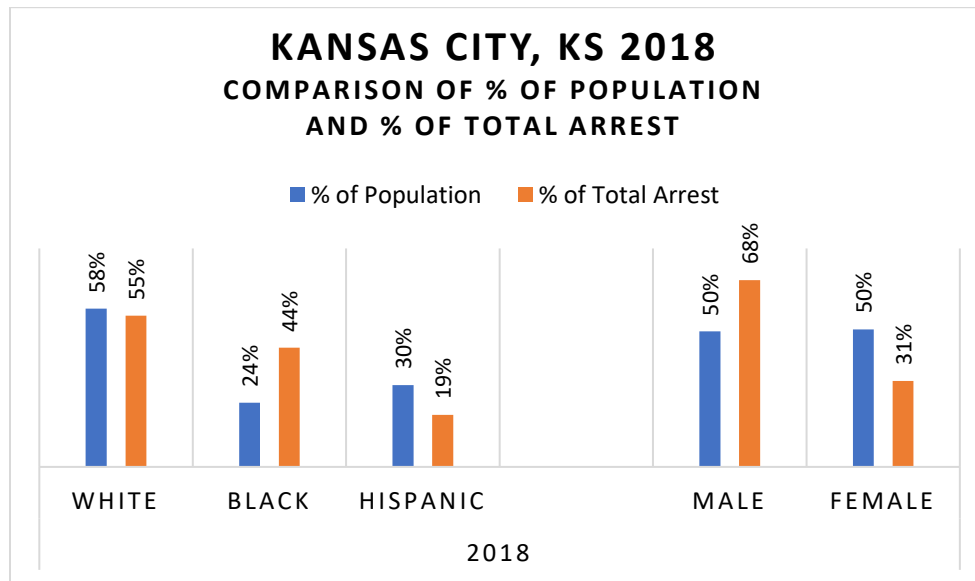


Table 3.4 compares the proportion of the total citation count for one group to the same group's proportion of the total population in 2019. White individuals were 54.5% of the total population and 51.7% of the total arrests. This difference was found to be statistically significant, with White individuals being arrested significantly less than would be expected by their proportion of the population ($Z = 3.5, p < 0.001$). Black individuals were 23.2% of the population and 47.5% of arrests. This difference was statistically significant with Black individuals being arrested significantly more than would be expected by their proportion of the population ($Z = -32.2, p < 0.001$). Hispanic individuals were 31.2% of the population and 18.2% of arrests. This difference was statistically significant as Hispanic individuals were arrested less than would be expected by their proportion of the population ($Z = 10.4, p < 0.001$). Males were 49.6% of the population and 69.5% of the arrests, which was a statistically significant difference showing males were arrested significantly more than their proportion of the population ($Z = -$

28.3, $p < 0.001$). Females were 50.4% of the population and 31.5% of arrests, which was a statistically significant difference showing females were arrested significantly less than their proportion of the population ($Z = 19.1, p < 0.001$). *Figure 3.4* displays this visually.

Table 3.4 Displays statistical significance of difference in population proportion and citation proportion within one group in 2019

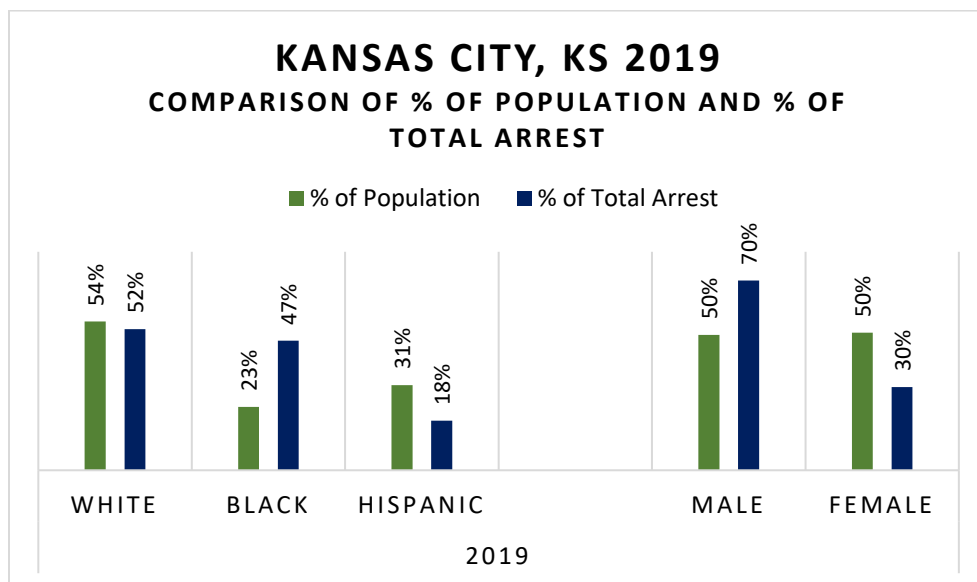
Kansas City, KS 2019	White	Black	Hispanic	Male	Female
Population	83,268	35,424	47,619	75,802	77,016
% of Total Population	54.5%	23.2%	31.2%	49.6%	50.4%
Arrest	4,006	3,680	1,411	5,392	2,360
% of Total Arrest	51.7%	47.5%	18.2%	69.5%	31.5%
P Value	0.000448***	<0.001***	<0.001***	<0.001***	<0.001***

Note. Population data obtained from the 2019 American Community Survey. American Indian, Alaskan Native, Asian, Hawaiian, and Pacific Islander were other groups identified and comprise around 5.5% of the total population. Percentages of total population were calculated using the total population count listed in the ACS of 152,818. Percentages of total arrest were calculated using the total 2019 arrest count of 7,755.

Statistical significance calculated using a 2-proportion, 2-tailed Z test.

*** $p < 0.001$

Figure 3.4 Displays difference in population proportion and citation proportion by group in 2019



Conclusion

Strengths and Limitations

This study has several strengths. The data analyzed is primary data, ensuring its objectivity, authenticity, and being the most up-to-date available. This data also comes directly from the population being studied, so the outcomes of the study are highly generalizable to Wyandotte County. Furthermore, there is little to no published information on the population being studied which makes this study highly valuable to the area as it fills a gap in the literature and provides a robust analysis of an understudied area. Midwest populations in general are understudied and as such it is difficult to understand them, so adding research to the area is important. Another area of literature that is lacking and is supplemented by this study is the differences among genders. Most studies focus on sex crimes or Black males, whereas this study discusses males and females unattached to race and is specific to contact with the criminal justice system through citations and arrests, not sex crimes.

There are also several limitations to this study. Longitudinal data is available but not longitudinal outcomes – the causes behind the citations and arrests in question, if there was any further contact with the criminal justice system, and the ultimate health outcomes of these individuals are all unknowns, so conclusions to be made are limited. There are also inconsistencies in and limits to the data as mentioned throughout the study. Gender data was not available from Bonner Springs, so the same conclusions made from Edwardsville and Kansas City, KS may not be fully applicable there. Obtaining the data was difficult due to the limits of the Edwardsville and Bonner Springs municipal courts and Kansas City, KS police department, so the timeframes analyzed are vastly different between cities (for more information regarding these difficulties, see Appendix). Kansas City, KS only had three usable years and Edwardsville

and Bonner Springs had many years available, but only as a combined count, so it was not possible to see how citation rates changed over the years. Kansas City, KS also did not have any demographic data for citations so arrests had to be used, so the data between the three cities could not fully standardized. The conclusions made in this study are not affected by these inconsistencies as only general trends were identified, which were well within the limits of the data. Finally, the results of this study are not generalizable to the entire United States population as it only samples from Wyandotte County, KS.

Discussion

The purpose of this study was to understand the relationship between race or gender and citation or arrests in Wyandotte County, KS. The results of this study were expected to reflect that minority groups and men in this area were at greater risk for citations and arrests than White individuals. For the most part, this hypothesis was supported and the null was rejected as significant differences were found in nearly every comparison. Results found were consistent with existing literature, which largely agrees that Black individuals and males are disproportionately involved with the criminal justice system at any level. In all three of Wyandotte County's cities, Black individuals were cited or arrested significantly more than White individuals and males were cited or arrested significantly more than females. Gender citation data were not available in Bonner Springs but based on the results of the surrounding areas it seems likely it would have followed a similar pattern. Causation is unclear based on the results of this study alone, but what was found can be applied to the outcomes of similar studies and certainly indicates a need for further investigation into Wyandotte County.

Despite limited literature on gender disparities, results found in this study support results from existing literature. In both Edwardsville and Kansas City, KS, despite males being roughly

half the population, they were consistently around 70% of citations or arrests, a significant difference between both males and females and the proportion of the population males hold and their proportion of citations or arrests.

Interestingly, the observed difference between White and Hispanic citation and arrest rates and the difference between the proportion of Hispanic citations and arrests and the Hispanic population do not support what was hypothesized based on existing literature, but these differences also do not fully support the null hypothesis. Hispanic individuals were found to be cited or arrested at significantly lower rates than White individuals in all three cities and at a rate significantly lower than their proportion of the population in Edwardsville and Kansas City and at a rate with no significant difference in Bonner Springs. Why this occurred is unclear. A more detailed search into previous studies found that results relating to the Hispanic population tend to be mixed, with one reporting that Hispanic youth were nearly twice as likely to have entered the criminal justice system than other demographic groups (Vazsonyi & Chen, 2010) and some others reporting results similar to what was found here, where Hispanic individuals did not experience significantly greater risk of contact with the criminal justice system than other racial groups (Gase et al., 2016; Tapia, 2010; Anderson, 2015; Huizinga et al., 2007).

Implications

Many studies refer to the theories of differential selection and differential involvement as potential explanations for the trends observed. Differential selection theory would explain these results as being due to law enforcement patrolling areas that are predominantly Black and would indicate that it is the responsibility of institutions (i.e. police departments and other branches of the criminal justice system) to solve the disparity, as it is possibly due to racial bias and/or a flawed justice system. Differential involvement theory would explain this as individuals

associated with the disparity are more likely to behave in the way that warrants a citation or arrest, and would indicate that it is the responsibility of the community to solve the disparity (Schleiden et al., 2020). Depending on which theory one decides is applicable, potential solutions could be very different. The overarching consensus among researchers is that there is not a significant difference between engaging in criminal activity between racial groups, but Black individuals are still arrested at rates significantly greater than White individuals (Schleiden et al., 2020; Gase et al., 2016; Huizinga et al., 2007). The consistency of this conclusion throughout the years seems to disprove the differential involvement theory, but due to the lack of data on what the citations or arrests in this study were due to, it cannot be discredited in this instance with any certainty. Despite many studies denouncing the differential involvement theory, few, if any, have embraced the differential selection theory. Racial bias in the police force is difficult to prove and as such most conclude that more research is necessary. While the consistent result that minorities are overrepresented in the criminal justice system would be expected if it is known that racial bias is present, those results alone cannot be the rationale for concluding racial bias is present (Huizinga et al., 2007). However, it does seem likely that these results signify a flawed justice system, at the very least, especially when reviewing results in the context of the ecosocial theory, as results found in this study support what would be expected through that theory.

Other researchers, albeit on a smaller scale, argue that neither the differential selection or differential involvement theories fully explain these disparities, rather predicting racial disparities depend far more on environmental and social factors, and given the lack of agreement on the differential selection/differential involvement debate, this idea is deserving of attention. One study analyzed neighborhood and family factors of youth in Chicago and found that

socioeconomic status, parental marital status, and residing in impoverished neighborhoods all increased the likelihood of arrest (Kirk, 2008). Another study explored how environmental and social factors influenced how race and ethnicity affected the likelihood of youth becoming involved in the criminal justice system and noted similar outcomes (Anderson, 2015). Both studies necessitate the need for further research but raise interesting points that suggest it may be worthwhile to comprehensively evaluate the neighborhood conditions of Wyandotte County where these disparities are most pronounced and compare conditions of areas that are not experiencing these disparities. What from the areas experiencing less inequality can be brought to the others? An interesting area to begin may be between Bonner Springs and Edwardsville as they are similar in population size and demographic proportions. Despite Bonner Springs experiencing the same troubling differences between races as Edwardsville, when comparing a group's proportion of citations to its proportion of the population, Bonner Springs does not show significant differences in the White population or the Black population, meaning the proportion of citations for each group was close to what would be expected based on their population. Only the Hispanic population had a significant difference, and it was potentially a desirable one, as they were cited at a rate significantly less than would be expected.

Regarding gender disparities, the literature has a few theories as to why this occurs. Starr (2012) suggests that the crimes between males and females may be fundamentally different in an unobservable way, i.e. males commit crimes with greater force, something not reflected in an arrest record but may result in a harsher sentence. Another suggestion is that in group offenses, females may be viewed as accessories and subsequently less of a threat or at fault, something supported by gender differences being larger in group offense cases. Similarly, judges and prosecutors may worry more about incarcerating mothers because it could have a negative effect

on their children. Other theories presented with these culminate into the idea that females are more sympathetic and less violent than males, which does not justify the gender gap but does help to explain it (Starr, 2012). The argument for reducing this gap should not be to become stricter with females, but to question why the system is so strict with males, and ultimately how to solve it. The negative health outcomes associated with contact with the criminal justice system affect males as it affects minorities and ought to be addressed. Intervention is necessary to narrow the gender gap.

The causes behind the Hispanic population's unexpected outcome are unclear and likely depend heavily on the location being studied. One study suggested the lack of differences may be due to a potential protective factor of being a recent immigrant (Kirk, 2008). This data used in this study did not identify immigrant status, but Wyandotte County has a relatively high concentration of Hispanic immigrants which could offer some insight into the results seen in this study. Between Edwardsville, Bonner Springs, and Kansas City, KS, there were approximately 30,420 individuals, or 18.4% of the total population, born outside of the United States and of these, 78.9% were not U.S. citizens (U.S. Census Bureau, 2019; United States Census Bureau, 2018b; United States Census Bureau, 2018a). These statistics are compared with the U.S., of which 13.3% of the entire 2018 population is foreign-born, and of those, 51.2% are not U.S. citizens (United States Census Bureau, 2018c). Another explanation for this observation could be incorrect identification of an individual's ethnicity. If the police officer recording race and ethnicity data on the citation or arrest report did not specifically ask the individual, there is a possibility they relied on visual cues such as skin tone and mistakenly identified them as a different race or ethnicity (Tapia, 2010). Ultimately, these explanations do not fully describe the results found in the Hispanic population and further research is necessary for any conclusions to

be made. Future questions to ask might be why immigration status seems to be protective for Hispanic individuals, why some geographic areas show Hispanic individuals to be at higher risk of contact with the criminal justice system but others do not, and what initiatives could ensure more accurate recording of race and ethnicity on records such as these.

More research (such as previously suggested questions) is recommended as definitive evidence of what causes this is necessary for useful interventions. Exploring environmental and social factors as causation rather than differential involvement/differential selection is better supported by ecosocial theory, the guiding framework for this study. Moreover, the theory combined with the evidence supports that the U.S. criminal justice system is flawed and is set up (whether intentionally or not) in such a way that allows various demographic groups to be impacted differently, causing inequality from the citation level to the incarceration level. The data in this study gives a limited look into the system in Wyandotte County, but as noted, the presence of disparities this large at the citation and arrest level suggests larger differences in outcomes later. Black individuals and males are at high-risk in Wyandotte County and despite not all the causes being identifiable, strategies to address this issue are necessary now. It is clear that the implications of not intervening at the citation and arrest level are dangerous for health outcomes of those in Wyandotte County and a more equitable environment is desperately needed – as outlined in the ecosocial theory, everyone is accountable for ensuring equity.

Acknowledgements

I would like to acknowledge those who played a role in my academic accomplishments.

I am extremely grateful for my professor, Dr. Joseph Lightner, who guided me throughout this project, was a continuous source of motivation, and helped me recognize my strengths.

My sincere thanks to Ricardo Ortiz at the Community Health Council of Wyandotte County, who served as another source of guidance with frequent meetings, help with research, and knowledge about the community I studied – as well as frequent mental breaks to discuss movies and games.

My thanks to Amanda Mason at the Jackson County Health Department, who took the time to meet with me and helped me narrow down the topic for this project when I was torn between more than three potential ideas.

Special thanks to the Bonner Springs Municipal Court, the Edwardsville Municipal Court, and the Kansas City, KS Police Department, who provided the data that made this project possible.

Lastly, I am grateful for my husband, friends, and family, who listened to me talk endlessly about my results and rarely seemed bored.

References

- Bernard, K. (2020). Wyandotte County DA is left out of law enforcement task force seeking 'objective' view. Retrieved from <https://www.kansascity.com/news/politics-government/article243456366.html>
- Cuillier, D. (2017). Forecasting Freedom of Information. *Knight Foundation*.
- Duarte, C. D., Salas-Hernández, L., & Griffin, J. S. (2020). Policy Determinants of Inequitable Exposure to the Criminal Legal System and Their Health Consequences Among Young People. *American Journal of Public Health, 110*(S1). doi:10.2105/ajph.2019.305440
- Fielding-Miller, R., Cooper, H., Caslin, S., & Raj, A. (2018). The Interaction of Race and Gender as a Significant Driver of Racial Arrest Disparities for African American Men. *Journal of Urban Health, 97*, 112-122. doi:10.1007/s11524-018-00325-1
- Fortino, J. (2020). Wyandotte County's History of Police Abuses May Complicate Officials' Efforts For 'Positive Change'. Retrieved from <https://www.kcur.org/news/2020-06-08/wyandotte-countys-history-of-police-abuses-may-complicate-officials-efforts-for-positive-change>
- Gase, L. N., Glenn, B. A., Gomez, L. M., Kuo, T., Inkelas, M., & Ponce, N. A. (2016). Understanding Racial and Ethnic Disparities in Arrest: The Role of Individual, Home, School, and Community Characteristics. *Race and Social Problems, 8*(4), 296-312. doi:10.1007/s12552-016-9183-8
- Huizinga, D., Thornberry, T., Knight, K., Lovegrove, P., Loeber, R., Hill, K., & Farrington, D. (2007). *Disproportionate Minority Contact in the Juvenile Justice System: A Study of Differential Minority Arrest/Referral to Court in Three Cities* (Rep. No. 219743). Retrieved <https://www.ncjrs.gov/pdffiles1/ojjdp/grants/219743.pdf>

Kirk, D. S. (2008). The Neighborhood Context of Racial and Ethnic Disparities in Arrest.

Demography, 45(1), 55-77. doi:10.1353/dem.2008.0011

Krieger, N. (1994). Epidemiology and the web of causation: Has anyone seen the spider? *Social*

Science & Medicine, 39(7), 887-903. doi:10.1016/0277-9536(94)90202-x

Krieger, N. (2005). Embodiment: A conceptual glossary for epidemiology. *Journal of*

Epidemiology and Community Health, 59, 350-355. doi:10.1136/jech.2004.024562

Krieger, N. (2012). Methods for the Scientific Study of Discrimination and Health: An Ecosocial

Approach. *American Journal of Public Health*, 102(5), 936-944.

doi:10.2105/ajph.2011.300544

Krieger, N. (2020). Measures of Racism, Sexism, Heterosexism, and Gender Binarism for Health

Equity Research: From Structural Injustice to Embodied Harm—An Ecosocial Analysis.

Annual Review Public Health, 41, 37-62. doi:10.1146/annurev-publhealth-040119-094017

McCarter, S. A. (2018). Racial Disparities in the Criminal Justice System. *Encyclopedia of*

Social Work. doi:10.1093/acrefore/9780199975839.013.1289

Mineo, L. (2015). Background on Black Lives Matter. Retrieved from

<https://news.harvard.edu/gazette/story/2015/11/background-on-black-lives-matter/>

Pettit, B., & Gutierrez, C. (2018). Mass Incarceration and Racial Inequality. *American Journal of*

Economics and Sociology, 77(3-4), 1153-1182. doi:10.1111/ajes.12241

Pierson, E., Simoiu, C., Overgoor, J., Corbett-Davies, S., Jenson, D., Shoemaker, A., . . . Goel, S.

(2020). A large-scale analysis of racial disparities in police stops across the United States.

Nature Human Behaviour, 4(7), 736-745. doi:10.1038/s41562-020-0858-1

- Schleiden, C., Soloski, K., Milstead, K., & Rhynehart, A. (2020). Racial Disparities in Arrests: A Race Specific Model Explaining Arrest Rates Across Black and White Young Adults. *Child and Adolescent Social Work Journal, 37*.
- Solly, M. (2020). 158 Resources to Understand Racism in America. *Smithsonian Magazine*.
- Stanford Open Policing Project. (n.d.). Findings. Retrieved September 13, 2020, from <https://openpolicing.stanford.edu/findings/>
- Starr, S. (2012). *Estimating Gender Disparities in Federal Criminal Cases* (Rep. No. 12-018). University of Michigan Law and Economics. doi:10.2139/ssrn.2144002
- Stotzer, R. L. (2014). Law enforcement and criminal justice personnel interactions with transgender people in the United States: A literature review. *Aggression and Violent Behavior, 19*(3), 263-277. doi:10.1016/j.avb.2014.04.012
- Tapia, M. (2010). Untangling race and class effects on juvenile arrests. *Journal of Criminal Justice, 38*(3), 255-265. doi:10.1016/j.jcrimjus.2010.03.002
- U.S. Census Bureau. (2018a). *ACS 5-Year Estimates Data: Edwardsville, KS* [Data file]. Retrieved from <https://data.census.gov/cedsci/table?q=edwardsville,%20ks&tid=ACSDP5Y2018.DP05&hidePreview=false>
- U.S. Census Bureau. (2018b). *ACS 5-Year Estimates Data: Bonner Springs, KS* [Data file]. Retrieved from <https://data.census.gov/cedsci/table?q=Bonner%20Springs,%20ks&tid=ACSDP5Y2018.DP05&hidePreview=false>
- U.S. Census Bureau. (2018b). *ACS 5-Year Estimates Data: United States* [Data file]. Retrieved from <https://data.census.gov/cedsci/table?q=united%20states&tid=ACSDP5Y2018.DP05&hidePreview=false>

U.S. Census Bureau. (2019). *ACS 5-Year Estimates Data: Kansas City, KS* [Data file].

Retrieved from <https://data.census.gov/cedsci/table?q=kansas%20city,%20ks&tid=ACSDP5Y2018.DP05&hidePreview=false>

Vazsonyi, A. T., & Chen, P. (2010). Entry risk into the juvenile justice system: African American, American Indian, Asian American, European American, and Hispanic children and adolescents. *Journal of Child Psychology and Psychiatry*, *51*(6), 668-678.
doi:10.1111/j.1469-7610.2010.02231.x

Appendix

Difficulties Obtaining Data

The Wyandotte County data analyzed in this paper is considered part of the public record, meaning it is not confidential and is accessible to the general public, though in this case it did require official data requests to the relevant police departments and municipal courts. This process was an eye-opening experience. Something that ought to be a simple, streamlined process turned into a weeks-long endeavor to obtain any data pertinent to this analysis. Obstacle after obstacle presented itself: lack of response to my requests for information, cost associated with receiving the data, and the lack of ability to run reports on what I was asking for.

I began my search on August 25th, 2020 by reaching out to the prosecutor's office in Wyandotte County as I was not sure where this information was stored. From there I was directed to the Kansas City clerk's office which instructed me to submit a data request in the online portal and to assign it to the WYCOCK municipal court. I completed this initial request on September 1st, asking for 39 years of citation data. The municipal court for the Unified Government of Wyandotte County and Kansas City, KS told me 10 days after my official request was submitted that due to a severe staff shortage, they could not run a report on demographic information for citations issued for any length of time – whether the 39 years I requested or a single year. They offered two solutions: I could pay for the staff's overtime or pay for the wages of a temporary employee to go through and create a spreadsheet on the data I requested, but there was no way to estimate how long it would take to compile this data. I decided to change my request to be simpler in the hopes of finding a report that already exists, submitting a request for any data pertinent to my topic for any timeframe that could be fulfilled.

A few days after this change in my request, I was told that there was no demographic data whatsoever at the municipal court for citations given, and that I should try requesting directly from the Kansas City, KS police department. I sent in a new request, spoke to someone on the phone, and was given a delivery date of September 24th. The morning of the delivery date I received an email: my delivery date was being rescheduled to October 1st. When this date arrived, it was again rescheduled, this time to October 12th. I waited a few days before calling the records office at the police department and leaving a message offering more clarification into my request. I was called back later in the day and told there was no demographic data on citations or traffic stops, but there was for arrests and that she could have the report run and sent to me once I paid around thirty dollars in the online portal. I received the data that day and was able to give it an initial look through. It was not as long of a timeframe as I wanted, being only from April 2016 through September 2020, but it was usable. However, 2018 and 2019 only had data for the month of January, so my next task was to call the police department again to inquire after the missing data. This resulted in some back and forth for several days, but the mistake was found and rectified. Data prior to April 2016 was no longer accessible due to a change in the records system utilized by the police department – only data after this switch was available. Regardless, I officially had complete Kansas City data on October 21st, 2020, nearly two full months after I first made contact.

These issues presented themselves in a system that appears to be modernized: an online portal, a simple form to fill out, communications with those fulfilling the request directly on the website. I had to request data from two other cities to cover Wyandotte County: Bonner Springs, KS and Edwardsville, KS. I reached out to multiple people in both places trying to get a response and heard nothing for three weeks. Once someone was in contact with me, though, it was a

surprisingly quick process despite being the exact opposite of the system with the Kansas City, KS portal. Bonner Springs had me fill out a form and email it, then mail a check for thirty dollars – they did not have the capability to accept online forms of payment yet. On September 16th, Bonner Springs received my check and the data was sent to me the same day. Edwardsville required a written request to be mailed in, and similarly the day they received my letter, September 18th, they emailed me the data, no payment required. There were limitations with these requests as well, despite being a much easier process. The first was that online payment systems have gained a lot of popularity over the last decade, so having supplies for physical mail and checks is becoming less frequent. The second is the long wait time for someone to respond to my attempted contact – over three weeks for both cities. Lastly, for Bonner Springs and Edwardsville, the data only went back to the year 2000 and 2008, respectively. It also only included counts of citations given for each demographic group and could not be separated by year.

These obstacles highlighted issues that many others who have spent time requesting data have run into. The Stanford Open Policing Project noted while requesting traffic stop demographic data from each U.S. state that some states do not collect any demographic information on individuals stopped. If states do collect it, it is difficult to standardize the data because of differences in collection, tracking, and processing between states (Stanford Open Policing Project, n.d.). There was also the issue of several jurisdictions not responding to repeated requests (Pierson et al., 2020). This creates a significant barrier. Having difficulty obtaining or being unable to obtain data may prevent researchers from identifying problems and solutions to issues. The Knight Foundation noticed the rising trend in this difficulty and commissioned a study that surveyed 336 individuals who regularly deal with data requests,

ranging from journalists to researchers to scholars. While not representative of all who request data, it does provide some worrying insight into the same issue I experienced. The survey indicated the biggest issue with data requests are the delays: most agreed that it takes far too long to receive what is requested, something highlighted by my experience of waiting two months for Kansas City data that was ultimately pulled and sent in a single day. Other issues noted were fees being too expensive, requests being ignored, and chunks of data being missing (Cuillier, 2017). The total amount I paid, around sixty dollars, was not exorbitant, but if I were requesting a larger data report it is easy to see how that amount could grow very quickly. These issues highlight a need for improved data request systems so that researchers – and the departments keeping the records themselves – can identify problems more easily and find solutions.