



# Examining Jail Data

*In Hamilton County, Tennessee*

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# Introduction

In the United States, someone is arrested every three seconds (1). This adds up to approximately 10.5 million arrests annually. Violent offenses, as categorized by the FBI, account for less than five percent of arrests, while more severe property offenses (such as arson, burglary, and motor vehicle theft) make up another 15%. But across the country, the remaining 80% of arrests are made for low-level offenses such as drug possession, disorderly conduct, and traffic or vehicle violations.

This data comes from research conducted by VERA Institute for Justice, and is based on the national FBI Uniform Crime Report database that collects data from over 18,000 police departments in the US. However, submitting data to UCR is voluntary for law enforcement agencies; In 2018, 72.51% of Tennessee agencies provided their data, but that number drops to 66.67% when looking at Hamilton County specifically.

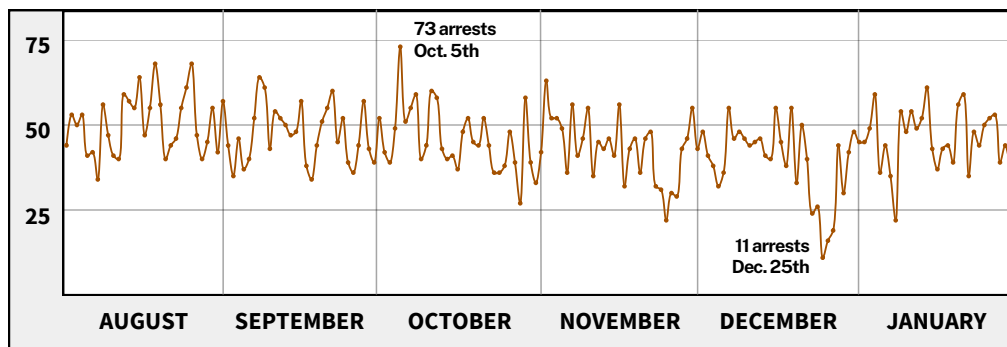
Jail and arrest data that's made public by law enforcement agencies themselves can often provide a more complete local picture. But in Hamilton County, that data is not available in an easily understandable format. So in August of 2022, I began collecting data from the Sheriff's Department website and Chattanooga court documents, in an effort to obtain a large sample that could be analyzed. After a complex data cleaning process, I've compiled some of the results in this report.

Organizations like VERA have shown that transparency in jail and arrest data can be a valuable tool to drive policy change, new policing practices, and local reform efforts. With this report, I aim to provide an accessible and understandable tool for the average person to see who is being arrested, why arrests are being made, and what the impact of those arrests is on people in our community.

# The Numbers

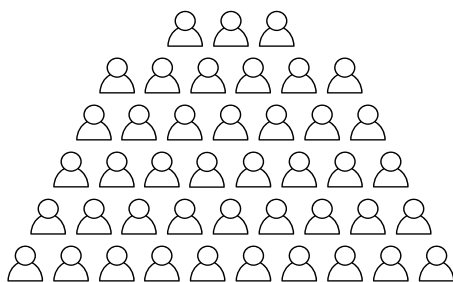
According to 2018 data from VERA Institute of Justice’s “Arrest Trends” tool (2), the average rate of arrests in metropolitan counties was 2,806 arrests per 100,000 residents. Hamilton County’s rate, however, was almost double that - 5,444 arrests per 100,000 residents.

When compared to Tennessee counties similar in size, Hamilton County came in below Davidson County (6,740 per 100,000), but had a higher rate than Knox County (4,189 per 100,000) and Shelby County (4,572 per 100,000). All the counties surrounding Hamilton had a lower rate except for two, Marion County (6,503 per 100,000) and Bradley County (7,616 per 100,000).



**Number of Daily Arrests**  
8/2/2022 through 1/31/2023

For a deeper look into arrest trends over time, we can use HCSO booking data. The above chart shows the number of arrests that occurred each day over a six month period. There is no sharp increase or decrease over time, and the daily number varies from 11 to 73 (noted on the chart). Some research (3) has found that arrests tend to spike in the summer months, so a review of the data once a full year has been collected may reveal new trends or insights.



On average,  
**43 people** are booked every day

**8,295** over six months (2022-23)

**19,882** over one year (2018)



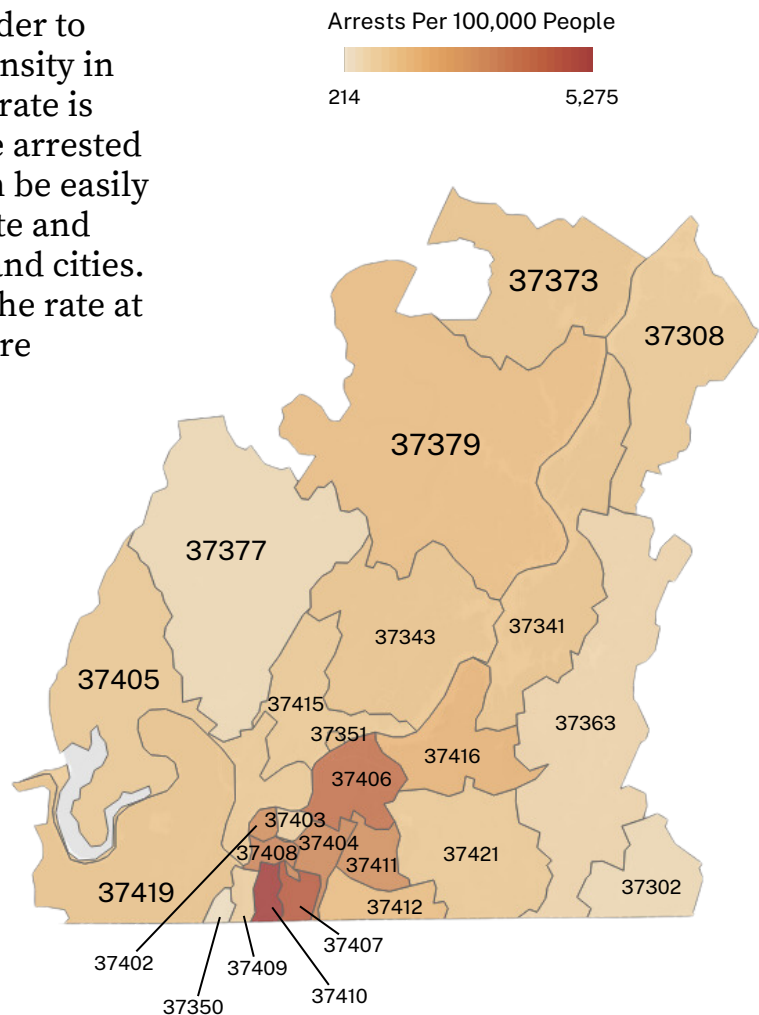
# The People

Demographic information about individuals who are arrested, such as race, gender, or income level is not included in the booking records from the Sheriff's Department, leaving the general public unable to directly access the data that could highlight policing disparities among communities. I attempted to fill this gap by using US census data to analyze the home ZIP code provided by each person during the booking process. This method allows us to look at how likely residents of each area are to face arrest, and find any correlation between arrests and community demographics.

First, I calculated arrest rates for each ZIP code in Hamilton County in order to control for different population density in different areas of the county. This rate is expressed as the number of people arrested per 100,000 residents, so that it can be easily compared to the county's arrest rate and VERA research on other counties and cities. The heat map on this page shows the rate at which residents of each ZIP code are arrested.

Even when controlling for population, there is a large gap between areas with the highest arrest rates and those with the lowest arrest rates. On the following pages is a comparison of the three highest and three lowest rates, alongside statistical and demographic information from the US Census Bureau (4).

**Note:** ZIP code data indicates where arrestees live, not where arrests occurred.



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# Highest Rate of Arrests

This map shows the three areas with the highest arrest rates, meaning that people who live in these ZIP codes (all within Chattanooga city limits) are statistically the most likely to be targeted with arrest. Listed below are the ZIP codes and several points of comparison.

## 37410

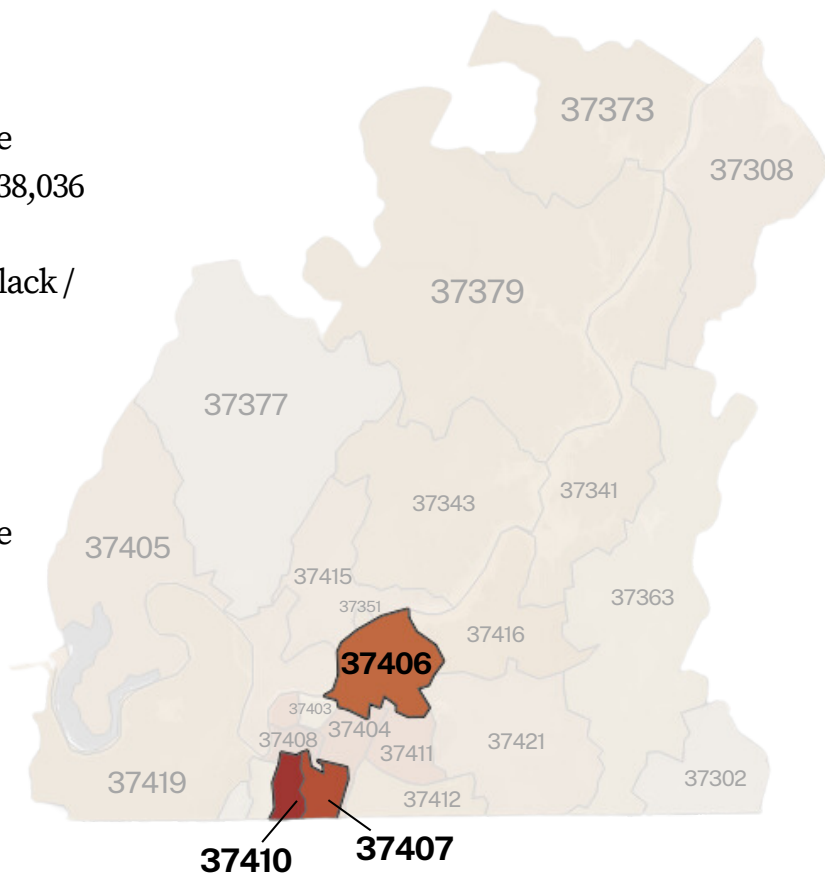
- 205 arrests over six months
- 10,551 arrests per 100,000 people
- Average Household Income: \$36,114
- Poverty Rate: 33.50%
- Racial Demographics: 81.4% Black / 9.4% White / 9.2% Other

## 37407

- 388 arrests over six months
- 8,688 arrests per 100,000 people
- Average Household Income: \$38,036
- Poverty Rate: 40.70%
- Racial Demographics: 75.5% Black / 19.6% White / 4.9% Other

## 37406

- 548 arrests over six months
- 7,493 arrests per 100,000 people
- Average Household Income: \$41,492
- Poverty Rate: 32.10%
- Racial Demographics: 46.6% White / 32.4% Black / 21.1% Other



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# Lowest Rate of Arrests

This map shows the three areas with the lowest arrest rates, meaning that people who live in these ZIP codes (all outside of Chattanooga city limits) are statistically the least likely to be targeted with arrest. Listed below are the ZIP codes and several points of comparison.

## 37350

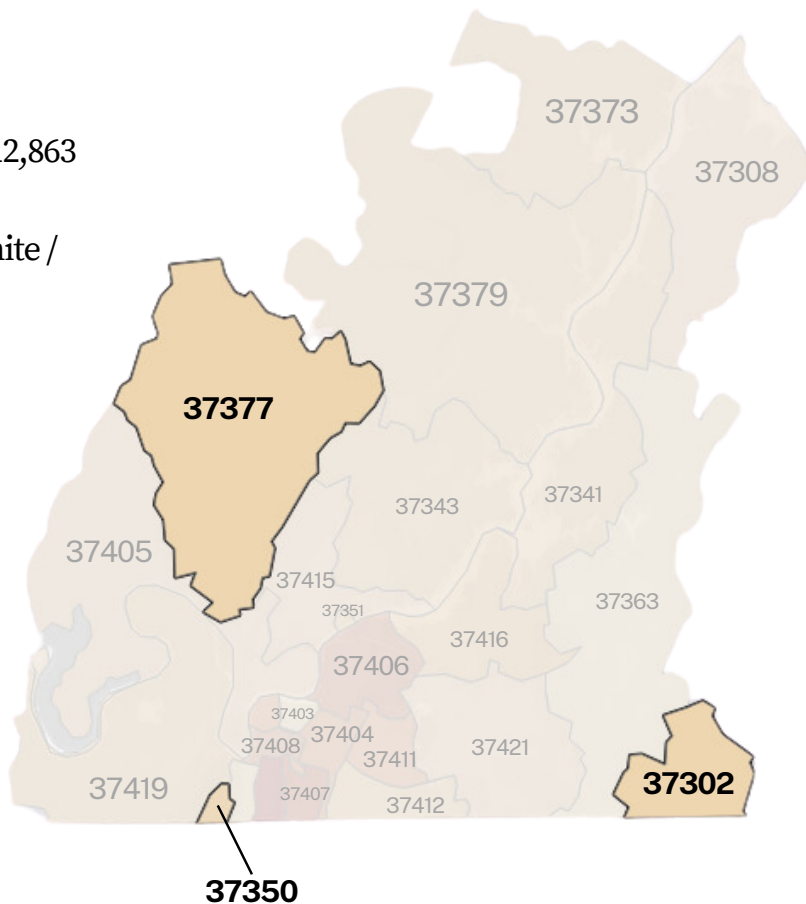
- 4 arrests over six months
- 429 arrests per 100,000 people
- Average Household Income: \$251,929
- Poverty Rate: 2.90%
- Racial Demographics: 96.3% White / 2.5% Other / 1.20% Black

## 37302

- 19 arrests over six months
- 1,019 arrests per 100,000 people
- Average Household Income: \$112,863
- Poverty Rate: 14.00%
- Racial Demographics: 86.1% White / 10.4% Other / 3.5% Black

## 37377

- 81 arrests over six months
- 1,058 arrests per 100,000 people
- Average Household Income: \$150,472
- Poverty Rate: 5.40%
- Racial Demographics: 95.10% White / 4.30% Other / 0.60% Black

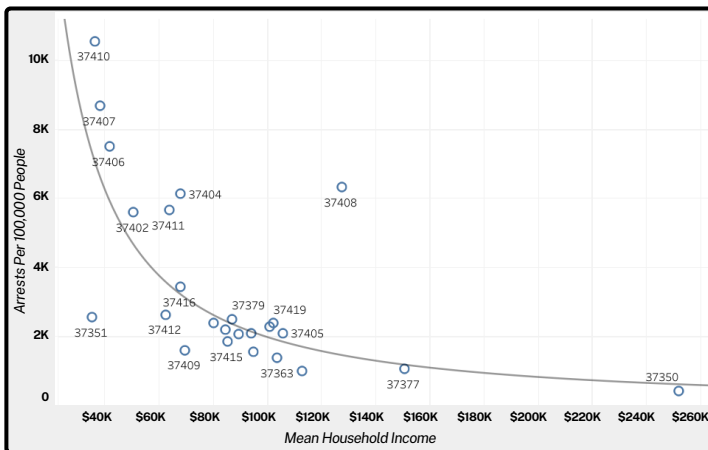


# Demographics

The comparisons above appear to show that lower-income, majority non-white areas face higher arrest rates. This is consistent with research showing that Black people are more than five times as likely to be arrested as white people for the same charge (5), and an analysis by the Prison Policy Initiative that found that before being imprisoned, incarcerated people's incomes were 40%-52% lower on average than those who were not incarcerated (6). To see just how much these factors were correlated in the arrest data I

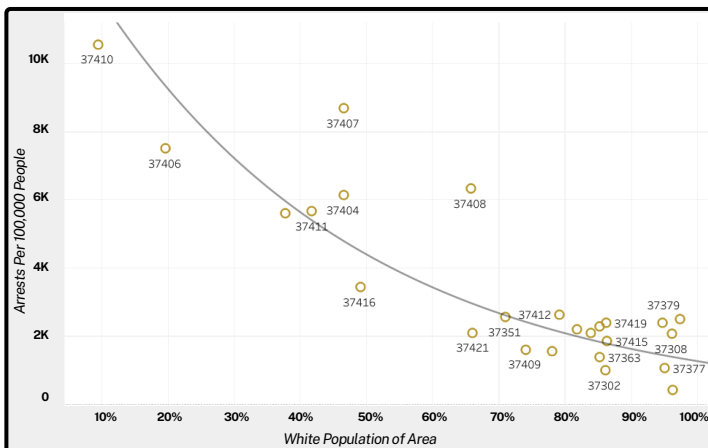
had collected, I created the scatter plots on this page. The first compares arrest rates and average household incomes, and the second compares arrest rates and white/non-white population percentages.

## Arrest Rates and Average Household Income



The income level analysis shows a strong correlation between lower incomes and higher arrest rates. The only three ZIP codes with over 7,000 arrests per 100,000 residents all had an average household income of less than \$50,000 a year.

## Arrest Rates and Population Demographics



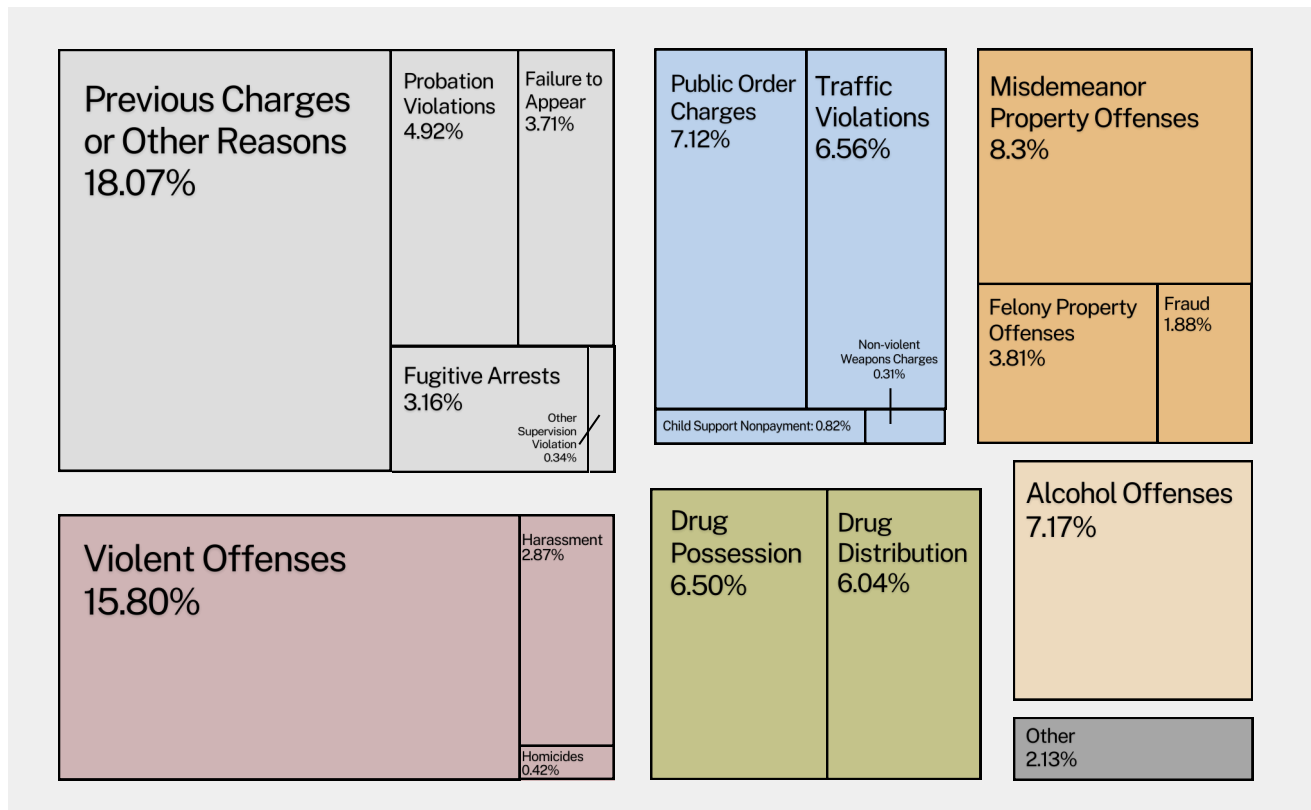
The analysis of racial demographics paints an even starker picture. With only one exception, ZIP codes that were over 50% white had less than 3,000 arrests per 100,000 residents, while every ZIP code that was less than 50% white had more than 3,000 arrests per 100,000 residents.

These results exclude anyone who did not list a valid address when booked (7). In our sample, 697 arrestees, or 8.4% , were listed as homeless by booking staff, or they gave a hotel, shelter, or homeless service provider as their address. 14.9% of those arrested gave a commercial or invalid address, and an additional 0.5% had no address listed.



# The Charges

The final step in examining the arrest data was finding the reasons that people were arrested over the six month sample. I identified the primary charge for each arrest as the charge with the highest classification and grouped those charges into broader categories.



The largest category was arrests related to previous charges, which made up over thirty percent of the total sample. This is mainly due to one group of booking records, almost a fifth of the total, that did not provide a specific charge, and instead listing “Booked for Previous Charges or Other Reasons” with no other details.

Misdemeanor property crime was the largest portion of the property crime category. Drug-related charges were the reason for 12.54% of all arrests, with half being for possession only. Violent charges and harassment, a category that includes misdemeanor and felony charges, made up under twenty percent overall. Alcohol-related offenses, mainly DUI charges, made up seven percent. Low-level public order charges, including public intoxication and disorderly conduct, account for 15%, with half being traffic violations alone.

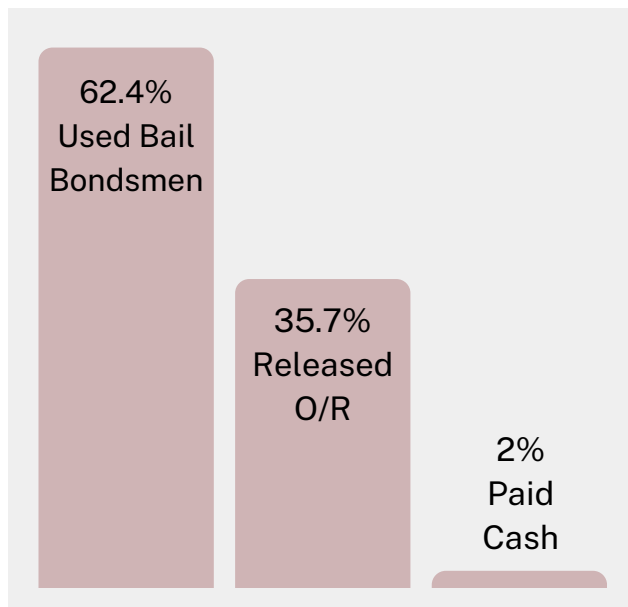
**Overall, one third of arrests were made for non-violent misdemeanors alone.**

# Cash Bail

After being booked into Silverdale, arrested individuals enter the pretrial stage. Magistrates decide the conditions of release, and in most cases they will either release the defendant on their own recognizance, or set a cash bail amount that must be paid before the defendant can be released.

I was interested in identifying trends in cash bail across the county, but unfortunately, there is no accurate data available on the county level. The Sheriff's Office inmate roster does display a bond amount, but it is incorrect so regularly that any analysis would be unreliable. So instead, I collected a sample of cases from the Chattanooga Sessions Court website that included information for 4,000 defendants that had been released on recognizance or after paying a cash bond.

## Types of Pretrial Release



According to this data, a little over one third of those released are given unsecured bonds, and almost all of those given a cash bond paid a bondsman to be released. Just two percent of people paid the full cash amount, and analyzing the information about cash bond amounts provides one potential reason. In this sample of cases, the average cash bond amount set for a person after their arrest was a staggering \$7,868, made even more excessive given the fact that over 75% of the charges analyzed were misdemeanors. Additional data shows that **the average cash bond amount rose 11% from 2020 to 2022.**

These high bail amounts cause serious harm to people in jail, their families, and their communities, but they are lining the pockets of bail bondsmen. The cases in our sample generated an estimated two million dollars in fees for bonding companies in 2022 alone, and just three companies - Key Bonding, Platinum Bonding, and All Star Bonding - collected 56% of the money.

# The Impact

The last results that I produced came from the Jail Data Initiative collection of inmate roster records from March 15th, 2020 through October 25th, 2022. Using this data, they were able to determine the number of inmates in Silverdale each day, and the length of time spent in jail by each inmate.

## Average Time In Custody



84% of Silverdale inmates in February 2023 were there pretrial, according to statistics published by the Sheriff's Department (8), and this percentage has been rising for the past two years. But despite this, the average length of stay has gone up each year for which we have data, from 10 days in 2020, to 17 in 2021, to 21 days in 2022.

There was a seven day increase from '20 to '21, which could have been a result of COVID prevention efforts that saw many more people released on recognizance, as well as a four day increase from '21 to '22, the year that the Sheriff's Department took over management of Silverdale and closed the Walnut Street jail.

This extended detention of hundreds of people each month is costly; the county (and by extension, Hamilton County taxpayers) spends \$75.93 per day on each person held in Silverdale (9). To determine how much money is spent on holding pretrial inmates alone, I used JDI's daily population counts and the Tennessee Department of Corrections jail population reports. The amount I calculated was staggering.

**In 2022, Hamilton County spent an estimated \$15,994,000  
on pretrial incarceration.  
Over \$40,000 every single day.**

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# Conclusion

As someone who works closely with the criminal legal system, I witness and navigate its bleak, unjust realities on a regular basis. Personal experience has informed much of my understanding, and I cannot say any of the results of this research project were unexpected. However, not everyone has first-hand or second-hand experience. Sharing stories and experiences of justice-involved individuals can help educate those who have never come into contact with jails and courts, but it may be easy to assume that such accounts are outliers. By examining local jail data, we can document systemic disparities in order to back up real-life experience with hard numbers.

The findings of this report provide clear evidence of the disproportionate impact of criminalization on non-white and low-income communities, and are supported by national research showing similar trends. The high number of misdemeanor charges, excessive bail amounts, and lengthy pretrial detentions contribute to a vicious cycle that becomes harder to escape each day a person is trapped inside of it. And aside from the direct effects, the cost to the county to maintain these practices amounts to millions of dollars every year.

Public access to arrest and jail data is crucial in understanding the criminal legal system. Sharing the results it yields can educate individuals and organizations about the impact of overpolicing and extended incarceration on marginalized communities, and demonstrate that the experiences of justice-involved individuals are not anomalies but rather a reflection of real, measurable injustice. It is my hope this report can aid in the work to hold public officials and law enforcement agencies accountable, and serve as a tool for effective, informed advocacy around decarceration.

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# Data Sources

The data that was analyzed for this project came from three main datasets. To find out more about the sources, as well as details on the report methodology, go to [www.kaggle.com/datasets/averyfairburn/arrest-data-hamilton-county-tn](https://www.kaggle.com/datasets/averyfairburn/arrest-data-hamilton-county-tn).

The first dataset was collected from the Silverdale Detention Center booking records, and includes the name, home address, age, charges, and arresting agency for each person booked into the jail. It contains records from August 2nd, 2022 through January 31st, 2023 that were collected from the Hamilton County Sheriff's Department website using a web scraping tool created by Wren Tefft. Silverdale is the only jail in the county, so the aggregated booking data includes all individuals arrested in Hamilton County in a given time period. This gives a much more complete picture than data provided by individual agencies about arrests made by their agency alone.

The second dataset is made up of case records from Chattanooga Sessions Court, which handles all misdemeanor cases and initial hearings for felony cases within the city. This data was compiled by collecting the case numbers and bond amounts listed on the Sessions court "Active Bonds" roster (10), and inputting those case numbers into the court lookup tool to collect information such as the charge, filing date, disposition date, judge, and arresting officer.

This set of records only includes cases where the defendant had been released on an own recognizance bond or a cash bond, but does not include cases where the person was not released or couldn't pay bail. All charges in the sample were filed between January 1st, 2021 and October 3rd, 2022.

The third dataset was created by the Jail Data Initiative, a project of the NYU Public Safety Lab that collects daily individual-level jail records from more than 1,000 publicly available jail rosters in the United States (11). From March 15th, 2020 through October 25th, 2022, they performed daily counts of the Hamilton County Sheriff's Department inmate roster using a web scraper. They used the information to show trends in jail population, as well as to calculate the average time spent in custody by those incarcerated in Hamilton County.



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## Further Reading

### **A Technical Guide to Jail Data Analysis**

([vera.org/publications/a-technical-guide-to-jail-data-analysis](https://vera.org/publications/a-technical-guide-to-jail-data-analysis))

### **What Jails Cost Statewide**

([vera.org/publications/what-jails-cost-statewide](https://vera.org/publications/what-jails-cost-statewide))

### **The Jail Data Initiative**

([jaildatainitiative.org](https://jaildatainitiative.org))

### **Incarceration Trends**

([trends.vera.org](https://trends.vera.org))

### **Arrest Trends**

([arresttrends.vera.org/arrests](https://arresttrends.vera.org/arrests))

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# Endnotes

1. <https://www.vera.org/publications/arrest-trends-every-three-seconds-landing>
2. <https://arresttrends.vera.org/arrests>
3. <https://www.thv11.com/article/news/crime/crime-increase-in-the-summer-time-yes/91-00e333f3-0cd3-4e54-8a51-5f98622f6692#:~:text=It's%20always%20been%20said%20that,crime%20during%20the%20summer%20months.>
4. <https://data.census.gov>
5. <https://thehill.com/changing-america/respect/equality/502277-black-people-5-times-more-likely-to-be-arrested-than-whites/>
6. <https://www.prisonpolicy.org/reports/income.html>
7. Booking records addresses were validated using Google Maps' Address Validation API: <https://developers.google.com/maps/documentation/address-validation/demo>
8. <https://www.tn.gov/content/dam/tn/correction/documents/JailFebruary2023.pdf>
9. Source: Hamilton County Finance Department
10. [https://www.hamiltontn.gov/CriminalSessionsCourt\\_Dockets.aspx](https://www.hamiltontn.gov/CriminalSessionsCourt_Dockets.aspx)
11. <https://jaildatainitiative.org/dashboards/population>