

**Racial Disparities**  
**in Criminal Charges in Charlottesville VA, March 2014 through March**  
**2019**

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## 1. Introduction

On March 8, 2018, the City of Charlottesville released a database containing “arrest” data for the last five years. The data set did not include information on race and gender of arrestees, but on March 18, the City released an updated data set containing this information. I used the data set to investigate the relative arrest rates for the African-American and White residents of Charlottesville.

## 2. Characteristics and Limitations of the “Arrest” Data

The version of the data file used in my analysis includes 18,137 records, dating from March 17, 2014 through March 15, 2019.<sup>1</sup> Information provided in the records include:

- The dates and times of the arrest
- The first, last, and middle names of the arrestee,
- The gender and race of the arrestees
- the statute number(s) for the charged offenses, and a brief description of the violations (e.g., “simple assault”)
- The location of the arrest (street address)
- A unique arrest number.

Sexual assaults and rapes are excluded from the data set. A major limitation is that multiple charges against any individual are counted as separate “arrests”, irrespective of the date. Thus, an individual charged with four different offenses on the same day (or multiple counts of the same offense) appears in four records, as if they were arrested four times. Thus, there are more records in the file than individuals who were actually arrested; a preliminary count suggests that approximately 5,700 records (~ 32%) report the second and subsequent charges on the same day. As provided, the data set can thus be best considered a “charge” data set, rather than an “arrest” data set.

In addition, based on a review of the specific charges, there is ambiguity about whether some charges actually resulted in arrest, defined as being taken into custody. Most traffic offences and some other minor violations (excessive noise, littering, leash law, etc.) are unlikely to result in arrest. It may be, that under the specific circumstances of some incidents, police felt that taking the offender into custody was justified, but there is no field in the data set that specifically states whether the charged individuals were arrested. Finally, the data set does not provide either the age of the individuals charged, whether they were residents of Charlottesville, or whether they were of Hispanic ethnicity. These omissions further limit the ability to do detailed analyses on this data.<sup>2</sup>

## 3. Data Preparation

The records were downloaded from the Charlottesville Open Data website<sup>3</sup> in spreadsheet format. The Arrestdate field was divided into separate date and time formats, and the LastName, FirstName, and MiddleName fields were merged to give unique full names. The Statute and StatuteDes fields (which

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<sup>1</sup> The dataset is updated daily, so analyses of later versions will give different results.

<sup>2</sup> As discussed below, other arrest databases do provide the missing information.

<sup>3</sup>

[http://opendata.charlottesville.org/datasets/d558ab0e09fe4f509280bedf6f8793ed\\_22/data?orderBy=ArrestDate&orderByAsc=false](http://opendata.charlottesville.org/datasets/d558ab0e09fe4f509280bedf6f8793ed_22/data?orderBy=ArrestDate&orderByAsc=false)

provided information on the nature of the charges), were checked against the Virginia Criminal Code (VCC)<sup>4</sup> and, for a few offences, the Charlottesville Code of Ordinances<sup>5</sup>. Columns were added to the data set indicating whether the offences were felonies or misdemeanors, and what grade, whether they were Class I or II violent crimes under the VCC, and the minimum and maximum sentences indicated in the statutes. The data set included one or more charges of 458 statutory provisions.

#### 4. Analysis of the Data

##### 4.1 Most Common Charges (Unadjusted for Race)

For the preliminary analyses, I used the data set as provided; that is, results reflect the total number of charges, not arrests, and all records are included, irrespective of the nature and severity of the offence. Table 1 shows the total number of charges by race and gender. Charges against White and African Americans make up the overwhelming majority of the total; charges against other races (American Indian/Alaska Native, Asian or Pacific Islander, or individuals whose race was not reported) account for about 2.1 percent of the records. The number of charges is greater for African-Americans than Whites (9,864 vs. 8,070), with African American males accounting for most of the difference in the unadjusted counts.

**Table 1. Number of Charges by Race and Gender, Charlottesville 3/17/2014 – 3/15/2019**

Total Records	White	African-American	American Indian/Alaskan Native	Asian or Pacific Islander	Race Unknown Or Missing
Female	1,934	1,957	2	12	31
Male	6,134	7,904	12	80	53
Total	8,070 <sup>1</sup>	9,862 <sup>2</sup>	14	92	99

Notes:

1. Gender not reported for two White offenders
2. Gender not reported for one African American

The left-hand columns of Table 2 show the numbers of charges for the 40 most frequently occurring offenses by race. Taken together, these offenses make up about 12,900 (71 percent) of the total records in the data set. The three most frequent charges (swearing/intoxication in public, contempt of court, and probation violation on a felony charge) alone account for about 26% of the total. These are followed in relative frequency by simple assault, domestic assault, and possession of Schedule I or II drugs with intent to manufacture or sell.

<sup>4</sup> <http://www.vcsc.virginia.gov/VCCs/2018/VCCBookAlpha.pdf>

<sup>5</sup> [https://library.municode.com/va/charlottesville/codes/code\\_of\\_ordinances](https://library.municode.com/va/charlottesville/codes/code_of_ordinances)

**Table 2. Forty Most Frequent Charges, Counts by Race, and Adjusted Frequencies**

Charge Description	Number of Charges			Adjusted Frequency of Charges, per 1,000 Residents		
	African-American	White	Total All Races	African-American	White	Ratio African-American/ White
All Charges	9862	8070	18137	1098.3	240.4	4.6
Profane Swearing or Intoxication	694	1313	2020	77.3	39.1	2.0
Contempt of Court w/o Jury	915	565	1494	101.9	16.8	6.1
Probation: Violation on Felony Offense	736	390	1128	82.0	11.6	7.1
Simple Assault - Citizen	530	384	932	59.0	11.4	5.2
Domestic Assault - Simple	501	312	833	55.8	9.3	6.0
Drugs: Possess w/Intent to Manuf./Sell Sch I, II	376	100	476	41.9	3.0	14.1
Probation: Violation on Misdemeanor Offense	213	146	360	23.7	4.3	5.5
Generic DUI	96	254	358	10.7	7.6	1.4
Drugs, Possess Marijuana, 1st Off	174	169	347	19.4	5.0	3.8
Trespass: After Being Forbidden to do so	203	124	328	22.6	3.7	6.1
Fraud - NSF Checks - Under \$200	184	134	326	20.5	4.0	5.1
Monument, Intentional Damage, Value < \$1000	173	129	303	19.3	3.8	5.0
Illegal Possession/purchase of alcohol by adult	36	210	252	4.0	6.3	0.6
Drugs: Possess Sch I, II	139	111	251	15.5	3.3	4.7
Violate Protective Order	140	109	249	15.6	3.2	4.8
Malicious Wounding	134	73	213	14.9	2.2	6.9
Bailee: Viol Cond of Release/Pretrial	114	87	202	12.7	2.6	4.9
Violation of Recognizance, Conditions of Bond	115	74	189	12.8	2.2	5.8
Failure to Appear/Capias	121	58	179	13.5	1.7	7.8
License Revoked: Drive w/o License, 1st Offense	131	43	175	14.6	1.3	11.4

Probation Violation, Type Not Clear from Record	114	50	164	12.7	1.5	8.5
Stalking in Violation of Protective Order	74	72	147	8.2	2.1	3.8
Petit Larceny Shoplifting Below \$500	65	74	143	7.2	2.2	3.3
Probation Violation, Felony	65	77	142	7.2	2.3	3.2
Refuse Blood Alcohol/Breathalyzer	42	98	142	4.7	2.9	1.6
Obtain by False Pretenses	81	46	127	9.0	1.4	6.6
Grand Larceny Pocket Picking	73	54	127	8.1	1.6	5.1
Strangulation: Results in Wounding/Bodily Injury	92	30	123	10.2	0.9	11.5
Petit Larceny Pocket Picking	68	53	121	7.6	1.6	4.8
Drunkenness	34	84	118	3.8	2.5	1.5
Firearm: Possession by Nonviol. Felon within 10 years	98	15	113	10.9	0.4	24.4
Burglary: Enter House to Commit Larceny/A&B, etc.	69	39	110	7.7	1.2	6.6
Credit card Larceny: Take/Obtain Number	84	23	107	9.4	0.7	13.7
Embezzlement	33	72	106	3.7	2.1	1.7
Phone/CB/Text: Use Profane/Threaten Language	50	52	104	5.6	1.5	3.6
Grand Larceny Shoplifting \$500 + Over	79	22	101	8.8	0.7	13.4
Third Offense Larceny All Others	70	30	100	7.8	0.9	8.7
Forgery Counterfeiting - All Items	37	59	97	4.1	1.8	2.3

## 4.2 Frequency of Charges Adjusted for Race

The relative numbers of charges for the 40 commonest offences vary with race. For the most common offence (profane swearing or public intoxication) the number of charges against White individuals (1313) is almost twice as great as the number of charges for the same offence against African-Americans (693.) More whites than African-Americans are charged with several other offences (generic DUI, illegal possession or purchase of alcohol by adult, etc.), but consistent with the overall totals in Table 1, the number of African-Americans charged with most offences is greater than the number of whites.

The right-hand columns of Table 2 show the relative frequencies of charges, adjusted for the proportion of Whites and African-Americans in the Charlottesville population. The adjustment for race involves dividing the numbers of charges by the White and African-American populations of Charlottesville, respectively. The rationale for this adjustment is, given a population made up of equal numbers of Whites and African Americans, the relative numbers of charges would accurately reflect the probability of being charged, given that an individual is White or African-American. Where the numbers of residents differ by race, the numbers can be “adjusted” as described above, to give estimates of the probability of being charged given that an individual is African-American or White. I refer to these probabilities “adjusted frequencies” in the following discussion.

Table 3 shows U.S. Census<sup>6</sup> estimates of the racial composition of Charlottesville City in 2017. In Table 3, “Alone” indicates that the individuals surveyed reported only White or African-American heritage; slightly different proportions would be obtained if data were included from individuals who reported more than one race. The “White” population in the table includes approximately 2,700 residents of Hispanic descent.<sup>7</sup>

**Table 3. U.S. Census Estimates of the White and African-American Populations of Charlottesville, 2017**

Total Estimated Population	White Alone	African American Alone
48,019	33,565	8,980
Proportion	69.9%	18.7%

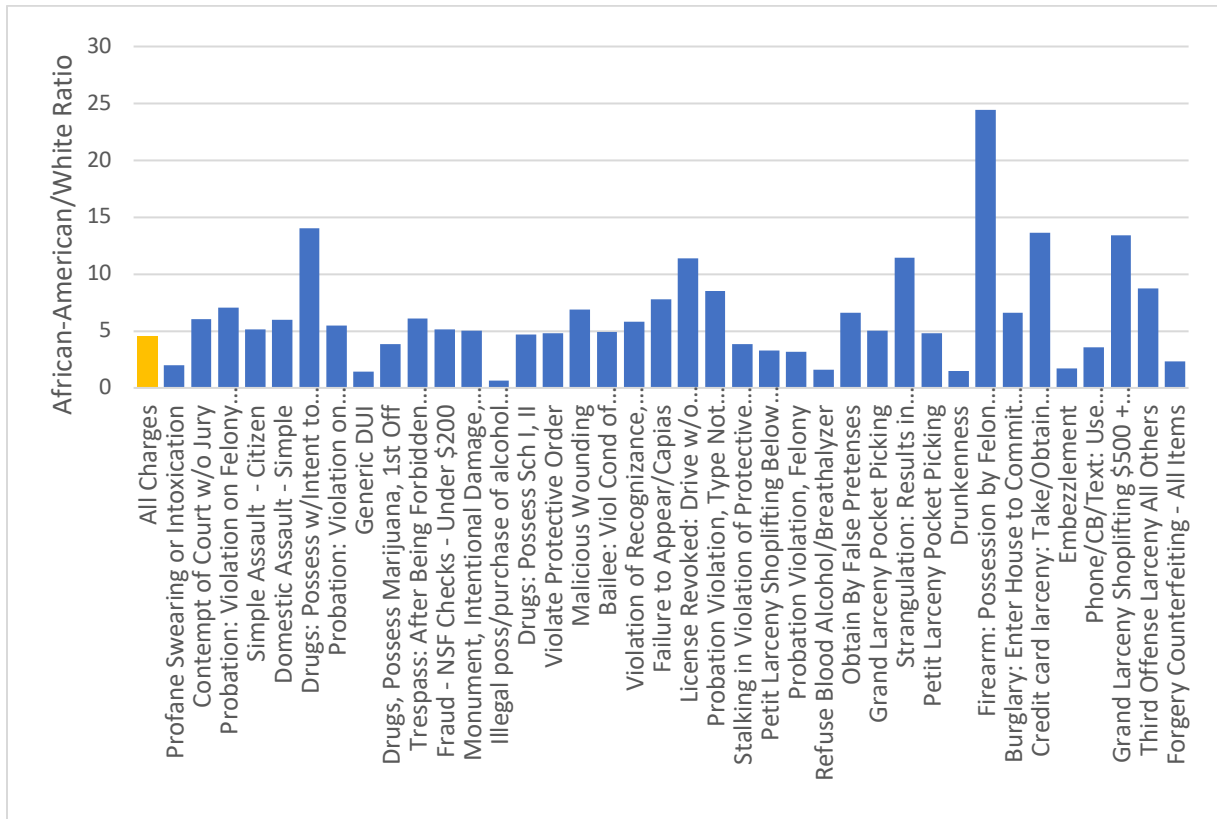
As shown in the top line of Table 2, for all charges combined (including those not among the 40 most frequent), the adjusted charge frequency for African Americans was 1,098 per thousand residents, while the adjusted frequency for Whites was 240 per thousand. The right-most column of Table 2 shows the ratio of the adjusted frequencies for African Americans versus White; for all charges combined, the ratio was 4.6, indicating African-American residents were charged 4.6 times more frequently than Whites, when the racial composition of the Charlottesville population was taken into account.

The same general pattern is seen for most of the individual charges. With the exception of Illegal possession or purchase of alcohol by an adult, the adjusted frequency of the top 40 charges was higher for African Americans than for Whites. Figure 1 shows the ratio of African American/White charges for

<sup>6</sup> <https://www.census.gov/quickfacts/fact/table/charlottesvillecityvirginiacounty/PST045218>

<sup>7</sup> As noted above, the charged individuals are not identified by ethnicity in the Charlottesville data set.

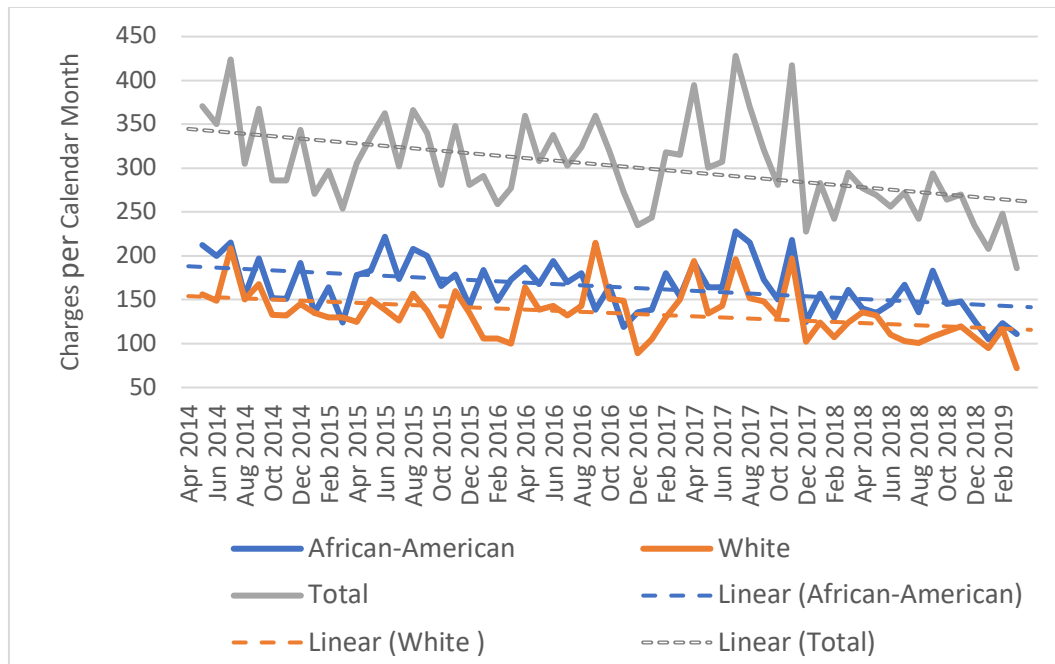
the most frequent offences. The ratios range from 0.6 (Illegal possession or purchase of alcohol as noted above) to 24.4 (Firearm: Possession by Nonviolent Felon within 10 years.) Adjusted frequencies were more than 10 times higher for African Americans than for Whites for six offenses (illegal possession of a firearm, possession of Schedule I or II drugs with intent, credit card larceny, grand larceny shoplifting, strangulation resulting in wounding or permanent injury, and driving with revoked license, first offense).



**Figure 1. African-American/White Ratios of Race-Adjusted Charge Frequencies for the Commonest Offences**

### 4.3 Changes in Numbers of Charges Over Time

I next investigated changes in the time trends in the numbers of charges, broken down by race. This analysis was restricted to the period April 2014 through February 2019, the earliest and latest complete months in the data set. The results are shown in Figure 2. The solid lines show the total numbers of charges by calendar month (gray solid lines) and the numbers of charges for African-Americans and Whites (blue and orange solid lines, respectively.) The dashed lines with each data series show the general trends in the numbers of arrests over time, which are downward over time. The average total charges per months in the first six months of the data set were 351, falling to 235 (33%) for the most recent six months. For African Americans, the corresponding average monthly charges fell from 189 to 126 (33%) and for Whites charges went down from 161 to 104 (35%.) The reasons for the essentially parallel reductions in the numbers of charges against Whites and African-Americans is not clear.



**Figure 2. Time Trends in Arrests, April 2014 through February 2019**

### 5. Summary and Limitations of the Analysis

The data set provided by the Charlottesville Police Department contains records of over 18,000 charges filed between March 2014 and March 2019. While the data include date and time, the nature of the charges, and the race and gender of the charged individuals, important elements are missing that would enable more meaningful analyses to be conducted. These include the age of the accused, whether the charges actually resulted in arrests, and whether the accused individuals were residents of Charlottesville. As noted in Section 2, individual records in the file represent charges, rather than arrests.

African-Americans are disproportionately represented in the data set. While the total charges against Whites and African-Americans are comparable, the adjusted frequency of total charges was approximately 4.6 times greater for African-Americans than Whites. That is, taking into account the relative numbers of White and African-American residents of Charlottesville, African Americans were 4.6 times as likely to be charged as Whites for any offense. For some offenses, the adjusted charge frequencies were more than 10 times greater for African-Americans.

The reasons for the racial differences in charge rates cannot be determined from the Charlottesville data set alone. Recent national<sup>8</sup> and Virginia<sup>9</sup> data also show higher rates of African-American arrests. The ratios of African-American to White arrests from these sources, however, are on the order of 2.2-3.0, smaller than that (4.6) seen in the Charlottesville data set. Part of the difference may be, as discussed earlier, the presence in the Charlottesville data of many offenses that do not normally result in arrest,

<sup>8</sup> <https://arresttrends.vera.org/>

<sup>9</sup> [http://www.vsp.virginia.gov/downloads/Crime\\_in\\_Virginia/Crime\\_in\\_Virginia\\_2017.pdf](http://www.vsp.virginia.gov/downloads/Crime_in_Virginia/Crime_in_Virginia_2017.pdf)



and the lack of any element in the data set that distinguish arrests from non-arrest charges. Even if that were the case, however, the data still show a higher frequency of charges for African Americans, whether or not arrests take place.<sup>10</sup>

Another limitation of this analysis is that the race-adjustment process is only approximate, being based on the total (estimated) African-American and White populations of Charlottesville. It is clear that not all age groups (young children, for example) are likely to be arrested (or charged), and differences between the age structure of African-American and White residents could have biased this analysis. A more detailed study broken down by race, age, and gender would provide more information on the specific groups that were most affected by differences in charging practices. (To repeat, the Charlottesville data does not provide the age of the charged individuals, so such analyses cannot be undertaken with this data set. In the future, it might be useful explore the NIBRS<sup>11</sup> dataset maintained by the FBI to get a better handle on racial disparities in arrests.)

A more subtle issue arises because some of the most frequent charges (possession of a weapon by a felon, probation violations) require repeated contact with the criminal justice system. Not all African Americans or all Whites could be charged with these offenses and evaluating racial differences would require separate analyses of populations with previous convictions.

Finally, it is important to note that the Charlottesville data do not include information on the resolution of charges; which were dismissed, modified, or brought to trial.

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<sup>10</sup> Racial differences in arrest rates in the U.S. have been extensively studied, and the exact reasons for them are not well understood; demographic and socioeconomic conditions, which vary from community to community, may provide part of the explanation. It would be useful to compare the arrest data from Charlottesville with that from other cities in Virginia (and elsewhere) having similar characteristics.

<sup>11</sup> <https://www.fbi.gov/services/cjis/ucr/nibrs> The NIBRS data (generated by local and state law enforcement agencies) have the advantage that they distinguish arrests from non-arrest incidents, and include information about the age, gender and race of the charged/arrested individuals. Data for Virginia are currently available only through 2017, however.