

**Care, Not Incarceration: A Quantitative Approach to How Data Analysis May Help
Reduce the Arrest Rate of People in Crisis**

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EXECUTIVE SUMMARY

This study consists of the analysis and mapping of people arrested within the District of Columbia (DC). This report utilizes DC arrest data to identify locations with high rates of people who may suffer from mental health problems based on the quantity of arrests. These individuals are referred to as “familiar faces” in this analysis. The intent is to suggest increased allocation of resources to identified locations, and to individuals who may be most at risk. Furthermore, insights from this analysis may help pinpoint the Police Service Areas (PSAs) that will require intervention training for officers assigned to those areas. The data analyzed includes public data from the DC Metropolitan Police Department daily arrest reports, the DC Master Address Repository, and an address lookup used to extrapolate the full address of each arrest. This analysis was conducted in a Google Colab Notebook using Python and four Python libraries: Pandas, GeoPandas, NumPy, and Matplotlib.

The data points to several key hotspots of familiar faces within DC. These locations may benefit from an increase of intervention care. For example, a mental health facility located near a hot spot would allow for more effective mental health services, education on mental health, and support for people in crises. Moreover, a similar study could expand the scope of additional intervention services that may assist individuals in at-risk neighborhoods.

No study is without fault. One major limitation of the present study is that the term “familiar faces” has not been factually backed by substantial research. The next limitation is government facilities appear to be an arbitrary input for arrest location. Though this was a small part of the data, this skewed the findings related to locations that could benefit from brick-and-mortar mental health services. Both these limitations can be overcome by additional research and a more consistent and accurate data collection system. Neither limitation affected the method by which the data was analyzed. As a result, with better data, the process of analysis could assist in future insights on effective resource allocation of intervention services.

Part I provides a background and introduction to the connection between mental health and arrests and the criminal justice system writ large, Part II establishes this paper’s predictive problem and approach, Part III details the methods of data collection, Part IV provides analysis of the data, and Part V suggests possible local and federal utilization plans based upon findings, Part VI highlights several limitations, and Part VII concludes the discussion.

PART I: INTRODUCTION AND BACKGROUND

One in five adults in America experience problems with their mental health.¹ Adults in crisis, with mental health diagnoses, may account for 25% of the people killed in police encounters, 20% of all jail and prison inmates, and 10% of all law enforcement responses.² Stated another way, people in crisis with mental health diagnoses are 16 times more likely to die from a police encounter than other suspects. Given that the U.S. incarcerated population totals around 2.3 million,³ this figure suggests that more than 460,000 incarcerated people are in crisis. This year alone, there have been 1,003 people killed by police.⁴ Two hundred of those people were in crisis given the previously stated figures.

Additionally, it is not just people in crisis with mental health diagnoses that account for these police shootings. In 2015, 25% of all police shootings involved people “in the throes of emotional or mental crisis.” This finding might include both people in crisis with mental health diagnoses as well as people who are simply experiencing significant crises or hardships and are responding emotionally and mentally accordingly in the short term.⁵ In other words, police appear to disproportionately kill people who experience crisis both acutely and chronically.⁶

Unfortunately, the disproportionate effects the justice system has on people in crisis are not limited to police shootings. According to the Bureau of Justice Statistics, half of the people incarcerated in prisons, and two-thirds of the people in jails, were in crisis.⁷ While it might be expected that people in prisons or jails would suffer from serious psychological distress due to

¹ Nat'l Alliance on Mental Illness, *Mental Health Facts In America*, <https://www.nami.org/nami/media/nami-media/infographics/generalmhfacts.pdf>.

² Doris Fuller et al., *Overlooked in the Undercounted: The Role of Mental Illness in Fatal Law Enforcement Encounters*, TREATMENT ADVOC. CTR., 1 (2015), <https://www.treatmentadvocacycenter.org/storage/documents/overlooked-in-the-undercounted.pdf>. “Adults in crisis with mental health diagnoses” was used here in place of the term “severe mental illness,” as used by the authors of the referenced source. “Severe mental illness” is defined as “a *medical condition* that, when treated, demonstrably reduces the likelihood of interacting with police or being arrested, much less dying in the process.” *Id.* [emphasis added]. The authors reject the “medical condition” part of this interpretation. There is much evidence to suggest that mental health problems typically do not have a biological basis and are instead often better understood as reactions to crises. See generally Brett J. Deacon, *The Biomedical Model of Mental Disorder: A Critical Analysis of Its Validity, Utility, and Effects on Psychotherapy Research*, 33(7) CLINICAL PSYCHOL. REV. 846, 846–861 (2013), https://jonabram.web.unc.edu/files/2013/09/Deacon_biomedical_model_2013.pdf. Accordingly, “people in crisis” will be used for the remainder of this paper to denote people with “severe mental illness” without the requirement of a medical condition but who have been given diagnoses for the purposes of treatment and intervention.

³ Wendy Sawyer & Peter Wagner, *Mass Incarceration: The Whole Pie 2020*, PRISON POL'Y INITIATIVE (Mar. 24, 2020), <https://www.prisonpolicy.org/reports/pie2020.html>.

⁴ Julie Tate et al., *Fatal Force*, WASH. POST (Nov. 18 2020), <https://www.washingtonpost.com/graphics/investigations/police-shootings-database/>.

⁵ See generally Victor Nell, *Critical Psychology and the Problem of Mental Health*, J. PRIMARY PREVENTION (1996).

⁶ See generally Katherine Eastham et al., *The Concept of Crisis*, 15 CAN. PSYCHIATRIC ASS'N J. 463, 466 (1970) (discussing the temporal differences between crisis and psychological stress as acute and chronic respectively, though here they are used together for convenience).

⁷ Jennifer Bronson & Marcus Berzofsky, *Indicators of Mental Health Problems Reported by Prisoners and Jail Inmates, 2011–12*, BUREAU JUST. STAT., 1 (2017), <https://www.bjs.gov/content/pub/pdf/imhprpji1112.pdf>. In the words of the referenced content's authors, these people were those with either current “serious psychological distress” or a history of mental health problems. As discussed, *supra* notes 1 and 5, this phrasing is consistent with this paper's use of the term “people in crisis.” Though these data are from 2011–2012, this report is the most recent report on these figures, and its outcomes were very similar to a report issued in 2006 that used data from 2002 and 2004. See *id.*

their freedoms being severely restricted, 37% of prisoners and 44% of jail inmates had been told in the past by a mental health professional, prior to being incarcerated, that they had a mental disorder.⁸

Furthermore, people who use community mental health centers have been arrested at higher rates than the general public following the first year of admission.⁹ While there are some programs such as mental health courts that aim to divert individuals arrested from prisons and instead towards mental health services,¹⁰ such programs are remedial solutions that do nothing to prevent the number of times someone in crisis would have to interact with a police officer in an initial interchange.

Despite the correlation between people in crisis and the criminal justice system, mental health facilities and services have been in historic decline¹¹ and have faced budget cuts in cities such as the District of Columbia.¹² Accordingly, officers often end up acting both as law enforcement and as social workers.¹³

However, the lack of both appropriations, and the physical existence of mental health service providers is in opposition with the evolving goals of the criminal justice system.¹⁴ At one point, the criminal justice system's goals were more focused on retribution, deterrence, and incapacitation.¹⁵ Today, however, the goals are shifting towards more humanitarian aims such as

⁸ *Id.*

⁹ See Bruce Harry & Henry J. Steadman, *Arrest Rates of Patients Treated at a Community Mental Health Center*, 39(8) PSYCHIATRIC SERV. 862, 864 (1998).

¹⁰ See, e.g., Virginia A. Hiday & Bradley Ray, *Arrests Two Years After Exiting a Well-Established Mental Health Court*, 61(5) PSYCHIATRIC SERV. 463, 465.

¹¹ See generally Samantha Raphelson, *How the Loss of U.S. Psychiatric Hospitals Led to a Mental Health Crisis*, NPR (Nov. 30, 2017), <https://www.npr.org/2017/11/30/567477160/how-the-loss-of-u-s-psychiatric-hospitals-led-to-a-mental-health-crisis>. However, there is evidence that the tides may be changing. For example, the District of Columbia removed a provision within its Comprehensive Plan that would “[p]rovide easily accessible, and equitably distributed high quality [sic] mental health treatment facilities for District residents in need of such services.” D.C. OFF. PLAN., COMPREHENSIVE PLAN COMMUNITY SERVICES AND FACILITIES ELEMENT PROPOSED AMENDMENTS 37 (2020), https://plandc.dc.gov/sites/default/files/dc/sites/Comprehensiveplan/publication/attachments/Chapter%2011_Community-Service%26Facilities_April2020.pdf. The provision seems to have been replaced in favor of a similar provision that would “[c]oordinate development of an adequate number of equitably distributed and conveniently located behavioral health issues and substance abuse drug and alcohol treatment facilities to provide easily accessible, high-quality services to those District residents in need of such services.” See *id.* The new provision also goes on to note that DC Healthy People 2020 (DC HP2020) identified behavioral health issues as its number one priority. *Id.*

¹² See, e.g., Fenit Nirappi, *D.C. Council Shifts Spending, Trims Increases for Some Programs so It Won't Need Advertising Tax*, WASH. POST (Jul. 23, 2020), https://www.washingtonpost.com/local/dc-politics/dc-budget-passage/2020/07/23/e5849136-cce7-11ea-91f1-28aca4d833a0_story.html (noting that the D.C. Council recently cut as much as \$4 million from a proposed boost to mental health services).

¹³ See, e.g., Michaela Winberg, *How Mental Health Pros Intervene on a 911 Call — What Didn't Happen for Walter Wallace Jr.*, (Nov. 9, 2020), <https://billypenn.com/2020/11/09/it-didnt-happen-for-walter-wallace-jr-but-when-mental-health-pros-intervene-on-a-911-call-how-does-it-work/> (describing the lack of behavioral health training or resources used by the Philadelphia police department when dispatched to calls involving someone with mental health problems).

¹⁴ See Doris Mackenzie, *Sentencing and Corrections in the 21st Century: Setting the Stage for the Future* 1, 21 (Jul. 2001) (unpublished manuscript) (on file with National Criminal Justice Reference Service), <https://www.ncjrs.gov/pdffiles1/nij/grants/189089.pdf>.

¹⁵ See *id.* at 1.

rehabilitation and restoration.¹⁶ Just as the justice system has evolved, understanding of mental health has grown as well.

Despite these evolutions, the criminal justice system's procedures for handling people in crisis has not caught up with current recommendations of treatment. Treatment of the overwhelming numbers of people in crisis within corrections facilities is a herculean task that often is brushed aside.¹⁷ As a result, people in crisis do not receive the adequate treatment they need. Mass incarceration of people in crisis has done nothing to rehabilitate, deter, and restore them.¹⁸

Compounding this problem is the fact that officers are not adequately trained for encounters with people in crisis. Instead, they are trained to control a situation and demand compliance. While this may work with people not in crisis, people in crisis may be sporadic, irrational, and unable to cooperate. These behaviors unfortunately lead to an escalation of force when a person trained to handle such an individual would have been able to deescalate the situation.

To protect both police and people in crisis, it is important to find solutions that would effectively allocate funds for local governments, especially those with restricted budgets. One of the ways to do this would be directing government resources to "familiar faces." This approach focuses on the highest utilizers of the jail health system, particularly those in crisis and/or suffering from substance use disorders, in order to deliver services in a more timely, aligned, and continuous manner.¹⁹

There is an abundance of evidence that suggests that these "familiar faces" may be in need of support from mental health or other social services. For example, people with multiple arrests within one year are three times more likely to have be in serious psychological distress (25% vs. 9%) and three times more likely to report serious psychological distress, including symptoms of depression and anxiety, than people with no arrests in the past year (30% vs. 11%).²⁰ Similarly, people with multiple arrests within one year are less likely to have access to health care. Individuals who were arrested and booked more than once within a one-year period are over three times more likely to have no health insurance (27%) compared to those with no arrests in the past year (8%), and slightly more likely to lack insurance than people arrested just

¹⁶ See *id.* at 33–37.

¹⁷ See, e.g., Christie Thompson & Taylor Eldridge, *Treatment Denied: The Mental Health Crisis in Federal Prisons*, MARSHALL PROJECT (Nov. 21, 2018, 6:00 AM), <https://www.themarshallproject.org/2018/11/21/treatment-denied-the-mental-health-crisis-in-federal-prisons> (explaining how the Federal Bureau of Prisons reduced the number of inmates designated for higher mental health care levels by more than 35% since 2014 and that as of February 2018, it classified just 3% of inmates as having a mental health problem serious enough to require regular treatment).

¹⁸ See, e.g., Amy Wilson et al., *Study Finds Higher Rates of Jail Recidivism Among People with Co-Occurring Severe Mental Illness and Substance Use Disorders*, CTR. EVIDENCE-BASED PRAC. AT CASE WESTERN RES. U. (Feb. 1, 2012), <https://www.centerforebp.case.edu/stories/study-finds-higher-rates-of-jail-recidivism-among-people-with-co-occurring-severe-mental-illness-and-substance-use-disorders> (finding that people with co-occurring mental health problems and substance abuse have the highest recidivism rates of any group studied).

¹⁹ See PH Hwang, *Familiar Faces: Examination of Current Knowledge and Practices*, UNIV. WASH. PUB. HEALTH PRAC., 3 (2015), http://uwstartcenter.org/wp-content/uploads/2015/11/Final_whitepaper.pdf.

²⁰ Alexi Jones & Wendy Sawyer, *Arrest, Release, Repeat: How Police and Jails are Misused to Respond to Social Problems*, PRISON POL'Y INITIATIVE (Aug. 2019), [https://www.prisonpolicy.org/reports/repeatarrests.html#:~:text=People%20with%20multiple%20arrests%20were,\(30%25%20vs%2011%25\)](https://www.prisonpolicy.org/reports/repeatarrests.html#:~:text=People%20with%20multiple%20arrests%20were,(30%25%20vs%2011%25)).

once (23%).²¹ Finally, over half (52%) of people arrested multiple times within a one-year period reported a substance use disorder in the past year.²² In contrast, 36% of people arrested once and just 7% of people who were not arrested had a substance use disorder in the past year.²³

In summary, research shows that a significant portion of people with serious psychological needs are at a high risk of being shot by police officers, yet a significant portion of police officers do not have crisis intervention training. Moreover, a significant portion of people with multiple arrests have serious psychological needs that cannot — and should not — be addressed by police officers lacking crisis intervention training and/or imprisonment.

PART II: PREDICTIVE PROBLEM AND APPROACH

Given that arrests data include variables such as location, individual, and arresting officer, it was predicted that such data could be used to (a) identify familiar faces, (b) identify the location of arrests of familiar faces, and (c) identify officers who arrest familiar faces. The identification of these variables would enable a local government to allocate resources more efficiently by identifying which people and areas are in most need of crisis intervention services, and which officers may be in need of crisis intervention training. Therefore, the two main research questions posed are: (1) Can data be used to identify familiar faces and direct behavioral health services or crisis intervention services to them? and (2) Can data be used to identify which officers may benefit most crisis intervention training?

This approach is in accordance with the fact that the DC Metro Police Department has access to non-anonymized data relating to which individuals are familiar faces and may compare such data with the DC Department of Behavioral Health. DC has a substantial and dedicated team of data scientists who may use this data to more effectively allocate resources.

PART III: DATA COLLECTION

The three datasets used in this analysis are: a list of arrests compiled from the Metropolitan Police Department website; a dataset that provided the full address, latitude, and longitude, whether or not the address is a residential or nonresidential, and the Police Service Area for all addresses listed in the arrest data; and the District of Columbia's Master Address Repository (MAR) for geocoding purposes. The arrest data was collected by scraping the Metropolitan Police Department (MPD) community groups. There were seven community groups, one for each of the District's subdivisions.²⁴ Each community group contained information about recent arrests from each of the District's seven subdivisions. Each arrest report consisted of the arrest number, arrest date, arrest location, the Police Service Area, the offender's first and last name, gender, age, offense, whether or not the offense is a felony or misdemeanor, and the officer who made the arrest. This dataset was compiled, turned into a single comma-separated values file and combined with the full address data to create the initial dataset used in this analysis.

To ensure anonymity, identifying information was removed using a cryptographic hash function prior to exploring and working with the data. This function anonymized both the officers and offenders by assigning each a random set of letters and numbers prior to the

²¹ *Id.*

²² *Id.*

²³ *Id.*

²⁴ Metropolitan Police Dep't, *View or Join an MPD Google Group*, <https://mpdc.dc.gov/page/view-or-join-mpd-google-group>.

analysis. The MPD reports were then compiled into one file for analysis. There are 1,683 unique offenders, 2,095 unique officers, 4,946 unique arrest locations, 281 types of offenses, and 58 Police Service Areas (PSAs) are represented. Though the dataset only includes values voluntarily submitted, the data was inserted in a consistent way that lends to the quality and integrity of the data values. The table below [Fig. 1] shows how each datapoint is represented in the data.

Figure 1. Data Anonymity

MPD Crime Stats	Familiar Faces Data Analysis
Arrest Number	event_id
Arrest Date	event_datetime
Arrest Location	event_location
PSA	employee_department
Offender Last Name/First Name	hashed_consumer_id
Gender	consumer_gender
Age	consumer_age
Offense	event_type
Felony/Misdemeanor	event_class Misdemeanor = m Felony = f
Officer	hashed_employee_id

PART IV: DATA ANALYSIS

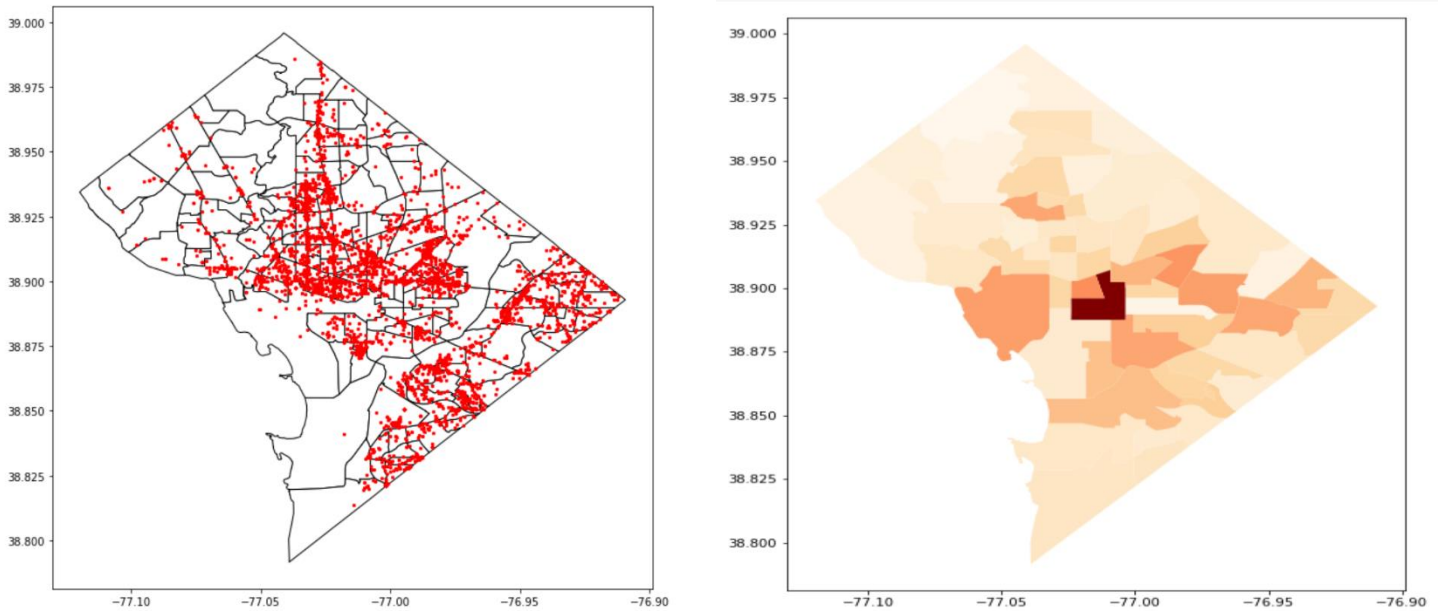
A list of familiar faces was extrapolated from the arrest dataset by restricting to individuals with four or more arrests in any given year. This represented 4.77% of the data or 6,659 of the 139,549 total arrests. In this set, there are also 3,569 unique arrest locations, 1,837 unique officers, and all fifty-seven PSAs linked to the arrest of familiar faces. The quantity of arrests ranged up to thirty-eight arrests for one individual, and about thirty-five officers made twenty or more familiar face arrests. Upon further investigation, the data revealed a potential trend of familiar face arrests around DC metro stations. The top location of familiar face arrests occurred at the Washington Union metro station (50 Massachusetts Avenue NE). This location amounted to 142 arrests. The subsequent top two locations included the DC Central Detention Facility and the DC Superior Court. These two locations are disregarded in this analysis and discussed in the limitations.

The next nine locations included: a Target that is 240 feet away from the Columbia Heights metro station (3100 14th street NW); a Harris Teeter 0.2 miles away from the NoMa-Gallaudet metro station (1201 First st NE); the Anacostia metro station (1101 Howard Rd. SE); the Potomac Avenue metro station (1350 Potomac Avenue SE); a Walmart Supercenter 0.5 miles

away from the Judiciary Square metro station and 0.5 miles away from the Union metro station (99 H st NW); general area 0.4 miles away from Gallery Place-Chinatown metro station (630 H st NW); the Archives-Navy Memorial-Penn Quarter metro station (633 Indiana Avenue NW); near a Home Depot 0.3 miles away from Rhode-Island Ave-Brentwood metro station (901 Rhode Island Ave NE); near a Harris Teeter 0.3 miles away from the Navy Yard-Ballpark location (401 M st SE). Thus, excluding arbitrary arrest locations at government buildings, 100% of the top 1ten0 locations of familiar face arrests occurred at, or within, 0.5 miles of a metro station.

This led to a review of the PSAs and the officers assigned to these locations. The question analyzed is whether or not officers assigned to areas with high familiar face arrests could benefit from crisis intervention training to identify and refer these individuals to alternative facilities such as mental health services. Here, approximately 50% of familiar face arrests (3,332 of the 6,659) were conducted by 275 officers. An aggregated summary of these arrests across the DC geographic area was visualized in a choropleth. This showed a concentration towards the center of the city. To further highlight the most saturated locations, this visual was plotted on a map of PSAs using red dots and then on choropleth, where the color darkened based on the increased density of arrests within PSAs [Fig. 2]. This confirmed the top locations for familiar face arrests.

Figure 2. Aggregated Familiar Face Arrests Across PSAs

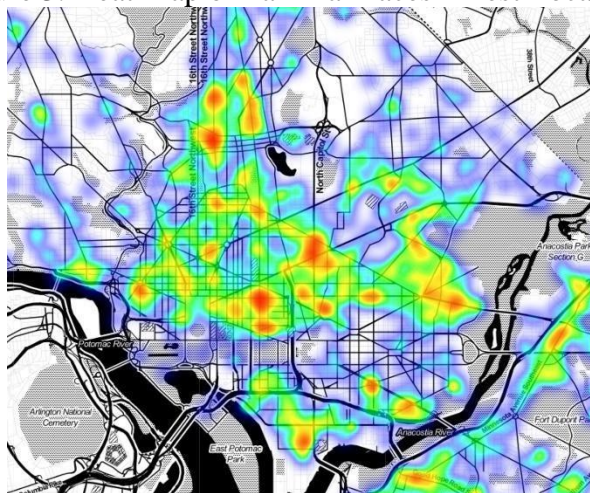


The top location was in District 1, PSA 102 with 527 arrests. Overall, 30% of the top 10 locations for familiar face arrests occurred in District 1 within PSAs 101, 102 and 106. These three PSAs also account for approximately 15% of all of the friendly-faces arrests in the dataset, or 1,019 arrests. Of the top 10 locations another 30% of arrests occurred in District 5, where PSA 506, 507, and 501 account for 700 arrests; 20% percent of the top 10 locations for arrests occurred in PSA 207 and PSA 302, respectively, and accounted for 467; and 20% percent of the top 10 locations occurred in District 6, where PSA 603 and 602 accounted for 437.

A heat map [Fig. 3] was subsequently created as an alternative visualization of the same analysis. This heat map highlighted “hot spots” using red to symbolize more saturated locations,

followed by yellow and green colors to denote smaller numbers of arrests. Altogether, the top 10 locations accounted for about 40% of familiar face arrests represented in the data, or 2,623 arrests. Thus, the data implies District 1 would benefit from an increase of mental health services followed by District 5 and 6 and PSA 207 and 302. Likewise, the concentration of familiar faces in specific locations indicate that officers assigned to certain PSAs, such as 102, 101, 506, 207, 507, 106, 302, 603, 602 and 501, may benefit from crisis intervention training that help identify familiar faces, and reroute these individuals to crisis help facilities such as mental health services.

Figure 3. Heat Map of Familiar Faces Arrest Locations



PART V: UTILIZATION PLAN

Local governments may benefit from an effective reallocation of resources from prisons and jails, to crisis intervention facilities. Analysis similar to the one used in this research can help identify at-risk neighbors where physical facilities can be built or increased intervention services can be directed, as well as police service areas that require assigned officers to undergo additional training. The DC Metro Police, the DC Metro Transit Police, and the DC Department of Behavioral Health may all benefit from using the approach detailed in this paper to identify familiar faces being arrested. Additionally, while the below implications are specific to DC, they may generalize to various types of intervention services and other localities as well. There are also several federal implications that deserve attention.

A. Local Implications

- 1) These data can and should be collected more efficiently.
- 2) The arresting of familiar faces in and of itself suggests that there is a problem that deserves attention and resources.
- 3) Analyses like the one presented can identify individuals who may be in need of mental health, crisis intervention, or other services. Moreover, this issue is not being researched enough, and governments may supplement such research by working with non-profit organizations.²⁵

²⁵ For example, the National Alliance on Mental Illness DC Chapter (NAMI DC) seems to have a good working relationship with the local law enforcement agencies and is likely willing to provide such support. *See, e.g.,* Eric Flack & Jordan Fischer, *DMV Police are Called on Tens of Thousands of Mental Health Runs a Year. Most Don't Get Any Training on How to Handle It*, WUSA9 (Nov. 12, 2020, 4:27 PM),

- 4) People in this population should be sought out for support and service connection *prior* to additional (or more serious) arrests.
- 5) Mental health training can be tailored to police officers arresting people in crises by providing crisis intervention training to police officers arresting friendly faces and police officers who serve in familiar face “hotspots.” This would reduce the need to exclusively rely on connection and support from the Department of Behavioral Health.
- 6) Due to the high numbers of arrests occurring near metro stations, DC Metro Transit Police should be consulted and encouraged to collect arrest data at stations which can further support additional officer training.
- 7) Work with Police Unions to solicit input and recommendations.
- 8) The Department of Behavioral Health should combine arrest data with its own records to identify familiar faces.
- 9) The Department of Behavioral Health should staff social workers to conduct outreach to these familiar faces and connect them to services.
- 10) The Department of Behavioral Health should hire and deploy social workers to locations where arrests of familiar faces are common to share information of available resources.

B. Federal Implications

Federal funding for an initiative to identify and direct resources for familiar faces could provide local governments with the resources required to implement such efforts. There is some federal funding already provided to police departments for the purposes of coordinating with their mental health partners, but such funding is not tied to data-driven outcomes. For example, the Bureau of Justice Assistance (BJA) provides funding for training, partnerships, technology, and other activities to police departments for mental health collaboration through the Justice and Mental Health Collaboration Program (JMHC), but it does not specifically support data collection and analysis.²⁶ Instead, the technical training involves ten police departments that act as host sites for visiting law enforcement agencies and their mental health partners.²⁷

The JMHC is authorized by the Mentally Ill Offender Treatment and Crime Reduction Act of 2004²⁸, and the Mentally Ill Offender Treatment and Crime Reduction Reauthorization and Improvement Act of 2008²⁹, as amended by the 21st Century Cures Act.³⁰ Additional authority is provided by the Consolidated Appropriations Act, 2020.³¹ Appropriations for fiscal year 2020 included \$6,699,365, and the BJA awarded 11 grants to police departments.³² Based on this information, the following are recommended (and are not necessarily mutually inclusive):

<https://www.wusa9.com/article/news/911-mentally-ill-crisis-intervention-training-police-mental-health-dc-police-secret-service-metro-transit-police-fairfax-montgomery/65-3270ab6a-e15c-4ecb-9605-de5490668ca2>.

²⁶ See BUREAU OF JUST. ASSISTANCE, POLICE-MENTAL HEALTH COLLABORATION (PMHC) TOOLKIT (2020), <https://bja.ojp.gov/program/pmhc>; BUREAU OF JUST. ASSISTANCE, JUSTICE AND MENTAL HEALTH COLLABORATION PROGRAM (JMHC) – LAW ENFORCEMENT GRANTS (2020), <https://bja.ojp.gov/sites/g/files/xyckuh186/files/Publications/JMHC-Law-Enforcement-Grants.pdf>.

²⁷ See BUREAU OF JUST. ASSISTANCE, POLICE-MENTAL HEALTH COLLABORATION (PMHC) TOOLKIT (2020), <https://bja.ojp.gov/program/pmhc>.

²⁸ Pub. L. No. 108-414, 118 Stat. 2327 (2004).

²⁹ Pub. L. No. 110-416, 122 Stat. 4352 (2008).

³⁰ Pub. L. No. 114-255, 34 U.S.C. § 10651 (2016).

³¹ Pub. L. No. 116-93, 133 Stat 2317, 2409.

³² BUREAU OF JUST. ASSISTANCE, FY 2020 JUSTICE AND MENTAL HEALTH COLLABORATION PROGRAM (2020), <https://bja.ojp.gov/funding/opportunities/bja-2020-17114>.

- 1) Appropriations for the JMHCP should be reauthorized for fiscal year 2021 to support the use of secured data collection systems and offer training for individuals who will maintain this system.
- 2) Legislation that would encourage detailed data collection and familiar face analysis.

PART VI: POTENTIAL PROBLEMS

The data and model represent a way to locate individuals in crisis by using data analysis. However, there are limitations that reduce the reliability of the study.

A. “Familiar Faces”

One of the initial issues presented was how many arrests in a single year, and of the same person, would denote a person in a “mental health crisis?” This data defined familiar faces as individuals with four or more arrests in any given year. To employ a more accurate variable, there needs to be additional research into whether or not “four or more” is the correct metric to use, and whether or not there was a significant difference in arrest occurrences of individuals who suffer from mental health issues.

There is still no strong evidence that a certain amount of arrests within a year strongly indicates a mental health crisis over another number. That being said, ‘four or more arrests’ is the baseline number of arrests, indicating mental health crisis, within the present study because of the findings in the *Familiar Face Data Packet*. The *Familiar Face Data Packet* defines “familiar faces” as an individual who was booked into King County jail four or more times during a one-year period and had a behavioral health indicator.³³ This finding is helpful to establish a baseline, but not insightful to understand why four arrests would be significant. Without cause, this baseline seems arbitrary thus, may miss or include individuals that do not need the resources or require the suggested interventions.

Donald Braman, Associate Professor of Law at The George Washington University Law School, Senior Social Scientist at the Lab@DC, and member of the District of Columbia Criminal Code Reform Commission explained his initial thoughts on the matter:

My sense is that agencies use a number [for familiar faces] that satisfies some or all of the following:

- 1) Maintains a high overlap between criminal justice involvement and behavioral health system involvement; and
- 2) Is limited enough that government staff can realistically provide outreach or differentiated treatment.³⁴

These statements presented some clarity to the methods utilized when attributing a number of arrests to a variable of mental health crisis. Though the rationale for a strong established baseline is still lacking, four arrests within a one-year period adequately maintains an overlap between mental health services and criminal justice involvement. Though a calculated conclusion, this arbitrary value is still a limitation on the data. More research is needed to find a stronger connection between high arrests and individuals in mental health crises before a conclusion is fully drawn.

³³ KING COUNTY, FAMILIAR FACES DATA PACKET 1 (2016) (defining a behavioral health indicator as having a mood, psychosis, or trauma diagnosis or taking psychiatric medication [during the year]).

³⁴ E-mail from Donald Braman, Associate Professor of Law, The George Washington University Law School, to authors (Oct. 25, 2020 11:24 EST) (on file with authors).

B. Government Location Exception

An objective of the study was to identify the arrest locations of “familiar faces.” In order to do this, the arrest dataset needed to be scoured to find the IDs for persons arrested four or more times within a single year. After these individuals were found, the information was analyzed to find the locations of these arrests. Upon further inspection, it was found that within the top twenty locations of familiar faces, five locations were government entities. This discovery was of concern because an objective of the project was to locate arrests out ‘in the field.’ To accurately pinpoint where people in mental health crises were most frequently being arrested, it was important to find organic arrests that occurred out and around the District. It would defeat the purpose of finding locations that needed more mental health services if the locations in the data were pointed to arbitrary locations like government entities. As a result, the accuracy of location suggestions for mental health services could be greatly diminished.

To mitigate this inconsistency, we considered omitting arrests at government buildings from the study. However, we retain these locations in the dataset for two reasons: omitting the data could decrease the validity of the data, and upon further research, it was discovered that a huge part of the data remained unaffected. While five locations out of the top twenty for most frequent arrests of familiar faces were government buildings, the number of arrests at those locations accounted for less than 5% of the total arrests. This was not a significant enough percentage to substantially affect the validity of the findings, and to justify omitting the locations themselves. However, this is still a limitation worth noting. There will still be weight, albeit negligible, towards Public Service Areas with government agencies containing several familiar faces.

PART VII: CONCLUSION

Utilizing data analysis to analyze datasets is arguably still a novel idea. While in some organizations using algorithms to identify issues is commonplace, the public service sector has been slow to embrace data analytic methods. The National Association of Counties (NACo) leads an initiative called the Data Driven Justice Initiative, which in part aims to identify the ways and options for diverting frequent utilizers from the justice system to community-based services and treatment providers.³⁵ The District of Columbia was featured in the ambitious rollout of the Data-Driven Justice Initiative under the Obama Administration, but ultimately did nothing despite receiving a JMHCP Grant.³⁶ This study illustrates the ways in which data analysis can and should be used to identify people in crisis and reroute them to beneficial intervention services moving forward. This method of data analysis could be invaluable for government agencies. Arrest data could be substituted with other types of datasets to identify and address a variety of issues. This could range from traffic to expenditure data. Adopting a nationwide data-driven system would lead to an efficient, new, and powerful tool for the betterment of society.

³⁵ NACo, *Data-Driven Justice Initiative: Disrupting the Cycle of Incarceration*, <https://www.naco.org/resources/signature-projects/data-driven-justice>.

³⁶ See, e.g., CJCC, BRIEF: SUPER-UTILIZERS IN THE DISTRICT OF COLUMBIA 4 (2016), https://cjcc.dc.gov/sites/default/files/dc/sites/cjcc/page_content/attachments/Research%20in%20Brief%20Super-Utilizers%20in%20the%20District%20of%20Columbia.pdf.

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