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Reimagining Criminal Justice: Open Source Data Key to Addressing Mental Health Crises

A transparent, cross-functional approach to data sharing and analysis focused on reliability and completeness can help to improve San Francisco's response to the mental health crisis, says Brennan Gamwell, a 2022 JD candidate at the Golden Gate University School of Law.

By **Brennan Gamwell** | May 21, 2021

Brennan Gamwell is a 2022 JD candidate at the Golden Gate University School of Law in San Francisco. Courtesy photo

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The Recorder has collaborated with students enrolled in Reimagining Criminal Justice, a seminar at Golden Gate University School of Law, to publish this series of student writings. This next generation of lawyers explore a broad range of topics touching on criminal and racial justice, and provide their perspectives and voices on myriad proposals for building a better, more just, system.

On Jan. 23, 2021, San Francisco Mayor London Breed announced on Twitter (https://sfist.com/2021/01/24/second-street-crisis-response-team-will-start-responding-to-non-violent-emergency-calls-in-sf-next-month/) the launch of San Francisco's second Street Crisis Response Team (SCRT)

in the Castro and Mission neighborhoods. The first team started patrolling the Tenderloin in November 2020 as a way to de-escalate non-violent crimes and address mental health emergencies related to addiction. The SCRT is San Francisco's latest program to fight and treat mental health issues on the city's streets. The team (https://sfmayor.org/article/san-franciscos-new-street-crisis-response-team-launches-today) facilitates access to care for people experiencing behavior crises. By the end of March, San Francisco hopes to have six active teams responding to non-emergency calls throughout the city.

With finite resources, the city should make decisions related to the SCRT—and other mental-health related programs—based on data. For example, the SCRT will keep limited hours (https://sfist.com/2021/01/24/second-street-crisis-response-team-will-start-responding-to-non-violent-emergency-calls-in-sf-next-month/): Mondays through Fridays from 10 a.m. to 6 p.m. Yet, according to police data (https://data.sfgov.org/Public-Safety/Police-Department-Incident-Reports-2018-to-Present/wg3w-h783), in 2020 only 32.76% of mental health detentions—or 3,367 out of a total of 10,277—occurred on weekdays while the SCRT is on patrol.

San Francisco can use its police data to adjust the SCRT's patrol hours to overlap with a higher historical incidence of mental health detentions. The following optimizations operate on the assumption that funding for the SCRT team limits patrols to eight hours per day on weekdays only. A quick analysis of data from data.sfgov.org reveals that shifting the team's schedule back one hour, 11 a.m. to 7 p.m., would result in the SCRT team overlapping with a slightly higher number of mental health crises: 3,371.

If the city wanted to optimize the team's schedule, overlapping with 3,420 crises, the SCRT team would be available on weekdays between 10 a.m. and 2 p.m., take a one-hour break, then resume their patrol between 3 p.m. and 8 p.m. The numbers might not vary dramatically, but the point is that arriving at this optimization is as simple as querying the data differently: Grouping by hour and ordering by the highest number of mental health crises reported, to the lowest.

The SCRT aims not only to relieve pressure on the city's police force, but to prevent incarceration of those experiencing mental illness, who would be better served under the supervision of a doctor rather than remaining in a jail or prison. Those with mental illness, if arrested, may experience "unnecessary and lengthy" stays (//law.stanford.edu/wp-content/uploads/2016/06/Justice-That-Heal.pdf) in jail due to a lack of local psychiatric services. About 35% to 40% of individuals in San Francisco county jail (//law.stanford.edu/wp-content/uploads/2016/06/Justice-That-Heal.pdf) receive care from Jail Behavioral Health Services. However, with the help of the SCRT, those individuals may have the opportunity to receive mental health support without being confined to a jail cell. By analyzing available data, San Francisco can optimize the impact of the SCRT initiative.

To determine that the SCRT would better serve those experiencing mental health crises by patrolling weekdays 11 a.m. to 7 p.m., I downloaded police department records from data.sfgov.org (https://datasf.org/opendata/) for the time period between Jan. 1, 2020, and Feb. 3, 2021, inclusive. I loaded the data into an Amazon Redshift (https://aws.amazon.com/redshift/) data warehouse and connected Mode Analytics (https://mode.com/) to the warehouse. Both Amazon Redshift and Mode offer freemium versions for low-volume use. In Mode, I wrote a few lines of SQL (a standard code language used to analyze data sets) to visualize the total number of mental health detentions on weekdays, by hour.

Although the entire process from extraction to visualization took less than an hour, I was able to derive some interesting findings not only related to the SCRT, but to mental health detentions in general. Between Jan. 1, 2020, and Feb. 3, 2021, SFPD recorded 2,979 mental health detentions. Of these detentions, 478 involved a co-occurring crime, with simple assault being the most common, and 125, or 25.5 %, of these criminal incidents resulted in an arrest or citation.

Yet, SFPD conducted 2,501 of these mental health detentions without evidence of a co-occurring crime. Twenty-three, or 0.9%, of these detentions led to an arrest or citation. Zooming out, SFPD responded to 84,687 non-criminal incidents. Of these, 11,835, or 13.9%, resulted in an arrest or citation. In 2019, SFPD responded to 3,473 mental health detentions, and 2,784 in 2020, or a 19.8 % decrease.

Thanks to this data (https://data.sfgov.org/Public-Safety/Police-Department-Incident-Reports-2018-to-Present/wg3w-h783)—over 100,000 records—we know that SFPD either arrested or cited 148 individuals between Jan. 1, 2020, and Feb. 3, 2021, during or after a mental health detention. But, how many of these individuals went on to receive mental health treatment?

A more tantalizing question: What factors led to the 19.8% reduction in mental health detentions from 2019 to 2020? COVID? Diverting mental health 911 calls to the SCRT?

The data don't tell us.

But they could.

San Francisco has been a data champion in the criminal justice sphere. The analysis in this piece relies on publicly available data—which the city updates daily—at data.sfgov.org (https://datasf.org/opendata/). The San Francisco district attorney hosts DA Stat (https://www.sfdistrictattorney.org/policy/da-stat/), a website illustrating the department's data-driven decision models. Anyone with an internet connection has access to a collection of dashboards, illustrations, and models breaking down the department's data on arrests, caseloads, and trials dating back to 2011.

The department's dedication to data has not gone unnoticed: In 2018, the Urban Institute Survey recognized the office as "one of the most renowned data-driven prosecutors' offices in the United States." In addition to the DA's office, San Francisco's Crisis Intervention Team (CIT) showcases a dizzying array of analyses (//sfgov.org/policecommission/sites/default/files/Documents/PoliceCommission/SFPD_CIT_2019_end%2520of to measure the program's performance. The city formed CIT in 2016 to de-escalate crisis situations without the use of force, then connect individuals with mental health resources. However, data on the number of CIT referrals to mental health resources is notably absent from the team's 2020 report.

Open-sourcing data from SFPD, the DA, CIT, and other departments (or, open-sourcing more data if some are already available) will democratize the process of answering the city's most pressing questions about mental health. Open-sourcing data means simply making data freely available for analysis and redistribution. The data I referred to above from data.sfgov.org (https://data.sfgov.org/Public-Safety/Police-Department-Incident-Reports-2018-to-Present/wg3w-h783) is open source.

In spite of San Francisco's ostensibly data-driven approach to criminal justice, open-source data are, for the moment, unreliable and incomplete. The CIT's 2019 analysis, for example, integrates police data with other sources to show that the SFPD received 50,840 calls related to mental health issues, with 658 resulting in mental health detention. However, data.sfgov.org shows that SFPD conducted 3,473 mental health detentions in 2019, or 2,815 more than reported by CIT. The exact reason for this discrepancy is unknown. Data can be powerful, but only when the data are reliable, complete, and available to the public.

So, my questions remain: What percentage of individuals receive mental health treatment after a mental health detention? What percentage need long-term care, but don't receive it? Further, how many mental health detentions does the SFPD actually conduct each year? Depending on the source, the number varies dramatically. The city tasks the SCRT with facilitating "access to care" for those who need it most. Where is SCRT data published? Are data even available for SCRT referrals?

San Francisco has no reason not to share all its data with citizen scholars in the community, who have data science skills and who are seeking to help those in need—rather, the city has every reason to make this data available. A transparent, cross-functional approach to data sharing and analysis focused on reliability and completeness can help to improve San Francisco's response to the mental health crisis.

Citizen analysts will have the data they need to help city leaders identify gaps in coverage and strategic deployments of city resources. Even more importantly, reliable and complete data may lead to more support for mental health programs in the city and in cities across the nation. By answering questions about the efficacy of mental health programs—like those posed above—with authority and backed by reliable, publicly accessible data, analysts can draw straighter, brighter lines between programs like CIT and SCRT and positive mental health outcomes.

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