

Recommendation 68.1

Tanya Koshy

Sun 7/21/2024 7:02 PM

To: Scott, William (POL) McGuire, Catherine (POL)

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Dear Chief Scott,

Our office has completed its review of the materials submitted by SFPD to demonstrate substantial compliance with Recommendation 68.1: As part of its technological capacity improvement strategy, the SFPD should develop a plan to advance its capacity to digest information it currently possesses in a consistent, easily accessible format such as a template containing key data points including officer performance indicators and crime indicators that could provide management with real-time information to inform their practice

For the following reasons, the Department of Justice finds that SFPD is in substantial compliance with this recommendation.

SFPD has meaningfully complied with this recommendation and in doing so, has improved multiple efficiencies in its policing. As a threshold matter, SFPD's Technology Division has implemented an online Business Intelligence (BI) warehouse, which houses all electronic data in SFPD. SFPD has also moved from paper collection of some data to electronic collection of that same data. Together, these two improvements enable SFPD to now provide information to its members in a more efficient, and even real-time manner.

The Technology Division's Business Intelligence and Geospatial Technology Team (BI Team) has developed dashboards using data in the BI warehouse, including Use of Force incidents, Total Incidents, and Human Resource statistics, which is critical for SFPD to continually update their policing practices. The BI Team also holds regular meetings with leadership at multiple levels to discuss improvements to data collection and the dashboards. The BI Team also trains all SFPD members on the importance of data collection. Critically, SFPD went beyond the requirements of this recommendation to train recruits on data collection, reports, and dashboards. Finally, the BI Team issued a Unit Order requiring regular review of its processes to ensure that improvements are made on a regular bases.

Finally, the DOJ agrees with Jensen Hughes that SFPD's investment in this work bodes well for continued compliance with a number of recommendations.

If you have any questions, please do not hesitate to reach out.

Thank you,

Tanya Koshy

Tanya Koshy (she/her)
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Finding #68	<p>The SFPD has poor data collection and analysis, which significantly impacts effective overall organization management and accountability.</p> <p>The technology in the SFPD requires significant updating. However, poor data collection practices, including lack of supervisory review and accountability for improperly completed reports and form sets, contributes to the poor data environment.</p>
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Rec # 68.1 As part of its technological capacity improvement strategy, the SFPD should develop a plan to advance its capacity to digest information it currently possesses in a consistent, easily accessible format such as a template containing key data points including officer performance indicators and crime indicators that could provide management with real-time information to inform their practice.

Recommendation Status	Complete	Partially Complete	In Progress
	Not Started	No Assessment	

Summary

This is an initial file review submitted by the San Francisco Police Department (SFPD) as of March 22, 2024.

The SFPD Technology Division was restructured after the initial assessment to include the goals of this recommendation – evidencing a commitment to improving data collection and analysis through supervisory review and accountability. Since the initial assessment, SFPD undertook the job of automating most of its key data, to include crime reporting, use of force, management and general statistical reports. Part of its work driving compliance with this recommendation is centered on the SFPD's Business Intelligence (BI) data warehouse, which holds most of the electronic data collected by SFPD, including those reports and forms that were not digital. The BI data warehouse contains key data points for officer performance indicators and crime indicators. This data is accessible to the department members, including supervisors, through a software interface. It is operated and maintained by the division's Business Intelligence and Geospatial Technology team. The data is loaded daily to facilitate timely analysis, review and ability to engage. The SFPD Officer Dashboard, containing officer performance indicators and crime indicators, was developed and is stored in the warehouse. This system has provided data for 272 DOJ recommendations (including 68.1), SDCS, Crisis Intervention Team, Use of Force, Crime Statistics, Investigations, LEP, the Academy, and many more departments throughout the SFPD.

It should be noted that this recommendation continues to be improved upon by SFPD and the work is being further expanded as the department works upon its efforts in Project Plan #4 which anticipates evolution for the officer performance dashboard. These actions reflect the commitment to ongoing improvement of the link between information and effective management has been embraced and furthered by SFPD's work to deliver on this recommendation.

With regard to Compliance Measure #1 – All officers, including supervisors, are thoroughly trained at the academy and through department bulletins on how to enter data and its importance. Early in the original assessment, SFPD did not have strong quality controls on data reporting and it was reflected in the status of the data. SFPD committed to training and holding supervisors to account for accuracy in data reporting as

demonstrated by the overall quality of the data and the review/control practices now seen. Early on, the Business Intelligence and Geospatial Technology Team engaged directly with SFPD members to gauge and assess their need for and use of data.

As for Compliance Measure #2 – In 2016, the concept of consistent data, electronically generated and derived did not exist at SFPD. Today, SFPD members have a range of reports and data they can directly access with minimal time engagement and get detailed information specific to their inquiries and needs. SFPD provides examples of the type of data available to officers. These reports are often calibrated based upon rank, unit, overall security and compliance with policies and laws.

As for Compliance Measure #3 – The Business Intelligence and Geospatial Technology Team conducts training for all department members, which includes supervisors, relative to the collection and reporting of data and how and where to access it within the department's systems. These trainings are either one-on-one trainings or large classes held at the SFPD Academy. The goal is to ensure all SFPD members have a basic understanding of the BI tools available to them as they move on to supervisory roles throughout their careers. SFPD provides examples of existing tools and tips, in addition to newer requests for support relative to the procedures and data available.

As for Compliance Measure #4 – The Business Intelligence and Geospatial Technology Team provided evidence of the development and retention of documentation and guides for all dashboards available to department members, in addition to providing group and individual training year-round. Documentation is also embedded in each BI dashboard. This compliance measure has assumed less priority now that how to use department systems is provided to all SFPD members upon hire and is reinforced through ongoing in-service training and other training. SFPD is now a department that uses data consistent with standard law enforcement practices. The work to embed this foundational drive is the result of the work conducted under this recommendation. The team provided reference to a specific training that demonstrates BI and explain its relevance and usage including how to build reports for specific needs (i.e., creating a UCR crime count, NIBRS crime count, etc.)

As for Compliance Measure #5 – The Technology Division requests all feedback and questions be emailed to the Business Intelligence and Geospatial Technology team for continuous improvements. The oversight team has observed engagement with operational units in the development of reports specific to a unit or required for compliance with the assessment. The Technology Division has issued a unit order which establishes a process to provide a quality assurance and continuous improvement loop for BI dashboards and reports using surveys sent out to department members on specific cycles. Finally, new reports and systems continue to be developed. As identified, the work occurring in Project Plan 4 with expansion of the management dashboard is an extension of the goal and focus of this recommendation.

It is notable that this one of the most recent recommendation files to be completed. The work on this recommendation has been imbedded in much of the work of the SFPD in achieving overall compliance since the initial assessment report. This bodes well for continued improvement and compliance as a matter of organizational investment – as data collection, analysis and informed management action is key to a professional, model police department.

The Jensen Hughes teams recommends a determination of substantial compliance for this recommendation.

Compliance Measures		Status/Measure Met
1	Engage supervisors to understand the data needs for operations.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
2	Develop report templates with key data collection factors.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
3	Train supervisors to the issues around data collection and importance of the good data to organizational performance.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
4	Develop information sharing plan for supervisors so that the connection to data and operations is reinforced.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
5	Continuous improvement loop.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A



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Finding # 68: The SFPD has poor data collection and analysis, which significantly impacts effective overall organization management and accountability.

The technology in the SFPD requires significant updating. However, poor data collection practices, including lack of supervisory review and accountability for improperly completed reports and form sets, contributes to the poor data environment.

Recommendation # 68.1 As part of its technological capacity improvement strategy, the SFPD should develop a plan to advance its capacity to digest information it currently possesses in a consistent, easily accessible format such as a template containing key data points including officer performance indicators and crime indicators that could provide management with real-time information to inform their practice.

Response Date: 3/20/2024

Executive Summary: The SFPD Technology Division is committed to improving data collection and analysis with efficient supervisory review and accountability. The division has implemented and is expanding its Business Intelligence (BI) data warehouse, which is comprised of almost all electronic data collected by SFPD. The BI data warehouse contains key data points for officer performance indicators and crime indicators. This data is easily accessible to the whole department through a front-end BI software interface called Oracle Analytic Server (OAS). It is operated and maintained by the division's Business Intelligence and Geospatial Technology team. The data is loaded nightly to provide as close to real-time information as possible without constraining system resources. In this BI environment, an Officer Dashboard containing key data points for officer performance indicators and crime indicators was developed. The specific responses to each of the compliance measures discussed below highlight the progress SFPD has made and continues to make to improve data collection and have it regularly reviewed by supervisors for department accountability. An overview of the BI environment is attached. (Attachment # 1). Additionally, in 2016, reports such as UCR, CompStat, and general department statistics were all created manually through Excel or by other means. The Department has automated 99 percent of existing SFPD department reporting. One example is that the creation of the monthly CompStat used to take up to 2 weeks with four analysts working on it. Now over 50 weekly CompStat reports are generated automatically within minutes. This has freed up the time for many analysts to work on data analysis and crime solving and provided the ability for them to create many more reports. The system is an online, secure, on-premise system. It is available to the whole department of around 2500k sworn and non-sworn staff with 400 active users creating, running, and pulling reports daily. The system has 20 datamarts, hundreds of dynamic dashboards/scheduled reports, and hundreds of adhoc reports available department-wide being loaded daily with close to real-time data. This system has provided data for 272 DOJ recommendations (including 68.1), SDCS, Crisis Intervention Team, Use of Force, Crime



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Statistics, Investigations, LEP, The Academy, and many more departments throughout the SFPD. The Command and Officer dashboards were specifically created to satisfy 68.1. Dissemination and training of the command dashboard have been given department-wide to captains and others. This dashboard contains data from all data marts. Every DataMart in this system is captured at an Officer level. These dashboards are continually being updated and used. Additionally, usage of the SFPD Business Intelligence System has increased and continues to do so within the department. (Attachment # 2) The department has also acquired Benchmark Analytics, which captures all Officer Performance data and has replaced our early intervention warning system to accompany this process.

- Attachment # 1 - SFPD BI Overview and Dashboards
- Attachment # 2 - SFPD BI Usage Trend

Compliance Measures:

1. Engage supervisors to understand the data needs for operations.

The SFPD Technology Division maintains an effective and continuous engagement not only with department supervisors but also with Command Staff and personnel, both sworn and non-sworn, in every bureau, division, and unit. Specifically, for this compliance measure, the Business Intelligence and Geospatial Technology team convenes business analysis meetings with supervisors before all self-service dashboards and reports are created in the BI data warehouse. The Business Intelligence and Geospatial Technology team also holds continuing follow-up meetings and emails afterward to discuss the dashboards and reports. These meetings and email communication occur with leadership at all levels of the department, from Command Staff (i.e., Chief of Police, assistant chiefs, deputy chiefs, and commanders) to captains, lieutenants, sergeants, and civilian directors, managers, and civilian supervisors. For new dashboards and reports, the Business Intelligence and Geospatial Technology team convenes meetings, at least quarterly, with supervisors to discuss improvements to key data points, including officer performance indicators and crime indicators. The evolution of data collection from 2016 to the present day has significantly improved. The department converted handwritten forms to electronic forms with mandatory selections. All officers, including supervisors, are thoroughly trained at the academy and through department bulletins on how to enter data and its importance. Here are some examples of the meetings, emails, and reports are listed below:

SFPD Crisis Intervention Team (CIT) and SFPD Risk Management Division

- a. Attached is an example of meeting minutes with the Business Intelligence and Geospatial Technology team, CIT Lieutenant, and community workgroups. A portion of the meeting involved needed CIT dashboard improvements. This



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particular meeting occurs monthly and includes participation from San Francisco Human Services Agency, MHSF (Mental Health Association of San Francisco) – volunteer SF MH Board, NAMI SF (National Alliance of Mental Illness), San Francisco Suicide Prevention Hotline, SF Department of Emergency Management, SFPD, Coalition on Homelessness SF, SF Public Defender, Community Police Advisory Board (CPAP), DPH – CIT, AASCEND(Autism Asperger Spectrum Coalition for Education Networking and Development), Jail Health Services Behavioral Health MAPS, UCSF (University of California San Francisco), BART (Bay Area Rapid Transit), Veterans Justice Outreach, Behavioral Health Services, SF Police Commissioner, and Department of Police Accountability. Also attached is an example of email communication with the SFPD Risk Management to discuss the ongoing enhancements of the Officer Dashboard. (Attachments # 3 & 4):

- Attachment # 3- CIT Meeting Minutes 2-19-2020
- Attachment # 4- Email with Risk Management Division

b. Attached are examples of some available dashboards and reports created by the Business Intelligence and Geospatial Technology team that resulted from engaging supervisors, along with a few examples of these dashboards (Attachments # 5-7):

- Attachment # 5 - OBIEE - Dashboards, Reports and Subject Areas
- Attachment # 6 - Weekly CompStat - Citywide
- Attachment # 7 - Incidents Search By Radius

2. Develop report templates with key data collection factors.

The Business Intelligence and Geospatial Technology team developed numerous report templates containing key data collection factors. Specifically, Officer Dashboards were developed to meet these needs, which was proposed by the Technology Division and the Chief of Police. Examples of meeting this compliance measure are included below. Additionally, the improvement of data collection has greatly increased to provide accurate data. CDW, Citations, Use of Force, and Stops were first handwritten. Now, this is all done electronically, which includes mandatory selection for key data points. The evolution of data collection from 2016 to the present day has significantly improved. As mentioned, the department converted handwritten forms to electronic forms with mandatory selections. All officers, including supervisors, are thoroughly trained at the academy and through department bulletins on how to enter data and its importance.



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Example of Officer Dashboards

- a. The Officer Dashboards are summary-level details in relation to Total Incidents, Total Arrests, Misdemeanors, eCitation Violations, Use of Force Incidents, Cases, and human resource (HR) stats, along with charts prompted by year and officer name. The dashboard is an effective way to analyze key data collection factors and provides real-time data and on-demand analytics. These dashboards allow you to compare metrics across officers, ranks, and stations. This was requested by the Command Staff. These dashboards are continually being updated and used. (Attachment # 8):

- Attachment # 8- Officer Dashboard Examples

Officer Dashboard Roll-out to Early Intervention System (EIS) and Key Data Elements

- b. The Officer Dashboard was released to the Risk Management Division EIS on March 18, 2020, and is currently used to analyze officer performance indicators for early intervention risk factors. The Business Intelligence and Geospatial Technology team maintains ongoing email communication with EIS staff to add more key data points to the Officer Dashboard as needed. The Business Intelligence and Geospatial Technology team will convene quarterly check-ins with the EIS supervisors as well. In conjunction with the Risk Management Division, the Technology Division has created this template of key data collection factors on the Officer Dashboards. These key data collection factors are baseline measures for the Officer Dashboards. We have also submitted a memo to the Command Staff for final approval. (Attachment # 9-11) These dashboards are continually being updated and used.

- Attachment # 9 - Officer Dashboard Rollout email
- Attachment # 10 - DOJ Rec 68_1 CM 2 - Key Data Collection Factors
- Attachment # 11 - DOJ Rec 68_1 Key Data Collection Factors Memo

3. Train supervisors to the issues around data collection and importance of the good data to organizational performance.

The Business Intelligence and Geospatial Technology Team conducts training for all department members, which includes supervisors. These trainings are either one-on-one trainings or large classes held at the SFPD Academy. All sworn members are provisioned access to OAS, the BI front-end system user interface. BI classes are part of the regular SFPD Academy curriculum so that every supervisor can be trained. In addition to training supervisors, recruit training is instrumental in ensuring all newly sworn members have a basic understanding of the BI tools available to them as they move on to supervisory roles throughout their careers. The Business Intelligence and Geospatial Technology team teaches recruit classes at the Academy. In these classes,



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the Business Intelligence and Geospatial Technology team shows the results within the database through the reports and dashboards, emphasizing the importance of entering data into non-mandatory fields to improve data collection. In addition, the SFPD Academy gives a Report Writing class to all Officers on how to collect and enter data. This class is mandatory for accessing the Crime Data Warehouse report writing tool, and a guide is available on the SFPD intranet for reference. Examples and evidence supporting the compliance measure are below:

Note: To satisfy compliance measures 3, 4, and 5, a request has been made via department memo to engage the Administration Bureau with assistance in developing a data bulletin to include the Officer Dashboards in the department's bi-annual performance review. This request is included in **Attachment # 11 - DOJ Rec 68_1 Key Data Collection Factors Memo**.

SFPD Academy BI Class

- a. Example of an SFPD Academy email notification sent out department-wide for BI class opportunities. (Attachment # 12):
 - Attachment # 12 - Jan 2020 Email for BI Training

SFPD Academy BI Class Rosters

- b. Examples of SFPD Academy official rosters obtained from classes given. (Attachments # 13 & 14):
 - Attachment # 13 - Aug 5 & 6, 2019 OBIEE - Training Rosters
 - Attachment # 14 - Jan 2020 SFPD BI Training Roster

SFPD Academy BI Class Agendas

- c. Example of official agenda and a PowerPoint for classes held at the SFPD Academy, which included supervisors. We have also included the planned Agenda for the upcoming recruit classes. (Attachments # 15-17):
 - Attachment # 15 - Aug 5 & 6, 2019 OBIEE - Training Outline
 - Attachment # 16 - Jan 2020 SFPD BI Training PowerPoint
 - Attachment # 17 - SFPD Academy Business Intelligence Outline

SFPD Report Writing Training Guide

- d. Example of report writing training guide (Attachments # 18):
 - Attachment # 18 – CDWUserGuide



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Documentation and Data Dictionary Examples

- e. Subsets of selected BI documentation and data dictionaries sent to users are attached below. Training documents are embedded in the dashboards and disseminated via email. In the future, the Business Intelligence and Geospatial Technology team plans to make these available on the SFPD intranet.

(Attachments # 19-31):

- Attachment # 19 - How To - All Crimes Report
- Attachment # 20 - How to - Case Tracking Reports
- Attachment # 21 - How to - COMPSTAT Detail Dashboard by Incodes
- Attachment # 22 - How to - COMPSTAT SFPD Dashboard Online
- Attachment # 23 - How to - eCitation - Citywide Violations Issuance
- Attachment # 24 - How To - Incident Search by Radius Dashboard
- Attachment # 25 - How to - Investigator DB
- Attachment # 26 - How to - Monthly Compstat
- Attachment # 27 - How to - SFPD HNT Dashboard Online
- Attachment # 28 - How to - SFPD HRMS Sch Dashboard Online
- Attachment # 29 - How to - SFPD Mental Illness Dashboard Online
- Attachment # 30 - SFPD eCitation
- Attachment # 31 – BI Training website

4. Develop information sharing plan for supervisors so that the connection to data and operations is reinforced.

Currently, the Business Intelligence and Geospatial Technology team develops and maintains documentation and guides for all dashboards available to department members, in addition to providing group and individual training year-round. Documentation is also embedded in each BI dashboard. We also provide a training website for the department, as portrayed in compliance measure # 3. SFPD provides supervisor training at the Academy, in addition to working with the Academy to have a block within the Advanced Officer Training and Continuing Professional Training to demonstrate BI and explain its relevance and usage. In this training, we go over the importance of accurate data collection. We also demonstrate how to build reports for specific needs (i.e., creating a UCR crime count, NIBRS crime count, etc.)

Note: To satisfy compliance measures 3, 4, and 5, a request has been made via department memo to engage the Administration Bureau with assistance in developing a data bulletin to include the Officer Dashboards in the department's bi-annual performance review. This request is included in **Attachment # 11 - DOJ Rec 68_1 Key Data Collection Factors Memo**.



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Documentation and Data Dictionary Examples

- a. Subsets of selected BI documentation and data dictionaries sent to users are attached below. Training documents are embedded in the dashboards and disseminated via email. In the future, the Business Intelligence and Geospatial Technology team plans to make these available on the SFPD intranet. (Attachments # 19-31):

5. Continuous improvement loop.

Currently, the Technology Division requests all feedback and questions emailed to the Business Intelligence and Geospatial Technology team for continuous improvements. In addition, during training sessions, the Business Intelligence and Geospatial Technology team asks for feedback to update the OAS environment to create more meaningful dashboards, reports, and other data marts for department supervisors and other users.

The Technology Division has formalized the continuous improvement loop through the issuance of a unit order. This unit order has been approved and is now in place. This order establishes a process to provide a quality assurance and continuous improvement loop for BI dashboards and reports using surveys sent out to department members on timely and repeated cycles. The results of the surveys will be evaluated to appropriately address deficiencies.

Additionally, to ensure best practices and staff development, the Business Intelligence and Geospatial Technology team also attends industry-leading and innovation trainings and seminars to ensure staff are staying current with all practices related to data collection and analysis.

Note: To satisfy compliance measures 3, 4, and 5, a request has been made via department memo to engage the Administration Bureau with assistance in developing a data bulletin to include the Officer Dashboards in the department's bi-annual performance review. This request is included in **Attachment # 11 - DOJ Rec 68_1 Key Data Collection Factors Memo**.

Technology Division BI Unit Order and Best Practices Examples

- a. Attached is the unit order, sample of improvement loop survey, and example registration documents from Business Intelligence and Geospatial Technology team members that attended Oracle Open World to ensure staff stay current with



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best practices related to data collection and analysis. Also, an example of enhancements to CDW that resulted from working group meetings with the CIT group. (Attachments # 32-38):

- Attachment # 32 - Unit Order - Dashboard and Report Survey
- Attachment # 33 - SFPD Dashboard and Report Survey
- Attachment # 34 - 2018 Oracle Open World Registration LM
- Attachment # 35 - 2018 Oracle Open World Registration JR
- Attachment # 36 - 2023 Cloud Open World Badge JR
- Attachment # 37 - 2023 Cloud Open World Badge AK
- Attachment # 38- Example of CIT CDW addition