Memorandum

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DATE: August 21, 2024

SUBJECT: **FINAL REPORT: NATIONAL INCIDENT BASED REPORTING SYSTEM AUDIT**

Attached is our final report on the subject audit. Copies of this report will be distributed to the mayor and council and posted to the Internal Audit Office website.

Thank you and your staff for your cooperation during this project.

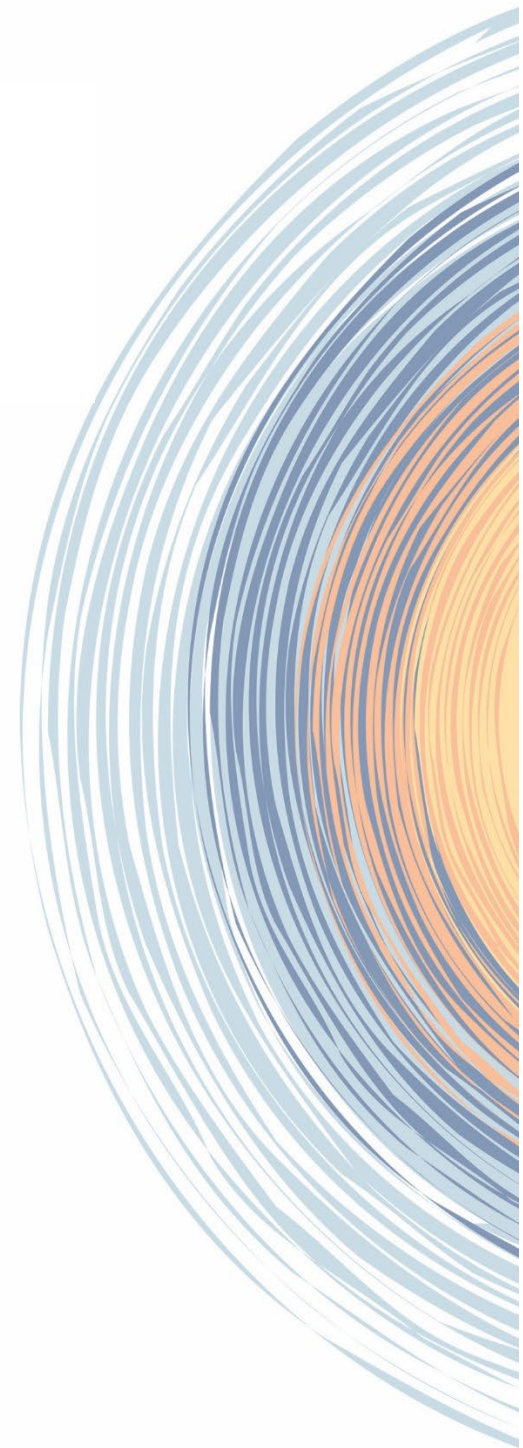# National Incident Based Reporting System Audit

August 21, 2024

Project Team:

Bill Greene, City Auditor
Jacqueline Gerald, Sr. Auditor

Tempe
Internal Audit

Executive Summary

Purpose

We audited the City of Tempe Police Department's (TPD's) uniform crime reporting processes to determine if there are adequate controls over the collection, calculation, and reporting of data to ensure crime statistics are being accurately reported to the State of Arizona's Department of Public Safety (AzDPS) in accordance with the Federal Bureau of Investigation's (FBI's), Uniform Crime Reporting Program using the National Incident-Based Reporting System (NIBRS).

Background

Over 18,000 law enforcement agencies across various jurisdictions, including federal, state, city, university, and tribal entities, participate in the nationwide collaboration known as NIBRS. This voluntary effort collects data on reported crimes—not just those officially confirmed—to provide reliable insights for law enforcement operations. NIBRS reporting offers a more comprehensive and detailed picture of crime than the prior Summary Reporting System (SRS). It captures more information on each crime incident and improves accuracy, leading to more informed decision-making and better resource allocation.

As of January 1, 2021, the National Incident-Based Reporting System (NIBRS) became the FBI's national standard for law enforcement crime data reporting in the United States. Participating agencies now report detailed information for each crime and arrest, categorized by group. NIBRS standards require all offenses within an incident be reported rather than just the most serious offense, as was reported under SRS.

To ensure streamlined collection and consistent reporting, local jurisdictions in Arizona who participate in NIBRS send their monthly crime statistics to AzDPS, who then compiles the data and submits statewide statistics to the FBI. In 2021, TPD worked with the records management system (RMS) vendor to update the system and began reporting monthly statistical crime data (statistical extract) in accordance with the new NIBRS standards in January 2022.

In October 2023, AzDPS conducted a data integrity audit of TPD's crime reporting. While the audit yielded some findings, AzDPS concluded that TPD was following AzDPS and NIBRS program policies. In August 2023, the FBI notified TPD of their intent to conduct a Quality Assurance Review of AzDPS' program, which includes data submitted by TPD. This was scheduled to begin in January 2024; however, as of the date of this report, there has been no further information provided by the FBI or AzDPS regarding this audit..

Results in Brief

Internal controls built into RMS, combined with TPD's quality control reviews, are working as designed to meet requirements set forth by NIBRS. However, additional training for sworn officers and community responders is needed to promote complete, accurate, and consistent reporting in accordance with NIBRS.

Technical controls and manual quality review checks help detect and correct errors prior to submission. However, the complexity of reporting criminal incidents requires officers and detectives to exercise significant judgment and knowledge of policy and procedures. While technical controls and manual reviews help mitigate data entry errors, they cannot substitute for proper training and application of professional knowledge and judgment in accurately capturing all NIBRS data elements within an incident report.

Comparing the monthly RMS statistical extract to the AzDPS' crime overviews would further ensure accuracy and consistency in the AzDPS upload process.

While the draft NIBRS Monthly Submittal Responsibilities include a step to download and save the AzDPS' Agency Crime Overview, there is no procedure to review it for accuracy or reconcile it to the RMS statistical extract. Our comparison of Group A offenses for January and February 2024 identified no discrepancies. However, we identified potential discrepancies between the AzDPS Agency Crime Overviews and the corresponding RMS statistical extracts for the same periods for Group B offenses. The cause of these discrepancies requires further investigation.

Updating and finalizing policies and procedures in TPD's Records Section will facilitate more complete and accurate crime reporting, which will help enhance decision making, protect future federal funding, and maintain public trust.

We identified some opportunities to update policies and procedures in the Records Section, especially those related to NIBRS reporting. To ensure ongoing compliance with the NIBRS, finalizing these procedures is essential. This includes incorporating key details on error correction, supervisory oversight, and reconciliation upon final submission.

2023-24 National Incident Based Reporting System Audit

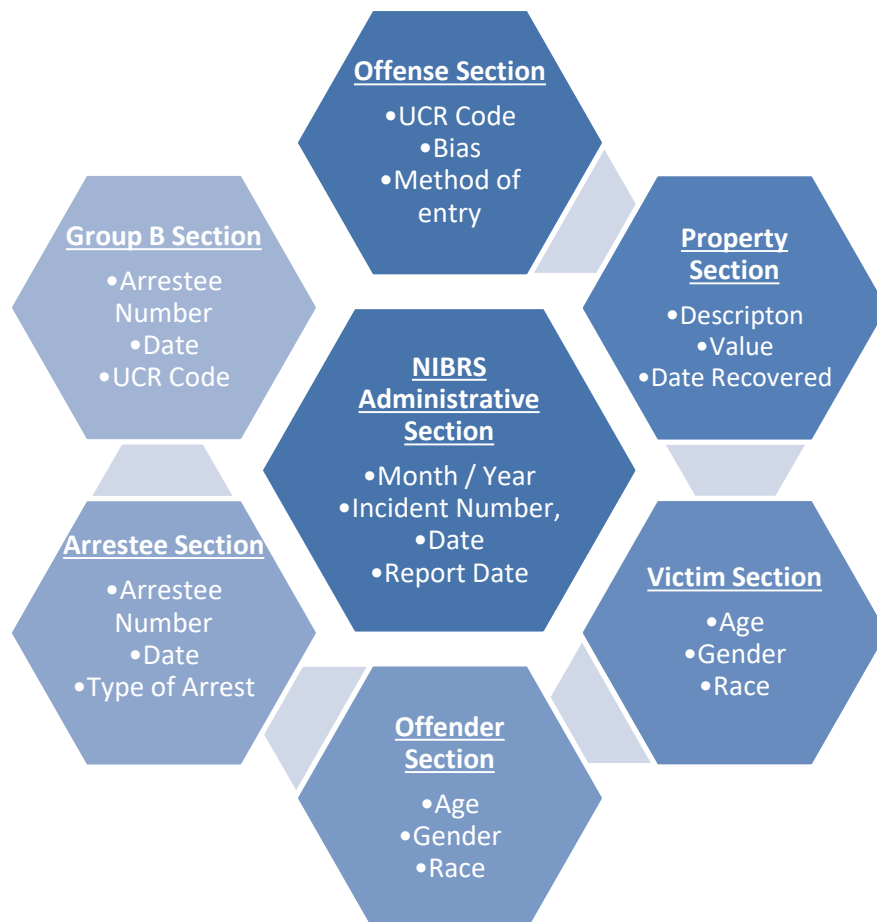| Management Response to Recommendations	
Rec #1.1 Review NCIC code 5401-0 Accident – Hit and Run with AzDPS and the RMS vendor to get clarification on the proper conversion of this code to NIBRS. Correct if necessary.	
Response: We have a workaround to ensure Tempe is reporting correctly, but discussions are being had to see 1) if an offense code can be created in the RMS and 2) if this will be made available to the officers to select or if Records will update the code once the officer has submitted the report. Code 5401-0 should only be selected if a pedestrian is involved in the hit-and-run.	**Target Date**: January 31, 2025
Explanation for Target Date > 90 Days:	
Rec #1.2 Update the RMS Code table to convert 11C to 11A once AzDPS has updated their system.	
Response: Pending the change from AzDPS.	**Target Date**: UNKNOWN
Explanation for Target Date > 90 Days:	
Rec #1.3 Implement a plan to ensure TPD personnel who are responsible for entering, reviewing, processing, or reporting crime information receive regular training in the most recent NIBRS standards and requirements.	
Everyone involved in NIBRS reporting within the Records Section has completed extensive training. Since Tempe went live with the NIBRS reporting, training has been pushed out to all employees through PowerDMS. However, we recognize the need for updated / refresher training on NIBRS standards and requirements. TPD will research training opportunities/options to ensure meaningful and relevant information is shared.	**Target Date**: June 30, 2025
Explanation for Target Date > 90 Days: Currently, all the training offered by DPS and other third-party vendors on NIBRS is between 4 hours and multiple days, with limited dates and seats available.	
Rec #2.1 Review and update the TPD Records Section Policy to reflect current practices. Include a version number and date to track future updates.	
Response: Update in progress.	**Target Date**: 9/30/2024

Explanation for Target Date > 90 Days:	
Rec #2.2 Finalize the Records Management and ACJIS/NCIC Security Policy and implement it as soon as possible. Include a version number and date to track future updates.	
Response: Update in progress.	**Target Date**: 9/30/24
Explanation for Target Date > 90 Days:	
Rec #2.3 Finalize and implement the draft NIBRS Policy. Directly reference the most recent NIBRS User Manual as recommended in the AzDPS 2023 audit report and include a version number and date to track future updates.	
Response: Update in progress.	**Target Date**: 9/30/24
Explanation for Target Date > 90 Days:	
Rec #2.4 Revise the NIBRS Monthly Submittal Responsibilities Procedures to include clear steps for correcting errors identified in the error reports. Specify how corrections will be documented and if review / approval by a supervisor is needed.	
Response: Working with AzDPS and RMS to develop reports and process.	**Target Date**: 10/31/24
Rec #3.1 Include a step in the draft NIBRS Monthly Submittal Responsibilities Procedures to review warnings generated during the NIBRS monthly test upload.	
Response: Update in progress.	**Target Date**: 9/30/24
Rec #3.2 Include in the draft NIBRS Monthly Submittal Responsibilities Procedures a process for comparing the monthly RMS statistical extract with the AzDPS' monthly crime overview. This comparison should include steps to identify and investigate any discrepancies to determine the root cause.	
Response: Working with AzDPS and RMS to develop reports and process.	**Target Date**: 10/31/24

1 – NIBRS Data Input Controls

Background

TPD adheres to NIBRS reporting standards, which mandate complete and accurate data capture for all reportable criminal incidents. NIBRS requires up to 52 data elements, in seven categories, to be collected in a specific format for each incident. A data element is the smallest named item of data that conveys meaningful information or condenses a lengthy description into a short code. Some data elements relate to the overall incident, while others provide detail as to each offense, offender, victim, property, or arrest that occurred per incident. Some data elements are mandatory while others are conditional or even optional. Each data element is described in detail in the 2023 NIBRS User's Manual provided by the FBI. The chart below illustrates some examples of NIBRS data elements.

NIBRS Data Elements Examples

Offense Section
- UCR Code
- Bias
- Method of entry

Group B Section
- Arrestee Number
- Date
- UCR Code

Property Section
- Descripton
- Value
- Date Recovered

NIBRS Administrative Section
- Month / Year
- Incident Number,
- Date
- Report Date

Arrestee Section
- Arrestee Number
- Date
- Type of Arrest

Victim Section
- Age
- Gender
- Race

Offender Section
- Age
- Gender
- Race

TPD's RMS system has been updated to collect these data elements directly or to derive the required data elements through conversions or look-up tables. Data elements do not include personal, private information such as names or birthdates.

NIBRS related input controls refer to the procedures and processes designed to make sure each data element is entered accurately and completely. These controls can involve data input methods such as using a drop-down menu to ensure a valid selection or data validation upon data entry, such as a check to ensure a date selection is within a certain timeframe. Manual input controls could include a secondary check or supervisory approval of entered data or training for those who input data.

Approach

We conducted the following tests and observations to evaluate if RMS input controls were in place and working to ensure TPD was reporting the 52 data elements accurately and completely each month to AzDPS:

- We interviewed Records and Analytics Sections staff to understand the source and method of input for each of the 52 data elements required by NIBRS . Most of the data elements are entered manually into an incident report screen by officers, detectives, or sergeants in the field. Data is entered into each data field and often described in further detail in the officer's narrative account of the incident.

- We verified the input controls in the RMS system test environment for a sample of data elements by observing system constraints for data entry and attempts to enter invalid information. For NCIC code data elements that required a conversion in the system to be in alignment with NIBRS standards, we evaluated the conversion table to ensure it was current, complete, and properly mapped NCIC codes.

- We considered the work performed by AzDPS during their 2023 data integrity audit. AzDPS is the State agency that is responsible for consolidating NIBRS data from all participating local governments and submitting it to the FBI's UCR Program. AzDPS has established data integrity procedures and assists local agencies in quality assurance practices including providing ongoing training. As such, AzDPS is deemed a qualified independent authority in NIBRS reporting criteria. AzDPS' testwork provided us with recent and reliable information about the accuracy of TPD's data collection for NIBRS reporting.

Results

Extensive controls built into TPD's RMS system closely mirror the requirements set forth by the 2023 NIBRS User Manual and NIBRS Technical Specifications Manual and are working as designed.

We selected a sample of data elements required by NIBRS and traced them into the RMS system's test environment to determine if technical controls over data entry were in place. Technical controls we noted included mandatory fields, field checks, data validation rules, drop-down menus and lists, and range checks. Cross-field validation and data integrity checks were also built into the application.   Because TPD uses the

National Crime Information Center (NCIC) codes for operational purposes, a table in RMS must be maintained to properly map the NCIC codes initially input by officers to the related NIBRS codes for reporting purposes. We validated the RMS table mapping noting only four out of 186 codes did not match the NIBRS Technical Specifications Manual. TPD corrected two of the four prior to the end of audit fieldwork. TPD will need to work with AzDPS to determine how to correct the remaining two codes.

NCIC Code in RMS		NIBRS UCR Code	Comments
5401-0 Accident – Hit and Run	Maps to…	90Z	RMS currently does not report this to AzDPS per AzDPS statue map.
11C – Sexual Assault with Object	Maps to…	11A	RMS reports as 11C as AzDPS does not yet accept the 11A code.

The complexity of reporting criminal incidents requires officers, sergeants, and detectives to exercise significant judgment and knowledge of policy and procedures when documenting incidents. While technical controls, such as those discussed above, mitigate data entry errors, they cannot substitute for proper training and application of professional knowledge and judgment in accurately capturing all NIBRS data elements within an incident report.

AzDPS recently deemed TPD in compliance with Arizona and the NIBRS Program policies in their data integrity audit report dated October 23, 2023.

AzDPS noted in their report, no areas of concern in the following areas:
- Change flow diagrams
- Use of Force incidents
- Monthly NIBRS files

AzDPS also noted no area of concern regarding TPD's monthly average file upload error rate of 0.7%. Each month, TPD submits crime incident report to AzDPS by uploading a statistical extract from RMS to a AzDPS portal. The AzDPS system has several hundred technical data input controls that it runs against the RMS statistical extract to flag and reject incidents with errors. AzDPS calculates an error rate each month, as well as an average ongoing error rate for TPD. The maximum error rate allowed by the AzDPS (and the FBI) is 4% before being deemed out of compliance and at risk of losing federal grant funding.

Regular training of sworn officers, community responders and others who have a responsibility to enter, review, process, or report crime information is critical to ensure complete, accurate, and consistent reporting in accordance with NIBRS.

In their October 2023 data integrity audit report, AzDPS selected a sample of 65 incident reports submitted by TPD in 2022 to review. Of these 65 incidents, AzDPS determined 16 (26%) incidents were either over-reported, under-reported or otherwise inaccurate.

Since this recent data integrity audit provided us with timely audit results, we verified that all incidents flagged by AzDPS were corrected by TPD in accordance with NIBRS protocols rather than pulling additional incident reports. This reduced our sample size for testing to six incident reports and lessened the administrative burden on TPD to pull incident reports and redact identifying information.

From our sample of six incidents, one incident reported in July 2022 had no offender description data elements completed even though the information was documented in the officer narrative. This would have been flagged as a warning by the AzDPS monthly automated error check upon TPD's upload. Warnings are not considered part of the error rate and are not rejected upon upload. Upon investigation, we learned that the officer updated the incident to include descriptive codes in October 2023. The remaining five incidents we tested were reported accurately and completely.

AzDPS recommended in their data integrity audit that TPD attend an upcoming NIBRS training class. While staff in the Records Section have received recent NIBRS training, officers and other community responders have not yet received additional training.

Recommendations

1.1 Review NCIC code 5401-0 Accident – Hit and Run with AzDPS and the RMS vendor to get clarification on the proper conversion of this code to NIBRS. Correct if necessary.

1.2 Update the RMS Code table to convert 11C to 11A once AzDPS has updated their system.

1.3 Implement a plan to ensure TPD personnel who are responsible for entering, reviewing, processing, or reporting crime information receive regular training in the most recent NIBRS standards and requirements.

2 – NIBRS Incident Processing Procedures

Background

Well-documented policies and procedures for identifying NIBRS reportable incidents in RMS and reporting all the necessary data elements to AzDPS are essential to the program. Policies and procedures ensure everyone follows the same steps and act as a reference guide, minimizing the chance of mistakes due to confusion or lack of knowledge, especially for new employees. Policies and procedures should be aligned with and reference the most current NIBRS User Manual and outline each step taken to ensure complete, consistent, and accurate crime data reporting.

Approach

We reviewed policies and procedures related to the TPD Records Section to validate completeness and alignment with the 2023 NIBRS User Manual and to determine if they were current. We also job shadowed the Record Supervisor during weekly error report processing for incidents occurring in February 2024. In addition, we reconciled all incidences occurring in January and February 2024 as reported by RMS in the statistical extracts uploaded to AzDPS.

Results

Updating and finalizing policies and procedures in TPD's Records Section to more closely align with the 2023 NIBRS User's Manual will help ensure accurate and complete NIBRS reporting. Completion of policies will help secure future federal funding and maintain public trust.

Our review of TPD's policies and procedures related to the Records Section and NIBRS crime reporting indicated that some policies are outdated while others are in draft form due to insufficient resources caused by staffing turnover. These are listed below:

- ***Records Section Policy*** - the policy for the Records Section itself did not indicate the last update; however, we noted some areas where information appeared to be outdated.

- ***Records Management and ACJIS/NCIC Security Policy*** – this policy was still in draft form. This important policy dictates access to RMS, including user account provisioning, user access audits, and decommissioning of user accounts at end of employment or transfer.

- ***NIBRS Policy*** – this policy has not been finalized. When reviewing the *NIBRS Policy* for alignment with the 2023 NIBRS User Manual, we noted the draft *NIBRS Policy* did not directly reference the 2023 NIBRS User's Manual, as recommended by the AzDPS in their October 2023 audit report. Additional areas that are addressed in the 2023 NIBRS User Manual that may be significant to the Officer or Sergeant roles but not in the draft policy include:
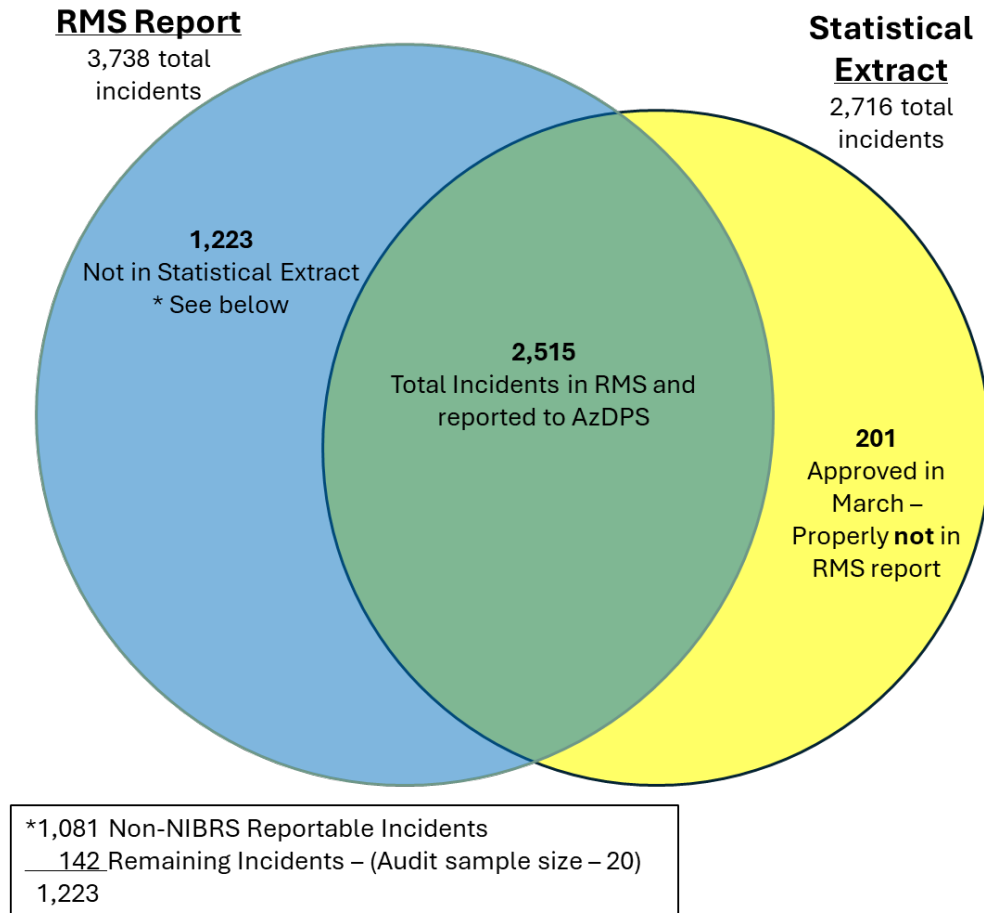
- Jurisdiction
- Classification of group A versus group B offenses
- Attempted crimes
- Crimes against property society or person
- Court warrants

- ***NIBRS Monthly Submittal Responsibilities Procedures*** – these procedures are not yet finalized. They outline the steps to run a weekly error report but do not include steps to correct errors or how to document the corrections - even though the TPD staff is correcting errors and documenting corrections in the RMS log. Procedures also do not include steps for supervisory review or approval of corrections which are steps not currently being performed.

The monthly NIBRS statistical extracts from RMS we reviewed included all incidents reported to TPD that met the criteria for NIBRS reporting.

The NIBRS Monthly Submittal Responsibilities include steps to create a Statistical Extract - a text file exported from RMS of all NIBRS-reportable incidents and updates for the current month. The criteria for the statistical extract was built into the system by the vendor to meet all reporting requirements of both the FBI and AzDPS. TPD relies upon the vendor to apply any major updates to the criteria for the statistical extract when there are changes to the NIBRS requirements.

To determine the completeness of the RMS statistical extract, we compared an RMS report of all general offenses between January 1, 2024 through February 28, 2024 to the corresponding NIBRS statistical extracts. We identified discrepancies in our initial analysis, but further investigation revealed these were primarily non-NIBRS reportable offenses, unfounded or unfinalized cases. After removing these cases, we selected a targeted sample of 20 out of 142 remaining cases for investigation. All 20 cases were confirmed to be non-NIBRS reportable. These included a significant number of Group B offenses with no arrests, which are not required for NIBRS reporting. Other discrepancies included incidents reported in February but not approved until March 2024. The Venn Diagram below summarizes our testing:

Statistical Extract Reconciliation to RMS Records
(January – February 2024)

RMS Report
3,738 total
incidents

Statistical Extract
2,716 total
incidents

1,223
Not in Statistical Extract
* See below

2,515
Total Incidents in RMS and
reported to AzDPS

201
Approved in
March –
Properly **not** in
RMS report

*1,081 Non-NIBRS Reportable Incidents
   142 Remaining Incidents – (Audit sample size – 20)
1,223

Recommendations

2.1 Review and update the TPD *Records Section Policy* to reflect current practices. Include a version number and date to track future updates.

2.2 Finalize the *Records Management and ACJIS/NCIC Security Policy* and implement it as soon as possible. Include a version number and date to track future updates.

2.3 Finalize and implement the draft *NIBRS Policy*. Directly reference the most recent NIBRS User Manual as recommended in the AzDPS 2023 audit report and include a version number and date to track future updates.

2.4   Revise the *NIBRS Monthly Submittal Responsibilities Procedures* to include clear steps for correcting errors identified in the error reports. Specify how corrections will be documented and if review / approval by a supervisor is needed.

Internal Audit Office

3 –NIBRS Reporting Controls

Background

NIBRS reporting controls are the safeguards designed to ensure accuracy and completeness when reporting NIBRS data elements generated in RMS and processed by TPD's Records Section. They focus on the outputs produced after incident data has been entered and processed according to NIBRS requirements.

Reporting controls aim to achieve accuracy and completeness. This involves checks for data consistency, and adherence to the defined NIBRS format as well as checks for missing or conflicting data elements and ensures all processed records are accurately reflected in TPD's final monthly summary published by AzDPS.

Approach

To determine reporting controls were in place and working to ensure the timeliness, accuracy, and completeness of the RMS statistical extract submitted to the AzDPS portal, we:
- shadowed the Records Specialist during the monthly submittal process for February 2024. We evaluated the process to determine if the procedures in the draft NIBRS Monthly Submittal Responsibilities were followed.
- compared the total records uploaded to the portal per AzDPS to the total records in the RMS statistical extract.
- compared the number of offenses summarized by NIBRS Crime Code for both Group A and Group B crimes in the NIBRS Crime Agency Overview published by the AzDPS for both January and February 2024 to the RMS statistical extracts of the same months.

Results

To maintain NIBRS compliance, TPD reviews the upload to an AzDPS test site each month and corrects errors to achieve an error rate below 4% before final submission to AzDPS.

NIBRS requires that agencies maintain an average monthly upload error rate less than or equal to 4%. Failure to meet this standard can jeopardize the agency's eligibility for critical grant funding. The *NIBRS Monthly Submittal Responsibilities* outline the process for running the RMS statistical extract through a test site provided by AzDPS, to identify and correct errors before uploading it to the actual AzDPS production site. Additionally, approval by the Records Administrator or the Bureau Manager is required prior to submission to the actual AzDPS production site. This review process ensures TPD is aware of the error rate each month and can take preemptive action to comply with the NIBRS 4% requirement.

The AzDPS test site also provides a list of common warnings when agencies submit their statistical extracts. Because these warnings do not stop incidents from being uploaded and are not included in the calculation of the upload error rate, TPD does not review them. Reviewing the warnings, even though they aren't included in the error rate, would be beneficial for the following reasons:

- Warnings might flag inconsistencies or incomplete data that wouldn't necessarily be classified as errors but could still affect the quality and usefulness of the reported data.
- Reviewing warnings over time could help TPD identify recurring issues in data collection or reporting processes.
- Warnings might indicate upcoming changes in NIBRS standards that the TPD might need to prepare for to avoid future compliance issues.

Comparing monthly the RMS statistical extract to the AzDPS' crime overviews would promote accuracy and consistency in the final AzDPS upload process.

While the draft NIBRS Monthly Submittal Responsibilities include a step to download and save the AzDPS' Agency Crime Overview, there is no procedure to review it for accuracy or reconcile it to the RMS statistical extract. Our comparison of Group A and B offenses for January and February 2024 identified potential discrepancies between the AzDPS Agency Crime Overviews and the corresponding RMS statistical extracts for the same period. The cause of these discrepancies requires further investigation.

Recommendation

3.1   Include a step in the draft *NIBRS Monthly Submittal Responsibilities Procedures* to review warnings generated during the NIBRS monthly test upload.

3.2   Include in the draft *NIBRS Monthly Submittal Responsibilities Procedures* a process for comparing the monthly RMS statistical extract with the AzDPS' monthly crime overview. This comparison should include steps to identify and investigate any discrepancies to determine the root cause.

Scope and Methods

Scope

The scope of this audit includes crime data elements reported since TPD's implementation of NIBRS standards in January 2022.

Methods

We used the following methods to complete this audit:

- **Research –** information available from FBI NIBRS website, AzDPS, and other agencies and TPD policies and procedures.
- **Interviews** – meeting with Records Section and Crime Analysis staff who are considered knowledgeable in NIBRS reporting to understand NIBRS requirement and data processes in RMS.
- **Risk Assessment** – documented risks associated with failure to meet requirements of NIBRS program.
- **Assessment of internal controls** including input, processing and output controls to determine if they are working as intended and cover the risks as assessed.
- **Testing of controls**, both preventative and detective in areas where internal controls may not exist or be strong enough to be relied upon. This may include data analytics to test the entire population of cases within scope of this audit or to better identify high risk cases from which to sample from.
- **Consideration of work of other auditor –** prior data integrity audit performed by AzDPS in October 2023.

Unless otherwise stated in the report, all sampling in this audit was conducted using a judgmental methodology to maximize efficiency based on auditor knowledge of the population being tested. As such, sample results cannot be extrapolated to the entire population and are limited to a discussion of only those items reviewed.

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