**NHTSA - State Electronic Data Collection Grant Program RFI:**

**Data Standardization and Modernization of Information Technology**

**(1) What are the State's current methodologies for collecting and standardizing statewide crash data electronically in a central repository?**

Puerto Rico (PR) uses a single police crash report (PCR) form data collection method and is standardized for the state needs and in compliance with MMUCC. A multi-agency evaluation team reviewed the latest MMUCC version to produce the current PCR (PPR-621.4) that is used island-wide by all law enforcement including state and municipal police departments. Once a crash occurs, most citizens will call local law-enforcement police departments to report the crash or calling 911. For all crash reports, a unique PCR number is assigned by the central dispatch unit or radio control unit, upon the request of the Police officers investigating the crash. Police come to the crash location to collect basic information of the crash which takes about 15 minutes for non-fatal crashes, and then complete the PCR at their police station. Citizens can also visit the police department to report some crashes. Once the police complete the PCR it is then passed to the superior for validation of critical information. The superior approves the final report, and his signature releases the PCR to transfer the record electronically to the central police department. Here the record is stored in a centralized database server, distributed to the PR Police Parts office for distribution to the public and electronic transfer to the Puerto Rico Traffic Safety Commission crash system every 24-hr.

PCR must be completed by the Police at no more than 48-hr and reported. Every police station has at least one computer with access to the electronic PCR system to complete the electronic PCR. A paper base form is always available in case immediate data transfer is not possible due to a power outage or poor internet connection. Once service is restored, data is entered into the electronic system.

**(2) NHTSA relies on MMUCC to establish a standardized data set. What steps are required for the State to meet this standardization?**

From NHTSA’s 2022 Traffic Record assessment it was identified that the current PR PCR is 85% MMUCC compliant.

If the intent is to have a 100% MMUCC compliant PCR there are several steps needed. Designate a TRCC sub-committee to perform an analysis of the current PCR data elements that comply with the latest MMUCC version. Then redesign the state PCR to add missing elements. Redesign the validation rules. Have this form approved by the TRCC members. Have all the approvals of the PR Police Department including, transit Police team, Police IT team, Police reform team, and PR Police Commissioner. Then the new PCR recommendations are released for implementation to the Police Crash Data collection system by the Police IT department. Then a retraining of all the police agents is needed to help adequate data collection.

If the goal is to gather the current information the states are collecting is simpler. To establish a standardized data set that is useful for NHTSA national analysis, the state needs to assess the individual codes to identify the corresponding data element to create a mapping. From this mapping a subset of data can be created to have a standardized dataset. Ideally, guidelines with formatting are preferred to keep uniformity across states.

**(a) Please provide an estimated timeline to implement MMUCC standardization.**

Puerto Rico’s last revision lasted around 2-years. Considering there is only 15% data elements to add, of which some does not apply to PR. We estimate that a full MMUCC standardization process could take at least 1-2 years. If no changes are recommended to current PCR, the MMUCC standardization can take less than 6 months with all approvers in agreement.

**(b) What would it cost the State to move toward this data standardization?**

A 100% MMUCC data standardization would require a major investment of the state. Which include time of different stakeholders to redesign the PCR, programming, validation, training police, deployment, and QA/QC of data.

The data standardization of current PCR would take much less resources since it requires only data analysis and programming.

**(3) If the State does not have a centralized statewide crash data repository, describe what the State will need to establish the infrastructure; processes and procedures; information technology requirement; and training, to support this data modernization effort?**

Puerto Rico currently has a centralized statewide crash data repository. However, the PR Police requires additional resources to support and maintain the information technology infrastructure, needs resources to add additional validation processes and procedures that are currently not available to improve the data quality, and needs continuous training for crash data collection.

**(4) Explain what the State will need to establish the infrastructure; processes and procedures; information technology requirement; and training to implement an electronic data transfer protocol.**

The biggest challenge to implement and maintain an electronic data infrastructure, including the electronic data transfer protocol is the limited funding. The collection of crash data is substantial for the state as it requires a lot of resource including traffic police officers, training, computer, GPS, internet, workstations, vehicles, technology servers, analysist, data collection system, and maintenance to all these infrastructures to achieve the transfer the records.

Without additional funding for the police and crash system to transfer the data, there is very limited opportunity for the state to promote changes in the standardization of crash data and enhancement of the data quality. The current main limitations identified are insufficient funds for new and existing projects related to technology; state pairing requirement limits the state from using the funds; 1-year funding prevents continuity and stability of efforts; reimbursement method limits opportunities for smaller businesses or contractors; police data collection system and crash system require recurring maintenance funding; data integration is essential to meet TR performance measure which require substantial improvements to external systems to improve the data quality and electronic data transfer; and public access to crash data requires substantial resources based on the demand.

**(5) How long would it take for the State to establish a centralized statewide crash data repository and to implement an electronic data transfer protocol?**

PR currently has a statewide crash data repository. However, to have a good data quality. further efforts are needed to improve data validation processes, and integration of data and systems. With quality enhancements PR could be looking at full electronic data transfer in a 3-year period. Currently, PR can transfer fatal electronic records during next FY, since there is a more rigorous evaluation and follow up process of these cases.

**(6) What are the State's estimated costs associated with establishing a centralized statewide crash repository to support an electronic data transfer protocol?**

PR has a centralized statewide crash repository. However, to achieve a data transfer protocol for non-fatal crashes requires improvement in the data quality and data transfer among agencies. A rough estimate to achieve these efforts is $1 million.

**(7) Explain the challenges associated with establishing a centralized statewide crash repository that supports an electronic data transfer protocol. Elaborate on the State's needs to overcome those challenges.**

The main challenges are the Police data collection and crash data systems needs major improvements to achieve an acceptable data quality that meets NHTSA’s basic performance measures of timeliness, accuracy, completeness, uniformity, integration, and accessibility to justify the electronic data transfer of all crash types. Without a minimum data quality threshold NHTSA will receive worthless data and ineffective measures will be implemented based on that data.

To overcome these challenges PR needs funding that allows to equip the Police with GPS, laptops, mobile internet service, and other technological equipment that allows better data collection. Data integration from other state agencies and validation rules to the PCR is needed to reduce the data entry and adding error to data. The crash system needs funding for 5% paper-based crash records data entry, data standardization, data quality analysis, daily data transfer service, and public access to the crash data.

**Law Enforcement Electronic Crash Reporting**

**(8) What percentage or number of the State's law enforcement agencies collect motor vehicle traffic crash information using an electronic crash report/records management system?**

About 95%.

**(a) Are all law enforcement agencies in the State collecting motor vehicle traffic crash information via an electronic crash report/records management system using the same application?**

No. There are two additional crash data entry applications.

**(b) For law enforcement agencies collecting motor vehicle traffic crash information using an electronic crash report/records management system, what application is used?**

The three applications available are in-house build based on the needs and compatibility of other systems used.

**(9) What percentage or number of law enforcement agencies solely use paper crash reports in the crash reporting process?**

All law enforcement agencies should have access and be using an electronic PCR system. However, 5% of the PCR are still being received in paper.

**(a) If so, are these paper reports coded into the centralized statewide crash repository?**

Yes, the data is entered by a data entry team into the statewide crash repository.

**(b) Describe any law enforcement's reservations for participating in electronic crash reporting to document motor vehicle traffic crash information?**

Limited access to computers, data collection system, and no training.

**(c) Specify the needs and costs for law enforcement agencies to adopt electronic-crash reporting to document motor vehicle traffic crash information?**

The need are GPS or crash mapping tool, laptops, car racks, mobile internet service, power converter, traffic safety police vehicles and safety equipment. In addition to the maintenance and training for the use of all these equipment.

**Data Management**

**(10) Does the State have a conceptual or notional design of how the data would flow into a centralized statewide crash data repository? If so, please elaborate.**

Yes. Police collects and validates the data elements. Crash systems performs a second QA/QC, recodes fields with problems and errors, standardizes the data for NHTSA system, transfers the electronic transfer, and maintains the system.

**(11) If the State currently participates in NHTSA EDT protocol, does the State have written operating procedures for managing the data flow? If so, please submit the data flow or the operational structure.**

Puerto Rico currently does not participate of the EDT protocol.

**(12) Does the State, in its crash data, distinguish between crash types between self-reported and police reported crashes?**

Puerto Rico only has police reported crashes. The current law does not provide for self-reported crashes.

**(13) Does the State include variables to identify State-reportable vs. non-reportable crashes?**

Puerto Rico only has police reported crashes. The current law does not provide for self-reported crashes.

**Data Accessibility to the Public**

**(14) Please provide recommendations on the format types for publicly available State crash data.**

The PCR contains multiple sensitive data elements with personal information. To have public crash data available a web-based dashboard can be made available from the current crash system. However, that service requires technology and human resources to address a continuous access and support to the public.

**(15) What State products and services that include State crash data does the State find are most helpful to the public?**

Dashboards and score cards.

**(16) Please advise if the State is interested in modernizing and standardizing its State crash system?**

The state has invested in modernizing the crash system using 405c funds. The state is interested in the standardization for EDT. As well, seeks for to further funding resources to advance the modernization and enhancement of the crash data collection and crash data systems.