TECHNICAL MEMORANDUM

TO: Interested Parties

FROM: Robert Torzynski, AICP
Program Manager – Bicycle & Pedestrian Planning

DATE: January 31, 2006

RE: Transportation Safety Information Analysis

Purpose

The purpose of the Transportation Safety Information Analysis project is to provide recommendations and strategies that support improved quality of and access to transportation-related accident data in the nine-county Genesee Transportation Council (GTC) planning region.

Key project work tasks included:

- Surveying data users for their input on how they access transportation-related accident data – from what source(s), for what purpose(s), and what (if any) issues they have with obtaining and/or analyzing this data.
- Identifying the various local and state agencies that collect, maintain, and/or use transportation-related accident data in the nine-county GTC planning region.
- Surveying these data providers as to what data they collect, maintain, and/or use, how and when they provide the data to interested parties, and how they utilize this data for their own activities.
- Providing recommended strategies to support improved quality of and access to transportation-related accident data in the region.

This Technical Memorandum summarizes the outcome of the results of the surveys and presents recommended strategies for improving the quality of and access to transportation-related accident data.

Note: this project was not a data collection or analysis project, thus, this Technical Memorandum does not include transportation-related accident data or analyses of such data, except at the summary level as needed to analyze data movement (i.e., collection, provision, and use).

Process

GTC staff assembled the information to be analyzed in a three-phase process. The first phase included surveying consultants within the region that regularly use transportation-related accident data, in order to identify issues of importance to the end-users of the data.

In the second phase, based on reporting requirements, GTC staff identified the local and state agencies that are the key players in collecting, formatting, and disseminating transportation-related accident data.

The third phase included a survey of local and state-level generators of transportation-related accident data, with the intent to analyze the issues identified by the end-users and seeking to identify opportunities to improve the quality of and access to the data within the GTC region.

User Survey

The user survey was conducted as a roundtable discussion among consultants at the GTC office on February 22, 2005. Representatives from the following consulting firms participated in the user roundtable discussion: Bergmann Associates, Fisher Associates, FRA Engineering, Stantec Consulting, Ltd., and SRF & Associates. The purpose of the roundtable was to identify the core issues affecting the users.

At the consultant roundtable, four core issue areas were identified as representing opportunities to improve transportation-related accident data available within the region: 1) timeliness, 2) access, 3) format, and 4) quality.

Timeliness

Several consultants indicated that data was often several years old before it was available for analysis. This gap in time makes it difficult to plan improvements and evaluate the effectiveness of completed projects in a timely manner. This was an important issue to end users and the subsequent survey of data providers sought to analyze the reporting system data movement to identify opportunities to improve its timeliness.

Access

Roundtable participants indicated that they had never been refused transportation-related accident data based on a Freedom of Information Letter (FOIL) request. However, obtaining such information without resorting to a FOIL in some cases depended on the consultant's rapport with agency staff. Lacking specific procedures to access data makes it difficult to budget time and resources when undertaking traffic-safety research, especially when multiple agencies are involved. In order to address access-related issues, data providers were queried on the timelines and other requirements to be met by those seeking access to accident data.

Format

Transportation-related accident data has traditionally been collected on paper forms. More recently, it has begun to be collected electronically. Roundtable participants indicated that locations of transportation-related accidents are available in paper format only, while summary totals by county are available in electronic format on the Internet. It was stated that geocoded transportation-related accident data would be helpful to users. Accordingly, data providers were queried on the data format that they used (electronic or paper) and on future plans with respect to electronic data reporting.

Quality

Several comments were made regarding inconsistencies in the data available to users. Quality issues related to the legibility and accuracy of paper reports, the duplication of accident reports, and the lack of detail included within the reports generated by some agencies, such as 911 services. A broader issue related to data quality is the concern expressed by consultants that "non-reportable" or "property damage only" transportation-related accident data was not

available for analysis. This was expressed as a concern because such incidents can represent a significant number of the accidents. In many cases reports have been filed on the incidents, but the data have not been processed and is not available for analysis.

Although nearly all responding data providers indicated that quality assurance review was undertaken to ensure the completeness and reliability of the data, several opportunities that might improve overall data quality – and improve the availability of property damage only reports – were identified as a result of the provider survey and analysis of the reporting system.

Provider Survey

New York State traffic law requires that certain motor vehicle accidents (MVA) be reported by members of the public and/or by law enforcement officers when they occur. These incidents must be reported to the State Department of Motor Vehicles (DMV) whenever specific criteria are met (e.g., death, injury, or property damage exceeding $1,000).

Motorists are required to report MVA utilizing the paper based DMV form MV-104. Law enforcement officers may utilize the paper based form MV-104A or submit the report electronically through the Traffic Reporting and Criminal Software (TraCS) System. Bicycle-only and bicycle-pedestrian accidents are required to be reported under similar circumstances on related forms.

It should also be noted that there are a considerable number of MVA that are required to be reported to DMV by motorists via form MV-104 and also to be reported to the DMV by law enforcement officers on the form MV-104A. These incidents require, by law, the filing of two separate but similar forms: one by the motorist and one by the law enforcement officer.

The GTC data provider survey, undertaken between November 2 and December 16, 2005, focused on the law enforcement agencies required by New York State Vehicle & Traffic Law (Article 22) to prepare MVA reports and to submit them to DMV, for several reasons. First, while MVA reports are also required to be prepared by individual motorists, and similar information may be generated by hospitals and transit providers, law enforcement agencies generate a large number of MVA reports, with each agency reporting up to several hundred accidents (or more) per year.

Second, law enforcement agencies are the lead agencies in implementing electronic reporting through the TraCS System which will improve the reporting system.

Third, a survey of individual motorists is not practical within the scope of the analysis, given that in calendar year 2000 (the last year for which detailed county-by-county data is readily available) more than 31,000 accidents reportable by motorists occurred within the nine-county GTC region.

Results

The GTC survey was distributed to 65 entities within the nine-county region including: New York State Police (11 offices representing 3 Troops serving the region); all nine County Sheriff's Offices; and 45 city, town, and village police departments.

In addition to distributing the survey, GTC staff also contacted the New York State Department of Motor Vehicles (DMV), the New York State Department of Transportation (NYSDOT), and the New York State Police (NYSP) in order to better understand the process by which motor vehicle accident reports are managed at the local, regional, and statewide level. The overall survey response rate was 78%, with 51 out of the 65 entities responding to the survey. Statistically and geographically, responsible agencies are well represented.

While many of the questions within the survey instrument addressed more than one of the "core issue" areas identified above, the following discussion has grouped the questions and response tallies addressing the core issue areas (timeliness, access, format, and quality) for discussion purposes. Recommended strategies are provided in a similar manner.

The survey questions have been re-numbered and in some cases edited to fit within the context of the following discussion, however the edits do not alter the substantive meaning of the results. It should be noted that some questions allow multiple responses, and in these cases the number of responses ("n") is assumed to be 51.

Timeliness

Survey Question	*Possible Responses*	*Results*
T1. Please check the box that shows your agency's timeline in forwarding traffic accident reports to receiving agencies (DMV/DOT, others):	☐ 0-2 Weeks ☐ 2 Weeks to 1 Month ☐ More than 1 Month	42 (82%) 8 (15%) 1 (2%)
T2. How soon is access to accident reports available to outside parties?	☐ 0-2 Weeks ☐ 2 Weeks to 1 Month ☐ More than 1 Month	41 (95%) 2 (5%) 0

Based on the responses to Questions T1 and T2, agencies appear to be processing, filing, and allowing access to MVA reports in a timely manner. This issue will be further discussed below as it appears that the root cause for the lag in processing and making these reports available for analysis does not occur at the local level.

Access

Survey Question	*Possible Responses*	*Results*
A1. Does your agency collect traffic accident information?	☐ Yes ☐ No	49 (96%) 2 (4%)
A2. Please list other agencies that may collect traffic accident information within your jurisdiction:	1. 2. 3.	See below

A3. Please check the box that shows where traffic accident data collected by your agency is sent. Please check all that apply:	☐ New York State DMV ☐ New York State DOT ☐ New York State Police ☐ Other	47 (92%) 11 (21%) 6 (12%) Note: Multiple answers allowed. N=51.
A4. Does your agency store traffic accident data in an electronic format?	☐ Yes ☐ No	34 (66%) 17 (34%)
A5. Does your agency allow access to accident reports by outside parties?	☐ Yes ☐ No	40 (78%) 11 (22%)
A6. Does your agency allow access to multiple accident reports under a single request (i.e., a year's worth of reports for a specific intersection)?	☐ Yes ☐ No	34 (70%) 14 (29%)

Based on the responses to Question A1, it appears that all of the agencies required by law to collect MVA information are meeting requirements to do so. It is noted that two respondents appear to have erroneously answered "no" to Question A1, while indicating elsewhere on the survey form that they did collect MVA information.

Question A2 was intended to gauge the degree to which agencies were aware of the potential for overlapping jurisdictions in the reporting of accidents. Based on the responses, which included the County Sheriff's offices, the NYSP, the DMV, the Stop DWI Programs, and one college police force, it appears that agencies are aware that the responsibility to report motor vehicle accidents may in some cases depend on which law enforcement agency "gets there first." This issue illustrates the complexity of the reporting system given the large numbers of jurisdictions within the GTC region.

Responses to Question A3 show that, as expected, the responding agencies follow the requirements of the law to submit motor vehicle accident reports to the DMV. The cases where reports are submitted to the NYSP reflect agencies participating in TraCS, or NYSP offices that submit TraCS through their Troop Headquarters to the DMV. Reports submitted to NYSDOT represent the submittal of copies of MVA reports for their utilization in loss recovery when state-owned facilities are damaged (e.g., when a guide rail or sign post is damaged and the motorist may later be determined to be liable for damages.)

Questions A4 through A6 addressed the storage format utilized by responding agencies, policies with respect to allowing data access to outside parties, and access to multiple reports pursuant to a single request. The responses to Question A4 show that 66% of responding agencies store the data in an electronic format. An even higher percentage (78%) of responding agencies indicate that outside access is allowed to motor vehicle accident reports (A5), and 70% of the responding agencies allow multiple reports to be accessed under a single data request (A6).

The responses to questions A4 to A6 suggest a high degree of access is provided. However, it is important to note several caveats. First, survey question A4 did not assess the specific format of

the electronic information available, and it is unlikely that the data is within a standardized format at the local level given the diversity of the jurisdictions involved.

Second, several of the agencies that allow outside access to data in Question A5 indicated that a Freedom of Information Letter (FOIL) was required to obtain the data. This suggests that access by outside parties such as consultants may require formal efforts (i.e., FOIL) in these jurisdictions.

Third, the respondents responding that access to multiple reports was possible within a single request (Question A6) indicated that, in some cases, it would require a manual search.

Overall, access to MVA reports at the local level is provided but in an inconsistent manner. This issue will be discussed further below, and supports the importance of facilitating access to consolidated information through the state DMV and/or at the regional level to achieve improved access.

Format

Survey Question	*Possible Responses*	*Results*
F1. Please check the box that shows the traffic accident reporting form used by your agency. Please check all that apply:	☐ DMV Form MV-104 (Paper) ☐ TRACS Reporting System (Electronic) ☐ 1. (Other) ☐ 2.	43 (86%) 18 (35%) Note: 10 Agencies (21%) utilize both formats.
F2. Does your agency participate in the TraCS electronic reporting system?	☐ Yes ☐ No	19 (37%) 32 (63%)
F3. If not, does your agency have plans to begin participation in 2006?	☐ Yes ☐ No	18 (58%) 13 (42%)

Questions F1 to F3 were intended to determine whether MVA were reported using paper or electronic format, whether TraCS was in use at the responding agency, and, if not, whether the agency had plans to implement the TraCS system during 2006.

As shown in the response to Question F1, 86% of the responding agencies utilize the paper MV-104 format to file MVA reports and 35% of the agencies utilize the TraCS system. The total of these two percentages (121%) shows that 10 agencies (21%) currently file MVA reports utilizing both the MV-104 form (paper) and the electronic TraCS system.

Question F2 directly addresses participation in the TraCS program. As of the time of the survey, 37% of the agencies indicate that they participate in TraCS and 63% indicate that they do not. Question F3 shows that 58% of the agencies that indicated they did not currently participate in TraCS planned to begin participating in 2006. Based on the results of Questions F1 to F3, 37 out of the 51 responding agencies in the region (72%) plan to be participating in TraCS by the end of 2006.

Quality

Survey Question	*Possible Responses*	*Results*
Q1. Does your agency perform in-house review of the quality of traffic accident reports before they are forwarded to receiving agencies?	☐ Yes ☐ No	50 (98%) 1 (2%)

Question Q1 was a direct attempt to gauge the awareness at the agency level of quality assurance in the MVA reporting process. Based on the responses, all but one of the 51 responding agencies perform in-house review of the MVA reports before they are submitted to receiving agencies.

In order to supplement the provider survey, GTC staff contacted NYSDOT, DMV, and NYSP to assess the data movement within the system.

The generalized movement of transportation-related accident data via MVA reports can be summarized as: 1) Raw data is entered on paper or electronically onto forms in the field, 2) the data is transmitted to the DMV, 3) the data is edited and consolidated by DMV staff, and 4) the data is transmitted to NYSDOT. Once the data reaches NYSDOT, it is available to users in several consolidated and searchable formats. MVA reports can also be made available to users earlier within the process – subject to local policies – in a non-consolidated and generally non-searchable format.

As shown in the table on the next page, when MVA reports are electronically filed, the data movement is considerably simplified compared to the processing of the paper-based form MV-104A. The principal differences that affect the processing time for the data result from the fact that the coding for the location of the accident, its classification as a reportable/non-reportable accident, and the generation of certified copies of MVA report forms can be automated if electronic forms are used (e.g., TraCS), but must be done by hand if paper forms are used.

These distinctions are important for the reasons discussed below:

1) TraCS has the capability to integrate location information based on the use of the Global Positioning System (GPS) into the report as it is filed, in the field. The paper form requires this to be done manually, and requires additional effort by the responding officer to read a GPS device and enter the data by hand on the form. This would also introduce the possibility for transcription error onto the form. GPS data, integrated into the electronic reporting form and properly maintained, can be extremely reliable and accurate and can be linked to a map displayed to the responding officer filing the report in the field to ensure accurate location coding.

   Location coordinates are critical to enabling incidents to be analyzed using Geographical Information Systems (GIS) applications. If the coordinates are not provided, DMV staff must determine and confirm the reference marker location for each incident before entering it into the data archive (for state/federal roads) or, for local roads, DMV staff must determine the link and node on which an accident occurred and enter that data.

From paper forms, the data needs to be translated into coordinates to be used by GIS applications. This adds a step to the process. NYSDOT and DMV recognize this issue and are in the process of implementing a system to assist in the geocoding of accident locations. However, utilizing GPS from the start would greatly facilitate data movement into a GIS-accessible format. Reporting solely by TraCS would also allow the limited resources available to be devoted to integrating previously-filed paper based reports into a GIS-accessible format.

Generalized Description of MVA Report Data Movement

Police Officer responds to the scene at a motor vehicle accident, report required

Paper form completed in the field (MV-104A) 1. Location entered based on verbal description or reference marker 2. Reportable/non-reportable not a required field 3. Quality review not built into the form	Electronic (TraCS) form completed in the field 1. Location can be generated automatically based on GPS 2. Reportable/non-reportable not a required field 3. Quality review built into software (e.g., location check)
Paper form filed at local agency office, delivered to DMV main office *(Limited availability through local office)*	Electronic information downloaded at Police/Trooper local headquarters *(Limited availability through local office)*
DMV Data Processing: 1. Location manually geocoded based on: a. Links/nodes (Local) b. Reference markers (State/Federal) 2. DMV determines whether reportable/non-reportable 3. Form is digitally copied for distribution to requesting parties (MV-198C – single incidents only)	DMV Data Processing 1. Location can be coded within software systems 2. Reportable/non-reportable status can be automated within software systems 3. Form can be created within software systems for distribution to requesting parties (MV-198C – single incidents only)
DMV Data Transfer: 1. Data transferred to NYSDOT on magnetic tape for distribution to requesting parties 2. Data is not formatted for entry into GIS	DMV Data Transfer: 1. Data transmitted to NYSDOT for distribution to requesting parties 2. Data already formatted for automated entry into GIS

NYSDOT distributes data to requesting parties
1. Verbal description accident history reports
2. Accident summary report by segment or intersection
3. NYSDOT generates request to DMV for certified copies of MV-104 reports

2) The classification of whether an MVA is "reportable" or "non-reportable" has a significant impact on its data movement. This is a result of the state's required implementation of the Federal Driver's Privacy Protection Act (DPPA) which greatly limits third-party access to "non-reportable" accidents. For example, the DMV form MV-198C (Request for Copy of an Accident Report) lists 12 permissible uses for personal information under DPPA for reportable accidents, but only four reasons that an individual may request a copy of a non-reportable Accident Report. When MVA are reported it is essential that they be classified as soon as possible with respect to their DPPA status.

   The TraCS system offers the opportunity for the responding officer to make the "reportable/non-reportable" determination at the time an MVA report is initially filed. This allows the data to be processed and available for analysis extremely quickly. It should be noted that the TraCS system (and the paper MV104-A) also allow the officer to indicate that the reportable status of the accident is "unknown" which can result in delays in processing the MVA reports.

3) The third aspect of processing MVA reports where electronic filing would improve the data movement relates to the ability of the DMV to provide certified copies of MV104-A forms to requesting parties. Currently, paper copies of the form must be physically scanned into a digital format, or photocopies made, before copies can be distributed to requesting parties pursuant to Form MV-198C. All-digital data, such as the TraCS system, could be integrated into the DMV software systems to generate these forms without the need to physically handle the paper forms and scan them into the system.

Other Issues

The magnitude of the task facing the agencies and the people that process and maintain the motor vehicle accident reporting system within the DMV presents a significant challenge if the goal of providing easily accessible, high-quality data is to be met while also ensuring that the system safeguards and protects private data. The number of individually-filed reports is daunting, as shown in the following table based on information available at the DMV's Statistical Archive web site: http://www.nydmv.state.ny.us/stats-arc.htm (date accessed: January 5, 2006):

Number of MVA by Type and Year in NYS, 1995-2002

Year	All Accidents	Fatal	Non-Fatal Injury	Reportable Property Damage
1995	253,136	1,557	189,201	62,378
1996	250,521	1,451	185,670	63,400
1997	263,604	1,488	182,526	79,590
1998	306,646	1,395	181,766	123,485
1999	356,981	1,460	182,768	172,753
2000	392,245	1,358	188,770	202,117
2001	331,979	1,431	178,772	151,776
2002	253,710	1,390	179,132	73,188

The table shows that, as of the year 2002, DMV staff and/or contractors would need to enter nearly 1,000 MV-104 and MV-104A forms per day into the system based on a standard work week. While the table shows a decline in fatalities and injury accidents, it also shows that the

classification of accidents as to whether or not they include “reportable property damage” presents a challenge.

The primary difficulty in classifying accidents as “reportable” or “non-reportable” per Article 22 is apparent when it is considered that the threshold for reportable property damage has been set at $1,000 since 1991. Given that the threshold has not changed, a gradual increase in reportable property damage accidents would be expected between 1995 and 2002 as inflation eroded purchasing power (if all other factors were held equal).

Instead, property damage accidents increased after 1998, peaked in 2000, and declined between 2001 and 2002. Based on footnotes within the more detailed annual summary tables at the DMV Statistical Archive web site, the post-1997 increase may be attributable to amendments to the Vehicle and Traffic Law in that year that provide statutory authority for police officers to report accidents which in their judgment appeared to meet the reporting criteria for property damage.

DMV documents also state that the decrease in total accidents and reportable property damage accidents between 2001 and 2002 reflects the fact that “property damage accidents that law enforcement agencies reported were not included in the year 2002.” The variability in the data creates difficulties in analyzing trends over time.

Due to the sheer volume of MV-104 forms filed, a backlog of “property damage only” reports has accumulated that has been estimated to include several hundred thousand MV-104 and MV-104A forms.

As a result, “non-reportable data” are generally available through May 31, 2002, (through NYSDOT) and “reportable-only” data are available to the end of 2004. The gap in the “non-reportable data” between May 2002 and the end of 2004 needs to be filled, in order to provide complete data for traffic safety analysis.

The alternative is to utilize injury and fatality data only. However, to do so forces the analyst to discard good data in order to normalize trends that are otherwise skewed by the gap.

The difficulties involved in inputting the non-reportable backlog into the system include the physical effort needed to scan and/or otherwise convert the paper forms into a text-based electronic format and the effort required to determine the locations for each accident.

The backlog may also be affected – to an unknown extent – by a revision to the MV104A form that was implemented in July, 2001 that added a check box allowing the reporting officer to indicate that it was unknown whether or not accident damage exceeded the $1,000 reporting threshold. Prior versions required a “yes/no” answer to the question.

The determination of whether the $1,000 threshold is exceeded is crucial to ensuring DPPA compliance in the release of accident reports for property damage only accidents. If that determination is not made on the MV104A by the officer that files the form, it may be possible to be made by the motorist in filing the separately required MV-104 for the same incident. Until the determination is made, however, it may stall the processing of the MVA report and its entry into the data system.

Recommendations:

Timeliness

The provider survey and the analysis of the data movement within the accident reporting system show that the local agencies are providing the data to the receiving agency (usually the DMV) in a timely manner. Agencies (including the DMV) also appear to respond to requests for single copies of the form MV-104A in a timely manner.

Obtaining consolidated data is delayed, however, by the time lag in processing the accident reports for entry into the statewide data system due to the enormous number of accident report forms filed on a daily basis combined with the extremely high standards that must be met in order to ensure compliance with the DPPA and successfully merge paper and electronically-based MVA reports into the system.

The following recommendations are provided to increase the timeliness of MVA reporting data:

1. GTC should continue to monitor the implementation of the Traffic Accident and Criminal Software (TraCS) system within the region and monitor integration between the TraCS system and transportation safety planning at the statewide, regional, and local level, including integration with GIS-accessible formats.

2. GTC should provide technical assistance if requested by local agencies that may wish to participate in the TraCS system and should support requests for TraCS implementation funding that may be made to local agencies by the Governor's Traffic Safety Committee or the Department of Homeland Security.

3. GTC should work with the New York State Metropolitan Planning Organizations (NYSMPO) to encourage and support coordination and cooperation between the Governor's Traffic Safety Committee, NYSP, NYSDOT, DMV, and local law enforcement agencies to support the migration of the state's motor vehicle accident reporting system from a paper-based system to one that integrates GIS capabilities, meets agency and end user needs, and safeguards private data.

4. GTC should continue to work with the NYSMPO safety group to develop methods, strategies, and best practices to effectively utilize the data generated by the traffic accident reporting system.

5. Local agencies and consultants should be advised that given the complexity of the reporting system and the privacy concerns that control access to the data, there is not a quick fix available to obtain timely data in all cases.

   Data users should contact prospective data providers at the earliest possible date in order to ensure that data is obtained in the most cost-effective manner and to reduce requests for duplicative data to the greatest extent possible. One approach would be to contact Regional or Statewide NYSDOT officials first, and work down to the local level to "fill in the gaps" if necessary.

   Consultants should also resolve potential issues related to "non-reportable" data

early in the process to ensure that data is truly consistent from year to year in the light of changing reporting procedures for “non-reportable” accidents.

Access

The provider survey and analysis of the traffic accident reporting system shows that access to MVA report data depends on the type of data that is needed and the agency that holds the data. The gap in the availability of data at the regional or state level has forced users to contact numerous local agencies attempting to obtain complete data.

Unfortunately, many local agencies only have the information available in paper format and they implement varying requirements in order to provide access to the data.

The end result is that users must consolidate the data by hand, representing an inefficient utilization of resources with respect to developing integrated data sets. The Timeliness recommendations listed above will improve access to the extent that data available at the state and regional level will reduce the need for users to contact multiple local agencies in their efforts to create a complete data set for analysis. The following recommendation is provided to improve access to MVA reporting data:

1. GTC should work with the NYSMPO safety group to develop a protocol for access to consolidated MVA data. Currently, it appears that NYSDOT is effective in providing summary data based on written request and DMV is effective in providing access to certified copies of the MV-104A based on the form MV-198C.

   However, as the reporting system moves forward and begins to include GIS capabilities, a structured protocol to manage requests for MVA data based on geographical and temporal criteria will be necessary in order to most effectively utilize the existing and planned system for consistent analysis.

Format

The provider survey and analysis of the MVA reporting system suggests that an electronic-based format would most effectively meet the needs of users and agencies that maintain the reporting system. The recommendations previously provided (Timeliness and Access) will support the transition to an electronic-based system. The following recommendation is also specific to the format for the electronically- and paper-based forms:

1. GTC should work with the NYSMPO safety group to discuss issues related to the format of the accident reporting forms (both electronically- and paper-based) and the content of the data elements included within the reporting system in order to determine whether there are statistically valid methods to account for variability in the data (e.g., to account for the changes in the way in which “non-reportable” accidents are counted in statewide summary data for the year 2002 vs. prior year data).

Quality

The provider survey and analysis of the MVA reporting system suggests that an electronically-based format would effectively improve data quality for users and the agencies that maintain

the reporting system. Given the interrelationship between timeliness, access, format, and quality, the previously provided recommendations would serve to improve data quality within the reporting system. The following recommendation is also provided:

1. GTC should work with the NYSMPO safety group to discuss issues related to the quality of the data included within the accident reporting system at the summary level (electronically as maintained by NYSDOT and DMV). The recommendation provided under "Format" above will apply, but it would also be helpful as the system moves forward to seek coordination between the DMV, NYSDOT, and users as to what quality assurance criteria are applied to the data set.

   Given the essential need to secure private data and limit access to only legitimate users, efforts to document the quality of the data set may be difficult. However, such efforts are ultimately necessary to defend the integrity of research based on the data sets.

Conclusion

The MVA reporting system in New York State is complex, as would be expected considering that as of the year 2000, there were 10.8 million licensed drivers in the state, 10.1 million registered vehicles, and more than 390,000 traffic accidents were reported to the system in that year. The system, although generally coordinated and managed by DMV, is built on reports that are generated by hundreds of law enforcement agencies and tens of thousands of individuals, and in turn serves many purposes in addition to transportation safety planning.

The need to protect and secure private data while providing access to a diverse group of legitimate users and preventing access by hackers and other malevolent users creates additional challenges for system architects.

In spite of its flaws, the information collected and maintained within the MVA reporting system can be of immense value. The recommendations provided are intended to advance the ability of transportation safety information users to provide a basis for investment decision making that supports and improves the safety of the regional transportation system.