Summary of the Report:
Developing a Framework for Collecting and Sharing Data and Information

Introduction:

Established in 2001, the United States-Canada Transportation Border Working Group (TBWG) is composed of U.S. and Canadian Federal and state/provincial transportation agencies, Federal border agencies, field border agencies, regional transportation agencies, and other border operating or management agencies and infrastructure builders/maintainers. The TBWG Border Trade and Traffic Data Subcommittee (which is charged with coordinating border trade, traffic, and corridor data products among TBWG partners) has four areas of interest:

1) Traffic Count Classification Data
2) Origin-Destination (O-D) Data
3) Border Wait Times / Congestion Data
4) Enhanced Trade Data

The purpose of the report by the Texas Transportation Institute was to develop a conceptual framework to guide how key agencies within TBWG collect and share information.

Issue:

Large amounts of data are being collected manually and automatically at border crossings by various public and private organizations, but some data are either lacking in detail or are not currently being collected. Past efforts to standardize and disseminate existing data have been limited.

Main Findings:

The main components of the report are:

Current State Analysis

- U.S.-Canada Border Crossing Environment: the report describes the major stakeholders involved, lists the major ports of entry and available services (such as NEXUS – a trusted traveller program, and FAST – Free and Secure Trade service), and lists the 2007 U.S.-Canada truck traffic by major port of entry.
- Data Sources: describes the existing availability, quality, and sharing of data. There are several national programs to collect and disseminate data on both sides of the border, along with some data collected and analyzed by other stakeholders for their own planning and operational reasons (see pages 11-21 of the report "Developing a Framework for Collecting and Sharing Data and Information" for details).

Stakeholder Interviews

- Current Data Uses: determined by interviews with each of the various stakeholders for the four areas of interest to TBWG. All agencies use traffic count / classification data and most use O-D data, though some stakeholders do not use border wait time / congestion or enhanced trade data.
- Current Data Collection Efforts, Data Sharing, and Planned Data Collection Efforts: the report illustrates that border stakeholders engage in a variety of data collection efforts.
- Data Needs: most of the border stakeholders need additional and more consistent and accurate data for all four areas of interest to TBWG.

Insights Gained from Stakeholder Interviews

- O-D information was cited as not widely available. The most common data needs related to accuracy, with an example of multiple sources for border wait times, with the data accuracy varying greatly. Many stakeholders see a need for more real-time data, along with larger, more accurate samples of O-D data. Standardized methodologies and definitions for collecting data for all four areas of interest to TBWG were identified as clear needs.

Gap Identification

- Current State:
  - The current challenges for many stakeholders utilizing border transportation data are: identifying within the available data what is relevant to their specific needs, and finding such data in a useful format. This may be partly attributable to lack of resources/staff, or because acquiring new data sources is not a key function of organizations' employees.
- Desired State:
  - Traffic Count / Classification Data: by specific vehicle type, both directions, on an hourly basis
  - O-D Data: information on the origin and destination on every cross-border trip, with geographical information disaggregated to the lowest possible level, i.e. with the O-D data based on the actual geographical source and not the location of the company's address, for example.
  - Border Wait Time / Congestion: data on border crossings by time of day, both directions, and in real or near real-time. Data could also be complemented by operational characteristics, such as weather and security level.
  - Enhanced Trade Data Collection: information on mode along with O-D data. Could also include trans-shipment data, commodity classification details, shipment values, and the time sensitivity of goods being transported (i.e. some goods are perishable).
- Gap Analysis:
  - Data Availability Gap: data are either not available to the stakeholder or do not exist.
  - Data Detail Gap: usually due to a discrepancy between the data the stakeholder requires versus the data available to the stakeholder.

Conceptual Framework

1. Identify: border crossing locations, data elements, data sources, and resources required for set-up and ongoing maintenance.
2. Define business process(es).
3. Implementation.

Recommendations

1. Focus on a few data elements that can be standardized/collected/disseminated.
2. Ensure comprehensive coverage for selected data elements.
3. Provide an interface that can be tailored to users' needs (personal vs. commercial).
4. Provide a searchable database on website (i.e. can search by many characteristics).
5. Provide north- and south-bound data on website.