

Approach to Collecting Local Freight Information

Jeffrey S. Thompson, Karen E. Yarbrough, Michael D. Anderson, Gregory A. Harris, and Kevin Harrison

The use of local freight data in transportation planning is essential to ensure accuracy in the travel demand modeling process. Although extensive research work has been performed into the collection and use of household travel data for passenger transportation, limited research work has been performed to collect and use local freight travel data. This paper examines a structure developed to collect and summarize local freight data in an urban area to be used in the transportation planning process within a metropolitan planning organization. The paper concludes that the appropriate collection and analysis of freight data can be performed and the output can be used to support transportation planning activities.

Traditional transportation planning activities in urban areas, performed by staff at metropolitan planning organizations (MPOs), usually focus on forecasting passenger travel to alleviate congestion in peak periods. This approach is warranted because peak-period travel congestion levels are generally severe and travelers experiencing this congestion are often vocal members of the community.

The forecasting of passenger travel is heavily reliant on the collection of data related to passenger travel, and there have been numerous studies addressing the collection of passenger travel information (1–4). It would follow that the forecast of freight transportation would rely heavily on accurately collecting local freight data. Freight data generation studies are usually developed and disseminated at the national level and not specific to the urban area (5, 6). Many national freight databases aggregate information to the individual states or major communities. The use of aggregate freight data at the local level is challenging. Most methods of utilizing freight data depend on applying proxy factors to allocate freight to the transportation system. Research has shown that local economic data from many different sources can successfully be used to allocate freight volumes into smaller zones from the future freight traffic volumes provided by highly aggregated national databases (7). However, there are limited guides and literature available to develop a local freight collection system to tailor the freight model to the local level. This is not surprising because freight is explicitly modeled in the process and freight data are proprietary.

J. S. Thompson, K. E. Yarbrough, M. D. Anderson, and G. A. Harris, University of Alabama in Huntsville, 301 Sparkman Drive, Huntsville, AL 35899. K. Harrison, Transportation Planning, South Alabama Regional Planning Commission, 110 Beau-regard Street, Suite 207, Mobile, AL 36602. Corresponding author: M. D. Anderson, mikea@cee.uah.edu.

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This situation begs the question, “What can industry input provide when one is developing a long-term freight plan?” The answer is plenty, because, after all, it is the conduct of business that creates freight through suppliers’ attempt to meet customers’ demands. Each company has a view of its industry sector’s freight transportation system. Gaining insight from these companies alerts planners to pattern shifts, network realignments, or simply current industry trends. Maybe the greatest benefit from obtaining input from local industry is the building of relationships with business leaders.

This paper presents a system designed for collecting, storing, and analyzing local freight data within an MPO area and the application of that freight data to transportation planning. The paper presents the questionnaire used to collect freight data and the database used to store and access collected freight data. The paper concludes that the system designed is a viable tool for freight data management and can support transportation planning activities.

LOCAL FREIGHT DATA SYSTEM

The tool designed to support local freight data was developed to be generic, in that the final product can be used in any location; however, there are aspects of the tool that are specific to Mobile, Alabama, where the tool was applied and tested. Additionally, all of the summary data shown have been collected from businesses within the Mobile MPO. The focus of this paper is the data collection phase, data entry into the database, the output from the database that supports planning activities, the data collection process, and schedule and tracking of supplemental data.

Collecting Data

The keys to building beneficial relationships and obtaining useful information from local industry representatives, or any other stakeholder in transportation planning, are: ask relevant questions, do not waste time, do not build unrealistic expectations, and follow up when necessary. Time required to set up and conduct the interviews and enter the data into the database can be estimated at an average of 2 h per interview. Conducting two to four interviews a week should require less than 10% of a planner’s workweek. The creation of a structured approach should keep the process organized but not limit the opportunity for listening. A data form, if used effectively, can keep the discussion focused on the relevant topics while allowing the interviewer to capture unanticipated gems of insight. After the visit, a routine processing of the input will ensure insight is not lost and may identify where follow-up questions are needed.

The form entitled *Freight Transportation Survey, Industry Interview Form* contains 16 discussion/data topics (see Figure 1). It is presented in a format conducive to a personal interview. To build a relationship, it is important to have person-to-person interaction. Trust can seldom be developed through online conversions and e-mail. Several questions have multiple parts that help complete insight on the topic. There is ample whitespace to use in capturing clarifications, estimating quantities, and calculating conversions for entering the information into the database after the visit.

The interview form itself contains several key pieces of information: the company name, address, contact name of the person interviewed, transportation analysis zone (TAZ), and industry sector (a two-digit number and category assigned after the visit by the South Alabama Regional Planning Commission representative). The interview questions are designed to target specific pieces of data that are needed for modeling purposes.

Q1. Business description. Use keywords to capture the primary business activity(ies). This will be used to assign each company to only one industry sector. If the company has multiple lines of business, note the area where most of the freight is generated or received.

Q2. Number of employees. Ask for the current number of full- and part-time employees at this location. There is no need to convert part-time employees to full-time equivalents. Just get a count of the number of people working at the location. If the company has multiple locations within the county, you may consolidate all employees or treat each location as a separate company. Just make sure that the answers

to the other questions are consistently treated. Add the number of full-time employees plus the number of part-time employees to get a total employee count to enter into the database.

Q3. Shipments by mode. Capture how the company receives and ships most of its goods. Circle "yes" or "no" based on whether they receive (inbound) or generate (outbound) shipments for each mode.

Q4. Deliveries received by mode WEEKLY. This is an average number of deliveries received weekly. The interviewee is probably more familiar with a weekly average than another measure like monthly or annually. Take his/her response as he/she knows it and convert it to weekly after the interview if necessary.

Q5. Shipments generated by mode WEEKLY. This is an average number of shipments generated weekly. The interviewee is probably more familiar with a weekly average than another measure like monthly or annually. Capture his or her response in the terms with which he/she is most familiar and convert it to weekly after the interview if necessary.

Q6. Origins of inbound deliveries. Capture the major points of origin from where their shipments come directly to their location. Cities, states, regions, or countries are acceptable responses. In other words, if the company gets products from California but the last leg of the trip is from Dallas, state as California through Dallas. The main concern is the direction from where goods come to their location. Try to obtain enough information to allow the three origins (within Mobile County, local port, outside Mobile County) to be weighted as percentages of their total receipts. The percentages must total 100% for the information to be used in the database calculations. Circle the compass direction for within Mobile and outside Mobile for the direction from which shipments come to their location. If a port is used, note which port (e.g., Mobile, Theodore, or Chickasaw) by circling the port name.

Q7. Destinations for outbound shipments. Capture the major destinations for where the shipments that the company generates are headed.

Freight Transportation Survey
Industry Interview Form - Mobile MPO
South Alabama Regional Planning Commission

ID Code: _____

CONTACT INFORMATION		Commodity	Cluster
A DATE OF VISIT: _____		7 Other Food	Processed Food
B Company Name: _____		10 Stone-Sand-Gravel	Construction Mat
C Street Address: _____		17 Coal/Stone	Oil & Gasoline
D City: _____, Alabama		20 Basic Chemicals	Chemical Prod
E Zip: _____		24 Plastics	Plastics
F Phone: _____		26 Wood Products (A)	Paper, Wood
G Contact Name: _____		28 Paper	Paper, Printing
H Contact Title/Position: _____		30 Textiles	Textiles
I Email Address: _____		32 Primary Metals	Metal Manuf
J Transportation Analysis Zone # _____		33 Fabricated Metals	Metal Fabrication
K Industry Sector SCTG # _____	Sector Name _____	34 Machinery	Machinery
		37 Transportation Equip	Transport Equip
		40 Misc. Manufact	Misc. Freight (B)
		41 Waste-Recap	Recap Process (B)
		42 Mixed Freight	Warehouse Dist

BEGIN SURVEY QUESTIONS:

1 How would you describe the primary business operation/activity at this location?

2 How many employees do you have at this location?
Full-time= _____ Part-time= _____ Total all FT+PT = _____

3 Do you receive or generate regular shipments to/from this location by:
(circle answer) **Inbound Receipts** **Outbound Shipments**

Truck: Yes No	Truck: Yes No
Rail: Yes No	Rail: Yes No
Water: Yes No	Water: Yes No
Air: Yes No	Air: Yes No

4 How many deliveries for each mode do you **RECEIVE** each WEEK?
Truck Tractor Trailer _____ # Delivery Van _____ #
Rail Container _____ # Rail Car _____ #
Water Container _____ # Barge _____ # Vessel _____ #

5 How many shipments for each mode do you **GENERATE** each WEEK?
Truck Tractor Trailer _____ # Delivery Van _____ #
Rail Container _____ # Rail Car _____ #
Water Container _____ # Barge _____ # Vessel _____ #

6 From where are the **INBOUND** deliveries coming?
(Specific cities, states, or ports if possible)

Approx %	Don't know	Compass Direction into this site: (circle all that apply)
Within Mobile County Yes No		N E W S
Local Port Yes No		Which Port: Mobile Theodore Chickasaw
Outside Mobile County Yes No		N E W S

Created by: UAHastorff
Office for Freight, Logistics and Transportation Page 1 of 2

Freight Transportation Survey
Industry Interview Form - Mobile MPO
South Alabama Regional Planning Commission

ID Code: _____

7 To where are the **OUTBOUND** shipments going?
(Specific cities, states, or ports if possible)

Approx %	Don't know	Compass Direction from this site: (circle all that apply)
Within Mobile County Yes No		N E W S
Local Port Yes No		Which Port: Mobile Theodore Chickasaw
Outside Mobile County Yes No		N E W S

8 For each mode of delivery, does **MOST** of the freight unloaded/loaded at your location require a LTL or FL:
(check best response for each mode)

	Inbound Deliveries		Outbound Shipments	
	Less than full load	Full load	Less than full load	Full load
Truck				
Rail car				
Container (TEUs) 20' 40'				
Barge				
Vessel				

9 For each mode of delivery, what is the **NORMAL** weight of a full shipment?

	Inbound		Outbound	
	Bbl. or tons	Bbl. or tons	Bbl. or tons	Bbl. or tons
Truck load				
Rail car				
Container (TEU) 20' 40'				
Barge				
Vessel				

10 Approximately what is the **SQUARE FOOTAGE** of your location? (under roof)
_____ sq. ft. Don't Know

11 Do you anticipate an expansion within 5 years at this location?
No Expansion expected Double Current Size Increase of _____ % or sq ft (By Year: _____)

12 For last **YEAR** at this location, what was the total value of goods received & shipped?:
Year (____) Received? \$ _____ Value of goods Shipped? \$ _____ Value of goods

13 What was this location's **ANNUAL** volume of total shipments last year & five years ago?
Year: _____ (Last Year) Year: _____ (5 Years Ago)
Inbound: _____ # shipments # shipments
Outbound: _____ # shipments # shipments

14 What do you expect the annual volume to be 5 years from now?
Year: _____ (5 Years from Now)
Inbound: _____ # shipments
Outbound: _____ # shipments

15 Are you currently experiencing any transportation related problems in shipping or receiving your products from this location?

16 Are there any transportation infrastructure improvements needed in Mobile County to better serve your current and future needs?

FIGURE 1 Questionnaire form.

Cities, states, regions, or countries are acceptable responses. In other words, if the company ships products to California but the first leg of the trip is to Memphis, state as California through Memphis. The main concern is the outbound direction of goods leaving their location. Try to obtain enough information to allow the three destinations (within Mobile County, local port, outside Mobile County) to be weighted as percentages of their total shipments. The percentages must total 100% for the information to be used in the database calculations. Circle the compass direction for within Mobile and outside Mobile for the direction the shipments are headed from their location. If a port is used, note which port (e.g., Mobile, Theodore, or Chickasaw) by circling the port name.

Q8. Size of shipment. Check for each mode they use inbound to their location and outbound from their location whether most of the shipments are less than full load or full load. For containers, circle whether they normally use 20- or 40-ft containers.

Q9. Weight of shipment. Note the normal weight of a full shipment (not including the vehicle weight) into or out of their location for all modes they use. To receive shipments by rail, they must have a rail spur at their location. For barge or vessel, they must have a water port at their location. Otherwise, the shipments will probably arrive by truck. Containers are assumed to arrive by truck but are shown separately on the reports. Circle whether the weight is tons or pounds. The data must be entered into the database in pounds. For data entry, convert the number of tons to pounds by multiplying tons by 2,000.

Q10. Size of facility. Note the size in square feet of their facility under roof. Outdoor yards are not to be included in the square footage total. You may note the outdoor area used on the form in the margin for your paper file.

Q11. Expansion plans. Note whether the company is anticipating an expansion sometime in the next 5 years. Write the anticipated year of the expansion and the amount of the increase. If the interviewee gives you a percentage, note it and then convert it to square footage using the answer in Question 10. Only square feet are to be entered into the database.

Q12. Value of goods last year. Note the total value in dollars of the goods received and/or shipped for the most recent year for which they have data. If they do not know or will not share either, ask for annual sales amount and place in the Shipped \$ blank. Any insight that you can gain will help but it is not mandatory to answer the question.

Q13. Annual volume of shipments—actual. Note the year and the total annual number of shipments inbound (received) and outbound (generated) for the most recent year for which they have data. Also, note

the year and total annual number of shipments inbound and outbound for 5 years ago. If the company has been in business less than 5 years or if they only have information for less than 5 years ago, capture the information and make sure the year of the information is noted. The inbound and outbound shipments for last year should be approximately 52 times the answers to Questions 4 and 5, respectively.

Q14. Annual volume of shipments—forecasted. Note the year and the annual total number of shipments the company expects 5 years into the future. If they make projections for less than 5 years, capture the information and ensure that the forecasted year is noted.

Q15. Problems at the location. Make note of any company location or site-specific issues mentioned. Get enough information to clarify the issue. But do not imply or leave the interviewee with the impression that their problem(s) will be fixed. Only communicate that the responses will be passed on to the MPO and used for improving transportation infrastructure over the next 30 years.

Q16. Problems in Mobile. Make note of any route or significant problems in the areas that are mentioned. Get enough information to clarify the issue. But, do not imply or leave the interviewee with the impression that their problem(s) will be fixed. Only communicate that the responses will be passed on to the MPO and used for improving transportation infrastructure over the next 30 years.

Data Entry

The information obtained through company visits was entered into a freight survey database. Microsoft Access 2007 was used to store the database information. The input screens are arranged similar to the interview form described previously. The database opens to a MENU screen with options to (see Figure 2):

- Open the survey form,
- Go to a company in the database,
- Open report for average freight weights by mode,
- Open report for directions,
- Open report for shipments per employee,
- Open report for shipments per square foot, and
- Next (which opens the second menu).

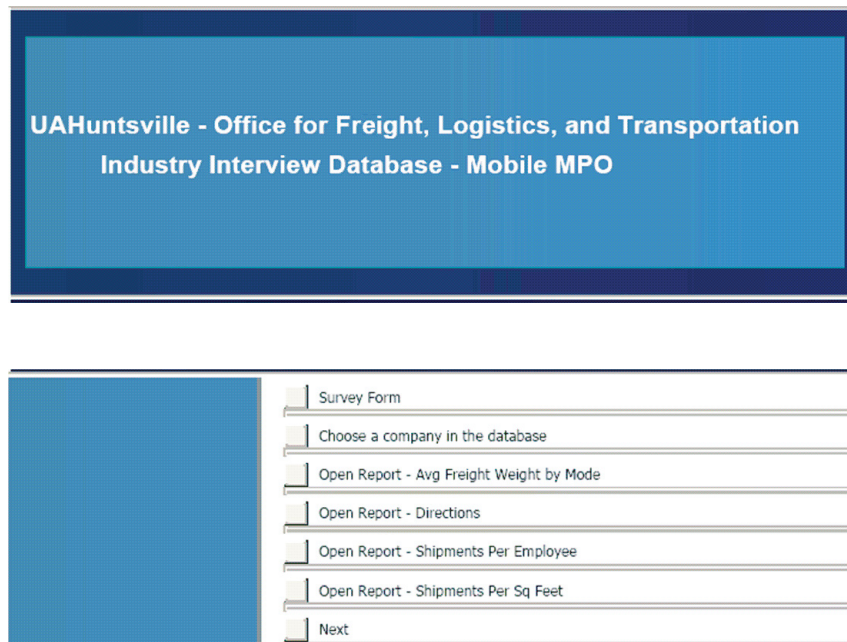


FIGURE 2 Data entry screen.

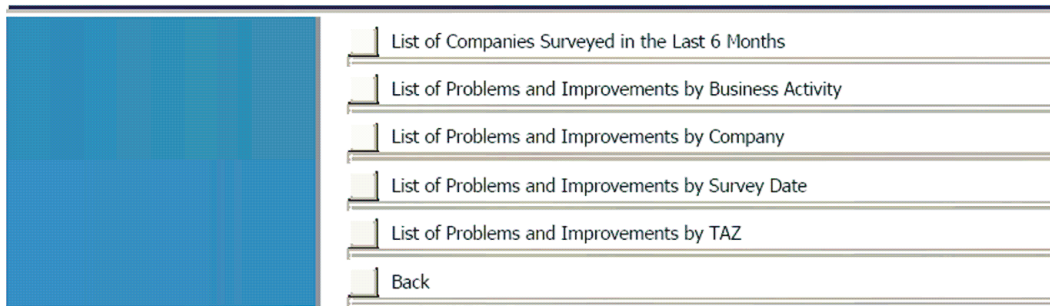


FIGURE 3 Second data entry screen.

The second menu contains (see Figure 3)

- List of companies surveyed in the past 6 months,
- List of problems and improvements by business activity,
- List of problems and improvements by company,
- List of problems and improvements by survey date,
- List of problems and improvements by TAZ, and
- Back.

Users simply click on the square button to the left of the option title to select it.

Before survey data are entered into the database, it is important to ensure that the data are expressed in the appropriate units of measure and units of time. The insight gained from the company visits will most likely be shared in the units that are most commonly tracked by the company, such as the number of monthly shipments instead of weekly or annual shipments. Take a few minutes to review all of the answers to the questions on the interview form and convert as necessary any data that are not in the appropriate units. See the interview instructions from above for the appropriate units of measure for each data element.

Database Output

Data in the database only become useful for transportation planning when they are processed appropriately and can be extracted in a useable form such as a report. Persons familiar with writing Microsoft Access reports may create custom reports to extract any or all information in the database. However, the company visit information that is used in the freight transportation models is contained on the reports shown on the menu screen. The prepared reports are

- Average freight weight by mode,
- Travel directions,
- Shipments per employee,
- Shipments per square foot,
- List of companies surveyed in the past 6 months,
- List of problems and improvements by business activity,
- List of problems and improvements by company,
- List of problems and improvements by survey date, and
- List of problems and improvements by TAZ.

The average freight weight by mode is used to calculate the average full-load shipment weights in pounds by mode: truck, railcar, container, barge, and vessel. These averages are calculated from all entries that receive or ship full loads. Only companies that answer the

weight and full load questions are used in the calculations. The date on which the report is run is shown at the bottom. See the table below for the UA in Huntsville Office for Freight, Logistics, and Transportation: Annual Report by Industry—Mobile MOP; Average Weight by Mode in Pounds report run on Wednesday, February 4, 2009.

	<i>Inbound (in pounds)</i>	<i>Outbound (in pounds)</i>
Truck	44,370.37	41,625.00
Railcar	158,428.57	177,833.33
Container	32,666.67	44,000.00
Barge	3,000,000.00	6,100,000.00
Vessel	74,010,000.00	

The report for travel direction is used to calculate the percentages of freight coming to Mobile (incoming) and leaving from Mobile (outgoing). These proportion calculations are made for:

- Local area (within Mobile County, ports in Mobile, outside Mobile County),
- Compass directions (north, east, west, south), and
- Transportation mode (truck, rail, water, air).

Also shown are database sums for the total deliveries received annually, total deliveries generated annually, the number of records in the database, the number of different companies in the database, and number of survey forms used for the reports.

The first section of the report shows the percentage of freight shipments destined for surveyed companies located in Mobile County that originate in Mobile County (31.12%), originate at the port (1.63%), and originate outside Mobile (67.25%). Also shown is the percentage of shipments generated by surveyed companies in Mobile that are destined for a location within Mobile County (26.82%), destined for a local port (1.26%), and going to a destination outside of Mobile County (71.92%). See the table below for the UA in Huntsville Office for Freight, Logistics, and Transportation: Report of the Industry—Mobile MPO Internal and External Distribution report.

<i>Freight to or from Mobile</i>	<i>To Mobile (%)</i>	<i>From Mobile (%)</i>
Within Mobile County	31.12	26.82
Ports in Mobile	1.63	1.26
Outside of Mobile County	67.25	71.92
Total	100.00	100.00

The second section of the report shows the percentage of freight shipments destined for surveyed companies in Mobile County from origins by compass direction [north (38.50%), east (31.32%), west (23.47%), south (6.71%)]. The last column shows the percentage of outbound freight shipments originating at surveyed companies located in Mobile by compass direction [north (44.19%), east (12.63%), west (38.71%), south (4.47%)]. See the table below:

<i>Freight to or from Mobile</i>	<i>To Mobile (%)</i>	<i>From Mobile (%)</i>
North	38.50	44.19
East	31.32	12.63
West	23.47	38.71
South	6.71	4.47
Total	100.00	100.0

The third section of the report shows the percentage of companies receiving freight shipments in Mobile County by freight mode [truck (97.06%), rail (22.06%), water (13.24%), air (2.94%)]. The right-hand column shows the percentage of companies with freight shipments leaving surveyed companies in Mobile County [truck (91.18%), rail (10.29%), water (16.18%), air (0%)]. These percentages total to more than 100% because companies often use more than one mode of transportation (e.g., an industrial company may use truck and rail from its site). These calculations are for the last leg of inbound receipts and the first leg of outbound shipments. For example, no companies load an airplane at their location in this example. Their air freight is moved by truck to the air cargo terminal so the shipment is included in the Truck mode. See the table below:

	<i>Inbound Receipts (%)</i>	<i>Outbound Shipments (%)</i>
Truck	97.06	91.18
Rail	22.06	10.29
Water	13.24	16.18
Air	2.94	0.00

Finally, the last section of the report totals several fields in the database as indicators of the amount of data being used and as a check for the number of records in the database. The total deliveries received annually sums the number of the shipments received for all companies in the database. The total deliveries generated annually sums the number of shipments generated by all of the companies in the database. The number of records in the database counts the number of records in the database. The number of different companies in the database counts unique companies surveyed. The number of forms used counts the number of surveys used to produce the reports, which is determined by the use of the use for reports box in the top section of the survey screen.

The shipments by employee and by industry reports break out the number of shipments per employee for 15 industry sectors using the Standard Classification of Transported Goods (SCTGs) for both inbound and outbound shipments. The total number of employees from all companies in the database is shown in the right-hand column. For example, the companies classified in the construction materials sector (SCTG 10) receive an average of 146.9 shipments annually per employee. These companies generate an average of 267.43 shipments annually per employee. All of the companies categorized as construction materials have a total of 297 employees. These averages will change based on the companies surveyed and should become more reflective of each industry sector as more companies are interviewed in each sector. The date on which the report is run is shown at the bottom of the page. The industry sectors are determined by the specific makeup of the industries in the study area. See Table 1.

In addition to the shipments by employee report, a report of shipments per square foot by industry sector can be used, which breaks out the number of shipments per 1,000 square feet of covered buildings for 15 industry sectors (SCTGs) for both inbound and outbound shipments. The total square footage (in 1,000s) for covered buildings of all companies in the database is shown in the right-hand column. For example, the companies classified in the construction materials sector (SCTG 10) receive an average of 113.45 shipments annually per 1,000 square feet. These companies generate an average of 165.45

TABLE 1 Shipments by Employee (UA in Huntsville Office for Freight, Logistics, and Transportation: Annual Shipments by Employee and by Industry Report—Mobile MPO)

	Inbound	Outbound	No. of Employees
Food shipments	11.29	26.80	456
Construction mat.	146.90	184.71	297
Petroleum	104.93	267.43	14
Chemicals	7.93	15.95	777
Plastics	71.50	201.50	40
Wood products	46.50	44.27	350
Paper	53.09	65.53	715
Textiles	27.25	13.78	166
Primary metals	52.08	62.50	634
Fabricated metals	20.06	20.06	140
Machinery	41.30	25.85	141
Transportation	1.71	59.74	880
Misc. manufacturing	45.58	58.83	624
Waste and scrap	257.10	11.41	155
Mixed freight	47.58	91.71	553

NOTE: Report run on Wednesday, February 4, 2009.

shipments annually per 1,000 square feet. All of the companies categorized as construction materials have a total of 55,000 square feet of covered buildings. These averages will change based on the companies surveyed and should become more reflective of each industry sector as more companies are interviewed in each sector. The date on which the report is run is shown at the bottom of the page.

The other reports are basic information for the local agencies surveyed and contain more descriptive data:

- The report of the companies surveyed in the past 6 months contains a listing of company name, survey date, and business activity (industry sector).
- The report of problems and improvements by business activity shows the company name, transportation-related problems, and the transportation infrastructure improvement comments by each company surveyed. The list is categorized by industry sector (SCTG). This report is also useful in showing the companies in each industry sector.
- The report of problems and improvements by company shows the company name, survey date, transportation-related problems, and the transportation infrastructure improvement comments for each company surveyed. The list is shown in alphabetical order by company name. This report is also useful in showing all of the companies surveyed.
- The report of problems and improvements by survey date shows the survey date, company name, transportation-related problems, and the transportation infrastructure improvement comments for each company surveyed by date of survey. The list is shown in date order. This report is also useful in showing all of the companies surveyed on a particular date or range of dates.
- The report of problems and improvements by TAZ shows the survey date, company name, transportation-related problems, and the transportation infrastructure improvement comments for each company surveyed by TAZ for the company's location. The list is shown in TAZ numeric order. Entries without a TAZ assigned will be shown at the top of the report.

All reports are directed at providing information on the local freight activity in the area and supplying needed information and data to the transportation professional.

Data Collection Process and Schedule

Data should be collected by surveying companies on a continual basis through a regular process of choosing a company, making an appointment, confirming the appointment, visiting the company, completing the survey form, and sending a note of thanks to the person interviewed.

When a company is being chosen for an interview, a geographic dispersion of companies should be a goal in selecting specific companies to interview. Lists of companies may be obtained from trade associations, local chambers of commerce, business license departments, etc. Lists that include the street address, phone number, contact person, type of business, and number of employees are the most helpful.

Interview targets should first be chosen from TAZs known to have significant freight transportation either or both inbound and outbound. Likewise, companies should be chosen in each of the 15 (in the case for Mobile) industry sector groups (SCTG) throughout the year. Of course, not all companies will agree to be interviewed so a large target list should be maintained at all times. Plan to routinely contact twice as many companies as can be visited in the next month to ensure that the weekly or monthly goal of interviews can be scheduled. However, if less than half of the contacts results in an interview, the approach to making contact with companies may need to be revisited. Collaboration with trade or business organizations is encouraged.

The overall objective in selecting companies to interview is to get a reasonable representation of each of the industry sectors in the survey database. Setting a goal of interviewing 100% of all companies moving freight is not a realistic goal for the industry visits. However, it should be a goal to visit at least one company in each TAZ each year.

When scheduling visits, companies with a large or growing number of shipments should be specifically targeted for revisits within the next 12 to 18 months. Companies with few shipments may be visited every 2 to 3 years. Companies that provide very little data may not be worth revisiting.

When making an appointment, a company selected for visiting should be contacted by phone 2 to 4 weeks in advance of the anticipated date of visit. The appointment should be made with a senior-level manager or executive that has a working knowledge of the company's freight volumes, employment level, annual sales level, etc. In larger companies, the ideal person may be a vice president of logistics. In smaller companies, the ideal person is probably the president or plant manager. Asking a few questions of the person before setting up an interview will help the person understand what information is desired and who is the best person for the interview. Ask for a specific amount of time such as 30 min to let the person know how long he or she should expect to host you.

A confirmation of an appointment should be made approximately 3 to 4 days before the scheduled visit through a contact the person interviewed by phone to verify that the date and time are still on the person's calendar. If not or if there is a conflict, establish another meeting time as soon as possible. This is also a good time to get directions and instructions on accessing the company's facilities. Special instructions such as "no cell phones" or "no neckties allowed

in the plant" will speed the check-in procedure and help keep the visit enjoyable for everyone.

While visiting the company, plan to arrive about 5 min or so early to allow time for check-in procedures unless otherwise instructed. Take two copies of the data collection form, one for the interviewer and one for the interviewee, but only if he or she requests to see the form. Remember to keep an ample supply of business cards with name, organization, address, phone number, and e-mail address on hand. Unless otherwise instructed, leave a cell phone in the car to prevent having to leave it with a receptionist if cell phones are banned in the plant.

After the initial opening conversation, verify that the interviewee still has the minimum time available to complete the interview and assure that the information will be treated confidentially. Normally, attempt to gather all of the information needed on the visit. Leaving a form behind to be completed by the interviewee is not recommended as the follow-up required to obtain the completed form could consume more time than the interview. During the discussion, be careful not to imply that you will solve problems that they identify. Make it clear that you are gathering information to be used in developing a long-term transportation plan for the area. Conclude the interview and excuse yourself at the agreed-upon time. However, you should anticipate that the interviewee may want to give you a tour of the plant. Try to always accept this offer as it will give you more insight about the company and demonstrate your interest in their operations. Thank the person for their time and information as well as invite them to call you with additional or updated data or questions at any time. Building the relationship with the company representative is a major component of the information-gathering initiative.

As soon as possible after the interview, review the data collection form to ensure that all information is legible, in the proper units (e.g., weekly vs. monthly), and that all relevant information shared by the interviewee was captured. Ideally, spend a few minutes in your car in the company parking lot completing this review. Otherwise, doing the review as soon after the interview and before another interview is conducted will increase the quality of the information captured and reduce the need to call the interviewee to verify data.

Finally, a note of thanks should be sent to the persons interviewed thanking them for sharing their information and their time for this important project. You may also invite them to contact you with additional relevant information at any time.

Tracking Supplemental Data

The purpose of obtaining input from industry is to improve the understanding of a particular industry sector or geographic region. Although company data are extremely valuable, it will usually be incomplete. Supplementing the information gathered from companies through sources such as the newspaper, trade association announcements, economic development announcements, etc., can add much to the intelligence available with which to forecast freight in the future. For example, keeping a regularly updated notebook of newspaper clippings about company expansions or closures can add to data gathered through interviews. A company that plans to double its size in the next year may need to be visited or revisited within the next year to update or expand the database. Monitoring news sources for this type of information daily or weekly will greatly improve the knowledge available when forecasting and projection assumptions are made.

Likewise, maintaining a collaborative relationship with organizations that have access to current useful information can be very

helpful for both parties. For example, an economic development organization can share the recent project announcements and may benefit by knowing more about the long-term transportation plan for the area.

CONCLUSIONS

This paper presented a system that has been designed for collecting, storing, and analyzing local freight data within an MPO area. The presented questionnaire used to collect freight data and the database used to store and access collected freight data were designed specifically for the Mobile MPO, but can be used in any local area.

The result of this effort in Mobile has been the integration of freight transportation requirements into the region transportation plan. The information gathered through this process, along with information on commodity flows from around the country, allowed the MPO to produce an intelligent estimate of freight movement within the study area and resulted in a validated transportation model.

Improvements to the traditional transportation planning activities performed in urban areas through the inclusion of freight activities has the potential to more accurately identify congestion and its cause. The database management tool presented in this paper allows specific freight information to be incorporated into the travel demand model

process and can essentially be used to give freight a voice in future decision making.

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