Contact

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Implementation Assistance Application for Freight Demand Modeling and Data Improvement (C20)

Read the Product Page

Background

Many freight demand forecasting models and data sources are inadequate for accurately forecasting freight movements and understanding freight travel behavior to support freight plans and projects. The SHRP2 product, Freight Demand Modeling and Data Improvement (C20), provides a strategic plan to improve freight data sets, advance freight modeling practices, spur innovative ideas, and foster a collaboration that can result in breakthrough solutions for a wide range of applications in freight planning and operations.

The improved tools and data will enable freight decision makers and staff to:

- Develop better freight plans
- Consistently evaluate transportation projects that affect freight movement
- Better predict freight movement trends
- Make more informed project investment decisions
- Support businesses and economic development decisions for communities

More information about the C20 product can be found at the SHRP2 Research Website

Leadership Endorsement

Each application submitted from an organization or agency must have the endorsement of the Chief Executive Officer or designee. The letter of endorsement is submitted as an attachment to the application. Guidance for creating an endorsement letter appears in the application below.

Priority Ranking

When multiple applications are submitted from an organization or agency, each application must have a designated priority ranking. Please rank all applications in one grouping including all product submissions from your agency. For purposes of ranking do not separate your organization's applications into categories for individual products, or levels of incentives such as Lead Adopter or User Incentive.

For example, your agency submits five applications; one application for each product C20, R02, R05, R15B, and R23. Your agency must rank each application in priority order from 1 to 5, with 1 as the highest priority and 5 as the lowest priority. For your convenience, you will find a box at the top of each application to designate the priority ranking. FHWA and AASHTO will take into consideration the agency's rankings when reviewing and evaluating the applications for implementation assistance.

Available Implementation Assistance

Freight Demand Modeling and Data Improvement (C20) implementation assistance will be provided for 9 to 11 Proof of Concept Pilots for *Behavior-Based Freight Modeling* and *Innovations in Local Freight Data*.

1. Behavior-Based Freight Modeling (4 pilots) will:

   - Advance "tour-based" and "supply chain" freight modeling practices.
   - Decision makers at State DOTs and MPOs will benefit by having a freight model specifically designed for evaluating transportation investments and their impacts on freight mobility.

2. Innovations in Local Freight Data (5 to 7 pilots) will:

   - Identify and adapt disparate sources of data.
   - Refine current data sources.
   - Develop new data sources on smaller geographic scales.

Type of Assistance:	Proof of Concept Pilot incentives are available to provide contractor assistance in applying C20 Freight Modeling (tools) and data to develop freight plans and analyze freight data.
Number of Awards:	9-11
Funding Level:	Funding (up to $350K per Proof of Concept Pilot applicant) is available to be applied to the implementation of *Behavior-Based Freight Modeling*. Funding (up to $150K per Proof of Concept Pilot applicant) is available to be applied to the implementation of *Innovations in Local Freight Data*.
Who Can Apply:	Applications will be accepted from State departments of transportation (DOTs) and metropolitan planning organizations (MPOs).
Application Deadline:	February 14, 2014

Requirements

- Commitment of State DOT and/or MPO leadership to pilot test state-of-the-art behavior-based freight modeling tools and/or innovative plan in gathering local freight data.
- Describe the need of advanced behavior-based freight modeling tools and/or local freight data.
- Participation in product evaluation activities including a qualitative, organizational, and/or before/after assessment conducted by an independent consultant for FHWA.
- Willingness to share knowledge with other organizations interested in implementing the behavior-based freight modeling tools and local freight data collection plans.
- Willingness to participate in regional or national knowledge-sharing events to promote the product.

Product-specific Requirements

Behavior-Based Freight Modeling:

1. Commitment to work closely with the FHWA, AASHTO, and TRB staff and its contractors in advancing "tour-based" and "supply chain" freight modeling.
2. Freight model should represent supply chain behavior (selection of suppliers, shipments, transfers, and mode) for different industries.
3. Freight model should represent touring behavior for pickup and delivery of goods within a region (MPO only).
4. Freight model should be able to reproduce observed data, such as truck counts, rail, air, and water volumes (where relevant).
5. A willingness to develop case studies to demonstrate the economic and environmental benefits of advancing freight modeling practice.

Innovations in Local Freight Data:

1. Commitment to work closely with the FHWA, AASHTO, and TRB staff and its contractors in advancing local freight data collection program.
2. Commitment to identifying and adapting disparate sources of data.
3. Commitment to develop and refine new and current data sources on smaller geographic scales.
4. A willingness to develop case studies to demonstrate the engineering and economic benefits of developing local freight data analysis program.

Application Form

Follow these steps to apply for implementation assistance:

1. Review all background information
2. Download the Behavior-Based Freight Modeling or Innovations in Local Freight Data application form; and save it to your computer in order to iterate, revise, and secure approvals before uploading the final application and Leadership Endorsement Letter to this site
3. Once you have completed the form and secured the required Leadership Endorsement Letter, return to this page and complete the contact information fields below

4. Upload the completed application form and Leadership Endorsement Letter
5. Click submit; you will receive an email confirmation that includes the uploaded endorsement letter and application form

Attach letter of endorsement from CEO or designee

no file selected

View Leadership Endorsement Guidance

Attach completed application form

no file selected

Download the Behavior-Based Freight Modeling or Innovations in Local Freight Data application form

Indicate priority ranking for this application

Contact Information

State   Organization

Point of Contact   Title

Business Phone   Business Email

Do you wish to subscribe to receive GoSHRP2 Email Updates?

SHRP2 Implementation Assistance Program
Round 3 Application Form

Freight Demand Modeling and Data Improvement (C20)
Behavior-Based Modeling Proof of Concept

FHWA Product Lead: Ed Strocko, Ed.Strocko@dot.gov, 202-366-2997

This SHRP2 Solution is part of Round 3 of the Implementation Assistance Program. For more information about this product or about applying for implementation assistance, visit the Implementation Assistance Program page or this product's application page (where this form originated) on the GoSHRP2 website.

Selection Criteria:

a. Choose an option:

☐ Supply-chain Model (Preferred agency - **State DOTs**)

☐ Tour-based (truck) Model (Preferred agency - **MPOs**)

☐ Both (Supply-chain and Tour-based) Model (Preferred agencies – **State DOTs and MPOs**)

b. Extra credit will be given for State DOT and MPO partnership submission (collaborative recognition) of any of the above three options.

A partnership with public agencies and/or private industries is strongly encouraged. Example: public agency partners such as a port authority or regional planning agency; private agencies partners such as a rail company or third party logistics (3PL) provider.

Is your organization applying for both Behavior-Based Modeling and Innovations in Local Data implementation assistance?

☐ Yes

☐ No

If yes, indicate which is the first priority:

☐ Behavior-Based Modeling

☐ Innovations in Local Data

Questions:

1. Describe your organization's interest and goals for adopting behavior-based freight modeling?

   Provide your response here.

2. What do you hope to gain? Is there a specific issue you hope to resolve? How do you define success?

   Provide your response here.

3. Briefly describe the organization's past efforts to adopt solutions related to freight (or truck) demand modeling.

   Provide your response here.

4. Briefly describe demonstrated executive-level support for adopting behavior-based freight modeling.

   Provide your response here.

5. Describe your approach to implementing behavior-based freight modeling.

   Provide your response here.

6. Summarize the activities and resources needed to support behavior-based freight modeling.

   Provide your response here.

7. Describe how your organization will use the implementation assistance to support the behavior-based freight modeling pilot project development plan.

   Provide your response here.

8. Describe any challenges you expect to encounter in implementing behavior-based freight modeling, and how you plan to address these challenges.

   Provide your response here.

9. What method(s) or modeling tools do you currently use for freight forecasting to support freight-specific projects or plans? Briefly explain with a specific project example.

   Provide your response here.

10. Explain how your freight model addresses changes in economic conditions within your region/State or outside your region/State.

    Provide your response here.

11. Explain how your freight model represents the supply chain from producer to consumer.

    Provide your response here.

12. Explain how your freight model represents the local delivery system.

Provide your response here.

As a reminder:

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SHRP2 Implementation Assistance Program
Round 3 Application Form

Freight Demand Modeling and Data Improvement (C20)
Innovations in Local Data Proof of Concept

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Selection Criteria

    a. A partnership with public agencies and/or private industries is strongly encouraged. Example partners: Public—department of motor vehicles, port authority, regional planning agency. Private—business group (chamber of commerce), real estate industry, third party data providers.

    b. Extra credit will be given to an applicant who can demonstrate innovative (such as use of technology, social-business/enterprise media) collection and maintenance of "market ready" local freight data.

    c. Extra credit will be given to innovative ideas of establishing agreement with private sector for collection and use of local freight data.

    d. Extra credit will be given to an applicant who is using a local freight data collection and maintenance plan.

Is your organization applying for both Behavior-Based Modeling and Innovations in Local Data implementation assistance?

    ☐ Yes

    ☐ No

If yes, indicate which is the first priority:

    ☐ Behavior-Based Modeling

    ☐ Innovations in Local Data

Questions:

1. Describe your organization's interest and goals for adopting local freight data improvement. (What do you hope to gain? Is there a specific issue you hope to resolve? How do you define success?)

   Provide your response here.

2. Briefly describe the organization's past efforts to adopt solutions related to a freight data improvement program.

   Provide your response here.

3. Briefly describe demonstrated executive-level support for adopting a local freight data pilot project outcome.

   Provide your response here.

4. Describe your approach to implementing an innovative local freight data improvement pilot project(s). Please explain local freight data improvement for the following three focused areas:
   a. Refinement of existing freight data sources at sub-regional levels
   b. Development of new data sources for use at sub-regional levels
   c. Integration and/or adaption of diverse data sources for sub-regional application

   Provide your response here.

5. Summarize the activities and resources needed to support local freight data improvement pilot project(s) development plan.

   Provide your response here.

6. Describe how your organization will use the implementation assistance to support the local freight data improvement pilot project(s) development plan.

   Provide your response here.

7. Describe any challenges you expect to encounter in implementing the local freight data improvement pilot project(s), and how you plan to address these challenges.

   Provide your response here.

8. What do you currently use for freight data, and how do you analyze freight data to support freight-specific projects or plans? Briefly explain with a specific project example.

   Provide your response here.

9. Freight data should serve a planning need and/or decision-making process. Briefly explain what types of local freight data are needed, and how are you plan to collect them?

   Provide your response here.

10. Freight data should be obtainable and affordable, making use of existing data sources where possible. Briefly explain your action plan.

Provide your response here.

11. Freight data should be sustainable (i.e., reproducible in future years or updatable). Briefly explain your action plan.

Provide your response here.

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