



Port Planning IV:

How Can You Determine Your Port's Economic Contribution to the Metropolitan Area?

Healthy Communities 2016, LLC



Port Integration – Modules Overview

- Ports should be better integrated into the port planning process. These modules, including this one, provide information that will help you understand the how to get better integrated into the Federal Highway Administration (FHWA) transportation planning process and identify related port related resources & factors.
- There are five modules, including this one:
 - I. What is Metropolitan Transportation Planning?
 - II. What Resources are Available to Ports for Better Planning?
 - III. How Can Ports Better Leverage Federal, State, Regional & Local Resources?
 - IV. How Can You Determine Your Port's Economic Contribution to the Metropolitan Area?
 - V. How to Get Your Projects in the State & Local (Regional) Long Range Transportation Plans and Transportation Improvement Programs?
- At the end of each module you can find next steps and other related resources.



Port-Specific Information

Why This Matters to Ports

Being integrated into the FWHA planning process, including having your project in the regional Transportation Improvement Plan (TIP), can help you access new funding authorized by the Transportation Infrastructure Finance Innovation Act (TIFIA) and other potential streams of funding. Understanding what your State department of transportation, regional Metropolitan Planning Organization (MPO) or local municipality can provide gives you more tools to work with; for example, many projects are justified by jobs-creation. Understanding a little more about this and other analyses can help you determine your scoping needs to determine your next steps such as, for example, hiring a consultant for a feasibility study.

Healthy Communities 2016 can help you navigate these channels to understand the destination but also pitfalls along the voyage and possible resources including through the Build America Transportation Investment Center (BATIC), National Surface Transportation and Innovative Finance Bureau (NSTIFB), and other programs. There are other resources available at the Federal, State, Regional and Local levels which HC '16 can also assist you in identifying.



Purpose

- The BATIC & NSTIFB serve as the points of contact and coordination for States, municipalities and project sponsors like ports looking to utilize federal transportation expertise, apply for federal transportation credit programs and explore ways to access private capital in public private partnerships.
- Various Federal, state and local support efforts to improve port infrastructure throughout the United States and ensure ports and related marine facilities are capable of meeting future freight transportation needs.
- This training module provides you an overview of the:
 - Metropolitan Transportation Plan
 - Long Range Transportation Plan
 - Unified Planning Work Program
 - Local and State Transportation Improvement Programs.



This Module

- *Initial Steps*
- Cargo vs Commodities
- Types of Cargo
 - Container
 - Breakbulk
 - Liquid Bulk
 - Dry Bulk
 - Neo-bulk
 - Roll-on/Roll-off
- Economic Development Factors
 - Direct & Indirect
- Economic Development Methods
- Current, Real or Chained Dollars?
- *Subsequent Steps*
 - Sources of Information
- Available Economic Models
- *Near Final Steps*
- Relevant Training
- Other Resources



Initial Steps

- Determine what data is available, including cargo or commodity volumes
- Contact and meet with:
 - Local MPO transportation / freight staff
 - University economics professors
 - Economic development offices
- Understand other businesses (employment sectors) that rely on port or maritime business.
- Understand market dynamics in local, regional, State and national transportation industries – goods movement and passenger (if concerned about ferry operations).
 - “Economics 101”



Cargo vs Commodities

- Need to determine what data is available
 - Port cargo versus commodity volumes (and values)
- If port cargo volumes are not available, may need to convert commodities to cargo volumes based on a given conversion rate.



Types of Cargo

Cargo	Exemplified
Container	International Organization for Standardization (ISO) rated shipping containers, commonly measured in 20 or 40-foot equivalent units, used to ship wholesale and retail commodities.
Breakbulk	Historically more common, breakbulk includes goods moved on pallets.
Liquid Bulk	Construction or energy products moved in bulk and commonly loaded or unloaded by pipeline.
Dry Bulk	Construction and unrefined food products moved in bulk and commonly loaded or unloaded by hopper, belt or a chute.
Neo-Bulk (Project cargo)	A form of breakbulk shipping, in which goods are too large to be moved by pallet; e.g., paper or steel rolls.
Roll-on/Roll-off (Ro/Ro)	Includes any commercial and passenger vehicles that are loaded and/or unloaded by driving on and off a vessel.



Economic Development Factors

Factor	Direct or Indirect?
Jobs	Direct
Wages	Direct
Retail Spending	Indirect
Taxes	Indirect (Tertiary)

- All factors can be considered at the local/regional, State or national levels. Also, cargo value is related to the value of local jobs, based on the industry.*



Economic Development Methods

Cargo	Definition
Job Growth	The growth of direct or indirect jobs based on the relationship to cargo or direct jobs based in all years or in the first year and then grown at a pre-determined rate.
Jobs multiplier	The relationship of direct port-employed personnel to city or statewide employment in port-related industrial sectors.
Cargo multiplier	The relationship of port-generated cargo (e.g., containers) to city or statewide employment in respective cargo and port-related economic sectors.
Wage multiplier	The relationship of wages to jobs in all years or the ratio of wages to jobs in the first year and then grown at a different linear or exponential rate based on economic conditions.
Retail Spending	The relationship of total retail spending to jobs in all years or the ratio of retail spending to jobs in the first year and then grown at a different linear or exponential rate based on economic conditions.
Taxes Generated	The relationship of taxes to wages and/or retail spending in all years or the ratio of taxes to wages and/or retail spending in the first year and then grown at a different linear or exponential rate based on economic conditions.



Sources of Information

Locality	Potential Sources
Port	Port Marketing Department
Local/Regional	Metropolitan Planning Organization Municipal Department of Economic Development Municipal Department of Labor
State	State Department of Economic Development State Department of Transportation State Department of Labor
National	Congressional Budget Office U.S. Department of Labor DOC/Bureau of Labor Statistics DOC/Bureau of Economic Analysis DOT/Bureau of Transportation Statistics



Types of Economic Dollars

Type	Definition
Current*	Dollars in the year in which a person, household, family, or organization receives or generates it; for example, the income someone received in 1989 unadjusted for inflation is in current dollars.
Real/Constant*	Dollars after adjusted for inflation.
Chained**	Use real (chain-type indexes or chain-dollar) estimates when you want to show how output or spending has changed over time. The percent changes in quantity indexes exactly match the percent changes in chained dollars, so they can be used interchangeably for making comparisons. Real estimates remove the effects of price changes, which can obscure changes in output or spending in current dollars.

* Source: <https://www.census.gov/hhes/www/income/data/historical/dollars.html>

** Source: http://www.bea.gov/faq/index.cfm?faq_id=79



Available Economic Models

Model/Consultant	Provider
Highway Economic Requirements System-State Version (HERS-ST)	Federal Highway Administration
TELUS Land Use Model	Federal Highway Administration
MEPLAN Transportation / Land Use Model	Hofstra University
Local Model	Local MPO or University
Regional Economic Models, Inc.	Regional Economic Models, Inc.
Economic Modeling Specialists Intl.	Economic Modeling Specialists Intl.
Economic Development Research Group	Economic Development Research Group



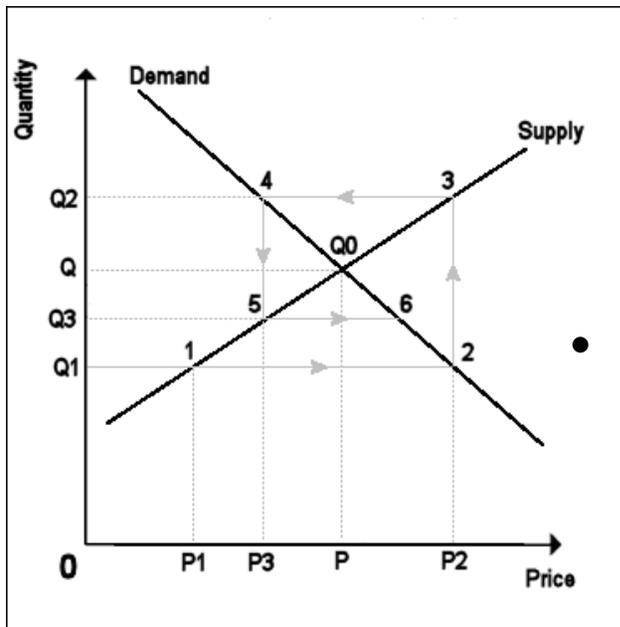
Subsequent Steps

- Determine if you can development an econometric model yourself.
- Determine if you yourself can use and run an existing model, given help from a local Economics professor or customer service support from the model provider.
- Contract with a model provider if necessary to run a model, given your level of knowledge of economics.



Near-Final Steps

- If developing economic projections yourself:



- Develop organized prose summary of analyses
 - Include charts of projections
 - Include footnotes and references (sources)
- If contracting economic projections, including the prose summary:
 - Work with your contractor/consultant to provide organized, prose summary
 - Professionally review the draft and final draft reports.



Relevant Training

Provider	Course
National Transit Institute	<u>Financial Planning in Transportation</u>
Federal Highway Administration	<u>HERS-ST Summary Workshop</u>
Federal Highway Administration	<u>Freight Data Made Simple</u>
Federal Highway Administration	<u>Freight Forecasting</u>

- *For other suggested training, see the other modules depending on the topic.*



Related Background Resources

- [TELUS Land Use Model](#)
- [MEPLAN Transportation / Land Use Model](#)
- <http://bca.transportationeconomics.org/>
- [California Department of Transportation Office of Transportation Economics](#)
- [California Center for Innovative Transportation](#) (at the [Institute of Transportation Studies](#) at the [University of California at Berkeley](#))
- [Planning, Economics and Finance Committee](#)
- [APTA Public Transportation Investment Report](#)
- [Models to Predict the Economic Development Impact of Transportation Projects: Historical Experience and New Applications](#)