

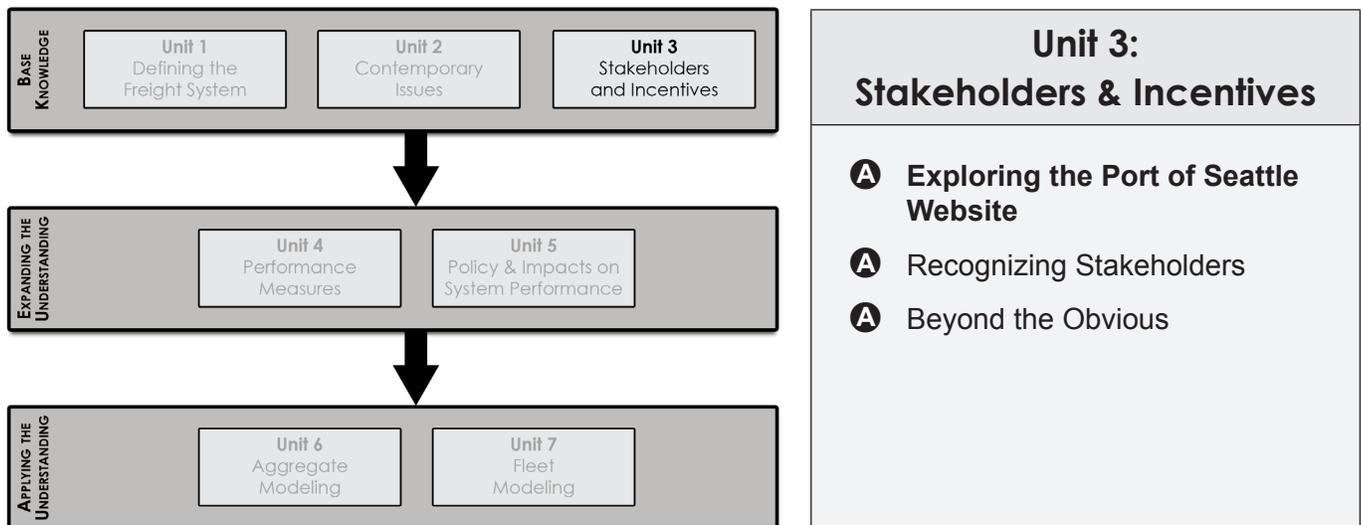
BEFORE CLASS

Connection	Activity Overview	Required Resources	Agenda & Instructor Notes
Review to see how this activity fits as part of the course and Unit 3.	Read to learn more about the content of the activity.	Review to make sure you have the materials you need for this activity.	Read to prepare for what you will do in class during the activity.

CONNECTION

Activity #5 is the first of three activities within Unit 3: Stakeholders and Incentives. This activity provides background information on the operations of the Port of Seattle, which helps students engage more in a subsequent lecture on the port. The information provided in Unit 3 builds on Units 1 and 2, and also provides more insight into components of the freight transportation system (in this case, infrastructure and stakeholders).

In Activity #5, students gain a better understanding of how the Port of Seattle operates, how the infrastructure is managed, and what motivates port interests.



ACTIVITY OVERVIEW

Activity #5 is an out-of-class activity that prepares students for a lecture about the Port of Seattle. The Port of Seattle is the focus of this activity because of our school's close proximity to the facility and our ability to have a guest lecturer come to speak to the class. This activity could be easily adapted to focus on other freight facilities.

Within the activity, students are asked to individually answer the Critical Thinking Questions using the Port of Seattle website. The students are asked to explore the website to find the answers to the questions, as opposed to using search functions. The thinking behind this is to expose students to more than just the specific information and topics covered in the Critical Thinking Questions. The activity allows students to actively learn about the port as opposed to learning passively through lecture.

The **learning objectives** for this activity include:

- To become familiar with the Port of Seattle’s governance and revenue structure.
- To gain familiarity with transportation and activities performed by the port.

REQUIRED RESOURCES

You will need the following material for this activity:

- Activity text
- Students will need internet access

DURING CLASS			
Agenda	Instructor Notes	Common Questions	Discussion Notes and Ideas
Review with the students to show them what tasks will be completed during class and the approximate time for each task.	Use this to remind you of the information that you need to remember and the sequence that you will follow during class.	Keep these in mind! They are what students have asked about this activity in the past.	Keep these in mind for possible use during class or to update the activity in the future

AGENDA

Because this is an out-of-class activity, the instructor is only required to introduce the activity in class and answer any questions about the activity.

INSTRUCTOR NOTES

The instructor should clarify the following:

- The activity serves as a way to provide background information on the Port of Seattle which will allow students to engage more in a subsequent lecture about the port.
- Students are encouraged to explore the website by clicking on links to answer the guided learning questions as opposed to searching for the answers using a search engine or search function on the website.
- Students should not copy and paste information directly from the Port of Seattle’s website.
- The questions vary in level of effort required to respond sufficiently as indicated in the question. Some questions can be answered by simply finding the required information on the website, while others require more interpretation and critical thinking.

COMMON QUESTIONS/CONCERNS

The clarifications in the **Instructor Notes** section address the common concerns within the activity.

DISCUSSION NOTES/IDEAS

Additional questions which could be asked during the activity session include:

- What are three advantages (according to the Port) of doing business with Sea-Tac Airport?
- What are the four divisions of the port?
- Find a recent article (within the last month) in the news about the Port of Seattle and summarize.

AFTER CLASS

Answers and Notes	Activity Assessment	Next Steps
Use the information here to help you evaluate student performance.	Use this space to take notes regarding the implementation and facilitation of the activity which can be used to make any necessary adjustments to the activity.	This is a reminder of what comes next, including any homework or preparation that students need to complete for the next class or activity.

ANSWERS AND NOTES

Critical Thinking Questions (with answers):

- Who are the commissioners of the Port of Seattle, and how are they selected?

Tom Albro, Bill Bryant, John Creighton, Rob Holland, Gael Tarleton

They are elected (at large) by the voters of King County, serve four-year terms and help establish port policy. Their role differs from the CEO and other executives, who are “hired” and concerned with the day to day business operations.

- List the facilities that the Port of Seattle has jurisdiction over (example: Terminal 5)

- *Sea-Tac Airport – both commercial and cargo*
- *Conference facilities – Bell Harbor, Airport, World Trade Center, Nordby Conference Center at Fishermen’s Terminal*
- *Container Terminals – T-5, T-18, T-30, T-46*
- *Pier 2, T-10, T-104m T-106, T-102... Pier 34, pier 66*
- *Marinas - Bell Harbor Marina, Shilshole Bay Marina*
- *Bell Street Pier/ Cruise Terminal*
- *Pier 69 – POS HQ*
- *Bulk Terminals T-86 (grain facility), T-91*
- *Smith Cove Cruise Terminal*
- *Commercial moorage – Fisherman’s Terminal*

- How does the Port of Seattle fund itself? Do the Port’s funding sources indicate that it is a public or private entity? Explain.

Several sources (to fund its Capital Improvement Program):

1. *Net income (income generated from port business: leasing of land, facilities – after payment of expenses)*
2. *Revenue bonds: investors buy fixed rate bonds*
3. *Tax Levy / Property taxes: properties within King County*
4. *Passenger Facility Charges: for airport, \$4.50 per ticket*

Hybrid entity: Private: net income, Public: bonds, taxes, Federal funding

4. With regards to the economic impact of the Port of Seattle, explain the difference between the following: direct employment, induced employment, and indirect employment. Give an example of each.

Direct employment: jobs directly generated by airport and seaport activity

Induced employment: jobs created throughout the local economy because individuals directly employed due to airport and seaport activity spend their wages locally on goods and services such as food, housing and clothing.

Indirect employment: are jobs created in the State of Washington due to purchases of goods and services by firms, not individuals. Examples include jobs with local office supply firms, maintenance and repair firms, parts and equipment suppliers, etc.

5. What is the Clean Truck Program? Explain why it was developed, who it impacts, and how the goals of the program are accomplished.

By January 1, 2011, all trucks calling at the Port of Seattle container terminals must meet the federal emission standards for engine-year 1994. Trucks that don't meet the required emission standards will be turned away at the terminal gates. The next Clean Truck benchmark will require 80% of all trucks entering Port of Seattle facilities to meet emission standards for engine-year 2007 by the end of 2015. One hundred percent of the trucks must meet 2007 standards by 2017. The Puget Sound Clean Air Agency and Cascade Sierra Solutions (CSS), have developed a truck "buy back" program for truckers who own trucks with pre-1994 engines. The ScRAPs Program provides either blue book value or a \$5000 "bounty" – whichever is higher – to the truck owner for their pre-1994 engine truck. The truck owner may use that money to reinvest in a newer truck but is free to choose how to use their bounty. The Clean Trucks program is modeled after CA programs. It is not without problems; drayage truckers don't have the money to upgrade trucks.

6. What is the Port of Seattle's stance on the Alaskan Way Viaduct replacement project? Why do they take this stance? Will the port fund any portion of the project?

The Port of Seattle supports the bored tunnel alternative. The Port will not directly fund the project, but will fund projects that mitigate construction disruption and improve connectivity. The Port depends on the Viaduct and seawall for freight mobility, Port facility access, and regional mobility. While our container trucks don't travel on the Viaduct, it still carries over 100,000 vehicles which would otherwise be using the Duwamish area streets and conflicting with freight and rail lines. Many people headed to port facilities do use the Viaduct as a west side artery; these include the Pier 66 Central Waterfront complex and Cruise Terminal, Pier 69, Terminal 91, Sea-Tac Airport and the Port marinas. Also, the Viaduct is key to the regional highway system, carrying 25% of the north-south traffic through the downtown area. The Port Commission believes that the replacement of the Viaduct should achieve the best balance among retaining and creating jobs, sustaining regional economic vitality, and benefiting the environment.

7. How does Sea-Tac airport address issues of aircraft noise?

Fly Quiet: program which encourages airlines and pilots to operate planes as quietly as possible. Noise is monitored and quietest airlines get an award.

Air traffic patterns: specific flight headings and altitudes for airplanes designed to minimize noise over surrounding communities; take advantage of existing geographical and compatible land use conditions wherever possible (for example, the Duwamish Industrial Area, Elliott Bay and the Puget Sound provide opportunities for aircraft to fly over non-residential areas)

Aircraft Noise Monitoring System: The Port of Seattle owns and operates 25 permanent noise monitors. They encouraging the phasing out of older, louder planes

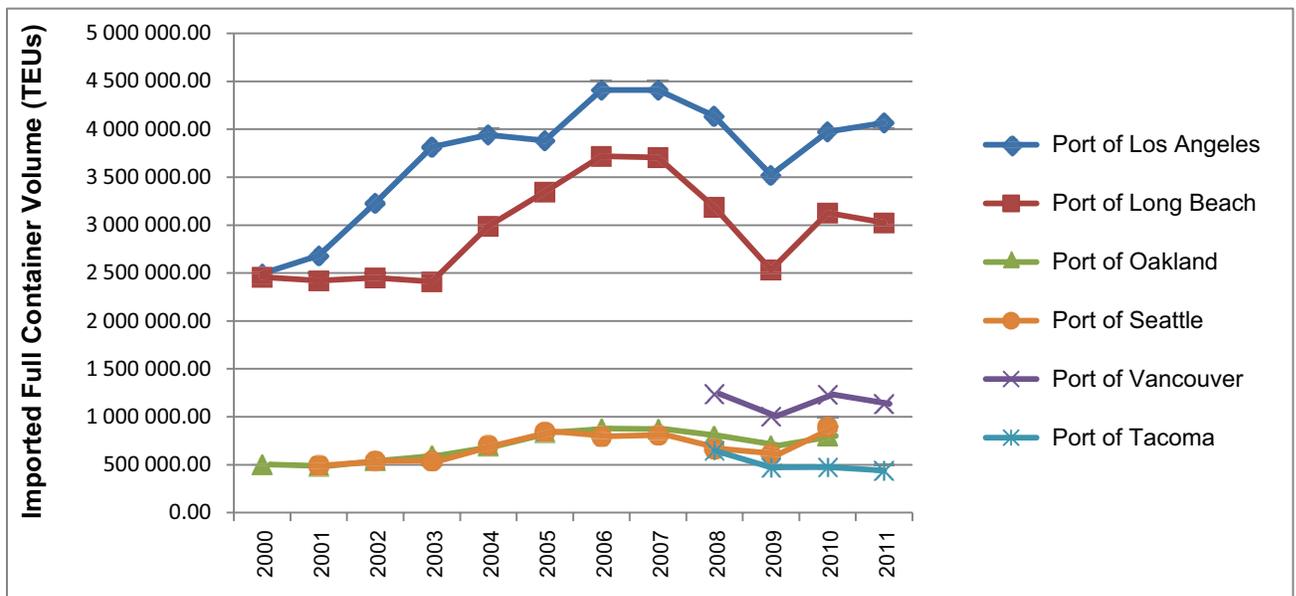
8. What container volume trends can you observe over the past ten years at the Port of Seattle?

Imports continue to increase with decreases due to the economy in 2008 and 2009.

9. How do container volumes at the Port of Seattle vary throughout a given year?

The demand volumes are cyclic and are affected by the Christmas shopping season.

10. Visit the statistics pages on the following port websites. Create a graph showing the number of full containers imported through each port (including the Port of Seattle) over the past ten years. Note that there is not ten years' worth of container statistics on the Port of Tacoma or the Port of Vancouver's website, graph as many years as provided. What are two conclusions you can reach by looking at the graph?



Student responses will vary. Below is an example.

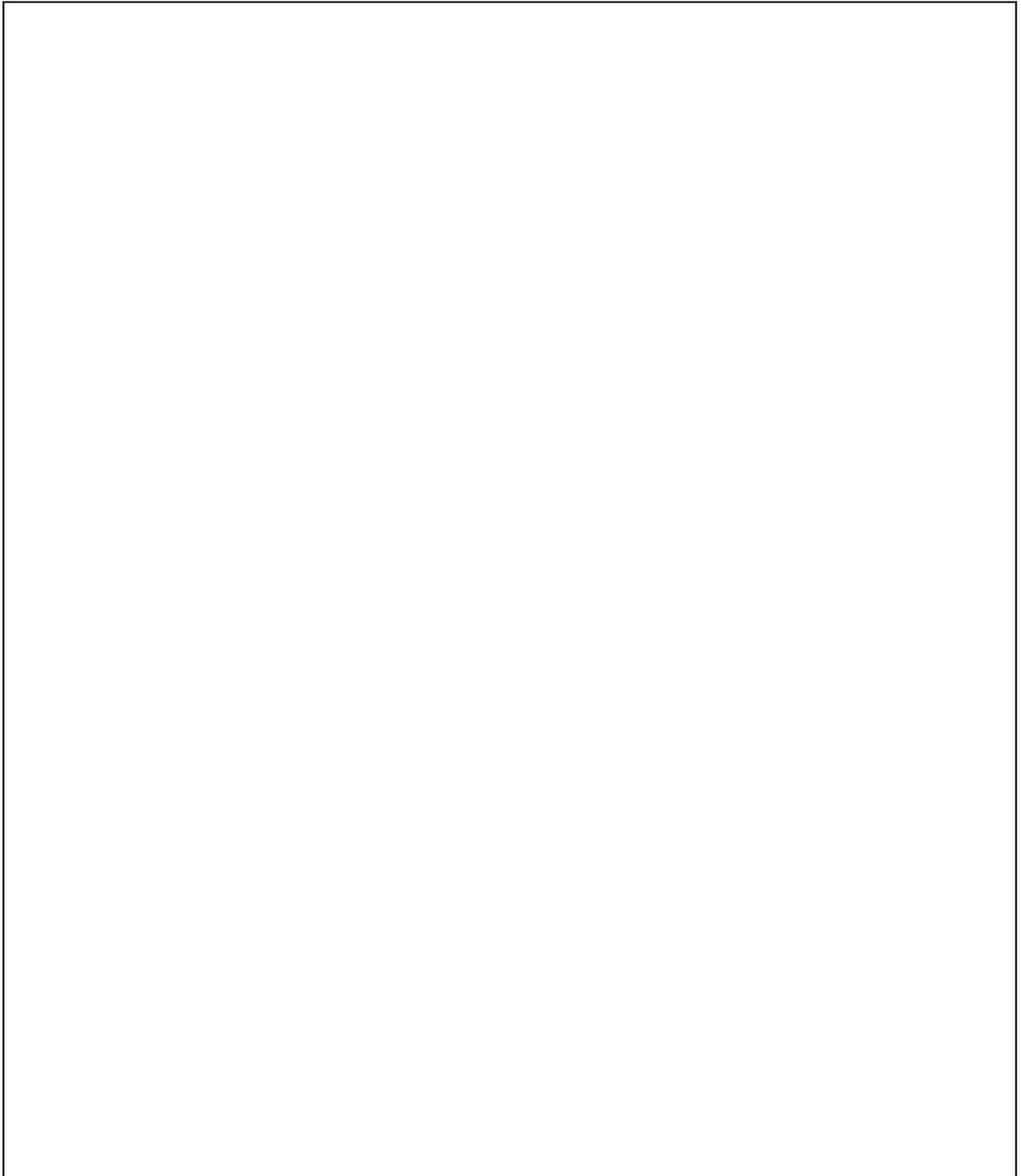
Among the six ports, Los Angeles Port is the largest port in terms of the number of full imported containers, followed by Long Beach Port. Port of Vancouver, Port of Seattle, Port of Oakland and Port of Tacoma are at the same level of imported full container volumes.

The container volume trends of all six ports are quite similar over the past 11 years. The volume decreased considerably between 2008 and 2009 of all six ports.

11. What is one new and interesting thing you learned about the Port of Seattle while doing this assignment?

Student responses will vary

ACTIVITY ASSESSMENT

A large, empty rectangular box with a thin black border, intended for students to write their assessment of the activity.

NEXT STEPS

This activity leads into the Port of Seattle lecture.