

## PURPOSE

To share previously gathered information on freight transportation modes, ultimately identifying key issues for each mode and developing a matrix to compare modes.

## LEARNING OBJECTIVES

- To be able to define and describe components of the freight transportation system.
- To be able to compare economic and operational characteristics of modes.

## REQUIRED RESOURCES

Partially completed mode matrix (hard copy and electronic copy accessible on a flash drive or laptop for use during class).

## TASKS

In this lesson you will gather with other students assigned to your mode to discuss your previously gathered research. Within your group you will should clarify concerns/uncertainties and complete your portion of the mode matrix.

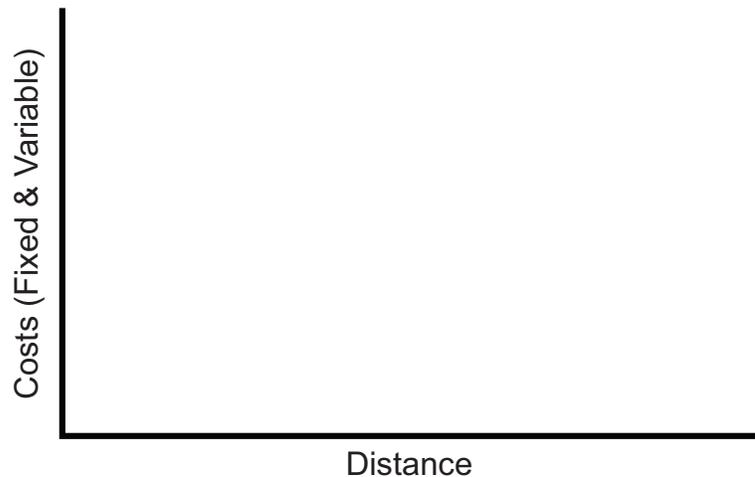
Once each group (of a single mode) has completed their portion of the mode matrix, new mixed modal groups will gather (where each group has one member representing each mode). Within these new groups, you should help each other complete the entire mode matrix. **Due to time constraints, each group member should focus on two topic areas (matrix rows) of their mode: one area which they feel is most important to understanding the mode and its role in the freight transportation, and one area where they were surprised by what they learned.**

Additionally, groups should work together to answer the Critical Thinking Questions. Bullets and short answers are acceptable when answering these questions.

## CRITICAL THINKING QUESTIONS

1. Explain how deregulation has been good or bad (or a combination of both) for freight transportation.
  
2. Railroads were up and running several days after Hurricane Katrina passed through New Orleans and the Gulf Coast. It took much longer for the road system to recover. Explain how the ownership of infrastructure contributed to this disparity.

3. Draw a line to represent each of the 4 modes discussed on the graph below. The y-intercept represents the fixed cost of each mode of transport and the slope of the line represents the cost per unit of distance travelled.



4. How does the use of the container promote intermodalism? Use the vehicles described in the matrix to help explain.
5. Explain how the US DOT is a “siloed” organization. How does this organization affect decision making and efficiency within the transportation system?
6. Looking across the modes, what themes do you see in the way technology is used in freight transportation?

## DELIVERABLES

- One completed Mode Matrix per group (take advantage of flash drives and laptops when compiling mode matrix information)
- One set of answers to the Critical Thinking Questions per group.