Chapter 10 Questions and Exercises

As Chapter 10 articulates, one of the major issues facing metropolitan areas is the heavy traffic on their roadways, particularly during certain hours of the day. Data on traffic congestion for US cities can be found in the Texas Transportation Institute’s *Urban Mobility Report,* available at <http://mobility.tamu.edu>.

1. Included in the report is a table of the annual delays during peak period travel from 1982 through a most recent year.

* Select 10 cities of your choice and discuss what was the change in the annual delay per traveler for each of those cities between 1982 and the latest year available.
* Did most of this change occur between 1982 and 1995, or after 1995?

1. For each of the 10 urban areas you selected, how much excess fuel was consumed due to congestion delays? According to this table, what was the cost of congestion for travelers in each of those urban areas? Examine the explanation of the congestion cost estimates found in the notes at the bottom of the table. How, if at all, does the estimation consider each of the following types of costs: opportunity costs, private costs, and social costs? Explain.

As Chapter 10 discusses, public transportation is typically subsidized by local, state, or federal governments. The extent to which the operating expenses are subsidized varies from one metropolitan area to another. The pertinent data on the recovery rate—the percentage of operating funds that are recovered from fare revenues—are published by the Federal Transit Administration in its National Transit Database (NTD). These data can be accessed through the NTD’s website at~~.~~ <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/ntd/data-product/134406/2018-ntst-appendix_0.pdf>

1. Select three metro areas of your choice and then for each select a public transit agency.

* For each of these three metro area transit agencies, examine its operational characteristics including types of vehicles used in each region.
* How do the operational characteristics vary across the three metro areas you are examining?
* How do the performance measures in terms of operating expenses stack up in the three metro areas you are following?
* Using data for various years for one of the three metro areas you selected, examine the trend in operational characteristics and performance measures. Is this public transit system expanding or contracting in terms of vehicles in service and operating expenses?