

Operating costs on toll bridges and tunnels vary widely in relation to the physical size of the facility, the amount and kind of traffic handled, the age of the facility and its geographical location. In brief, a short two-lane bridge with traffic volumes of perhaps 4,000 to 5,000 vehicles per day will have small operating expenses in comparison to a six-lane bridge handling 50,000 vehicles a day. The costs of personnel and maintenance in a large metropolitan area will normally be higher than those in a comparatively small city. Considering these and many other local and individual factors, there appears to be no common denominator which can be applied to develop an average cost for the operation of toll facilities. Although detailed reports of operating costs on all toll bridges are not available, it is estimated that these total costs as defined above for toll bridges and tunnels in the United States exceed \$75 million annually.

Operating costs for toll roads are somewhat different, but they again vary widely for the same general reasons as indicated for bridges. Generally speaking, total operating costs of toll roads, including administration, maintenance and overhead expenses essential to the operation, vary from \$20,000 per mile to over \$40,000 per mile annually. A toll road carrying high volumes of mixed traffic will have greater operating expenses than another of equal length having a much lower volume of traffic. A toll road in a northern climate will have comparatively higher operating costs than one in a warm climate. Similarly, a toll road traversing a heavily populated area will have higher operating costs than one passing through a rural area, and a toll road 15 years old will have higher annual maintenance costs than one built in 1964.

Taking these and other factors into consideration, it is estimated that the total cost of operation, including administration, maintenance, and necessary overhead expense, exceeds \$150 million annually for the 38 major toll roads in the United States.

2. USER CHARGES

All toll facilities, regardless of size or location, provide funds for their operations and debt service through placing a user charge on all vehicles using their facility. The "user-pay" principle is the basis for their existence.

On toll bridges, the user fees or tolls vary from a 5-cent toll for passenger vehicles to \$4.95. A few facilities also make a small charge per passenger and some for pedestrians.

Truck user fees are, of course, higher than passenger vehicles. These are usually divided into classes based generally upon size and weight. The classifications adopted vary from one facility to another.

Passenger car toll rates on toll roads can best be described as ranging from 1 cent per mile to about 3.5 cent per mile. Again, these rates reflect differences in the original cost of construction, the amount of passenger car traffic in relation to commercial trucks and buses, debt retirement and interest costs, and costs of operation and maintenance. Toll rates for commercial vehicles are higher than those of passenger vehicles on toll roads. As in the case of bridges and tunnels, commercial vehicles are generally classified by size and weight and a toll rate is established for each class.

A number of facilities have adopted commuter discount rates for passenger vehicles and volume discount rates for commercial vehicles.