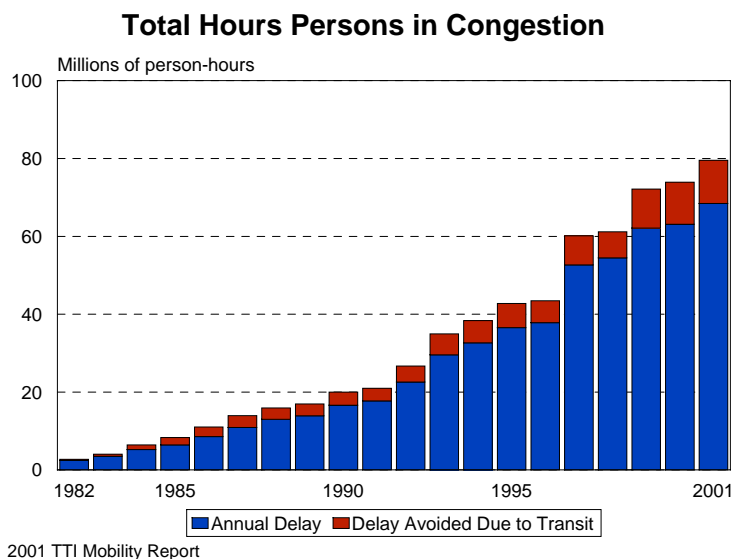


Chapter 10. Transit's Impact on Highways

The Texas Transportation Institute's 2003 Mobility Report estimated that 62% of the region's freeways and major roads experienced congestion during peak travel times in 2001. This translated to 68.5 million person-hours spent in congestion in the region. They also estimated that this cost the region \$1.365 billion dollars in fuel and lost time.

Transit has the ability to increase the number of persons that can travel on a congested roadway by putting people in higher occupancy vehicles. The Texas Transportation Institute estimated that an additional delay of approximately 11.1 million person-hours was saved due to the positive impacts of transit on the region's highway system in 2001.

Also, as congestion is increasing over time, the positive benefits of transit on travel time are also increasing.



Transit can be a strategy for increasing highway capacity. There are sections of highway that have been at their limits for several decades and currently the only way to increase the number of persons traveling through them is with transit. In fact, if service and transit ridership is high enough, transit can provide as much capacity as a lane or more of traffic.

The typical highway lane can carry about 1,800 free-flowing vehicles per hour. So if transit carries about 1,800 persons in an hour, it is carrying about the equivalent of one lane of free-flowing traffic. An analysis was done looking at transit usage at key highway locations experiencing the highest levels of congestion in the region.

Table 10-1. 2003 AM Peak-Hour Transit Data by Corridor

Corridor	Express Riders	Impact Equivalent to
I-35W South Northbound @ Lake	2,500	1 1/3 Lane
I-94 North Southbound @ Washington	2,300	1 1/3 Lane
I-394 Eastbound @ Penn	2,100	1 1/5 Lane
I-94 Central Westbound @ 280	1,100	3/5 Lane
I-35W North Eastbound @ 4th	975	1/2 Lane

Table Notes: Peak Hour 7:30 to 8:30 a.m.

Metro Transit data is October 2003. Opt-Out data provided by MTS is 2001 and/or 2002.

2002 MnDOT Highway Observed Congestion - AM Peak And Additional Highway Capacity Due to Transit



This analysis underestimates the impact of transit on the highway system as it only looks at transit riders whose buses actually travel on highways. There are transit trips taken on local streets and arterials that could have been taken by auto on highways. These trips also contribute to reducing congestion. For example, persons traveling on University Avenue by bus are not traveling on I-94 by car or persons who are traveling on Nicollet Avenue by bus are not traveling on I-35W by car. At this point, there are no estimates of what percentage these trips are of the total transit trips but it is expected that these impacts are substantial in improving highway throughput.