



Did SW Light Rail Reduce Santa Fe Traffic?

Denver's Southwest Corridor light-rail line cost far more to build than the cost of adding two new lanes onto Santa Fe Drive, which parallels the rail line. Yet it took, at most, one-third of a lane's worth of rush-hour traffic off of Santa Fe.

Rail advocates claim that Denver's Southwest Corridor light-rail line greatly reduced congestion on Santa Fe Drive. To find out how they reached this conclusion, Independence Institute Senior Fellow Dennis Polhill wrote RTD's director, Cal Marsella.

Marsella's response, dated January 21, 2004, says Colorado Department of Transportation (CDOT) data indicate that traffic on Santa Fe Drive declined by about 9 percent, from 654,000 to 595,000 vehicle miles per day, after the Southwest Corridor light-rail line opened in 2000. At 1.6 people per car, this translates to about 34.4 million passenger miles per year. Marsella attributes this decline to the opening of the light-rail line.

Santa Fe is effectively a seven-lane highway (three through lanes in each direction plus intermittent right- and left-turn lanes), so a 9-percent reduction in traffic is much less than one lane's worth of traffic. However, Marsella also claims that "during the afternoon rush hour in the peak (southbound) direction," light rail carries "the equivalent amount of traffic that one lane on Santa Fe can carry!"

Here, Marsella implies that, without light rail, all passengers would drive. In fact, Marsella has stated elsewhere that nearly 70 percent of RTD's light-rail riders are former bus riders. This is clear looking at transit data for 2000 and 2001. In 2001, light rail carried 35 million more passenger miles than in 2000, which is almost exactly equal to the decrease in passenger miles on Santa Fe Drive. But RTD buses carried 17.5 million fewer passenger miles in 2001 than in 2000. Assuming bus ridership increased in other parts of the region, more than half the increase in rail passenger miles in the Southwest Corridor must have

been former bus riders. Thus, light rail could only be responsible for less than half of the decrease in Santa Fe congestion.

Even if light rail did carry the equivalent of one lane of Santa Fe Drive, it would not be a cost-effective method of transportation. The cost of constructing lanes on an arterial such as Santa Fe ranges from \$2 to \$5 million a mile. As part of the T-REX project, CDOT is spending about \$700 million building 70 new lane miles on I-25, for an average cost of about \$10 million a lane mile. Such freeway lanes will carry twice as much traffic as arterial lanes at higher speeds.

By comparison, the Southwest Corridor light-rail line cost \$21 million a mile, or more than twice the cost of two new lanes on Santa Fe. The T-REX line is costing \$44 million a mile, or more than twice the cost of two new I-25 freeway lanes. So light rail carries, including former bus riders, the equivalent of at most one arterial lane or about one-half a freeway lane, and costs five to ten times as much as an arterial lane and two to four times as much as a freeway lane. This makes rail much less cost effective than roads, especially since most rail riders are former bus riders.

Denver can more effectively reduce congestion and provide better transit without raising taxes by building high-occupancy/toll (HOT) lanes paid for by tolls collected from low-occupancy vehicles. Buses and high-occupancy vehicles would use those lanes for free. RTD could operate bus-rapid transit on those lanes for as little as 2 percent of the cost of building rail lines. The buses could go faster, serve more people, and cost less to operate than rail. Together, HOT lanes and bus-rapid transit promise much more congestion relief, at a far lower cost, than rail transit.