

The private auto as I'm sure the committee knows from personal experience, is a very attractive mode of transportation for its convenience. A study in Chicago, for example, showed that about 30 percent of the automobile commuters walked one block or less from the place they parked to the place where they worked, and 40 percent more walked less than three blocks. That leaves only 30 percent of the commuters walking any sizable distance from where they leave their cars.

Buses, streetcars, trains, have to be very convenient or cheap, or rapid, or in some other way superior to compete with cars. No doubt technology can make more rapid buses, streetcars, trains, monorails, given time and investment and superior speed might compensate for some of the attractiveness of automobiles.

But, let me cite one study done in Chicago by Leon Moses and Harold Williamson. They analyzed interviews with a sample of commuters in the Chicago area by the Cook County Highway Department. Their analysis concentrated on a subsample of commuters; namely, those who preferred automobile commuting to other modes of transportation. Moses and Williamson used their data to estimate the amount of money by which cost of auto trips would have to be increased in order to divert 50 percent of the commuters to an alternative mode of transportation. They also estimated the converse, the amount by which the cost of the other modes of transportation would have to be reduced in order to divert 50 percent of the motorists to them—i.e., to common carriers. I won't try to reproduce the data in detail, but just summarize their findings. Essentially the question is: What would it cost to induce half of the auto commuters to shift to a common carrier? What subsidy would you have to provide for the public transportation system that would reduce fares to an attractive enough level to produce this impact on automobile traffic?

I would like to read part of the conclusion of the study: "It is evident that negative prices would be necessary on all modes of public transportation in order to divert at least 50 percent of those currently making the trip to work by car."

In other words, they estimated that it would be necessary to pay auto commuters about 40 or 50 cents per "el" or bus trip in order to get them to use common carriers, and therefore reasonably conclude that: "the possibility of reducing significantly auto congestion by reasonable reductions in the price of public transportation appears slight."

Now, what do these authors think would happen if public transportation were free? They say their results suggest that if such an experiment were carried out in Chicago, less than one-fifth of the auto commuters would be diverted to common carriers.

Would that be a worthwhile reduction? Well, on this point the social scientist turns back to the engineer and asks how effective a reduction of 15 or 20 percent in the number of cars each day in downtown Chicago might be. I might say also that the social scientists also tend to turn toward Detroit to ask what would be the effect of reduction of this size in the demand for automobiles in the Chicago area?

An alternative to lowering the price of public transportation is, of course, raising the price of auto transportation through various means