LUNCHEON SPEECH

What the 1990 Census Will Tell Us About Commuting in America

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This is an aptly timed conference, given that most of us have just returned our 1990 Census forms to Suitland, Maryland. Although a few of us may still have forms residing on our coffee tables at home, making us feel guilty.

Those of you who received the long form know that it includes questions that will be the major source of information on the commuting characteristics of the American work trip. The data will include workplace address, mode of transportation to work, time of departure for work, and travel time to work, in addition to the usual extensive census data on the demographic characteristics of the population.

I received the long form to fill out. It seems like I always receive the long form. The Bureau of the Census insists that it sends the long form to a statistically controlled random sample of roughly one person in 7, but I suspect that the Bureau has a "hit list" and that I am on it .

In a year and a half we will have a report on the status of commuting in America this week. It was a good week for reporting, with no major storms, hurricanes, earthquakes, or other natural catastrophes. I thought it would be useful to spend a little time today pondering what the data will tell us about the state of commuting in America. The following then are my thoughts on what the census will tell us about ourselves. Some of these predictions are more certain than others, some are very much open to conjecture.

First, we know that the population of the United State has increased by approximately 10% since 1980. This translates into a population base of some 250 million people, compared with 226 million in 1980. Second, it appears that employment levels are close to 120 million, reflecting a 25% increase from 1980 levels. This means that about 48% of the population is employed, up from 42% in 1980.

This increase in employment translates into approximately 24 million new workers and commuters in the decade of the 1980's. Some 9 million of these new workers resulted from the increases in population, while 15 million are the result of changing characteristics of the population. Approximately 60% of the new workers are women.

Lets look more closely at the commuting characteristics of these workers. Probably 3 million, or 2.5%, work at home,

while some 4 million, or 3.3%, walk to work. This means that there are probably between 6 and 8 million workers who do not use some type of vehicle to get to and from work. This leaves 114 million commuters, or a 27% to 29% increase from 1980, that do use some type of vehicle for their daily commute.

Of this group, I would guess that no more than about 5%, or some 6 million, use transit on a regular basis. This is probably about the same number as in 1980. Subtracting these transit users leaves between 106 and 108 million people who use their automobile as their primary commute mode. This represents a 30% or 35% increase over 1980 levels. If the trends identified in the 1985 American Housing Survey are correct, there also appears to have been a shift away from carpooling and vanpooling to driving alone. All of these trends translate into an almost 50% increase in the use of single occupant vehicles since 1980, with the absoulute number of transit and rideshare users holding about the same.

Looking at the geographical distribution of these new commuting trips, it appears the largest gains will be in suburban areas, especially in cities in the south and west. However, it appears that even northeastern cities experiencing little on no overall growth will experience increased levels of automobile commuting in suburban areas.

While the census data do not directly measure trip length, it is my guess that we may see shorter trip lengths, as suburb-to-suburb commute trips are substituted for suburb-to-central city trips. However, this could be overwhelmed by the general centrifugal effects acting on metropolitan travel patterns. This could lead to one of the strangest changes; that of slightly lower travel times than those in 1980. This may result from the change to faster modes, such as from transit to driving alone, and from a larger percent of suburban based trips, with corresponding greater speeds. These trends could counteract the overall slowing of travel times in each sector. However, it is important to note that the overall variation from 1980 to 1990 will probably be in the range of no more than 5%.

It appears that in this regard the country is slipping toward what could be referred to as the "black hole" of commuting; the use of the single occupant automobile for suburb-to-suburb trips. Commuter behavior appears to be shifting toward the shortest travel times and most convenient commute patterns.

The impact of some of these trends on the use of HOV facilities may not be good. The results from the 1985 American Housing Survey indicate that while the total automobile-oriented travel share grew only slightly, about 2.5 percentage points, from 1980 to 1985, the composition changed significantly. The percent of shared rides dropped from approximately 20% to 14%. This represents a drop in vehicle occupancy rates from roughly 1.15 in 1980, to 1.10 in 1985. It is difficult to believe that this pattern could have changed so quickly.

I have often noted to rideshare program enthusiasts how difficult it is to obtain even a small increase in vehicle occupancy rates, from 1.15 to 1.16. To see such a major drop in the other direction is astonishing. If these trends are not wrong it suggests that the total number of automobiles used for commuter trips grew from roughly 70 million to 100 million.

In summary, I think we will see the following trends emerge from the 1990 census data:

- A 10% increase in population
- A 25% increase in employment levels
- A corresponding 27% to 29% increase in the number of commuters
- A 42% increase in the use of automobiles as the primary commute mode
- A 50% increase in single occupant vehicle use for commuting

These trends reflect many of those previously identified in the report *Commuting in America*. Trends cited in that report included; the dramatic increase in commuters due to the baby boom generation reaching working age and the arrival of women workers in the labor force, the increase in automobile travel due to the increase in auto availability, the decline in transit and other shared-ride alternatives, and the shift to suburban job destinations.

Where will these trends take us in the future? Given the current situations it appears that some of these will be changing, while others will continue. A brief review of trends we may expect to see in the future include the following.

First, it appears that the boom in work force participation should be softening. The growth in the labor force has slowed and there may be more concern in the future about too few workers rather than too many. In addition, the rate of women entering the labor force will slow from the rates experienced during the 1970's and 1980's.

It appears that the shift to automobile commuting has about reached its maximum level; there is little left to change. The number of people working at home, walking to work or taking transit are close to their base levels. We are seeing some signs that the number of individuals working at home may finally begin to increase, as so often has been predicted.

A number of demographic factors have almost reached a saturation point. These include the possession of a drivers license among adults and the possession of automobiles. We have more automobiles than drivers today, indicating that most workers have access to an auto for work trips. The geographic shift of jobs and workers to suburban areas and southern and western cities will continue, but at a somewhat slower rate.

It appears that we have lived through a period of significant change; one that we failed to see coming. However, we should not assume that these rates of change are permanent and are the base for the future. In addition, there are some bright spots in these trends.

The shift in commuting patterns to the suburbs has improved the overall use of the roadway system. Instead of the diurnal flow pattern of the past, roads are being used in both directions. Trip lengths have declined as a result of the shift to more suburb-to-suburb based travel. In addition, we may have been worse off if all of the recent job growth had continued to occur in downtown areas, overburdening already overcrowded roadways. Finally, changes in job patterns and work hours have had an impact on spreading the traditional peak periods.

I think there are four major areas that will continue to face us in the future. First, many people view the current problems as unsolvable. To me our traffic problems are too important and too expensive not to solve. The problems we face are treatable and we must address them.

Second, I think many of the institutions we have relied on to address these problems have failed us, both in terms of failing to sense the trends and problems, and in stimulating adequate responses to address the changing needs. Third, we have still not learned how to operate efficient transit services in the low density, dispersed trip patterns of the suburbs. We need to continue to explore cost-effective suburban transit options. Fourth, we have to "tame" the automobile to make it useful and benign to both the overall society and each of us as individuals.

These problems are not insurmountable. Realistic, doable solutions do exist. Money is not really the issue. Rather, it is the public decision making process and public support that appear to be the lacking ingredients.