

Why we use Census data instead of transit agency data.

There are two ways to measure what is happening to changes in transit ridership. We can turn to the U.S. Census, which when interviewing people, asks them how they get to work. The U.S. Census publishes these journey-to-work data usually two or three years after it has taken the Census. We believe this is the most accurate way of measuring commuting behavior and since the non-commuting use of transit generally follows the commuting trend, it gives us a good idea of the total changes taking place.

The alternative is to use the surveys taken by transit agencies and consolidated by the American Public Transportation Association and the federal government. Since most riders use monthly passes, transit agencies can only survey "boardings," that is the total number of times riders board transit vehicles.

For example, if a commuter takes a bus to a rail transit station, then takes the train to their destination station, then a bus to their workplace, that is three boardings — but only one trip — strictly speaking a "linked-trip," a complete origin to destination journey. A single transit commuter (which is what the Census journey-to-work data counts) making such a round trip to work and back will make two trips, or six boardings.

The problem with boardings data is that changes in transit agency policies can produce large changes in boardings with little or no change in trips.

For example, a quite common policy change occurs when cities introduce rail transit lines. They typically reorganize bus routes to optimize the feed into the rail line. Thus, what used to be a single-bus trip becomes a bus-train trip with an accompanying boost to boardings, but not trips.

An example was the New York Metropolitan Transportation Authority's 1997 elimination of separate fares for bus and subway rides through the introduction of the MetroCard, which enabled riders to use bus and subway for the same price.

New York's MTA did this along with other service improvements in the late 1990sⁱ and it led to an explosion of new riders who had formerly ridden the subway and then walked from their destination station to work and now took the bus, or who primarily took the bus before but who now took the subway as well.

During the period 1990 to 2000, New York City's boardings grew 39 percent; however, their Census journey-to-work data show only a 2 percent increase. Thus, these fare policy changes by just one transit agency were responsible for the entire increase of 560 million boardings shown by the American Public Transportation Association for the U.S.ⁱⁱ

The impact of transit agencies' policy changes alone makes boarding data a poor choice for evaluating the commuter use of public transportation; U.S. Census data is far more reliable.ⁱⁱⁱ

Endnotes:

i <http://www.dot.state.ny.us/pubtrans/annual/nyct.pdf>

ii <http://www.apta.com/research/stats/ridership/trips.cfm> Year 2000 less 1990.

iii An excerpt from TRB's *Commuting in America III*,

"Transit industry statistics during the 1990s made an important distinction from the census data. In a sense, the industry data filled in the gaps between the annual census data for 1990 and 2000. Industry data showed declining passengers throughout the first part of the decade bottoming at about 7.5 million passengers in 1993-1995 and then revealed significant gains in ridership up through 2001 that produced a 21% increase in that period. The data in Figure 3-63 show continued ridership above the level of 9 billion passenger trips until 2003 when it decreased again. (Recent industry data indicate that ridership in 2004 returned to a level above 9 billion.) It should be recognized that this is a measure of riders, whereas the census measures persons who use the mode for work travel. One difference could be in increasing transit ridership for non-work purposes, yielding a declining share of work travel in overall transit, which has been observed from other surveys. A second factor, increasing transfers by transit riders, such as more transfers from bus to rail, also would increase the number of separate trips counted but not change the number of persons using the system as measured by the census." Pp. 95-96.

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