



ANALYSIS BRIEF

MODE SHARE AS A PERFORMANCE MEASURE

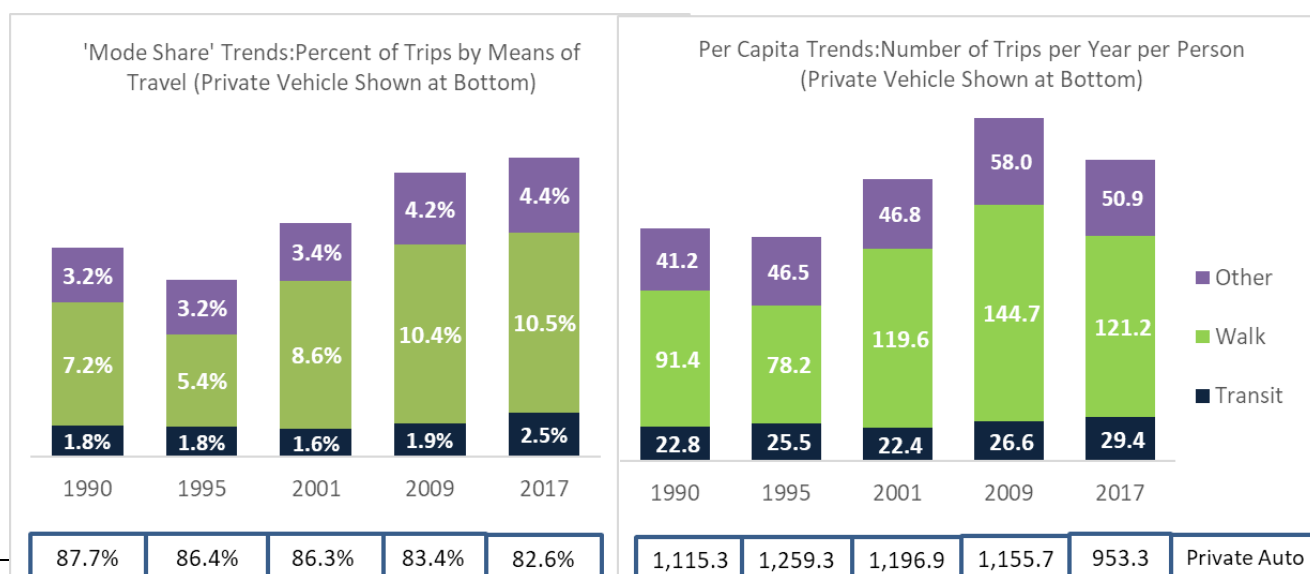
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‘Mode share’, or the proportion of trips by how people travel, is often used in trends analysis to track the changes in travel by private auto, transit, and walking, for example. However, analysts and planners should exercise caution when using ‘mode share’ to compare different time periods. The ‘share’ of trips by any one category of travel can be impacted when a new mode of travel is introduced, such as ride-share. When a new means of travel is included in the whole, by definition the shares of other means must decline. In addition, when a dominant means of travel such as ‘private auto’ registers fewer trips, the shares of all other modes of travel grow in comparison, suggesting growth where in actuality these modes of travel may also be stalled or even declining.

This brief compares the ‘mode share’ for walk trips over time to the per capita rates for walk trips using the NHTS data series. ‘Per capita rates’, which are simply the sum of all trips made by a group or population divided by the number of people in that group, is another measure for comparing the behavior of different groups in the population or tracking changes in population-based behavior over time.

Mode share and per-capita measures can tell different stories about changes in travel behavior. For example, Figure 1 shows the mode share and per capita trip rates for transit, walk, and ‘other’ means of travel from 1990-2017 from the NHTS data series (in the bars). Private vehicle travel is shown in the boxes below the bars. In Figure 1, the ‘mode share’ of walk trips stayed about the same between 2009 and 2017 (10.4% and 10.5% respectively), while the per capita rates of walking declined from 144.7 to 121.2 trips per person per year¹ (a decline of 17%).

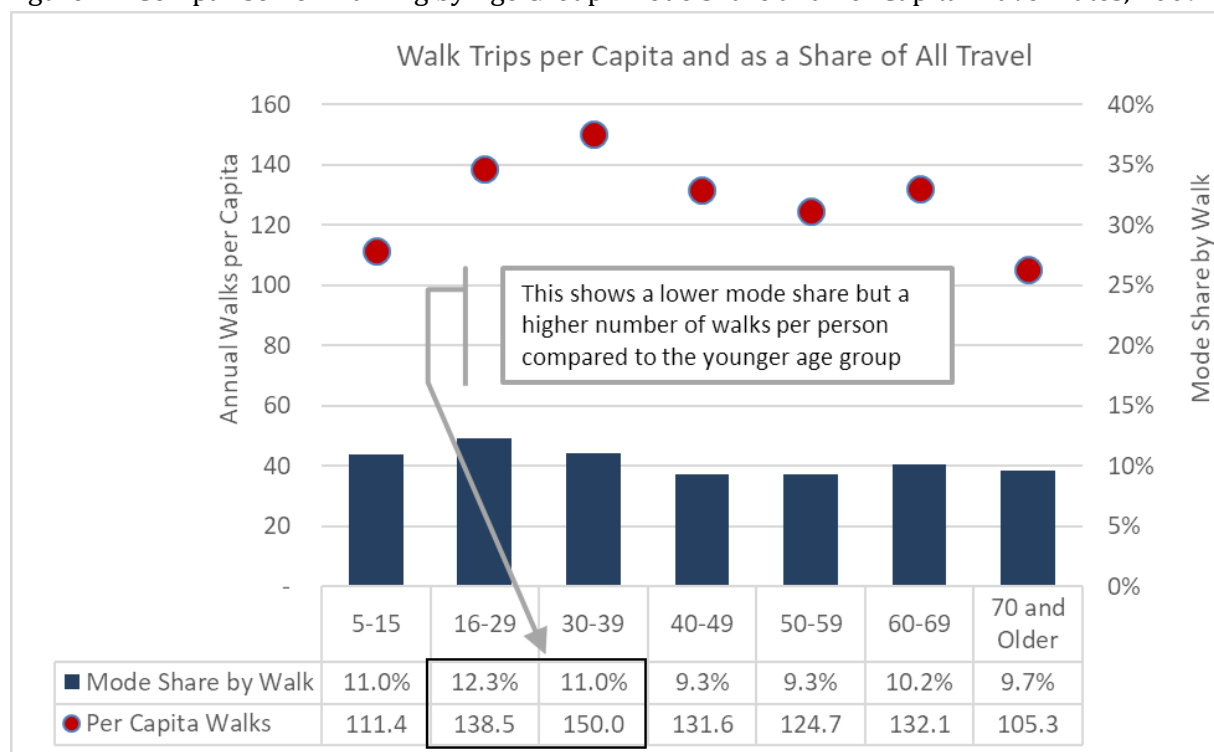
Figure 1 – Mode Share and Per Capita Trends in Travel, NHTS Data Series 1990-2017



¹ The 2017 NHTS allowed reports of ‘loop trips’—that is, one single trip was recorded when there was no purposeful destination, such as walks for exercise that begin and end at home. Previous surveys coded an outbound trip to the furthest point and a separate inbound trip. This change impacted the estimate of the number of trips by walking.

Figure 2 compares mode share and per capita trip rates for walking by people in different age groups in the US. As shown in Figure 2, people aged 16-29 made about 138.5 walk trip per capita over the year, while people aged 30-39 made 150 walk trips on average (per capita rates are shown by the red line). The data also show that people aged 16-29 years old walked for 12.3 percent of all their trips, while people aged 30-39 walked for 11 percent of their trips ('mode share' is shown in the blue bars). If we only looked at mode share, we might say that people aged 30-39 walked 'less' than those aged 16-29. In reality, people aged 30-39 had more travel overall than people aged 16-29, and while they walked for fewer of their trips, the actual amount of walking was higher than the younger age group (almost 8 percent higher).

Figure 2 – Comparison of Walking by Age Group--Mode Share and Per Capita Travel Rates, 2009



We are in a dynamic time for travel behavior—there are new travel modes available and fewer vehicle trips related to daily household travel, for example. In this brief the analysis showed a different picture when travel over time was measured using 'mode share' or per-capita rates. Mode share is important in that it identifies the way people allocate their trips among their different choices for travel. However, analysts, planners, and policy-makers would be wise to use multiple measures to describe trends over time and differences between groups to get a clear picture of changes in travel behavior.

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