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Why is Bay Area Transit Ridership Falling?

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The Transit-rich Bay Area is Losing Riders

After bucking the national trend of falling transit ridership for several years, the San Francisco Bay Area began losing riders in 2016. Despite a booming economy, the Bay Area lost over 27 million transit boardings, over 5 percent of all transit trips, in 2017 and 2018 together. Researchers at the UCLA Institute of Transportation Studies have examined recent Bay Area transit ridership trends in a report for the Metropolitan Transportation Commission, in order to identify possible causes of falling transit use. The factors at play in the Bay Area differ substantially from those in other parts of the state.

Possible Explanations for Declining/ Shifting Transit Use

Proposed causes of waning ridership include shifts in 1) the locations of residents and jobs, 2) the characteristics of transit riders, and 3) transit service and competing mobility options. We consider each of these in turn below.

The evidence suggests that falling ridership is not due to reduced transit service, declining passenger satisfaction, higher fares, lower gasoline prices, or, to a substantive degree, neighborhood change in transit-friendly areas or the growth in private employer shuttles. Expanded access to driver's licenses may be discouraging some transit use by undocumented residents, but the overall impact is likely relatively small.

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in transit use for trips other than commuting to and from large central business districts. Declining transit use among traditional transit riders (such as immigrants, those with low incomes, and those with little or no private vehicle access) is also a contributing factor. Additionally, there is strong circumstantial evidence that app-based ridehail services (like Lyft and Uber) are increasingly substituting for transit, particularly for evening and weekend trips.

Shifting Locations of Residents and Jobs

Most residents live *and* work in neighborhoods with poor transit access to jobs. As of 2015, more than three out of five Bay Area workers lived *and* worked in neighborhoods with relatively poor transit connections to employment, making it difficult for them to commute by transit or use the mode for other trips near their home or work.

Areas with the best transit-access to jobs are becoming less affordable. Higher-wage jobs and workers are more

likely than lower-wage jobs and workers to be located in these areas, where housing prices are growing faster than the Bay Area as a whole. Such neighborhoods tend to have higher median home values, lower shares of “rent-burdened” households, and lower percentages of lower-wage households than other areas. By contributing to the growing separation between home and work, the Bay Area’s affordable housing crisis likely has increased the number of lower-wage workers who live and/or work in outlying areas with limited transit service. This may help to explain both why transit commuting (especially to larger cities with good transit service) appears to be holding steady, while off-peak and non-commute transit trips are in serious decline around the region.

There is a growing jobs-housing imbalance in the Bay Area. A majority (60%) of Bay Area cities have more resident workers than jobs while a majority (60%) of jobs are in cities with more jobs than resident workers. Further, the largest Bay Area cities, with already outsized shares of regional employment, are gaining more jobs than resident workers over time.

Fewer Bay Area workers both live and work in the same city. Although widespread, the decline in same-city commuting has been steepest in employment-rich cities. A predictable result of increasing jobs-housing imbalance is that commute distances have grown — almost 15 percent in 13 years. Lengthening commutes can encourage transit commuting, especially into job centers like downtown San Francisco, but can also increase the number of people living in outlying and less transit-friendly areas, which reduces transit use for other sorts of trips and outside of the rush hours.

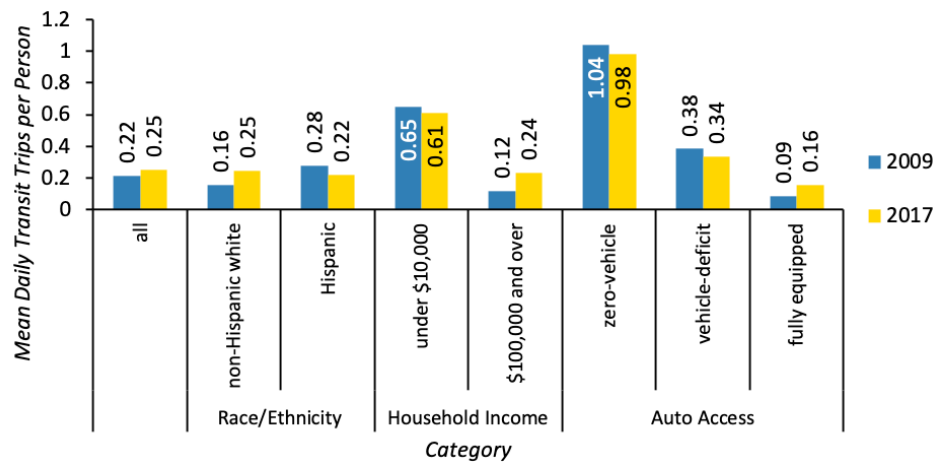
Some good news for transit is that both workers and — especially — jobs (and in particular high-wage jobs) are increasingly concentrated in areas with high-quality transit access, such as downtown San Francisco, Oakland, Berkeley, and San José.

Shifting Characteristics of Transit Riders

Ridership is shifting from traditional transit users to non-traditional users. Between 2009 and 2017, transit use declined among population groups that are typically

Figure 1.

Average Number of Transit Trips per Person in the Central Bay Area Counties, 2009 and 2017*
(Data Source: FHWA, 2009, 2017)



*The Central Bay Area Counties include Alameda, Contra Costa, Marin, SF, and San Mateo counties.

heavy users of transit, particularly for off-peak trips, such as residents of lower-income households, recent immigrants, Hispanics, and those with limited or no private vehicle access. By comparison, transit use increased among groups that are not traditionally frequent transit users, such as non-Hispanic whites, adults living in households earning over \$100,000 per year, and, notably, those in households with more cars than drivers. Traditional transit users are more likely to ride transit for a variety of trip purposes, while the growing numbers of non-traditional transit riders are more likely to ride transit solely for commuting in peak periods. These shifts help explain the relative robustness of peak-period commute trips compared to other types of transit trips.

Shifts in Transit Service and Competing Mobility Options

Increased motor vehicle ownership and use is likely affecting transit use across much of California, but not so much in the Bay Area. The number of zero-vehicle households has dropped only slightly in the Bay Area, and solo driving for commuting has actually declined. Falling transit ridership cannot be blamed on increased auto access, in contrast to trends statewide and particularly in Greater Los Angeles.

While fuel prices do not appear to have played a role in recent declining transit use, changing state driver's licensing regulations may have contributed somewhat to falling ridership. Since January 2015, Assembly Bill 60 has allowed undocumented residents to obtain driver's licenses. Statewide statistical models show a small effect of the policy change. Among undocumented Mexican immigrants — the largest group of undocumented immigrants in the state — travel to work by car increased slightly and transit commuting declined modestly following the implementation of AB 60. Unfortunately, small sample sizes prevent analyzing the effects in the Bay Area alone. The relationship between this policy change and transit ridership in the Bay Area is thus difficult to determine, though worthy of further investigation.

Ridehail services may be depressing transit use, but lack of data makes it difficult to draw firm conclusions. There is circumstantial evidence that ridehail services in the Bay Area are drawing more travelers away from transit than they add. Studies have shown that ridehail use tends to be highest in the evening and on weekends, which are not peak times for transit — but are when transit use has been falling the

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most. Moreover, ridehail use is likely higher in the Bay Area than perhaps any other region in the United States, and the timing of the Bay Area's transit ridership decline lines up with this rise. Ridehail services began in the Bay Area and have operated in the region longer than anywhere else; studies find that TNC-for-transit substitution tends to increase the longer that ridehail operates in a city. Still, typical ridehail passengers are not high transit users and tend to use the services for types of trips not well served by transit. More detailed data on ridehail use — presently unavailable — would help to better understand, and plan for, these new services and their relationship to public transit.

Employer shuttles have probably not diverted many riders from public transit. There has been a rapid increase in employer shuttle commuters in the Bay Area, but the evidence suggests that these services divert relatively few riders from public transit and replace more auto than public transit trips. Shuttle services may cause other changes in behavior — like lower rates of car ownership — that could encourage public transit use for non-commute trips. In contrast, if shuttles allow higher-income residents to live in urban areas distant from their places of work, they may displace other, poorer urban dwellers who tend to ride public transit at even higher rates.

Falling ridership is not due to cuts in transit service in the Bay Area. Ridership typically goes down when transit service is cut, as occurred at the start of the Great Recession. But, while per-capita transit service across the Bay Area has not yet returned to 2008 levels, the region mostly added riders between 2011 and 2014, when per-capita service was still falling, and stagnated and then lost riders since 2014, as service levels were climbing.

Changing levels of rider satisfaction are not causing falling ridership. Local passenger satisfaction surveys typically name service frequency and reliability, personal safety, system cleanliness, and crowding as key issues. While passenger satisfaction has trended downward recently, the

link between falling rider satisfaction and falling ridership across operators is weak. Satisfaction has fallen most sharply on Bay Area Rapid Transit, which, comparatively, has some of the Bay Area's most resilient ridership, while satisfaction is more stable on operators with larger losses. Indeed, a number of common rider concerns, like overcrowding and uncleanliness, are symptoms of ridership *gains* (at least at certain times of day), not losses, and came to the fore during the earlier period of patronage growth.

Higher fares also do not appear to be responsible for declining ridership. Adjusted for inflation, fares per passenger-mile were generally flat over the past decade, all as ridership fell, rose, and fell again. Tellingly, operators with increasing average prices experienced ridership declines that were no worse than those with flat or decreasing fares. Also, it does not appear that fare evasion has had any real effect on ridership.

Figure Data Sources

FHWA. (2009). 2009 National Household Travel Survey. National Household Travel Survey. Retrieved October 2, 2019, from <https://nhts.ornl.gov/>.

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