

The Transportation Transformation of Our Cities Will Be More Important Than Density Changes

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This article addresses the following point of contention: “In 40 years, the average person will live closer to her neighbors and farther from the ground than she does today.”

In 40 years, U.S. metropolitan areas will be less dense *and* less automobile oriented. The transportation transformation of our cities, already well under way, will be more important to future urban policy than any measure of average metropolitan density.

Population density in Manhattan peaked in 1910 and, as of 2010, had dropped by nearly one-half (Angel, 2012; Saywack, n.d.; U.S. Census Bureau, n.d.a). During the same timespan, the percentage of Americans living in census-defined urban areas increased from 46 to 81 percent (U.S. Census Bureau, n.d.b). So, one forecast would juxtapose those two facts—central city densities are declining and the world is becoming more urbanized—and would ask how those two forces will balance out. That balancing, however, would miss a key point.

Approximately every two generations, we rebuild the transportation infrastructure in our cities in ways that shape the vitality of neighborhoods; the settlement patterns in our cities and countryside; and our economy, society, and culture. The Eisenhower Interstate Highway System, initiated in 1956, was the last such great transformation. We are well into a new wave of transportation transformation. Los Angeles is building six new rail transit lines, and, after those are complete, the world’s prototypical automobile city will have a metrorail system longer than today’s Washington Metro rail system (Boarnet, 2013). The best available data indicate that walking, as a percentage of all trips, increased in the United States from 2001 to 2009 (Pucher et al., 2009) and, during that same time period, walking mode share went up in 9 of the 10 largest U.S. metropolitan areas (Boarnet, 2013). In many of those 10 largest metropolitan areas, one-fifth of all trips are on foot. Driving, measured either by trips per driver or miles per driver, peaked sometime in the late 1990s in this country (Boarnet, 2013). Why the change? Two trends are important.

First, gasoline is becoming more expensive. In 2002, a gallon of gasoline cost, in inflation-adjusted terms, about the same as it cost in 1978, but, since 2002, the inflation-adjusted cost of gasoline has

increased by nearly 60 percent (data are from the U.S. Energy Information Administration, as cited in Boarnet, 2013). As China and India develop, increasing the global demand for oil, that trend is likely to continue.

Second, and more important, the time cost of urban travel has also increased. The Texas Transportation Institute (Shrank et al., 2011) reports that highway delay hours in the largest metropolitan areas more than doubled from 1982 to 2010—that despite a drop in delay hours coincident with the 2008 recession. Urban highways are becoming expensive at precisely the same time that our primary transportation funding instrument, the fuel tax, generates declining revenues on a per-mile-traveled basis (Taylor, 1995, 2000). U.S. Department of Transportation data show that, nationwide, from 1980 to 2009 urban highway and arterial miles increased 73 percent, and urban-vehicle miles traveled on those roads increased 136 percent. We cannot build highways fast enough to keep up with increases in travel, not only because of Downs' (1962) well-known conjecture that more unpriced (or nontolled) roads will induce more travel (Duranton and Turner, 2011), but also because urban highways are becoming more expensive while our highway funds are shrinking relative to miles driven. The likelihood of more strict environmental regulations, including efforts to reduce greenhouse gas emissions, will add pressure that favors infill development in ways that will increase street and highway traffic congestion.

We have come to expect that new technologies will dramatically lower transportation costs (the driverless car seems the most recent of these ideas), but our urban areas are becoming more congested, if not more densely populated, and transportation innovations and available policies are not likely to change that trend toward more congested urban travel. The implications will be twofold.

First, absent some great new “one size fits all” transportation innovation, cities will be left to make progress incrementally, as finances and politics allow. Bicycle lanes and bike-sharing programs, car sharing, and pedestrian-friendly streetscapes are all becoming common elements of the urban transportation landscape. Instead of one massive national infrastructure project (such as the Interstate Highway System), the transportation project of the next several decades will be incremental and varied. The second implication is a corollary of the first. I call it the “return of the local” in urban transportation. What makes sense in one neighborhood will not necessarily make sense in another neighborhood. Some locales will lobby for real-time parking pricing, and other places will experiment with neighborhood vehicles, while still other areas might implement ambitious bike-sharing programs, or congestion pricing, or rapid-transit systems. The fabric of urban land use and transportation will be substantially more varied in two generations than it is today.

Will we live closer to our neighbors and farther from the ground in two generations? Some people will and some will not, and our metropolitan areas will grow larger, become more economically important, and have higher density in some places even as overall densities continue to fall. Yet that likely change in urban density patterns obscures the dramatic transformation that is already occurring. The private car is no longer the only organizing theme for urban transportation. The variation in infrastructure, the implications for neighborhood transitions, the diversity of associated land use types, and the need for new governance and financing tools all will create a more complicated but potentially more vibrant urban world. Developing policies, plans, financing tools, and governing structures that can knit together these newly empowered neighborhoods into a regional structure will be the policy challenge of the next 20 years, and whether we live on the 1st or 40th floor will be less important than adapting our cities to this new transportation reality.

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