

WHAT WILL IT TAKE TO INCREASE ACTIVE TRAVEL IN THE U.S.? LESSONS LEARNED FROM HOME AND ABROAD

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The benefits to individuals and to society of walking and bicycling as modes of travel are by now well documented and increasingly accepted (e.g. Cavill, et al., 2008; Oja, et al., 2011). Many cities in the U.S. have embraced these modes, inspired by the pedestrian and bicycle friendliness of European cities such as Copenhagen, Paris, and Barcelona.

Creating cities that are conducive to walking and bicycling is a challenge in the U.S. Cities here lack the “good bones” of European cities for at least two reasons: they are newer than European cities, with much of the growth in U.S. cities occurring after the advent of streetcar systems and then automobiles, and they reflect nearly a century of planning practice that prioritized private vehicles over other modes of transportation.

Although European cities have also invested substantial amounts in automobile infrastructure, they did so in only a limited way until well after World War II and even then continued to invest in transit while preserving their pedestrian-oriented cores (Pucher, 1988). Northern European cities recognized the importance of bicycling infrastructure decades before all but a few U.S. cities (Pucher and Buehler, 2008). European countries supported the efforts of their cities by imposing higher taxes on gasoline and car purchases than in the U.S. (Pucher, 1988). European cities have far higher shares of active travel as a result (Buehler et al., 2017).

European experiences suggest that U.S. cities aiming to increase active travel must: restructure the built environment, promote bicycling as a mode of transportation, and reduce the priority given to driving.

In very few U.S. places is it possible to meet all of one’s daily needs on foot or bicycle: the distances to destinations are simply too far given limits of time and/or physical ability. Public transit and private vehicles thus fulfill the need to reach more distant destinations. The challenge for planners is to restructure the built environment so that walking and bicycling live safely and comfortably with cars and transit. Three key principles are essential to creating cities where active travel is viable: distances, protection, and integration.

Distances: Walking and bicycling as modes of transportation depend on having destinations within acceptable distances. Distances to destinations depend first on *proximity*: the nearness of destinations to home or other origins, as the crow flies, as determined by land use mix and population and employment densities. Distances also depend on network *connectivity*, defined as the directness of the possible routes to destinations along the transportation network (Handy, et al. 2003). Design also matters, as the quality of the walking or bicycling experience along the route may lead the traveler to perceive a shorter or longer distance than the reality.

Protection: Facilities that protect pedestrians and bicyclists from vehicle traffic are essential to increasing active travel (Saelens and Handy, 2008; Pucher, et al., 2010). Separation from traffic

is especially important for older and younger travelers who may be more vulnerable. Buffered bike lanes and cycle tracks, for example, give bicyclists more protection than traditional bike lanes (Lusk, et al., 2011; Teschke, et al., 2012).

Integration: The new vision of an integrated system of mobility options now includes car-sharing, ride-hailing, and bike-sharing services, and new forms of “micro-mobility” such as e-scooters. Cities must find ways to physically integrate this expanding suite of options in the public right-of-way so as to ensure safety and efficiency for all modes. The advent of autonomous vehicles will add to the challenge.

PROMOTING BICYCLING

Bicycling offers greater potential as a substitute for driving than walking given its faster speeds. In recognition of this potential, cities throughout the world have been investing in bicycle infrastructure. San Francisco, Los Angeles, Chicago, New York, and Washington, DC, all have invested heavily in bicycle infrastructure and have seen measurable increases in bicycle commuting as a result (Pucher and Buehler, 2016). But infrastructure only goes so far. Those cities that have been most successful in increasing bicycling have also invested in “soft” measures such as promotional and educational programs (Pucher, et al., 2010). These programs are especially important for women, who tend to be less comfortable bicycling, worry more about their safety and security, and simply like bicycling less than men (Garrard, et al., 2012).

Bicycling can fill important gaps in the transportation system, particularly in suburban areas. One gap is the “first-mile, last-mile” problem for transit. Bicycling may be an especially attractive alternative in small cities, where distances are too long for walking but still relatively short and where transit service is sparse and infrequent (Handy, Krizek, and Heinen, 2012). Bicycling may prove to be especially important for lower-wage workers for whom car ownership is prohibitively expensive. New technologies increase the potential for bicycling to fill these gaps. Bike-sharing systems expand access to bicycles, especially if designed to be accessible to lower-income residents (Shaheen et al. 2010). Electric pedal-assist bicycles (“e-bikes” or “pedelec” bikes) expand the viability of bicycling as a mode of transportation to more people, more trips, and more places (Popovich et al. 2014).

REDUCING THE PRIORITY GIVEN TO DRIVING

Transportation planning in the U.S. has long focused on making it easier to drive. Shifting to a new model that focuses on making it easier *not* to drive depends on the abandonment of several entrenched—but misplaced—beliefs. One such belief: expanding highways can reduce congestion. Numerous studies show that expanding highway capacity leads to a proportional increase in traffic volumes.

Increasing active travel requires strong measures to manage car travel. Restricting cars from pedestrian- or bicyclist-dense areas is one approach that increases safety and also improves the quality of public spaces; San Francisco and New York City have followed Europe in adopting this strategy. Parking management is another tool: strategic decisions about where to put parking and how to price it can reduce driving associated with searching for parking, create

buffers between moving traffic and sidewalks or bike lanes, and redirect the flow of traffic away from pedestrian areas (Shoup, 1997).

CONCLUSIONS

U.S. cities have embraced walking and bicycling as important modes of transportation and as essential ingredients for economic and social vibrancy (Cohen, 2017). An integrated transportation system in which the slower active modes complement the faster motorized modes and vice versa offers residents of the region a broader array of choices and improved quality of life. The specifics of such systems will differ across regions, and the degree to which residents take advantage of these choices will vary, but the core principles for achieving pedestrian and bicycle friendliness apply everywhere. Decision makers, planners, and citizens alike increasingly recognize and value the benefits of communities that support active travel, while a growing appreciation of the limitations of car-friendly cities is adding to the impetus.

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