



Smart Growth America
Making Neighborhoods Great Together



**National Complete
Streets Coalition**

IMPLEMENTING COMPLETE STREETS

Complete Streets Change Travel Patterns

Boulder, Colorado has been completing its streets since the early 1990s, with over 380 miles of dedicated bike facilities, paved shoulders, and a comprehensive transit network. Between 1990 and 2006, fewer people in the city drove alone, more people walked or bicycled, and transit trips nearly doubled.¹



Boulder, CO, makes it easy for residents and visitors to choose different modes of travel with a well-connected bicycle network, lots of sidewalks, and frequent public transportation service. *Photo: Dan Buden.*

Incomplete streets discourage getting out of the car

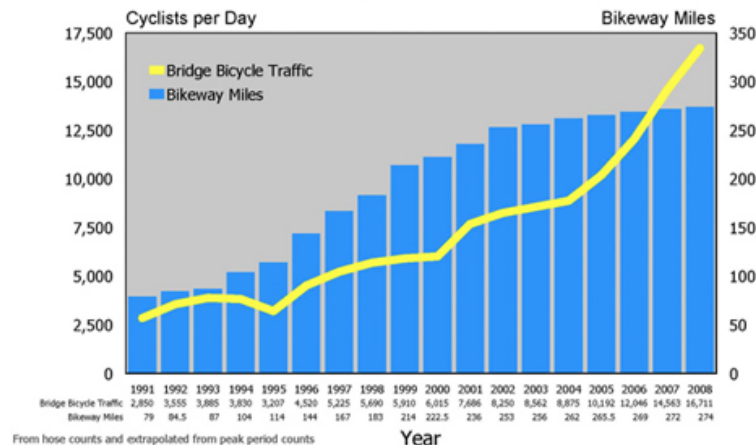
The 2001 National Household Transportation Survey found that 48 percent of all trips in metropolitan areas are three miles or less and 28 percent of all metropolitan trips are one mile or less – distances easily traversed by foot or bicycle. Yet 65 percent of trips under one mile are made by automobile, in part because of incomplete streets that make it dangerous or unpleasant to walk, bicycle, or take transit.²

Surveys have found that a lack of sidewalks and safe places to bike are a primary reason people give when asked why they don't walk or bicycle more.³ A national poll found 47 percent of Americans over 50 said they could not cross main roads near their home safely. Almost 40 percent said their neighborhoods do not have adequate sidewalks, while another 55 percent reported no bike lanes or paths, and 48 percent reported no comfortable place to wait for the bus.⁴

Similarly, a study conducted in King County, Washington found that walking and public transportation use is less prevalent in the areas with low street connectivity and a limited variety of

destinations. Residents in those areas drove 26 percent more miles than Washingtonians living in more walkable areas.⁵ About one third of Americans live in communities without sidewalks; if they were to walk at the same rate as those in communities with sidewalks, an additional 2.8 million adults would be out walking.⁶

Combined Bicycle Traffic over Four Main Portland Bicycle Bridges Juxtaposed with Bikeway Miles



Between 1991 and 2008, Portland expanded its bicycle network 250 percent, increasing from roughly 75 to 275 total bikeway miles. During the same period, ridership increased 490 percent as measured by collecting daily counts over four main bridges. Ridership counts continue to increase even as the number of bikeway miles levels off

Complete Streets increase use of public transportation, bicycling, and walking.

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Completing the streets for people who are walking, bicycling, and taking public transportation does more than make the roads safe for existing users – more people begin to choose to leave their cars in the driveway. A recent review of studies comparing highly walkable and poorly walkable neighborhoods found that residents of the former reported approximately two times more walking trips per week than the latter.⁸ Furthermore, there is a synergistic relationship between transit use and neighborhood walkability. Residents of King County, Washington living in walkable neighborhoods – with good street connectivity and a greater mix of land uses – use public transportation more than those who do not live in such walkable areas.⁹

For typical U.S. cities with populations over 250,000, each additional mile of bike lanes per square mile is associated with a roughly one percent increase in the share of workers commuting by bicycle. Increasing the share of workers commuting by bicycle by one percentage point would double the average number of bicycle commuters in many cities.¹⁰

Rapid transit bus service that operates on streets improved to speed bus travel can increase ridership and shift trips from cars. Rapid bus service in Los Angeles slashed travel times by 25 percent. Within one year, ridership soared by 30 percent.¹¹ The Orange Line in particular, outperformed its first year ridership projections by attracting roughly 22,000 weekday boardings after only seven months of service. The California Center for Innovative Transportation found a 7 percent increase in traffic flow during morning rush hour and a 14 percent decrease in total time spent in congestion since the Orange Line began operating.¹²

Innovations such as ‘road diets’ have had a clear impact on travel patterns. In 1999, Valencia Street in San Francisco was converted from a four-lane road to a three-lane road with a center turn lane and bicycle lanes. One year after the conversion, a study by the city found that bicycle volume increased 144 percent on Valencia Street during the afternoon peak period; collisions decreased.¹³ A similar road diet on Edgewater Drive in Orlando resulted in a 23 percent increase in pedestrian traffic, a 30 percent increase in bicycle traffic, and automobile travel delays increased by only 10 seconds during the morning peak.¹⁴

More children are likely to walk or bike to school when sidewalks or footpaths are present, when there are safe street crossings, and when reduced vehicle speed are enforced in school zones.¹⁵ Safe Routes to School programs, which include completing streets around schools, increased the number of children walking to school. The California program, initiated through legislation in 1999, was an immediate success, with more kids walking to school, reduced traffic speeds near schools, and more drivers yielding to pedestrians.¹⁶

Availability of and access to bike paths and footpaths are associated with greater levels of physical activity.¹⁷ A study spanning seven countries found five environmental factors significantly related to the amount of physical activity in which residents engaged. Three involved Complete Streets: sidewalks on most streets, transit stops nearby, and the presence of bicycle facilities. The more factors that were present, the higher the activity level of residents.¹⁸ Advocates who fought hard for inclusion of a bicycle-pedestrian path on the new Ravenel Bridge in South Carolina commissioned a study of the now wildly popular path. Two-thirds of the path’s users getting more exercise since the bridge path opened.

Learn more at www.smartgrowthamerica.org/completestreets.

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