

# Impact of Big-Box Stores on Traffic



As big-box stores multiplied in the 1990s, the road miles logged by the average household for shopping increased by more than 40 percent—a total of 95 billion additional miles a year for the country as a whole. (U.S. Dept. of Transportation, *National Household Travel Survey*)

Big-box stores generate large volumes of traffic—much more than most other land uses. The amount of traffic is directly related to the size of these stores. The larger the store, the larger the geographic area from which it pulls customers and thus the higher the traffic counts. A 200,000-square-foot superstore typically generates more than 10,000 car trips on weekdays and more on Saturdays.

The kinds of businesses that often spring up near big-box retailers—fast-food outlets, gas stations, and convenience stores—also produce large volumes of traffic.

Traffic and noise depress property values in nearby neighborhoods. More traffic increases the cost of local government services, such as road maintenance and police.

## Solution

By limiting the size of stores, prohibiting sprawling development on the outskirts of town, and supporting neighborhood and downtown retail, communities can shorten the distance from home to store, reduce vehicle traffic, and facilitate more walking, bicycling, and public transit use.

The benefits of this approach are substantial. A 2005 study of 3,200 households in King County (greater Seattle), Washington, found that, compared to residents of low-density subdivisions that lack neighborhood stores, people who live in traditional neighborhoods with a variety of small-scale retail services, schools, parks, and other uses nearby:

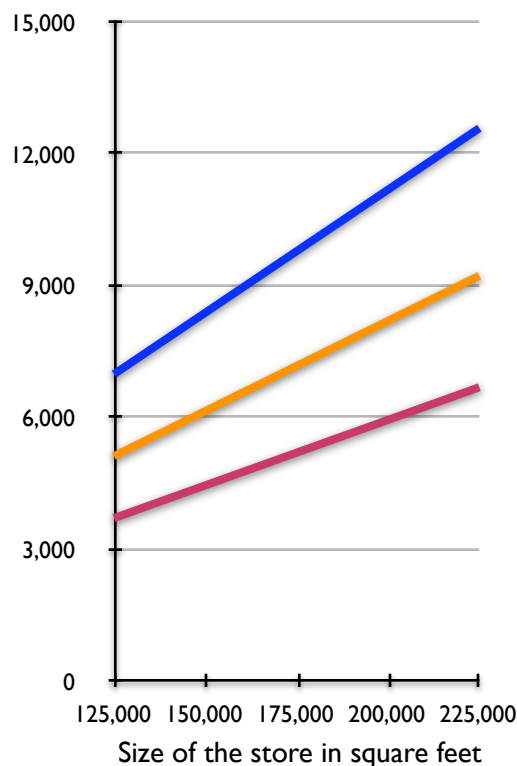
- log 26 percent fewer vehicle miles per day;
- generate lower emissions of pollutants such as nitrous oxide, volatile organic compounds, and carbon dioxide, a leading cause of global warming;

- are more likely to achieve the U.S. Surgeon General's recommended 30 minutes of moderate activity per day; and
- are less likely to be overweight or obese.

The study controlled for age, gender, income, education, and other factors that also influence transportation choices. (Center for Clean Air Policy, *A Study of Land Use, Transportation, Air Quality, and Health in King County, WA*, Sept. 2005)

## Average Weekday Vehicle Trips

- General Merchandise (e.g., Wal-Mart)
- Warehouse Club (e.g., Costco)
- Home Improvement (e.g., Home Depot)



(Saturday counts are higher. Traffic estimates are derived from the Institute for Transportation Engineers' *Trip Generation Manual*.)

