

**SPECIAL SECTION:**

# THE ECONOMIC BENEFITS OF COMPLETE STREETS

The documented economic impacts of Complete Streets projects are summarized below in five categories: consumer spending, property value, business benefits, individual transportation costs, and perceptions of complete streets.

## CONSUMER SPENDING

Large increases in consumer spending correlate to specific Complete Streets and Green Streets investments.

- “Tourists coming to Vermont to walk and bicycle in the scenic, human-scale towns and compact, pedestrian-friendly town centers have proved to be an economic boon. In 1992, an estimated 32,500 visiting cyclists spent \$13.1 million in Vermont—about twice the amount of money generated by Vermont’s maple syrup producers in a good year.”<sup>1</sup>
- As shown in Figure 1, a 2012 study done by the New York City Department of Transportation documents several consumer spending impacts of recent Complete Streets projects in New York.<sup>2</sup>
- “Visitors who would come [to Prince Street in New York City] more often with a reallocation of space from parking to pedestrians spend about five times as much money in the neighborhood as do visitors who would come less often.”<sup>3</sup>
- Bicycle parking is more space efficient than automobile parking. One study finds that each square meter of bicycle parking generated \$31 per hour, whereas each square meter of automobile parking generates only \$6 per hour.<sup>4</sup>
- A University of Washington study finds that people are willing to pay about 11% more for goods in landscaped business districts than in non-landscaped districts (and up to 50% for convenience goods).<sup>5</sup>

1 Local Government Commission Center for Livable Communities. (2000). Local Government Commission. Retrieved May 13, 2013, from The Economic Benefits of Walkable Communities: [http://www.lgc.org/freepub/docs/community\\_design/focus/walk\\_to\\_money.pdf](http://www.lgc.org/freepub/docs/community_design/focus/walk_to_money.pdf)

2 New York City Department of Transportation. (2012). Measuring the Street: New Metrics for 21st Century Streets. New York City: New York City DOT.

3 Schaller Consulting. (2006). Curbing Cars: Shopping, Parking and Pedestrian Space in SoHo. New York City: Transportation Alternatives.

4 Lee, A., & March, A. (2010). Recognising the economic role of bikes: sharing parking in Lygon Street, Carlton. Australian Planner, 85-93.

5 Hastie, C. (2003). The Benefits of Urban Trees. Warwick District Council.

**FIGURE 1: CONSUMER SPENDING IMPACTS FROM COMPLETE STREETS IMPROVEMENTS IN NEW YORK CITY**

COMPLETE STREETS IMPROVEMENT	DOCUMENTED EFFECT
8th/9th Avenue (Manhattan) cycle track	Up to 49% increases in retail sales
Pearl Street (Brooklyn) conversion of underutilized parking to plaza space	172% increase in retail sales
Pearl Street (Manhattan) conversion of parking lane to on-street seating	Businesses fronting the new seating area saw a 14% increase in sales
Fordham Road (Bronx) new rapid bus transit line and associated street improvements	71% increase in sales at businesses along the corridor

- A recent study<sup>6</sup> of East Village shoppers in New York City finds:
  - “Aggregate weekly spending by public transit and non-motorized transportation users account for 95 percent of retail dollars spent in the study area.”
  - “People on bike and foot spend the most per capita per week, \$163 and \$158, respectively, at local businesses.”

## PROPERTY VALUES

Residential, office, and commercial property values benefit from nearby investments in bicycle, pedestrian, and transit infrastructure as well as urban design and landscape improvements.

- “In a typical market, an additional one point increase in Walk Score<sup>®7</sup> was associated with between a \$700 and \$3,000 increase in home values.”<sup>8</sup>
- Figure 2 shows differences in property values in places with a Walk Score of 80 versus a Walk Score of 20.<sup>9</sup>

**FIGURE 2: PROPERTY VALUE IMPROVEMENTS WITH WALK SCORES OF 80 VS. 20**

PROPERTY TYPE	MARKET VALUE	NET OPERATING INCOME	APPRECIATION PER QUARTER
Office	+54%	+42%	1.92%
Retail	+54%	+42%	--
Apartments	+6%	--	--

6 Transportation Alternatives. (2012). East Village Shoppers Study: A Snapshot of Travel and Spending Patterns of Residents and Visitors in the East Village. New York City: Transportation Alternatives.

7 walkscore.com

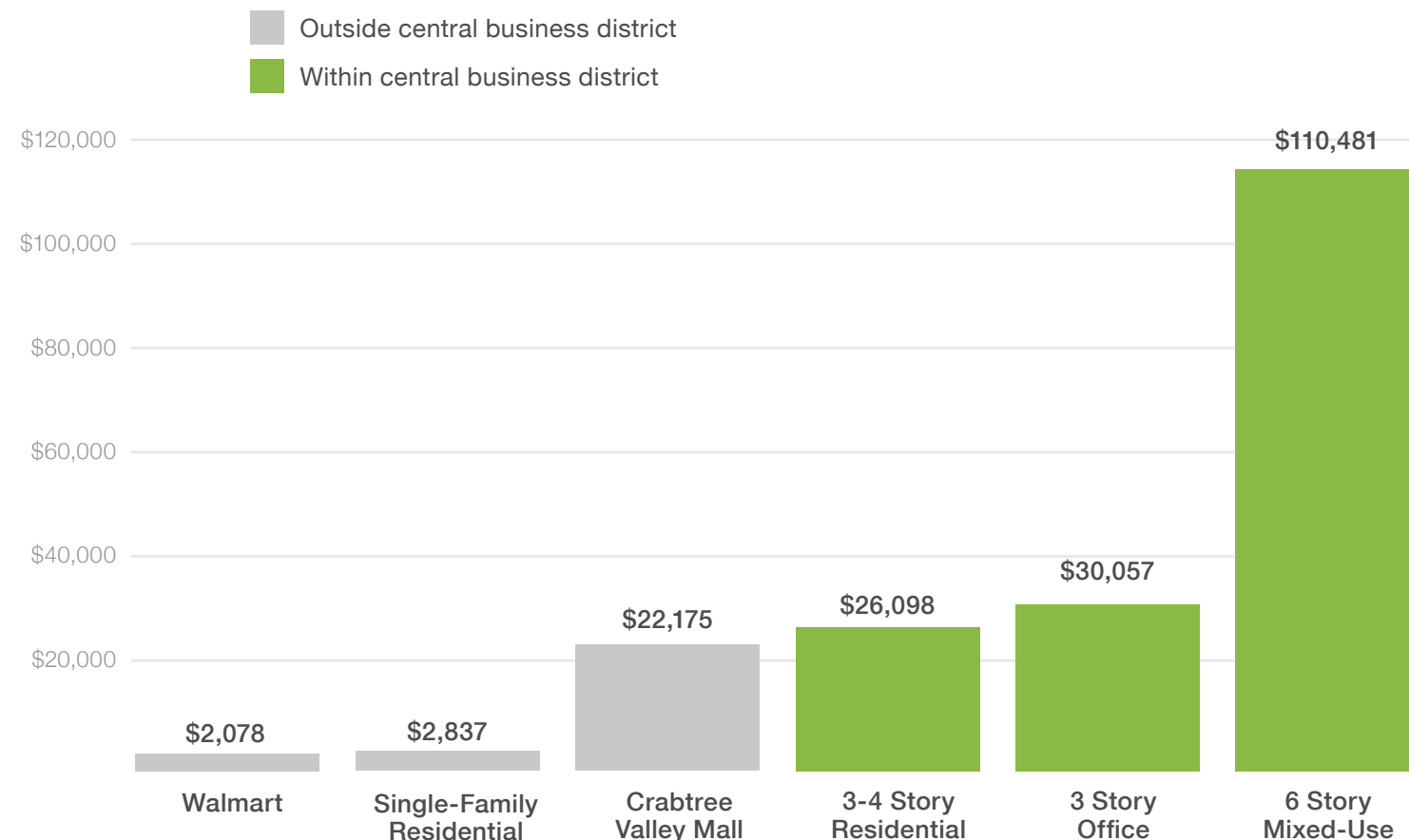
8 Cortright, J. (2009). Walking the Walk: How Walkability Raises Home Values in U.S. Cities. CEOs for Cities.

9 Kooshian, C., & Winkelman, S. (2011). Growing Wealthier: Smart Growth, Climate Change and Prosperity. Center for Clean Air Policy.

- “Office, retail and apartment values increased by 1-9% for each 10-point Walk Score increase.”<sup>10</sup>
- Residential property values are higher in walkable neighborhoods:
  - Residential property values are 5.2% higher in more walkable London neighborhoods.<sup>11</sup>
  - House values are 15.5% higher in walkable neighborhoods than in non-walkable areas, all else equal.<sup>12</sup>
  - Property values are 11% higher in New Urbanist neighborhoods than in conventional, auto-dependent neighborhoods.<sup>13</sup>

- The City of San Mateo reviewed several studies for the Bicycle Master Plan and found that home prices near trails are higher than home prices farther away.<sup>14</sup>
- Mixed-use, walkable development generates ten times higher property tax yields than more suburban development patterns. Figure 3 shows findings from a study documenting tax yields from different types of development in Raleigh, North Carolina.<sup>15</sup>

**FIGURE 3: MUNICIPAL PROPERTY TAX YIELD PER ACRE, RALEIGH, NC**



## BUSINESS BENEFITS

Neighborhoods with bicycle, pedestrian, and transit friendly environments are much more likely to have high businesses occupancy rates. Businesses benefit from higher worker productivity.

- National data indicates that infrastructure projects specific to cycling generate 11.4 jobs per \$1 million spent. By contrast, traditional road projects like repaving or widening generate only 7.8 jobs per \$1 million spent.<sup>16</sup>
- A cost-benefit analysis indicates that every dollar spent on bicycle networks yields \$4-5 in benefits (including security, health effects, and reduced costs of motorized traffic).<sup>17</sup>
- Figure 4 summarizes findings of a 2012 study conducted by the New York City Department of Transportation on commercial vacancies.<sup>18</sup>

**FIGURE 4: COMMERCIAL VACANCY IMPACTS FROM COMPLETE STREETS IMPROVEMENTS NEW YORK CITY**

COMPLETE STREETS IMPROVEMENT	DOCUMENTED EFFECT
1st/2nd Avenue (Manhattan) dedicated bus and bike lanes	47% fewer commercial vacancies
8th/9th Avenue (Manhattan) protected bicycle lane	49% fewer commercial vacancies

<sup>10</sup> Litman, T. (2013). Evaluating Non-Motorized Transportation Benefits and Costs. Victoria: Victoria Transport Policy Institute.

<sup>11</sup> Buchanan, C. (2007). Paved with Gold. London: Commission for Architecture and the Built Environment.

<sup>12</sup> Song, Y., & Knaap, G.-J. (2003). The Effects of New Urbanism on Housing Values: A Quantitative Assessment. National Center for Smart Growth Research and Education, University of Maryland.

<sup>13</sup> Eppli, M., & Tu, C. C. (2000). Valuing the New Urbanism: The Impact of New Urbanism on Prices of Single-Family Homes. Urban Land Institute.

<sup>14</sup> City of San Mateo. (2011). Bicycle Master Plan. San Mateo: City of San Mateo.

<sup>15</sup> Building Better Budgets: A National Examination of the Fiscal Benefits of Smart Growth Development. Smart Growth America, 2013.

<sup>16</sup> Garrett-Peltier, H. (2011). Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts. Amherst: Political Economy Research Institute, University of Massachusetts Amherst.

<sup>17</sup> Alliance for Bicycling and Walking. (2012). Bicycling and Walking in the United States: 2012 Benchmarking Report. Washington, DC: Alliance for Bicycling and Walking.

<sup>18</sup> New York City Department of Transportation. (2012). Measuring the Street: New Metrics for 21st Century Streets. New York City: New York City DOT.

- Occupancy rates of office buildings are positively affected by landscaping amenities, which have a higher correlation with occupancy than direct access to arterial routes.<sup>19</sup>
- Businesses whose employees bicycle more often or farther than others benefit from higher employee productivity. On average, employees who bicycle to work are absent fewer days than those who do not.<sup>20</sup>
- The addition of bicycle lanes on Broad Street in Memphis is associated with the addition of 16 new businesses, 29 property renovations, and 40,000 visitors to the Arts Walk event.<sup>21</sup>
- An oft-cited study of the economic impacts of bicycle investments in North Carolina’s Outer Banks finds that 1,400 jobs are supported annually through bicyclist expenditures. The overall estimate of annual economic impact of bicyclists in the region is at least \$60 million.<sup>22</sup>

## INDIVIDUALS’ TRANSPORTATION COSTS

When people have transportation choices, they can save significantly on transportation expenses.

- A national study of transportation expenses reveals that people living in areas with sprawling characteristics have fewer transportation options and therefore spend an average of \$1,300 more per year on transportation than people in non-sprawling areas.<sup>23</sup>
- “Shifting from automobile to non-motorized travel is estimated to provide parking savings of \$2-4 per urban-peak trip (a typical commute has \$4-8 per day parking costs), \$1-3 per urban off-peak trip, and about \$1 per rural trip.”<sup>24</sup>

19 Wolf, K. (1998). *Urban Forest Values: Economic Benefits of Trees in Cities*. Seattle: Center for Urban Horticulture, University of Washington.

20 Hendriksen, I., Simons, M., Garre, F., & Hildebrandt, V. (2010). The association between commuter cycling and sickness absence. *Preventative Medicine*, 132-135.

21 Flusche, D. (2012). *Bicycling Means Business: The Economic Benefits of Bicycle Infrastructure*. Advocacy Advance.

22 Lawrie, J., Guenther, J., Cook, T., & Meletiou, M. P. (2004). *The Economic Impact of Investments in Bicycle Facilities*. Raleigh: North Carolina Department of Transportation, Division of Bicycle & Pedestrian Transportation.

23 Surface Transportation Policy Project. (2000). *Driven to Spend*. Center for Neighborhood Technology.

24 Litman, T. (2013). *Evaluating Non-Motorized Transportation Benefits and Costs*. Victoria: Victoria Transport Policy Institute.

## POSITIVE PERCEPTIONS OF COMPLETE STREETS

Businesses and residents across the county strongly support complete streets.

- “The [bike] lanes slowed down traffic and people started noticing the businesses more. Our business revenues have grown on average 30% per year—yes, an art-related business in a tough economy.”—Pat Brown, co-owner of T Clifton Gallery on Broad Avenue in Memphis.<sup>25</sup>
- “[Adding bike lanes] was probably one of the best things to happen for my business.”—Katelynn Meadows, owner of Sweetly on Broad Avenue in Memphis.<sup>26</sup>
- “We really have to look at bicycling as a viable and important part of the transportation network and not just a recreational pursuit. [San Mateo County] needs to take more of a leadership role to publicize bike routes and get cities to work together to construct practical bicycle infrastructure so that people can get to work more easily.”—San Mateo County Supervisor Dave Pine on Bike to Work Day 2013.<sup>27</sup>
- “We all know that change is hard, but 70% of our respondents think that the bike lane is going in the right direction.” New York City Council Member Gale Brewer conducted a survey of people in the Upper West Side neighborhood after installation of once-disputed bicycle and pedestrian safety improvements on Columbus Avenue. The street redesign was found to reduce crashes by 34%. Of those surveyed, including merchants who originally opposed the design, 73% thought the changes improved the street.<sup>28</sup>
- A 2003 study of merchants on Valencia Street in San Francisco found that 65% of merchants think traffic calming improvements improved business and sales and 65% also would support more traffic calming measures on the corridor.<sup>29</sup>

25 Flusche, D. (2012). *Bicycling Means Business: The Economic Benefits of Bicycle Infrastructure*. Advocacy Advance.

26 Ibid.

27 Boone, A. (2013, May 13). *Streetsblog*. Retrieved May 14, 2013, from *As Bike to Work Day Booms, Some San Mateo County Cities Lead the Way*: [http://sf.streetsblog.org/2013/05/13/9000-bike-commuters-on-san-mateo-countys-bike-to-work-day-2/?utm\\_medium=referral&utm\\_source=pulseneews](http://sf.streetsblog.org/2013/05/13/9000-bike-commuters-on-san-mateo-countys-bike-to-work-day-2/?utm_medium=referral&utm_source=pulseneews)

28 Kazis, N. (2011, October 12). *Streetsblog*. Retrieved May 13, 2013, from *Bike Lane Made Columbus Avenue Safer, and UWS Residents Noticed*: <http://www.streetsblog.org/2011/10/12/bike-lane-made-columbus-avenue-safer-and-uws-residents-noticed/>

29 Drennen, E. (2003). *Economic Effects of Traffic Calming on Urban Small Businesses*. San Francisco: San Francisco State University.