

## **Bicycle and Pedestrian Quick Facts** (Revised 4/3/14)

### **Economic:**

- *Studies have shown that bicyclists and pedestrian shop more often and spend more money in their communities than people who drive.<sup>i</sup>*
- *The cost of operating a sedan for one year in 2013 was approximately \$10,374. The annual cost of operating a bicycle is approximately \$308 a year.<sup>ii</sup>*
- *Fuel and transportation savings allow residents to spend more in their local economies. Studies have shown that the total savings across metropolitan areas can be in the billions.<sup>iii</sup>*
- *Wisconsin accounts for 20 percent of the bicycling manufacturing in the U.S. According to a 2005 study, the bicycling industry which includes manufacturing, distribution, retail and other services – contributes \$556 million and 3,418 jobs to the Wisconsin economy.<sup>iv</sup>*
- *In 2010, a study found that bicycle recreation and tourism contribute \$924 million annually to the state's economy and estimates that "the potential value of health benefits from reducing short car trips and increasing the bicycling total to \$409 million."<sup>v</sup>*
- *Lancaster, CA added pedestrian safety features as part of a downtown revitalization effort, including a pedestrian only plaza, wider sidewalks, landscaping and traffic calming. The project spurred \$130 million in private investment, 50 new businesses, a 9.5 percent increase in property values, a 96 percent increase in revenue, 800 permanent new jobs, and a decrease in traffic collisions by 85 percent, after a public investment of \$10.6 million.<sup>vi</sup>*

Not only can bicycling and walking benefit a personal budget but it also can benefit a communities' economy. Road projects are very materials intensive and therefore, the budget for a road project can be extremely high. By contrast, bicycling and walking infrastructure projects are more labor intensive and can create more jobs than a road projects.

- *Investments in bicycle and pedestrian infrastructure create more jobs per million dollars spent than highway projects. Bicycle and pedestrian projects produce 9.6-11.4 jobs per million dollars spent compared to only 7.8 jobs created by road only projects.<sup>vii</sup>*
- *Bicycling and walking projects create 11-14 jobs per \$1 million spent, compared to just 7 jobs created per \$1 million spent on highway projects.<sup>viii</sup>*
- *Cost benefit analysis show that up to \$11.80 in benefits can be gained for every \$1 invested in bicycling and walking.<sup>ix</sup>*
- *The Brown County, WI Highway Department built a three-lane street with two bike lanes on the existing four-lane roadway, and replaced expensive traffic signals with roundabouts. These changes saved the County \$347,515 – 16.5 percent below the original project estimate.<sup>x</sup>*

### **Real Estate Values:**

Bicycle and pedestrian facilities can positively impact the value of a home.

- *Studies have shown that neighborhoods that invest in trails and bicycle and pedestrian infrastructure have higher property values and increased sales tax revenues.<sup>xi</sup>*
- *In Vermont, property values of homes in walkable neighborhoods were \$6,500 higher than those in car-dependent areas. Add all of those homes together and walkability added more than \$350 million to the local economy.<sup>xii</sup>*
- *Bob McNamara, a Senior Policy Representative for the National Association of Realtors (NAR), a 1.2 million member professional organization, emphasized the importation of transportation*

choice at the 2009 National Bike Summit. Realtors sell not just houses, he said, they sell communities. Increasing transportation choice increases livability.<sup>xiii</sup>

- A study of home values near the Monon Trail in Indianapolis, Ind. measured the impact of the trail on property values. Given two identical houses, with the same number of square feet, bathrooms, bedrooms, and comparable garages and porches – one within a half mile of the Monon Trail would sell for an average of 11 percent more.<sup>xiv</sup>

### **Health:**

The built environment can play a crucial role in a community's or person's health. Bicycling and walking levels fell 66% between 1960 and 2009, while obesity levels increased by 156%.<sup>xv</sup> It has been noted that not only are adult obesity rates on the rise, but also childhood obesity continues to be on the rise. Over the past 40 years, rates of obesity have soared among children of all ages within the United States, and approximately 25 million children and adolescents – more than 33% - are now overweight or obese or at risk of becoming so.<sup>xvi</sup>

- More than one-third of U.S. adults (35.7%) are obese and another third are overweight.<sup>xvii</sup>
- Obesity—related conditions include heart diseases, stroke, type 2 diabetes, and certain types of cancer, some of the leading causes of preventable death.<sup>xviii</sup>
- The estimated annual medical costs obesity in the U.S. was \$147 billion in 2008 U.S.dollars; the medical costs for people who are obese were \$1,429 higher than those of normal weight.<sup>xix</sup>
- The costs of obesity account for approximately nine percent of total U.S. health care spending,<sup>xx</sup> and add an estimated additional \$395 per year per person to health care expenses.<sup>xxi</sup>
- Bicycling and walking levels fell 66% between 1960 and 2009, while obesity levels increased by 156%.<sup>xxii</sup>
- Between 1966 and 2009, the number of children who bicycled or walked to school fell 75% while the percentage of obese children rose 276%.<sup>xxiii</sup>
- In general, states with the highest levels of bicycling and walking have the lowest levels of obesity, hypertension (high blood pressure), and diabetes and have the greatest percentage of adults who meet the recommended 30-plus minutes per day of physical activity.<sup>xxiv</sup>
- People living in auto-oriented suburbs drive more, walk less, and are more obese than people living in walkable communities. For each hour of driving per day, obesity increases 6 percent, but walking for transportation reduces the risk of obesity.<sup>xxv</sup>

Children today are not getting the recommend amount of physical activity and this has contributed to the increase in chronic diseases in children. Safe Routes to School Programs work with schools and communities to enable and encourage students to walk and bike to school. Chronic diseases in children have increased significantly. Over the last 40 years, rates of obesity have soared among children of all ages in the United States, and approximately 25 million children and adolescents – more than 33% - are now overweight or obese or at risk of becoming so.<sup>xxvi</sup>

- Obesity is so prevalent in today's children, that this maybe the first generation of children in over 200 years that may not outlive their parents.<sup>xxvii</sup>
- Today, approximately one-quarter of health care costs in the United States are attributable to obesity<sup>xxviii</sup> and health care costs just for childhood obesity are estimated at approximately \$14 billion per year.<sup>xxix</sup>
- Walking one mile to and from school each day is the two-thirds of the recommended sixty minutes of physical activity a day. Children who walk to school have higher levels of physical activity throughout the day.<sup>xxx xxxi</sup>

### **Environmental:**

Bicycling and walking also reduces the number of vehicles on the roadways but it also improves the air quality of an area.

- Children exposed to traffic pollution are more likely to have asthma, permanent lung deficits, and a higher risk of heart and lung problems as adults.<sup>xxxii</sup>
- Over the last 25 years, among children ages 5 to 14, there has been a 74 percent increase in asthma cases.<sup>xxxiii</sup>
- A 5% increase in a neighborhood's "walkability" reduces vehicle miles traveled by 6%.<sup>xxxiv</sup>
- Returning to 1969 levels of walking and bicycling to school<sup>xxxv</sup> would save 3.2 billion vehicle miles, 1.5 million tons of carbon dioxide and 89,000 tons of other pollutants<sup>xxxvi</sup> – equal to keeping more than 250,000 cars off the road for a year.

### **Congestion Management:**

In 2009, 40% of trips in the United States were shorter than two miles, a distance easily covered by bicycle or foot. However, Americans use their cars for 87% of trips that are 1-2 miles in length.<sup>xxxvii</sup> Bicycling or walking can help mitigate traffic congestion and provide commuters with an opportunity for active transportation.

- Currently 12% of all trips are made by bicycle (1.0%) or foot (10.5%) in the United States.<sup>xxxviii</sup>
- From 2000 to 2009, the number of commuters who bicycle to work increased by 57% nationally.<sup>xxxix</sup>
- In urban areas, where cars and bicyclists travel at similar speeds, bike lanes can accommodate **7 to 12 times as many people** per meter of lane per hour than car lanes and bicycles cause less wear on the pavement.<sup>xl</sup>

In the recent years, the trend for transporting children to school has been primarily by personal vehicle. Within the span of one generation, the percentage of children walking or bicycling to school has dropped dramatically from approximately 50% in 1969<sup>xli</sup> to just 13% in 2009.<sup>xlii</sup>

- While distance to school is the most commonly reported barrier to walking and bicycling<sup>xliii</sup>, private vehicles still account for half of school trips between  $\frac{1}{4}$  and  $\frac{1}{2}$  mile<sup>xliv</sup> - a distance easily covered on foot or bike.
- In 2009, American families drove 30 billion miles and made 6.5 billion vehicle trips to take their children to and from schools, representing 10-14 percent of traffic on the road during the morning commute.<sup>xlv</sup>
- A California study showed that schools that received infrastructure improvements through the Safe Routes to School program yielded walking and bicycling increases in the range of 20 to 200 percent.<sup>xlvi</sup>

### **Bicycle and Pedestrian Safety:**

Bicycle and pedestrian facilities can help to reduce the number of injuries and fatalities by those that bicycle or walk. Bicycle and pedestrian infrastructure is crucial in providing accommodations to users.

- Pedestrians are twice as likely to be struck by a vehicle in locations without sidewalks.<sup>xlvii</sup>
- Fourteen percent of all traffic fatalities in the U.S. are bicyclists (1.8%) or pedestrians (11.7%).<sup>xlviii</sup>

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<sup>i</sup> Examining Consumer Behavior and Travel Choices <http://ppms.otrec.us/media/1361999891512e7813bfa6d.pdf>

<sup>ii</sup> Bicycling and Walking in the United States: 2012 Benchmarking Report  
[http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012\\_benchmarking\\_report/](http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012_benchmarking_report/)

<sup>iii</sup> CEOs for Cities – The Green Dividend <http://www.ceosforcities.org/city-dividends/green/>

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- <sup>iv</sup> The Economic Impact of Bicycling in Wisconsin <http://www.dot.wisconsin.gov/business/econdev/docs/impact-bicycling.pdf>
- <sup>v</sup> Valuing Bicycling's Economic and Health Impacts in Wisconsin [http://www.sage.wisc.edu/igert/download/bicycling\\_final\\_report.pdf](http://www.sage.wisc.edu/igert/download/bicycling_final_report.pdf).
- <sup>vi</sup> Lancaster Boulevard Transformation <http://www.mparchitects.com/site/projects/lancaster-boulevard-transformation>
- <sup>vii</sup> Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts <http://www.peri.umass.edu/236/hash/64a34bab6a183a2fc06fdc212875a3ad/publication/467/>
- <sup>viii</sup> Bicycling and Walking in the United States: 2012 Benchmarking Report [http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012\\_benchmarking\\_report/](http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012_benchmarking_report/)
- <sup>ix</sup> Bicycling and Walking in the United States: 2012 Benchmarking Report [http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012\\_benchmarking\\_report/](http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012_benchmarking_report/)
- <sup>x</sup> Smart Growth America – National Complete Streets Coalition <http://www.smartgrowthamerica.org/complete-streets/implementation/factsheets/costs>
- <sup>xi</sup> Protected Bike Lanes Mean Business – How the 21<sup>st</sup> Century Transportation Networks Help to New Urban Economies Boom [http://www.peoplepoweredmovement.org/site/images/uploads/Protected\\_Bike\\_Lanes\\_Mean\\_Business.pdf](http://www.peoplepoweredmovement.org/site/images/uploads/Protected_Bike_Lanes_Mean_Business.pdf)
- <sup>xii</sup> Resource Systems Group, Inc., Economic and Policy Resources, Inc., and Local Motion Economic Impact of Bicycling and Walking in Vermont, March 8, 2012.
- <sup>xiii</sup> McNamara, Bog, Senior Policy Representative for the National Association of Realtors (NAR), National Bike Summit, Complete Streets panel discussion, March 11, 2009.
- <sup>xiv</sup> Lindsey et al, "Property Values, Recreation Values, and Urban Greenways," Journal of Park and Recreation Administration, V 22(3) pp. 69-90.
- <sup>xv</sup> Bicycling and walking in the United States: 2012 Benchmarking Report [http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012\\_benchmarking\\_report/](http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/2012_benchmarking_report/)
- <sup>xvi</sup> Ogden, C.L. et al., "Prevalence of Overweight and Obesity in the United States, 1999-2004." Journal of the American Medical Association, 295, no. 13 (2006). Available at <http://jama.jamanetwork.com/article.aspx?articleid=202627#JOC60036T2>.
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- <sup>xviii</sup> Centers for Disease Control and Prevention: <http://www.cdc.gov/obesity/data/adult.html> (January, 2013)
- <sup>xix</sup> Centers for Disease Control and Prevention: <http://www.cdc.gov/obesity/data/adult.html> (January, 2013)

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<sup>xx</sup> Finkelstein, EA, Fiebelkorn, IC, Wang, G. 2003 National medical spending attributable to overweight and obesity: How much, and who's paying? *Health Affairs* W3:219-226.

<sup>xxi</sup> Sutm R. 2002 The Effects of Obesity, Smoking, and Drinking on Medial Problems, and Costs. *Health Affairs*, March/April: 245-253.

<sup>xxii</sup> Bicycling and Walking in the United States: 2012 Benchmarking Report  
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<sup>xxiii</sup> Bicycling and Walking in the United States: 2012 Benchmarking Report  
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<sup>xxiv</sup> Bicycling and Walking in the United States: 2012 Benchmarking Report  
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<sup>xxv</sup> Frank LD, Andresen MA, Schmid TL. "Obesity relationships with community design, physical activity, and time spent in cars." *American Journal of Preventative Medicine* 2004; 27:87-96.

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- <sup>xxxvi</sup> "Emission Facts: Average Annual Emissions and Fuel Consumption for Passenger Cars and Light Trucks," U.S. Environmental Protection Agency. Available at <http://www.epa.gov/otaq/consumer/420f08024.pdf>.
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