

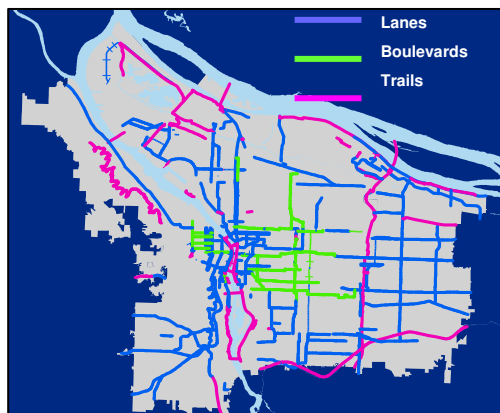
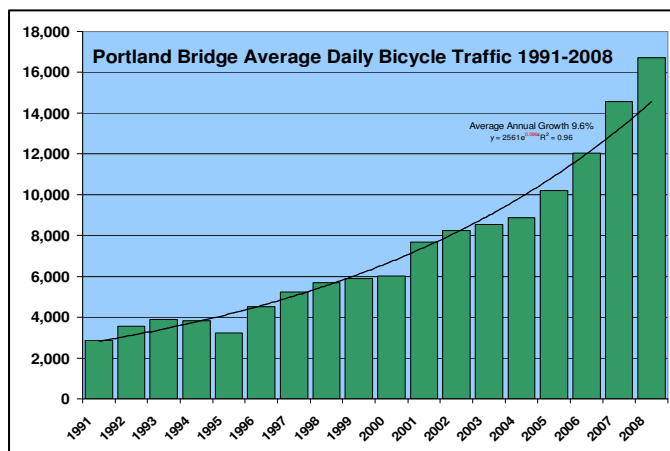
The Success of Active Transportation in Portland

They Built it, They Came, and They Benefit – A Cost-benefit Analysis of Portland's Investments in Bicycling

Since 1991, Portland, Oregon, has seen bicycling increase at a rate of at least 10% every year. So far, Portland's 300 mile bikeway network has cost \$57 million, and over the next decades Portland plans to invest another \$100 million, to reach a bicycle mode share of 20% or more. Rails-to-Trails Conservancy (RTC) calculates that by 2040 Portland's net benefits from bicycling in the form of fuel savings and reduced health care costs alone will amount to \$1.2 billion, or a return on investment ratio of 8.3 to 1. This first of its kind cost-benefit analysis for bicycle infrastructure shows that investment in bicycling is a highly cost-effective use of transportation funds.

In its "Active Transportation for America" report (www.railstotrails.org/atfa) RTC calculated that in 2001 walking and bicycle trips of 3 miles or less amounted to \$4 billion in benefits, and under future scenarios this figure could increase to \$10 to \$66 billion annually. However, due to the lack of data the costs of achieving increases in active transportation on a national scale are unknown.

Not so in Portland. RTC compared the investments that led to the massive increase in biking to the value of fuel savings and health benefits resulting thereof:



- By 2008, Portland's 300 mile bikeway network cost \$57 million
- From 1991 through 2008, bicycling increased exponentially at an annual rate of 10%, and at annual rates of 15 to 20% more recently.
- From 1991 through 2008, Portland's cyclists logged approx. 200 million miles of biking, only counting trips of 3 miles or less.
- By 2008, Portlanders had saved \$12 million in fuel and \$10 million in health care costs from the increase in biking.
- The major return on investment though is yet to come: by 2013 Portland will have amortized its initial \$57 million investment, and the \$100 million master plan is on track to generate net benefits of \$1.2 billion by 2040, more than \$8 for each dollar invested.

RTC's cost-benefit calculation is inherently conservative, since it does not include benefits from trips longer than three miles, time savings from congestion relief, road infrastructure savings, avoided traffic injuries and fatalities, health benefits from reduced air pollution, increases in real estate values, increased productivity due to improved health, increased transit ridership, or induced business, all of which have been associated with investments in bicycle infrastructure.

...see reverse for details

Rails-to-Trails Conservancy is a national non-profit with more than 100,000 members and supporters

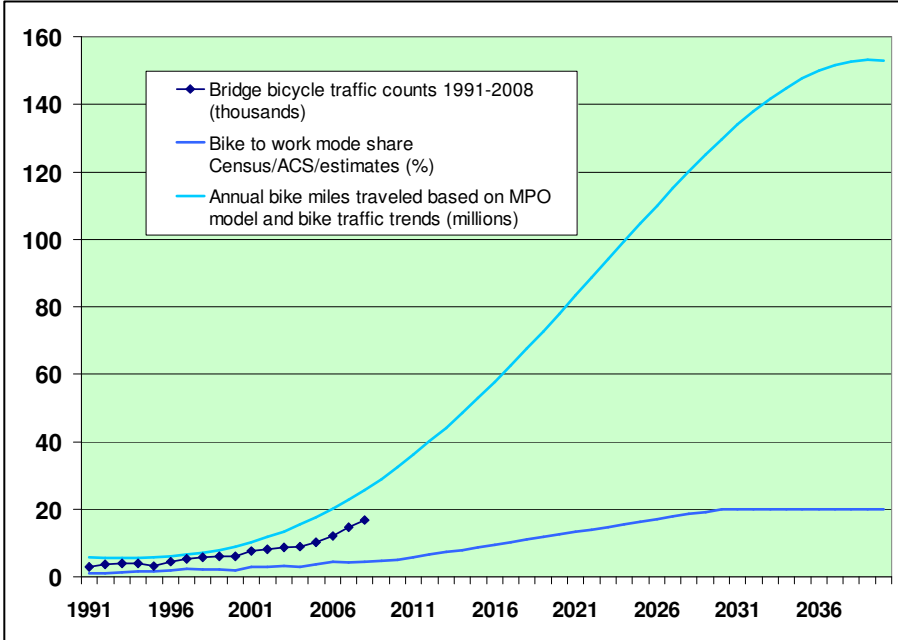
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rails-to-trails
conservancy

Cost-benefit Calculation for Portland's Investments in Bicycling 1991-2040



Bike Trends in Portland

Portland has seen a steady increase in bicycling since 1991 of 10% each year, and an even more pronounced growth in the past three years (15%-20%). The graph on the left shows the extrapolation of these trends towards the goals of Portland's \$100 million future bicycle transportation plan: another five-fold increase in bicycling over current levels, and a bike mode share of 20% or more.

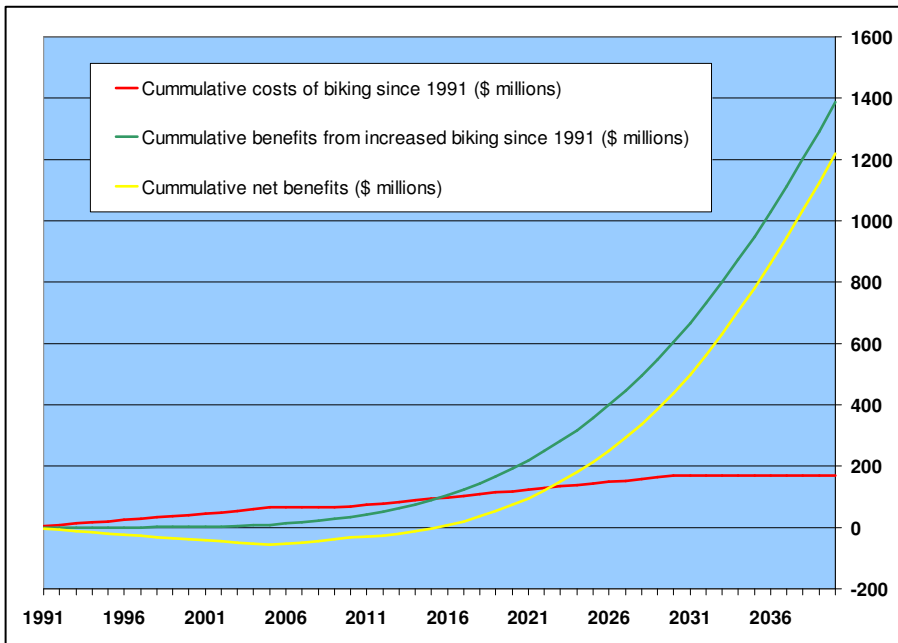
These numbers suggest that in 2030 on average every fifth Portlander will ride their bike for 2.4 miles a day. While certainly unmatched in the US, this level of cycling is only about half of what some European cities already report currently.

Cost-effectiveness

The calculation includes three major investments in bicycling: \$57 million for today's bikeway network, \$7.2 million for the SmartTrips promotion program, and \$100 million for future investments.

The benefits side of the equation includes gasoline savings, based on past prices and an average of EIA's low and high price predictions for the future (\$335 million by 2040). Also included are \$300 in annual health care savings per person becoming sufficiently active thanks to bicycling (\$1.05 billion by 2040).

These benefits only represent two of the most easily quantifiable benefit categories. A more comprehensive cost-benefit analysis would strengthen the case for investments in bicycling even further.



In conclusion, in Portland relatively modest investments, comparable to the construction cost of one mile of an urban 4-lane highway, led to a tremendous growth in bicycling which over time will produce secondary benefits in the form of fuel and health care savings worth at least eight times the upfront investment. Funding for bicycling should therefore be considered one of the most cost-effective uses of transportation funds.