

WHY BIKES ARE A SUSTAINABLE WONDER

The bicycle is the world's most widely used transport vehicle. It outnumbers cars almost two to one, and their production¹ cars three to one. Rush-hour traffic in China is dominated by human-powered vehicles and even in the wealthy cities of Europe and Japan, large shares of the populace get around by bike.

Despite its popularity elsewhere, the bicycle gets little use or respect, in North America. Of all trips in the United States, less than 1 percent are made by bicycle.

The bicycle is the most energy-efficient form of travel ever devised². A person on a bicycle expends less energy than any creature or machine covering the same distance. (A human walking spends about three times as much energy).

Activists, engineers, and planners are working hard to promote alternatives to the car. Buses, trains, and carpools produce less pollution and traffic than solo driving.

Vehicles powered by alternative fuels or electricity, could minimize cars' greenhouse gas emissions, but such cars do nothing about the problems of traffic, sprawl, or deadly accidents.

The only vehicle that addresses all the environmental liabilities³ of cars is the bicycle.

Many of the daily trips, e.g. to college or to the job are easily bikable. A bicyclist can cover a mile in six minutes without haste. Short car trips are, naturally, the easiest to replace with a bike (or even walking) trip.

Increased use of bicycles as transportation could also help reduce the huge toll of sedentary lifestyles⁴ on North Americans. Forty percent of all American adults get almost no exercise; only 1 out of 13 gets the recommended amount.

Policies could effectively promote biking. Bike-friendly policies, have boosted cycling rates in five European nations to 10 percent or more of urban trips.

Nearly half the recreational⁵ riders in the United States--or one out of five of all adults--say they would sometimes bike to work if better bike lanes or paths existed.

Other nations have already made bicycling a priority: the Netherlands, for example, spends 10 percent of its roads budget to support bicycle facilities.

British author H. G. Wells may have summed it up best more than a half century ago:

"When I see an adult on a bicycle, I do not despair for the future of the human race."

1 to outpace so. = jmdn. hinter sich lassen / jmdn austechen

2 devised = erfunden

3 Liabilities = *hier*: Unzulänglichkeiten

4 Sedentary lifestyle = bewegungsarme Lebensweise

5 Recreational = der Erholung dienend; Freizeit-

Make Best Transportation Buys First

The idea behind this slogan is to make the public transportation system both cheaper and more effective. This approach is called least-cost planning and it involves setting up a catalogue which lists details about different means of transport with regard to their effectiveness and costs, e.g. long-term, social and environmental costs. Finally these results are published and the responsible persons for mass transit decide about which method to realize.

This method was first invented in the mid-seventies to find the best way of dealing with the dilemmas in the electric power sector in the Northwest. Based on this approach, the region stopped building large power plants and invested in conservation, which saved billions of dollars for ratepayers, and cut annual electric growth substantially.

20 years later, the transportation sector in this region suffered also from increasing problems, of which the intensifying congestion was the most serious. Actually, the responsible authorities tended to solve this problem by building new roads and railway systems, which would have caused enormous costs. But as the idea of cataloguing all possibilities has been adopted, many different alternatives have been found which have been cheaper, but nevertheless as efficient as the original plans. The top 3 proposals have been:

- expanding the network of transit and carpool lanes
- distributing free bus passes
- building more bike routes

What most of these options share is the ability to make fuller use of existing resources: roads already built and vehicles already rolling.

The essence of least-cost planning, however, is not any of these particular options; it is the discipline of choosing the best combination of investments.

Spread Clean Technology with Feebates

- feebates: combination of fees and rebates
- basic idea: cleaner cars on the streets (lower carbon emission)
- government pays part of the cost for new cars if the cars are cleaner than average (proportional to the efficiency of the vehicle)
- drivers with dirtier cars pay more taxes (the money can be used to finance the rebates for clean cars)
- *the cleaner the device, the bigger the rebate; the dirtier the device, the bigger the fee*
- positive effects:
 - people are more likely to buy clean cars, since they are cheaper **and** need less fuel than dirtier cars
 - car producers have to invent cleaner cars or otherwise they don't sell any cars

Ease congestion by pricing

The gist: congestion pricing as the only way to reduce worsening gridlock

The details:

- prepaid smart cards posted on cars dashboards → tollbooth scanners deduct tolls
- higher tolls in rush hour
- less taxes, less gasoline → drivers save money
- pilot projects → public acceptance (toll lanes ↔ free lanes)

A Northwestern Reality?

Lack of alternatives for example

- spend much money for mass transit, roads and other transportation improvements
↔ time stuck in traffic will triple, less average freeway traffic speed

ease	1 lack of difficulty: 2 the state of feeling relaxed or comfortable without worries, problems or pain:
toll = congestion pricing	money that you pay to use a particular road or bridge:
gridlock	a situation in which there are so many cars in the streets of a town that the traffic cannot move at all
dashboard	noun the part of a car in front of the driver that has instruments and controls in it
to taper off	to become gradually less in number, amount, degree, etc.:
To revenue	the money that a government receives from taxes or that an organization, etc. receives from its business
To squander	to waste money, time, etc. in a stupid or careless way
To conduct	to organize and/or do a particular activity

Solutions for healthier communities

The Details

- Health risks
- 2000 car-crash fatalities
- obesity

} due to sprawling suburbs

→ need to create compact communities to encourage physical activity

Create Healthy Communities

- Support for stores in residential districts, better street network
- More people living in traffic-calmed communities with increased density → helps even older people because of social connections
- Less parking lots
- Variety of jobs and attractions in inner cities → use of mass transit
- Increase of pedestrian friendly sidewalks → decline of fatality and obesity rate

Budget for health

- New streets/sidewalks/bike paths can be financed due to decreasing hidden health costs
- Investment in effective measures (bike paths etc.) → more healthy choices for daily trips

Reveal the real costs

- Make people pay for their streets who want to live in sprawling communities and not all the taxpayers
- Special insurance contracts: the less you drive, the less you pay

Make healthy choices

- Before moving think about the design of your new community and how to spend commute time
- Be more active not to become overweight
- Support for pedestrian friendly policy

Vocabulary:

car-crash fatality	Verkehrstoter
obesity	Fettleibigkeit
bike path	Fahrradweg

Pay-as-you-drive car insurance

Features:

- you pay as much as you drive for your car insurance (per-mile rate including existing rating factors like crash history or geographic location)
→ the less you drive, the less you PAY!
- large untapped market for insurances



Benefits:

- for consumers: more affordable insurances, more control over costs
- for society: cut driving by 5 to 15% → less pollution, less crashes and claims
- for taxpayers: save money on roadwork
- for insurers: increased market share, better reputation (innovative, customer-orientated), fewer claims

Paradigms for PAYD

- Oregon: passed legislation in 2003 sponsored by Oregon Environment Council (OEC)
- Washington: pilot project will start soon, also sponsored by different organisations
- Other examples: UK, Texas (using GPS technology) (systems are already existing), Massachusetts