

BICYCLES IN CITIES



Vol. XII

FUNDING, USAGE, AND ACCIDENTS

O-O When developing a bicycle support system, enthusiasm is nice, but money is necessary. Without funding, even the best bikeway plan will remain on the shelf.

Eugene began its bike program in 1971 with no money. Bikeways were considered frills, not essentials like streets and traffic signals. Part of the planned solution was to focus on transportation cyclists, those people who would otherwise be using automobiles. In downtown Eugene, for example, by encouraging commuters to use bicycles, the City might save money through reduced car parking needs.

FUNDING SOURCES. Eugene has searched and scavenged for bikeway funds at every level of government and from some private sources as well.

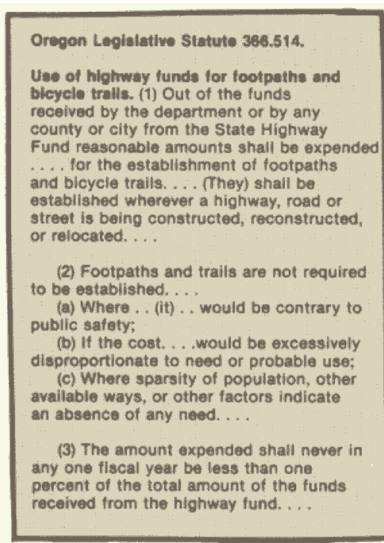
City Funds. The emphasis on bikes as a beneficial part of the transportation system helped win the all-important first entry for bikes in the City's 1972 capital budget. Since 1974, this budget item for bicycle facilities has averaged \$75,000. It has been used to match federal and state grants and for individual City projects. The Public Works Department includes striping of on-street lanes and other minor work as part of its normal maintenance budget. The Traffic Engineer's budget added funds for a City Bicycle Coordinator beginning in 1975. When bike lanes are added during reconstruction of collector or arterial streets, the "bicycle account" is usually not "charged" for the extra costs. Anticipated funds never materialized from a bicycle licensing program begun in 1972; costs exceeded revenues and the program was dropped in 1977.

Oregon Bridge Engineering Company



Joint funding for multipurpose use made Eugene's fourth bike/pedestrian bridge possible in 1982. The \$855,000 structure carries sewer, power, and telephone lines across the Willamette River. Addition of concrete deck and laminated wood and steel railings gave a bicycle crossing at minimal cost.

County Funds. Timber-rich Lane County had forest receipts to spare in the prosperous seventies. In the metro area, county money paid for paved highway shoulders, bike paths in parks, and bicycle parking* at new county buildings.



Oregon's 1971 "Bicycle Bill" helped fund Eugene's bikeways.

State Funds. Beginning in 1971, state legislation required that one percent of the State Highway Fund (i.e. gasoline tax) be used for footpaths and bicycle trails. Promptly nicknamed the "Bicycle Bill", this applies not only to state agencies, but also to cities and counties. "Bicycle Bill" funds built about one-third of Eugene's Riverbank Trail System**. In 1980, Oregon voters passed a constitutional amendment restricting gas tax expenditures to highway rights-of-way. The one percent "Bicycle Bill" requirement remains intact, but projects like riverbank trails are no longer eligible. Now state bicycle monies improve highway shoulders benefiting both cyclists and motorists.

National Bikeway Demonstration Funds. Eugene's \$270,000 Greenway Bicycle Bridge, constructed in 1976, was one of several dozen projects funded nationwide from among hundreds submitted.

Federal Aid Urban Funds. Received on a per capita basis by most metropolitan areas, these funds were used by Eugene for both on-street and off-street bicycle facilities in connection with eligible street and highway projects.

Other Federal Programs. Funds from the Bureau of Outdoor Recreation built one mile of riverbank trail. CETA-funded workers also built another short section. Community Development funds paved short sections of paths linking discontinuous streets in low income areas. Money from a program to reduce auto use helped fund Eugene's fourth bicycle bridge. Past successes of the Eugene bicycle program undoubtedly helped persuade the federal agency of the value of this project. Federal and state traffic safety programs provided for Eugene's Bikeway Master Plan and its 1979 evaluation.

Jointly funded projects. Three of Eugene's four bicycle bridges*** carry utility pipes. Two are water line crossings paid for by the local municipal utility. The most recent combines the bicycle bridge with a sewer trunk line, telephone cables, power lines, and even a conduit to carry traffic signal interconnections. The combined facility saves money for all parties, both public and private.

Local donations. The principal newspaper, the Eugene Register-Guard, provided prizes and promotion for bridge and path dedications. A city neighborhood group, concerned about security, raised funds for lighting along a path. The area's Rotary Clubs conduct safety campaigns. Local media provides spot announcements and safety information.

BICYCLE USAGE. Through an on-going program of bicycle counts, the City monitors bicycle use and refines the bike route system. Bikes on independent paths or on-street lanes are relatively easy to count by using standard mechanical counters with surgical tubing substituted for the normal heavy hoses used for motor vehicle counts. On signed routes, however, manual counts must be conducted since autos and bikes are mixed on the street. Whenever practical, Eugene's traffic engineer has his personnel count bicycles separately while conducting manual counts for intersection analysis.



Jimmi Harris, Oregon Magazine

Commuting, Eugene style



Rainy winters reduce bicycle commuting traffic to downtown by about 50%. Only 22% of University riders stop bicycling.

Data on Usage - Eugene Bikeway System

- Facilities bring riders. Counts taken in 1978 revealed an average 76 percent increase over counts at the same locations in 1971.
- Bicycles account for almost 7 percent of the traffic on the one-way couplet with left-side bike lanes in downtown Eugene (600 to 700 bicycles on each street).
- The highest average weekday counts on bicycle lanes, over 3000, occur on the two-way bike, one-way auto streets near the University. A signed route nearby serves the hospital and downtown area as well and has similar daily bike volumes of over 3000.
- Average weekday volumes for most on-street bicycle lanes range from 100 to 1000 in each direction. Many are in the 200 to 300 range.
- On off-street paths along the river or drainage canal, average weekday commuter volumes vary from 200 to 1000. Fair-weather weekend counts are much higher.
- Work, shopping or school trips (i.e. transportation trips) account for half the bicycle trips on Eugene's three bicycle bridges.
- Cyclists on Eugene's bicycle bridges are younger than average, though half are over 25. Cyclists come from all income groups, but lower income individuals are over-represented.
- Half the Greenway Bridge bicycle trips would previously have been made by automobile.
- Saturday or Sunday counts on the Greenway Bridge, where a permanent counter is installed, have exceeded 2000. Bicycle volumes on the Autzen Bridge, near the University, are much higher.
- Summer weekday counts on the Greenway Bridge more than tripled from 300 in 1977, the year the Bridge opened, to over 1100 in 1982. Facilities bring riders.



Recreation bicyclists swell traffic on bridges in summer. Yet transportation bicyclists account for nearly half the bridge crossings in the total year count.



Eugene's future bicyclists ride in carts. Three new cart manufacturers in Eugene offer optional rain covers, kids' seats with harnesses.

Duncan McDonald

Eugene Register-Guard




Front page picture captioned, "Perilous Journey," is part of local newspaper's campaign for helmets. News stories of serious bicycle accidents always add helmet data.



Use of helmets seems to be increasing. Informal survey suggests about 20% of Eugene's regular commuters use helmets.

ACCIDENTS. Eugene has lots of bicycles and lots of bicycle accidents. But how many and what kind? In the fall of 1978, the consultants hired to evaluate Eugene's bikeway plan* studied bicycle accidents. With the help of the Bicycle Committee, they enlisted the aid of the medical community. Voluntary accident report forms were distributed at the emergency rooms of the City's two hospitals and the University's Health Service, where studies showed 97% of bicycle accident victims were treated.

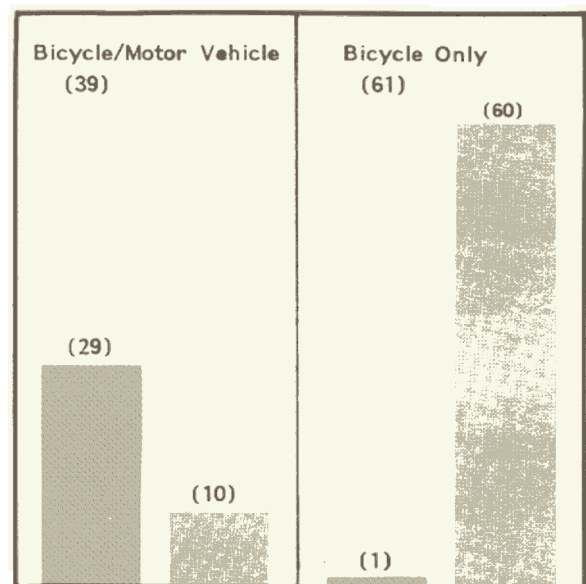
For a three month period, the responses were compared with police reports. Of the 100 injuries, nearly two-thirds did not involve motor vehicles. These accidents are only rarely reported to police (1 of 61). Bicycle-motor vehicle accidents are much more likely to be reported to police (29 of 39). The hospital-distributed report forms revealed design problems such as blind corners, and maintenance problems such as unpainted traffic islands, large sidewalk cracks and gravel on bike paths and lanes. In spite of their value, it proved difficult to sustain interest in the voluntary accident reports, and they were discontinued after a year. Police Department reports are still used.

Bicycle accident data can be used to design and evaluate bicycle facilities and win Council support. Accident data influenced the striping patterns of and won the day for bike lanes on a controversial east-west arterial. Analysis of accident data also revealed that sidewalk bike use had accident rates nearly three times the average for signed routes or striped lanes. This statistic increased the Bicycle Committee's resolve to avoid sidewalk bike routes. 

* Vol. II Eugene Bikeways Master Plan

100 Injuries to Eugene Bicyclists

Fall 1978



 — Reported to Police
 — Not Reported to Police

BICYCLES IN CITIES
THE EUGENE EXPERIENCE

Eugene engineers, planners, law enforcement officers, and citizens explain the successful bicycling program of Oregon's second largest city. Twelve monographs examine the planning, design, construction, and use of Eugene's bikeway system.

Single Issues \$1.50

Set of Twelve \$12.00

Send check or purchase order to:

Bikeways Oregon • P.O. Box 3914 • Eugene, OR 97403