INTEGRATION OF CYCLING WITH PUBLIC TRANSPORT

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Bicycling and Public Transport: Perfect Together?

**Synergies:**
- Cycling extends catchment areas of transit stops far beyond walking range
- Much cheaper than park and ride for cars
- Transit complements cycling by overcoming long distances, physical barriers, bad weather, or mechanical failure

**Rivalries and conflicts:**
- Limited space on crowded peak-hour transit vehicles
- Cycling substitutes for public transport over short distances

*Most studies find mutually beneficial overall, but much more research needed*
Share of Workers Commuting by Bicycle in US and Canadian Cities and Metropolitan Areas, 2006/2007

Sources: U.S. Census Bureau (2008) and Statistics Canada (2008)

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Types of Bike-Transit Integration

- Bike parking at rail stations and bus stops
- Multi-functional, full service bike stations
- Bikes on board buses and trains, usually on rail vehicles, often with special provisions
- Bike Rental at or Near Stations
- Bike paths, lanes, and on-street bike routes that lead to public transit stations and thus facilitate bike’s role as feeder to transit
Main form of bike-transit integration in Europe for decades
Bike racks and lockers at Metrorail Station in Virginia

Photo: Paul DeMaio
Indoor bike parking in Chicago

Photo: Chicago Transit Authority
Electronic bike lockers at North Berkeley BART station

smart card used to access lockers

Photo: Bay Area Rapid Transit
Bike parking at bus stops in Europe
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Bike Station at Union Station in Toronto

Vending machine for bike accessories
New Bike Station in Washington, D.C.

Photo: Ralph Buehler
Bike Station in Muenster, Germany

Photo: Peter Berkeley
Bike Wash at Muenster
Bike Station

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Trend in Percentage of Buses with Exterior Bicycle Racks in the USA, 2001-2008

(Source: APTA, Public Transportation Factbook 2008, Table 23)
Over 50,000 buses in the USA now come equipped with bike racks
Bike on LRT in NJ and Minneapolis

Photo: John Boyle

Photo: Metro Transit
Bikes on Portland’s Aerial Tramway and MAX Light Rail
Bikes on BART in SF Bay Area

Bikes permitted on-board except during peak hours, and without special provisions for bike storage such as on CalTrain
Bike on Suburban Rail in NJ

Photo: Leigh Ann Von Hagen
Bikes on Caltrain in San Francisco

Photo: San Francisco Bicycling Coalition
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Easy bike rentals at transit stations

“ÖV Fiets” and “Call A Bike” in Germany and Netherlands

Photo: Peter Berkeley

Photo: German Railways
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Bike and Ride
Above: Shared bus and bike lane in Berlin, Germany

Bike path placed behind bus stop to reduce conflict between cyclists and bus passengers
Growth in Bike-Transit Trips

- Washington Metrorail: 60% growth in bike and ride from 2002 to 2007
- Minneapolis: doubling in bikes on buses from 2007 to 2008
- SF Bay Area: Bike access trips to BART stations rose from 2.5% in 1998 to 3.5% in 2008 (10,920 trips per day)
- Nationally from 1% to 3% of transit access/egress trips
- More research needed on impacts of bike-transit integration
Conclusions

- Vast improvement in bike transit integration in North America since 2000
- Problems where most successful?
- “Complete stations”
- Future growth in cycling will require even further investments in the coming years
- Bike and ride is much cheaper than park and ride and more environmentally friendly
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THANK YOU