

PUBLIC TRANSPORTATION INTRODUCTION

Outline

Current Status and Recent Trends

Significant Influences

A Critical Assessment

Arguments Supporting Public Transport

Future Influences

Ingredients for Future Success

Current Status

- **Ridership increasing moderately but remains small**
- **Strong financial support from all levels of government**
- **Significant growth in number of new rail starts in past 25 years**
- **Major rebuilding of many older systems over past 20 years**
- **Slow institutional or technological innovation, but growing recognition that fundamental change may be necessary for survival well into 21st century**

US Urban Transport Today

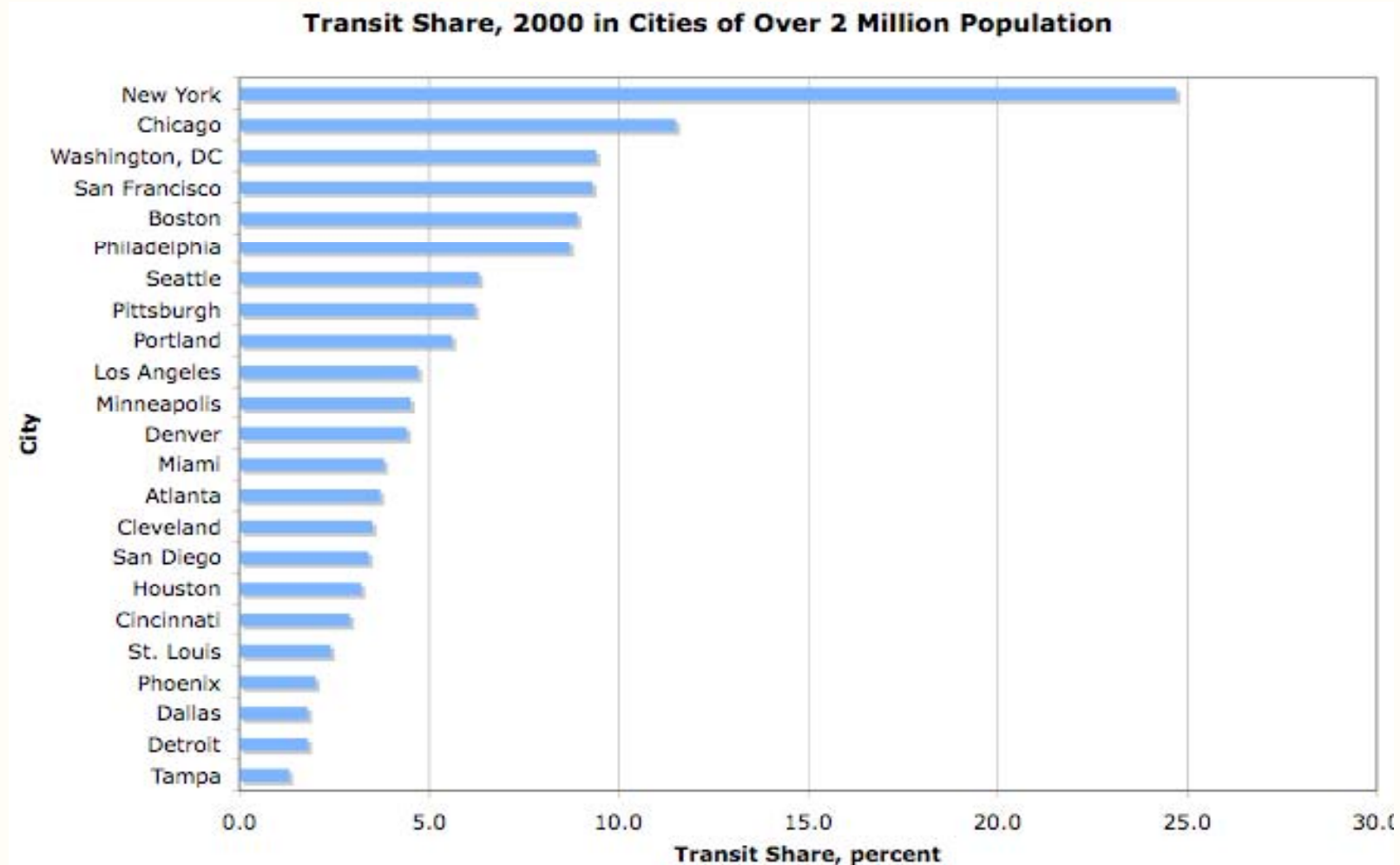
Trends in Modal Split for Daily Travel in the United States (1969-2001)

Mode of Transportation	1969	1977	1983	1990	1995	2001
Auto	81.8	83.7	82.0	87.1	86.5	86.4
Transit	3.2	2.6	2.2	2.0	1.8	1.6
Walk	n/a	9.3	8.5	7.2	5.4	8.6
Bicycle	n/a	0.7	0.8	0.7	0.9	0.9
Other	5.0	3.7	6.5	3.0	5.4	2.5

*Source: Socioeconomics of Urban Travel: Evidence from the 2001 NHTS
by John Pucher and John L. Renne. Transportation Quarterly, Vol. 57, No. 3, Summer 2003 (49-77).
Eno Transportation Foundation, Inc., Washington, DC.*

Federal Highway Administration, Nationwide Personal Transportation Surveys 1969, 1977, 1983, 1990, and 1995; and National Household Travel Survey, 2001.

Transit Share of Commute for Metropolitan Areas Over 2 Million in Population (2000)



Sources: U.S. 2000 Census Journey to Work (<http://www.census.gov/prod/2004pubs/c2kbr-33.pdf>) and U.S. Department of Transportation Census Transportation Planning Package <http://www.fhwa.dot.gov/ctpp/jtw/>

Metropolitan Areas with Largest Transit Share Modal Split for Home-to-Work Journeys (2000)

	Car	Transit	Non-Motorized	Work at home
NY-NJ-CT-PA	65.7	24.9	6.4 ↓	3.0 ↑
Chicago	81.5 ↑	11.5 ↓	4.2 ↓	2.9 ↑
San Francisco - Oakland	81.0	9.5	5.5	4.1 ↑
Washington DC-Baltimore	83.2 ↑	9.4 ↓	3.9 ↓	3.5 ↑
Boston	82.7	9.0	5.1 ↓	3.2 ↑

↑↓ indicates change of more than 0.5% from 1990-2000

Source: Journey to Work Trends in the United States and its Major Metropolitan Areas 1960-2000

Significant Influences

- **Suburbanization of homes, employment and attractors**
- **Low costs for car ownership and operation**
- **Extensive urban road infrastructure**
- **Government policies towards roads and public transport**

Suburbanization: 2000 Journey to Work

A. Total Trips (in millions of daily trips)

	Jobs in:		
Homes in:	Central City	Suburbs	Total Homes
Central City	28.2 (27%)	9.2 (9%)	37.4 (36%)
Suburbs	20.8 (20%)	44.6 (43%)	65.4 (64%)
Total Jobs	49.0 (48%)	53.8 (52%)	

B. Share of 1990-2000 Increase

	Jobs in:	
Homes in:	Central City	Suburbs
Central City	5%	14%
Suburbs	16%	65%

C. Public Transport Mode Share

	Jobs in:	
Homes in:	Central City	Suburbs
Central City	14%	6%
Suburbs	6%	2%

The Car-Road System*

High car ownership levels

- 600 cars per 1000 population

High car usage

- 10,000 veh-km per capita annually

Low taxes, fees and user charges for car ownership and use

- Sales taxes range from 5-8%
- Users pay only 60% of road infrastructure costs in US
- Fuel taxes are from 10-20% of European levels

* Source: *The Urban Transportation Crisis in Europe and North America*, by John Pucher and Christian LeFevre, 1996.

The Car-Road System (cont'd)*

Urban parking supply is relatively widely available and often free

- **380 parking spaces per 1000 central city workers in 10 largest US cities**
- **95% of car commuters enjoy free parking**

Highly developed urban road system

- **6.6 metres of road per capita in 10 largest US cities; 3 times European levels**

** Source: The Urban Transportation Crisis in Europe and North America, by John Pucher and Christian LeFevre, 1996.*

Public Transport Funding by Source (2007, in \$ billions)

	Capital	Operating
Fares	---	11.1 (31.4%)
Other directly generated	4.8 (33.5%)	2.7 (7.6%)
Local	2.1 (14.4%)	8.3 (23.4%)
State	1.6 (11.2%)	8.4 (23.6%)
Federal	5.9 (41%)	2.7 (7.6%)
Total	14.3 billion	35.5 billion

Source: American Public Transportation Association, Transit Facts 2009 (for 2007)

A Critical Assessment

- **Public transport has been stabilized**
- **Many new rail initiatives in operation or under construction (Phoenix, Denver)**
- **Some real success stories: New York City, Houston, Seattle**
- **Institutional change is occurring slowly**
- **Retention of political support**

Traditional Arguments Supporting Transport

- **Equity:** access for those who cannot or do not choose to drive
- **Congestion:** the need for a high-quality alternative
- **Land use influence:** public transport is necessary, but not sufficient to change trends
- **Environmental:** car technology strategies are more effective
- **Energy:** car technology strategies are effective

Other Arguments Supporting Transit

- **Economic:** expenditures for private autos may be alternatively used to improve local economies and quality of life
- **Transit allows agglomeration of economic activity in cities:**
 - New York, Boston, San Francisco, etc. could not have developed without transit
 - The contribution of earlier investments in heavy rail is not valued appropriately
 - New investments will have a lasting impact – thus the need for a long view (Economic analysis of CrossRail in London)

Other Arguments Supporting Transit

- **Transit is contributing to decreasing external costs of transport in cities:**
 - **accidents**
 - **impacts on human health**
 - **congestion**
 - **noise**
 - **global warming**

Other Arguments Supporting Transit

- **The key is the enhancement of the quality of the urban space**
- **Public Transport can be a catalyst for this process**

Future Influences on Public Transport

- **Urban form**
 - continued growth on periphery is likely
- **Demographics**
 - rapid increase in numbers of elderly
- **Technological change**
 - telecommunications advances
 - ITS impacts on car/road system performance
- **Higher public expectations**
 - better service quality needed to attract choice riders
 - greater return for public support

Ingredients for Future Success

- **Maintain supportive coalition**
 - expand base benefiting from public transport: rural, suburban, big cities
 - demonstrate that real change is occurring in response to changing needs and expectations
- **Expand the definition of public transport**
 - greater variety of services with more flexibility in use of funds
- **Greater private sector involvement**
 - greater use of partnerships and connections with private sector (e.g., employers and activity providers)
 - more reliance on innovative financing and procurement techniques
 - competition in the provision of services

Ingredients for Future Success

- **Aggressive implementation of new technology**
 - better information provision: pre-trip and en route
 - more effective real-time operations control
 - improved vehicle design
- **Organizational change**
 - greater operating staff responsibility and inclusion, and accountability
 - increased customer orientation

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