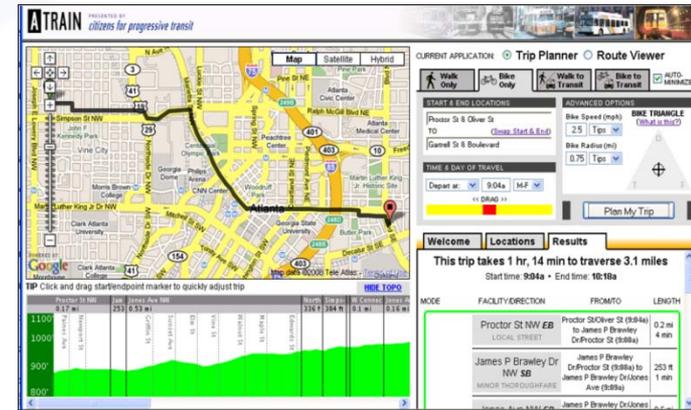




ITS Role for Transit



Program Advisory Committee
January 12, 2011



Overview

- Transit Ridership Trends
- ITS Strategic Research Plan
- Technology Applications
- ITS Benefits
- The Future of Transit

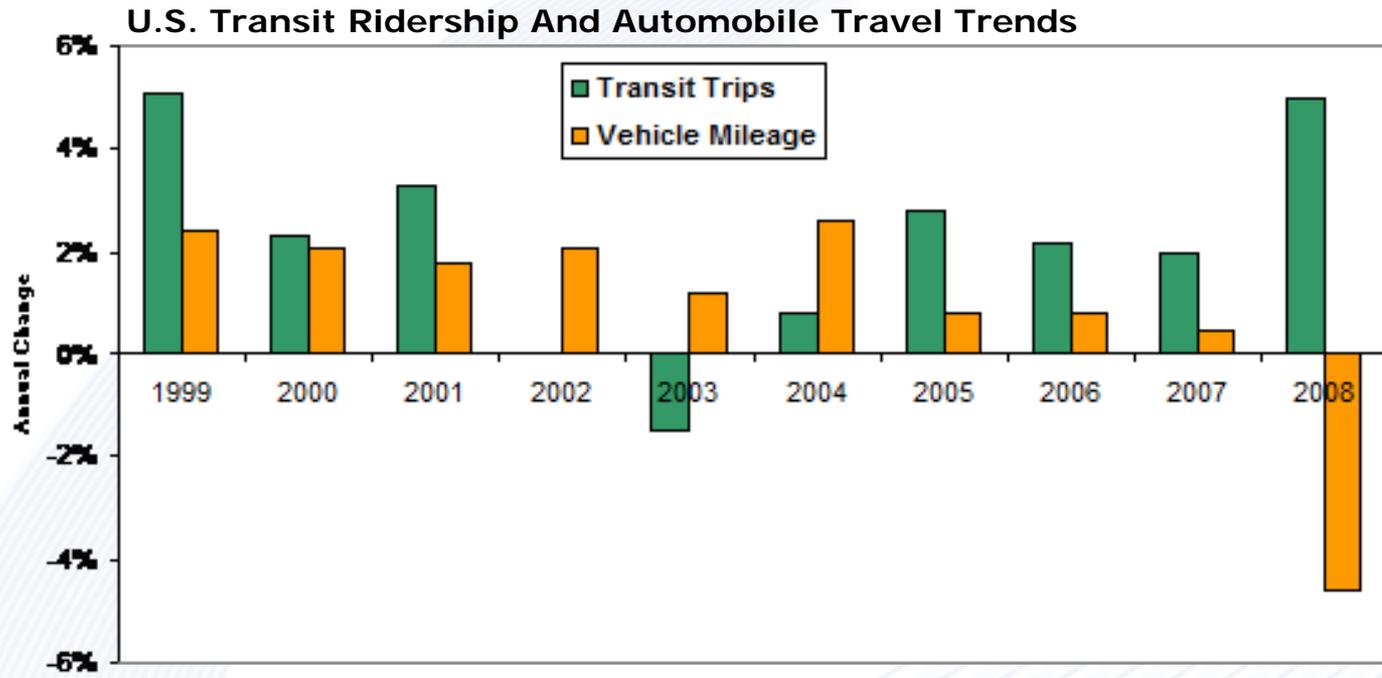


Transit ITS

- The transit industry in the United States consists of over 140,000 vehicles, 48 billion passenger miles of travel, and \$8.5 billion in passenger fares. Over the past 15 years, transit ridership has grown by 31 percent—faster than either highway or air travel.
- Transit ITS services include a number of ITS applications that can help transit agencies increase safety and security, as well as enhance the operational efficiency of the Nation's transit systems.



Transit Ridership Trends

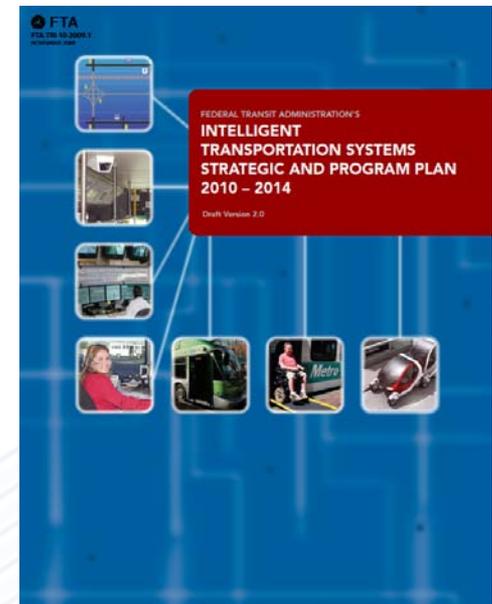


SOURCE: Victoria Transport Policy Institute, Todd Litman - 2009



ITS Strategic Research Plan

- Purpose:
 - Define a solid ITS research agenda
 - Build accountability by agreeing on targets
 - Provide roadmaps to guide oversight
- Offer a 20-Year Vision for transit and ITS
- Document a 5-Year Plan of Investments and Metrics for measuring success





ITS Strategic Research Plan

- 5-Year Research Agenda based on FTA Strategic Goals
- FTA Investments divided among goal areas *and* research functions
- Plan focuses on achieving outcomes without being rigid about specific project definitions



5-Year Goals

Modern 21st Century Transit Systems, achieved through:

DOT/FTA Strategic Goal	FTA ITS Goal
<ul style="list-style-type: none">• Safe and Secure Operations	<ul style="list-style-type: none">• Safety
<ul style="list-style-type: none">• Connected and Integrated Systems	<ul style="list-style-type: none">• State of Good Repair and Livability
<ul style="list-style-type: none">• Effective and Efficient Operations	<ul style="list-style-type: none">• State of Good Repair and Economic Competitiveness
<ul style="list-style-type: none">• Informed Agencies with Empowered Workforces	<ul style="list-style-type: none">• State of Good Repair
<ul style="list-style-type: none">• Environmentally-Sustainable Strategies	<ul style="list-style-type: none">• Livability and Environmental Sustainability
<ul style="list-style-type: none">• Accessible Services for All Populations	<ul style="list-style-type: none">• Livability
<ul style="list-style-type: none">• Customized Services that Expand Ridership	<ul style="list-style-type: none">• Livability



Transit ITS Applications

- Universal Electronic Payment



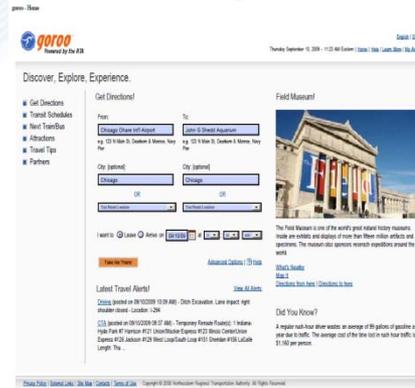
- Park-and-Ride Improvements





Transit ITS Applications

- Traveler Information Systems



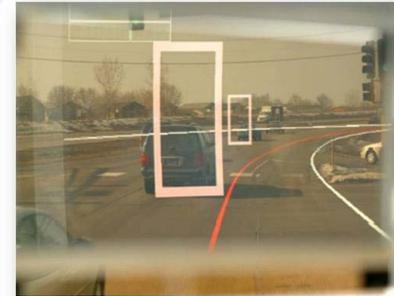
- Human Services





Transit ITS Applications

- Active Safety Systems



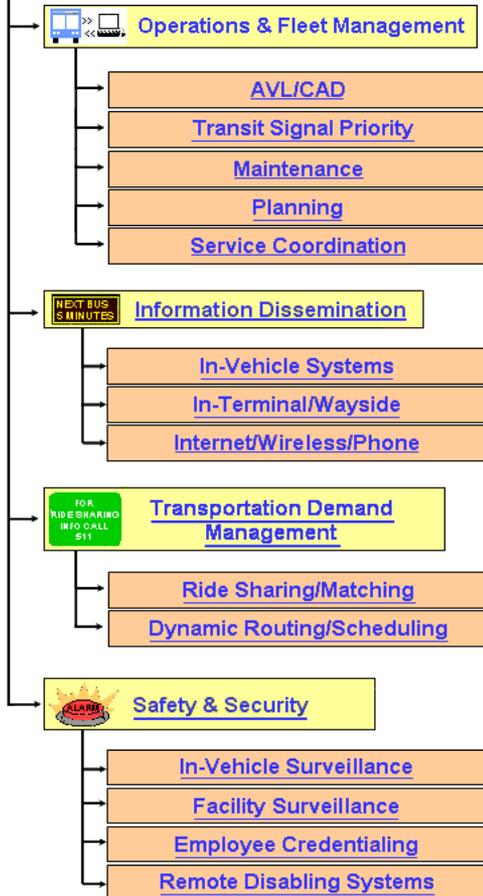
- Transit Operations



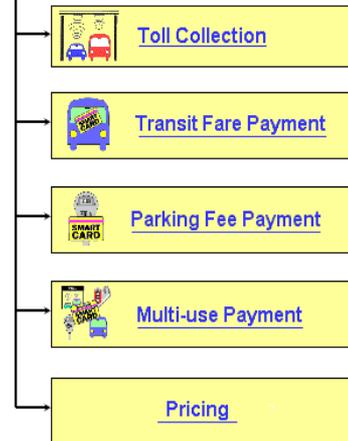


ITS Benefits Taxonomy

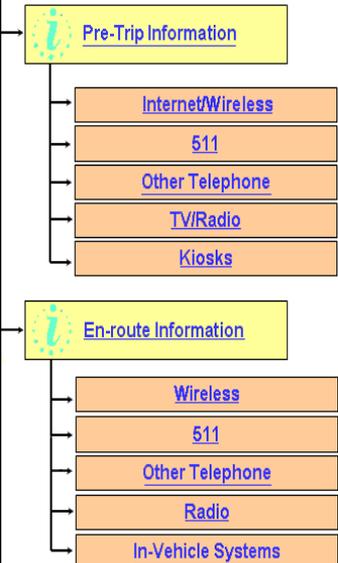
Transit Management



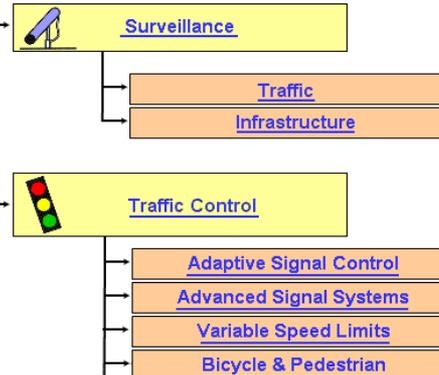
Electronic Payment & Pricing



Traveler Information



Arterial Management





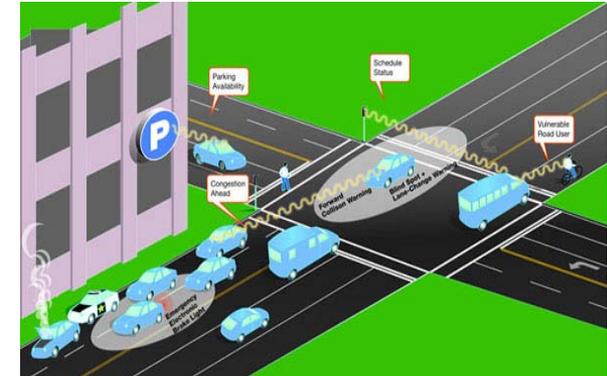
Transit ITS Benefits

- Fleet requirements ↓ 2% to 5%
- Schedule adherence ↑ 9% to 23%
- Boarding time with AFC ↓ 38%
- Transit travel times after TSP ↑ 1.5% to 15%
- Customer satisfaction with 511 ↑ 68% to 92%
- Operating cost per transit VMT ↓ 8.5%
- Large transit agencies:
 - 43% employ in-vehicle video surveillance
 - 64% employ magnetic stripe payment systems
 - 31% employ smart card technology
 - 60% employ AVL on fixed-route buses



Future of ITS in Transit

- BRT and IntelliDrive



- Increased demand/ridership





It's All About Connectivity

