

Sustainability Successes and Challenges:

A View from Portland

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Railvolution

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TriMet's Journey to Sustainability

1. Sustainable Transportation
2. Sustainable Operations
3. Sustainable Construction Practices



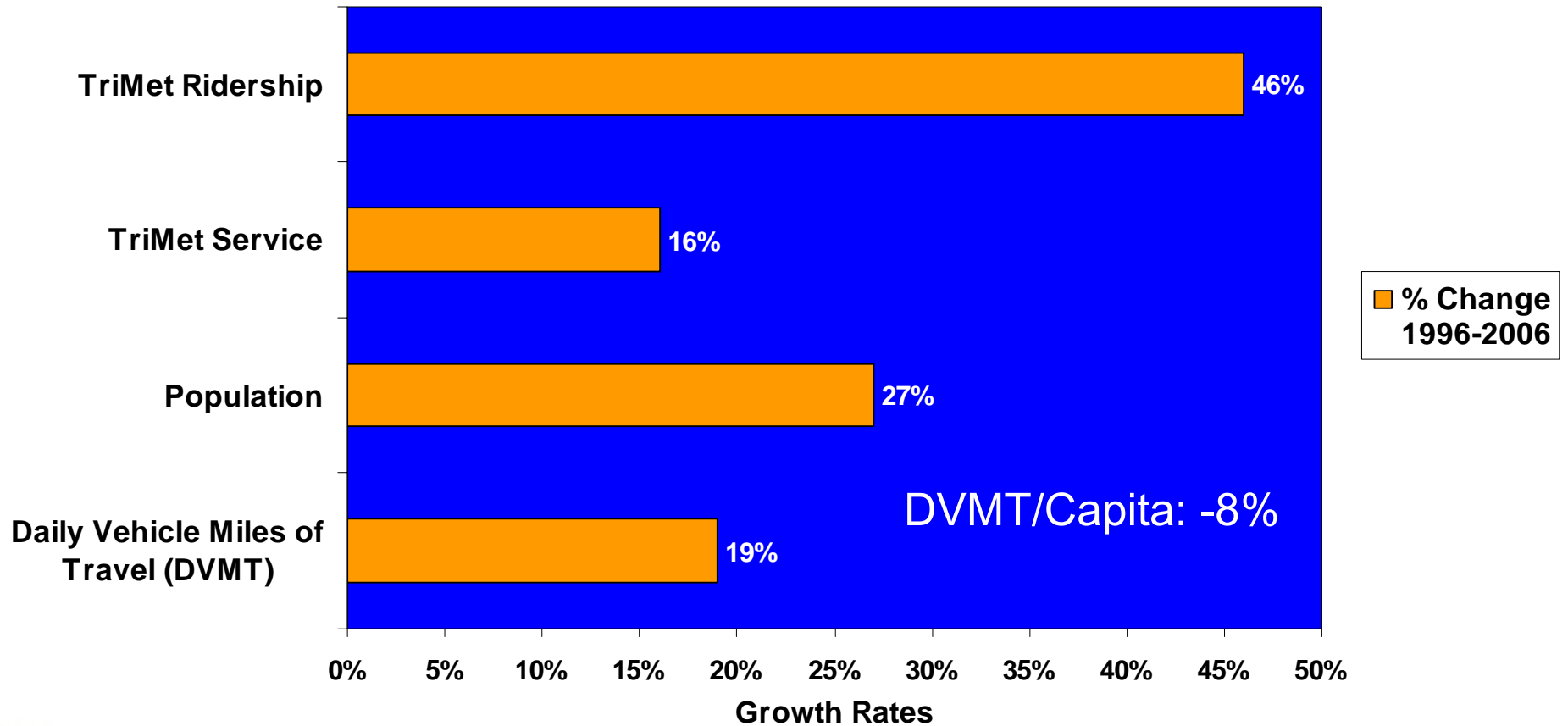
Sustainable Transportation

TriMet is an attractive alternative to driving alone

- 71% of riders are choice riders
- 43% of adults ride at least twice a month
- TriMet eliminates:
 - over 200,000 car trips a day
 - 300 million vehicle miles/yr



Regional Trends (1996-2006)



Sustainable Transportation

Transit Oriented Development (TOD)

\$6 billion invested within walking distance of MAX platforms since 1980



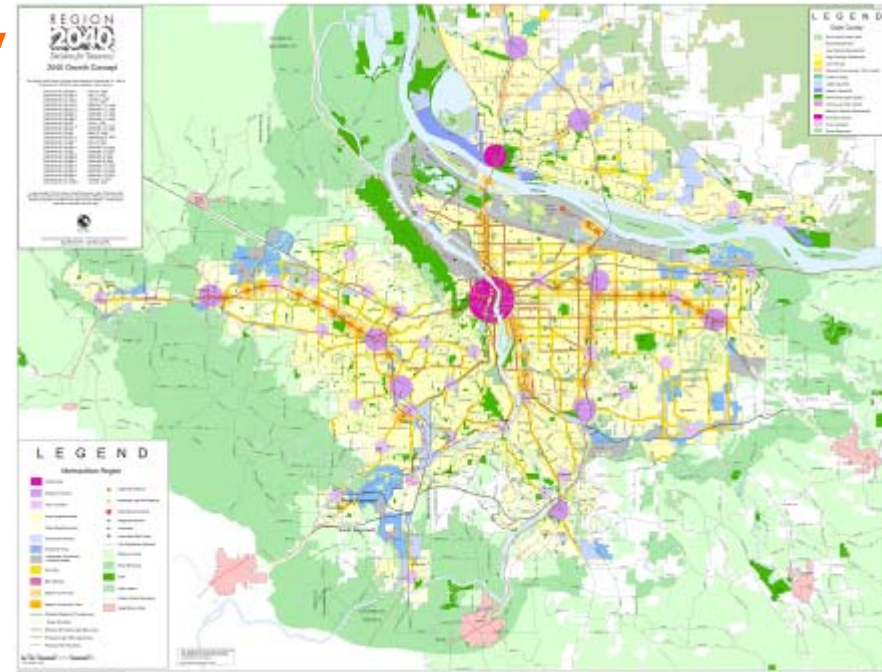
“The Trip Not Taken”

- Attracting households to areas with mixed land use and good transit service reduces vehicle miles traveled (VMT).



Portland's 2040 Growth Concept

- Urban growth boundary
- Focused on centers
- High capacity transit connections between centers
- Multi-modal and coordinated



PORTLAND STREETCAR Density of Development



Survey says...

Transportation Mode Share by Transit and Land Use Characteristics							
Land Use Type	Mode Share					Vehicle Miles per Capita	Auto Ownership per Household
	Percent Auto	Percent Walk	Percent Transit	Percent Bike	Percent Other		
Good Transit/Mixed Use	58.1%	27.0%	11.5%	1.9%	1.5%	9.80	0.93
Good Transit Only	74.4%	15.2%	7.9%	1.4%	1.1%	12.38	1.50
Remainder of Multnomah County	81.5%	9.7%	3.5%	1.6%	3.7%	17.34	1.74
Remainder of Region	87.3%	6.1%	1.2%	0.8%	4.6%	21.79	1.93

Source: Metro Travel Survey

Sustainable Operations

Improving Efficiency

- **Light Rail:**
 - Hydro Power and Regenerative Braking
- **Bus:**
 - Reducing idling
 - Recalibrating transmissions
 - Altering front-end alignments
 - Adjusting tire pressure



Annual savings:
500,000 gallons
\$1.125 million

Sustainable Operations

Electric Cooling System

- Delivers optimum heating/cooling to engine, transmission and heating systems
- Developed using military/NASCAR technology
 - **Boosts fuel economy by 5%**
 - **Reduces maintenance costs**



Other Sustainable Operations

- Energy Efficient Lighting
- Green Cleaning Products
- “Nature-scaping” and Stormwater Management



Sustainable Construction

- Using existing materials – reduced costs \$2.4 million
- Recycling pavement and track
- Eliminating wooden and steel forms
- Plastic railroad ties and plastic bollards



But Challenges Remain

- Congestion, Sprawl, GHGs
- 2040 Growth Concept and UGB doesn't cover the 45-minute travelshed:
 - Only 64% of population within Metro's boundary
 - Only 51% of urbanized land
 - Only 5% of farmland
 - Population density inside UGB is 7x greater

