

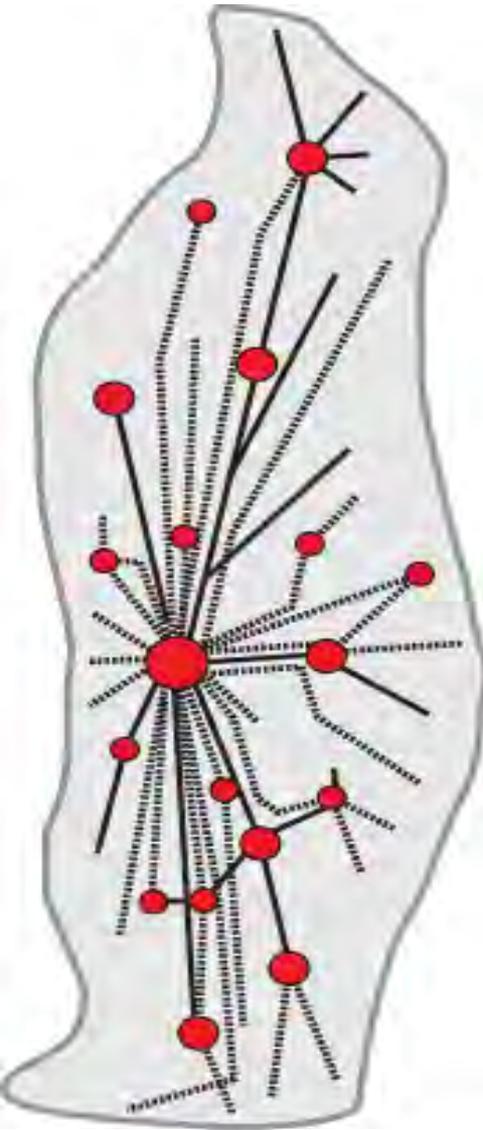
# Metro System Overview

**Transit Task Force**  
**April 20, 2010**

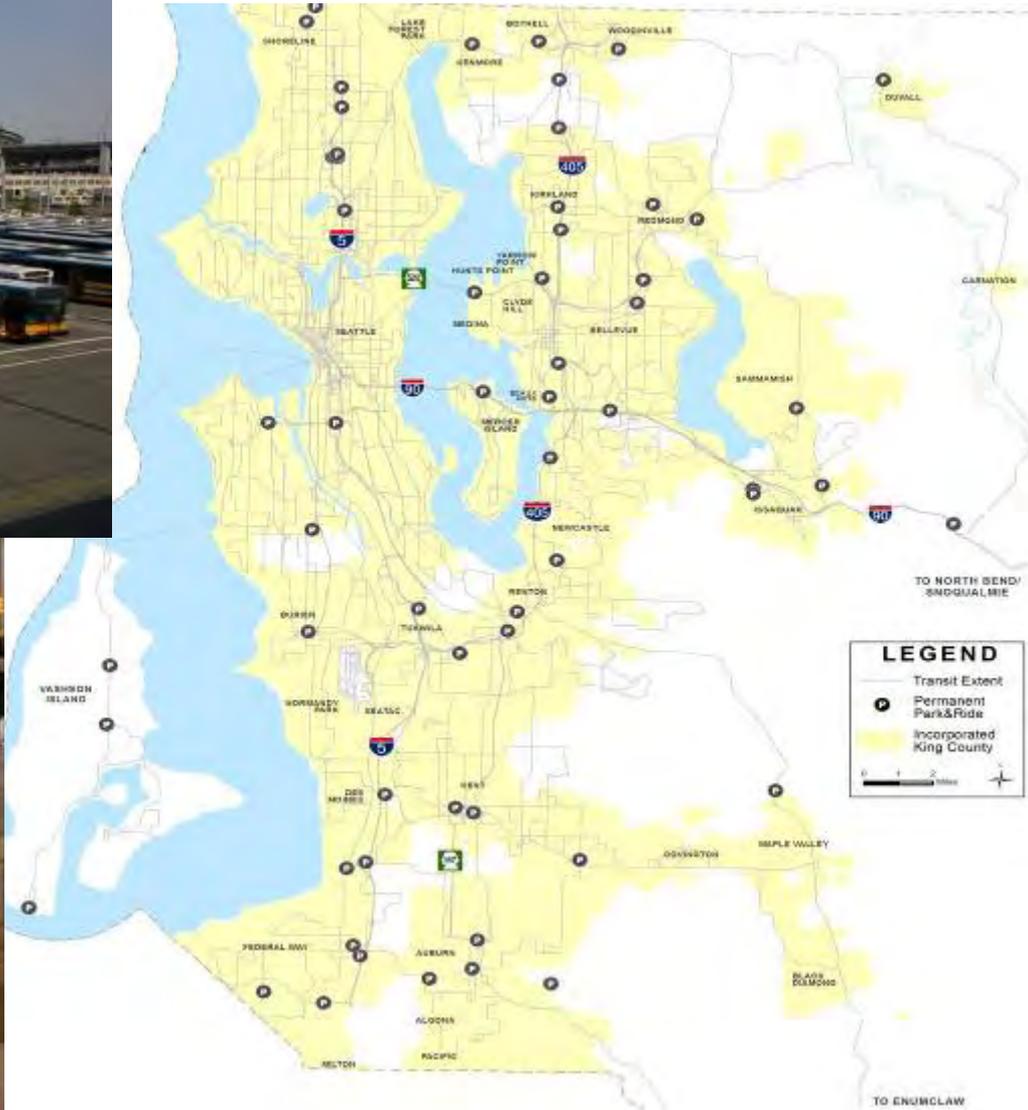
# Topics

- System Evolution
- Environment and Policy Considerations
- Performance
- Financial Issues

# Prior to 1995



# Major Capital Projects



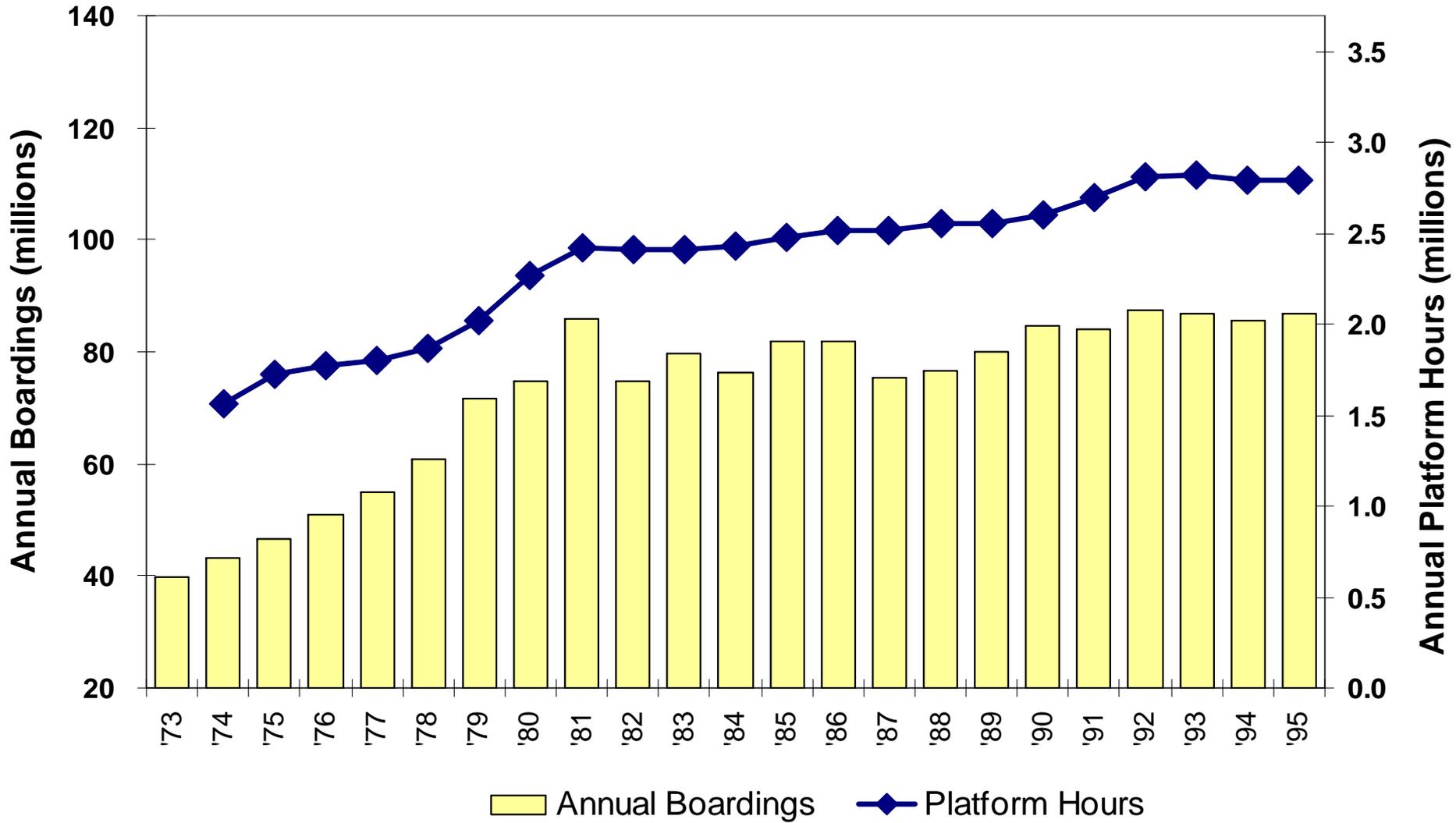
# Vanpools and Carpools





# Paratransit

# Annual Boardings and Platform Hours 1973 to 1995





# Reallocated resources for natural gas conversion to fund new service

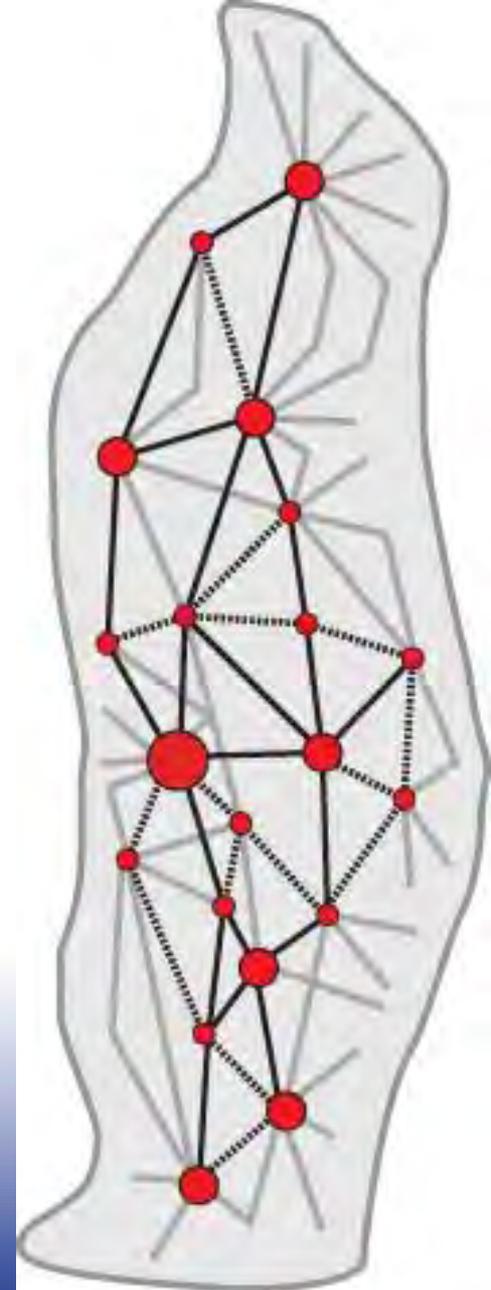
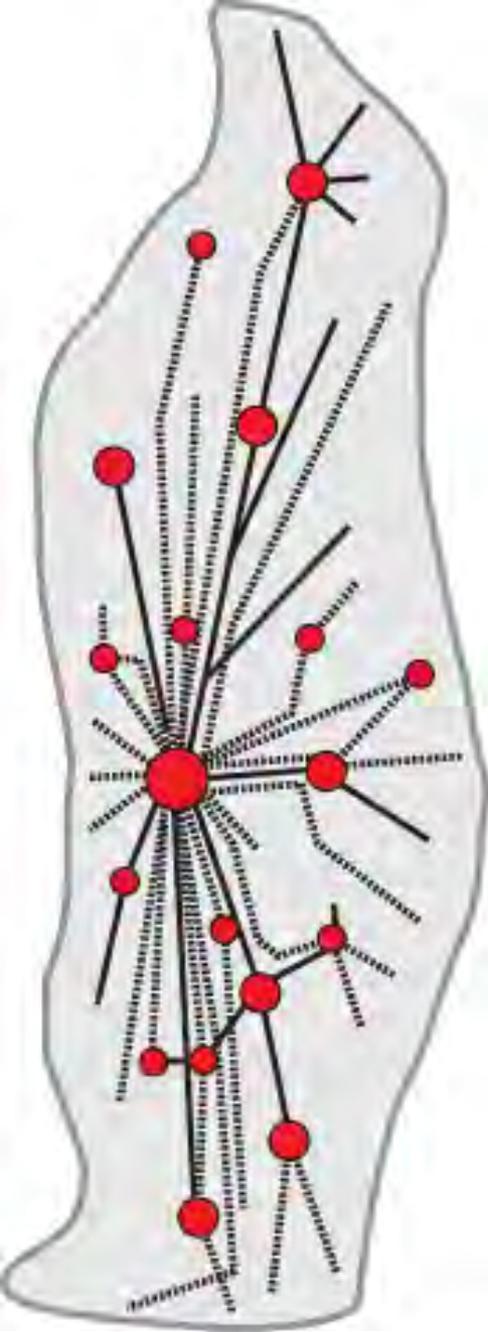


# 1996- 2001 Plan: Objectives

- **Market Share**
- **Mobility**
- **Cost and Efficiency**
- **Social, Economic and Environmental Benefits**
- **Financial Feasibility**

# Shift to multi-centric service design

- Restructure system
- Consolidate corridor services
- Improve transfer environment
- First use of allocation concept



- More people,  
more places,  
more often





Consolidation  
of service in  
key corridors



Transit Hub  
improvements  
to enhance  
transfer  
experience



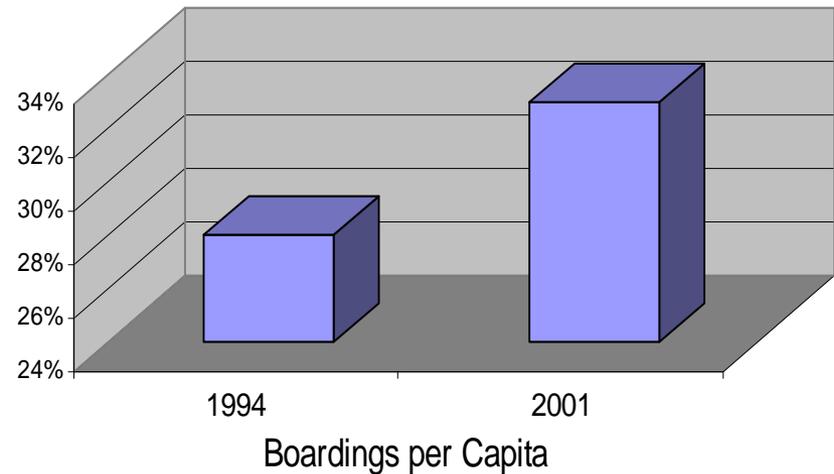
# Measures of Success

- Market Share
  - Service Orientation
  - **Market Penetration**
- Mobility
  - Work trip HOV market share
  - **Overall trip transit share**
- Cost Efficiency
  - Transit ridership
  - Service effectiveness

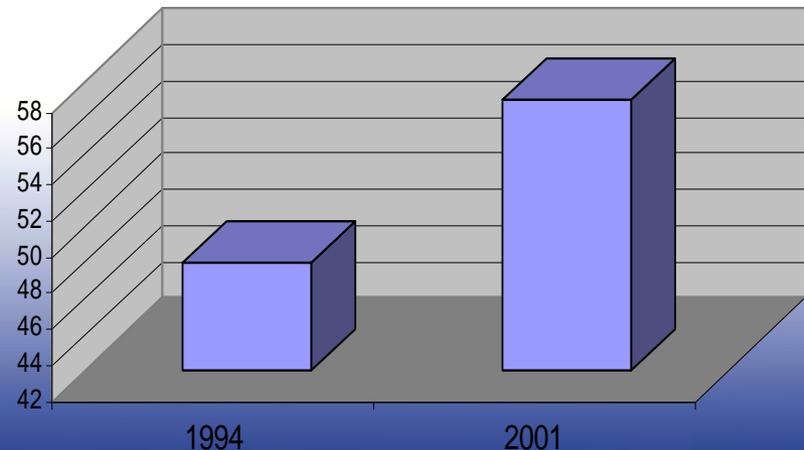
# Market Penetration and Use

- Market penetration

% of Households that Use Transit in last month



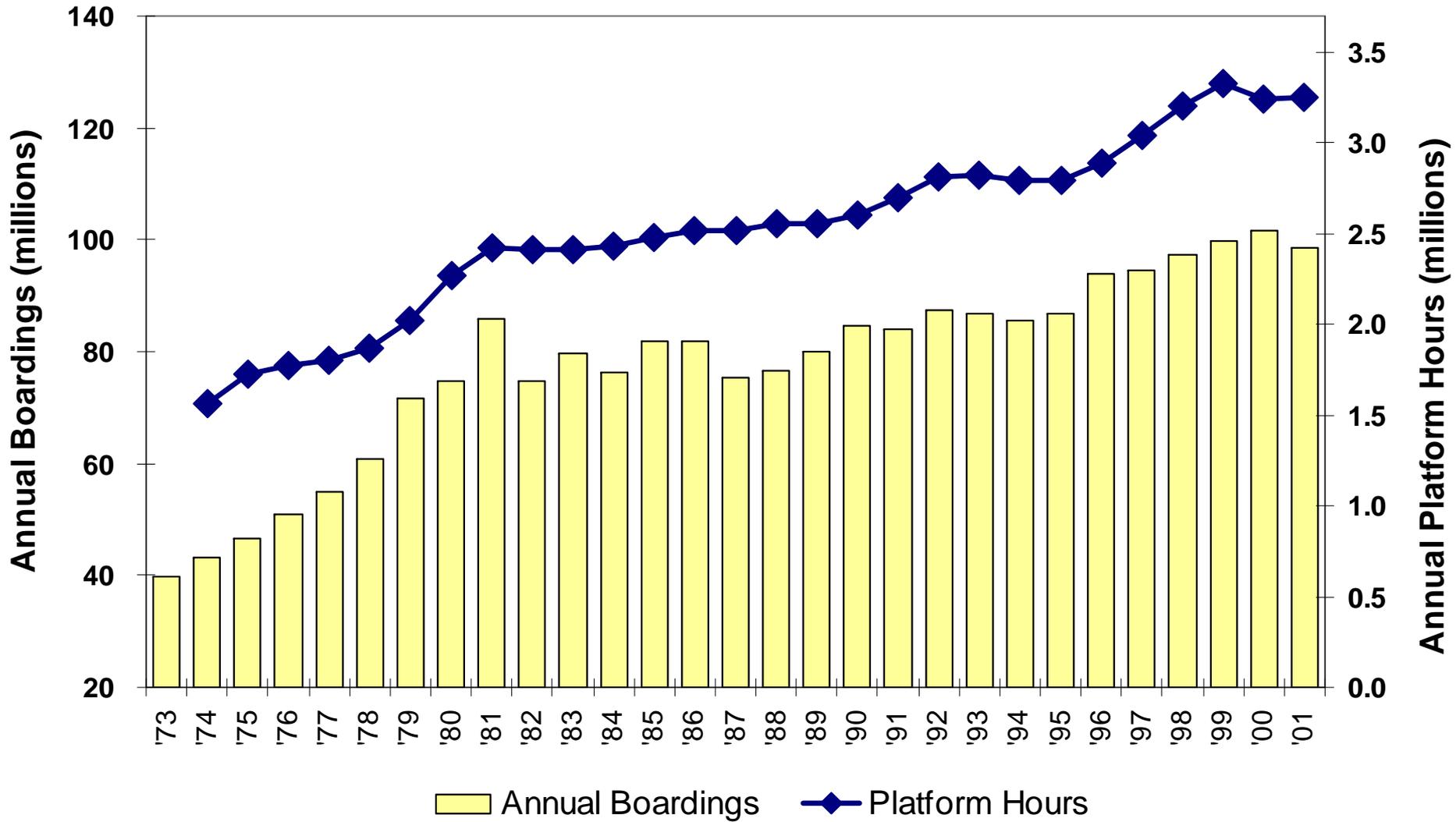
- Overall trip transit share



# Results and Outcomes

- Gains in ridership
- Increase in number of households with residents using transit
- Increase in transit use per capita
- Improved access to a wider array of locations and centers

# Annual Boardings and Platform Hours 1973 to 2001





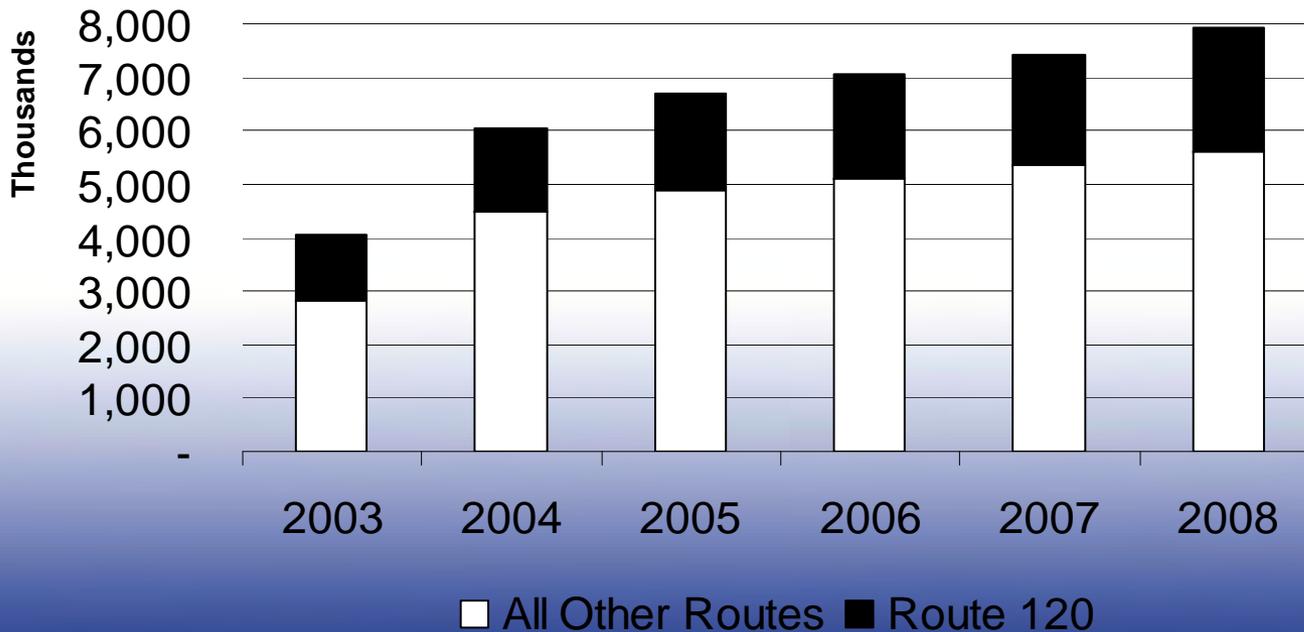
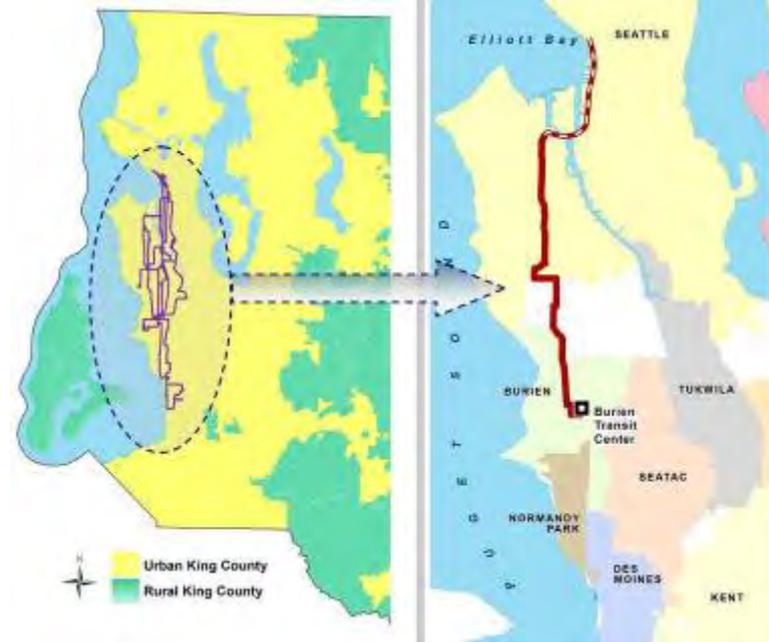
# 2002-2007 Plan: “Building on Success”

Improve frequencies and span of service on two-way, all day, high ridership routes

# Funding Issues

- 1999: I-695 approved. Metro's funding reduced by \$110 million per year (29% of budget)
- 2000: Transit sales tax authority raised by Legislature to 0.9 percent
- 2000: 0.2 percent Metro sales tax approved
- Dot com bust: The projected sales tax growth to fund most of the service adds in the plan is lost
- Plan became largely unfunded, but included the revised allocation policy of "40-40-20"

# Delridge-Ambaum Corridor



**Results: 45% increase in ridership along the corridor vs. 22% system-wide**

# Major Service Restructure Outcomes

		Annual Ridership					
Year	Area/Route	Pre-Service Change	Spring 2008	Net Change in Boardings	% Change in Boardings	Added Service Hours	Boardings per Added Service Hour
2003	North King County	2,912,160	4,064,950	1,152,790	<b>40%</b>	4,300	268.1
2003	Rt 358	2,292,340	3,203,730	911,390	<b>40%</b>	8,000	113.9
2004	Federal Way	2,311,640	3,598,320	1,286,680	<b>56%</b>	12,600	102.1
2005	Ambaum-Delridge	4,371,220	5,723,300	1,352,080	<b>31%</b>	12,800	105.6
2005	Rt 7/49 Split	5,829,710	6,092,086	262,376	<b>5%</b>	10,400	25.2
2006	Rt 150/180	2,328,900	3,618,140	1,289,240	<b>55%</b>	20,600	62.6
2008	Central Eastside	1,507,710	1,776,520	268,810	<b>18%</b>	16,600	16.2
		<b>21,553,680</b>	<b>28,077,046</b>	<b>6,523,366</b>	<b>30%</b>	<b>85,300</b>	<b>76.5</b>

# Coordination Among Central Puget Sound Transit Systems

- Regional fare agreement - ORCA
- Good neighbor policy
- Joint funding of new facilities
- Seattle CBD operations
- Bus purchasing
- Tripper storage

# Sound Transit Coordination: Service Plans



# 2007-2010



- High ridership network improvements
- RapidRide/Bus Rapid Transit
- Service for rapidly developing areas
- Service partnership program
- Access and rideshare improvements

# High Ridership Network



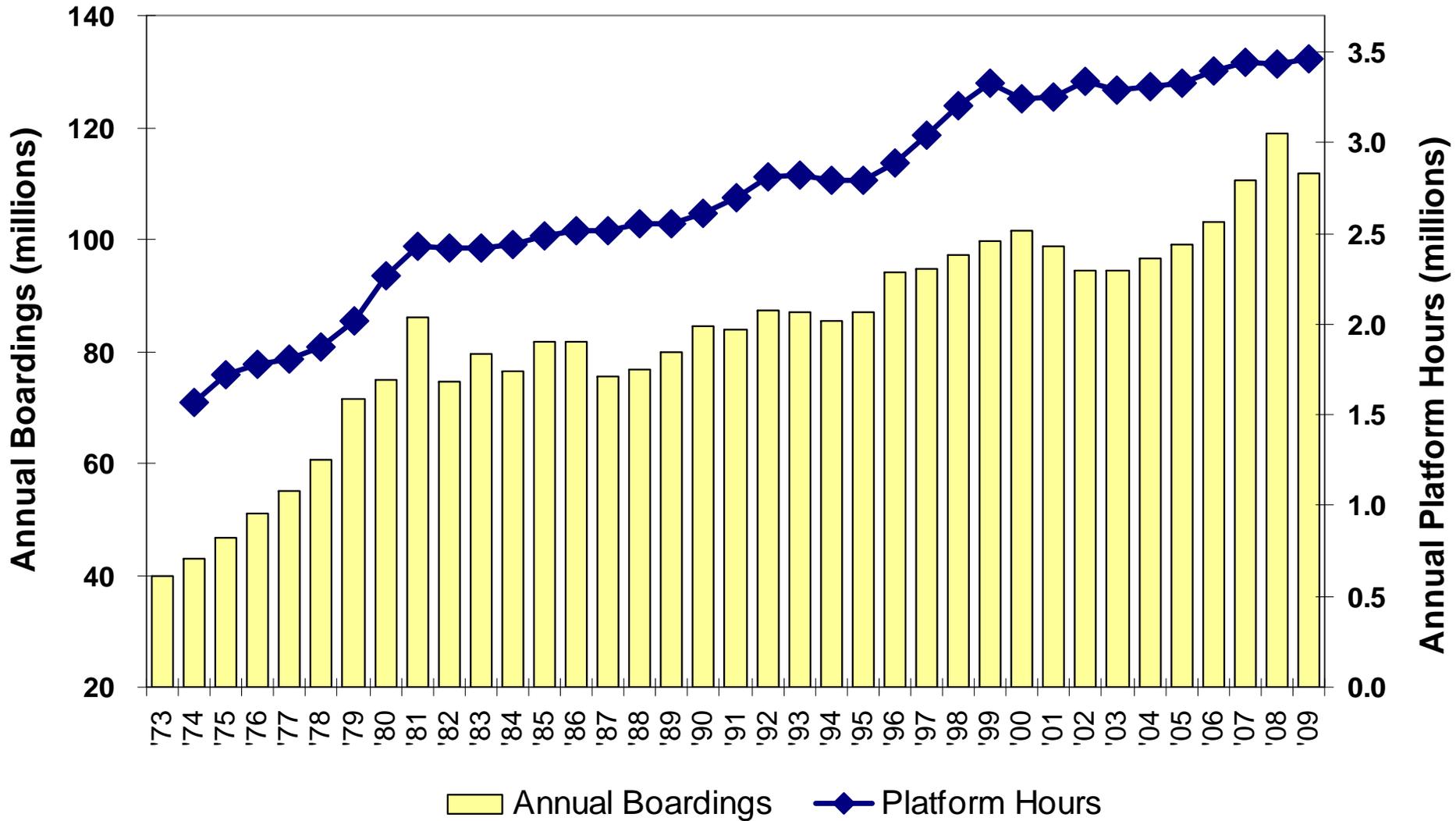
# RapidRide BRT



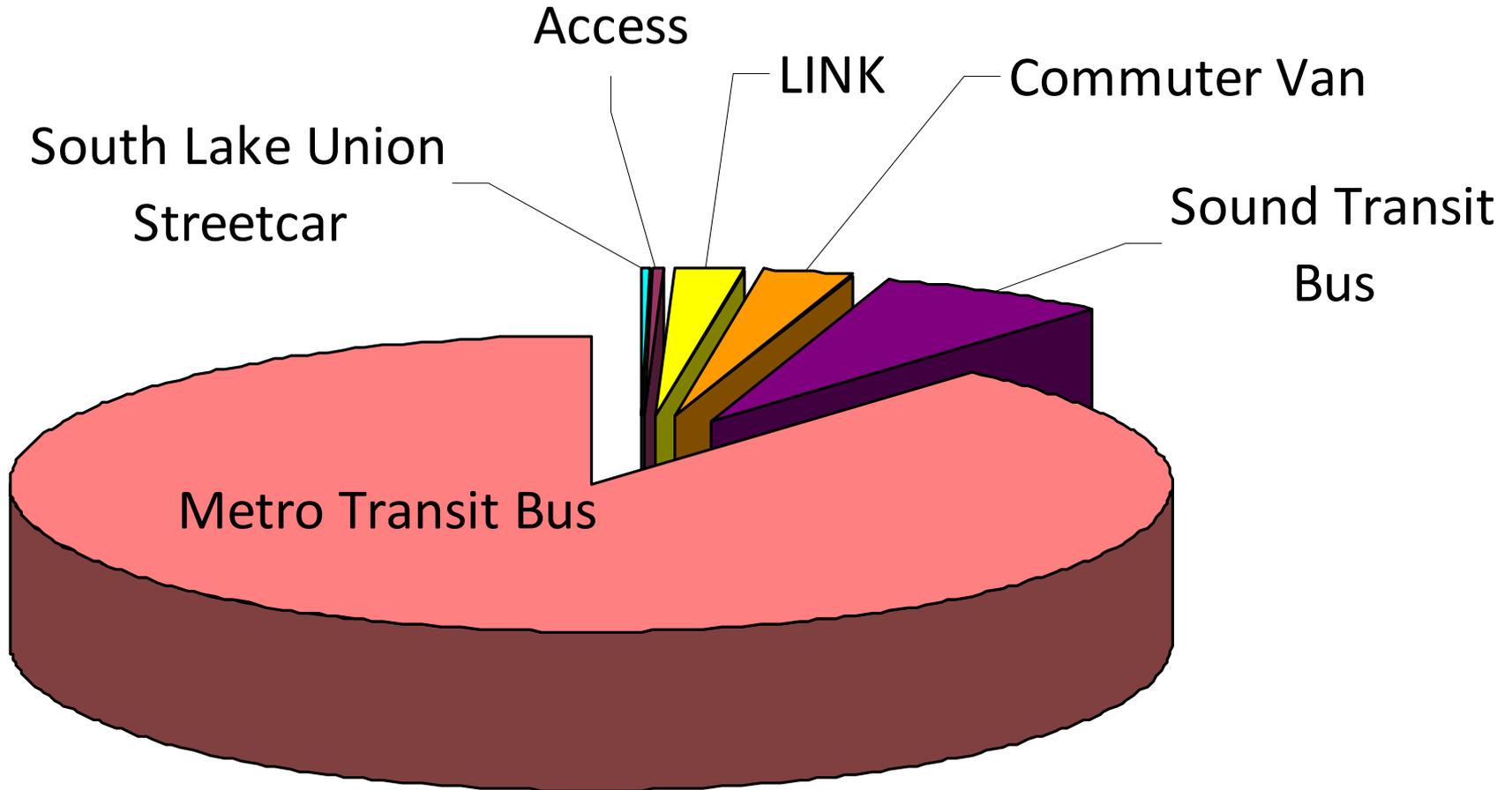
# Transit Now Implementation

- Core and developing area services initiated
- Service partnerships approved
- RapidRide funding secured & construction underway
- Drop in sales tax has again resulted in funding shortfall for service plans

# Annual Boardings and Platform Hours 1973 to 2009

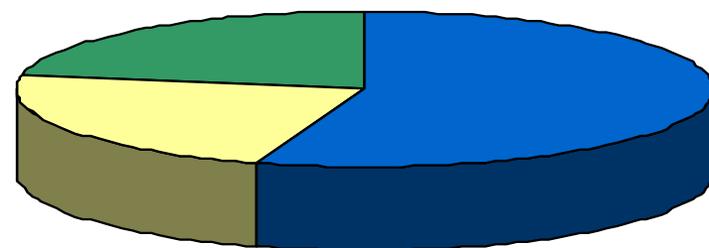


# 2009 Ridership



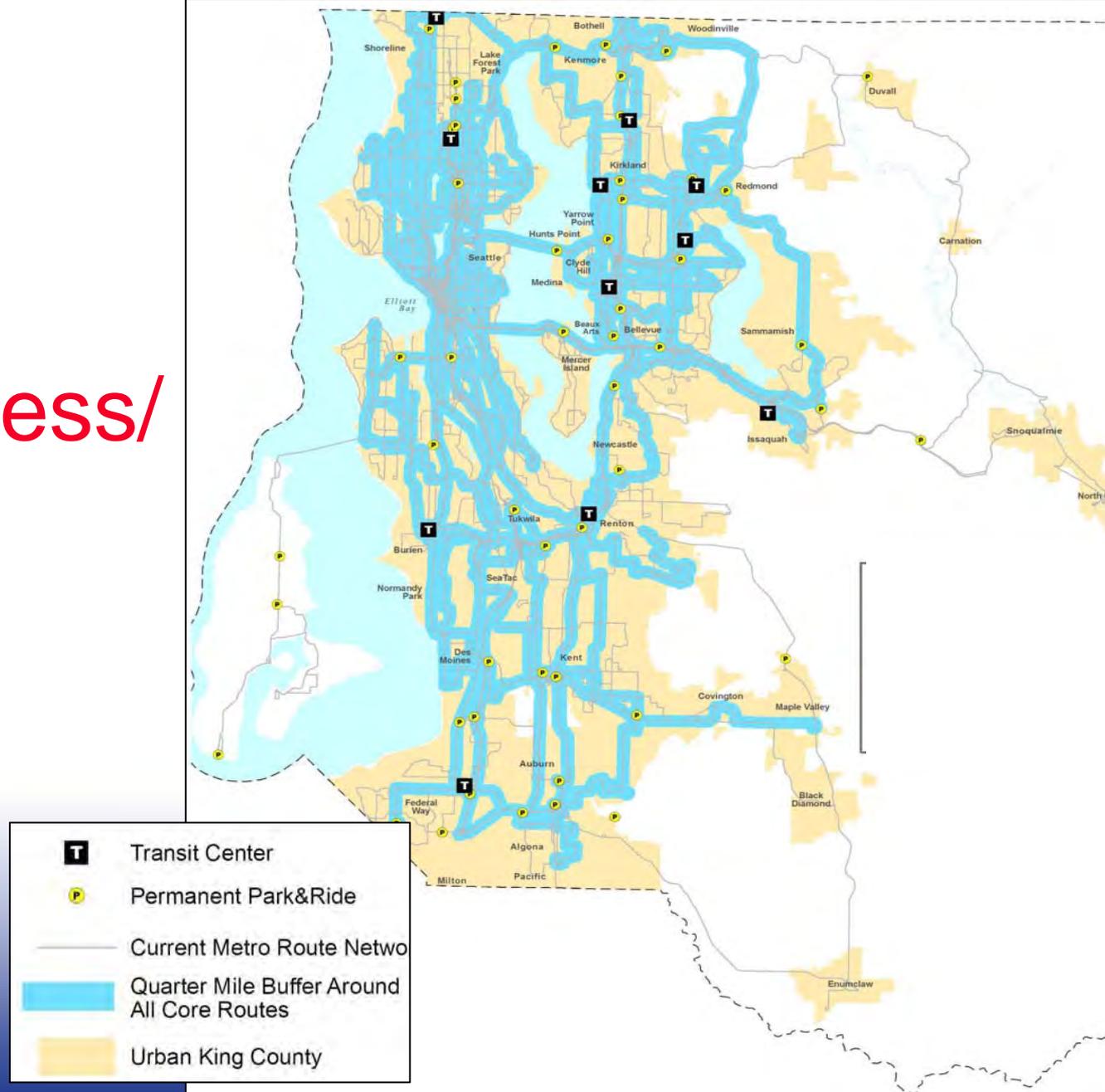
# Customers

- 52% Female
- 90% “choice” riders
- Occupation:
  - 73% Adult
  - 9% Students
  - 18% Retired
- Median Income:  
\$69,000

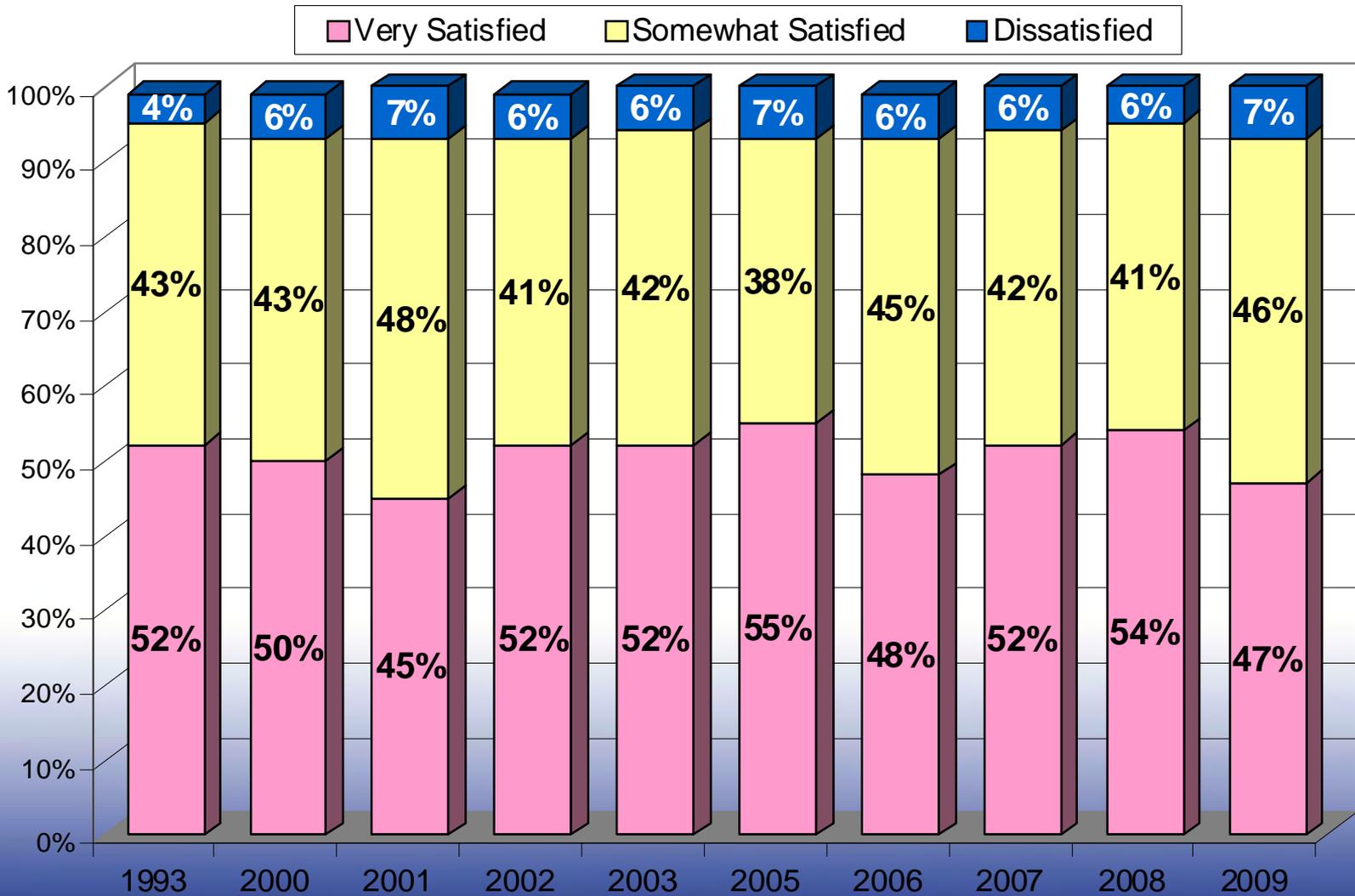


- Seattle/North King County
- East King County
- South King County

# Transit Access/ Availability



# Overall Rider Satisfaction

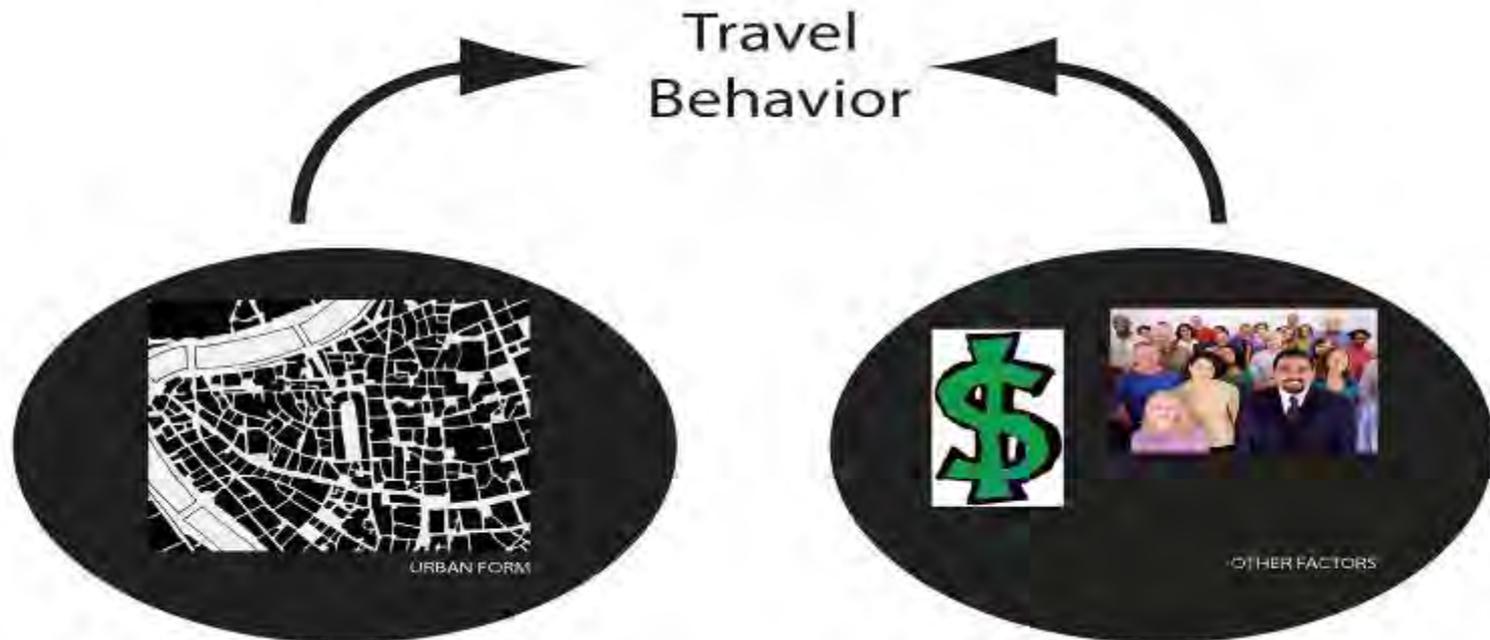


# Environment and Policy Considerations

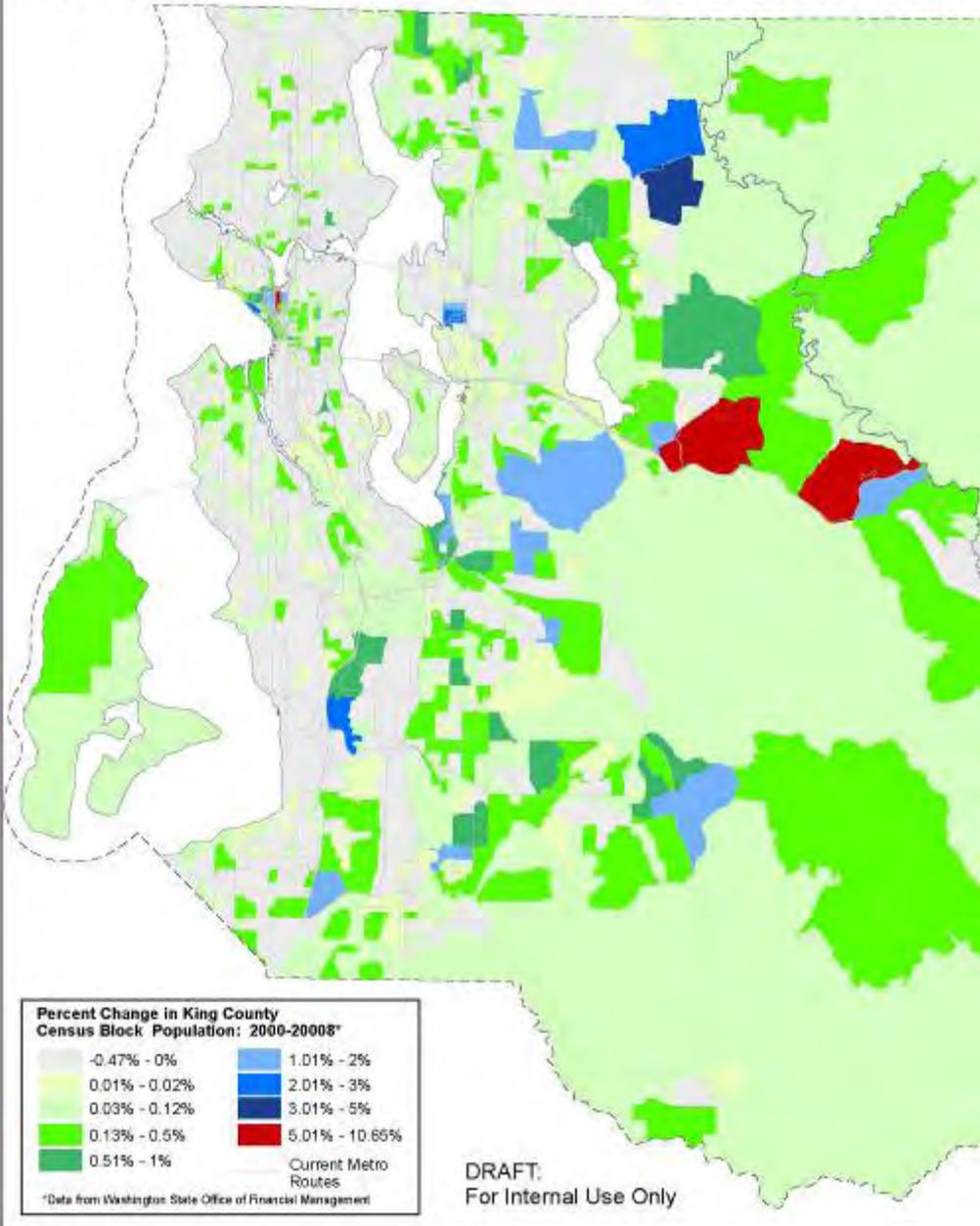
# Built Environment and Demographics

- Built Environment
  - Population Density
  - Employment Density
  - Urban Form

- Other Factors
  - Demographics
  - Cost



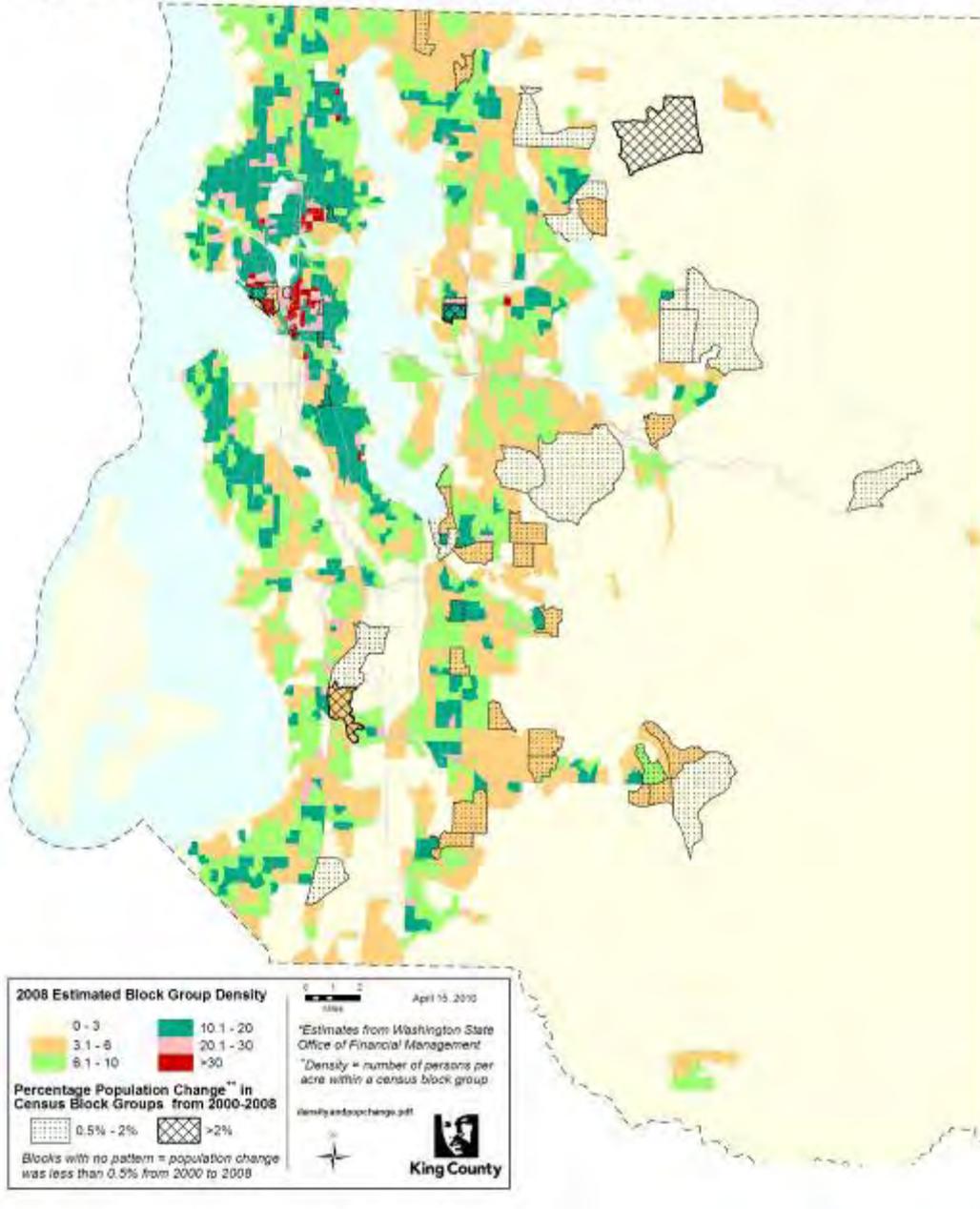
# CENSUS BLOCK GROUPS: CHANGE IN POPULATION FROM 2000 - 2008\*



# Population Growth



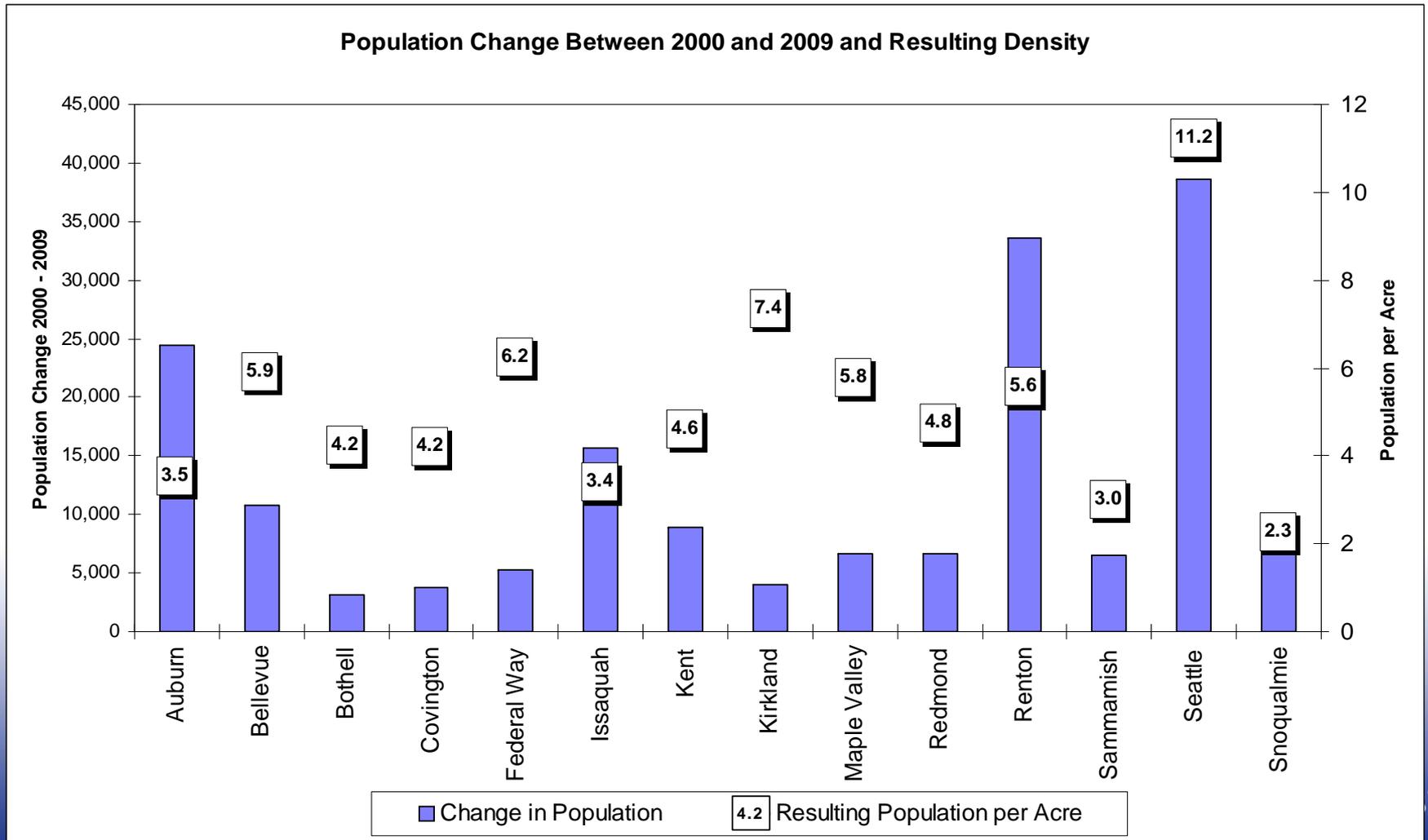
**CENSUS BLOCK GROUPS:  
2008 Population Density & Change in Population from 2000 - 2008\***



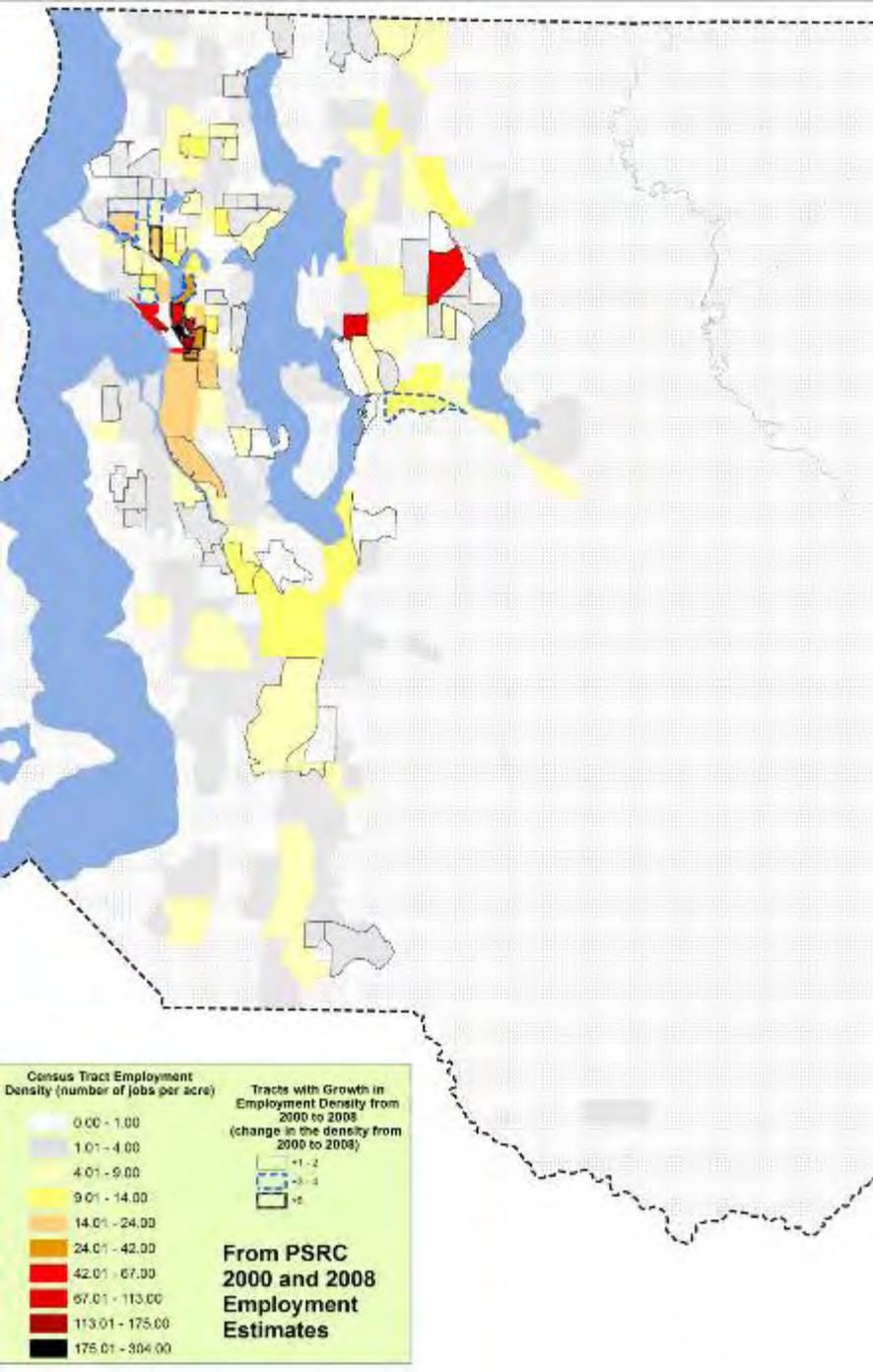
# Population Density

# Population Growth and Density

Excludes cities where population growth was <2,500

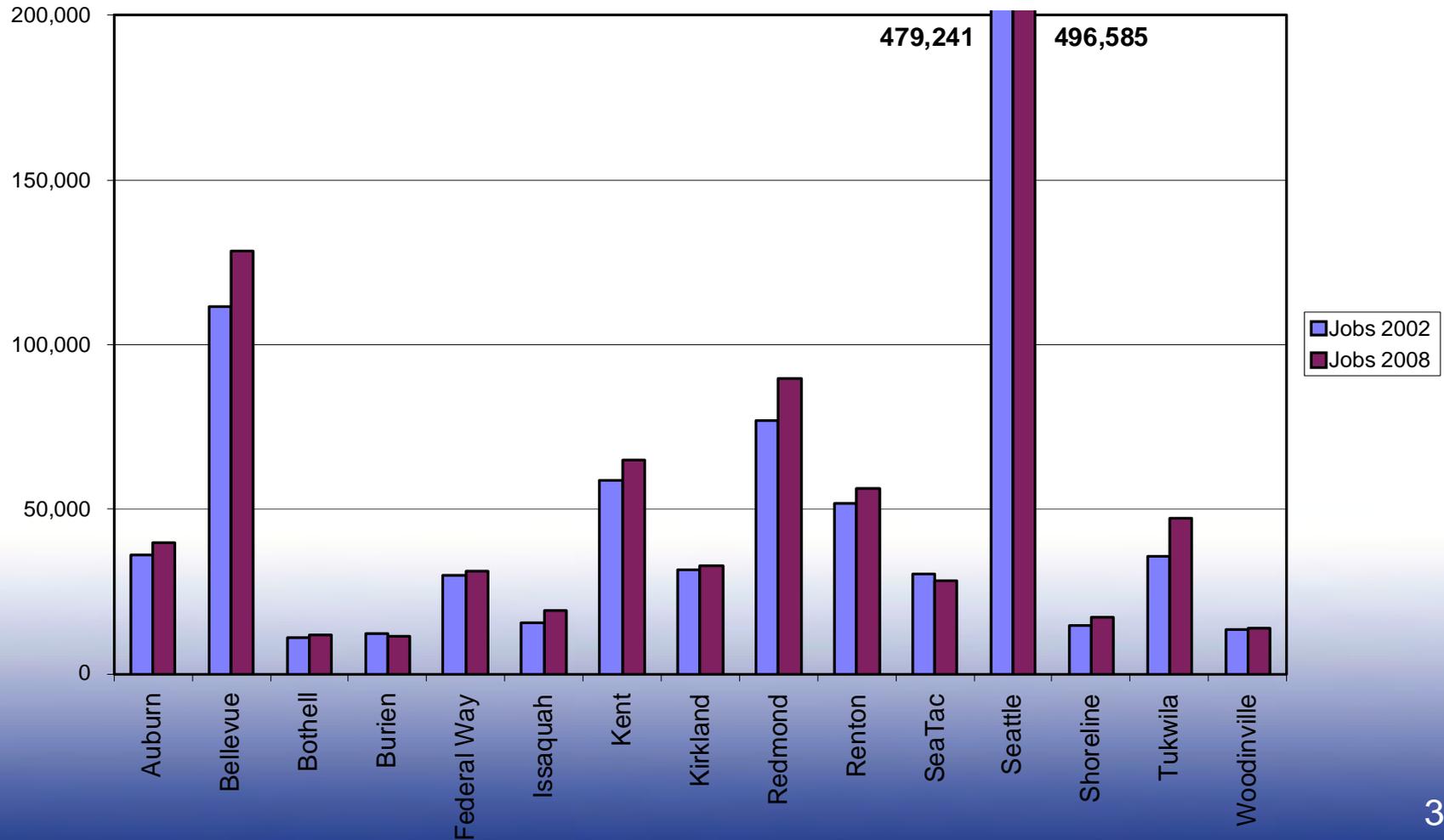


# Employment Density

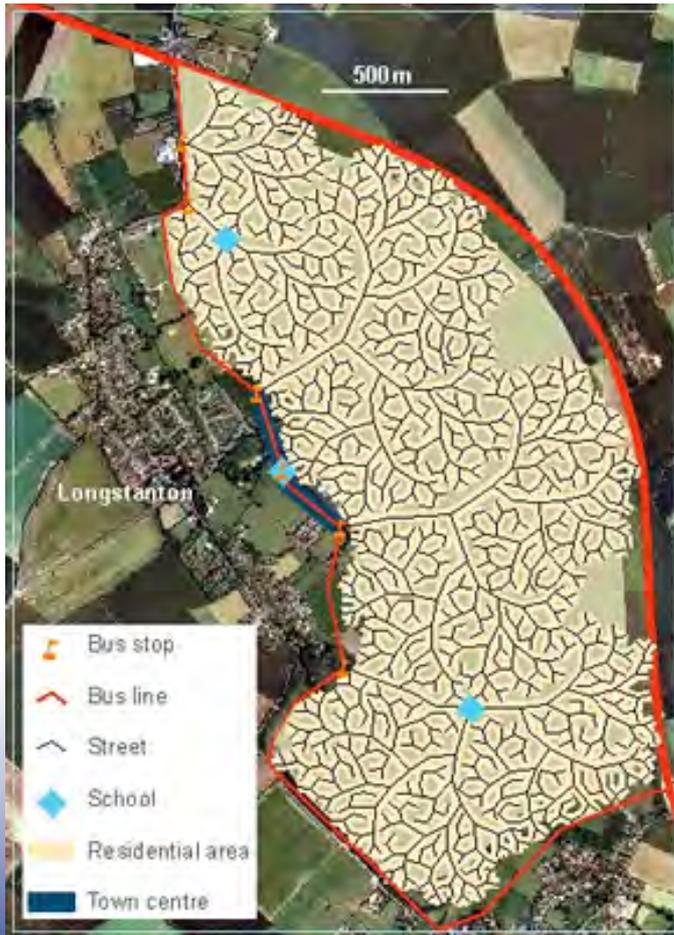


# Employment Growth 2002 to 2008

Excludes cities where job growth was <2,500



# Urban Form



Resource: *Solutions*, The Martin Centre, University of Cambridge

# Community Design

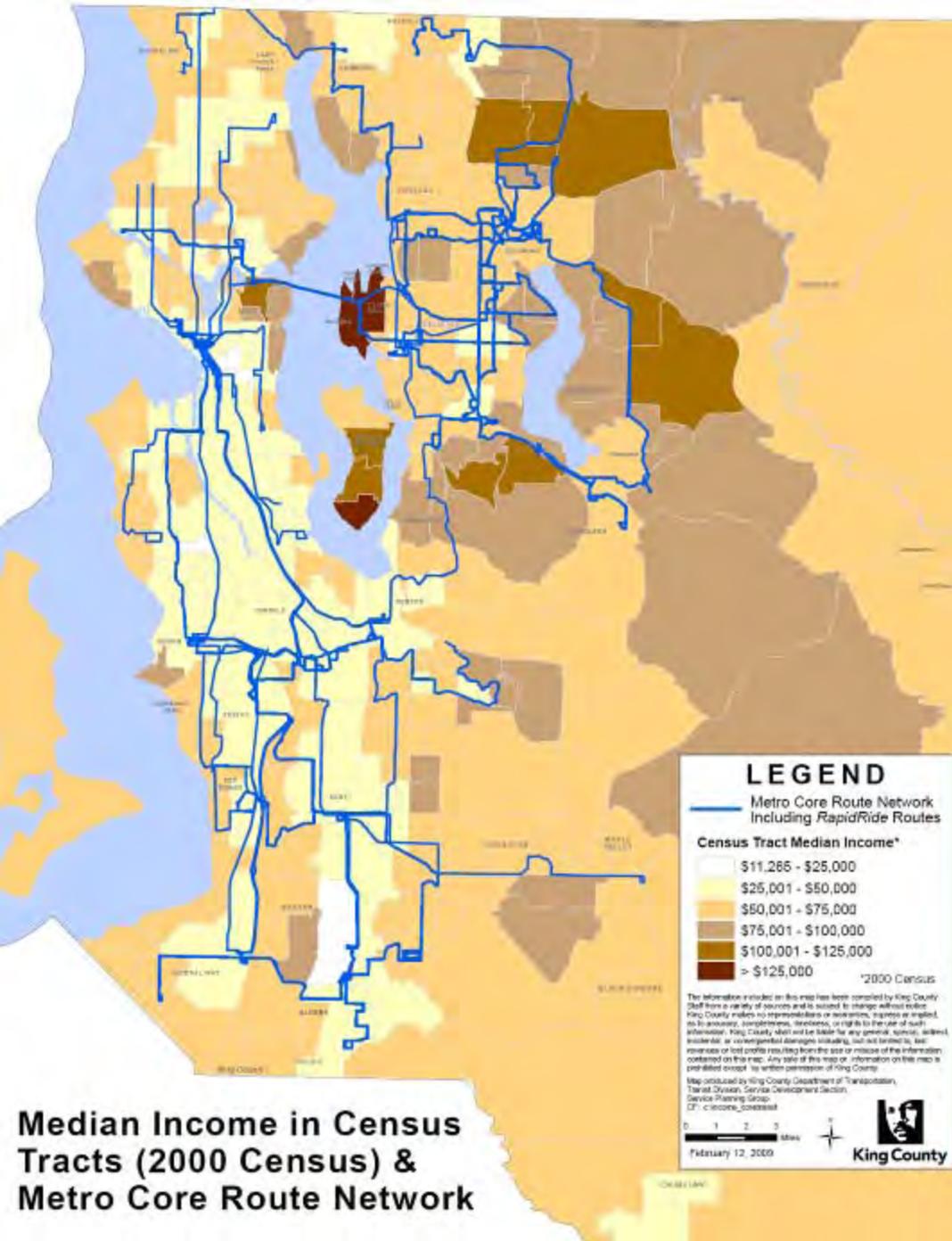
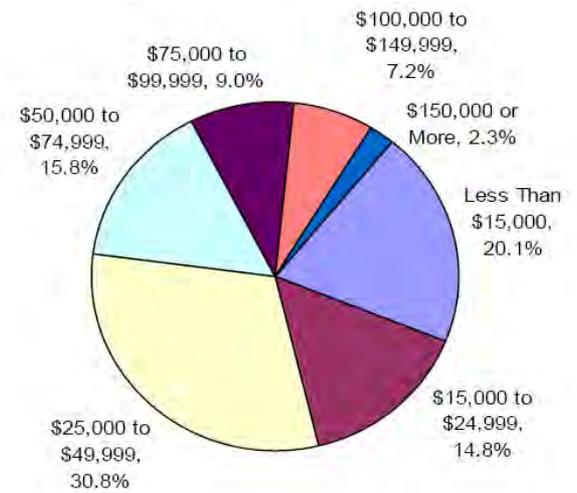
- Highest priority -- design with the pedestrian in mind
- Promote dense mixed-use development
- Interconnected street grid.
- Managed parking within the 10-minute walk zone
- Buildings fronts at sidewalks



# Income

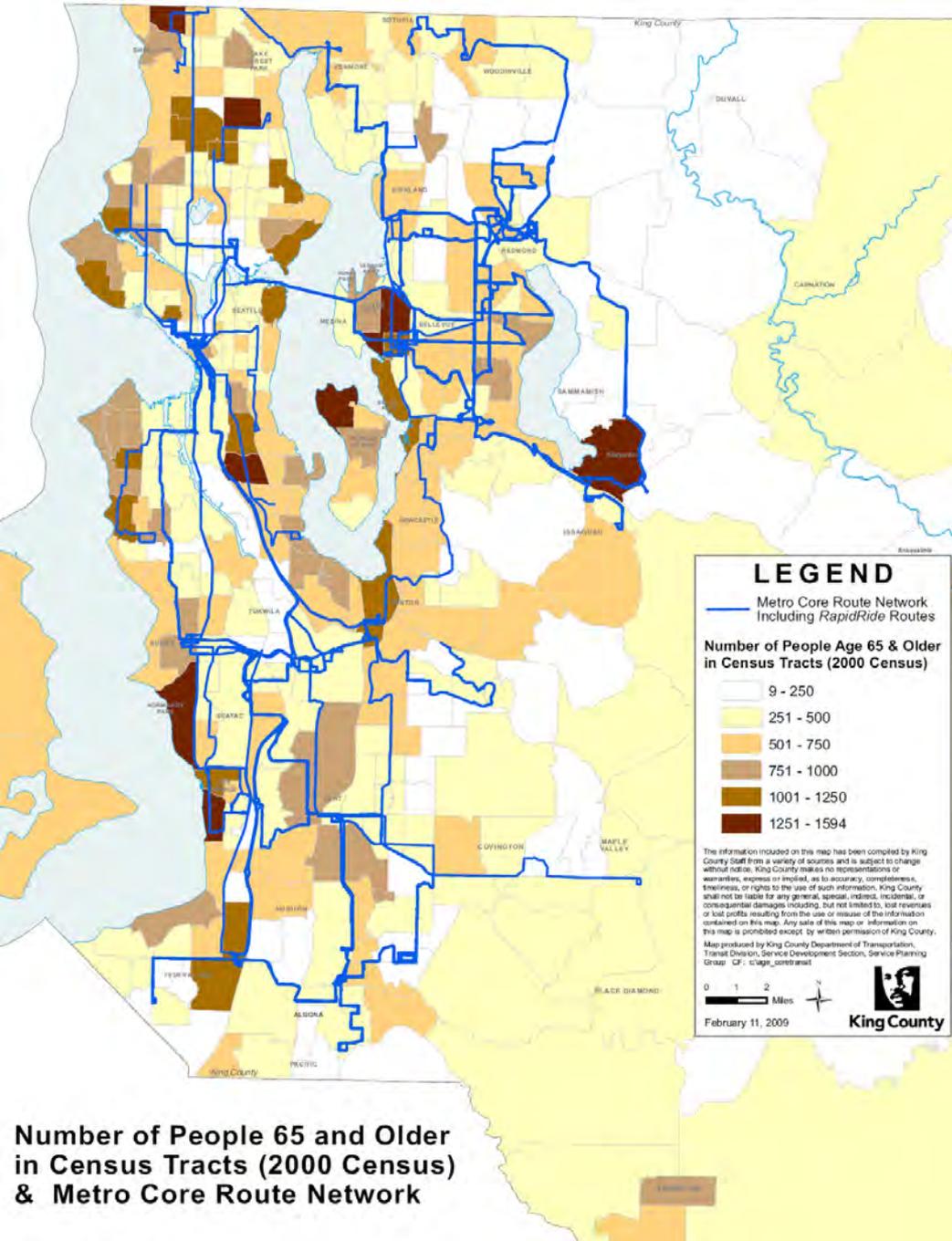
- Lower income generally translates to higher transit use
- Metro riders' average income exceeds other transit systems

US Public Transportation Passenger Income



Median Income in Census Tracts (2000 Census) & Metro Core Route Network

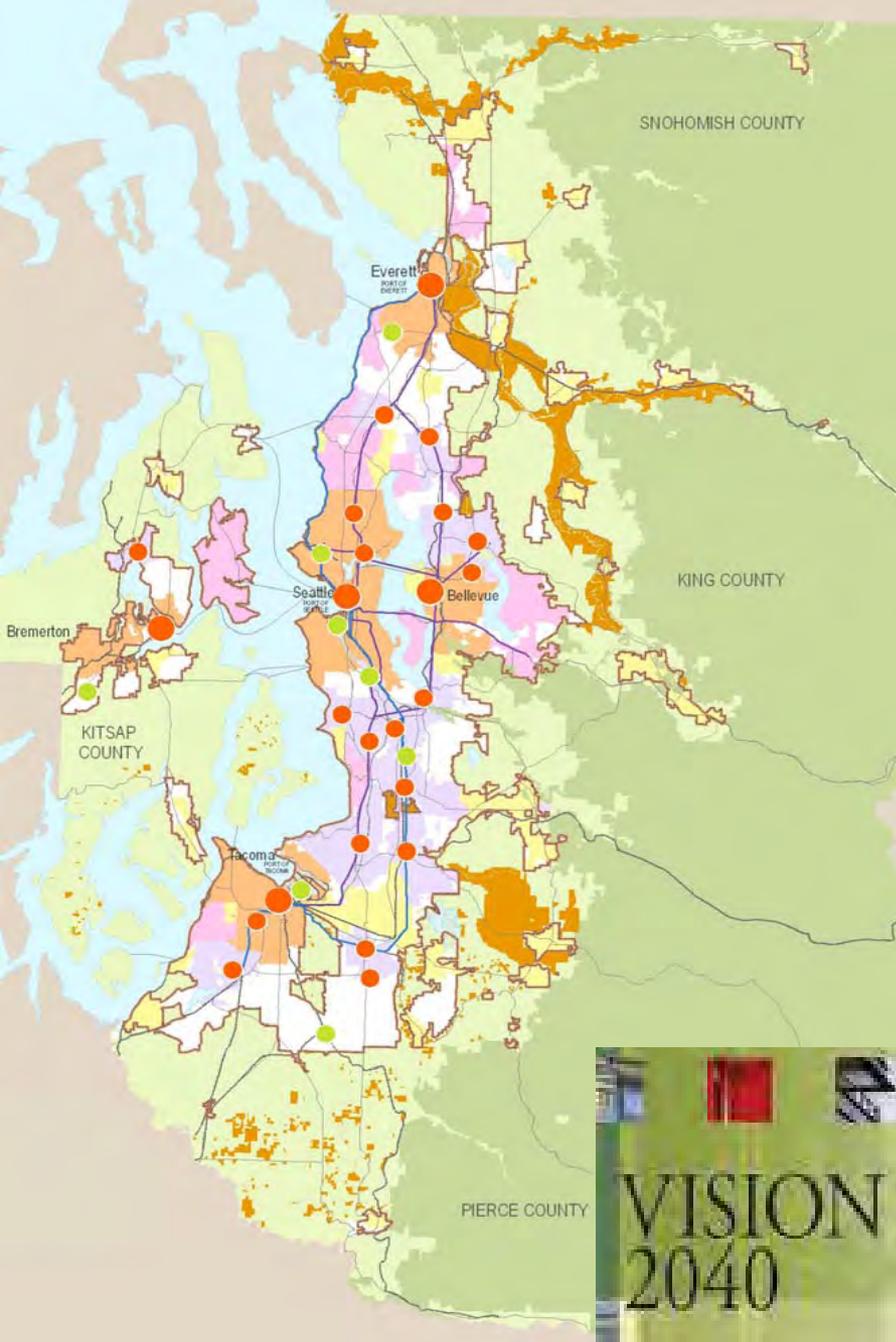
# Aging Population



**Number of People 65 and Older in Census Tracts (2000 Census) & Metro Core Route Network**

# Land Use Plans

- Focus growth in cities
- Relieve pressure rural and smaller cities



# Social Justice

- Regulatory obligations
  - 1964 Civil Rights Act
  - Americans with Disabilities Act of 1990 (ADA)
- Local Policies



# Current Policies and Planning Framework



- Comprehensive Plan: Overall guidance and policies for the future
- Strategic Plan: Strategies for how to get there

# Comprehensive Plan

Goals -- define Metro's role in shaping the region's future.

**Mobility**, ensure the ability to move around the region

**Growth Management**, support livability communities within Urban Growth Area

**Economic vitality**, support access to jobs, education and other community resources

**Environmental quality**, conserve land and energy resources, and reduce air pollution

**Build Partnerships**, to maximize the effectiveness and efficiency of the transit system

**Coordinate**, transportation planning and implementation of service



# Strategic Plan

- Ten-year action plan to implement the policies in the Comprehensive Plan
- Identifies strategies for future development of bus, paratransit, and rideshare services
- Describes implementation timing
- Guides operating and capital budgets

# Sound Transit ST2

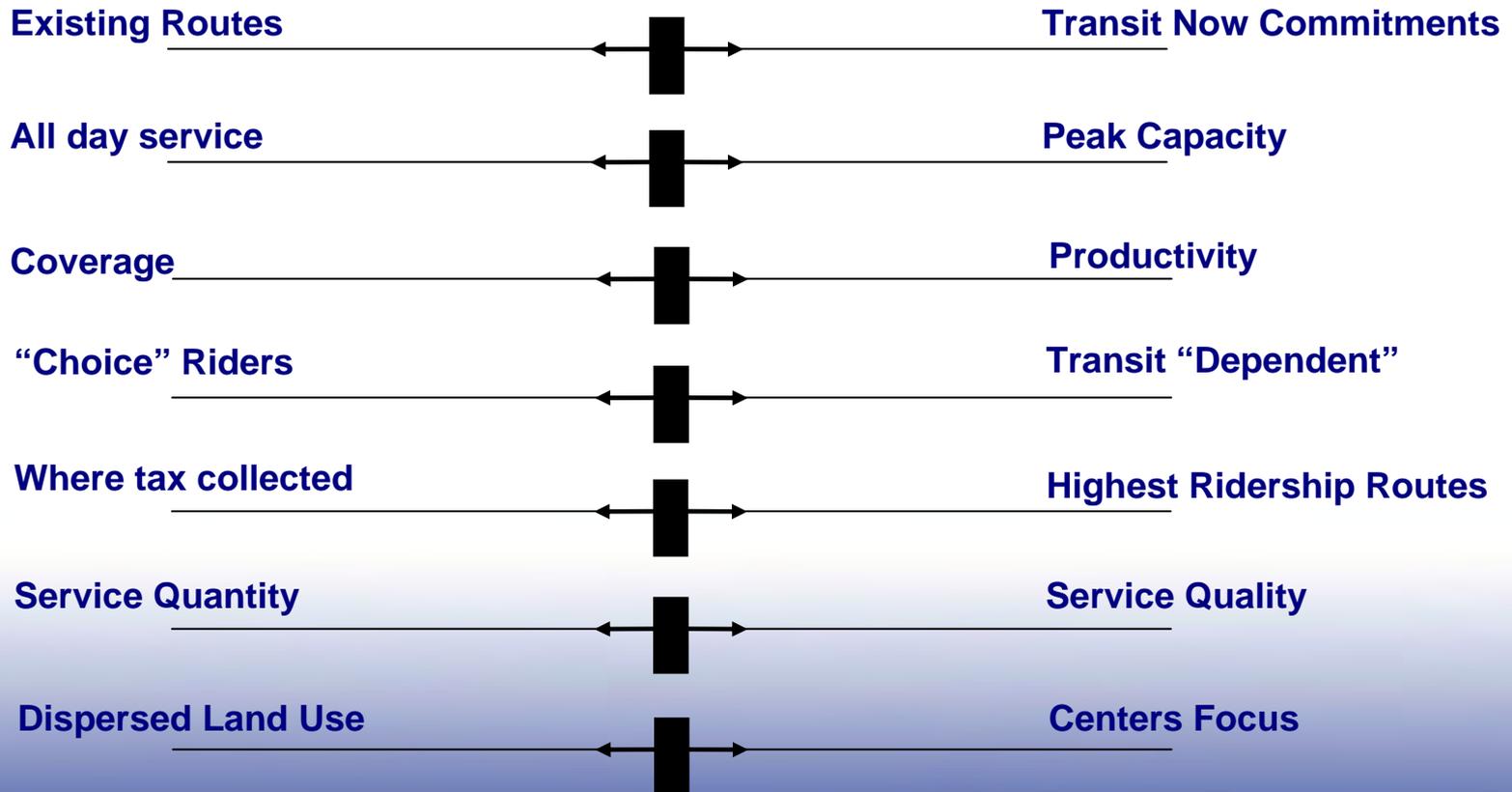


- Link extensions and the First Hill streetcar will provide opportunities to restructure Metro services



# System Design Tradeoffs

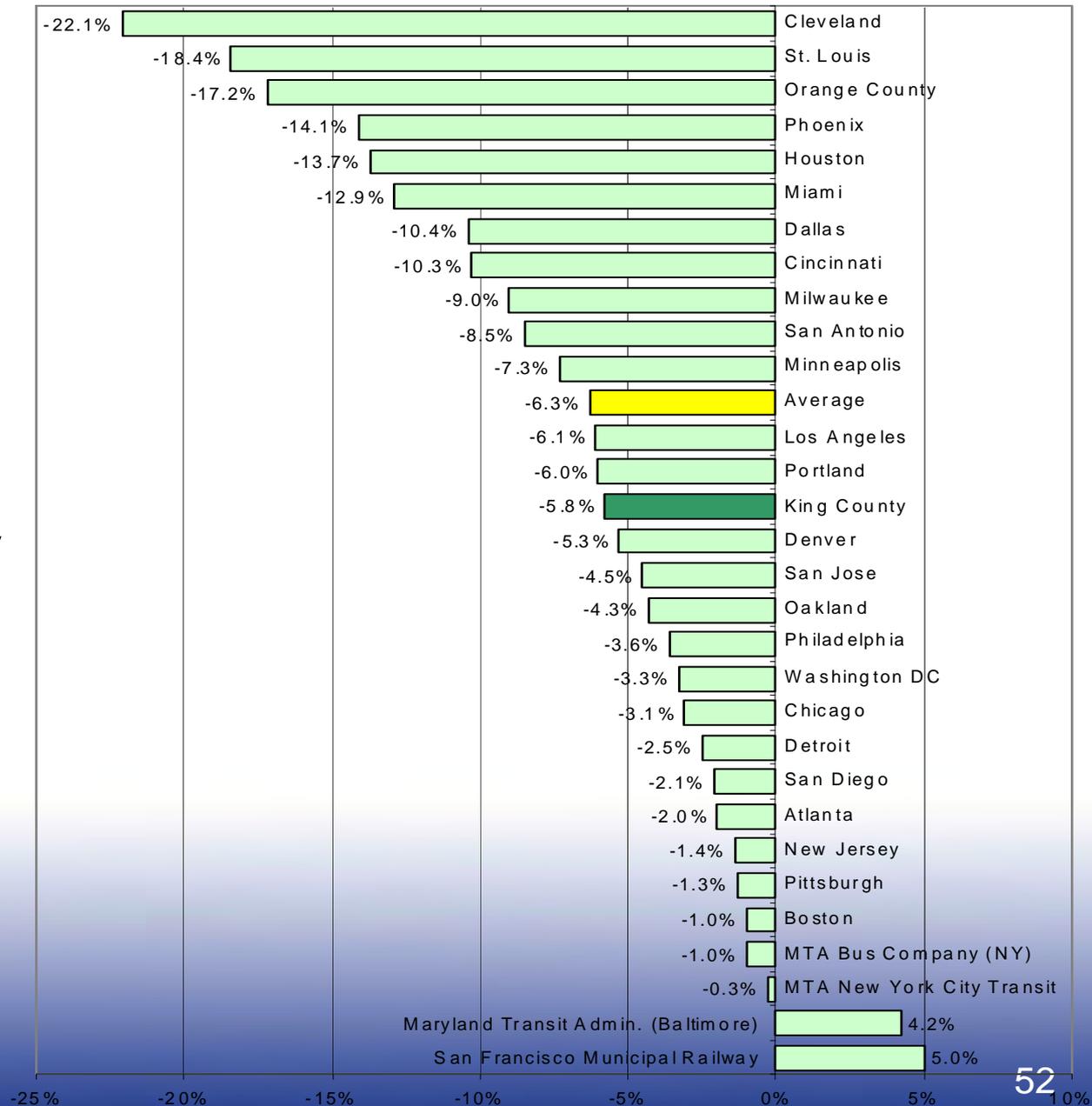
**Policy Direction determines system emphasis**



# Performance

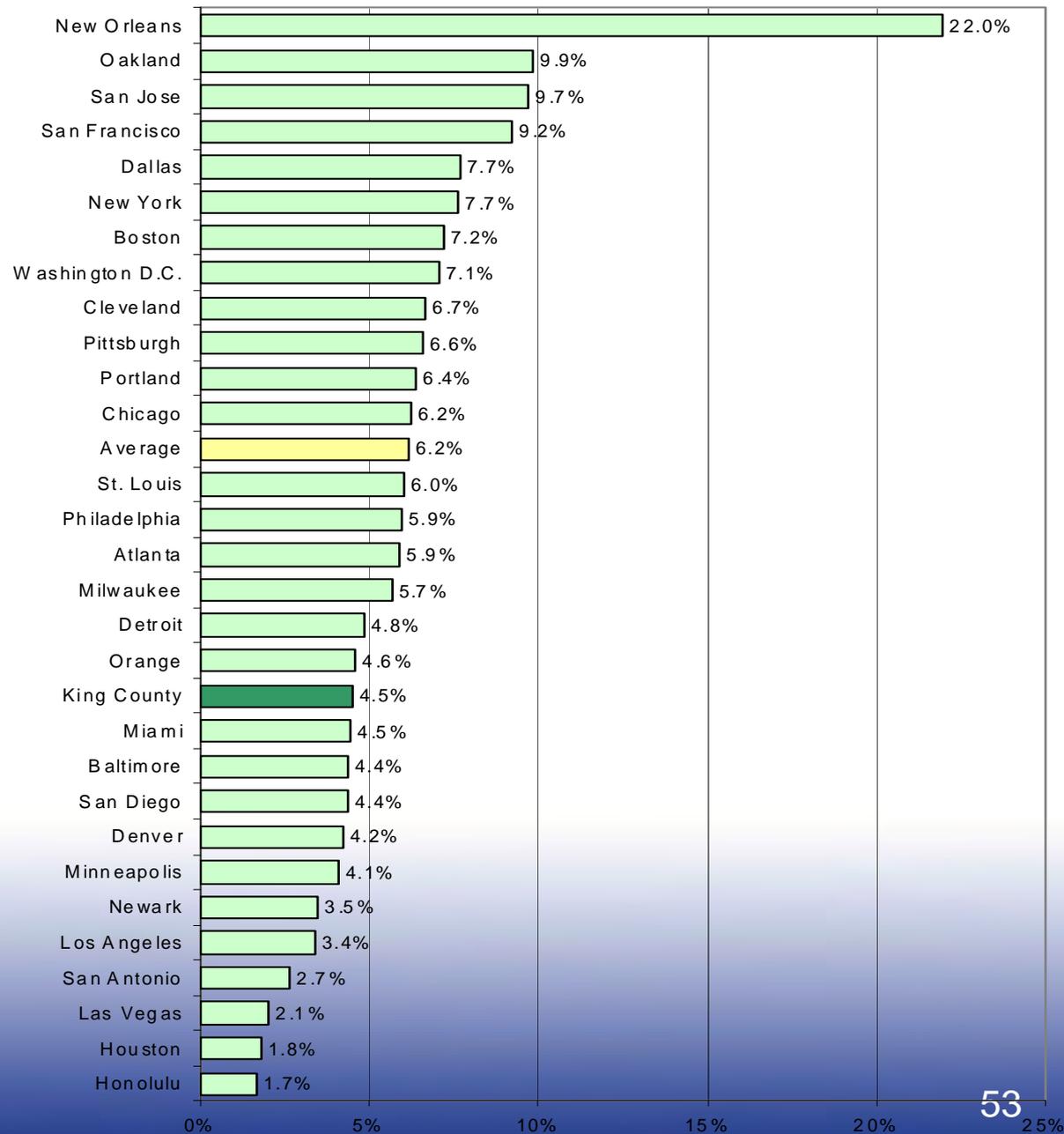
# Ridership Change

## Percent Change in Ridership in 2009, Motorbus & Trolley Bus, NTD



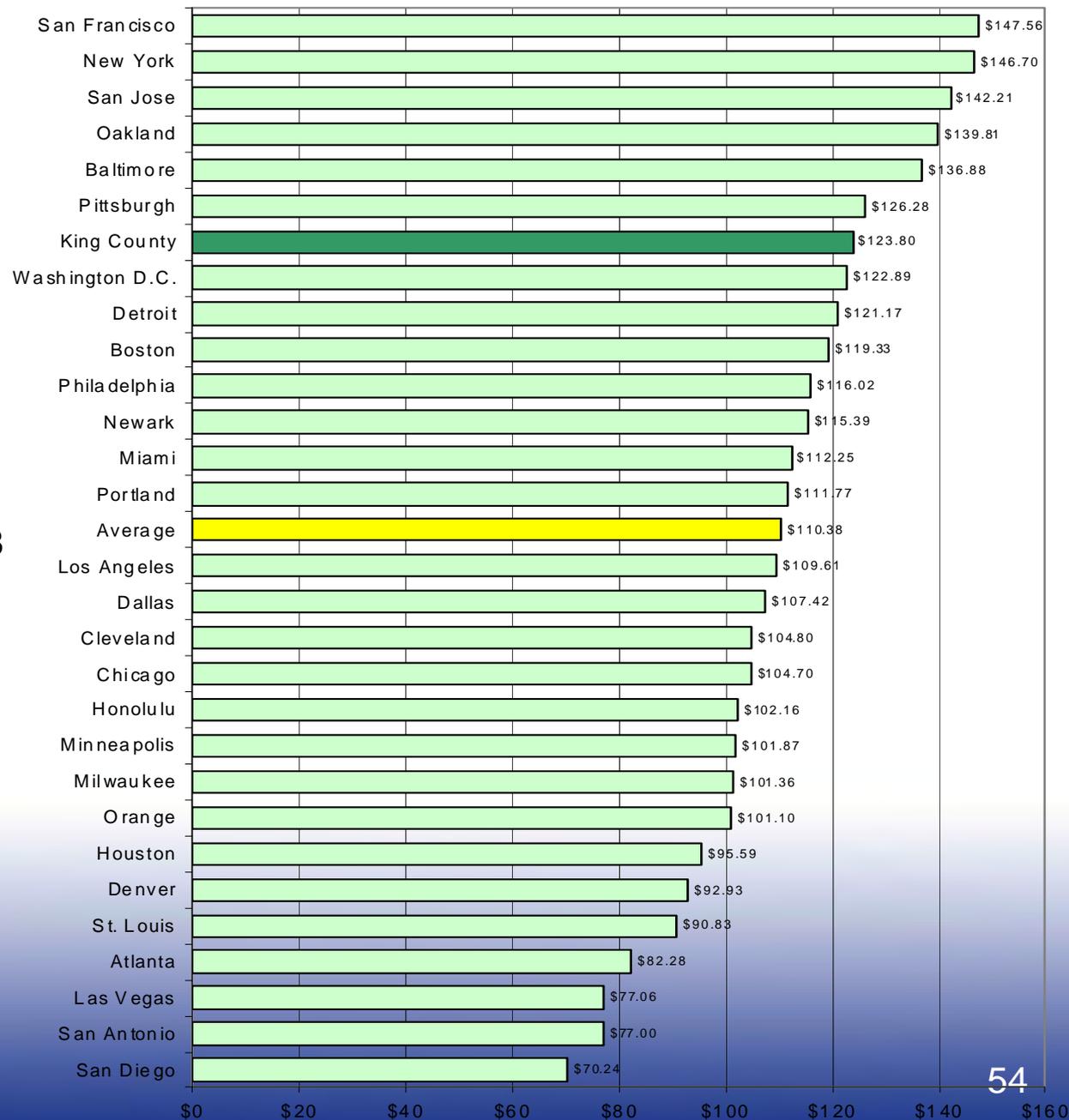
# Operating Cost Change

**Average Annual Percent Change in Operating Cost per Platform Hour, 2001 to 2007**  
**Motorbus & Trolley Bus, 2008 NTD**



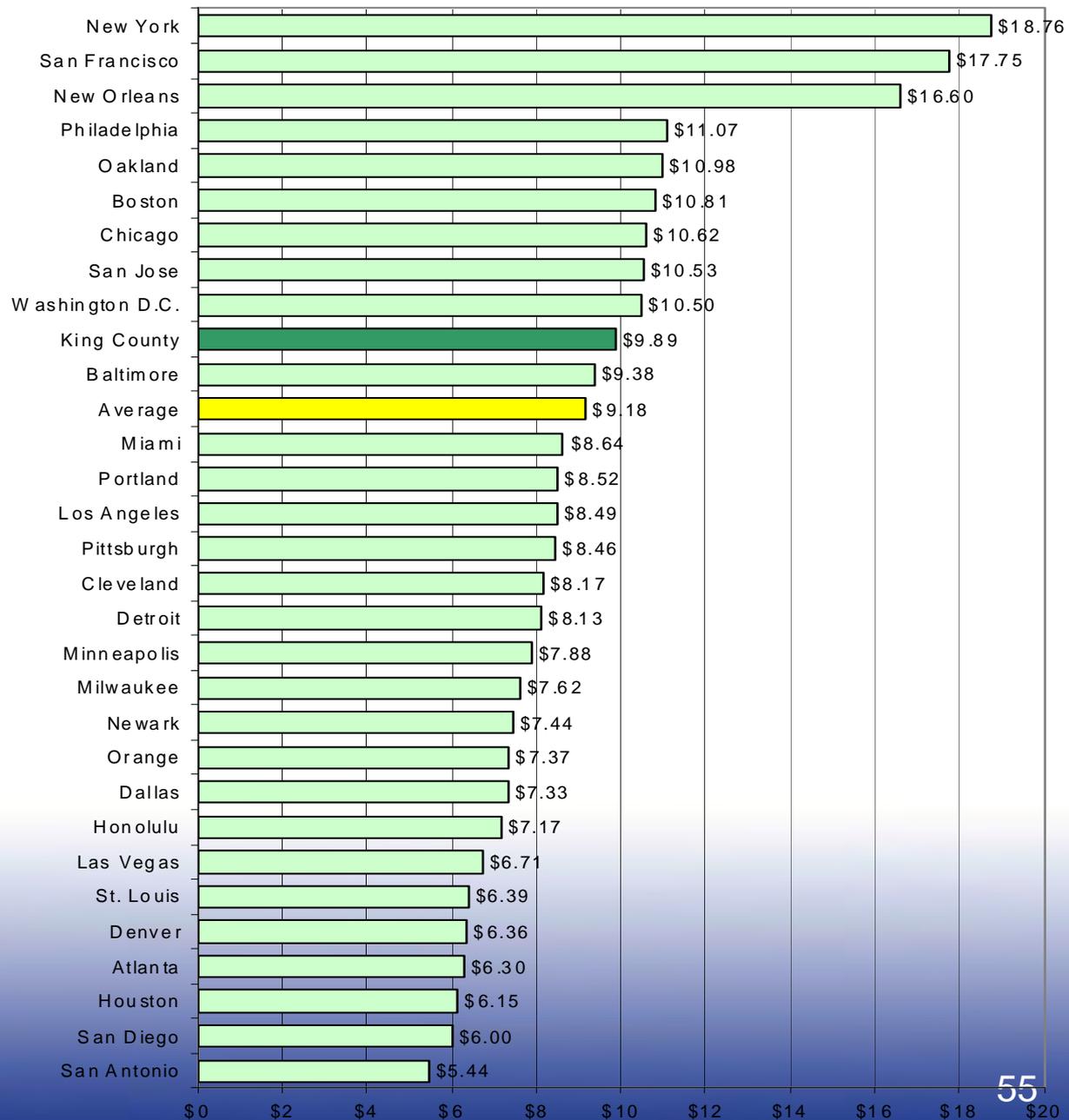
# Transit Efficiency

## Operating Cost per Platform Hour Motorbus & Trolley Bus, 2008 NTD



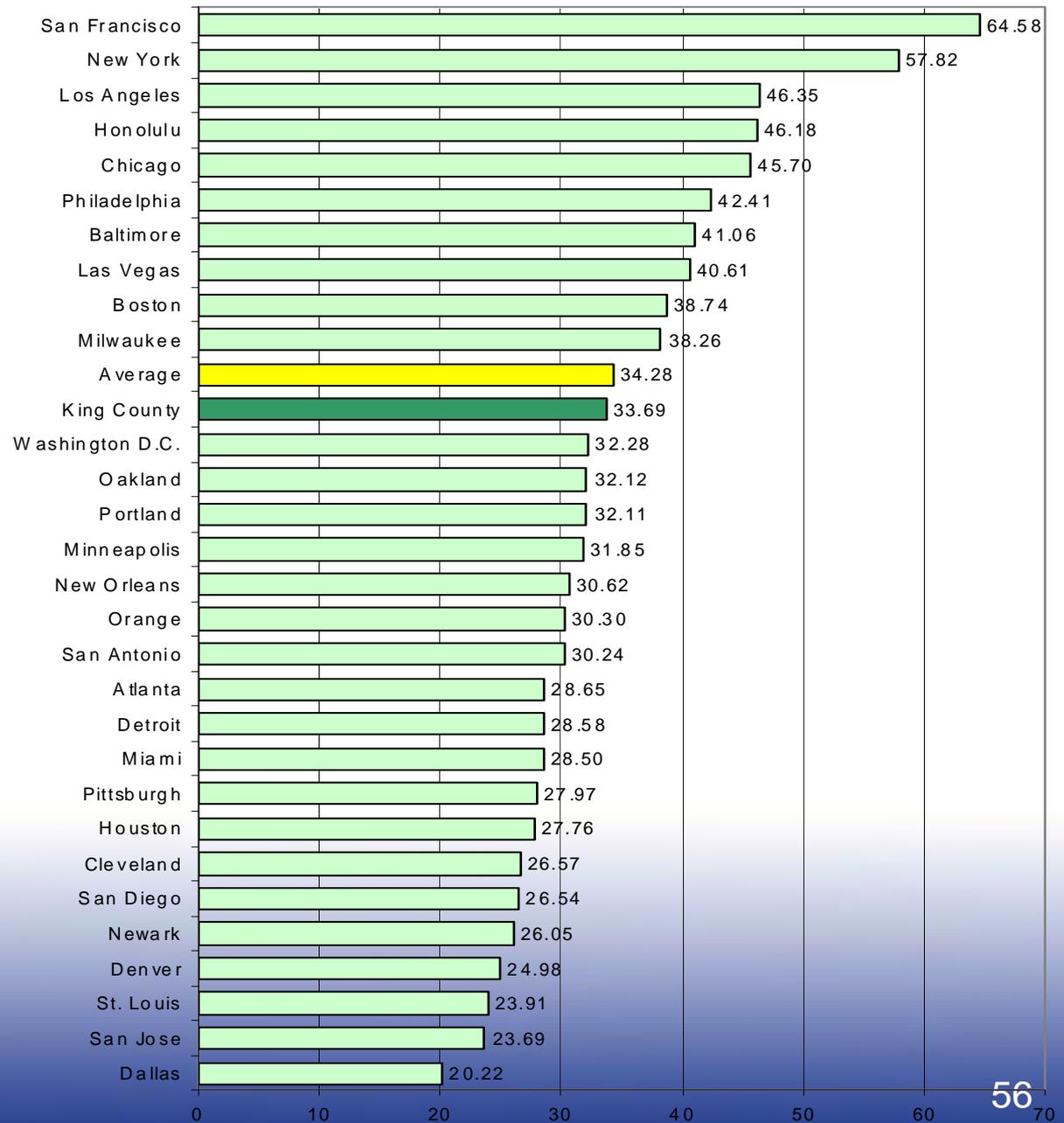
# Transit Efficiency

## Operating Cost per Platform Mile Motorbus & Trolley Bus, 2008 NTD



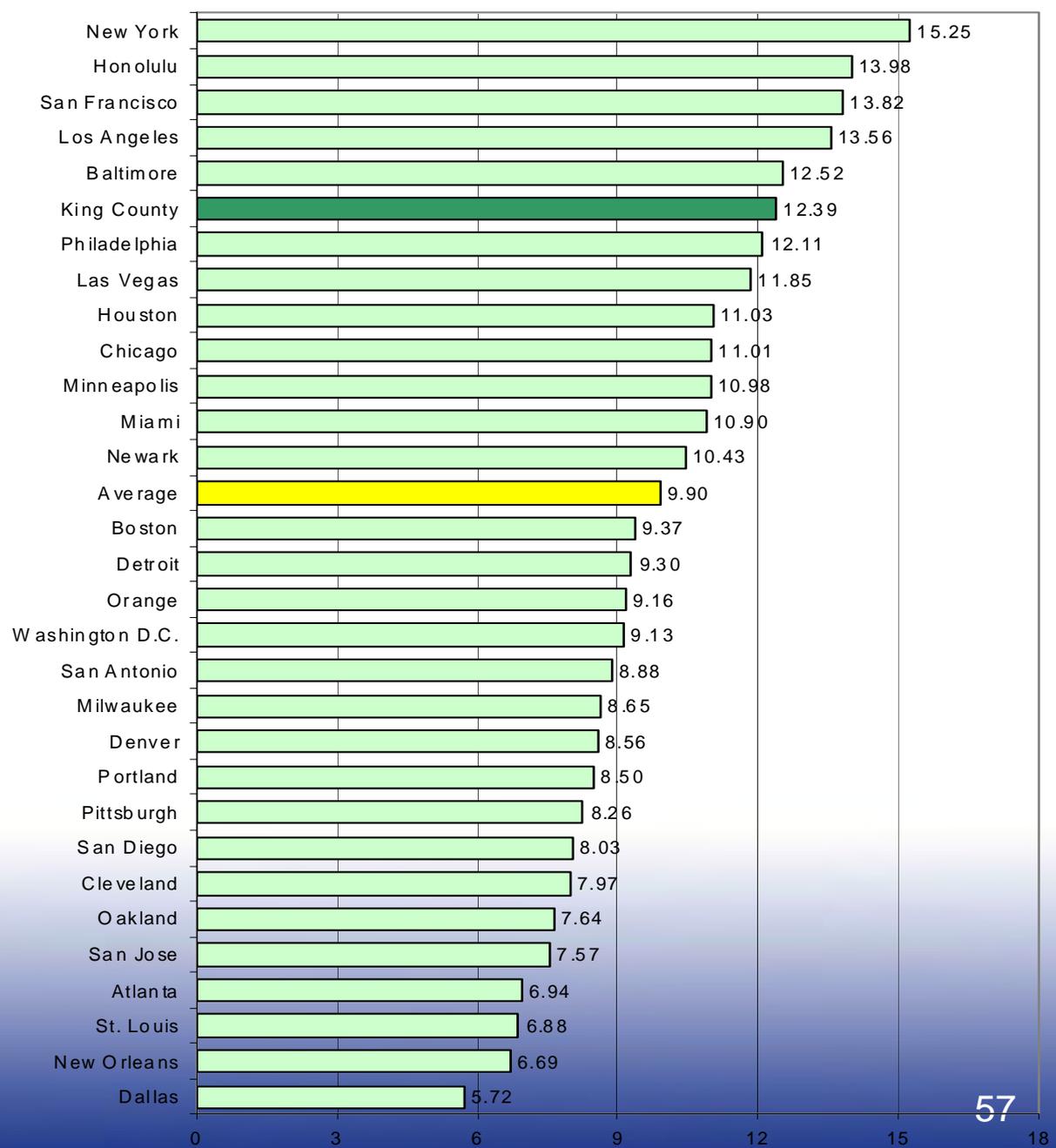
# Transit Productivity

Boardings per Platform Hour  
Motorbus & Trolley Bus, 2008  
NTD



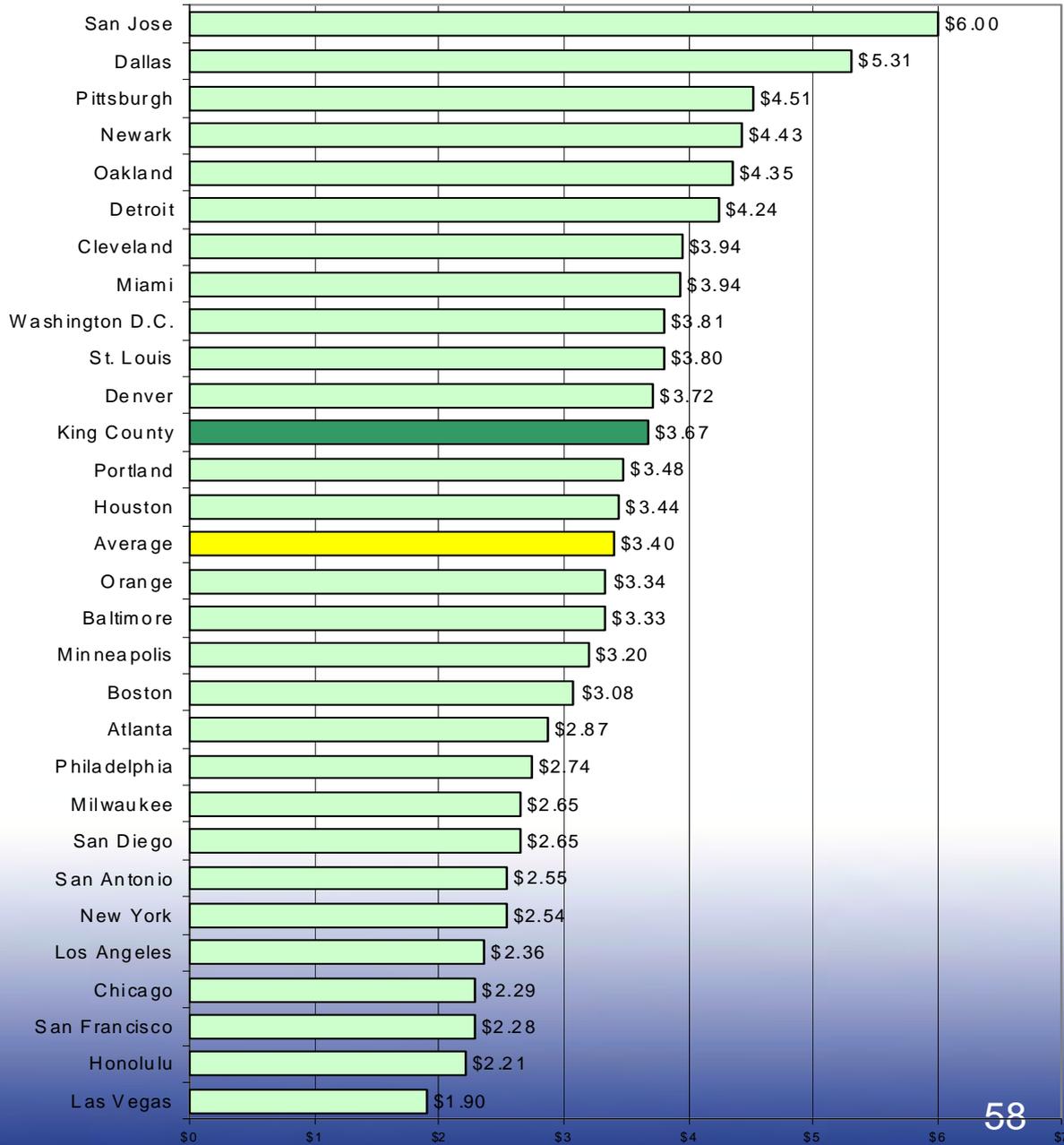
# Transit Productivity

## Passenger Miles per Platform Mile Motorbus & Trolley Bus, 2008 NTD



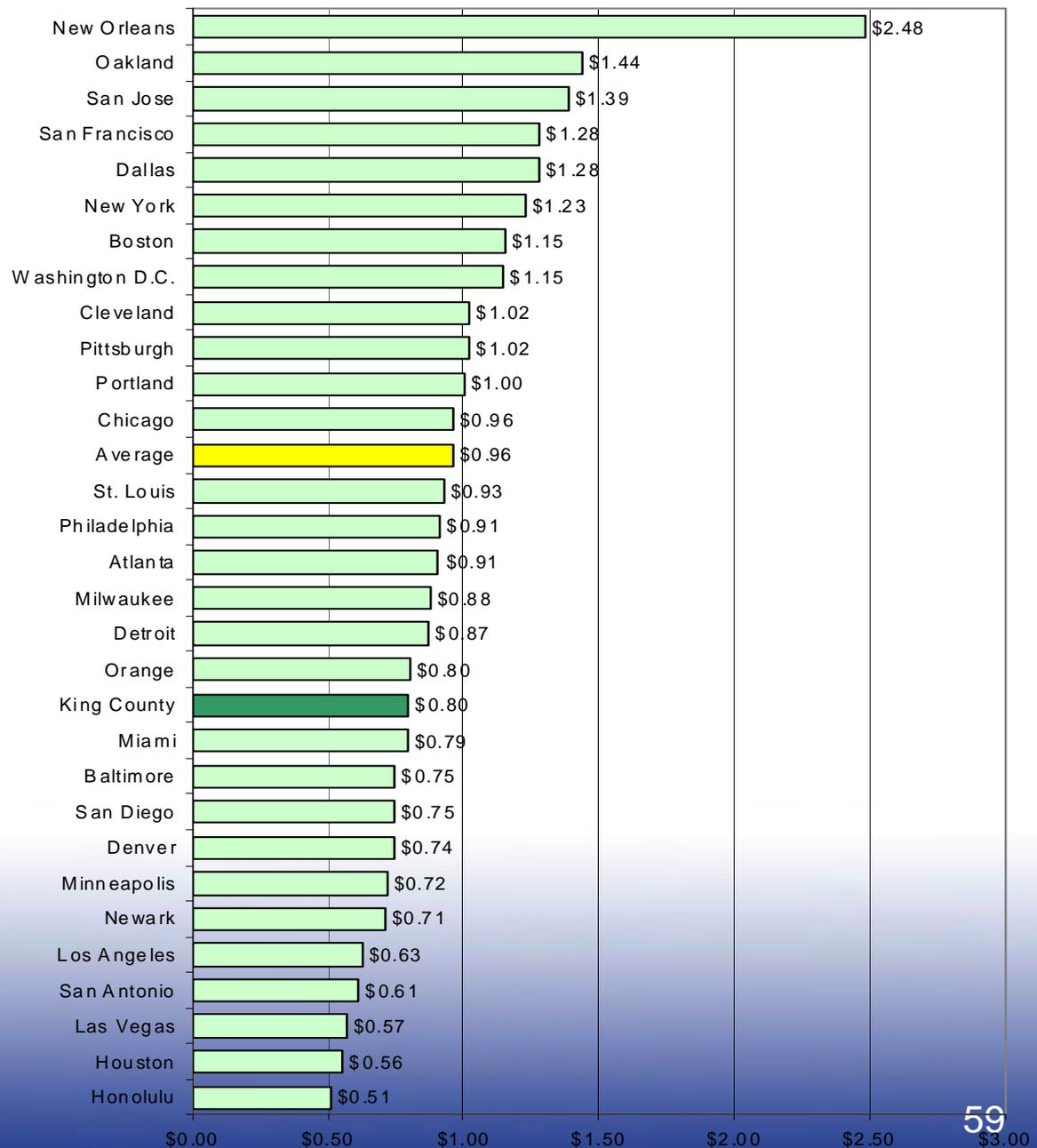
# Transit Cost Effectiveness

## Operating Cost per Boarding Motorbus & Trolley Bus, 2008 NTD



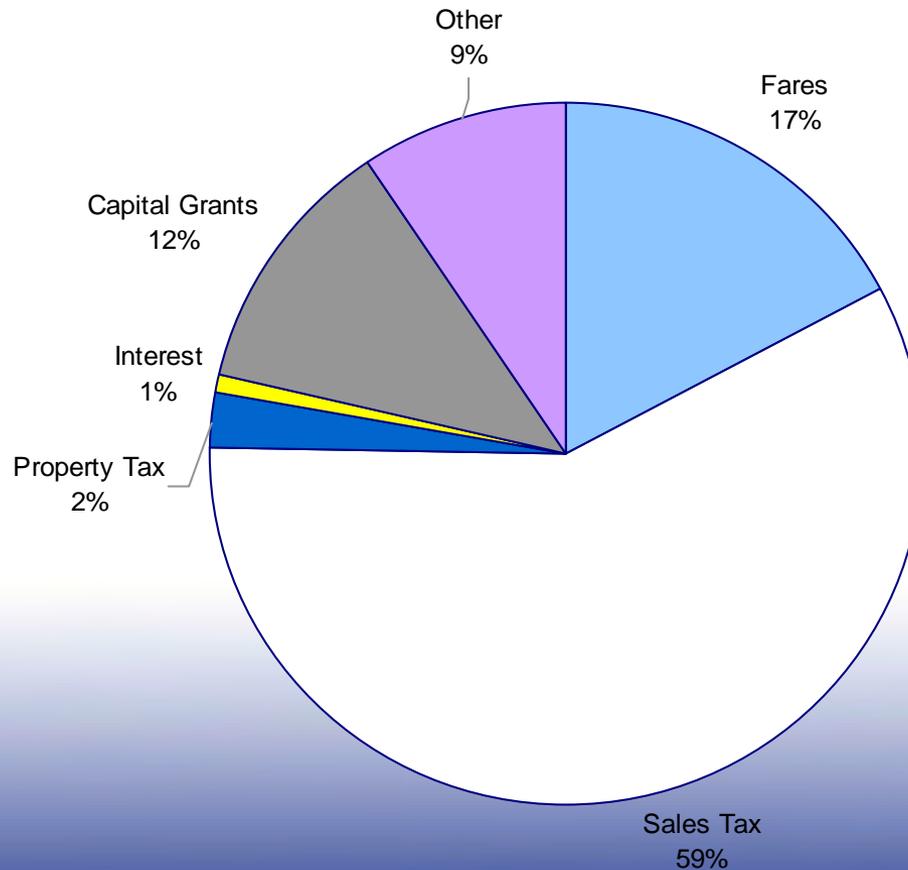
# Transit Cost Effectiveness

## Operating Cost per Passenger Mile Motorbus & Trolley Bus, 2008 NTD



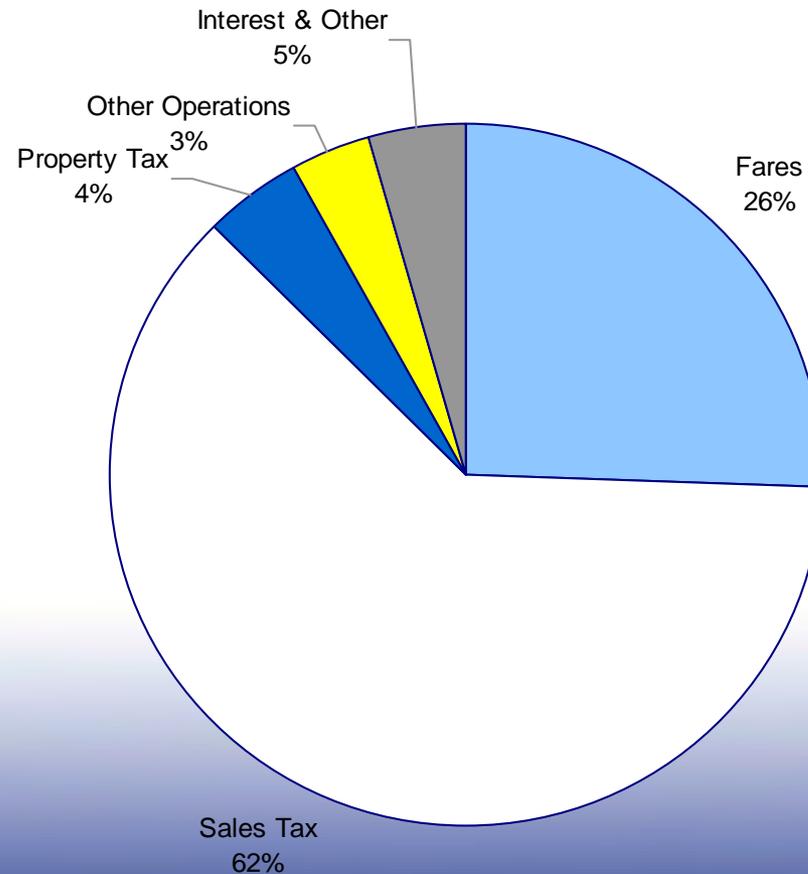
# Financial issues

# Transit Operating & Capital Program Revenues: 2009-2015



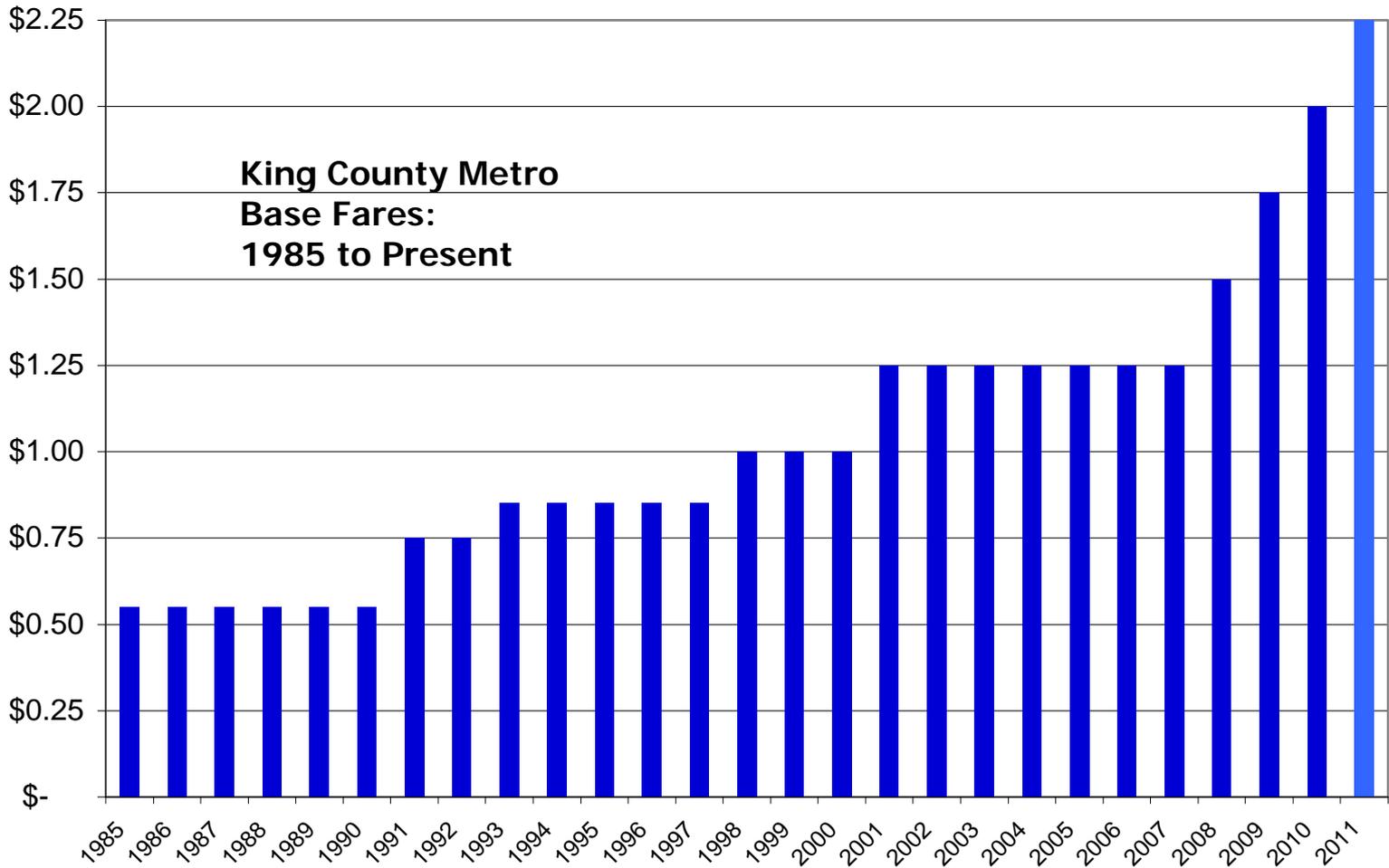
Excludes revenue for services provided to Sound Transit

# Transit Operating Program Revenues: 2010/2011 = \$968.1million

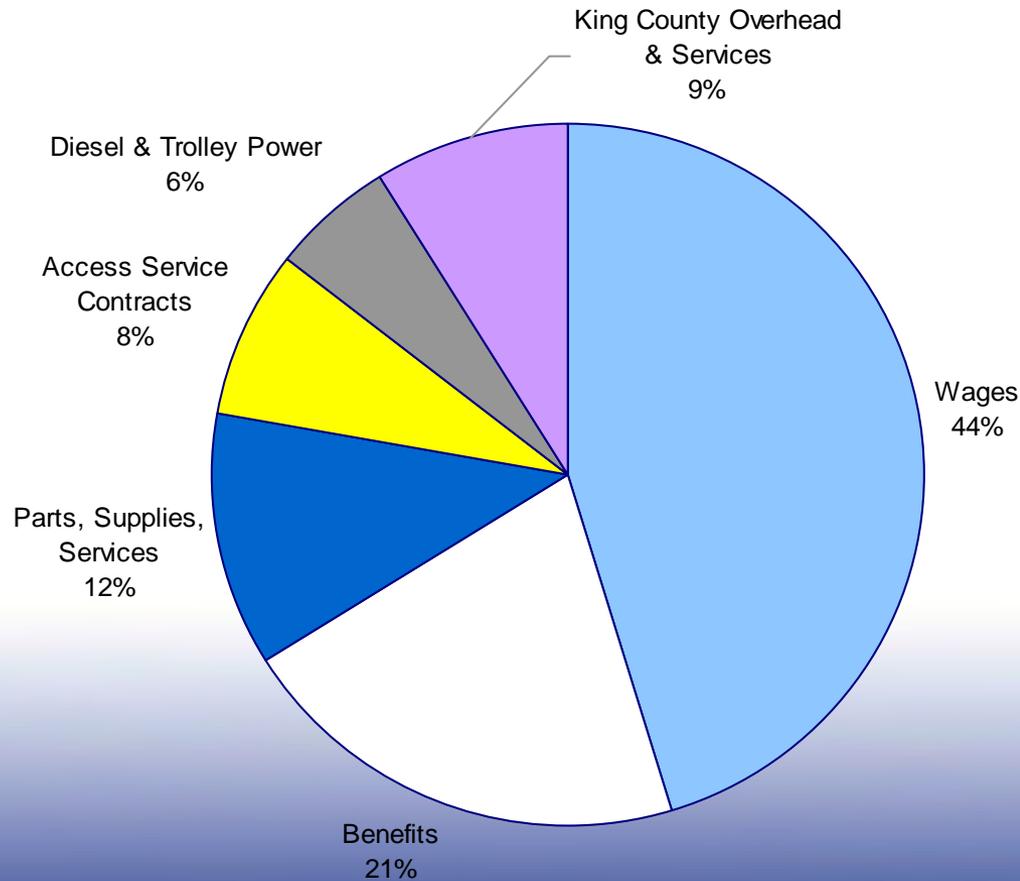


Excludes revenue for services provided to Sound Transit

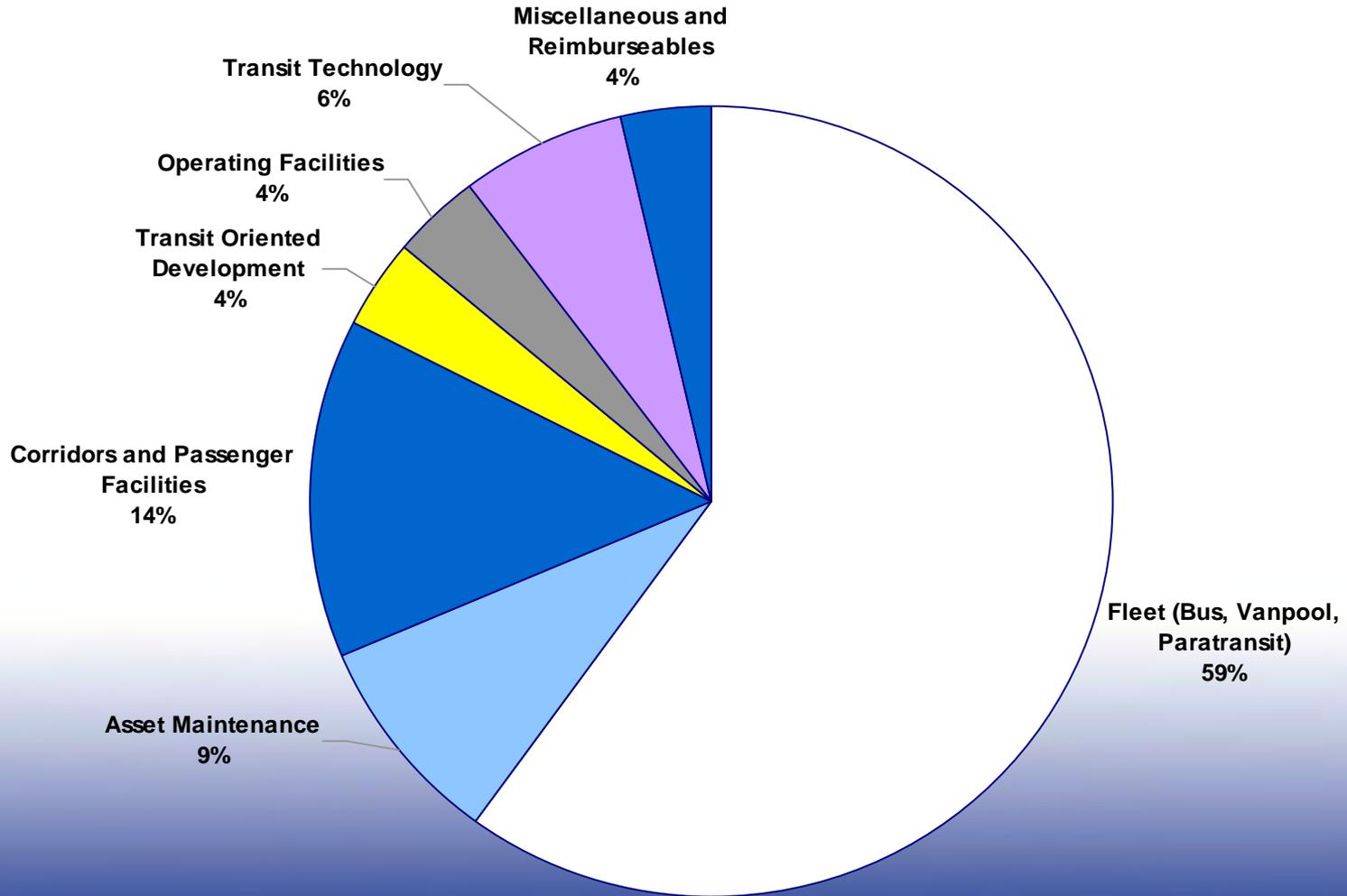
# Metro One-zone Adult Fare



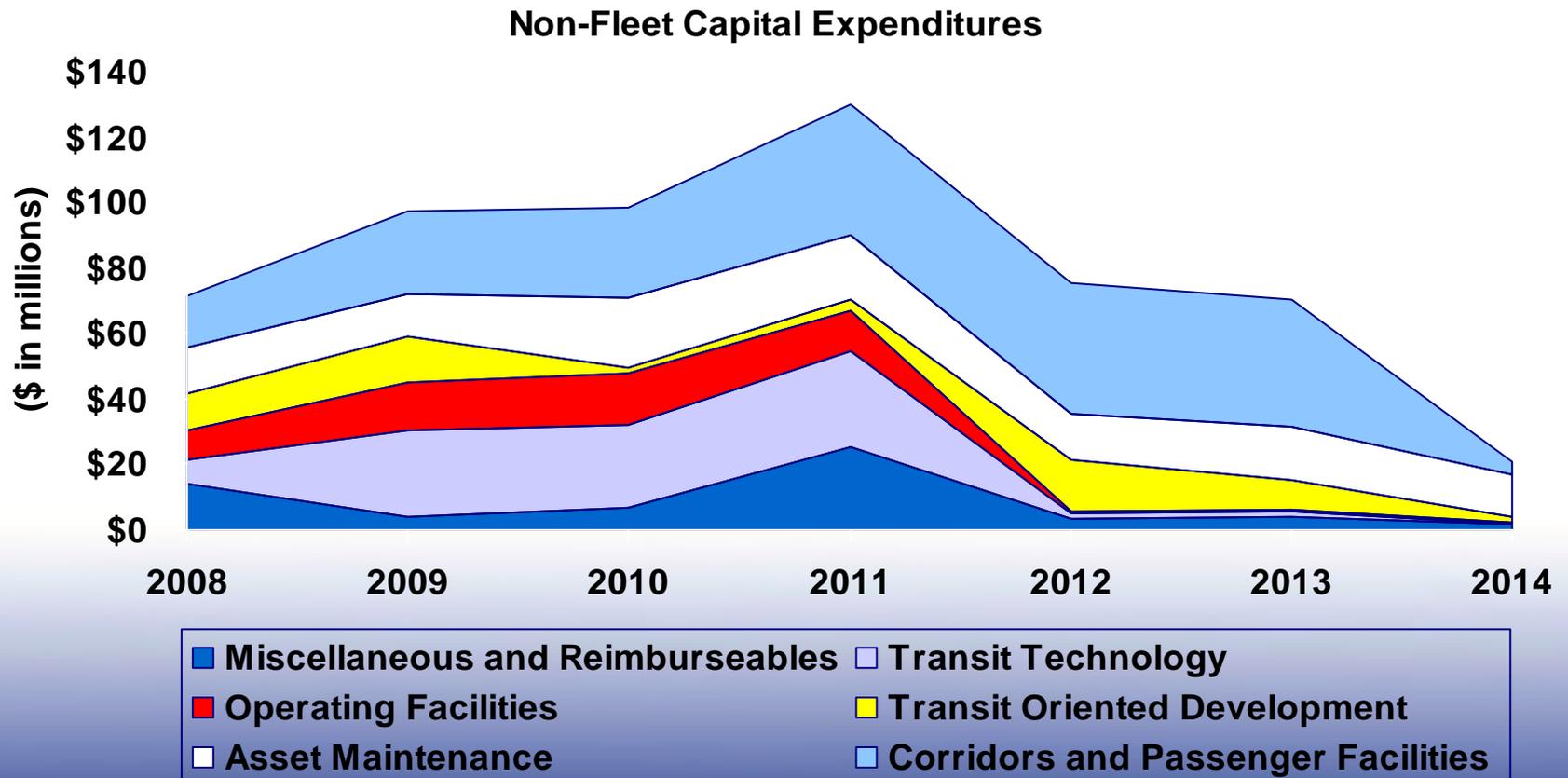
# Transit Operating Program Projected Expense: 2010/2011 = \$1,208.9 million



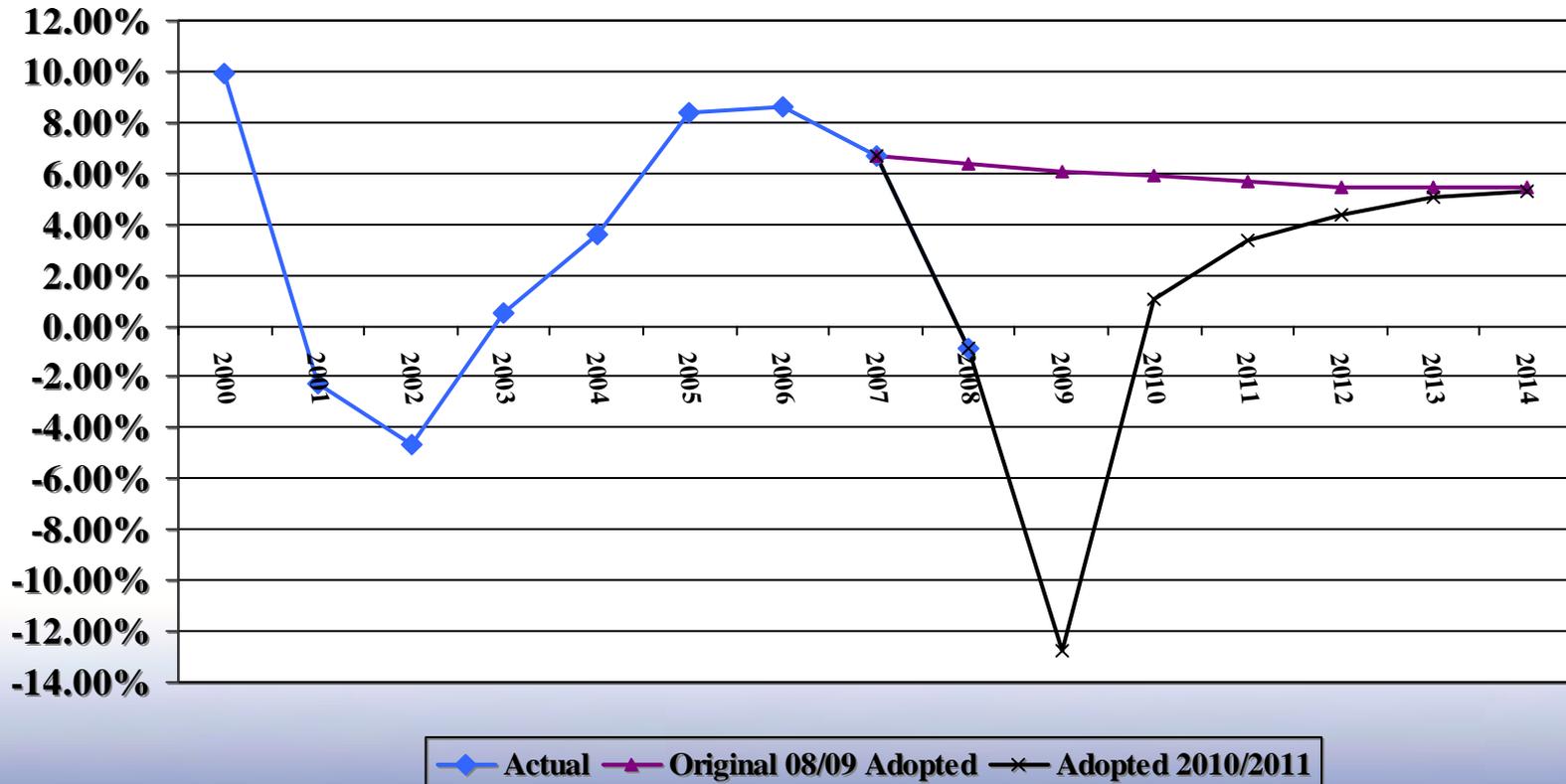
# Capital Program 2009-2015: Total \$1.28 billion



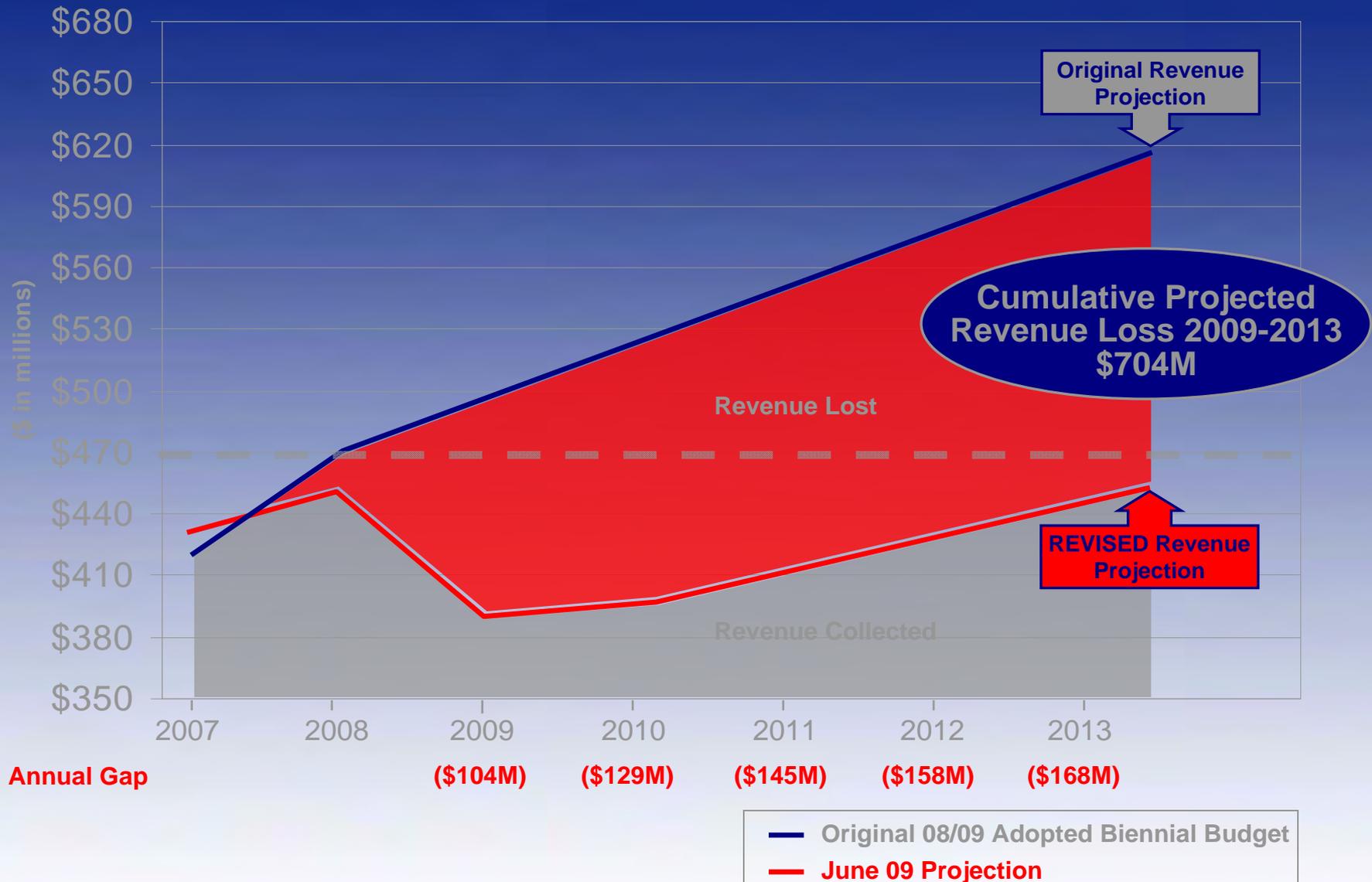
# Most of Metro's non-fleet capital program is scheduled to be completed by 2012 (RapidRide by 2014)



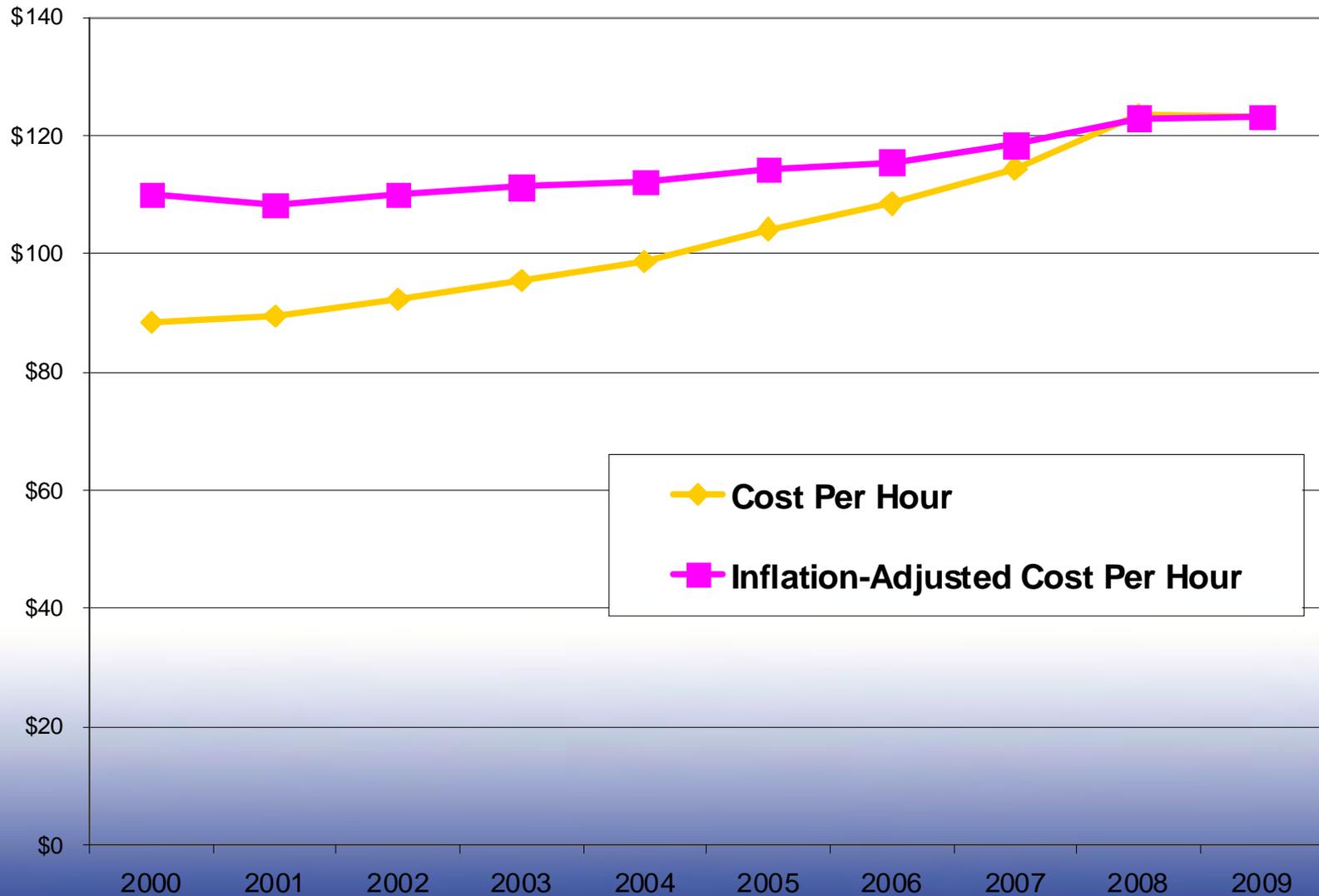
# Sales Tax Year-to-Year Growth Rates



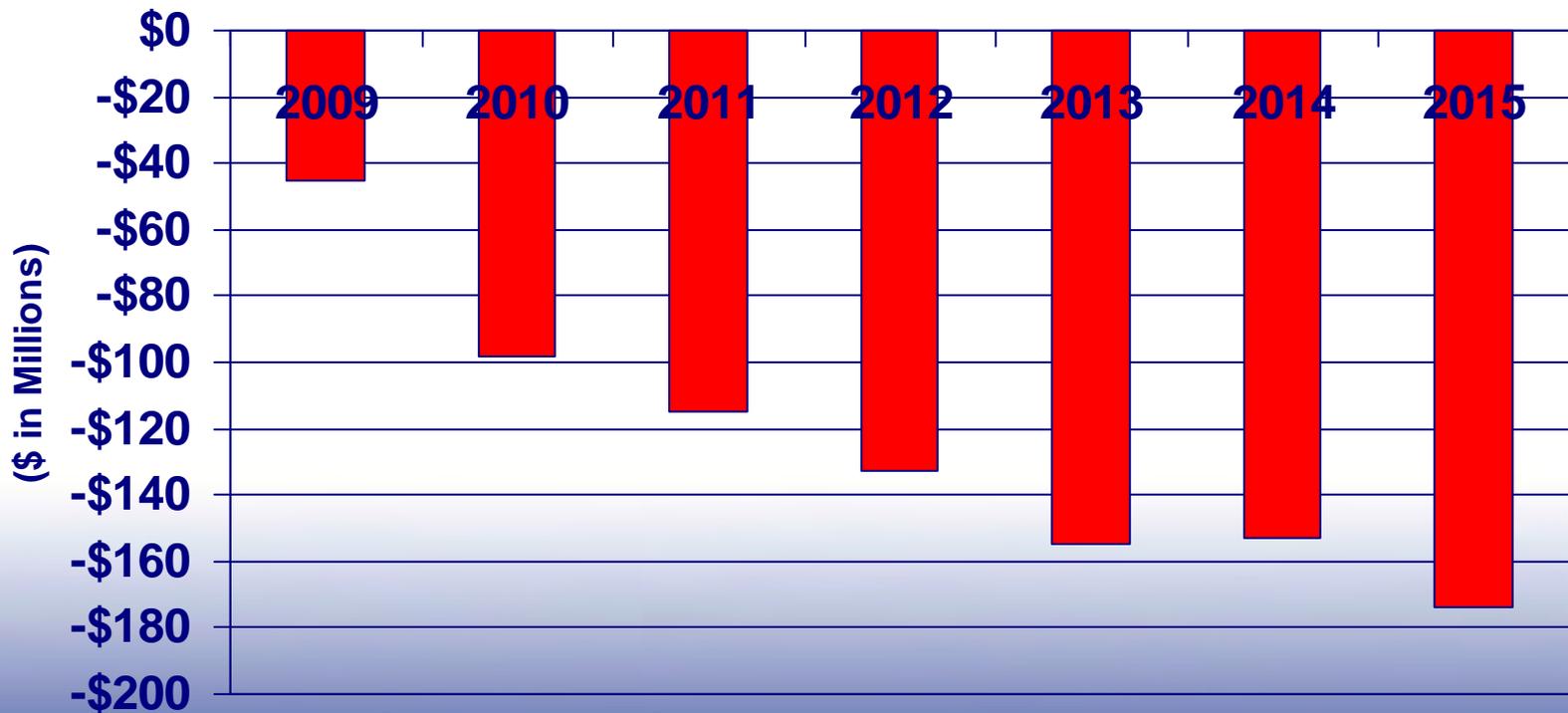
# King County Metro - Sales Tax Shortfall



# Metro Transit Cost Per Hour



# Revenue/expense gap addressed in the 2010/2011 budget.



# Objectives of the 2010-2011 Transit Budget

- Long term system sustainability
- Preserve as much existing service as possible
- Position for rebound if/when economic conditions allow or new revenue sources

# Building Blocks of Transit Costs

## **Basic service**

operate a safe vehicle with a trained driver, reliable under normal conditions, comply with all laws and regulations (88%)

## **Complementary programs**

additional activities performed to support mission and goals (6%)

## **Service quality**

activities that meet and enhance customer and public expectations (6%)

# 2009 Performance Audit

## Topics included:

- 1) Bus Service Planning/Scheduling
- 2) Technology and Information Management
- 3) Human Resource Management (Vehicle Maintenance, Operations, Police)
- 4) Financial and Capital Planning
- 5) Paratransit
- 6) Fare Strategies
- 7) Trolley Replacement

# Examples of Recommendations

## Bus Service Planning/Scheduling

- Improved training for schedulers
- Improve accuracy of model calibration
- Global system analysis
- Reduce layover time in schedules

## Technology and Information Management

- Improvements to customer information systems and website, particularly for emergencies

## Human Resource Management

- Improved operator staffing model
- Longer window for PM's and inspections
- Establish additional standards for maintenance tasks

# Examples of Recommendations (con't)

## Financial and Capital Planning

- Improve financial planning and life-cycle costing models
- Reduce reserves in Revenue Fleet Replacement Fund

## Paratransit

- Establish strategic plan to manage service costs
- Develop staffing model

## Fare Strategies

- Establish fare goals and identify sources for increased fare revenue

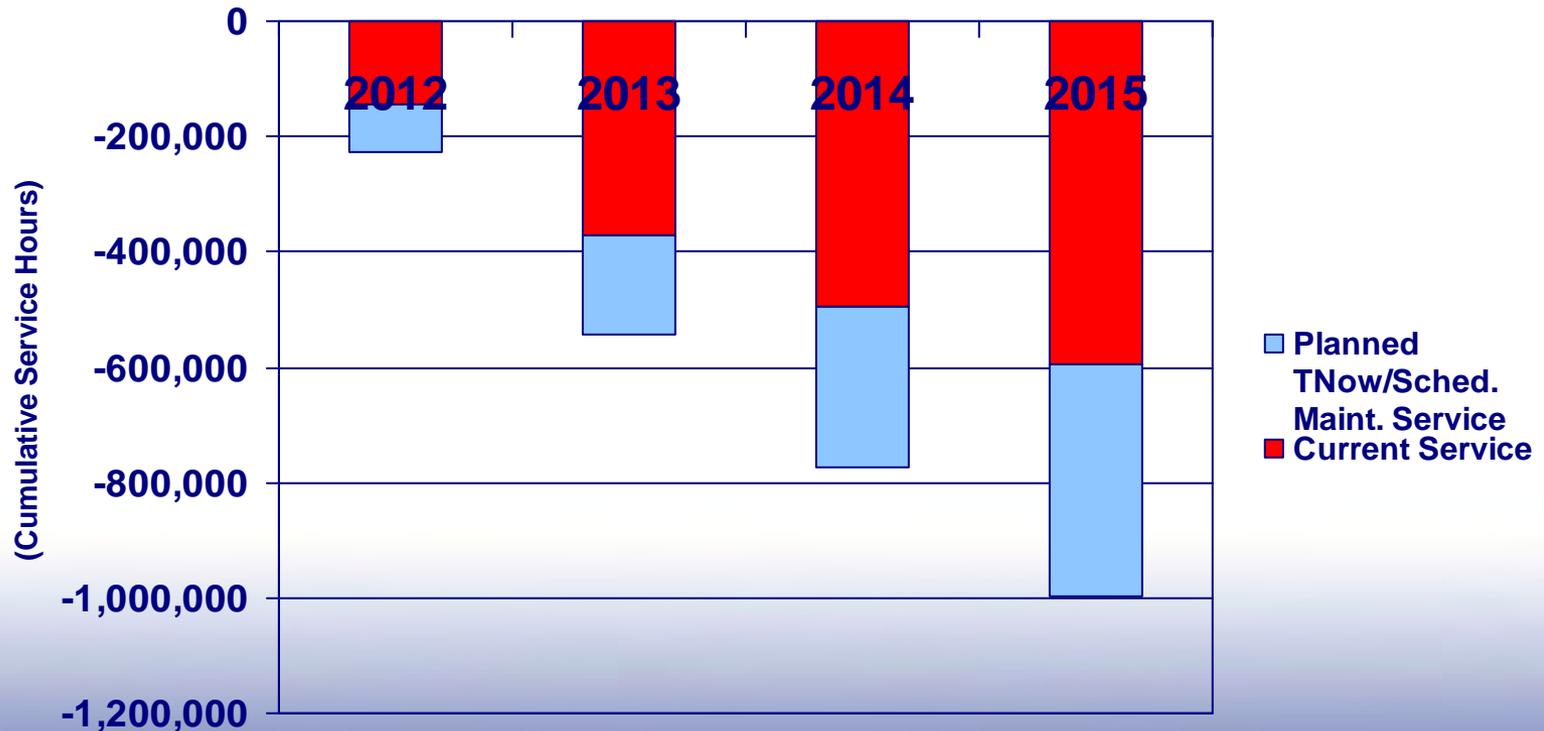
## Trolley Replacement

- Conduct comprehensive review of trolley replacement options

# Key Elements of the 2010-2011 Budget

1. **Defer bus service expansion:** Suspended remaining Transit Now improvements except Rapid Ride and already-approved partnerships.
2. **Capital program cuts:** Reprioritized capital program and reduced number of buses purchased
3. **Non-service related cuts:** reduced supplemental programs and service quality expense by 10%
4. **New revenue/Property tax swap:** 6.5 cents for transit; 1 cent for 520 Urban Partnership; 5.5 cents for other transit (including new Rapid Ride “F” Line)
5. **Operating reserves:** temporary reduction for 4 years
6. **Increase fares:** additional general fare increase in 2011
7. **Fleet replacement reserves:** \$100 million over four years
8. **Audit efficiencies:** Assumed 125,000 hours of scheduling efficiencies during the biennium
9. **Bus service:** 75,000 hours of service reductions during the biennium. Additional cuts required by 2013

The program is now balanced, but a series of service reductions and deferrals will be required over the next 5 years



Reduction also in fleet and other infrastructure requirements