TAKE ACTION WITH

TransAction2030

Transportation for Today and Tomorrow

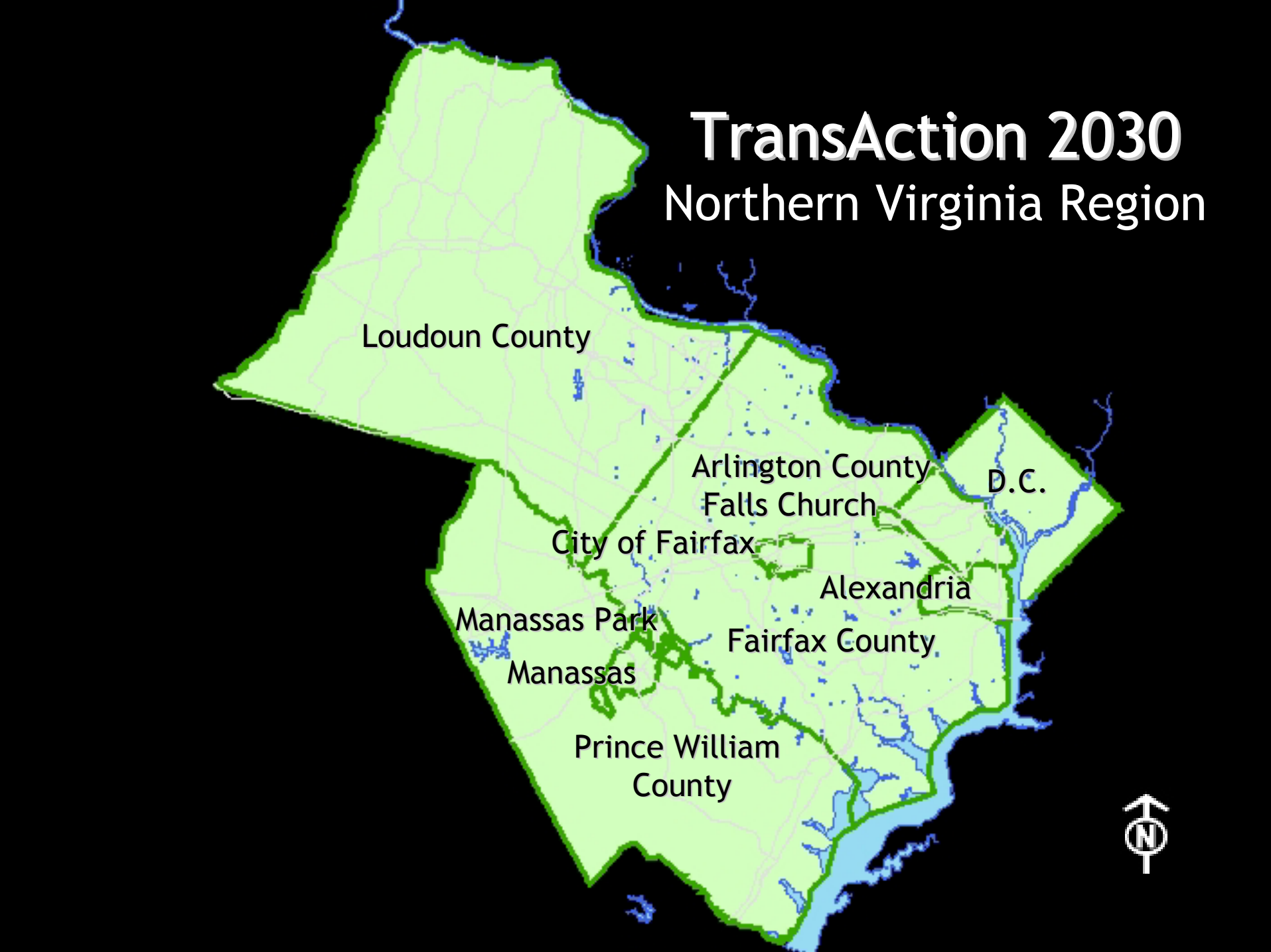
TransAction2030

Highlights

- Prioritized projects against agreed-upon criteria
- Brought the analysis of transit performance up to the same level as that done for highways in 1999
- Studied the interactions between modes (auto, transit, bicycle, pedestrian)
- Provided a variety of opportunities to engage the public, including a scientific telephone survey

Presentation Outline

- Background
- System Performance
- Project Prioritization
- Telephone Survey Results


TransAction 2030
Northern Virginia Region
Loudoun County
Arlington County
Falls Church
D.C.
City of Fairfax
Alexandria
Manassas Park
Fairfax County
Manassas
Prince William
County
N

Updating the 2020 Plan

- 2020 Plan was prepared in 1999; much has changed since:
  - Some projects were completed or are underway
  - More studies were conducted
  - Number of vehicle miles traveled in region has grown by 2.1% annually,
  - Transit trips have increased by 4% annually

TransAction2030
Transportation for Today and Tomorrow

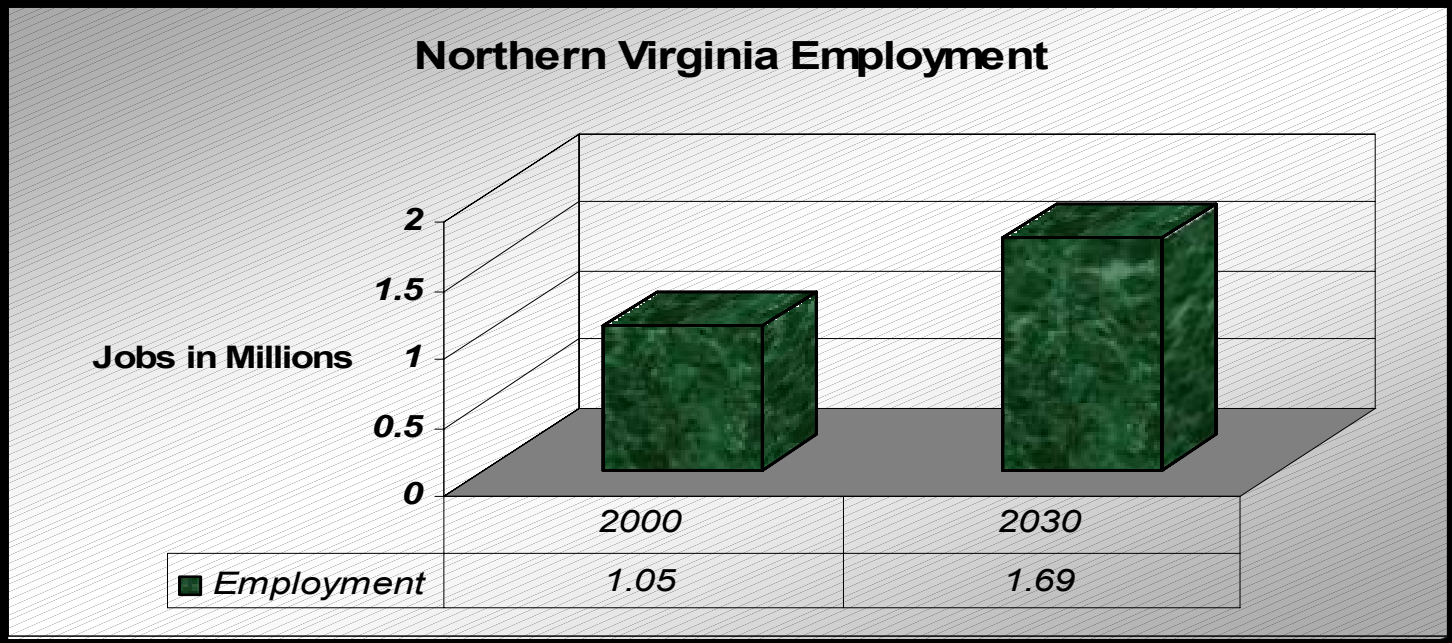
2020 Vision

- *"In the 21st century, Northern Virginia will develop and sustain a multi-modal transportation system that supports our economy and quality of life. It will be fiscally sustainable, promote areas of concentrated growth, manage both demand and capacity, and employ the best technology, joining rail, roadway, bus, air, water, pedestrian, and bicycle facilities into an interconnected network."*

Northern Virginia Transportation Coordinating Council

Region is growing

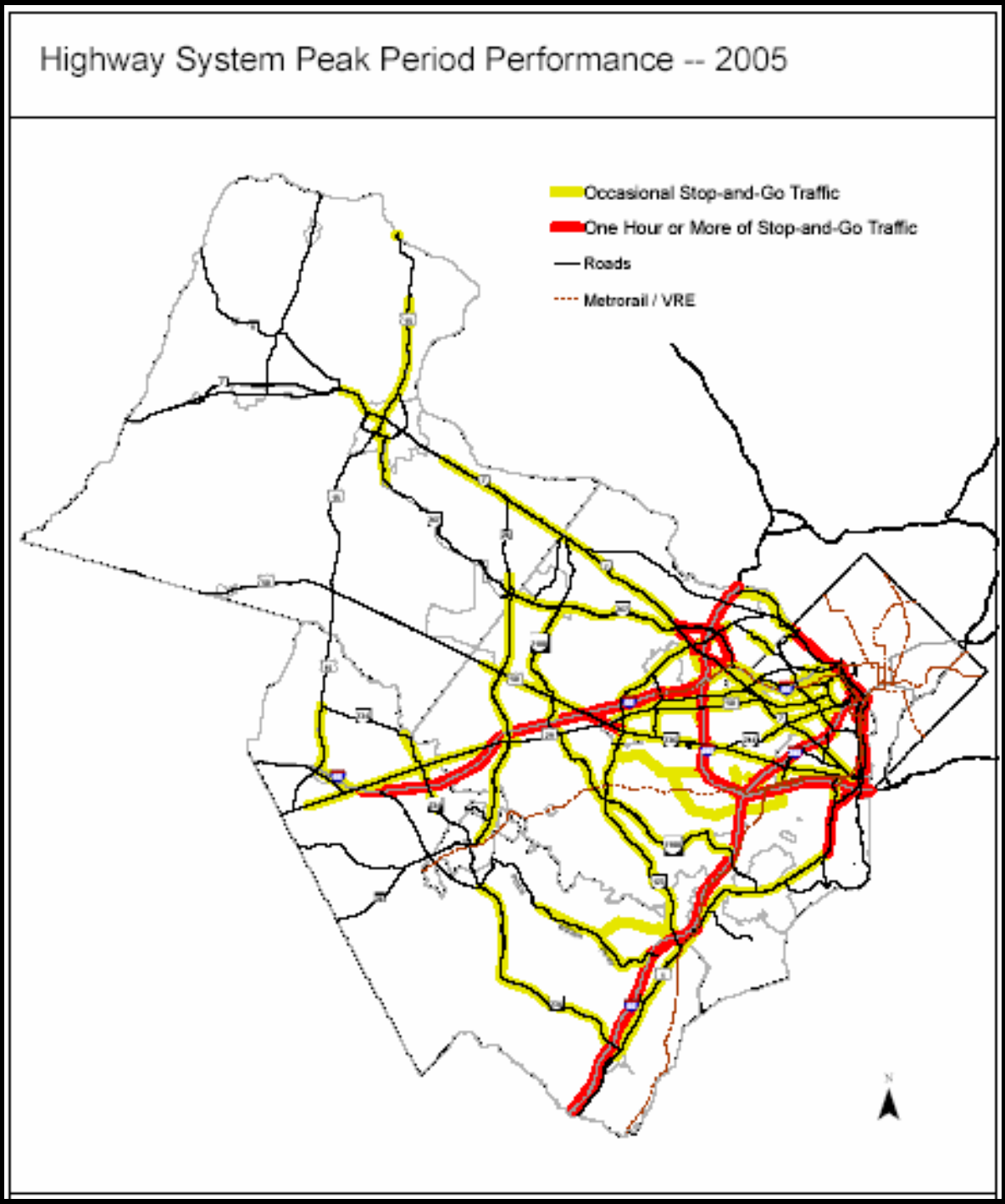
The Washington DC Metropolitan Region will add 2 million people and 1.6 million jobs by 2030



Congestion Means Longer Commuting Times

System Performance

- Highway LOS
- Transit LOS
- Multimodal LOS



Highway Performance

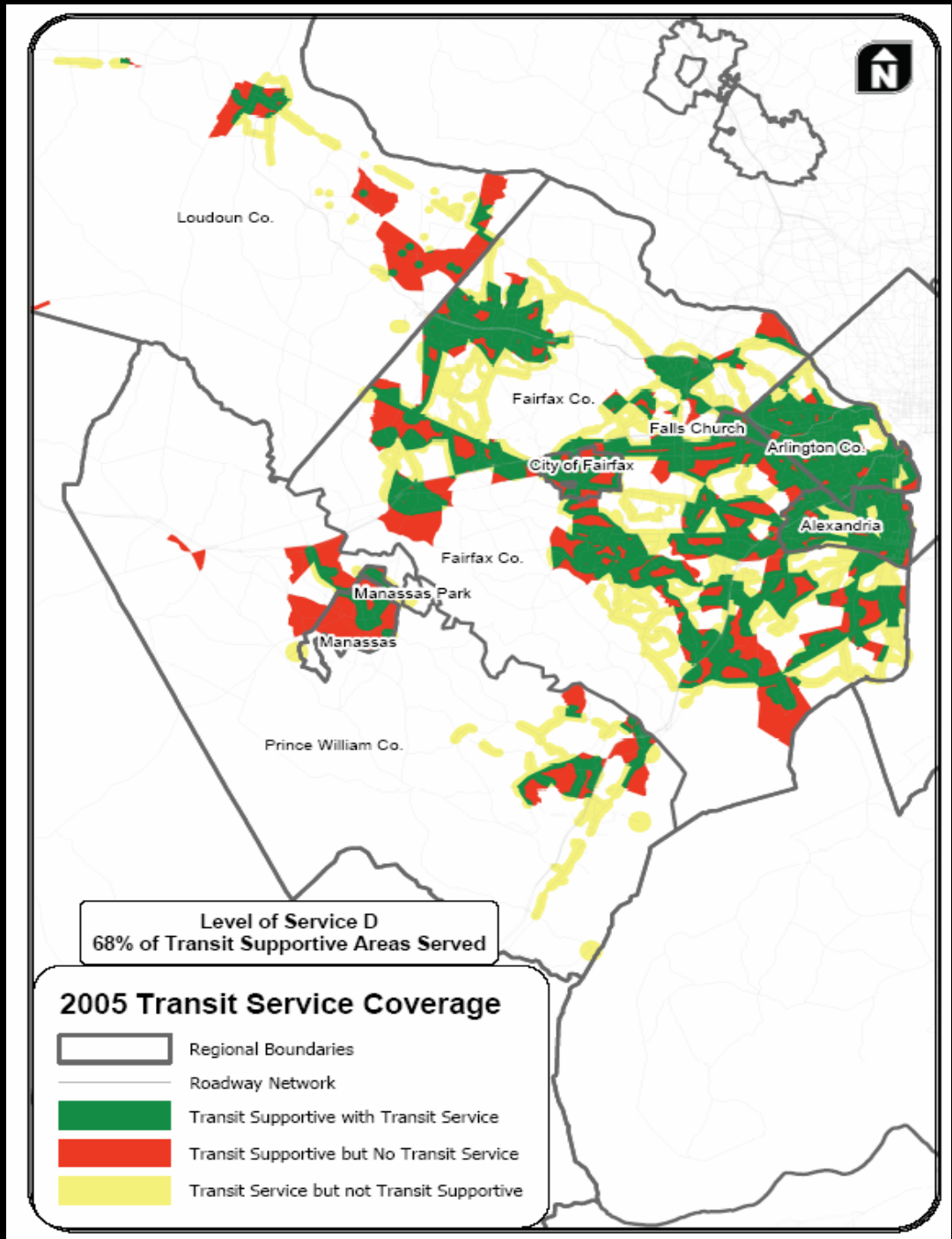
Regional Transit Performance

Five measures

- Service coverage
- Passenger load
- Activity Center LOS
  - Frequency of service
  - Hours of service
  - Travel time

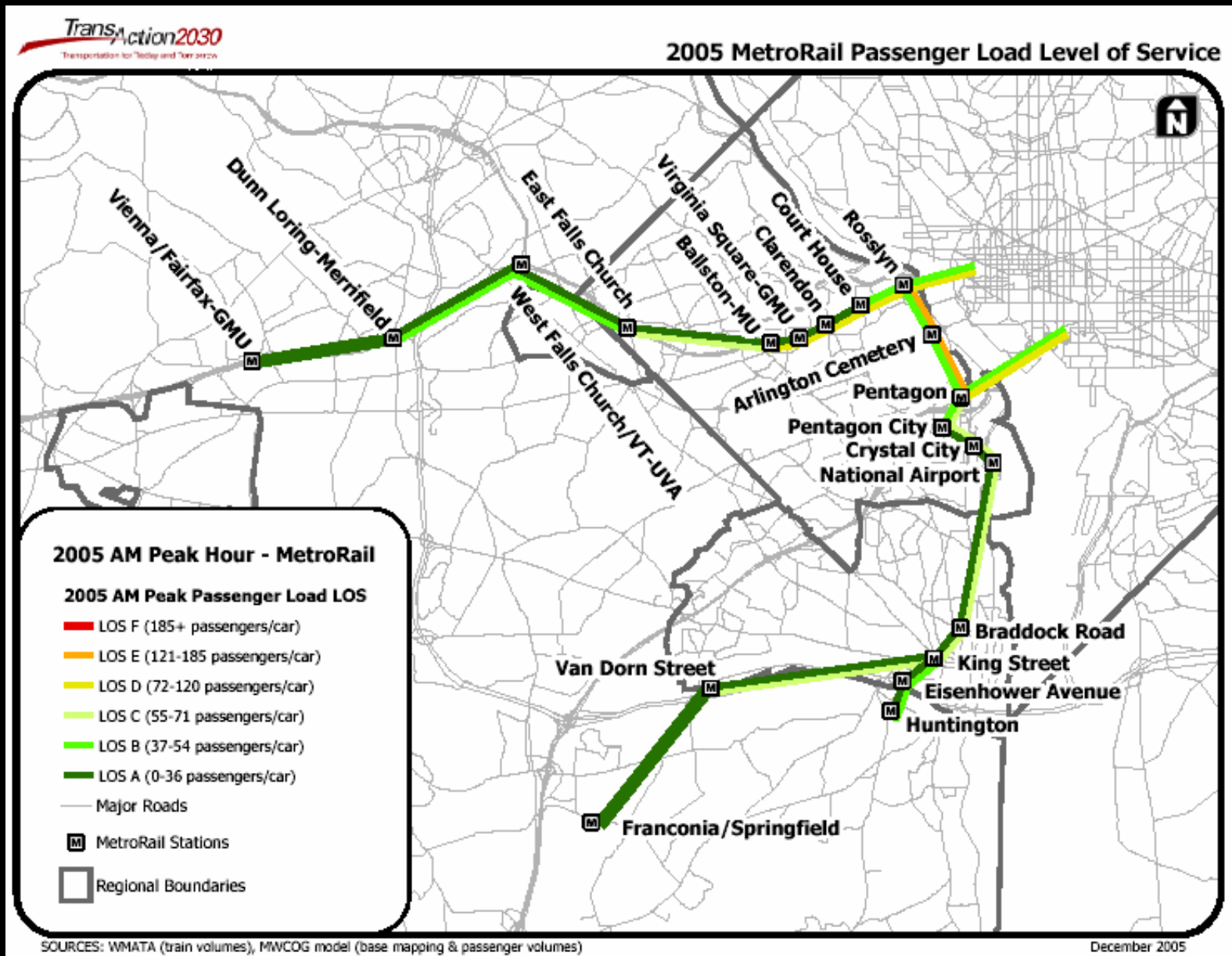
Service Coverage LOS

- Identifies "transit-supportive areas"
  - Areas with sufficient household and/or job density to support hourly transit service
  - (3 HH/gross acre and/or 4 jobs/gross acre)
  - Areas identified at the traffic analysis zone (TAZ) level
- Evaluates service provided to transit-supportive areas
  - 1/4 mile from bus routes, 1/2 mile from rail stations
  - Coverage area adjusted to account for street network patterns and street-crossing difficulty

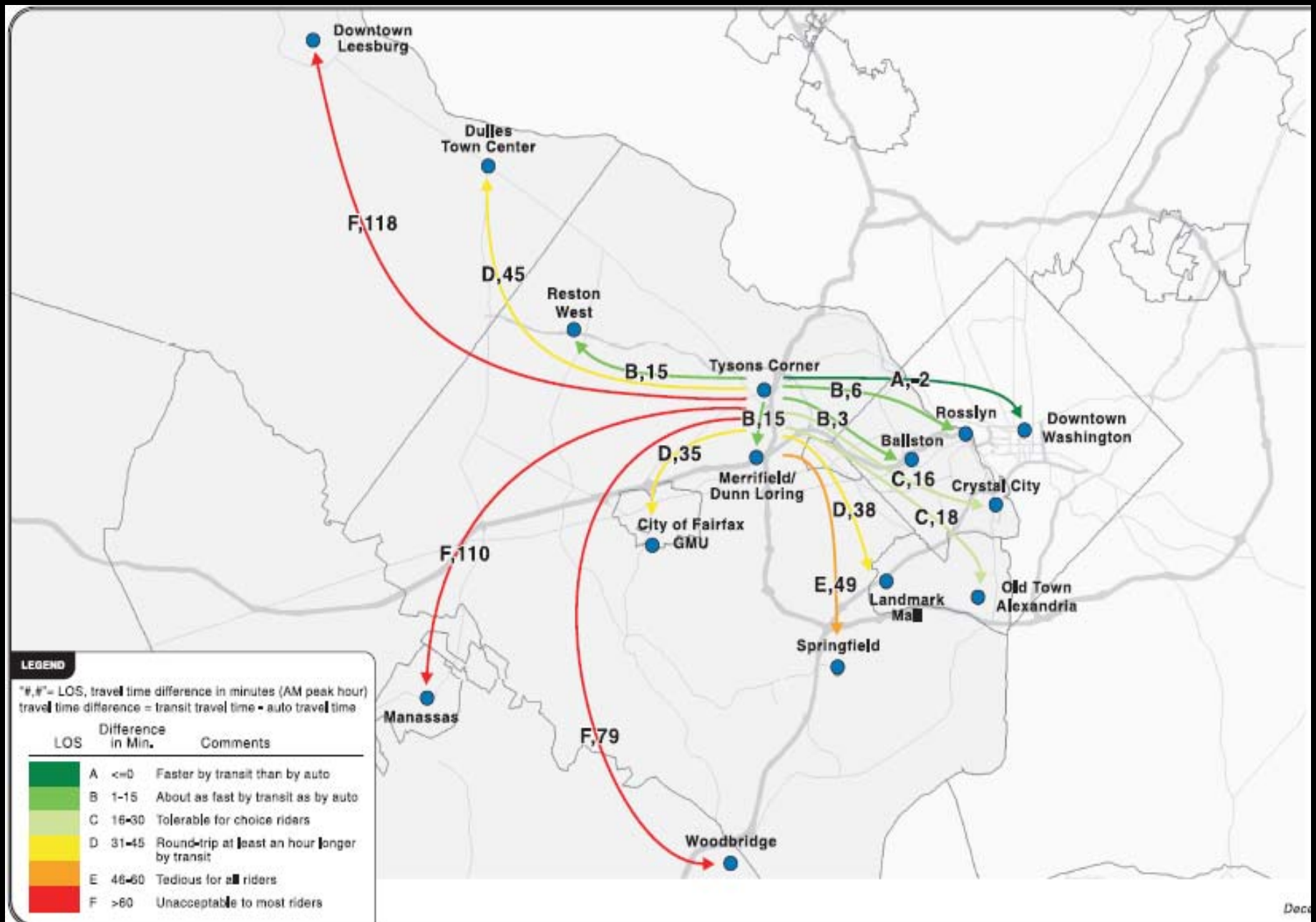


Service Coverage

Passenger Load



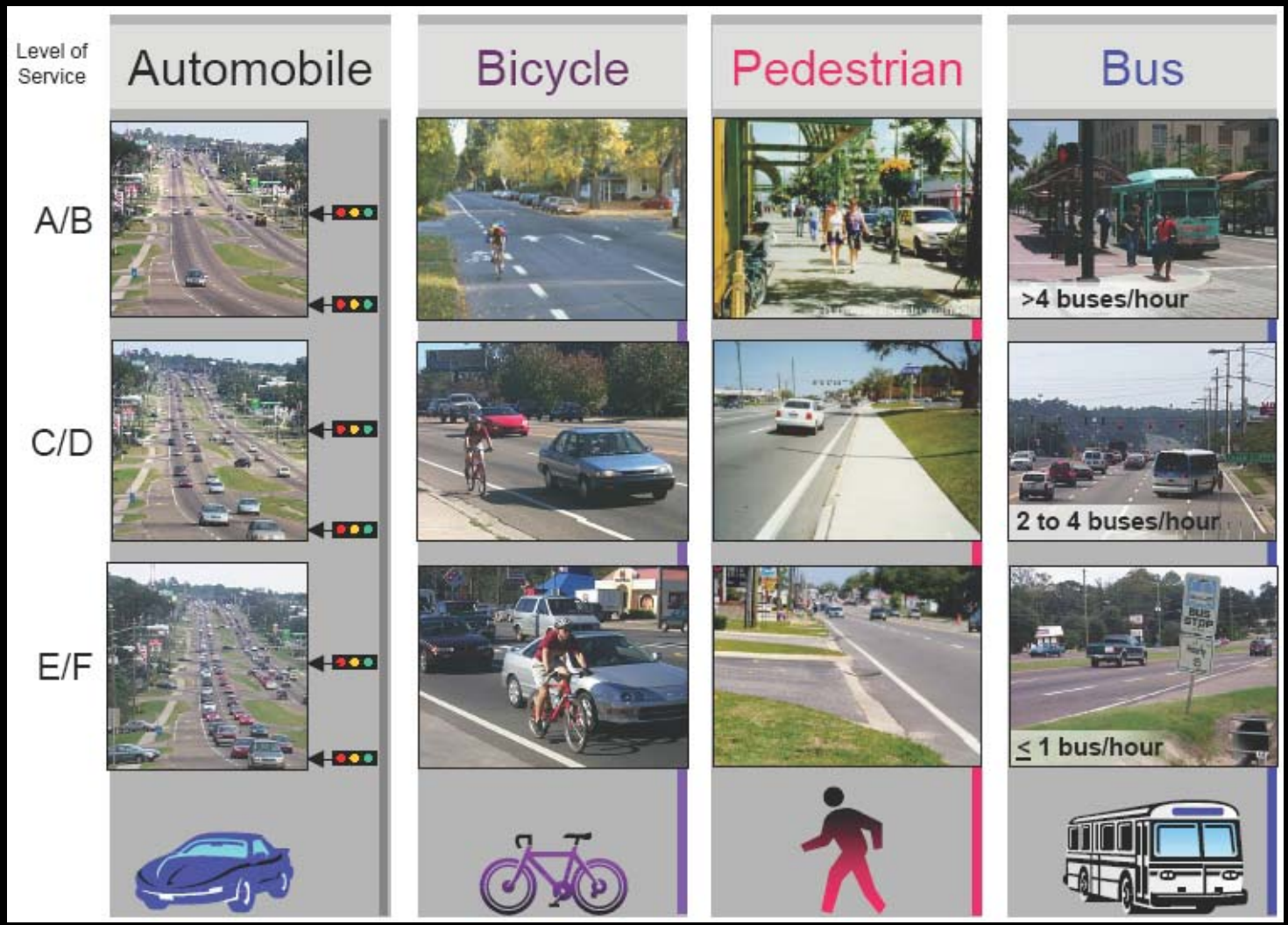
2005 Travel Time from Tysons Corner



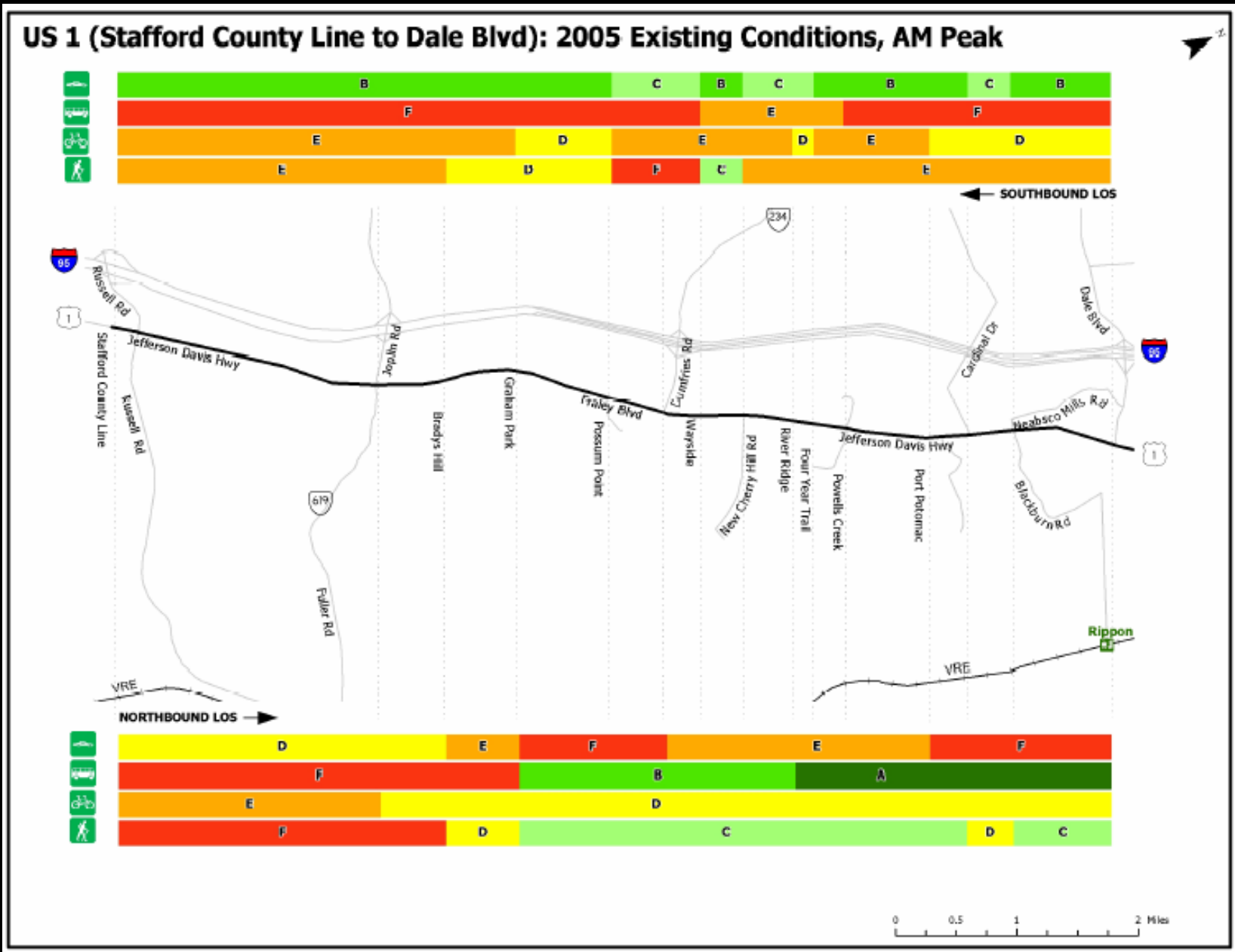
Multimodal LOS Analysis

- Helps us to understand the interactions between modes (auto, transit, bicycle, pedestrian)
- Measures reflect the traveler point-of-view
- Measured on an A (best) to F (worst) scale
- Measured segment-by-segment along an arterial
  - Generally between signalized intersections
  - Where a major change in road geometry (e.g., lane add or drop) occurs

Multimodal LOS



Multimodal LOS



Project and Network Performance Evaluation

Qualitative Project-Based Performance Evaluation Criteria

How well does a project perform compared to other projects in the corridor?

- Activity Center Connections
- Multimodal Choices
- Person Throughput
- Intermodal Connections
- Management & Operations
- Urgency
- Need for Rehabilitation
- Compatibility with Local Plans
- Land Use Support
- Improved Bicycle & Pedestrian Travel Options
- Reduced Roadway Congestion
- Safety
- Cost Sharing
- Freight Movement

Network-Based Performance Evaluation Criteria

How well does the overall system perform?

- Provide an Integrated Multimodal Transportation System
- Improve Mobility
- Improve Accessibility
- Improve Transportation Land Use Linkage
- Protect the Environment

4.2.6 Corridor 6: I-66/US 29/US 50 Corridor

Facility	Improvement	Limits	Number of Lanes From	Number of Lanes To	Activity Center Connection	Multimodal Choices	Person Throughput	Intermodal Connection	Management and Operations Technology	Urgency	Need for Rehabilitation	Right-of-Way (ROW)	Mode Share	Reduce VMT	Compatibility with Local Comprehensive Plans	Land-Use Supports Transportation Investment
Highway																
I-66	8 lanes + 2 HOV-reversible lanes	US 29 (Gainesville) to I-495	4/6/8	10	●	●	●	●	◒	●	●	●	●	◒	●	●
US 29	widen	I-495 to VA 7	4	6	○	◒	●		○	●	○	◒	○	○	●	◒
US 29	widen	Fauquier/PW Line to Virginia Oaks Drive	4	6	○	◒	●	◒	○	●	○	◒	○	○	●	◒
US 29 interchange	construct	US 15	–	–	○	○	●	○	○	●	○	◒	○	○	●	○
Reconstruction																
US 29 turn lanes	reconstruct	Quincy to Lexington	–	–	○	○	○	○	○	◒	●	●	○	○	●	◒
US 29/Lee Highway*	reconstruct	N. Quincy to N. Kenmore	4	4	○	○	○	○	○	◒	●	●	○	○	●	◒
US 50 – median barrier	reconstruct	N. Jackson to Fillmore Street	6	6	○	○	○	○	○	◒	●	●	○	○	●	◒
US 29 intersections (City of Fairfax)	reconstruct	Enhance priority movement at 6 intersections			○	○	○	○	○	◒	●	●	○	○	●	◒
I-66 interchange	reconstruct	@ US 29 in Centerville (possible new ramp)			○	○	◒	○	○	◒	●	●	○	○	●	◒
US 50	reconstruct intersection	I-66 to WCL Fairfax	–	–	○	○	○	○	○	○		●	○	○	●	◒
I-66 interchange	reconstruct	@ Rt. 28 (interim complete)			○	○	○	○	○	○		●	○	○	●	●
		@ Stringfellow Road														
		@ Rt. 50 (interim complete)														
		@ VA 123														
		@ Nutley Street														

* Project completed.

Legend ● High Rating ◒ Medium Rating ○ Low Rating

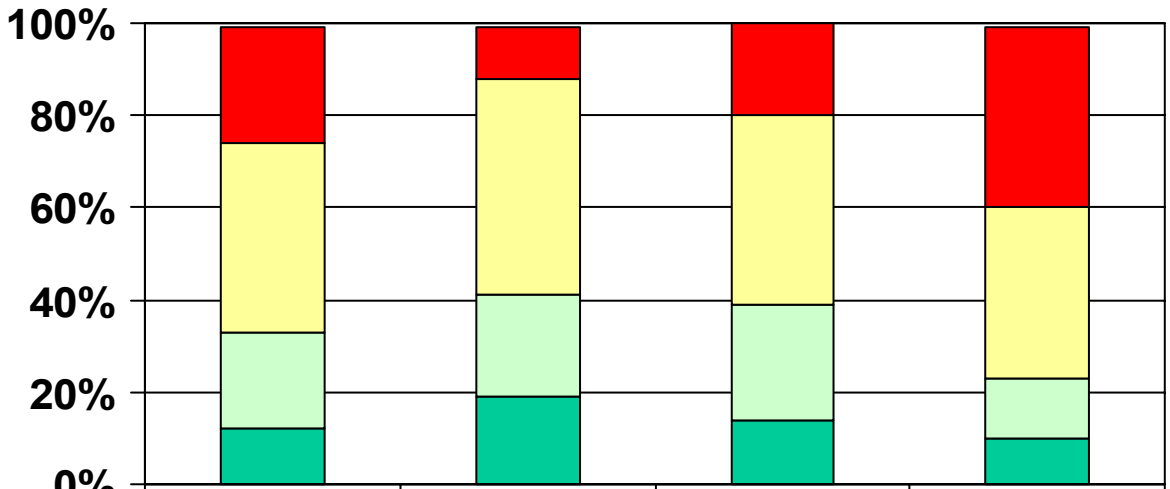
Public Involvement Opportunities

- Telephone survey
- Website
- Community events
- Telephone Hotline
- Public Hearing

Telephone Survey Methodology

- Representative sample of 1,263 Northern Virginia adults 18+
  - At least 100 interviews conducted in all jurisdictions
  - Aggregate data weighted to compensate for the effects of over-sampling these jurisdictions
  - Bases shown on charts are unweighted
- Margin of Error +/- 2.8 percentage points
- April 26 to May 10, 2005

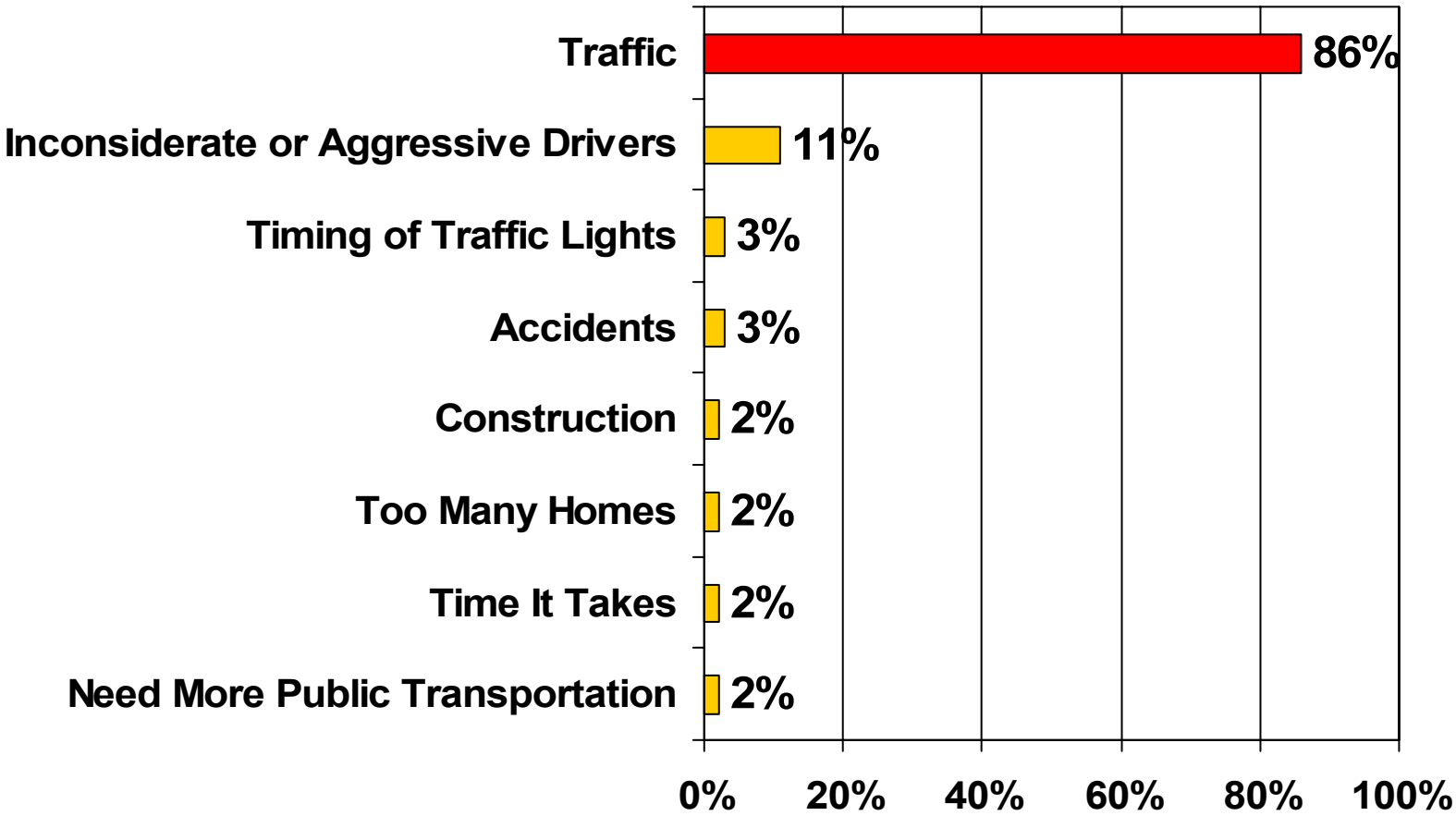
Two-thirds of residents are frustrated with the trips they take most often.



	Total Sample (N=1263)	Core Suburbs (N=206)	Inner Suburbs (N=601)	Outer Suburbs (N=456)
Very Frustrating	25%	11%	20%	39%
Somewhat Frustrating	41%	47%	41%	37%
Not Very Frustrating	21%	22%	25%	13%
Not At All Frustrating	12%	19%	14%	10%

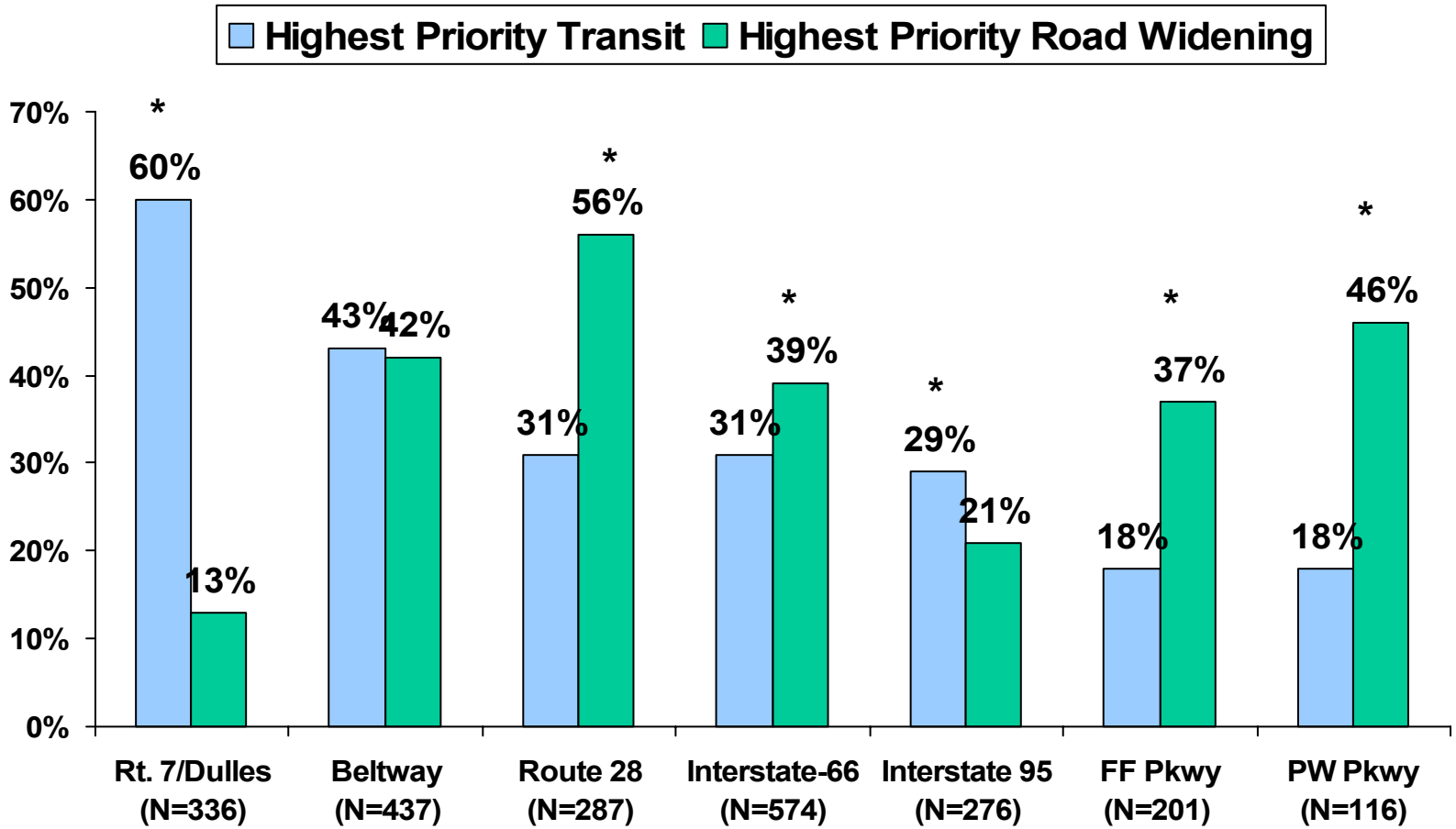
Almost nine in ten cited traffic as a reason for their frustration with travel.

Responses to an Open-Ended Question



Base=Very or Somewhat Frustrated N=829

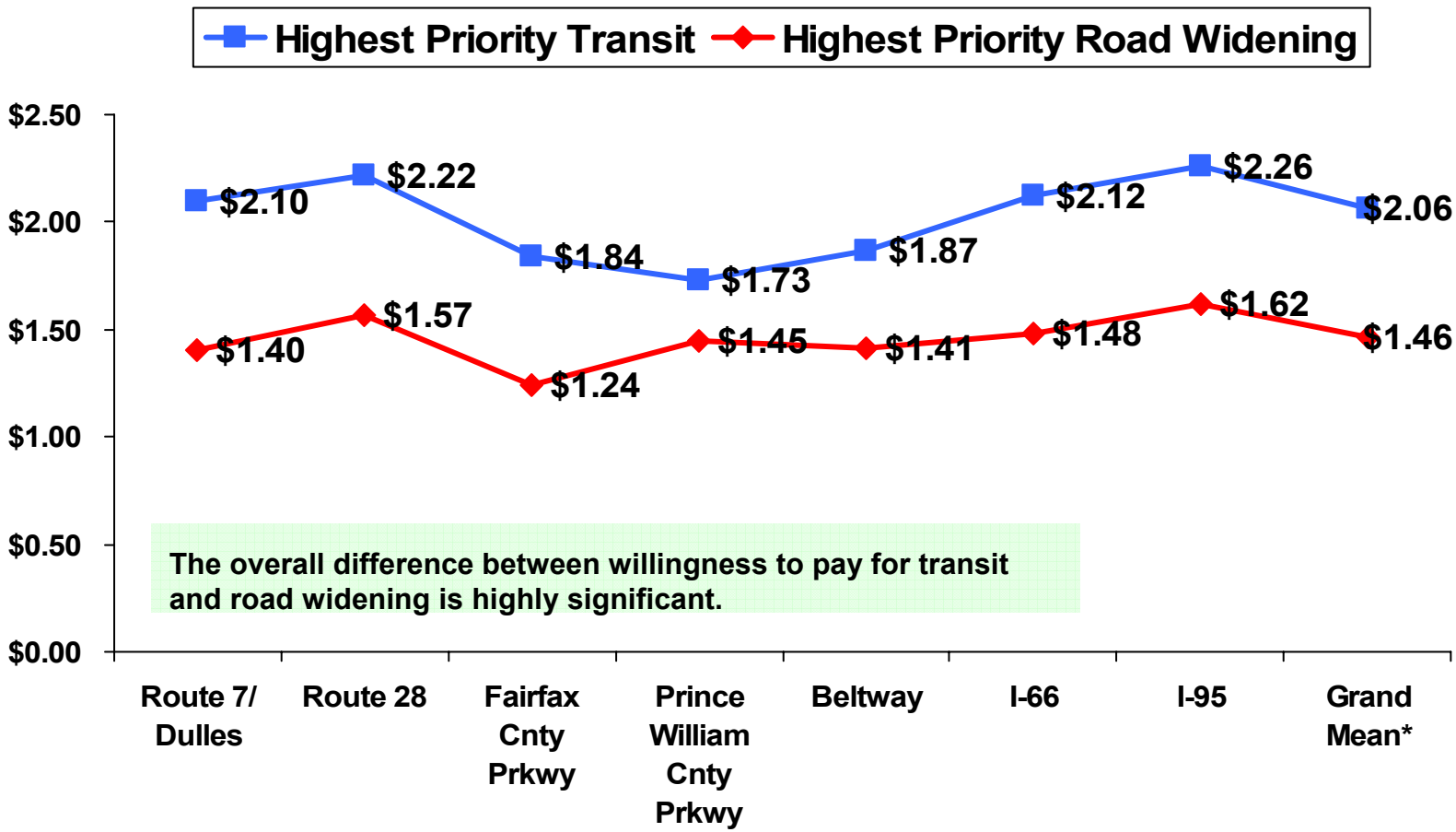
Summary of Public Priorities for Transit and Road Widening



*Statistically significant difference between transit and road widening

Note: Excludes the Tri-County Parkway because there are no transit projects.

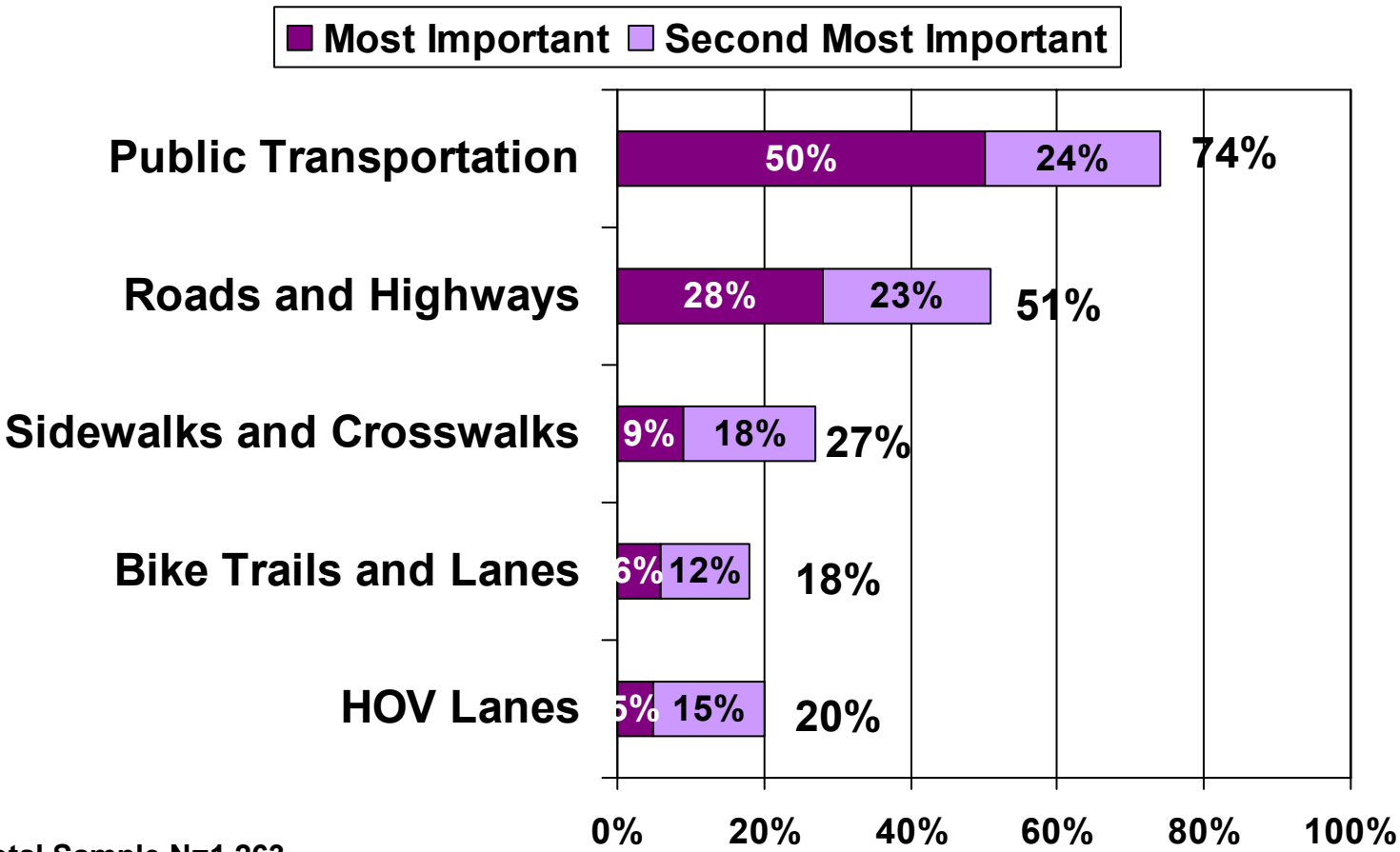
Summary of Mean Willingness to Pay for Transit and Road Widening



* The bases for the grand mean are 691 for transit and 668 for road widening.

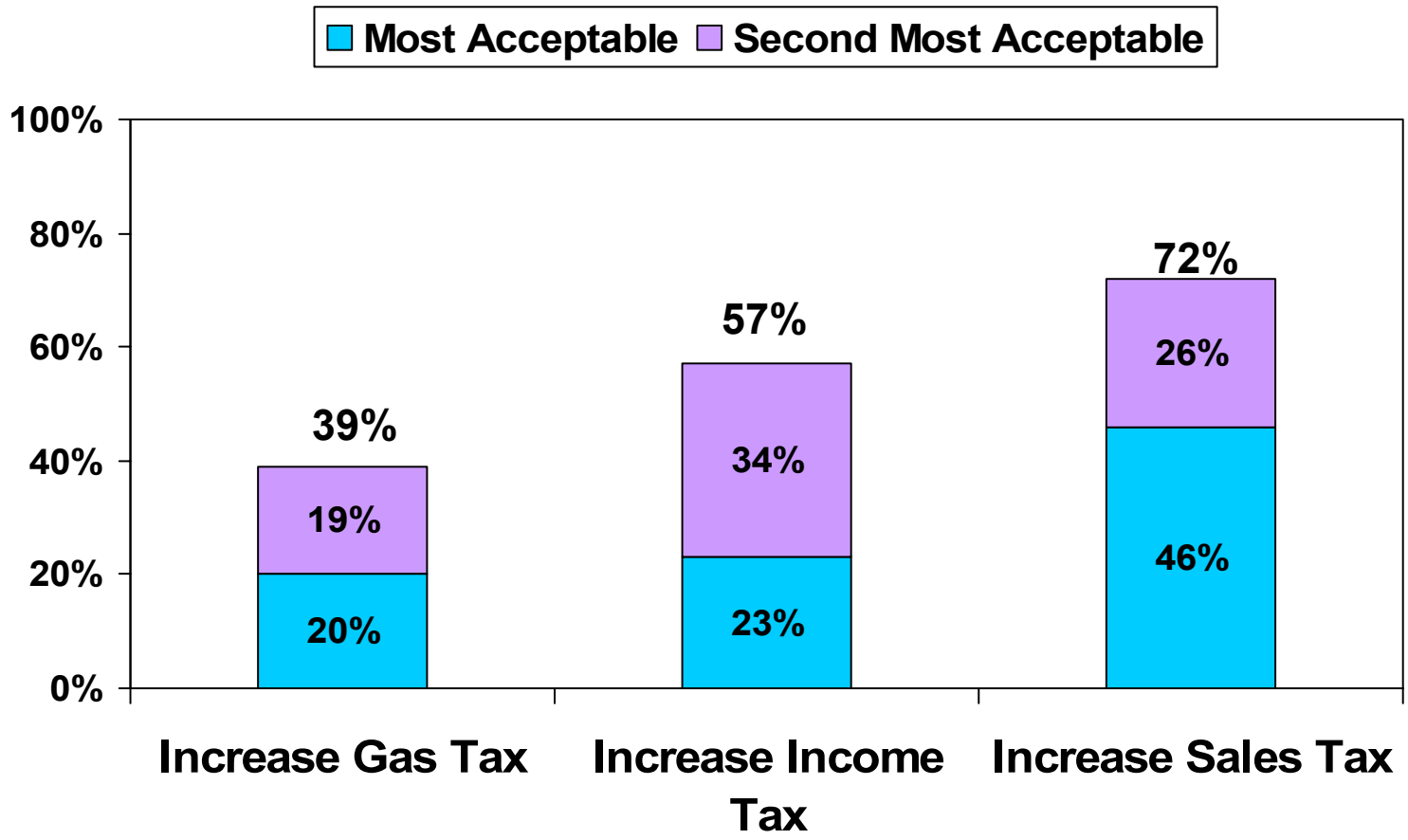
Note: Excludes the Tri-County Parkway because there are no transit projects.

Half of all respondents said that public transportation is their top priority, compared to just over one-quarter who chose road improvements



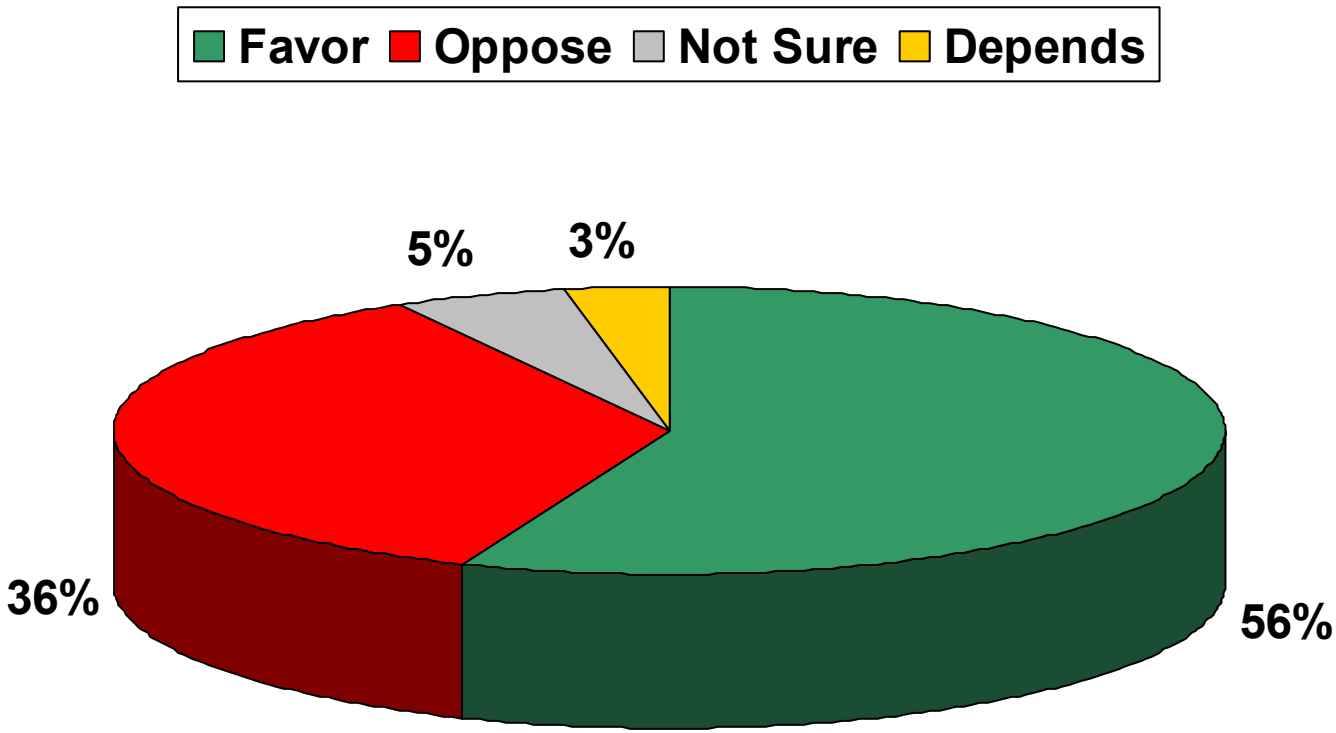
Base=Total Sample N=1,263

Most and Second Most Acceptable Funding Methods



Base=Total Sample N=1,263

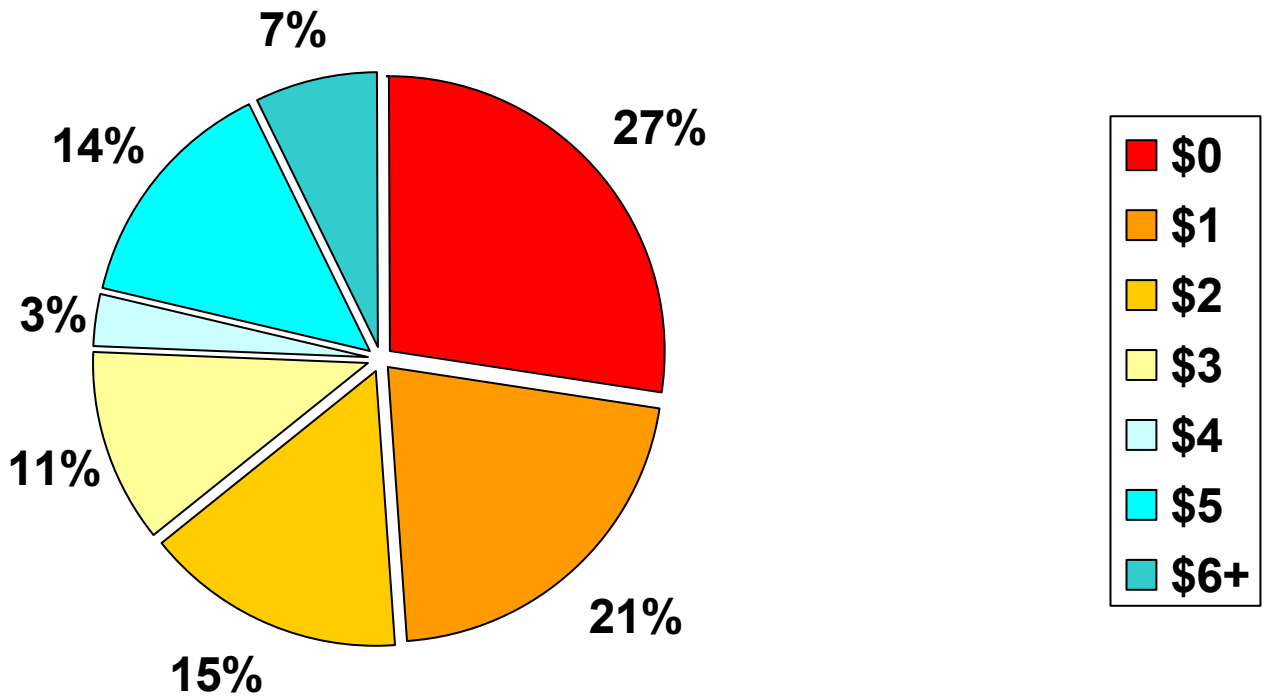
Support for HOT Lanes



Base=Total Sample N=1,263

Willingness to Pay to Use HOT Lanes

Q16: On a day when traffic is heavy, how much – IF ANYTHING – would you be willing to spend to use a HOT lane to travel in free flow traffic rather than being stalled in traffic congestion during peak traffic times?



Base=Total Sample Who Answered the Question N=1,172

Conclusions

- The NVTA now has an approved a list of priorities by corridor and mode
- Telephone survey and other public input indicates desire for enhanced multi-modal transportation system
- Transit LOS shows areas where additional transit service or more density may be warranted
- Highway LOS illustrates that TransAction 2030 level of funding is needed to improve the system.
- Funding shortfall of over $16 billion beyond the CLRP

Multimodal LOS Analysis

- Auto LOS based on volume/capacity ratios
- Bus LOS inputs: frequency (hourly buses in one direction) multiplied by adjustment factors for:
  - Hours of service
  - Street-crossing difficulty
  - Pedestrian LOS in segment
  - Barriers (e.g., ditches) between sidewalk and bus stops

Multimodal LOS Analysis

- Bicycle LOS inputs:
  - Curb lane traffic volumes
  - Bike lane/shoulder presence
  - Posted speed
  - Truck percentage
  - Pavement condition
- Pedestrian LOS Inputs:
  - Traffic volumes
  - Sidewalk presence & width
  - Separation from traffic
  - Protective barrier presence