

Policy Options for Secondary Road Construction and Management in the Commonwealth of Virginia

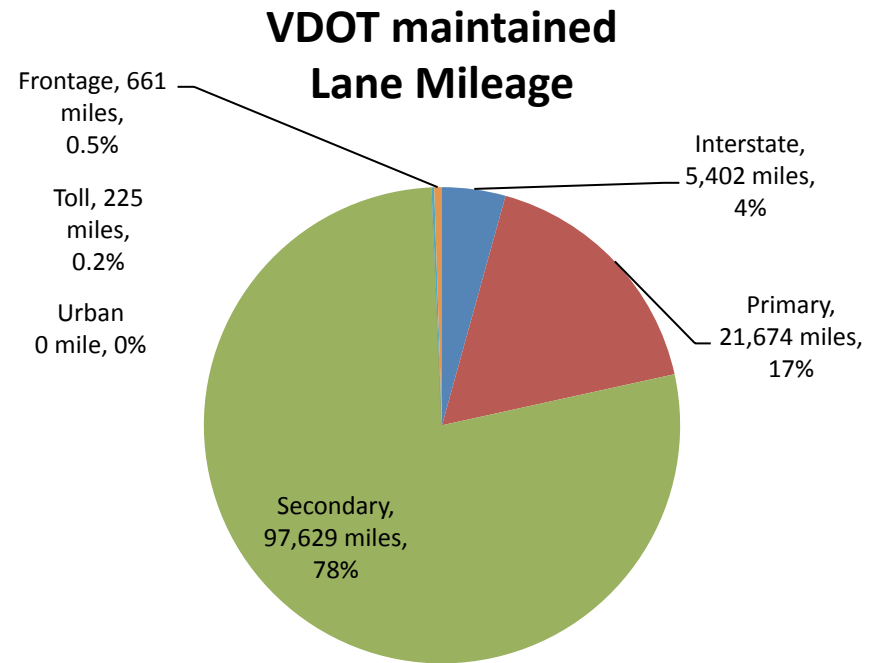
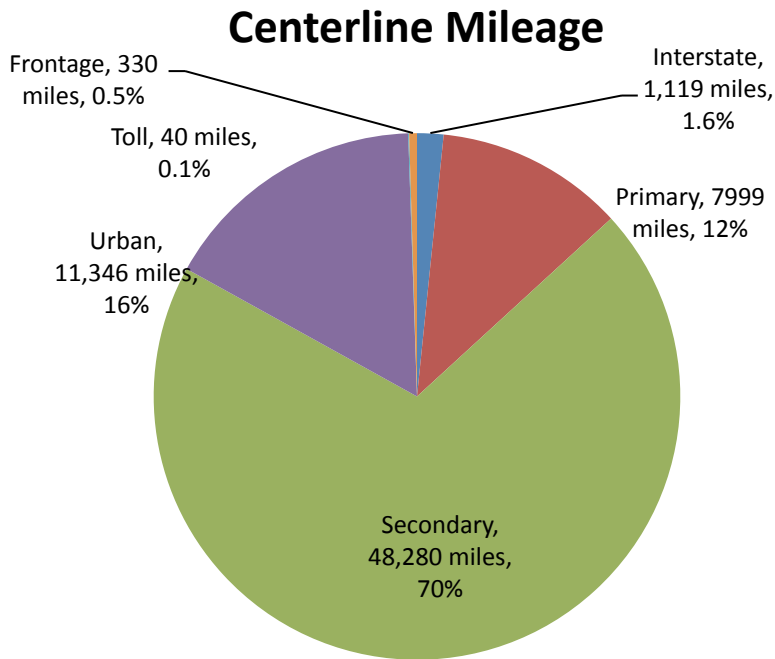
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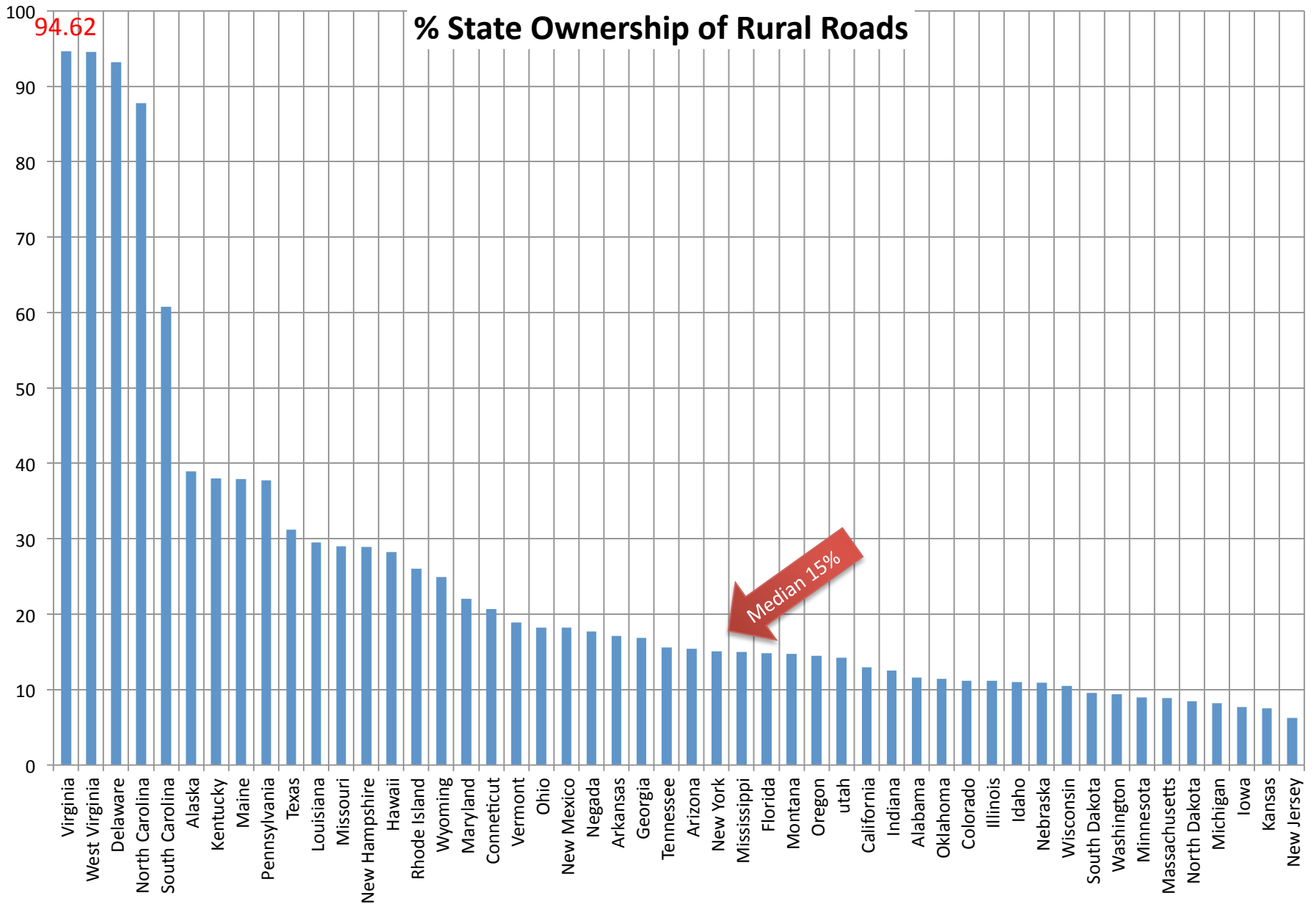
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Virginia Highways (2007)



Note: Centerline mileage and lane-miles for toll roads maintained by VDOT are for 2011 and were provided by Jennifer Debruhl, VDOT Local Assistance Division

Source: VDOT "State Highway Systems Mileage Tables," <http://mileagetables.virginia-dot.org>, accessed March 10, 2011)



Source: U.S. Federal Highway Administration, *Highway Statistics 2008* (Washington, D.C., 2009), Table HM-10

Policy Evaluation

- Programmatic outcomes - pavement quality, emergency response time, etc.
 - Not inputs and outputs (staffing, expenditures)
- Social and economic value of the roads
 - Environmental impact, community impact, etc.
- Road / Land Use Relationship
- Changing needs: “complete streets” - bikes, pedestrians, etc.

The Secondary Road System Challenge

Functional Class	Miles	% Total
Urban Freeway/Expressway	-	0
Urban Other Principal Arterial	356	0.074
Urban Minor Arterial	587	1.215
Urban Collector	1,136	2.352
Urban Local	6,364	13.181
Total Urban	8,122	16.822
Rural Principal Arterial	1	0.001
Rural Minor Arterial	21	0.044
Rural Major Collector	6,920	14.333
Rural Minor Collector	2,348	4.864
Rural Local	30,868	63.936
Rural Total	40,158	83.178
Grand Total	48,280	100.000

Source: VDOT, "State Highway Systems Mileage Tables" (<http://mileagetables.virginia-dot.org>, accessed March 10, 2011)

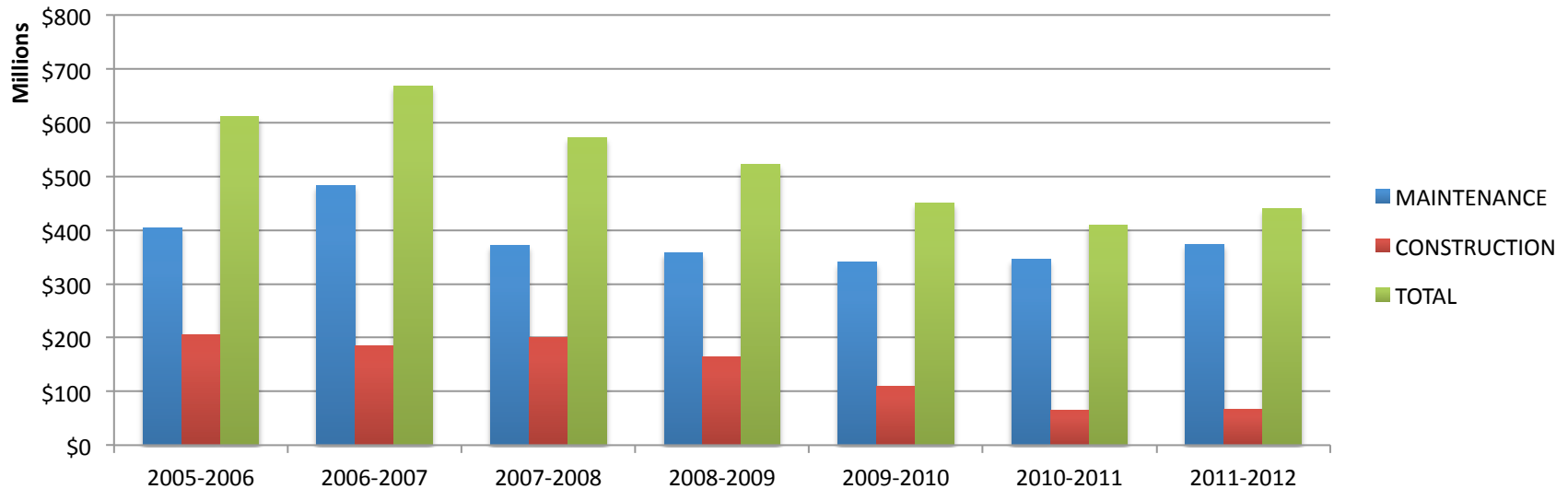
- Diverse physical and functional uses:
- Statutorily equivalent

The Secondary Road System Challenge

- Revenue sources:
 - Highway Maintenance and Operating Fund (HMOF)
 - Transportation Trust Fund (TTF)
 - Maintenance has priority
- VDOT required to accept all new roads if they meet VDOT standards:
 - 1,454 miles (3%) was added 1998 – 2007
- Large portion of the VDOT resource use:
 - \$410M out of \$3.3B FY2011 budget (12%)

The Secondary Road System Challenge

VDOT Secondary Road Budgets, FY 2006-FY2012

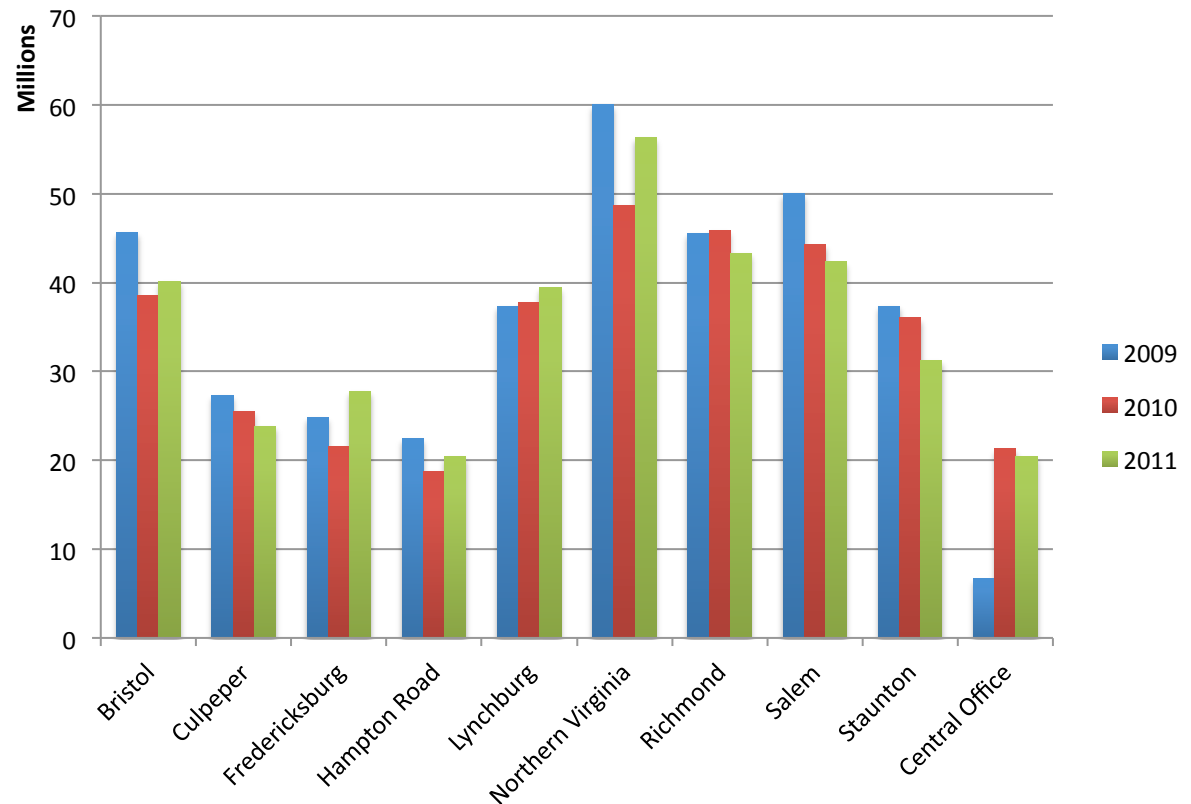


- Declining trend; rebound in FY 2011, 2012
- Maintenance has funding priority
- Budget decline due to:
 - Declining gas and vehicle taxes
 - Economic recession

The Secondary Road System Challenge

- Districts budgets drops in 2010
 - already depressed from previous years
- Some rebound in 2011

**Secondary Maintenance Budgets by District:
FY2009-FY2011**



Budgets vs. Expenditures

County Type	Total M&O Expenditures Net Emergency Expenditures (2005 \$000)	Total Secondary Lane Miles	\$/lane- mile
Northern Virginia	\$58,501	9,555	\$6,123
Urban/High Growth	\$32,977	11,112	\$2,968
Rural Low Traffic	\$42,494	17,672	\$2,405
Rural High Traffic	\$48,509	18,006	\$2,694
Rural Mountain Low Traffic	\$55,900	18,812	\$2,972
Rural Mountain High Traffic	\$68,653	20,903	\$3,284
Total Expenditures or Average \$/lane-mile.	\$307,034	96,060	\$3,196

Source: Derived from Virginia Department of Transportation, Feasibility Model for Secondary System Assumption by Virginia Counties (March 2007).

The Secondary Road System Challenge

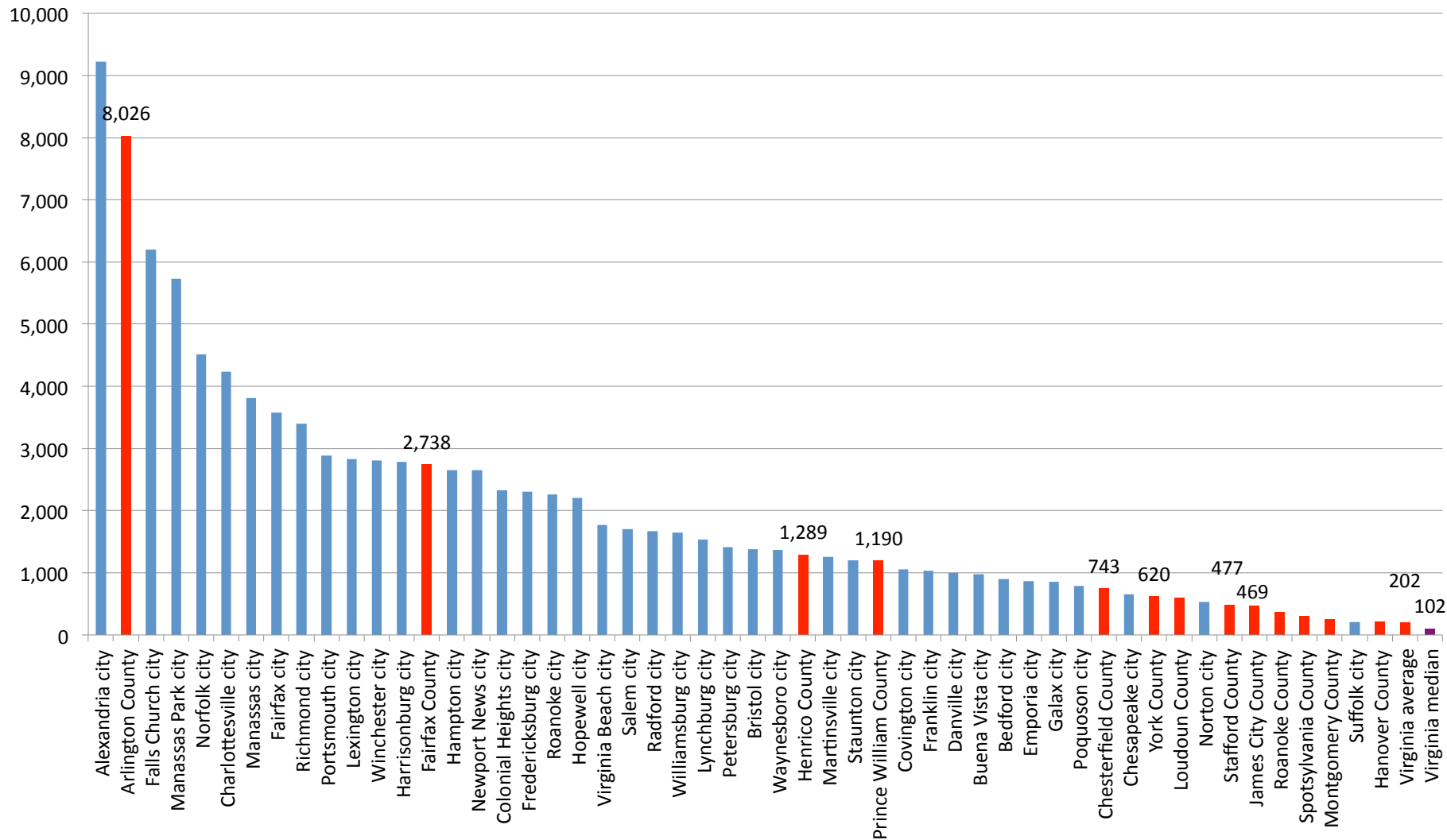
- Deteriorating conditions – deficient pavement:
 - 25% in 2007
 - 31% in 2009 (some counties over 50%)
- Total cost to restore payments \$1.3B
- Continued deterioration increases cost of returning to “state of good repair” exponentially
- Additional considerations:
 - Potential value and benefit of local control
 - Employment associated with secondary roads operations of VDOT

Virginia Secondary Road Policy History

- Byrd Road Act (1932):
- Most counties welcomed the change
- Arlington and Henrico counties manage road systems
- Counties could contribute to the secondary road program for additional construction and maintenance, though only few cases

Urban Densities in Some Counties

Population Density (Persons per Square Mile of Land Area):
Counties and Cities in Virginia 2010 Census*



(*Only counties and cities with a higher population density than the average population density in Virginia are shown here.)

Population Density (persons per square mile of land area)

Jurisdiction	Type	Density Range
Alexandria	City	9,220
Arlington	County	8,026
Falls Church, Manassas Park, Norfolk, Charlottesville, Manassas, Fairfax, Richmond, Portsmouth, Lexington, Winchester, Harrisonburg	Cities	2,786-6,197
Fairfax	County	2,738
Hampton, Newport News, Colonial Heights, Fredericksburg, Roanoke, Hopewell, Virginia Beach, Salem, Radford, Williamsburg, Lynchburg, Petersburg, Bristol, Waynesboro	Cities	1,368-2,654
Henrico	County	1,289
Martinsville, Staunton	Cities	1,205-1,261
Prince William	County	1,190
Covington, Franklyn, Danville, Buena Bista, Bedford, Emporia, Galax, Poquoson	Cities	783-1,051
Chrsterfield	County	743
Chesapeake	City	652
York	County	620
Loudoun	County	601
Norton	City	526
Stafford	County	477
James City	County	469
Roanoke	County	368
Spotsylvania	County	305
Montgomery	County	243
Suffolk	City	211
37 other counties	Counties	50-200
Average County Density		68
47 other counties	Counties	6-67

Restructuring Initiatives

- *Beyond the Byrd Road Act* (1998, VTRC)
- Secondary Devolution Policy Since 2001
 - Allows counties to take some or all responsibility
 - “Devolution Guide” (2007)
 - Estimates what VDOT “would have spent”
 - James City and Stafford County Studies
 - Fairfax County self studies – 1975, 1990, 2010
- Bond Study
- System Reclassification

Other Relevant Policy Developments

- Transportation and land use coordination
- Local option transportation taxes
- Urban Construction Initiative (First Cities Initiative)
- Performance-based maintenance outsourcing

Findings

- Current secondary system not appropriate admin system for policy
- Deteriorating condition
- Minimal funding for construction in recent years
- Low priority for funding by current budget process
- “Devolution mechanism” of the current statute has not attracted any counties
- State payments not sufficient to cover costs

Findings (cont'd)

- Most counties have limited capacity to assume fiscal/admin responsibility today
- Local control allows integration of transportation and land use in developing areas
- Local option taxes successful elsewhere but somewhat limited in Virginia
- Secondary acceptance policy continues to enlarge size of system and associated problems

Options

Option 1: Maintain Current Policy

- Construction:
 - Counties could supplement VDOT construction, if not need to replace the role of VDOT in construction
- Maintenance:
 - The policy does not guarantee future payments
 - Counties face the uncertainty
- Counties could expand their transportation departments, though unlikely
- This option would allow the conditions of the secondary system to continue deteriorating

Option 2: Maintain Current Policy with Enhanced Budgetary Priority for Secondary Roads

- Raising the priority of the secondary system
- Clear counties' uncertainty about future
- Budgetary trade-offs
 - What gets downgraded?

Option 3: Restructure the Secondary Road System

- Restructure the secondary system as part of a broader reclassification
- Adoption of a “core network” system
- What to do with the remainder of the secondary roads
 - Continue VDOT responsibility
 - Partial or complete performance based outsourcing

Option 4: Consider Performance-Based Maintenance Contracting on the Secondary System

- Introduce performance-based maintenance contracting (PBMC) for secondary road system
- Possible challenges:
 - Definition of right-of-way limits
 - Interaction of contractors with households, businesses served by the system
- A quality bid selection process

Option 5: Empower Counties to Raise Revenues

- Allow local option transportation taxes:
 - Counties may more readily embrace responsibility for secondary road construction and maintenance
- Currently:
 - Counties have limited capacity
 - Referendum required for bond issuance
 - Cities have greater authority

Option 6: Impose Devolution on All Counties

- Allocate secondary road maintenance funds by a legislative formula
- Possible concerns to counties:
 - Current state of repair of the assets
 - Level of funding
 - County fiscal and institutional capacity

Option 7: Impose Devolution for Select Urban Counties

- Transfer responsibility to select “urban” counties
- Metrics to identify capable counties
- VDOT focus on the links to larger intercity and regional traffic flows of traffic
- Benefit:
 - Better responsiveness, local control, transportation/land use
 - Focused attention to the different types of roads

Option 8: Performance Audit Findings

- Funds carryover: possible higher spending levels
- Close the time lag of asset condition data collection and budget allocation
- Target maintenance “Projectization”

Option 9: Possible Hybrid Policy Options

- Example 1: A combination of:
 - performance based maintenance contracting (PBMC)
 - System reclassification
 - Devolution for select urbanized counties and guarantee a payment stream for an initial contract term
- Example 2: A combination of:
 - PBMC
 - System reclassification
 - Contract out for a group of rural counties

Questions?