

The Virginia
NEWS LETTER

Forcing Drivers Off the Road Won't Solve Virginia's Traffic Woes

By Alan E. Pisarski

Transportation is perpetually number 11 on everyone's top 10 list of public things that need doing, except during elections when politicians suddenly feel our pain regarding our travel woes. It is wondrous how willing politicians are to take credit for jobs created but fail to recognize that each job pretty much generates a commuter twice a day.

Realistically, transportation probably belongs at number 6 or 7 on our list of local public issues, after education, crime, health care, etc. When transportation reaches No. 1 on the public issues hit parade then it's either because everything else is in wonderful shape or we have let transportation get really bad.

Transportation infrastructure, particularly highway capacity, doesn't overload over night;

it takes some years of sustained disinterest to create a situation such as we face today.

The process of deciding and doing anything about transportation investment is so slow and so subject to being knocked off the track by anyone with obstruction in mind that any significant level of growth over the years can easily outgrow the infrastructure in a relatively short time. If we could all agree on a transportation project today, it would be 10 years before we saw anything on the ground to ease our problems.

Nearly every region of Virginia faces major transportation problems. But few would dispute that Northern Virginia has the most acute needs. Dealing with these needs is the subject of this *News Letter*.



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The Northern Virginia region, like many others around the country, was the beneficiary of substantial road investment over the years bequeathed to us by the post World War II generation. We have done little to add to it since. That capacity has run out.

How Bad Is It?

How bad is Northern Virginia's problem? Probably not all that bad, at least relatively!

The Washington, D.C. area is certainly among the nation's worst—No. 2 on the Texas Transportation Institute's list of the nation's most congested areas. Using a more directly comprehensible metric, the ratio of travel times in peak conditions to travel times off peak, the area is also right there among the nation's worst—Los Angeles, San Francisco, Seattle—at about 1.5; that is, one is hit with a 50 percent time penalty to do anything in a car in the peak travel times versus the off-peak. (Contrast this with Baltimore with about a 22 percent peak to off-peak penalty.) This is a viable measure of system quality to commuters because their measure of failure is often a product of what the system does at a given time contrasted to what it could be. (If I leave the office now it will take 30 minutes; if I wait until 5 p.m. it will take an hour!)

Did something happen overnight to cause the present furor? It doesn't appear so. The peak/off-peak ratio was about 1.33 back in 1982, suggesting that a trip that took 40 minutes in 1982 now takes 45—slow deterioration rather than anything catastrophic. The Washington area seems to be getting worse at a pace well below the average rate of decline in such super-high growth places as Las Vegas, Seattle, and Salt Lake City.

What is Causing the Problem?

The Demand Side

From the demand side the most fundamental cause of our congestion problem is that terrible villain: prosperity. People can afford cars and use them. They can act on their social and economic needs and wishes. That leads to travel and that leads to friction with other people acting on their social and economic needs. As incomes rise, trip-making increases; specifically, auto-oriented trip-making increases, and trip lengths increase. Higher-income people make about 40 percent more auto travel than the average, and low-income people make about 40 percent less than average. (So to solve the problem we obviously need to make rich people into poor

people—about 10-12 percent unemployment should do the trick.)

One of the great benefits of the rising affluence of the population, and the increasing affordability of auto travel, is that increasing shares of the low-income population can afford a personal vehicle. With the vehicle comes greater social and economic freedom to seek a greater selection of job opportunities and social/recreational choices. Congestion is a small price to pay for this increased participation in the society's benefits by the lower income population. A large part of our growth in the future will come from the increasing ability to afford auto travel by minorities. We are seeing the democratization of mobility at last—something to be applauded not condemned.

The other big factor in the demand equation, of course, is population growth. Virginia as a whole and Northern Virginia in particular have been attracting people and jobs at a dramatic rate. But it is notable that areas with *declining* population around the country are still registering substantial increases in congestion as commuters continue to increase in most areas even when population doesn't.

The nature of Northern Virginia travel patterns is a significant factor as well. The Washington metro area reflects the national pattern of heavy growth in workers per household, a shift away from a downtown orientation to suburb-to-suburb commuting and other travel patterns, a shift to the personal vehicle away from the alternatives—and most dominant of all—the preeminence of time pressures as the major force in travel decisions. Time pressure on all of us, but particularly on working women, has given rise to the trip chain: running through a sequence of stops on the way to and from work, kids, food, cleaning, etc., which is a pattern that makes mass transit use and even car-pooling almost impossible.

How typical is Washington metro of the national pattern? It is special in many ways, most of them making the situation better than average. The Washington metro area is:

- The area with the most jobs per household, meaning that it generates commuting like areas with much greater population.
- The richest metro area—obviously related to the point just above.
- The most transit-oriented commuters in the nation after New York (which is off the charts in U.S. terms).
- The most car-pooling oriented large metro area in the country—declining in recent years but still No. 1.

- The least oriented to the single-occupant vehicle of the major metro areas—astonishing given its relative affluence.

Finally, even though there have been dramatic shifts of people and jobs to the suburbs, the federal government is still the center-city anchor. And, because it doesn't follow market economics (rather, congressional economics), it will stay put, thereby causing very long commutes for federal employees, especially those in the lower job grades pushed to the region's edge in a search for affordable housing.

Given all of these points one would think that the Washington metro area has a fairly operable problem. And it does: No major manufacturers shipping and receiving raw materials and finished goods, no sea port or major air freight generating large scale container truck traffic. A lot of stuff passing through on the way to someplace else but not out of scale for the area. Some heavy tourism at some times in the year that can get in the way of local travel but mostly occurring in areas that are no longer critical to regional travel patterns.

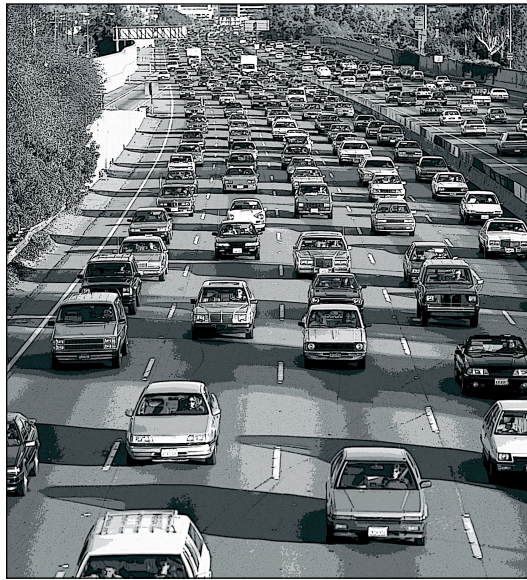
How We Got the Problem: The Supply Side

If we see that demand is growing at about three percent a year, then if we increase supply at about the same rate, things should be OK - right?

Right! But, welcome to the dark side, the world of public policy.

One of the products of the anti-freeway revolts and the early justifications for the building of the D.C. Metro train system was the rhetoric that said that mass transit can do it all: No need to build any more roads. Well, we built the Metro transit system, and an excellent system it is, and it has helped us to gain position in terms of transit use along with the big boys of the East: New York, Chicago, Boston and Philadelphia. Washington has milked more in transit use, and carpooling, from our economic and physical condition, than we have the right to expect.

But no serious transportation planner ever thought that it could be all or even a major part of the answer to our total needs. An unfortunate fact was that there are those, still present today in the policy forum, who think that if we just don't build any roads and let things get lots worse then we will induce more people into using transit. This is a theory that says that if we make life miserable enough for 90 percent of travelers some of them might switch modes to work. By this theory we just haven't let things get bad



enough yet. This could not be a more self-defeating public policy.

Federal restraints are an additional factor. Environmental and other federal concerns use highway funding as the lever to produce all kinds of local actions. The process is designed to be slow, designed to permit those who object to anything to obstruct a project for years. Look at the efforts to build the Inter-County Connector in Maryland, a new Potomac crossing, or the Wilson Bridge. The federal process puts local planners in the unenviable position of trying to square the circle: Solve the problem but don't do this, this or this.

Thus if the transportation problem is defined as congestion, a large part of the planning and public policy world is not only disinterested in the problem, it is actively engaged, or at least implicated, in wanting things to get worse. Most of the solutions they favor—or can do—need a highway system serving the driver badly in order for their solutions to work: carpools, transit, walking, biking.

What we discovered on the Inter-County Connector Task Force, to no one's surprise, was that after you have built all of these things, even the ones not worth doing, even after you pegged all future growth to "smart" high density, transit-oriented development, you have probably addressed at most 10-15 percent of the problem. There remains a residual, 85-90 percent, that must be highway oriented. We are all thinking "out-of-the-box" and being wonderfully "innovative." We may just need some "inside the box" thinking!

Most major transit schemes today are more a tribute to the creativity and wishful thinking of the proponents than to a serious option for solving a real problem. None would

last a moment if we had to spend our own money on them. Proposed light rail lines are sprinkled about like flower petals with no more rationale than that they are “in” now. None can reach the stage of responding to one year’s growth in highway travel. They are not even on the same page in terms of scale.

In Northern Virginia we see areas where transit is about two percent of the passenger travel activity, and zero, of course, of the freight, and gets about 50 percent of the public funding often in high-cost schemes subsidizing the high-income population and transit employees. Are there transit options that could help? Maybe! But again the present process will probably not permit them to happen.

The First Order of Business

The first order of business in Northern Virginia must be maintaining what we’ve got in the Metro transit system; funding for this must be the highest transit priority. Beyond that, for mass transit to make a difference it would have to heavily saturate an area so that accessibility is seriously affected by transit presence. Think of what would have happened if we had invested all of the Metro dollars within the city center or the core. It is just possible that such a system might, *might*, have made a real difference, where people wouldn’t need a car—or a second car. Or one could conceive of the opposite, a regional commuter rail-like system that reached distant centers like Harper’s Ferry, Annapolis, Frederick and Fredericksburg and created major high access nodes of development.

As it is, the system must balance investment and service with the political membership of the region, making sure that everyone gets something, so that it is as much a source of the sprawl as anything else that might be condemned for that sin.

The future belongs to a transit-like activity that responds to the dispersed nature of today’s travel patterns, one not likely to be easily provided by a public agency more oriented to the mass in mass transit, but amenable to taxi/van/jitney-like private operations.

What Happens if We Do Nothing?

It is belaboring the obvious to say that more traffic will generate more congestion and overall slower speeds. The obvious side effects of that are, wasted time, wasted fuel, and greater pollution.

One factor that is rarely addressed in such cases is the decline in reliability of the system. In some cases reliability is a more crucial concern than speed, especially in a freight movement context. One of the penalties of loss of reliability is the wasted time resulting from the need to factor in the potential for delays, when, for example, someone arrives at a meeting 20 minutes early because they cannot trust the system to deliver them “just-in-time.” One reliability effect of the system is that environmental concerns have permitted/forced us to expand existing facilities rather than creating new parallel ones at reasonable spacing. This creates the big eyesores of 10 and 12 lane freeways, but also reduces reliability when one overturned truck can paralyze the entire area.

The longer term indirect effects are greater costs of just about everything we consume as transportation costs rise as a share of the price of goods. Consumers, employers, and shopkeepers are affected by the decline in effective market-size as the market area in a 20-minute orbit around their home, office or store shrinks. This is expressed in the form of fewer choices, higher prices and lower productivity. Eventually the region’s economic competitiveness suffers and growth slows. Some citizens might be happy to see growth go somewhere else, but the declines also manifest themselves in lost competitiveness in a global economy, lower wages, and fewer job opportunities for our kids.

An inescapable outcome of declining levels of service in the system is a continued centrifugal force sending growth to the periphery of the region, where there is always some capacity. As we squeeze consumers and commuters in the hope that they will do what “we want,” they will do what they want, which will be move away to the edge.

What Needs to be Done—Short Term and Long Term?

Short term or long term we must recognize the failure and wrong-headedness of a public policy that is trying to force people from their cars. We have to treat the public like adults who are capable of making rational decisions about meeting their own social and economic needs rather than recalcitrant adolescents who are to be treated more like patients than customers.

We should have mass transit compete in terms of quality, making it and all the other alternatives to the auto better, rather than trying to make travel by auto worse. Perhaps the greatest

role for transit will be serving the auto-less, mainstreaming the poverty-level populations and getting central city workers to suburban jobs.

We need to reform the planning processes. A better environment must be a major goal of the process, not used as an obstacle to obstruct any progress whatsoever, but a real goal to be accomplished along with the goal of sustained mobility. We must recognize that the greatest environmental concern of transportation is called safety, and focus investments accordingly. Our citizens want it all: a cleaner environment and a safer, more effective transportation system. The starting point for success here will be in the recognition of the reality that most environmental progress in transportation will come from technical improvements in vehicles, fuels, and operations rather than in “reforming” the behavior of our wayward citizens.

Short Term Options

The effective short-term options are few; most are being tried someplace. Almost by definition these tend to be low-cost and within the purview of the existing authorities of operating agencies. They can make an immense contribution.

- Better incident management
- Better timing of signals
- More traffic information about problems
- Use of reversible lanes
- Use of shoulder lanes
- High Occupancy - Toll (HOT) lanes
- Road network fill-ins
- Expanding access to transit facilities
- Establishing truly experimental transit programs
- Opening transit to private players
- Further development of work-at-home and tele-commuting

Long Term Needs

First, a positive spirit is needed: There has been a tendency to emphasize despair over the situation. We need a spirit that recognizes that there are actions we can take to make things better for everyone. Can we abolish congestion? No, but we can improve everyone’s situation and expand options, despite those whose agenda it is to convince us that nothing can be done. The group that sells the idea that “it doesn’t pay to build a road; it just fills up again,” should test that argument on libraries, schools and hospitals, or mass transit.

One real ray of sunshine is that much of the explosion in demand that came out of the

aging of the baby boom and the arrival of women in tremendous numbers in the work force is behind us. We will have growth in the future but it will be more moderate and more operable. We are a wealthy society and can afford these challenges. Our failures to keep up with colossal levels of growth in the past should not discourage us from dealing with the future.

In the Washington area, there are two very successful models of what can be done: the Metro Transit Authority and the Metro Airports Authority. Both have a mission to build first class systems to serve the region and have met the challenge well. We may need to consider a parallel authority structure for roads. Certainly the strengths of the private sector must be employed to save time and money.

We must recognize that there is more to transportation than commuting. In many parts of Northern Virginia, Saturday morning is the most difficult time to travel. Non-commute travel is growing faster than commuting.

Throwing vast sums at transit won’t do it. We need all the funding we can get to upgrade a declining Metro system. That is our No. 1 priority. But schemes to extend the system into the hinterland and to build new transit lines that require density of traffic where there is none will be delusional and self-defeating. Our resources are too limited not to subject projects that carry long-term operating subsidies with them to very strict tests of financial viability. Let’s build transit where it can be demonstrated that it will really matter and then support it with proper access in the form of rezoning, parking, bike facilities and sidewalks. At the same time we must extend the option to the private sector to provide jitney-like transit services, encourage firms to use vans for their employees and use small-scale entrepreneurship and investments to achieve effective services in low-density conditions.

We need to address the awesome and awful amounts of time and money it takes to build just about anything these days. Around the clock construction is one way the public can buy faster response; some states are experimenting with European methods accepting higher initial costs but longer lower-cost life times; some are using the private sector to build faster and cheaper in some cases; all of these need to be considered.

We need to focus on creating some rigor in our decision-making processes: better data about needs and trends; better economic justification of our needs; better quantification of costs and benefits.

We need to recognize that after all the efficiencies in construction and maintenance are

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gleaned we still will have to pay more for a first-class transportation system. An investment in the transportation system enables us to make our immense investments in our vehicles effective. The costs of a first-class system are far less than the lost costs every year in wasted fuel, time and lost opportunities. An effective system will pay for itself in saved lives, saved time, saved tempers, increased social and economic opportunity and an improved environment.

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