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Measuring Prosperity

There are two ways to increase the standard of living: Increase income and reduce the cost of living. Virginia policy makers focus on the one and not the other.

By James A. Bacon

The VW relocation to Fairfax County raises thorny issues that no one is equipped to answer. Does Virginia's $6 million incentive package, offered to seal the deal, generate a positive Return on Investment? Or are Northern Virginia's governance structures and human settlement patterns so dysfunctional that even jobs averaging $125,000 in annual salary cannot pay their own way? The fact is, we don't know. (See "The Bug in the Ointment.")

To those subscribing to the Economy 2.0 economic development paradigm(Note 1), the VW deal is a no brainer. Is a $100 million investment and 400 high-paying jobs good for Northern Virginia? You'd have to be smoking crack -- or think like Jim Bacon -- to even raise the question.

But the Economy 4.0 paradigm takes a broader view. There's more to economic development than reeling in jobs and corporate investment. The purpose of public policy should be to create prosperous, livable and sustainable communities, not generate jobs for the sake of jobs. One obstacle to making the mental leap between paradigms is the obsolete set of metrics used to measure prosperity: primarily jobs and corporate investment.

Gov. Timothy M. Kaine is one of the few public figures in Virginia to give much thought to measuring Virginia's performance as a state. A metrics junky, Kaine was a guiding force behind the Virginia Performs website, which offers several measures of economic well being, including personal income, poverty, employment and employment, as well as measures of social well being. The economic measures are useful... to a point. But statewide averages can obscure important regional dynamics.

For instance, in an economy like Northern Virginia's, which is characterized by chronic, long-term labor shortages, unemployment is not an especially meaningful indicator. Further, as I explained in "The Bug in the Ointment," employment growth in a region not prepared to handle it can be a two-edged sword.

No single measure of material prosperity can capture the complexity of human society. But "per capita personal income" is a good place to start. Even that measure is imperfect, as I shall explain below, but if you use only one figure, that's the one to go with.

By this measure, Virginia fares pretty well -- we have the 10th highest per capita income in the United States. Of course, that number encompasses wide variations. The Washington metropolis leads the way, at fifth highest among the nation's 362 metro regions. Richmond and Charlottesville fare respectably at 56 and 66. Hampton Roads and Roanoke score in the second quartile. Danville, Harrisonburg and Blacksburg, by contrast, all fall within the bottom quartile.

Per capita income has one huge limitation as a measure: To make meaningful comparisons, we should adjust for cost of living, which varies widely from region to region. Failure to do so

Per Capita Income (2005)

		Rank
United States	$34,471	
Blacksburg-Christiansburg-Radford	24,647	341
Charlottesville	35,570	66
Danville	25,951	318
Harrisonburg	26,419	306
Lynchburg	28,846	219
Richmond	36,537	56
Roanoke	32,587	125
Virginia Beach-Norfolk-Newport News, VA-NC	33,163	111
Washington-Arlington-Alexandria, DC-VA-MD-WV	48,697	5

Note: Rank among 362 MSAs tracked by Bureau of Economic Analysis

makes the disparities in living standards look worse than they really are.

To show what I mean, let us compare two parts of Virginia: Roanoke County and Loudoun County. Roanoke County is a comfortable suburban jurisdiction in a midsized MSA in Western Virginia -- not a region typically thought of as setting the standard for material prosperity. Loudoun County, by contrast, lies in Northern Virginia, a booming, world-class technology center and a sub-region of the fifth-wealthiest MSA in the country.

2005 Per Capita Income
Roanoke/Salem: $35,140
Loudoun/Leesburg: $41,193

Clearly, the residents of Loudoun make more money than the residents of Roanoke County. But what happens when we adjust for cost of living? According to the CNN Cost-of-Living calculator, $35,140 income in Roanoke County is equivalent to $45,695 in Loudoun. By that calculation, Roanoke County residents actually have a *higher* standard of living than Loudoun residents.(Note 2)

The Tax Take					
		Per Capita Income	Income After Taxes	Taxes	% Taxes
1	Connecticut	49,852	40,973	8,879	17.8%
2	New York	42,392	35,407	6,985	16.5%
3	Massachusetts	45,877	38,794	7,083	15.4%
4	District of Columbia	55,755	47,515	8,240	14.8%
5	Maryland	44,077	37,574	6,503	14.8%
6	California	38,956	33,373	5,583	14.3%
7	Virginia	39,173	33,628	5,545	14.2%
8	New Jersey	46,344	39,840	6,504	14.0%
9	Delaware	39,022	33,683	5,339	13.7%
10	Minnesota	38,712	33,494	5,218	13.5%
11	Nevada	37,089	32,290	4,799	12.9%
12	Oregon	33,666	29,310	4,356	12.9%
13	Illinois	38,215	33,419	4,796	12.6%
	United States	36,276	31,735	4,541	12.5%
14	Rhode Island	37,388	32,734	4,654	12.4%
15	Colorado	39,186	34,332	4,854	12.4%
16	Ohio	33,338	29,223	4,115	12.3%
17	Wisconsin	34,701	30,439	4,262	12.3%
18	Hawaii	36,299	31,856	4,443	12.2%
19	Pennsylvania	36,680	32,222	4,458	12.2%
20	North Carolina	32,234	28,339	3,895	12.1%
21	Georgia	31,891	28,109	3,782	11.9%
22	Arizona	31,458	27,763	3,695	11.7%

Now, let's peel another layer of the onion by taking into account federal tax payments. Between the federal government's progressive tax brackets and the alternative minimum tax, affluent households pay a disproportionately high percentage of their income in federal taxes. As William G. Gates with the Brookings Institution points out, by 2010, the AMT will affect 33 million tax filers — about one-third of all tax returns.

Unfortunately for states and regions with high incomes, the federal tax code does not adjust for high regional living costs. As a consequence, high-cost regions get slammed with higher federal taxes.

The chart above, taken from Bureau of Economic Analysis data, demolishes the myth that Virginia is a low-tax state. Virginia's total state/local tax burden may be moderate but the burden increases immensely when federal taxes are added to the mix. Indeed, when all sources of tax revenue are considered, the tax burden on individual Virginia taxpayers is seventh highest in the nation -- even higher than New Jersey.

How can that be? This chart is so counter-intuitive to Virginians' self-image as a low/moderate tax state that it requires elaboration. A partial explanation for the finding is that these numbers measure the tax burden for *individuals*, not businesses. Virginia has one of the best tax climates in the country for business, which accounts for its favorable tax reputation.

Another explanation, I would hypothesize, is that high taxes reflect the high regional cost of living and its impact on prevailing wages. The incomes of Northern Virginia's roughly two million inhabitants are so high that a particularly large percentage of Virginia tax filers fall

within the $100,000/year to $500,000/year income range affected by the Alternative Minimum Tax. The AMT magnifies the federal government's tax take enormously. Paying Connecticut-New York-Massachusetts-style federal taxes on their income, Northern Virginians are skewing the average for the state as a whole.

Targeting the Cost of Living

The implications for Virginia public policy cannot be stressed enough: Thanks to the federal tax code, affluent Virginians are subject to high taxes on every extra dollar they earn. Strategies geared to increasing incomes are worthwhile, but they are pushing the rock up-hill. *A more effective way to raise comparative living standards in Virginia may be to hold down living costs*.

The cost of shelter accounts for 30 percent of the weighted average in the federal Cost of Living index, while the cost of private transportation (gasoline excluded) accounts for 15 percent and the cost of household energy accounts for about 10 percent. These three categories -- comprising more than half the total cost of living -- are influenced to some degree by state and local public policy: (1) zoning ordinances and practices that restrict the supply of housing, creating artificial scarcity and driving up prices, (2) human settlement patterns that force households to own more than one car, drive greater distances, and spend more money buying gasoline and other transportation expenses; and (3) state regulatory policies that favor energy consumption/ production over conservation.

The idea that state/local government policy can improve living standards by focusing on the cost-of-living components is uncharted territory in Virginia and, to my knowledge, anywhere else in the United States.(Note 3) Yet the logic is implacable: The leveraging effects of the progressive federal income tax system mean that reducing living expenses by $1 will yield far more benefit than increasing income by $1, which can shrink to $.60 to $.65 after payment of federal taxes.

Now, let's bring the discussion back to current events: By subsidizing immigration into the state, as it is doing in the VW deal, the commonwealth does help create jobs — but it offsets the benefit by inflating the demand for housing in supply-constricted markets, forcing Virginians to commute greater distances and, in general, driving up the cost of living for all. Yet, even as Northern Virginians complain about an ever-declining quality of life, local elites continue to promote job growth at all costs.

The Time Famine

Americans are experiencing what sociologists call a "time famine." On the one hand, we can take pride in the fact that we still have a strong work ethic, spending longer hours at work than our peers in most other industrialized societies. (Americans compete with Koreans, Japanese and Australians for the honor of being the hardest- working people in an advanced economy.) On the other hand, we have less leisure time, which, by anybody's accounting, is a critical component of quality of life.

Short of restricting the work week and mandating the length of vacations, a la France, there is not much that state and municipal governments in Virginia can do to affect the number of hours that Virginians work. But public policy *can* affect the length of time it takes for Virginians to get to and from work, and the length of time they take just "getting around," whether that means commuting, dashing between far-flung destinations on errands or squiring children between soccer practice and violin lessons. The more time people spend traveling, the less time they spend in more meaningful activity with families, friends and personal pursuits.

As we shall argue at some length later in the Economy 4.0 series, the density/connectivity of a region's human settlement patterns and the quality of its transportation system are major determinants of how long it takes for people to get places. Land use and transportation are heavily influenced by decisions made at the state and municipal levels of government.

The U.S. Census Bureau collects commuting data on how long it takes for people to get to work. Returning to our examples of Roanoke and Loudoun Counties, we find that Roanoke County residents spent an average of 20.8 minutes commuting in 2000, while Loudoun residents spent 31.5. (As traffic in Loudoun has gotten increasingly congested, the discrepancy has grown worse over the past seven years.)

Leisure time has an economic value that Americans are willing to pay for, whether it's outsourcing dusting and mopping to Merry Maids or purchasing precooked, microwavable meals. The willingness to pay will vary from region to region, depending upon the level of disposable income and the intensity of the time famine. But let's just assume, for purposes of illustration, that Virginians are willing

to pay $20 an hour for more leisure time. How much is that 10.7-minute differential in commuting times worth? Do the math: Ten trips per week, 50 weeks per year, equals about $1,000 per year.

Another way to approach the "time famine" issue is to compare the costs imposed by traffic congestion in different regions of the country. The 2005 Urban Mobility report, published by the Texas Transportation Institute, calculated the number of hours of delay per traveler in 2003. Unfortunately, the report didn't include Roanoke in the study, but it did provide figures for Virginia's three main metropolitan areas.

Washington metro - 69 hours, $1,169
Hampton Roads -- 26 hours, $438
Richmond - 17 hours, $284

It is safe to presume that Roanoke, a smaller MSA, is less congested than Richmond. So, while Loudounites may make a higher nominal income than Roanokers, they spend more time in traffic -- time that is potentially valued at three or four percent of annual after-tax income.

Bottom line: Efficient human settlement patterns that reduce the length of time people spend driving doesn't just save money -- it saves time. Time saved is a tangible and measurable improvement to the quality of life — and it isn't taxed.

Energy Consumption and the Environment

Not only is the United States one of the most energy-intensive national economies in the world -- roughly one in 10 dollars U.S. consumers spend is for household and automotive energy -- Virginia has one of the more energy-intensive state economies within the United States. That characteristic of their economy puts the economic well being of Virginia citizens at risk -- rising energy prices will hit harder here than elsewhere.

Per capita electricity consumption of 12,343 kilowatt hours is sufficient to rank the United States No. 9 in the world. Per capital consumption of 13,748 kilowatt hours in Virginia ranks it 21st among the states and, if it were an independent country, would make it the seventh most electricity-intensive economy in the world.(Note 3)

Similarly, the United States ranks No. 5 in the world in per capita petroleum consumption (most of it for gasoline). And Virginia consumed more than its fair share -- 527 gallons per capita of gasoline in 2004, far more than the national average of 464 gallons.(Note 4)

While the price of fuels is determined mainly by global energy markets, the *demand* for energy is influenced by state-local level public policy. Virginians, like all Americans, drive more, as measured by Vehicle Miles Traveled, every year than they did 30 years ago. That increase can be attributed in part to prosperity: Americans make more money so more of them can afford to buy cars. But it also reflects the auto-centric human settlement patterns that have been constructed over the past three decades. More driving translates into more money spent on gasoline.

Despite continual chatter about "energy independence" since the 1973 Arab oil embargo, Virginia's standard of living has become more exposed, not less, to global economic trends that drive up the price of petroleum. If demand in fast-developing China and India increases faster than producers around the world can boost production of fossil fuels, energy prices will continue rising -- and Virginians will feel the pinch far more than inhabitants of other states and regions less dependent upon the automobile for mobility.

Just as Virginia has given little but lip service to petroleum independence, the Commonwealth has made only symbolic gestures to promote energy conservation. Regulatory policy encourages electric companies to meet the growing demand for electricity by constructing new power plants or importing power over electric transmission lines from other states. State policy has yet to put into place market-oriented rate structures that would encourage electricity consumers on a large scale to conserve or shift their electricity consumption to periods of off-peak demand. Virginians are highly vulnerable to all-but-inevitable increases in electric rates.

None of this analysis even touches upon an ancillary cost to intensive energy consumption: pollution. You don't have to believe in human-caused global warming -- which many people contend is caused by dioxide emissions created by fossil fuel combustion -- to be concerned about the impact of pollution on Virginia's quality of life. Burning fuel to generate electricity and run cars generates the chemical precursors to acid rain, releases mercury into the environment, dumps fine particulates into the atmosphere, and spews out millions of tons of nitrogen compounds. Nitrogen, ironically, contributes to water pollution. The nitrogen that ends up in Virginia's rivers, streams and Chesapeake Bay feeds algae

blooms, which in turn absorb oxygen and create dead zones in our waters.

Any proper accounting of wealth would adjust for the depletion of "natural capital" -- the life-giving benefits conferred by nature -- that accompanies excessive energy consumption. And any analysis of per capita income should come with a footnote detailing how vulnerable Virginians are to seeing their living standards eroded by rising energy costs.

If there's a lesson in in these ruminations, it's that economic development is a broader mission than creating jobs and chasing corporate investment. Building more prosperous, livable and sustainable regions in a globally competitive economy is not just something that professional economic developers do, it's something that all of Virginia's elected officials and civic leaders participate in, whether they realize it or not.

Economic development decisions like the VW relocation should not be made in isolation -- they should be viewed in the context of regional transportation and land use policies, fiscal capacity of municipalities to provide critical services and infrastructure, and state energy policy. Those who govern Virginia must temper their actions with an understanding of the impact their decisions will have on the regional cost of living and their constituents' quality of life.

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(1) See "Peak Performance in a Flat World," the first in the Economy 4.0 series.

(2) These are 2005 numbers. In the last two years, Loudoun incomes have been increasing by leaps and bounds. Another complicating factor in comparing cost of living is that Loudoun houses are bigger on average than Roanoke houses. Yes, Loudoun mortgages are higher on average, but Loudounites get more for their money.

(3) See Nationmaster.com and the California Energy Commission.

(4) See Nationmaster.com and the California Energy Commission.