FROM RICHMOND TO THE OCEANFRONT THE CREATION OF A MEGA-REGION

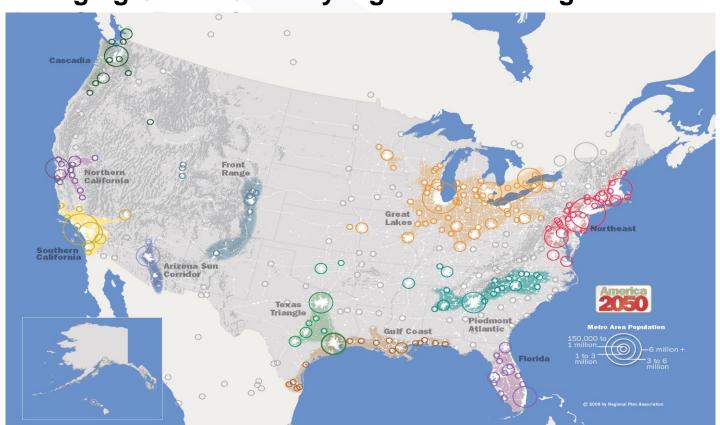
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WILLIAMS MULLEN

FROM RICHMOND TO THE OCEANFRONT: THE CREATION OF A MEGA-REGION

> 77% of the nation's population and 80% of the nation's economic growth is expected to reside within 11 emerging Global Gateway regions according to the



A NEW MAP FOR AMERICA IS NEEDED TO COMPETE

- > According to a recent N.Y. Times article, "A New Map for America" by Parag Khanna, there are already seven distinct super-regions in America defined by common economics and demographics.
- > The super-regions were created through connections between metro regions through superior highways, railways and fiber-optic cables.
- > Advanced economics in Western Europe and Asia are reorienting themselves around robust urban clusters whose economies are centered on advanced industries.
 - Italy is centering its power within 14 "Metropolitan Cities" (ex: Rome, Turin, Milan and Florence).
 - The metropolitan cities have been legislatively merged with surrounding municipalities to form larger sub-regions.
- > China is leading the world to become a nation of 26 megacity clusters with populations of up to 100 million each.

WHAT IS A MEGA-REGION AND HOW IS IT CREATED?

- > According to planners and academics who study spatial relations, the concept of the mega-region evolved from the city-region concept
 - In the United States the most common and known designation of a region is a metropolitan statistical area (MSA), the official designation that the federal government uses to define regions of the country.
 - MSAs develop from an urban core and the related surrounding areas.
- > MSA vs. CSA vs. Mega-region
 - Combined Statistical Areas (CSA) are identified by the U.S. Office of Planning and Budget when there is a measureable level of commuting between two adjoining MSAs.
 - There are 169 CSAs in the United States as of February, 2013.
 - Some MSAs and CSAs are parts of a mega-region because of their collaboration and work with other regions.
 - There is no official process for the designation of a mega-region.
 - Researchers, academics and urban planners have all identified mega-regions based on the existence of formal plans for collaboration and a demonstrated willingness to work together.

STATISTICAL AREAS AND USE OF DESIGNATIONS

- > Federal agencies use the OMB's designation of MSA or CSA for collecting, tabulating and publishing federal statistics.
- > These federal statistics are used by:
 - Federal, state and local officials who allocate grants and public funding for infrastructure projects.
 - Companies making relocation and expansion decisions.
 - Professional sports teams and entertainment venues that are choosing a home.
 - Corporations, public officials and candidates as they decide where to spend advertising dollars.
- > While an informal designation, mega-regions are recognized as being a part of the 11 Global Gateway regions, our centers of economic growth.

CONCEPTS NEEDED FOR MEGA-REGION SUCCESS

Adoption of the following concepts have all been present in the creation of mega-regions:

- Mega-region boundaries have been flexible and fluid to accommodate diverse participation and projects. As growth occurs and growth patterns change, the boundaries of mega-regions have been adapted.
- > Institutions within a mega-region come together to address specific issues on a regular basis. Issues that bring individuals together include transportation needs, shared economic development goals and freight movement logistics.
- > Efforts to create a mega-region that have been formalized and include a communication plan have been successful. Establishing joint priorities, engaging stakeholders and implementing specific initiatives all lead to the successful development of the megaregion.

KEY BENEFITS OF A MEGA-REGION DESIGNATION

- > Stronger ability to secure federal funding for infrastructure development.
 - The U.S. Department of Transportation has developed the Multistate Corridor Operations Management (MCOM) program. The program awards grants to regions that demonstrate collaboration.
- > Greater connectivity of workers, visitors and freight and enhanced connectivity to world markets.
 - Approximately 85% of High Speed Rail investment by the federal government as of March, 2013 was concentrated in six regions that encompass major Global Gateway Regions.
- > Enhanced ability to attract corporate investment, which hopefully, will result in job creation.
 - Approximately 99% of institutional investment in commercial real estate was within the 11 Global Gateway Regions as indicated in the NCREIF database as of fourth quarter 2012.
- > Larger corporate advertising spending.
 - The largest spending on advertising is concentrated in top 25 MSAs.

THE ALIGNMENT OF THE REGIONS

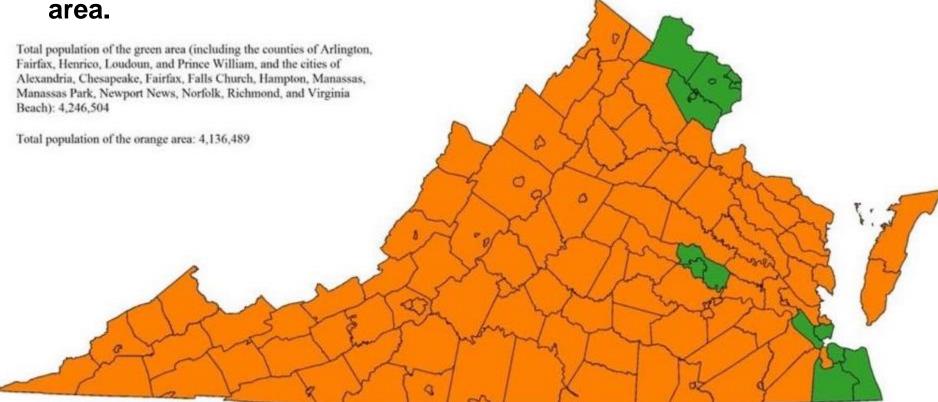
- > The Richmond MSA and the Hampton Roads MSA can compete with larger regions throughout the nation more effectively if the two align with one another to form a larger aligned region.
 - Alignment does not mean consolidation or acquisitions.
 - Existing local governments and existing economic development authorities and the functions they perform would not change.
- > 38 regions nationwide have been identified as parts of a Global Gateway Region and population growth is spurring talk of an additional Global Gateway Region.
 - Population and planning experts predict that by 2025, San Antonio and Austin will become a mega-region. (See slide 21).

COMBINED PHYSICAL SIZE AND POPULATION

- If the Richmond and Hampton Roads MSAs collaborated and became recognized as one region, together the two would have a population larger than the 17th largest MSA, according to the most recent 2015 U.S. census population figures.
 - The population in both regions grew from 2014-2015.
 - Richmond MSA population grew by 0.9% and Hampton Roads by 0.4%
 - According to the Weldon Cooper Center, the populations of the Richmond-Hampton Roads regions will account for 40.19% of Virginia's population by 2040.
- > The land mass of the Richmond MSA and Hampton Roads MSA, if merged, would compete in size with other combined regions.
 - The land mass of the combined MSAs would be 8,010 sq. miles.
- > The two regions are geographically close to one another.
 - The Port of Virginia in Norfolk is approximately 80 miles from the I-95/I-64 Interchange in Richmond.
 - The eastern end of the Richmond MSA abuts the western end of the Hampton Roads MSA. WILLIAMS MULLEN finding yes.

VIRGINIA'S POPULATION

50% of Virginians live in the green area. 50% live in the orange



Source: U.S. Census Bureau population estimates for July 2015 (release date March 2016)

Nick Kessler, April 20, 2016

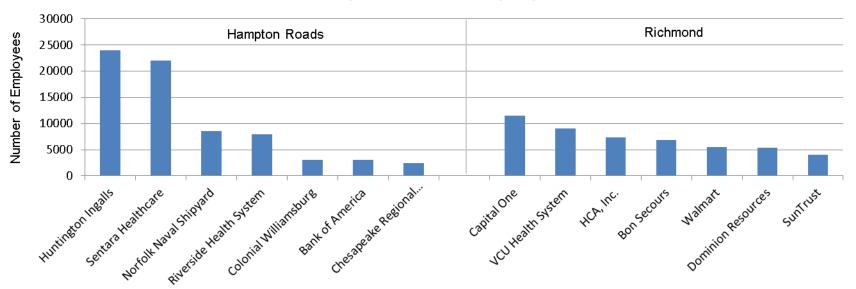
A HEALTHY ECONOMY CAN HELP WITH BUSINESS ATTRACTION

- > Together, the Richmond MSA and Hampton Roads MSA economic output of gross product in 2015 was \$172.5 billion and ranks as the 20th highest of the MSAs producing the most product, according to a report created for the U.S. Conference of Mayors.
 - Not combined, Virginia Beach would rank 39th among all MSAs in the U.S. and Richmond would rank as the 43th highest.
 - If combined, our economic output would be larger than some foreign countries. For example - Vietnam (\$141.7 billion), Hungary (\$125.5 billion) and Bangladesh (\$111.7 billion).
- > Nine of Virginia's 20 largest corporations call the Richmond and Hampton Roads MSAs home.
 - Some have a presence in both regions:
 - Altria
 - Dominion
 - Norfolk Southern

COMPLEMENTARY ECONOMIC DRIVERS AND LARGEST EMPLOYERS

rost Privato Employers

Largest Private Employers



Some of the top employers in both regions are in the same or complementary industries:

Companies in healthcare and banking are among top employers in both regions.

Other large employers are unique to the regions, which will help ensure a diversification of the mega-region's economy and prevent a rapid fall of the mega-region upon the downfall of a particular industry.

THE ALL-IMPORTANT TECHNOLOGY SECTOR IS PRESENT

> Technology assets include:

- Federal labs
- Military centers
- High-tech initiatives at the regions' colleges and universities
- Virginia Biotechnology Research Park
- Jefferson National Accelerator Facility
- > Emphasis on continued development of sectors
 - Commonwealth Center for Advanced Manufacturing (CCAM)
 - Commonwealth Center for Advanced Logistics Systems (CCALS)
- > Organizations in both regions are committed to enhancing entrepreneurial efforts and connecting the benefactors of the innovations developed by startups, universities and other innovators in both regions.

HIGHER EDUCATION AND CAREER PREPARATORY PROGRAMS

- > The regions are home to 23 universities and colleges and 11 two-year institutions.
- > A skilled workforce supports the labor industry in both the Richmond and Hampton Roads MSAs.
- > Approximately 13,000 trained and disciplined workers leave the military annually.
- > One apprentice school for advanced manufacturing jobs exists in each of the Hampton Roads MSA and Richmond MSA.

THE MOVEMENT OF GOODS IS CENTERED IN RICHMOND AND HAMPTON ROADS MSAs

55% and 60% of the nation's consumers and manufacturing establishments are within 750 miles of the Richmond MSA and the Hampton Roads MSA, respectively.

- > Both the Richmond MSA and the Hampton Roads MSA are also home to several major rail lines operated by CSX Transportation and Norfolk Southern Railway.
- > Several of the most highly traveled highways in the state transverse the Richmond MSA and Hampton Roads MSA, including:
 - The junctions of Interstate 64 and Interstates 85 and 95
 - The proposed junction of Route 460 and Interstates 85 and 95

THE PORT OF VIRGINIA – A LINCHPIN TO OUR SUCCESS

- > The Port of Virginia is the fifth largest Port of all U.S. Ports and the third largest container port on the U.S. East Coast. It is a hub for the world's leading international shipping companies.
- > The Port of Richmond has become a Port of Virginia partner.
- > Because a wider and deeper Panama Canal has opened, vessels somewhat larger than 12,500 TEU's are able to transit through either the Panama Canal or the Suez Canal to the East Coast. This is a competitive advantage to the Port of Virginia, because of the depth of the channel of its deep water ports. It has become a Tier 1 Port for Federal funding purposes.

TRANSPORTATION INFRASTRUCTURE IMPROVEMENTS AND DIVERSIFICATION OF OUR ECONOMY ARE NEEDED

- > Several of the most highly-traveled highways in the Commonwealth are in the Richmond and Hampton Roads MSAs.
 - The increase in the volume of goods coming to the east coast are bringing a need for expanded capacity on both the Richmond MSA and Hampton Roads MSA roads and rail systems.
 - Of the almost 2.6 million TEU's that came through the Port of Virginia in FYE2016: 3% were transported by barge; 35% by rail; and 62% by truck..
- > We must invest in and strengthen the Port, connect it better by roads, rail and barge to the I-64 /95 /85 crossroads in Richmond and beyond, and diversify and strengthen our economy. Together, our regions can become stronger, included in the Northeast Global Gateway Region and ultimately become Tier 1 for commercial and supply chain investment.
- > Diversification Opportunities
 - Cybersecurity
 - Supply Chain / Advanced
 Manufacturing
 - Bio-Science

- Ocean and WaterwayScience
- Logistics

COLLABORATION/ALIGNMENT KEY TO BECOMING **MEGA-REGION**

- > GO Virginia and State-budgeted research incentives are increasing joint ventures among 2+ jurisdictions, including universities and businesses, and collaborative research, especially that which is translational and commercializable.
- > Quarterly discussions among regional groups are leading efforts to implowe alignment and collaboration among the two regions.
 - Richmond Management Round Table
 - **Greater Richmond Chamber of Commerce**
 - South HR Chamber of Commerce
 - Peninsula Chamber of Commerce
 - tHRrive
 - HYPE

- Greater Richmond Planning District Commission
- HR Planning District Commission
- **University Leaders**
- Secretary Layne
- > Examples of the joint legislative agenda of the two Roundtables evelopment sites
 - \$350 Million in funding for the Port
 - Widening I-64 & Improving Route 460
 - Deepening Port channel from 50 to 55 feet
 - Increasing barge traffic to Port of Richmond
- Increasing number of higher speed rail trips between the two MSAs through DC

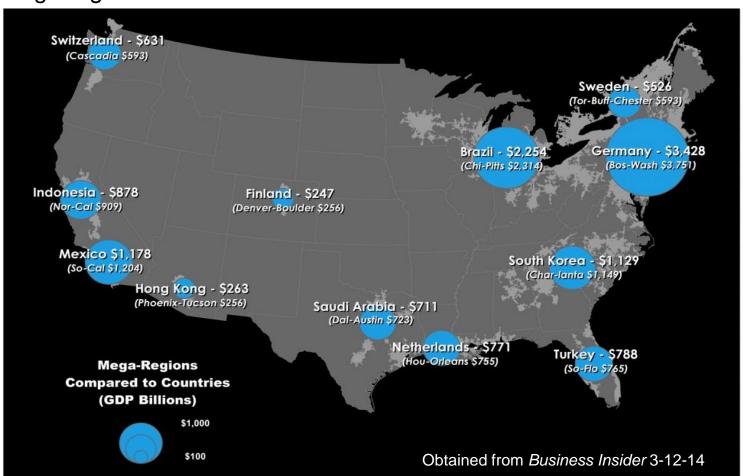
POLITICAL STRENGTH OF THE COMBINED REGIONS

> At the state legislative level, members representing the Richmond and Hampton Roads MSAs constitute 39% of the House of Delegates and 48% of the Senate. > The Lieutenant Governor, the Majority Leader of the **State Senate, the Majority** Leader of the House of Delegates, and the Secretaries of **Transportation, Commerce** and Trade, Natural **Resources and Education** are all from the Hampton **Roads MSA and Richmond** MSA.

COMPETITION

Mega-regions are able to compete in the world market

Mega-regions' economies are the size of those of other countries around the



OTHER REGIONS ARE MOVING FORWARD WITH CONSOLIDATION

- More regions have developed strategies to align with other nearby regions in order to compete.
 - Austin–San Antonio and Tampa–Orlando are two examples
- > Austin-San Antonio, Texas (74 miles apart)
 - 5 cities and 2 counties came together to develop, fund and advocate for the development of a commuter rail, the Lone Star Rail, to connect Austin and San Antonio and localities between the two.
 - A second highway, State Highway 130 was built in 2012. Nearly half of the funding for the project came from a loan and credit from the Federal Highway Administration's Transportation Infrastructure Finance and Innovation Act (TIFIA) program.
 - Cities between San Antonio and Austin are planning development projects that are helping to create a connection between the two cities (which are both growing). Examples: the Veramendi development of 5,000 homes, retail and corporate campuses, medical offices, a hotel and two schools.

OTHER REGIONS ARE MOVING FORWARD WITH CONSOLIDATION

> Tampa – Orlando (80 miles apart)

- The two regions are growing toward one another
- Both regions have alternative modes of transportation other than highways that will help connect people to a future passenger rail system connecting the two regions.
 - Orlando is constructing a commuter rail line connecting the city to its suburbs.
 - Tampa has a streetcar that connects suburbs to the inner city.
- Economic development in both regions is also fueling the development of related business in both regions.
 - The development of the USF Polytechnic University is in development and will help unify the economies of both regions.
 - The area between the two regions, Lakeland, is becoming home to new distribution centers Amazon and Trader Joes.

OTHER REGIONS ARE MOVING FORWARD WITH CONSOLIDATION

- > Leeds to Liverpool (75 miles apart)
 - Britain is also reorganizing in similar mega-regions. A new region stretching from Leeds to Liverpool (75 miles apart) is becoming an economic powerhouse between London and Scotland.
- > By comparison, The Port of Virginia in Norfolk to the I-95 /I-64 Interchange are approximately 80 miles apart.

THE REGIONS HAVE THE NEEDED "INGREDIENTS"

- > There are 5 key "ingredients" needed to successfully create a mega-region. All 5 ingredients <u>have</u> or <u>can be achieved</u> in our MSAs
 - √ Two or more growing metro areas
 - Individual metro areas have good economies and growing populations.
 - ✓ A rapidly growing in-between zone
 - Williamsburg James City County and New Kent County are growing.
 - ✓ Multiple transportation connections
 - In addition to highways, must be alternate modes of transportation to connect economies and labor forces. Existing infrastructure could be used to enhance passenger rail between regions. Ports of Richmond and Virginia connect the economies.
 - ✓ Complementary growth patterns
 - The Richmond MSA and Virginia Beach–Norfolk–Newport News MSAs are growing towards one another.
 - ✓ A diversified regional economy
 - The diverse engines and linchpins of the regions' economies are complementary.

 WILLIAMS MULLEN finding yes

SUMMARY

- > A merger of the MSAs would strengthen and diversify the economy of each MSA.
- > Overlapping of the transportation infrastructure coupled with the geographic proximity of the two MSAs can enhance economic development.
- > Political strength of each MSA will be augmented through an alliance.
- > The creation of a mega-region will enable Richmond and Hampton Roads to compete both at a national and international level.

ONE REGION RESIDENT'S VIEW



THE SHANGHAI EXAMPLE

