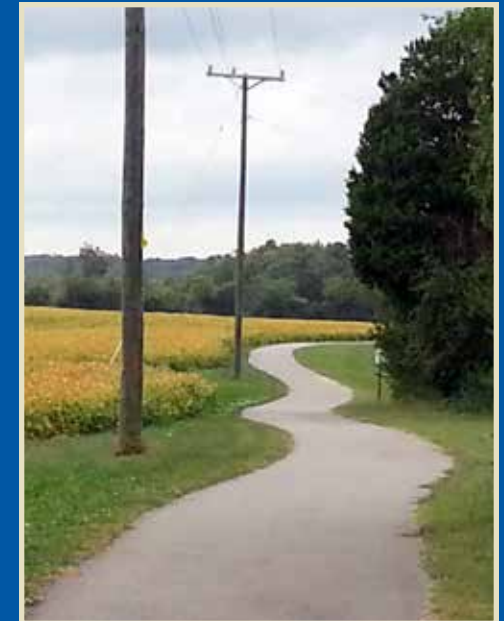




# Richmond Regional



# Comprehensive Economic Development Strategy





### **Exhibit 1: Map of the Richmond Region within the Richmond Metropolitan Statistical Area**

The Richmond Region is made up of the City of Richmond, the Town of Ashland, and the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan - comprising the Richmond Regional Planning District as defined by the Commonwealth of Virginia. Unless otherwise noted, statistics provided in this report are attributable to the Richmond Region.

These nine localities are also part of the Richmond Metropolitan Statistical Area (MSA) as defined by the United States Census Bureau in 2010. Where noted, statistics for the entire 2010 MSA are used to compare this larger region to peer regions throughout the United States.

# Richmond Regional Comprehensive Economic Development Study



Prepared by the  
**RICHMOND REGIONAL  
PLANNING DISTRICT COMMISSION**

**Adopted by the RRPDC Board:**  
**Conditionally Approved by the**  
**U.S. Department of Commerce,**  
**Economic Development Administration:**  
**Released:**

**December 12, 2013**  
**May 22, 2014**  
**July 8, 2014**

## MEMBER LOCALITIES:



## IN COOPERATION WITH:



[www.RichmondRegional.org/CEDS](http://www.RichmondRegional.org/CEDS)



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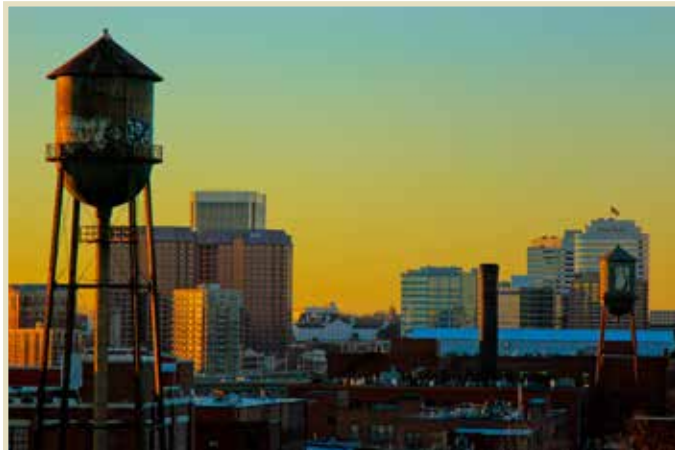


# Executive Summary



## ASPIRATION

The Richmond metropolitan area was recently rated as the 7th most aspirational metro area of the 50 largest metropolitan areas of the country by the Daily Beast (U.S. News, “Hot US Cities that offer both jobs and culture are mostly Southern and modest sized” by Joel Kotkin and Wendell Cox, July 30, 2013). While their rating was determined in large part by economic indicators, it also considered demographic and quality of life factors. Richmond is in good company with Austin, TX, Raleigh, NC and Nashville, TN. Quality of Life issues stood out, their rating calculations showed that Richmond was #1 with the least traffic congestion. This is not only a quantitative relative assessment - Los Angeles being the most congested - but a qualitative aspiration in that we need to proactively work as a Region to keep traffic congestion to a minimum.



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The Richmond Regional Comprehensive Economic Development Strategy (CEDS) which is the subject of this report gives us an opportunity to look beyond, and a bit more in depth than how others might rate us as many do, but rather how we see ourselves through the lens of Economic Development. For example, in contrast to the high aspiration index cited above, the Brookings Metropolitan Policy Program through their 2011 Transit and Jobs research suggested that Richmond is 95th out of 100 in terms of transit accessibility and a July 2013 University researchers “Equality of Opportunity Project” found that Richmond was ranked 85th out of 100 nationally in the degree of social mobility for children in below-median income families.

Taking a balanced view, there is plenty of evidence that we have much work to do to be economically competitive while strengthening our community. Additionally, many larger global and national factors will shape our future - structural occupational changes on the order of the Industrial Revolution, immigration and Federal tax reform, demographic shifts in population and the nuclear family - but are well beyond the realm of this study.

The CEDS builds from the base of our own population expressed in demographic trends over 40 years and our own Regional economy. Drilling down, we focus on the most income distressed areas to begin to understand the barriers and reality of the steps that will be most needed to improve lives, and result in reduced subsistence spending to the benefit of the tax payer. The answer lies largely in workforce preparation starting with steps to strengthen the family, putting concerted energy into pre-school and K-12 education systems all the way through training in the trades and higher education.

From this juncture, we provide a broad sweep of the existing community infrastructure, pattern of existing development, the transportation network,







telecommunications and arts and culture that collectively lays the foundation for creating a sense of place, a full-service, inclusive community in which to live, work and play. A review of available sites and building spaces that can physically accommodate economic development, contributing to positive growth, jobs, and leveraging committed investments will provide guidance in formulating specific development recommendations.

The strategy blends these foundational elements together to suggest alliances among development partners, funding sources and time frames for actions intended to have the greatest impact, through the short-term in order to influence the long-term achievement of the CEDS Vision: **STRATEGIC INVESTMENTS IN HUMAN CAPITAL AND PHYSICAL INFRASTRUCTURE WILL LEAD TO A MORE DYNAMIC RICHMOND REGION.**

The CEDS offers a baseline by which to start to measure progress that will require milestone updates and establishment of measurable metrics.

### PROPOSED USES FOR THE CEDS

The CEDS is intended to be a useful resource for a variety of purposes including the development of implementation measures such as:

- local economic development strategies;
- data for prospect attraction and targeted business recruitment;
- Regional Community Indicators base measurement and establishment of progress measures;
- Regional Housing Plan with focus on distressed neighborhoods;
- emerging trends of strengths and weaknesses within workforce;
- educational curriculum development;
- workforce training programs;
- local Capital Improvement Programs;
- identifying funding sources for filling funding gaps;
- building collaborative alliances to address common issues; and
- basis for funding applications to address priority needs.



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### KEY FINDINGS

1. The Richmond Region's population nearly doubled from 1970 to 2010 to over 1 million, and is anticipated to increase another 50 percent by 2040 (Weldon Cooper estimates).
2. With direct implications for sustaining our workforce, those in the upper age range (45-64) are increasing at a much faster rate than those in the lower age range (25-44) of the workforce.
3. An estimated 80 percent of working residents stay in the Richmond MSA for employment, with DC /Northern Virginia and Hampton Roads being the largest destinations for out-commuters. Henrico County draws the most residents of the Region for employment, but the City of Richmond serves as the employment center when internal commuting is also part of the equation. The Town of Ashland has the highest ratio of employment to residential population.
4. The Richmond Region currently has a competitive advantage in three dominant industry clusters—Financial Services, Professional, Technical and Scientific Services, and Construction (Chmura). Emerging clusters also recognize growing potential in Supply Chain Management (transportation/logistics), Advanced Manufacturing (R&D), and Health and Life Sciences (Market Street, GRP). Recruiting and growing business around these clusters only makes sense for the Region's economics, job creation, and synergistic innovation by individual businesses.





5. Existing groups of occupational skills support these industry clusters, except in occupational skills related to Manufacturing, Science and Technology, Health Science, Transportation and Logistics which need to be strengthened.
6. The highest occupation demands by employers over the next ten (10) years in the Richmond Region are expected to be for Healthcare Practitioners, Business and Financial Operations, and in Construction (Chmura). People who have technical training and industry credentials are expected to be in the greatest demand while those with 2-year and 4-year college degrees will be oversupplied for the jobs predicted.
7. As of May 2013, there are nearly 1.3 job openings for each unemployed person in the Region indicating a need for a better match between skills/education and jobs available in the marketplace. Fast forward to 2030, estimates by the U.S. Census Bureau indicate the net annual increase in the working age population in the U.S. will be in a dramatic slump before it starts rising again. The impending workforce shortage can only be addressed through higher rates of participation in a labor force which is adequately equipped with the right skills.
8. The unemployment rate for the Region is currently at a relatively low 5.7 percent (April 2013, seasonally adjusted). In stark contrast, the unemployment rate in the most distressed areas of the Region is closer to 16.4 percent. Educational attainment, even among the working poor in these neighborhoods, where 44 percent do not have a high school degree paints a harsh reality of our starting point for workforce development.
9. The Richmond MSA's poverty percentage peaked at 12 percent in 1970, but has risen once again to more than 11 percent from 2000 to 2010. However, both the City of Richmond and Henrico County have

experienced the highest increases in poverty since 1970. More than 25 percent of City residents and 10 percent of Henrico County residents are living below the Federal poverty level, and a much higher percentage in the City of Richmond (40 percent according to the Mayor's Anti-Poverty Commission) are children. As many as 70 percent of children from impoverished families were enrolled in the City public school system (2009).

10. Regional colleges and universities enroll 87,000 students (2011-12 academic year) and more than 11,000 degrees were conferred representing an increase of 60 percent in the past 10 years. Our research has not been able to clearly determine how many of these graduates remain in Richmond to work. However, the YRVA survey conducted for Richmond's Future in April 2013 by Southeastern Institute of Research showed that 95 percent of respondents say job opportunities are the most important thing they are looking for in a city. Another dominant interest among young professionals is to find a place "where vibrant cultural activities define the community".
11. The Richmond Region is not served by a workforce development system, but a collection of some combination of 200 providers and programs with outcomes that are difficult to measure. We need to start building a continuous Workforce Framework, with common agenda and metrics for measuring success. The Region is starting to reap the benefits from richly coordinated partnerships in Early Childhood Education and provision of sustainable housing that can serve as good models for Workforce Development. The framework needs to consider 1) Activating a Full Workforce, and 2) Proactively filling the skills gap between what many job seekers have to offer and what employers are seeking.





12. A 2013 study by George Mason University for the Partnership for Affordable Housing indicates that more than one-half of the Region's existing renter households and 29 percent of the homeowners are housing-burdened, meaning they spend 30 percent or more of their income on housing costs. The Region is expected to need 4,700 new housing units each year, conservatively, to house the prospective workforce, and we will need more multi-family and rental options.
13. An estimated 18 percent of City households do not have a car, and 27 percent of 2-adult households have only one vehicle, making public transportation essential for gainful employment (Mayor's Anti-Poverty Commission). The 2011 Brookings "Missed Opportunity" study estimated only 26.5 percent of jobs are accessible to residents living in transit served neighborhoods. In response to these facts, the Mayor's Anti-Poverty Commission and others have called for development of a functional regional transit system. The operational footprint of Greater Richmond Transit Company (GRTC) is limited for many reasons, but in the interim, there are some workable solutions that will allow the Region to move toward greater operational flexibility and service suggested by the Capital Region Collaborative (CRC). These include removing route change permission from City ordinance and making incremental changes that will strengthen ridership both within the service area and beyond to provide greater access to Regional employment centers.
14. Existing permitted public water capacity in the Region is only approaching one-half of daily capacity (2009, RRPDC), while 60 percent of the public sewerage hydraulic capacity (dry-weather) is committed, offering a tremendous economic development advantage.

15. As directed by the CEDS strategy team, focused effort within five designated geographic areas (see *Exhibit 63*) have been recommended as a framework for capital investment both in public infrastructure and a variety of available sites and buildings suited for business and industry in the targeted emerging industry clusters. Combining the identified investment commitments and coexistent workforce needs in these areas are considered to be the most impactful, spurring job growth and expansion and multiplying support businesses throughout the entire Region.
16. Analysis of the Region's economic ecosystem resulted in the creation of five key Goals: (1) Create Best-In-Class Pre-K–12 Public Education System, (2) Expand Productive Workforce Participation, (3) Focus Capital Investments on Priority Economic Development Opportunities, (4) Grow and Retain Jobs that Advance the Region, and (5) Expand Regional Choice in Housing and Transportation Access to Employment. This report highlights the needed elements for creating a strong job creation climate, including action steps, partners, other models, possible funding, and assignment of priorities (short-or long-term) to systematically address the issues highlighted by this report.
17. In addition to the competitive and emerging industry clusters cited throughout the report, these goals also recognize the tax base support from the tourism and retail sector that is so important to the Region's quality of life and economy particularly in partnership with local economic development strategies. Concerted, coordinated action will be required to maximize these resources.





# I. Framework and Vision



A comprehensive economic development strategy brings the public and private sectors together in the creation of an economic roadmap to diversify and strengthen regional economies. This report of the Richmond Regional Comprehensive Economic Development Strategy (CEDS) assesses the Richmond Region's current economic trends and outlines a process for diversifying and strengthening the region's economy in the future, with particular focus on economically distressed areas.

The U.S. Economic Development Authority (EDA) funds the preparation of a regional CEDS to foster job creation and attract private investment within targeted regions. This Regional CEDS offers an excellent opportunity to think and act regionally to integrate our region's human and physical capital planning toward positive economic outcomes. An adopted CEDS is also a pre-eligibility requirement for requesting EDA construction grant funds.

## EDA INVESTMENT PRIORITIES

### 1 COLLABORATIVE REGIONAL INNOVATION

Initiatives that support the development and growth of innovation clusters based on existing regional competitive strengths. Initiatives must engage stakeholders; facilitate collaboration among urban, suburban, and rural (including tribal) areas; provide stability for economic development through long-term intergovernmental and public/private collaboration; support the growth of existing and emerging industries.

### 2 PUBLIC/PRIVATE PARTNERSHIPS

Investments that use both public- and private-sector resources and leverage complementary investments by other government/public entities and/or nonprofits.

### 3 NATIONAL STRATEGIC PRIORITIES

Initiatives that encourage job growth and business expansion related to advanced manufacturing; information technology (e.g., broadband, smart grid) infrastructure; communities severely impacted by automotive industry restructuring; urban waters; natural disaster mitigation and resiliency; access to capital for small, medium-sized, and ethnically diverse enterprises; and innovations in science and health care.

### 4 GLOBAL COMPETITIVENESS

Initiatives that support high-growth businesses and innovation-based entrepreneurs to expand and compete in global markets, especially investments that expand U.S. exports, encourage foreign direct investment, and promote the repatriation of jobs back to the U.S.







5

## ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

Investments that promote job creation and economic prosperity through projects that enhance environmental quality and develop and implement green products, processes, places, and buildings as part of the green economy. This includes support for energy-efficient green technologies.

## ECONOMICALLY DISTRESSED AND UNDERSERVED COMMUNITIES

6

Investments that strengthen diverse communities that have suffered disproportionate economic job losses and/or are rebuilding to become more competitive in the global economy.



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# VISION STATEMENT

**STRATEGIC INVESTMENTS  
IN HUMAN CAPITAL AND  
PHYSICAL INFRASTRUCTURE  
LEAD TO A MORE DYNAMIC  
RICHMOND REGION.**

## *Accomplishing this vision will require:*

**DATA-DRIVEN DECISION-MAKING** regarding physical and human infrastructure related to workforce, transportation, utilities, land use, and quality of life to identify where and how the region's localities can most wisely invest to create the right jobs to employ our workforce now and in the future;

**IMPROVED CAPABILITIES FOR OUR PRESENT AND FUTURE WORKFORCE** through training and education to respond to new and expanding job growth shaped by the existing industry and business clusters;

**PRIORITY PHYSICAL INFRASTRUCTURE IMPROVEMENT PROJECTS**, including highways, rail, public water and sewer, communications, and transit service, to best support job creation and growth; and

**STRATEGIC ACTION PLANNING** to analyze the regional economy, establish regional goals and objectives, and develop a regional plan of implementation, which identifies investment priorities and funding sources.

## STRATEGY DEVELOPMENT

The Richmond Regional CEDS process engaged public, private and non-profit entities in a strategy committee to benefit from each member's expertise and local experience. In keeping with EDA guidance, the Richmond Regional CEDS committee represents individuals and organizations which together have been involved during various stages of the process and have the capability to influence economic improvement decisions for the region.

Richmond Regional Planning District Commission (RRPDC) staff provided support for the CEDS, conducting background research, coordinating the CEDS committee and work groups, and preparing draft recommendations and the final document. Every effort has been made to coordinate with related on-going work of the Capital Region Collaborative (CRC) work groups, especially Job Creation and Workforce Preparation.



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## WORK GROUPS

The Strategy Committee collaborated with Work Groups made up of individuals with expertise in general economic areas. These four Work Groups served as vital information resources and helped identify priority areas for strategic action over the near term (5 years) and for longer term (20 year) change.

### TALENT EDUCATION AND TRAINING WORK GROUP



This group of experts within the workforce training field, representatives of the region's minority populations, and educators identified a range of resources for removing barriers to effective learning from pre-school through grades K-12 and beyond as well as to identify skills and education gaps which offer greater opportunity to fill the talent pipeline.

### INFRASTRUCTURE WORK GROUP

This Work Group analyzed the region's major infrastructure assets, including all modes of transportation, communication, water and sewer infrastructure. It also worked with the Employment Clusters Group to identify available buildings and sites that are, or could be, supported by cost-effective investments in infrastructure.



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### EMPLOYMENT CLUSTERS WORK GROUP

This group utilized the Greater Richmond Partnership (GRP) 2011 Target Industry Analysis as an organizing framework, this Work Group helped identify the strengths and opportunities within the five existing and emerging clusters in the Richmond Region: Advanced Manufacturing, Supply Chain Management, Health and



Life Sciences, Creative & Professional Services, and Finance, Insurance & Real Estate. Related employment opportunities in supporting employment sectors were also reviewed for emerging trends that can build on occupational strengths suited for the Region's workforce.

### QUALITY OF LIFE WORK GROUP

This group considered the broad features that make a community livable and attractive to new and expanding business and industry and the workforce, such as affordable housing, health and safety, recreation, arts and entertainment. The group also helped define the region's positive qualities and challenges, particularly relative to peer regions, the Commonwealth and the United States.



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# II. Demographics



## POPULATION TRENDS

The population in the Richmond Region has steadily increased by an average of more than 11,000 people annually (2.1 percent) over the past 40 years (*Exhibits 2 and 3*). With the exception of Charles City County and the City of Richmond, all the localities have experienced population increases each decade. The counties of Henrico and Chesterfield have grown the most in absolute terms. In percentage terms, five localities have experienced significant population increases ranging from almost 100 percent (Henrico) to more than 250 percent (Powhatan).

Relatively rural Charles City County has only witnessed a modest growth of 17.8 percent, while at the same time, the City of Richmond population decreased by 18.2 percent since 1970. The growth patterns in the Region from 1970 to 2000 tracked national patterns of declining population in the

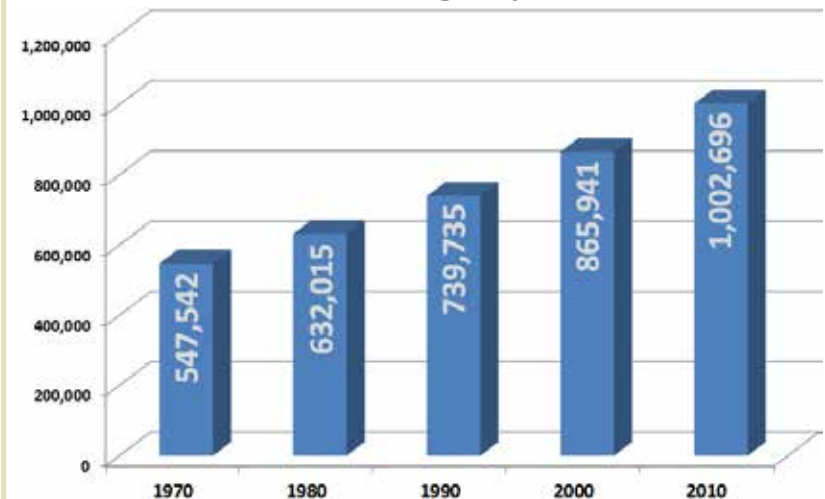
urban core and increased suburbanization. During the 2000-2010 time frame, the City population increased by 3.2 percent showing a reversal of the 30-year decline similar to recent national trends of renewed growth in urban areas. At the same time, growth on the edges of the Region continued as New Kent, Goochland, and Powhatan showed rapid population growth.

In summary, the Region's population almost doubled from 1970 to 2010, increasing from 547,542 to 1,002,696, or 83 percent. The decennial population growth has remained relatively fixed along a linear projection ranging from 15 to 17 percent during the past four decades. However the rate of



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**Exhibit 2: Population trends in the Richmond Region, 1970-2010**



Source: U.S. Census Bureau, Decennial Census 1970 - 2010.







growth has not yet returned to the 18 percent rate witnessed in the 1960s toward the close of the *baby boom* from World War II. The 1990s saw the second highest decennial growth rate of 17.1 percent.

*Exhibit 4* shows the Richmond Region has grown faster than the Richmond Metropolitan Statistical Area (MSA), the Commonwealth, and the U.S. in every decade since the 1970s.

The demographic shift taking place across the Region as well as the U.S. reflects the overall decline in the birth rate combined with extended life expectancies. The population is getting older.

*Exhibit 5* illustrates how in 1990, two-thirds of workers aged 25 to 64 were at the younger end of the spectrum (25-44 years) compared to those in the later stage (45-64 years). However, by 2010, not only did the elderly (65 +) portion of the total population grow, but the workforce had become almost evenly split between younger workers and older workers (27.2 percent vs. 27.6 percent). This growing population of older workers indicates that many more will join the ranks of the retired and elderly in the next decade.

This growing elderly population is not balanced by a substantially larger working age population as in decades past. The trend becomes accentuated in later years as shown by the 2035 population pyramid (*Exhibit 6*) by age cohort which is markedly columnar and top-heavy compared to that of previous years. In 2035, those aged 65 or more will constitute nearly 18 percent of the Region's total population, a sizeable increase from the 12.6 percent this same age group now makes up in the 2010 population if trends continue.

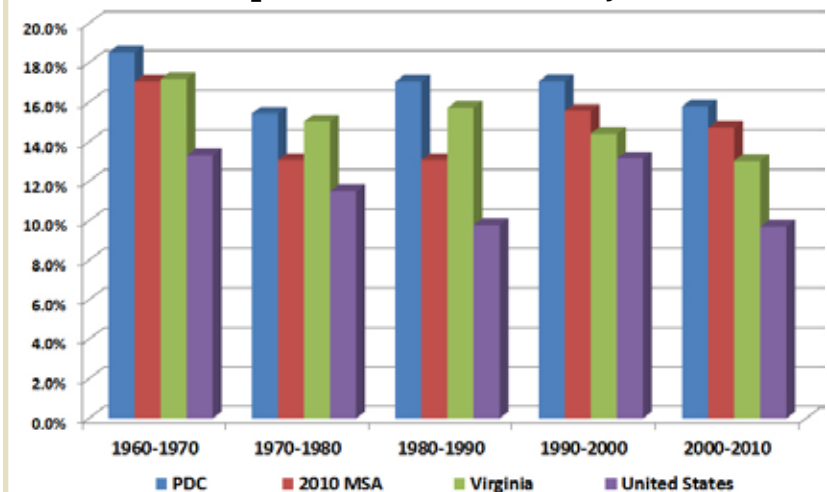
**Exhibit 3: Population by Jurisdiction, 1970 - 2010**

Locality	1970	1970-1980 Change	1980	1980-1990 Change	1990	1990-2000 Change	2000	2000-2010 Change	2010
Charles City County	6,158	9%	6,692	-6%	6,282	10%	6,926	5%	7,256
Chesterfield County	76,855	84%	141,372	48%	209,564	24%	259,903	22%	316,236
Goochland County	10,069	17%	11,761	20%	14,163	19%	16,863	29%	21,717
Hanover County	37,479	34%	50,398	26%	63,306	36%	86,320	16%	99,863
Town of Ashland*	2,934	58%	4,640	36%	6,318	5%	6,619	9%	7,225
Henrico County	154,364	17%	180,735	21%	217,849	20%	262,300	17%	306,935
New Kent County	5,300	66%	8,781	19%	10,445	29%	13,462	37%	18,429
Powhatan County	7,696	70%	13,062	17%	15,328	46%	22,377	25%	28,046
City of Richmond	249,621	-12%	219,214	-7%	202,798	-2%	197,790	3%	204,214
<b>Richmond Region</b>	<b>547,542</b>	<b>15%</b>	<b>632,015</b>	<b>17%</b>	<b>739,735</b>	<b>17%</b>	<b>865,941</b>	<b>16%</b>	<b>1,002,696</b>

Source: U.S. Census Bureau, Decennial Census 1970 - 2010.

\*+ Data for the Town of Ashland is included in Hanover County, but is also shown separately for reference. Reflected in the 1980 Town population growth, the Town of Ashland annexed 3.3 square miles of land from Hanover County in 1976.

**Exhibit 4: Population Growth Rate, 1970 - 2010**

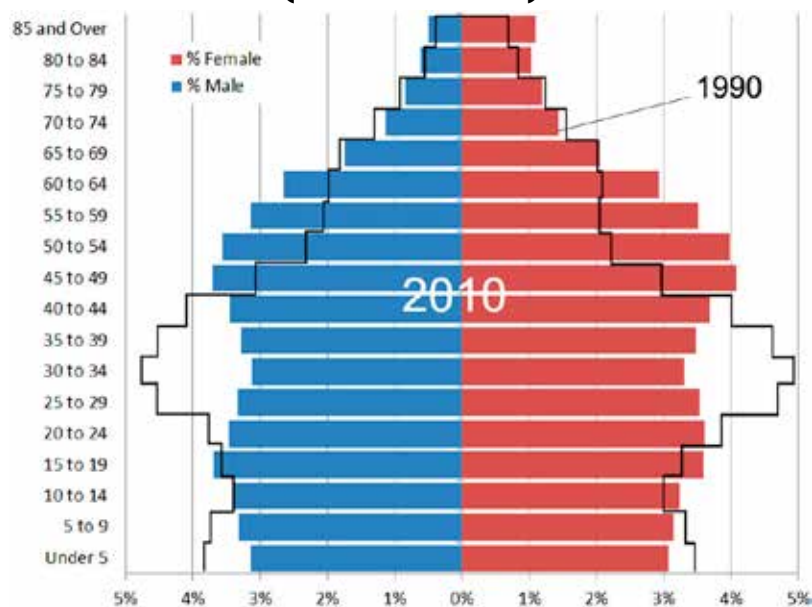


Source: U.S. Census Bureau, Decennial Census 1970 - 2010.





**Exhibit 5: Population and Distribution by Age (1990 and 2010)**



Source: U.S. Census Bureau, Decennial Census 1990 and 2010.

In his book *When the Boomers Bail: How Demographics will Sort Communities into Winners and Losers*, Mark Lautman lists characteristics of economically healthy communities that are generally positive versus negative (p 168-170). He defines *winner* communities as those that will flourish and compete well as boomers retire, compared to *loser* localities that will struggle and decline as boomers retire. A faster growing 24-44 age cohort is considered a positive indicator, whereas, a faster growing older cohort is a negative sign for the future as older workers leave the workforce before they can be replaced. The economic engine supporting retirement and health care costs will also be dependent on a smaller working population.

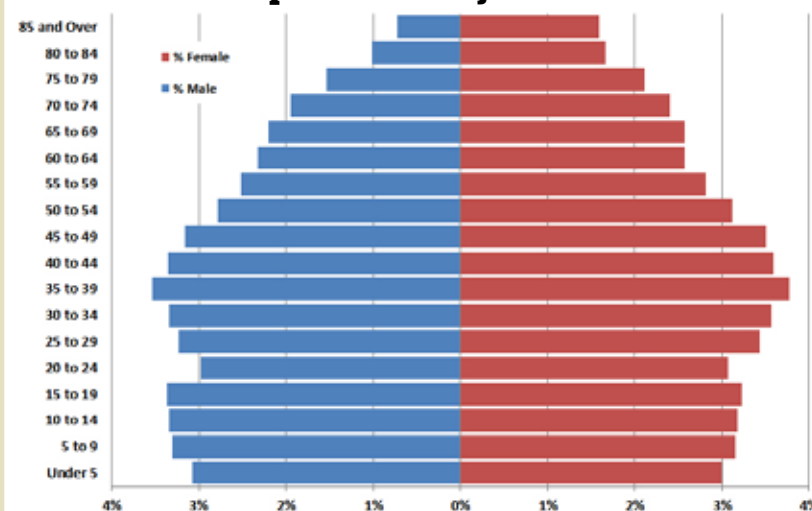
In the Richmond Region, the 45-84 age cohort has seen dramatic increases in the rate of growth, increasing 35 percent in the 1990s with a slight slowing to 33 percent from 2000 to 2010; however, the rate of growth of the younger, 24-45 age cohort has actually been in decline, from a 5 percent rate of increase

in the 1990s to -1 percent in the 2000s. This alarming trend of an approximately sevenfold faster growth in the older age category compared to the younger age cohort growth rate represents a potentially negative sign for the long-term health of the Region's economy and ability to compete worldwide.

As further evidence of this age shift, median age of the Richmond Region population increased from 33.2 in 1990 to 37.2 in 2010 (*Exhibit 7*). Generally common for all the localities, the increase is more pronounced in the rural counties than those with urbanizing populations. The City of Richmond has actually witnessed a decline in the median age of its population since 2000. A cursory review of birth and migration data suggests the decline is driven mostly by natural increase rather than in-migration. However, a more thorough investigation is warranted using additional sources.

As the population ages, all aspects of daily life from housing to consumer goods and transportation will feel the market impact reflecting changing demands of a new population dynamic.

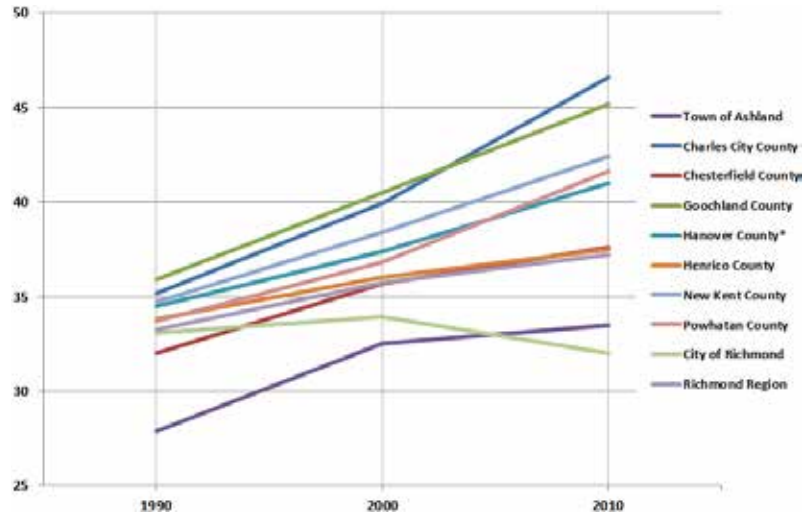
**Exhibit 6: 2035 Age Cohort Population Projections**



Source: Richmond Regional Planning District Commission, 2008-2035 Socioeconomic Data Report. Woods & Poole Economics, The Complete Economic and Demographic Data Source, 2010.



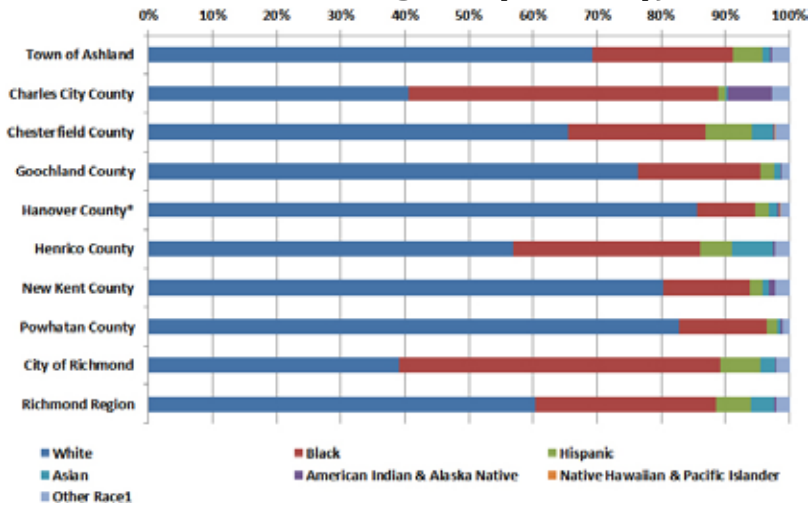
**Exhibit 7: Median Age by Locality**



Source: US Census Bureau, Decennial Census 1990 - 2010.

\* Data for Hanover County includes the Town of Ashland.

**Exhibit 8: Race and Ethnicity in the Richmond Region by Locality, 2010**



Source: U.S. Census Bureau, 2010 Decennial Census, Table P5

1. Includes other race alone and two or more races.

\* Data for Hanover County includes the Town of Ashland.

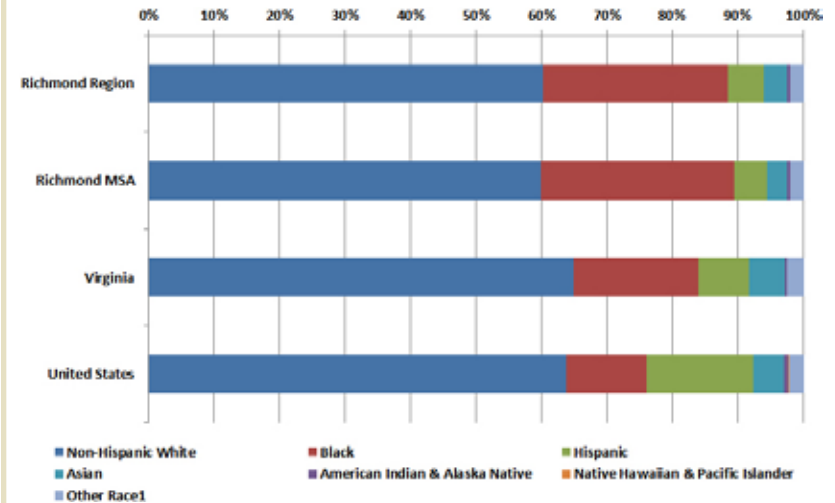
## RACE AND ETHNICITY

According to the 2010 Census, the Richmond Region is 62 percent White. Blacks or African Americans constitute 28 percent and Asian 3.7 percent. The Richmond Region has become more racially and ethnically diverse over the past 30 years. *Exhibit 8* provides a quick snapshot by locality from 2010. A smaller proportion of the Richmond Region population are of Hispanic or Latino ethnicity compared to the U.S. population - 5.4 percent compared to 16.3 percent of the U.S. and 7.8 percent of the Commonwealth in 2010. (*Exhibit 9*). Looking at changes in the region (*Exhibit 8*), the number of people of Hispanic or Latino ethnicity have seen a almost tenfold increase from 1980 to 2010, with the largest percentage residing in Chesterfield County.



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**Exhibit 9: Comparison of Population by Race, 2010**



Source: U.S. Census Bureau, 2010 Decennial Census, Table P5

1. Includes other race alone and two or more races

# III. Regional Economy



## PEER REGIONS

The Richmond MSA can be readily compared to six other similar metropolitan areas to illustrate general performance within key areas (*Exhibit 10*). Drawn from a 2011 study of socio-demographic trends by Michela Zonta, Ph.D. for Richmond's Future, these peer regions were selected based on comparable characteristics. Three of the other metro areas are also state capitals. Employment bases are mostly from government and educational sectors. Richmond is the least dense from a population and employment standpoint.

## CIVILIAN LABOR FORCE

The U.S. Bureau of Labor Statistics (BLS) defines the civilian labor force as those who have jobs or are seeking (receiving unemployment benefits) a job, are at least 16 years old, are not serving in the military and are not institutionalized. In other words, all Americans who are eligible to work in the everyday U.S. economy are considered the 'labor force'. Often used interchangeably, the 'workforce' can be distinguished as those in the labor force who are actually working.] The labor force of the Richmond MSA is of comparable size to its peers, with the exception of Austin (*Exhibit 11*). Several peer regions, including Austin, Hartford, and Raleigh, marginally outperform the Richmond Region when it comes to labor force participation.

**Exhibit 10: Peer Regions**

MSA	Square Miles	2010 Population <sup>1</sup>	2000 - 2010 Population change	Population Density (persons/sq mile)	2012 Employment <sup>2</sup>	Employment Density (workers/sq mile)	Per Capita Income <sup>3</sup>	Poverty Rate <sup>3</sup>
Richmond, VA	5,685	1,258,251	14.7%	221	589,840	104	\$30,321	11.4%
Austin, TX	4,220	1,716,289	37.3%	407	822,545	195	\$30,886	14.0%
Raleigh-Cary, NC	2,118	1,130,490	41.8%	534	510,029	241	\$30,983	11.2%
Hartford, CT	1,515	1,212,381	5.6%	800	593,191	392	\$34,716	9.8%
Jacksonville, FL	3,202	1,345,596	19.9%	420	577,611	180	\$27,899	13.1%
Memphis, TN	4,578	1,316,100	9.2%	287	569,657	124	\$24,675	18.7%
Louisville, KY	4,111	1,283,566	12.5%	312	591,164	144	\$26,338	14.1%

Sources: <sup>1</sup> U.S. Census Bureau, 2010 Decennial Census

<sup>2</sup> JobsEQ ©2013, Chmura Economics and Analytics, 1st quarter 2013; U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

<sup>3</sup> 2007-2011 American Community Survey 5-year Estimates





**Exhibit 11: Labor Force of Peer Regions**

MSA	Civilian Labor Force	Labor Force Participation Rate <sup>1</sup>	Unemployment Rate <sup>2</sup>
Austin, TX	925,446	71.3%	5.4%
Hartford, CT	659,364	68.0%	8.0%
Jacksonville, FL	686,907	65.3%	6.6%
Louisville, KY	661,184	66.0%	7.8%
Memphis, TN	660,124	66.0%	9.3%
Raleigh, NC	599,638	70.9%	7.1%
Richmond, VA	656,419	66.3%	5.7%

Sources: JobsEQ ©2013, Chmura Economics and Analytics; 2007-2011 American Community Survey 5-year Estimates; U.S. Bureau of Labor Statistics

<sup>1</sup> Percentage of the civilian labor force compared to the total population over the age of 16

<sup>2</sup> Seasonally Adjusted as of April 2013

Within the Richmond Region, Chesterfield and Henrico counties have approximately the same size labor force and labor force participation rate (*Exhibit 12*), the highest in the Region. In contrast, Goochland and Powhatan counties fall below a 60 percent labor force participation rate. This illustrates how vital the labor pool of Chesterfield and Henrico are to the Richmond Region and how important more employment opportunities need to be addressed for some of the more rural jurisdictions.



**Exhibit 12: Labor Force by Jurisdiction**

Jurisdiction	Civilian Labor Force	Labor Force Participation Rate <sup>1</sup>	Unemployment Rate <sup>2</sup>
Charles City	3,738	61.9%	6.4%
Chesterfield	168,483	69.8%	5.2%
Goochland	9,745	55.0%	4.4%
Hanover*	53,849	69.3%	4.7%
Henrico	168,270	70.6%	4.9%
New Kent	9,884	68.0%	4.6%
Powhatan	12,780	56.0%	4.5%
City of Richmond	108,753	64.8%	7.7%
<b>Richmond Region</b>	<b>535,502</b>	<b>64.4%</b>	<b>5.5%</b>

Sources: JobsEQ ©2013, Chmura Economics and Analytics; 2007-2011 American Community Survey 5-year Estimates; U.S. Bureau of Labor Statistics

\* Data for Hanover County includes the Town of Ashland.

<sup>1</sup> Percentage of the civilian labor force compared to the total population over the age of 16

<sup>2</sup> Seasonally Adjusted as of April 2013

## EMPLOYMENT AND COMMUTING PATTERNS

The number of workers attributed to each locality (*Exhibit 13.1 and 13.2*) represents how many workers are employed in each locality versus how many workers live in each locality. For example, the City of Richmond has approximately 60,000 more workers employed in the City than living there. This suggests a large number of workers commute from the surrounding counties to the City. Conversely, Chesterfield has over 33,000 more workers who live versus who are employed there, suggesting significantly more Chesterfield residents commute outside the County for work.

*Exhibit 13.1* also shows a ratio between the number of workers employed in and living in each locality. A ratio greater than 1.0 indicates a commuting destination; and the higher the number, the greater the employment opportunities for workers in the region in a particular locality. Using this ratio, Ashland, Goochland, Henrico, and the City of Richmond are commuter destinations. The Town of Ashland's extremely high ratio is reflective of its



**Exhibit 13.1: Regional Commuting Patterns**

Jurisdiction	Where Workers are Employed	Where Workers Live	Employed/Living Ratio	Internal Capture Rate	External Capture Rate
Ashland	11,380	2,653	4.29	-	-
Charles City	1,523	3,102	0.49	15.7%	84.3%
Chesterfield	117,873	149,262	0.80	33.3%	66.7%
Goochland	13,997	8,385	1.67	19.3%	80.7%
Hanover*	46,108	46,354	0.79	28.1%	71.9%
Henrico	183,818	145,237	1.27	41.6%	58.4%
New Kent	3,500	7,904	0.44	13.8%	86.2%
Powhatan	5,110	17,211	0.30	11.9%	88.1%
Richmond	146,269	83,492	1.75	39.1%	60.9%
<b>Richmond Region</b>	<b>529,578</b>	<b>463,600</b>	<b>1.14</b>	<b>-</b>	<b>-</b>

Source: U.S. Census Bureau. 2013. OnTheMap Application. Longitudinal-Employer Household Dynamics Program. All Jobs, 2011.

\* Data for Hanover County includes the Town of Ashland

role as a college town with Randolph-Macon, along with substantial highway commercial relative to its small population. Goochland has a few large employers, Capital One and CarMax, located in the West Creek Business Center. Henrico represents a balanced commercial and corporate employment mix, along with industrial employment around the Richmond International Airport (RIC). The Region's Central Business District (CBD) serves not only as the Capital of the Commonwealth with a high concentration of State employment, but also higher education, financial, professional and creative services, as well as health care. In contrast, this ratio indicates the residential nature of Charles City, Chesterfield, Hanover, New Kent, and Powhatan counties. While Chesterfield has the largest labor force in the Region many of its residents commute outside of the county for employment.

*Exhibit 13.1* also shows the commuting internal and external capture rates of each jurisdiction. The rural jurisdictions of Charles City,

Goochland, New Kent and Powhatan have smaller internal capture rates, suggesting most of the workers who live in these jurisdictions work elsewhere. Conversely, the larger jurisdictions of Chesterfield, Hanover, Henrico, and the City of Richmond have significantly higher internal capture rates as a result of more employment opportunities in these respective jurisdictions.

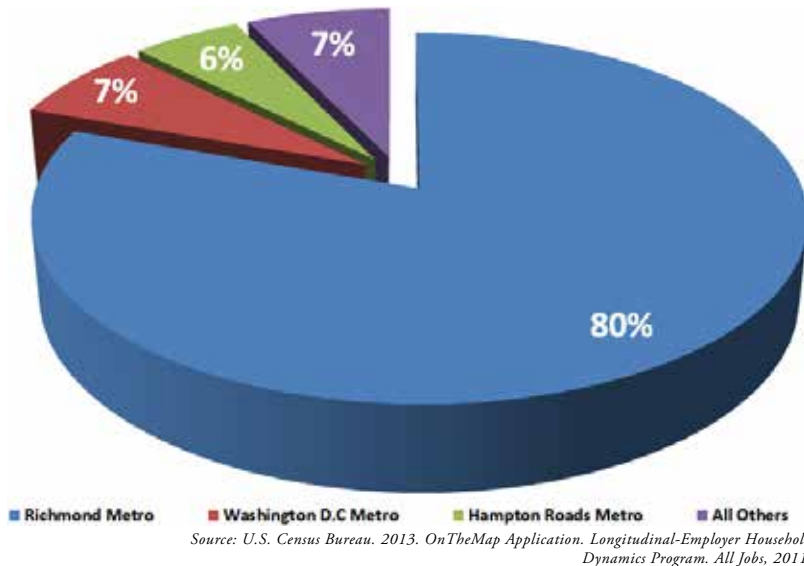
*Exhibit 13.2* shows a detailed look of the commuting patterns of workers within the Region. This depicts where workers commute to and from their place of employment.

**Exhibit 13.2: Detailed Commuting Patterns**

		Place of Employment									
	Jurisdiction	Charles City	Ches-terfield	Gooch-land	Han-over	Hen-rico	New Kent	Pow-hatan	Rich-mond	Work Outside Region	Where Workers Live
Place of Residence	Charles City	487	246	31	123	605	141	8	397	1,064	3,102
	Chesterfield	126	49,632	2,157	4,802	28,177	191	1,041	30,328	32,808	149,262
	Goochland	7	833	1,616	591	2,816	17	92	1,543	870	8,385
	Hanover*	49	3,617	988	12,260	14,452	175	97	8,280	6,436	46,354
	Henrico	208	13,120	3,343	9,243	60,397	395	365	33,649	24,517	145,237
	New Kent	149	580	65	538	1,612	1,087	21	1,142	2,710	7,904
	Powhatan	2	3,068	482	427	2,248	13	2,048	1,785	7,138	17,211
	Richmond	47	10,296	1,071	3,281	20,455	115	218	32,612	15,397	83,492
	Live Outside Region	448	36,481	4,244	14,843	53,056	1,366	1,220	36,533	-	-
	Where Workers are Employed	1,523	117,873	13,997	46,108	183,818	3,500	5,110	146,269	-	-



**Exhibit 14: Where Workers Who Live in the Richmond MSA are Employed (by Metro Area)**



The highlighted cells show the number of workers who live and work in their respective jurisdiction. For example, Charles City has 3,102 workers living there and 1,523 workers who are employed there, of which 487 workers live and work in Charles City. The vertical rows depicts the number of workers who are employed in their respective jurisdiction, detailing where these workers are commuting from or where they live. The horizontal rows depict the number of workers living in the respective jurisdiction, detailing where these worker are commuting to or where they are employed.

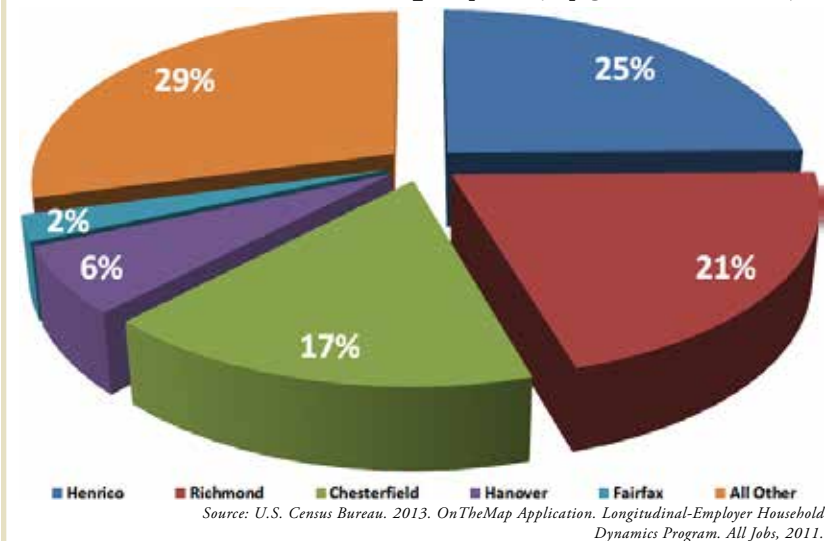
*Exhibits 14 and 15* depict internal and out-flow commuting patterns of all workers living in the Richmond MSA. While 80 percent of workers who live in the Richmond MSA also work here, 20 percent of workers commute outside the Richmond MSA to the Washington D.C. Metro, Hampton Roads and other metro areas, such as Charlottesville, Roanoke, and Lynchburg. In contrast, these same metropolitan areas send an almost equal portion of their residents to the Richmond MSA for work.

*Exhibit 14* suggests that the largest proportion of workers living in the region commute to the Washington DC/Northern VA area, followed by Hampton Roads. These two regions represent the largest metro areas with the largest jobs markets, within a two hour commuting time.



*Exhibit 15* looks at commuting patterns with a focus on destination jurisdictions. Of the workers living in the Richmond MSA, Henrico commands the largest share with 25 percent, followed by the City of Richmond at 21 percent. Within the Region, 23 percent of the commutes are made to Chesterfield and Hanover Counties. Additionally, an estimated 31 percent are commuting to other jurisdictions including Fairfax, Goochland, the City of Petersburg, the City

**Exhibit 15: Where Workers Who Live in the Richmond MSA are Employed (by Jurisdiction)**





of Hopewell, the City of Colonial Heights, and the City of Virginia Beach, among others.

**Exhibit 16: Largest Employers in the Richmond Region, 2012**

Rank	Employer
1	Capital One Financial Corporation
2	Virginia Commonwealth University
3	Chesterfield County Schools
4	Henrico County Schools
5	HCA Virginia Health System
6	VCU Health Systems/MCV Hospital
7	Bon Secours Richmond Health System
8	Richmond City Public Schools
9	County of Henrico
10	City of Richmond
11	Walmart
12	County of Chesterfield
13	Martin's Food Market
14	U. S. Department of Defense
15	Hanover County Schools
16	Kroger
17	U.S. Dept. of Veterans Affairs
18	Postal Service
19	Sun Trust
20	Anthem

*Source: Virginia Employment Commission, Quarterly Census of Employment and Wages (QWEC), 4th Quarter 2012*

## EMPLOYMENT BY INDUSTRY

*Exhibit 16* lists the top 20 public and private sector employers in the Richmond Region according to Virginia Employment Commission, 4th Quarter 2012, which illustrates a fairly well-rounded diversity of employment.

*Exhibit 18* shows existing Richmond Region employment in broad categories grouped by the two-digit North American Industrial Classification System (NAICS) code. In absolute terms of employment, the largest industry sectors in the Region include Health Care, Retail Trade, Educational Services, Accommodation and Food Services, and Finance and Insurance.

*Exhibit 18* also indicates annual rates of change over the last five years (2008-2013) as well as projected growth in annual percentage terms over the next ten years.

*Exhibit 17* highlights major industry declines and increases as defined by two-digit NAICS codes. Job growth by industry sector is measured by the average annual growth rate, projected ten years from the 1st quarter 2013, indicating new jobs which are expected to be created within this time frame. Some of the highest growth areas are expected to be in Health Care, Construction, and Professional, Scientific and Technical Services, continuing the growth in Health Care and Professional Services, but expecting a reverse in the construction industry.

**Exhibit 17: Summary of Major Industries of the Richmond Region**

Decline (2008-2013)	Growth (2008-2013)	10-Year Projected Growth (2013-2023)
Construction	Utilities	Construction
Manufacturing	Health Care and Social Assistance	Health Care and Social Assistance
Information	Educational Services	Professional, Scientific & Technical Services
Management of Companies and Enterprises	Professional, Scientific & Technical Services	Administrative Support & Waste Management and Remediation Services







**Exhibit 18: Richmond Region Employment by Major Industry**

NAICS	Industry Sector	Employment (1st Qtr. 2013)	Avg. Annual Wages	Location Quotient	Historic Avg. Annual 5-Year Change	Projected Avg. Annual 10-Year Change <sup>1</sup>
11	Agriculture, Forestry, Fishing and Hunting	668	\$31,105	0.14	0.4%	0.6%
21	Mining, Quarrying, Oil and Gas Extraction	292	\$53,985	0.09	nd	2.3%
22	Utilities	2,280	\$73,492	0.72	3.8%	-0.1%
23	Construction	29,726	\$48,125	1.32	-6.0%	3.1%
31	Manufacturing	24,346	\$61,150	0.52	-5.9%	-0.1%
42	Wholesale Trade	21,786	\$61,788	0.98	-1.2%	1.5%
44	Retail Trade	56,197	\$26,337	0.96	-0.7%	1.3%
48	Transportation and Warehousing	15,499	\$45,056	0.77	-1.6%	1.4%
51	Information	8,372	\$59,370	0.76	-6.9%	0.5%
52	Finance and Insurance	36,288	\$81,512	1.66	0.8%	1.6%
53	Real Estate and Rental and Leasing	6,715	\$45,614	0.87	-1.9%	1.4%
54	Professional, Scientific, & Technical Services	34,554	\$78,414	1.10	1.1%	2.4%
55	Management of Companies and Enterprises	20,740	\$102,363	2.66	-3.2%	0.7%
56	Administrative Support & Waste Management and Remediation Services	35,245	\$32,530	1.11	0.0%	1.9%
61	Educational Services	47,570	\$38,297	1.01	1.2%	1.2%
62	Health Care and Social Assistance	73,699	\$47,477	1.01	2.7%	2.9%
71	Arts, Entertainment, and Recreation	10,085	\$20,127	1.09	0.4%	1.8%
72	Accommodation and Food Services	40,271	\$15,838	0.87	1.2%	0.9%
81	Other Services (except Public Administration)	18,171	\$30,991	1.02	-0.7%	1.3%
92	Public Administration	32,353	\$54,938	1.14	-0.3%	0.1%
99	Unclassified	nd	nd	nd	nd	1.7%
<b>Total All Industries</b>		<b>514,858</b>	<b>\$48,309</b>	<b>1.00</b>	<b>-0.6%</b>	<b>1.6%</b>

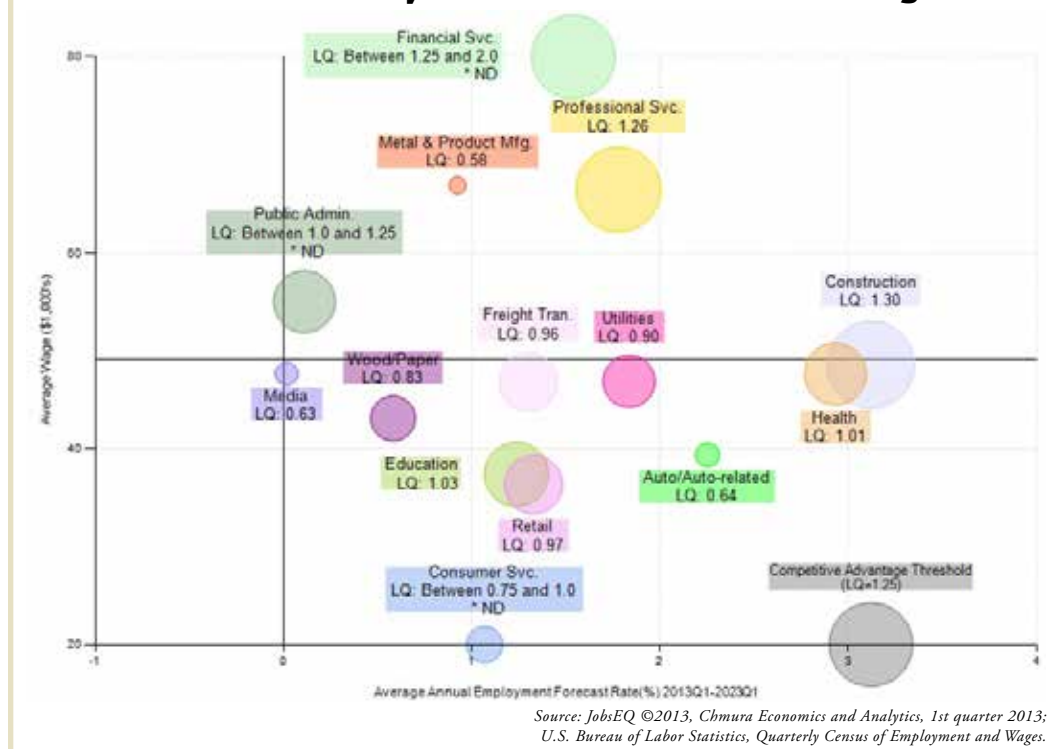
1. Projected Over the next 10 years from 1st quarter 2013.  
 "nd" indicates industry sector is Non-disclosed.

Source: JobsEQ ©2013, Chmura Economics and Analytics, 1st quarter 2013; U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.





**Exhibit 19: Industry Clusters in the Richmond Region**



specializes in or is concentrated in a region (or lack thereof). The industry clusters depicted in *Exhibit 19* were defined by Chmura Analytics. A listing of the detailed-level NAICS codes used to define these clusters is included in the Appendix.

*Exhibit 19* shows one indicator of relative strength by sector and emerging competitive advantage which can be further depicted in terms of wage levels and 10-year growth projections.

In creating the industry clusters, Chmura Economics & Analytics made use of a variety of source data from the Quarterly Census of Employment and Wages provided by the U.S. Bureau of Labor Statistics. Chmura forecast employment growth using national projections from the Bureau of Labor Statistics, forecasts for 2010-2020, and regional growth patterns.

*Exhibit 20* summarizes the industry cluster graphic, indicating how the clusters are performing with regard to LQ size, forecasted growth rate, and average wages. The manufacturing sector is particularly weak, but offers real opportunities for entry level and career paths with higher wages, especially important to consider when growing vital employment opportunities for lower to middle skilled workforce. Retail, Auto & Related, and Consumer Services

## INDUSTRY CLUSTERS

Another way to look at the relative size combined with the health of the different employment sectors involves an understanding of business dynamics as expressed by an industry cluster's Location Quotient (LQ). An LQ of 1.0 indicates an industry is the same size in the region as the national average; an LQ of 2 means the industry cluster is twice as large in the region compared to the national average; and an LQ of 0.5 indicates the industry cluster is half as large as the national average. The LQ for an industry cluster identifies the degree to which it specializes in or is concentrated in a region. With an LQ of 1.25 or higher, a region is considered to possess a competitive advantage in that industry cluster. The LQ identifies the degree to which the cluster

**Exhibit 20: Summary of Industry Clusters**

	Low LQ/ Moderate Growth	High LQ/ High Growth
High Wage	<ul style="list-style-type: none"> <li>Pharmaceutical</li> <li>Metal/Product Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>Financial Services</li> <li>Professional Services</li> </ul>
Moderate Wage	<ul style="list-style-type: none"> <li>Freight Transportation</li> <li>Utilities</li> <li>Media</li> <li>Wood/Paper</li> </ul>	<ul style="list-style-type: none"> <li>Public Administration</li> <li>Health</li> <li>Construction</li> </ul>
Low Wage	<ul style="list-style-type: none"> <li>Retail</li> <li>Auto &amp; Related</li> <li>Consumer Services</li> </ul>	<ul style="list-style-type: none"> <li>Education</li> </ul>





have both the lowest wage occupations while showing only moderate growth. Financial Services and Professional Services are expected to be the strongest performing.

### STRONGEST CLUSTERS

The Richmond Region has a competitive advantage in three dominant industry clusters, each made up of individual sectors according to the analysis by Chmura Economics & Analytics.

#### Financial Services

The presence of banks and financial service centers in the Richmond Region including the largest private sector employer, Capital One, is reflected in *Exhibits 19 and 20*. Large financial and insurance institutions including Wells Fargo, Bank of America, SunTrust, BB&T, and the Federal Reserve Bank have a combined employment of over 35,000 workers contributing to a competitive advantage in the Financial Services cluster.

#### Professional Services

Another competitive advantage the Richmond Region holds is in the Professional Services cluster, which includes Management of Companies & Enterprises and Scientific & Technical Services. The leading employers in the Professional Services cluster have a combined employment of over 93,000 employees. In fact, focusing on the Professional, Technical and Scientific Services (see NAICS 54) sector, employment growth measured by the Census of Employment and Wages and LQ change from 2001-2012 along with 2012 average annual wages, analysis by the Praxis Strategy Group shows the Richmond MSA is ranked 8th among the 50th largest metropolitan areas.

#### Construction

The Construction industry cluster also shows a competitive advantage with an LQ of 1.3 and employment base of just under 29,000 workers. Looking at the ten year projection (*Exhibit 17*), this industry appears to be rebounding in the foreseeable future. According to *The Kiplinger Letter* (March 8, 2013) the construction industry is regaining strength, evidenced by greater demand for skilled carpenters, masons and others who had previously left

this industry sector for other occupations when the housing bubble burst in 2007. Reflecting national trends, construction now needs to be retooled in the Richmond Region.

### EMERGING TARGET INDUSTRY CLUSTERS

The importance of intentionally building on naturally occurring industrial and business sectors cluster cannot be exaggerated. As cited in “Mastering the Metro” published in *Forefront* (Issue 06: 2012) for the Brookings Metropolitan Policy Program, “A growing body of research suggests that being part of such an industry cluster is good for an individual firm; it makes any firm more innovative, and makes new firms more likely to survive.....More exports [basic industry and clusters with a greater than 1.0 LQ] lead to more jobs (often manufacturing jobs) that pay well for workers at a variety of skill levels” (p. 3).

On behalf of the Greater Richmond Partnership (GRP), Market Street Services completed a *Target Cluster Analysis* (adopted June 2011) to determine which emerging clusters are best poised for growth based on data collected at the Richmond MSA level, identifying five emerging target industry clusters.

1. **SUPPLY CHAIN MANAGEMENT** - multi-modal transportation and warehousing, wholesale trade, specialty foods processing and packaging.
2. **ADVANCED MANUFACTURING** - research and development in all areas of manufacturing, including energy and biotechnology.
3. **FINANCE AND INSURANCE** - banking, financial, insurance, and real estate related businesses.
4. **PROFESSIONAL AND CREATIVE SERVICES** - law, information and communications technology, advertising, public relations, and creative services.
5. **HEALTH AND LIFE SCIENCES** - all health care related, innovative care and management, life sciences.

A breakdown of the specific four-digit NAICS code identified by GRP and associated with each of these emerging clusters is included in the Appendix.





These targeted clusters serve as the framework for the formulation of key strategies because the analysis is based not only on “business recruitment and relocation, but also on existing business retention and expansion and small business and entrepreneurial development”. The analysis works from the ground-up, building on the Region’s strengths in the workforce with the added view toward national trends for job growth. Whether it is creating a clear pipeline for workforce development, connecting a skilled workforce with high demand occupations, K-12 education, or infrastructure projects, the common end result is to create a dynamic workforce which will be more likely able to access job opportunities within these five targeted clusters.

The following descriptions of the five emerging clusters are taken from the Greater Richmond Partnership’s *Target Cluster Analysis: Technical Memo* to give the reader a better understanding of how these clusters have been identified.

#### SUPPLY CHAIN MANAGEMENT

Advances in technology have spawned new ways of doing business and reduced the virtual distance between people, even if the physical distance remains vast. Such technologies have not only created a demand for a rapid movement of goods, but have also redefined the distribution sector itself. Current technology allows businesses to track the location of individual vehicles via satellite,



and use refrigerated units to provide computerized feedback on specific operational times and temperatures. Advanced in-house technology and handheld wireless devices in the field also greatly streamline inventory maintenance operations. Support activities for Supply Chain Management can include warehousing, scheduling, distribution, fleet management, network optimization, and other processes. This cluster is comprised of niches in Multi-Modal Transportation and Warehousing, Wholesale Trade, and Specialty Food Processing and Packaging. Subsectors within these niches include Freight Trucking, Air Cargo, Warehousing, Logistics Management, and Merchant Wholesalers (Market Street, 2011, p. 11).



#### ADVANCED MANUFACTURING

The Advanced Manufacturing target for the Richmond metro encompasses a diverse range of existing production and development activities; however, there is a particular emphasis leveraging the above subsectors on two emerging niches: Energy Technology and Research and Development. Advanced Manufacturing is linked with the other targets recommended in this Technical Memo – with particular connections to Supply Chain Management and Information and Communication Technologies. As such, it has the ability to catalyze economic activity beyond the scope of its target definition and help the Richmond area’s economy diversify and grow (Market Street, 2011 p. 31).







## FINANCE AND INSURANCE

The Finance and Insurance targets includes a spectrum of service banks; securities, commodities, and other investment firms; and insurance carriers, agents and brokers; and financial planners. This target is comprised of two niches: Banking and Securities and Insurance (Market Street, 2011, p. 46).

## PROFESSIONAL AND CREATIVE SERVICES

The occupations captured in the Professional and Creative Services target services which are critical components of functional, successful business operations across a broad range of enterprise types. The two niche areas identified for the Richmond area are Information and Communication Technology and Advertising, PR, and Creative Services. While not directly tied to any particular business model, they are positioned to flourish in environments with large-scale professional, information, and technology-related operations. The services provided by through this sector can be organized as in-house supports for business operations or as stand-alone consultancies.

The Professional and Creative Services target contributes to job growth across a range of skill levels and promises highly competitive earning potential. Although there are certainly low-wage occupations encompassed by this target, there are bountiful opportunities to grow and attract mid- and



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high-wage jobs. The target's primary subcomponents are broken down by the niche areas of Information and Communication Technology and Advertising, Public Relations, and Creative Services (Market Street, 2011, p. 58).

## HEALTH AND LIFE SCIENCES

The Health and Life Sciences target encompasses three niches: Innovative Care, Health Information and Management, and Life Sciences. Together, they encompass the delivery and administration of health care as well as health innovations that advance the ease and efficiency of delivering services to patients and the translation of these innovations into start-up companies. This target provides high wage jobs, opportunities for workers of all skill levels, and contributes to the further enhancement of Richmond's excellent quality of life.

Innovative Care includes hospitals, clinics, wellness centers and medical laboratories. Jobs in this niche typically feature higher than average wages. While doctors, physicians, and nurse specialists earn top salaries, the jobs available to individuals without substantial professional training can still provide viable, high-paying career opportunities in a stable profession. Furthermore, numerous technical support occupations in this target require only one or two years of education beyond high school (Market Street, 2011, p. 77).



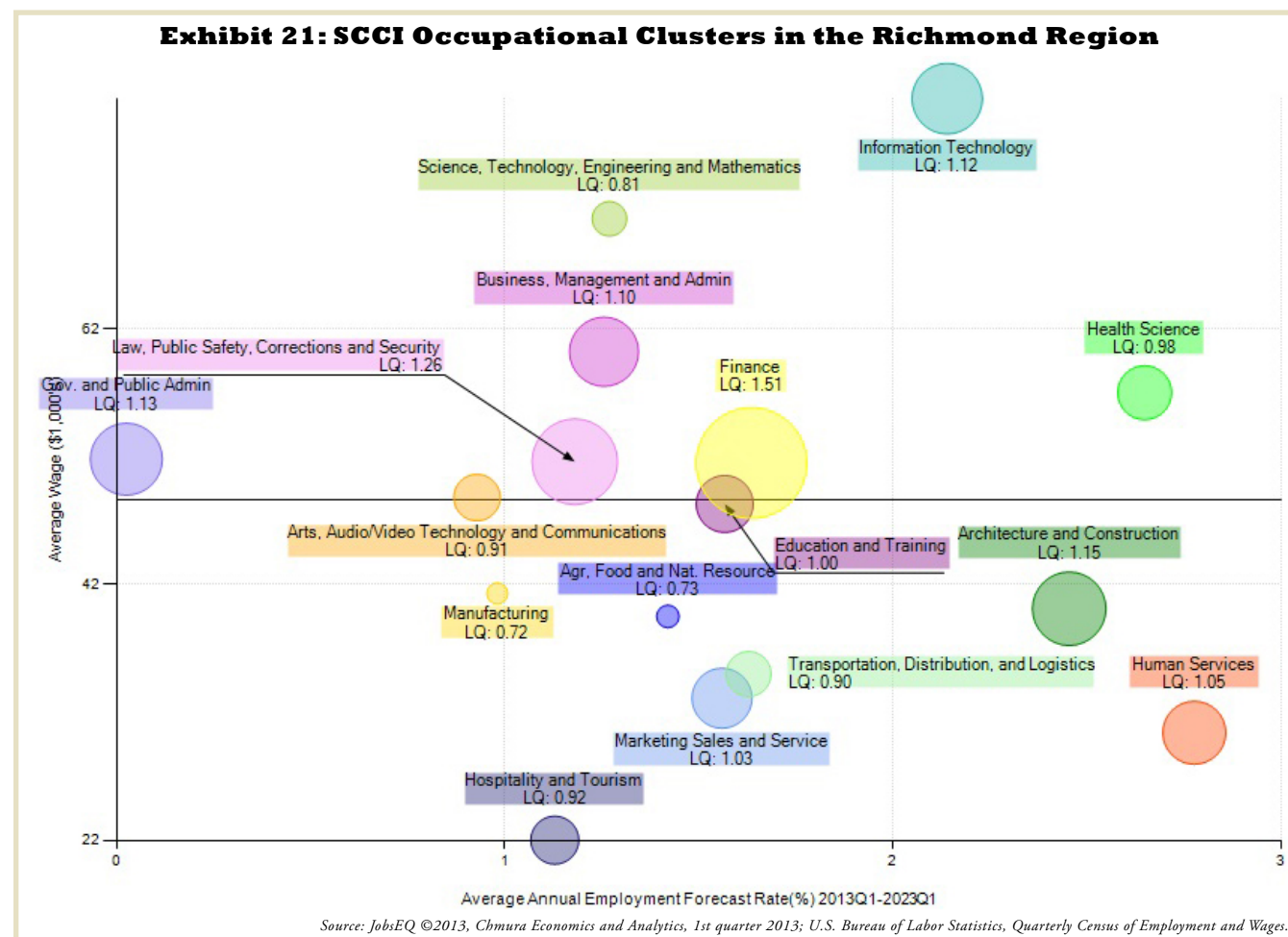


## OCCUPATION CLUSTERS

Generally correlated to the industry clusters, the State Career Clusters (*Exhibit 21*) illustrate the occupation clusters forecasted over the next ten years also expressed in terms of relative strength through a similar location quotient (LQ) measurement. The States' Career Clusters Initiative (SCCI Clusters) groups 16 occupations into categories requiring common skills (see

also Workforce Development). The detailed groupings of these clusters can be seen in the Appendix.

*Exhibit 21* only indicates career clusters which are emerging (clusters with an LQ less than 0.75 but with forecasted growth higher than the nation), offer a competitive advantage (clusters with an LQ greater than 1.25), or are growing (clusters with a non-negative growth forecast).



The x-axis represents the average annual forecast over a ten year period, while the y-axis represents average wages. Ideally the Region would like to have many large circles in the upper right of the graphic. According to the SCCI Clusters, the occupations of Law, Public Safety, Corrections and Security and Finance are the two occupation clusters in the Region which will have competitive advantages. Others that will be very competitive include Information Technology, Business Management and Administration, Gov. and Public Administration, Marketing Sales and Service, Architecture and Construction, and Human Services.



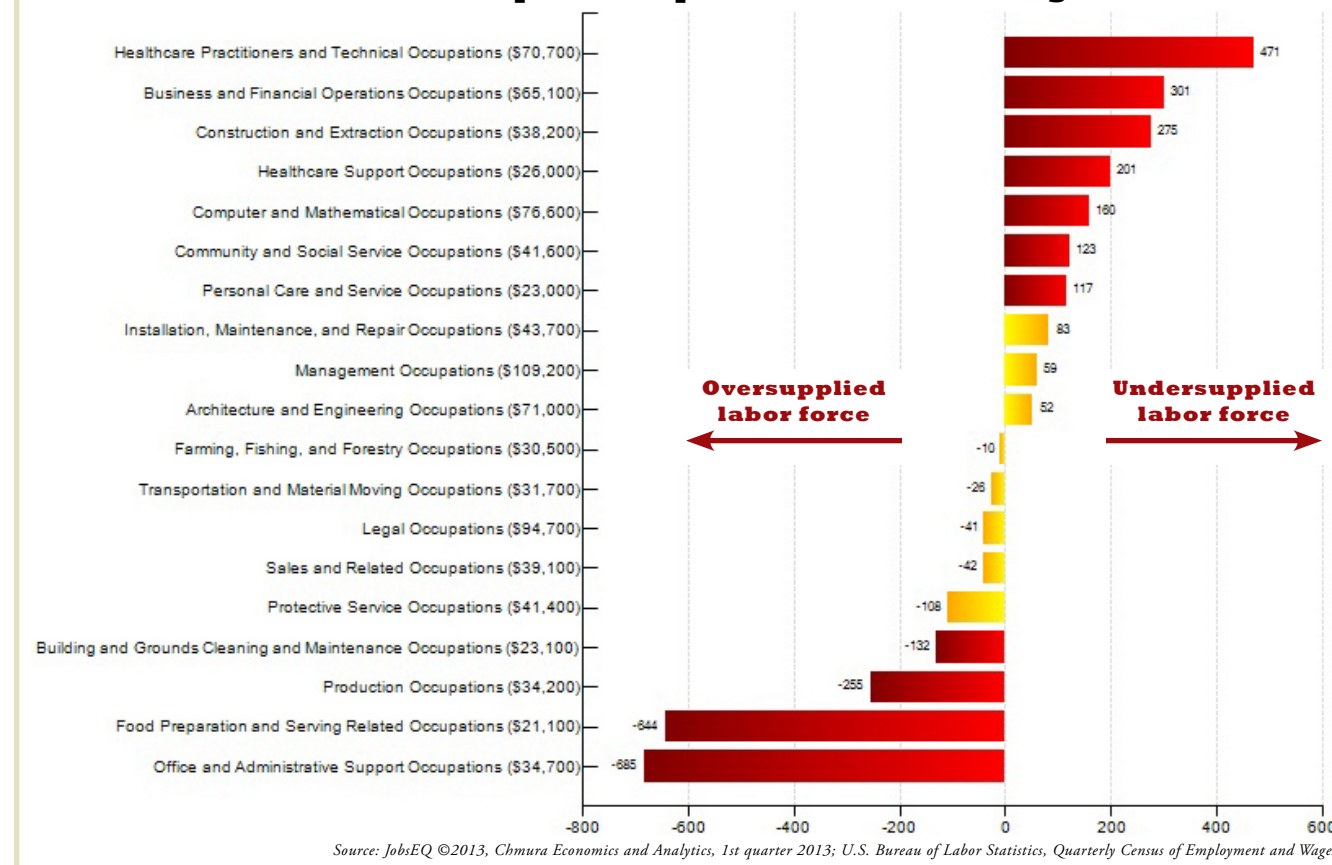


## OCCUPATION GAPS

Using a variety of sources including the Bureau of Labor Statistics, VEC quarterly wages (QWEC), and educational statistics for first time employees, Chmura Analytics projects emerging gaps over a ten year period in occupations within the Region based on a supply and demand assessment of each major occupation category. If an occupation is determined to be under-supplied by the existing labor force it is shown to be a positive, to the right of the zero vertical axis, and the number of jobs on an annual basis is estimated

to grow due to new hirings and the replacement demand, as shown in *Exhibit 22*. In contrast, if an occupation appears to be over-supplied with more job seekers than jobs, those are shown to the left of the zero vertical axis with a corresponding estimate. These 'gaps' are calculated on a quarterly basis and projected over a ten year period. Looking at Healthcare Practitioners and Technical Occupations as an example shows there is a total annual demand for 471 jobs due to new hirings and workers either retiring or changing careers. This translates to 4,710 jobs which will need to be filled over the next ten years in this high demand occupation.

**Exhibit 22: Occupation Gaps in the Richmond Region**



Currently, the highest occupation demands are in the categories of Health Care Practitioners, Business and Financial Operations, and Construction occupations. This corresponds with the industry clusters depicted in *Exhibit 19* showing the Region has a competitive advantage in both the Construction industry and Financial Services. This shows the Richmond Region has room to expand these already healthy industry sectors. Workers are anticipated to be retiring from the fields of Health Care Practitioners, Business and Financial Operations, and Construction occupations so their vacated positions will allow for an infusion of a younger workforce leading to growth in these three major occupational groups.

On the other side of the occupation gap scale are jobs that appear to be over-supplied with workers. Occupations such as administrative support, food preparation, and production are three major occupational groups over the next ten years projected to be over-supplied.





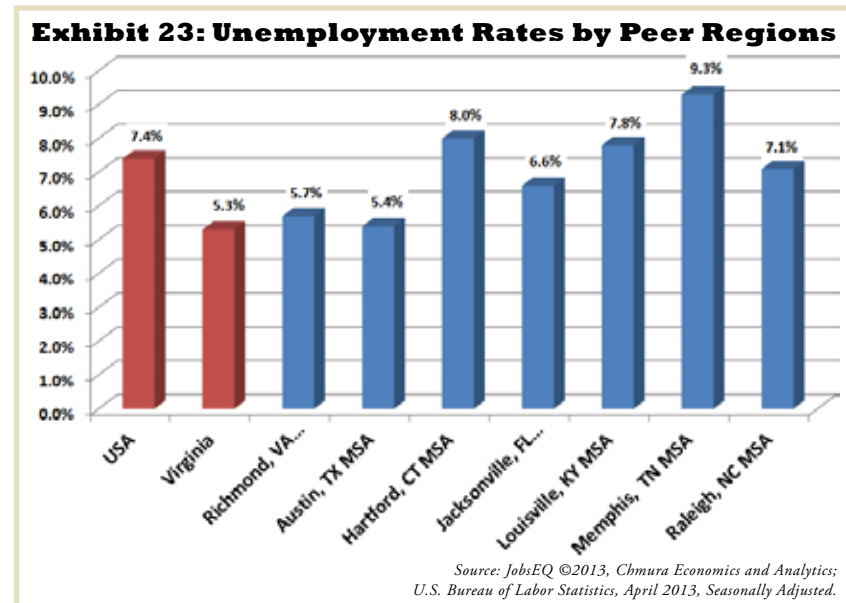


Some of the over-supply can be explained by the skill level required, many are attainable without advanced degrees, but a large reason is improved technology in many occupations that are reducing the need for personnel.

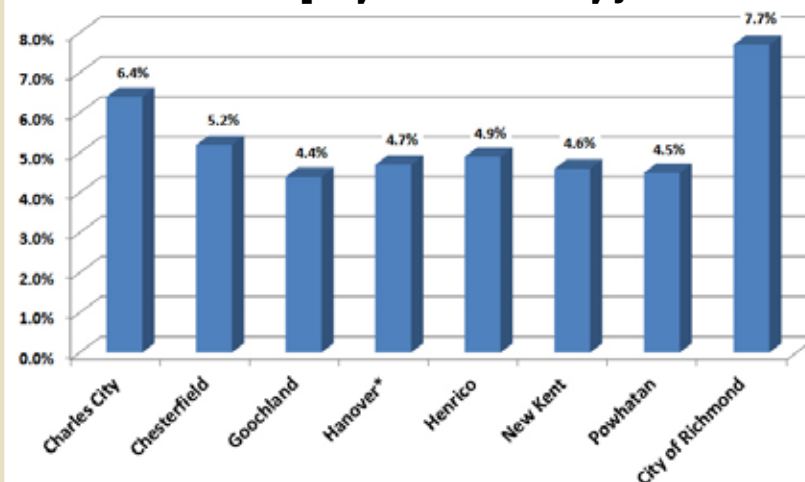
## UNEMPLOYMENT

The seasonally adjusted unemployment rate in the United States has been trending down since 2010 from a high of 10 percent to the current rate of 7.4 percent as of April 2013. Virginia and the Richmond MSA are faring much better compared to the United States with an unemployment rate of 5.3 percent and 5.7 percent, respectively. The Richmond MSA is also performing better than all peer regions, with the exception of Austin at 5.4 percent, shown in *Exhibit 23*. The remaining five peer regions have an unemployment rate ranging from 6.6 percent in Jacksonville to 9.3 percent in Memphis.

Within the Richmond Region, Charles City County and the City of Richmond are experiencing higher unemployment rates than the Richmond MSA as a whole, at 6.4 percent and 7.7 percent respectively, as shown in *Exhibit 24*.



**Exhibit 24: Unemployment Rates by Jurisdiction**



Source: JobsEQ ©2013, Chmura Economics and Analytics; U.S. Bureau of Labor Statistics, April 2013, Seasonally Adjusted

\* Data for Hanover County includes the Town of Ashland.

Using the national unemployment rate as a baseline indicator, all jurisdictions in the Region with the exception of the City are out-performing the national rate. The relatively high unemployment rate for the City may be attributed to a number of socioeconomic factors which are particularly acute in the City and discussed in the following section. A closer look at possible causes for higher unemployment within sub-sectors of the Region will also be addressed.







## UNDEREMPLOYMENT

The term ‘underemployment’ is defined as an employment situation that is insufficient in some important way for the worker relative to a standard, i.e. holding a part-time job despite desiring full-time work, over-qualification where an employee has education, experience or skills beyond the job requirements.

The percentage of those underemployed in the high skill category is highlighted in *Exhibit 25*. If positive, this number shows the percentage of the labor force with high skills, but employed in occupations requiring less skill. If this number is negative, the region has a deficit of highly skilled workers to fill present occupations. High skill refers to those with a bachelor degree or higher; medium skill represents those with the highest educational attainment of a two-year degree, certificate, or some college; and low skill refers to those with a high school diploma, equivalent or lower.

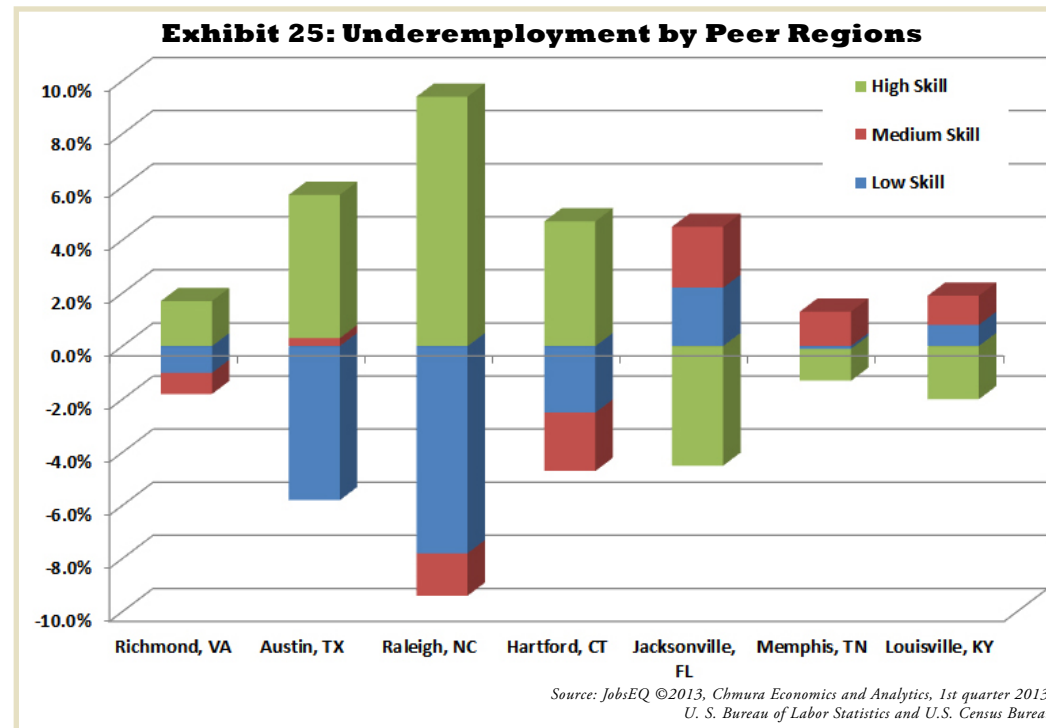
It is estimated that less than 2 percent of the Richmond MSA highly skilled labor force are employed in occupations requiring less skill. Richmond is not in as severe a situation as Austin, Raleigh, or Hartford where these peer regions have a significantly higher percentage of underemployment of highly skilled workers. These metro areas are home to major research universities, and as a result, are more likely to have higher concentrations

of highly skilled workers looking for employment. Austin is home to the University of Texas (48,000 enrollment), Raleigh is home to North Carolina State University (34,000 enrollment) and is part of the Research Triangle with Duke University and the University of North Carolina in its labor shed. Hartford also has a handful of small liberal arts colleges as well as several state universities. The underemployment statistics seem to indicate that Richmond

MSA and several of its peer regions are producing more highly skilled labor force than the region can accommodate with well-suited employment opportunities.

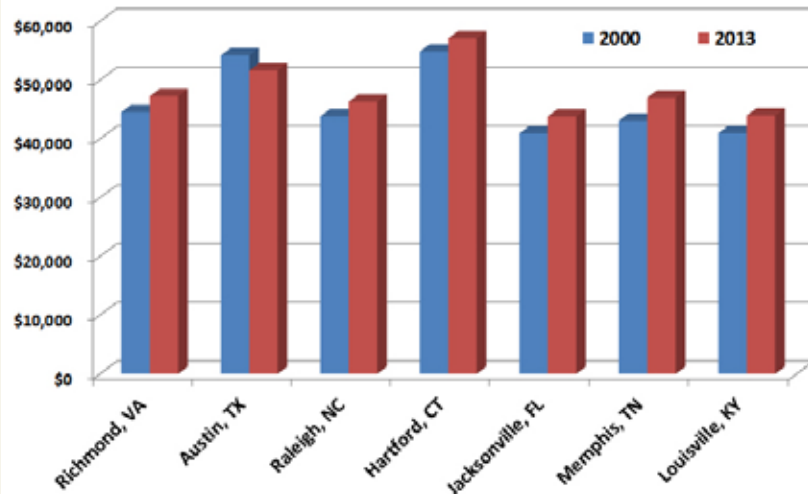
One fact to keep in mind when addressing occupational demands and skill levels cited by the National Skills Coalition, 2011 (Virginia Department of Education, A Strategic Plan for 2012-2017: Advancing Workforce Readiness) is that: “Middle-skill jobs, which require more than a high school diploma but not a four-year degree, featured prominently among the top ten ‘hardest to fill’ jobs of 2011. In the American South, middle-skill jobs account for 51 percent of the region’s jobs today .... making them the engine of the American South’s

economy .... only 43 percent of the region’s workers are currently trained to the middle-skill level, a gap that threatens to undermine economic growth and innovation efforts.”





**Exhibit 26: Average Annual Wages by Peer Regions**



Source: JobsEQ ©2013, Chmura Economics and Analytics, 1st quarter 2013; U. S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

## WAGES AND COST OF LIVING

*Exhibit 17* cited previously also includes the average annual wages of the industry clusters. The average annual wages vary dramatically in the three largest industry clusters for the Region. The average annual wage of \$80,000 for those in Financial Services, and an average annual wage of \$66,000 in Professional Services when compared to the lower average annual wages of \$48,000 in the Construction industry are also reflective of the temporary nature of construction, seasonal and less than full-time employment.

As depicted in *Exhibit 26*, average annual wages have increased in the Richmond MSA as well as the peer regions with the exception of Austin, TX which decreased nearly 5.0 percent from 2000 to 2012. The 2000 numbers are adjusted for inflation to accurately represent 2012 purchasing power. The Richmond MSA has the third highest 2012 annual wage at \$47,699 behind Austin, TX and Hartford, CT. Over this twelve year span the Richmond MSA has experienced the second largest relative increase in wages at 7.1 percent, behind Memphis at 7.3 percent.



(cc) VARIOUS (see p. 90)





**Exhibit 27: Cost of Living by Peer Regions**

Metro Areas	Annual Average Salary	Cost of Living Index (Base US)	US Purchasing Power	Cost of Living Index (Base Richmond MSA)	Richmond, VA MSA Purchasing Power
Richmond, VA MSA	\$47,231	105.3	\$44,834	100	\$47,231
Austin, TX MSA	\$51,647	95.7	\$53,969	90.8	\$56,854
Raleigh, NC MSA	\$46,406	99.8	\$46,399	94.8	\$48,879
Hartford, CT MSA	\$57,061	122.2	\$46,700	116	\$49,197
Jacksonville, FL MSA	\$43,815	99.5	\$44,055	94.4	\$46,410
Memphis, TN MSA	\$47,003	85.5	\$54,952	81.2	\$57,889
Louisville, KY MSA	\$43,971	89.2	\$49,272	84.7	\$51,906
<b>United States</b>	<b>\$48,573</b>	<b>100</b>	<b>\$48,573</b>	<b>94.9</b>	<b>\$51,170</b>

Source: JobsEQ ©2013, Chmura Economics and Analytics, 1st quarter 2013; U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Exhibit 27 outlines a cost of living comparison among the peer regions using the Richmond MSA and the U.S. as the two baseline indices. Among the peer regions, the Richmond MSA is the second most expensive metro area in which to live, behind Hartford. All other peer regions have a cost of living index below the national baseline. Hartford is significantly higher due to its geographic location in the more expensive northeast.

Compared to the southern regions, the purchasing power in the Richmond MSA appears to be marginally less, translating into relatively higher prices for goods and services. For example, someone making a salary of \$52,153 living in Austin (their average annual salary) has the added purchasing power equivalent to almost \$2,500 annually, using the U.S. baseline index, or \$5,259 using the Richmond MSA baseline index.



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## GROSS REGIONAL PRODUCT

Nationally, the Gross Domestic Product (GDP) is considered the most comprehensive measure of economic activity and serves as a yardstick for economic recession and expansion. Gross Regional Product (GRP) also measures the productive capacity of the Regional economy in a similar fashion. According to the U.S. Bureau of Economic Analysis (BEA) the GRP of the Richmond MSA grew 2.9 percent in 2011 (Christine Chmura “Economic Impact: Gross Regional Product Grew in Richmond Area in 2011” Richmond Times Dispatch, March 4, 2013).

In terms of size, the amount of final output created, Richmond ranked 45th in the country behind Hampton Roads at 41st and the Washington DC region which is the 5th largest. On a per capita basis, the Richmond economy produced \$45,321 GRP per person, placing it above Hampton Roads and reflects a more productive labor force. Projections show the Richmond area outpacing Washington DC and Hampton Roads owing to the Region’s lower dependence on federal contracting. Only 2 percent of Richmond’s GRP, compared to 18 percent in Washington and 13.4 percent in Hampton Roads, are derived from federal contracting. The GRP will be an important factor to use to measure economic health of the Region in the future.





# IV: Distressed Areas



## INTRODUCTION

The previous section focused on broad employment characteristics, including an occupational and wage review compared to peer regions and the U.S. Within this context, the essential purpose of the CEDS is to take a closer look at the challenges within the Region characterized by income at both a neighborhood and household level.

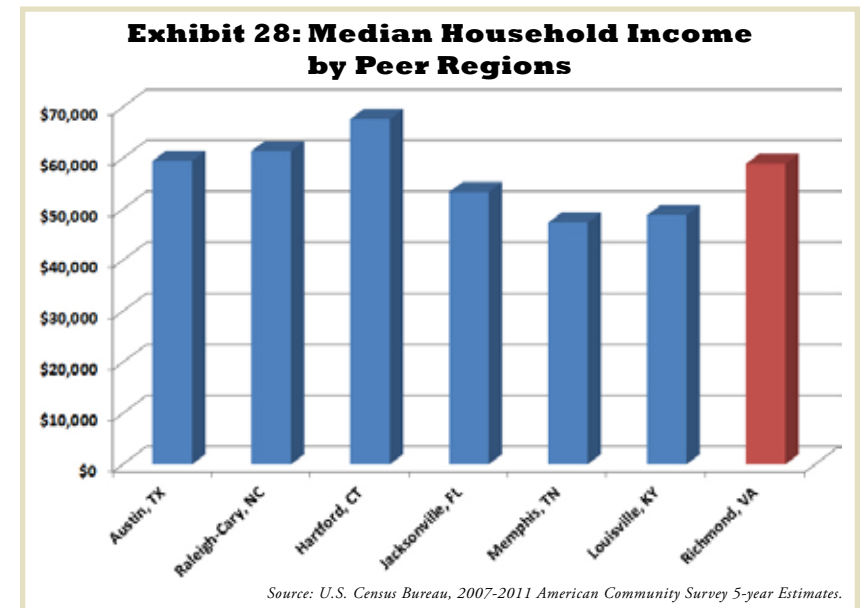
The Richmond Region, both at the PDC and MSA level, is faring better than the national average and most of its peer regions, and is generally on par with the Commonwealth. Once the data is segmented to the jurisdictional level and dissected at smaller geographies, the level of distress and concentration of poverty start to emerge. The data presented in this section suggests poverty is a real concern for the Richmond region, especially in the urban core and the adjacent outlying suburban areas.

## HOUSEHOLD INCOME

*Exhibit 28* illustrates that a median household income of \$57,543 puts the Richmond MSA in the middle among the peer regions, comparable to Raleigh and Austin, but significantly lower than Hartford.

Although Richmond is performing regionally well above the national average, *Exhibit 29* indicates several jurisdictions are struggling to keep up with the rest of the Region. Compared to baseline indicators, the Richmond Region median household income is comparable with Virginia, and above the national average.

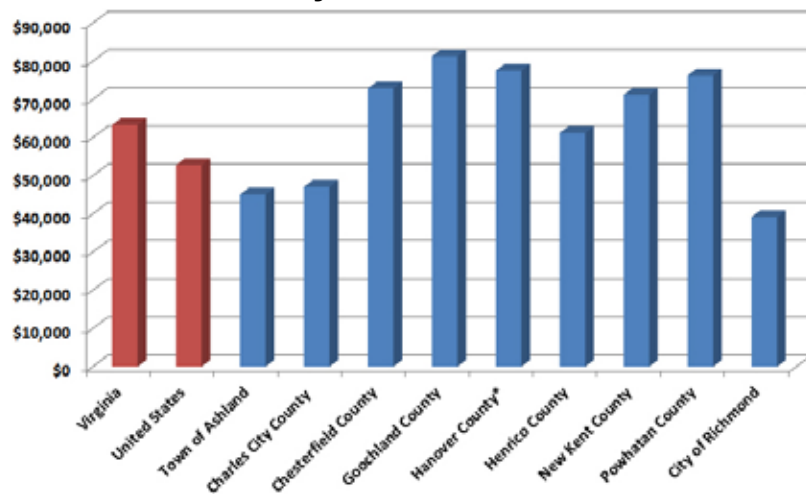
However, three localities - the Town of Ashland, Charles City County, City of Richmond - are experiencing lower household incomes than the national average of \$51,914. Looking at the distribution of household wealth in the Richmond Region, the City of Richmond at \$38,266 is lower than the other localities. Conversely, Chesterfield, Goochland, Hanover, New Kent, and Powhatan all fall between \$70,000 and \$80,000.







**Exhibit 29: Median Household Income by Jurisdiction**



Source: U.S. Census Bureau, 2007-2011 American Community Survey 5-year Estimates.

\* Data for Hanover County includes the Town of Ashland.

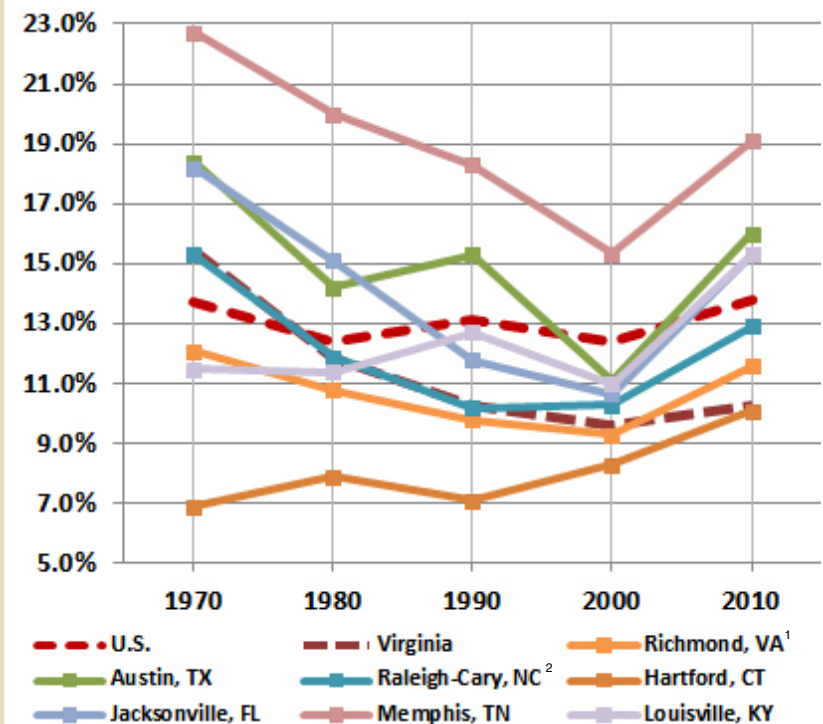
## CONCENTRATION OF POVERTY

Exhibit 30 compares the percentage of population in the peer regions living in poverty since 1970, as defined by the U.S. Census Bureau. The Census definition of poverty is based on poverty thresholds that were revised in 1982, with the previous measures of poverty established in 1969. Subsequent years of poverty determined by the Census have used the Consumer Price Index (CPI), indexed to 1982 to update poverty thresholds.

The Richmond MSA had the second lowest percentage of persons living under the poverty level compared to other peer regions in 1970 and the third lowest percentage of poverty in 2010, lower than the national and state measures during the same periods of time. The Richmond MSA's poverty percentage peaked at 12.1 percent in 1970 and saw its lowest poverty rate in the single digits, at 9.8 percent in 1990, and has held steady at 11.1 percent since 2000. This trend differs from that of the rest of the peer regions as they have all increased since 2000.



**Exhibit 30: Population Living in Poverty by Peer Regions**

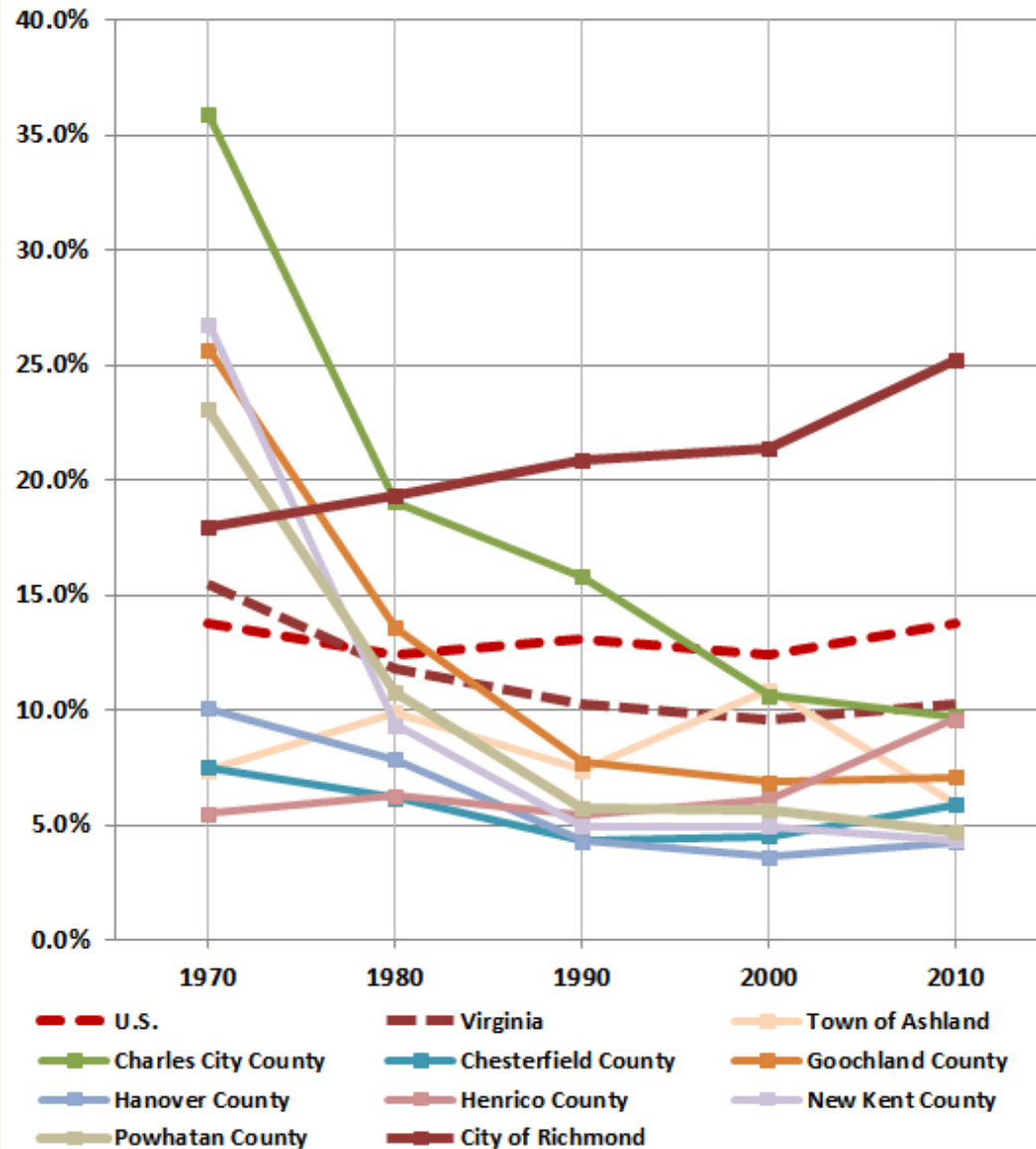


Source: U.S. Census Bureau, Decennial Census 1970 - 2010; U.S. Census Bureau.

¹ Richmond, VA and Petersburg-Colonial Heights-Hopewell, VA were two separate MSAs in 1970 and 1980, before combining in 1990.

² In 1970 Raleigh, NC was its own separate MSA. In 1980 Raleigh, NC combined with Durham, NC to form the Raleigh-Durham, NC MSA. In 1990, Chapel Hill, NC was included to form the Raleigh-Durham-Chapel Hill, NC MSA. In 2010, Chapel Hill and Durham broke off from Raleigh and formed their own MSA, called the Durham-Chapel Hill, NC MSA.



**Exhibit 31: Population Living in Poverty by Jurisdiction**

Source: U.S. Census Bureau, Decennial Census 1970 - 2010. U.S. Census Bureau, 5-Year American Community Survey Estimates, 2006-2010.

In general, the Richmond Region is performing better than most of its peer regions, but *Exhibit 31* shows pockets of poverty are a real concern in the urban core, along with the degree that the composition of poverty in the Richmond Region has changed over time. In 1970 poverty was more concentrated in the rural counties of Charles City, Goochland, New Kent, and Powhatan, with at least 23 percent of their population living in poverty. Over time, these rural localities have experienced a significant decrease in poverty, and conversely the more urban and suburban localities have experienced a significant increase. The relative improvement in the rural areas may suggest more regional focus, increased commuting between home and work, and dispersal of jobs and educational opportunities. Larger employers have also located in the wider suburban areas of the region providing more accessible options for commuters from the more rural areas.

Both the City of Richmond and Henrico have shown the greatest increases in poverty since 1970. In what is an alarming trend, slightly more than 25 percent of the City residents are now living below poverty, as are nearly 10 percent of Henrico County residents. The City of Richmond has a 2010 poverty rate 2.5 times greater than the next highest poverty rate of Henrico. Indeed, the poverty rate for the Richmond Region has slightly decreased over this forty year period, but now pockets of poverty are more prevalent in the urban core showing a wider disparity.

Responding to these trends, the City established the Mayor's Anti-Poverty Commission, the Maggie L. Walker Initiative, which is preparing key policy recommendations through active task forces to move proposals of the Commission's January 2013 report from concept to a three year timeline for implementation. These task forces include: (1) workforce development, (2) economic development, (3) transportation, (4) housing, (5) early childhood education and parental engagement, (6) adolescent transition initiative, and (7) promise scholarships. Reports are due from the task forces by the end of 2013.

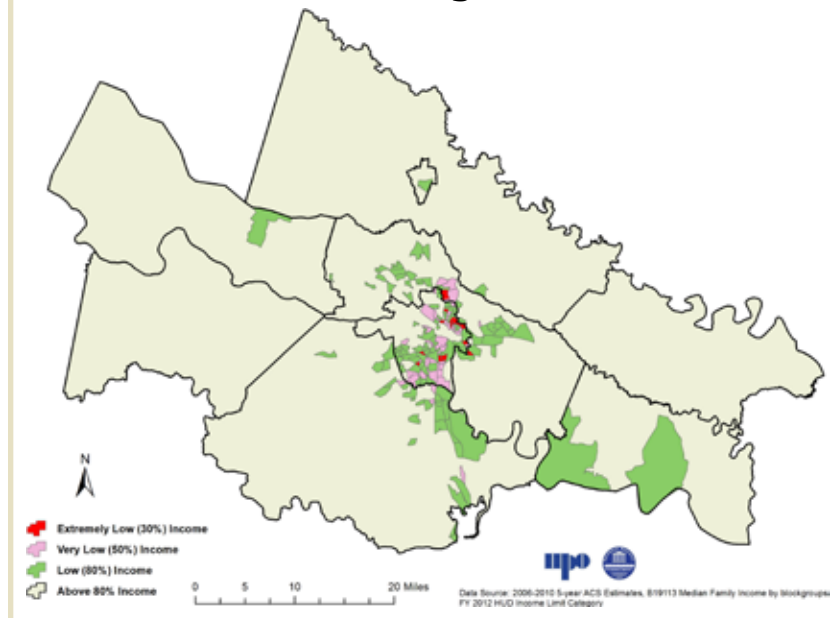


## IDENTIFYING THE MOST DISTRESSED AREAS

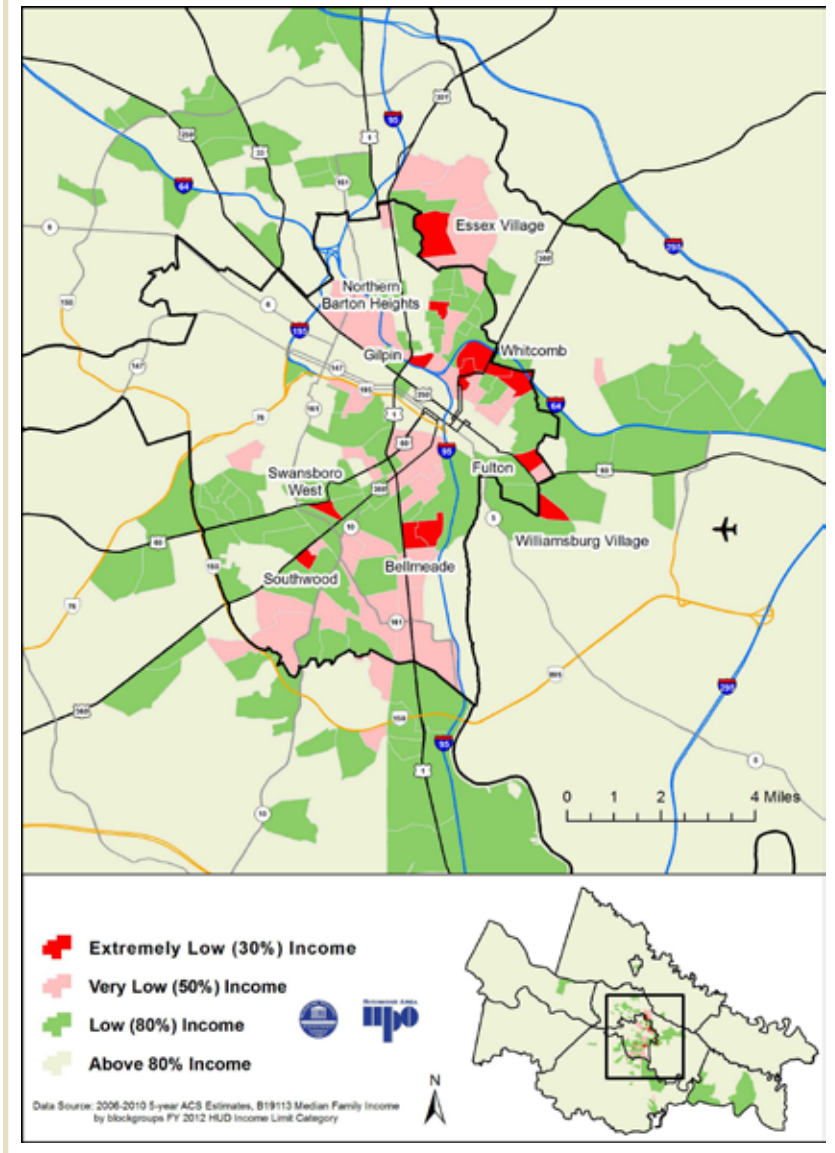
Although the Richmond MSA as a whole is performing better than the national average in terms of the percentage of people living under the poverty level, many isolated areas primarily in the Region's core perform dramatically worse than the regional average.

*Exhibit 32* shows where these pockets of poverty exist for the Richmond Region. These distressed areas were identified by using the U.S. Department of Housing and Urban Development's (HUD) definition of FY 2012 Fair Market Rent (FMR) areas which allow data to be analyzed by household size. FMR areas are determined by a combination of median family income and the size of the household. They are then classified into three categories: low (80 percent of median), very low (50 percent of median), and extremely low (30 percent of median). Using the 2006-2010 five-year American Community

**Exhibit 32: Richmond Region Distressed Areas**



**Exhibit 33: Most Distressed Neighborhoods**





Survey estimates, distressed areas were identified at the Census block group geographical level.

As illustrated by *Exhibit 32 and 33*, the most distressed areas (extremely low) are primarily concentrated in the urban core. In fact, very distressed areas follow the same trend and are mostly prevalent in the City of Richmond with some pockets in the adjacent counties of Henrico and Chesterfield. This depiction parallels the income and poverty data in *Exhibits 29 and 31*.

The most distressed areas, shown in red on *Exhibit 33*, represent nine neighborhoods. Of these most distressed neighborhoods, seven are located within the City of Richmond and two are located in Henrico, adjacent to the City boundary. It should also be noted the most distressed neighborhoods are all adjacent to areas identified as 50 percent of income (very low) or 80 percent of income (low), suggesting the poorest neighborhoods are concentrated in the City with spill-over into the adjacent counties of Henrico and Chesterfield.

## WORKING POOR

In what must increasingly be viewed as a Regional issue that impacts the overall economic vitality, drains the tax base from the cost of government subsistence payments, and results in poor outcomes, *Exhibit 34* depicts general socioeconomic indicators of those residents who are working within the most distressed neighborhoods. These statistics do not address characteristics of the overall labor force which would include those who are unemployed. For example, a case study of the Swansboro West neighborhood shows of all workers who reside there, only 19 percent are 29 years old or younger, compared to 61 percent of workers between the ages of 30 and 54, and 20 percent aged 55 and over. Gilpin has the highest percentage at 45 percent of workers making no more than \$1,250 per month, or approximately the level of the hourly minimum wage. The distribution of monthly wages indicates

**Exhibit 34: Employment in Most Distressed Neighborhoods**

Neighborhoods	Total Workers 29 & Younger	Total Workers 30-54	Total Workers 55 & Older	Minimum Wage* or Less	\$1251-\$3333 per month	Greater than \$3333 per month
Northern Barton Heights	22%	56%	22%	32%	47%	20%
Whitcomb	30%	55%	16%	37%	50%	13%
Gilpin	39%	48%	13%	45%	45%	10%
Fulton	35%	50%	16%	32%	47%	21%
Swansboro West	19%	61%	20%	31%	50%	19%
Southwood	28%	51%	21%	29%	53%	18%
Bellmeade	31%	49%	21%	34%	49%	17%
Essex Village	31%	51%	18%	32%	50%	18%
Williamsburg Village	23%	62%	15%	20%	45%	35%

Source: U.S. Census Bureau, 2013, OnTheMap Application, Longitudinal-Employer Household Dynamics Program, Primary Jobs, 2010, analyzed on where workers live ("Home").

\*This category is listed as \$1,250/month. Assuming a 40 hour work week this equates to \$7.81/hour just above the current minimum wage of \$7.25.

the majority of workers in these most distressed neighborhoods make between \$1,251 and \$3,333 a month which translates to between \$15,012 and \$39,996 a year. If these workers are single income earners supporting children, these wages represent an even lower standard of living.

*Exhibits 35 and 36* illustrates the direct relationship between education and the labor force. *The Mayor's Anti-Poverty Commission Report* of January 18, 2013 makes the finding that, "The strongest single predictor of poverty is employment status [and that]...Educational attainment is actually a stronger



(cc) VARIOUS (See p. 90)





**Exhibit 35: Educational Attainment in Most Distressed Neighborhoods**

Neighborhoods	Less than High School	High School, No College	Some College	Bachelor's Degree or Higher
Northern Barton Heights	32%	38%	17%	13%
Whitcomb	45%	30%	22%	3%
Gilpin	45%	40%	14%	1%
Fulton	17%	48%	18%	17%
Swansboro West	32%	47%	18%	3%
Southwood	76%	17%	3%	4%
Bellmeade	28%	34%	30%	8%
Essex Village	36%	24%	32%	8%
Williamsburg Village	41%	41%	18%	0%
<b>Total <sup>1</sup></b>	<b>42%</b>	<b>32%</b>	<b>21%</b>	<b>4%</b>

Source: U.S. Census Bureau, 2007-2011 5-Year American Community Survey Estimates, Table B15002.

<sup>1</sup> Represent compiled ACS data from all nine neighborhoods

predictor of poverty status in the City of Richmond [where it is concentrated in the Region] than race. Over 40 percent of the City's poverty population has less than a high school education, and the poverty rate for this group is six times higher than that of college graduates in the city." (p. 19)

These findings are reflected by the statistics for the population living in the most distressed neighborhoods. For example, 78 percent of the total population 25 years and older in the Southwood neighborhood do not have a high school diploma, and no one reportedly has a bachelor's degree or higher (*Exhibit 35*). Out of the nine poorest neighborhoods only two, Northern Barton Heights and Fulton, show 12 percent of the population has at least a bachelor's degree. Aggregating the educational attainment for all nine neighborhoods shows 44 percent do not have a high school degree, while only 3 percent have a bachelor's degree or higher.

Considering employment status as an indicator of poverty, the neighborhoods of Whitcomb and Gilpin are the most severe. Whitcomb has the lowest labor force participation rate of the nine most distressed neighborhoods at only 39 percent, and an unemployment rate of 26 percent, as indicated in *Exhibit 36*. Gilpin has the highest unemployment rate at 51 percent and a low labor force participation rate of 45 percent. Overall, these nine neighborhoods have an exceptionally low labor force participation rate at 51 percent, compared to 64 percent for the Region as a whole.

These most distressed neighborhoods have an extremely high unemployment rate of 27 percent, compared to the City of Richmond and the Region as a whole, at 7.7 percent and 5.5 percent, respectively (seasonally adjusted as of April 2013). With less access to education, training, and jobs, the population in these isolated areas are most likely to live substantially below the poverty line.

**Exhibit 36: Labor Force in Most Distressed Neighborhoods**

Neighborhoods	Civilian Labor Force	Labor Force Participation Rate <sup>1</sup>	Unemployment Rate
Northern Barton Heights	273	63%	27%
Whitcomb	2,336	39%	26%
Gilpin	443	45%	51%
Fulton	310	54%	16%
Swansboro West	716	62%	37%
Southwood	1,150	87%	18%
Bellmeade	947	52%	28%
Essex Village	876	66%	26%
Williamsburg Village	334	48%	31%
<b>Total <sup>2</sup></b>	<b>7,398</b>	<b>51%</b>	<b>27%</b>

Source: U.S. Census Bureau, 2007-2011 American Community Survey 5-year Estimates, Table B23025.

<sup>1</sup> Percentage of the civilian labor force compared to the total population over the age of 16.

<sup>2</sup> Represents compiled ACS data from all nine neighborhoods.



# V: Education



## PUBLIC EDUCATION SYSTEM

### ENROLLMENT TRENDS

The Richmond Region is served by eight (8) separate Kindergarten through Grade 12 (K-12) public school districts for each of the Region's jurisdictions (Ashland is part of Hanover County School District). The enrollment of each school district generally correlates with the total population of each locality (*Exhibit 37*) with one exception; Goochland County has a larger total population than New Kent County, but enrollment in New Kent is higher than that of Goochland County. This can be attributed to the smaller school-age population in Goochland. A larger portion of the school age population in New Kent County is also enrolled in the public schools than in Goochland County.

Over the past 13 years, the City of Richmond has seen its public school enrollment continue to decline. During the same period, the surrounding counties of Henrico, Chesterfield, and Hanover realized population and school enrollment increases. According to a 1999 school census performed by the Virginia Department of Education, City of Richmond Public Schools enrolled 78 percent of their school age children. The same year Henrico County had a comparable enrollment share at 79 percent; Chesterfield and Hanover were slightly higher at 81 and 86 percent, respectively. By 2008,

Richmond's numbers had dwindled as the public school system claimed a 67 percent market share, while Chesterfield had increased to 91 percent. Henrico and Hanover counties also continued healthy market shares, both over 80 percent (Reid, Richmond Times Dispatch, 2009).

While the City's School System faces hurdles, there are signs that the system is starting to bounce back in terms of enrollment. 2010 City fall enrollment countered this downward trend. "[T]he number of full-time students in the City school system increased over the previous year's total for the first time

**Exhibit 37: Fall Enrollment by Jurisdiction (Academic Year 2010-2011)**

Jurisdictions	2010 Total Population	School Age Population		2010-11 Public School Enrollment	
		2010 Census Estimate <sup>1</sup>	% of Total Population	Public School Enrollment <sup>2</sup>	% School Age Enrolled
Charles City	7,256	1,066	15%	844	79%
Chesterfield	316,236	66,817	21%	59,243	89%
Goochland	21,717	3,612	17%	2,481	69%
Hanover	99,863	20,733	21%	18,628	90%
Henrico	306,935	58,045	19%	49,405	85%
New Kent	18,429	3,350	18%	2,888	86%
Powhatan	28,046	5,392	19%	4,476	83%
City of Richmond	204,214	27,554	13%	23,454	85%
<b>Richmond Region</b>	<b>1,002,696</b>	<b>186,569</b>	<b>19%</b>	<b>161,419</b>	<b>87%</b>

Sources: <sup>1</sup> U.S. Census Bureau, Decennial Census 2010, School Age Population considered children ages 4 - 17.

<sup>2</sup> Virginia Department of Education, Enrollment & Demographics Data





since 1996. The fall enrollment climbed from 22,994 in 2009 to 23,454 in 2010...". The City of Richmond appears to be bucking a long term and wide-spread trend. "Richmond's increase comes as public school enrollments in Chesterfield, Hanover, and Henrico counties declined slightly and enrollment in many urban school systems across the country continues to fall." (Will Jones, Richmond Times Dispatch, 2011)

**RACIAL AND ETHNIC ENROLLMENT TRENDS.** The City of Richmond's 40-year decline in enrollment by 50 percent is often attributed to court-ordered busing in the 1970s. Racial and socioeconomic demographic shifts experienced in the general population are also evident in public school enrollment. "In 1970-'71, when the system was at its peak enrollment of 47,988, it was 64 percent black and 36 percent white." (Reid, Richmond Times Dispatch, 2009). Today, the Richmond's schools are much less racially diverse: 80 percent black, 9 percent white, and nearly 9 percent Hispanic." In contrast, the school systems of the surrounding counties are increasingly more diverse. "Henrico is a majority-minority school district: 44 percent white, 37 percent black, 8 percent Asian, and 7 percent Hispanic, according to 2012-13 data from the Virginia Department of Education. Chesterfield's school enrollment is 55 percent white, 26 percent black, 11 percent Hispanic, and nearly 4 percent Asian (Michael Paul Williams, Richmond Times Dispatch, 2013).

Individual schools within the City and County school systems reflect both extremes of this racial diversity spectrum. In Richmond, some schools are more segregated than the system as a whole. According to Genevieve Siegel-Hawley of Virginia Commonwealth University's School of Education, "[m]ore than a third of black students in the Richmond-Petersburg area attend 'intensely segregated' schools (90+percent nonwhite) and 8 percent attend schools which are 99 percent black.

"Isolation is also an issue for Hispanic students." (Williams) Meanwhile, "[a]t J.R. Tucker High School in Henrico, no racial group represents a true majority. Its student body is 40 percent white, 29 percent black, 13 percent Hispanic, and 13 percent Asian. This growing racial diversity seen in the

County school systems reflects the fact that areas of the counties closest to the City increasingly mirror the racial and economic mix of the City (Jones).

## WHAT THIS MEANS FOR THE ECONOMIC HEALTH OF THE REGION

Declining public school enrollment in the City school system over the past 40 years put has put a tremendous strain on their system. When only one-half of the students are occupying the same facilities, programming is challenging and curriculum choices are fewer, and facility operations, more expensive. In the faster growing counties, the financial strain from demands for expansion are equally challenging.

The relatively lower family income of a larger proportion of City public school attendees is also a challenge further limiting educational choices for those living in the distressed neighborhoods described in the previous section of this report. In 2009, "[alt]hough the city's overall poverty rate was about 21 percent, according to Census data, at least 70 percent of the City's school children live[d] below that mark" (Reid). The unfortunate reality exists that school-age children (ages 5-17) in the City have and do live in poverty at higher rates than adults, 42 percent versus 20 percent respectively according to 2009 Census estimates. This discrepancy alone does not account for the 70 percent poverty rate seen in the City schools. Wealthier families opting to send their children to private schools is also reflected in the relatively high rate of poverty among children enrolled in the City's public schools.

A recent conference on race, class, opportunity and school boundaries in the Richmond Region "Looking Back, Moving Forward" sponsored by VCU and the University of Richmond on March 14, 2013 explored the increasing disparity which is based more on income than race in the Regional school system as a whole. Michelle Miller-Adams from the Kalamazoo, MI Promise Project pointed out the seriousness of the income disparity issue reporting that schools in poverty are 22 times more likely to be under-performing.





## PUBLIC EDUCATION PERFORMANCE

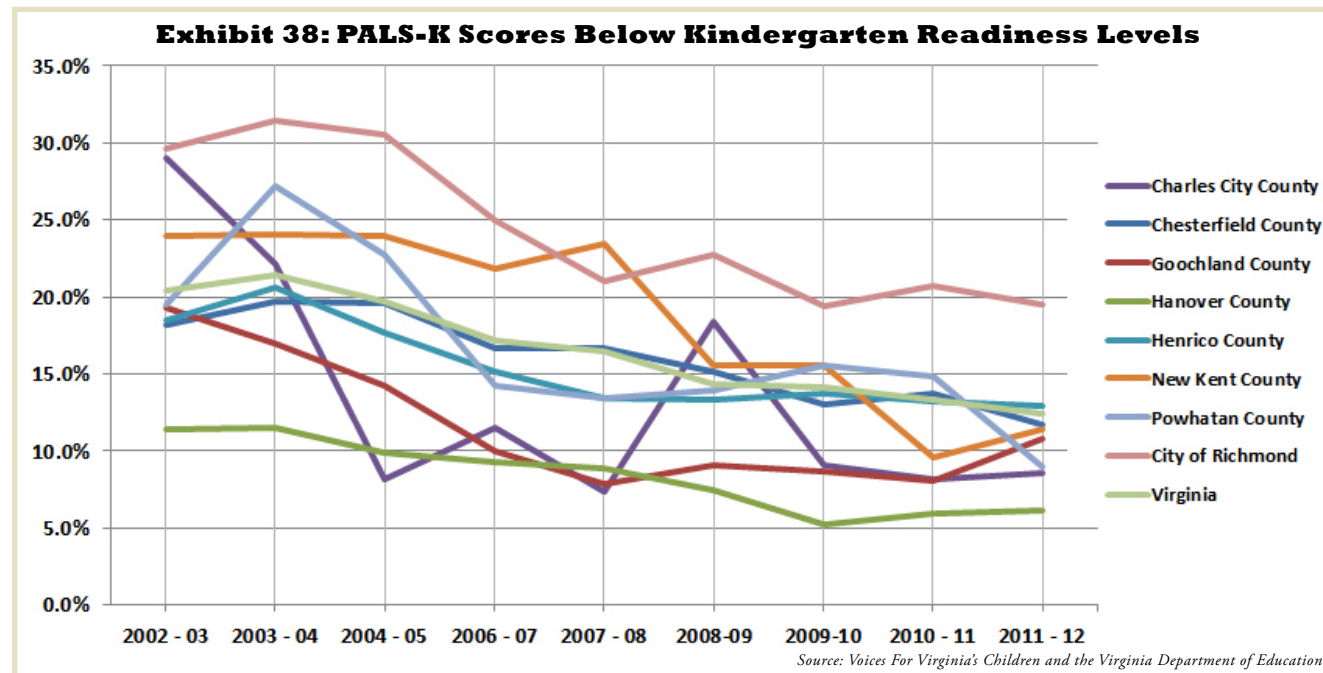
**KINDERGARTEN READINESS.** Research shows that children who do not recognize letters of the alphabet when they enter kindergarten demonstrate lower reading skills at the end of first grade. The PALS-K is a phonological awareness literacy screening assessing a child's knowledge of literacy fundamentals. Regionally the percentage of children meeting the PALS-K benchmark has increased from 79 percent in 2003 to 87 percent in 2011. However, in the 2011-2012 academic year, an estimated 1,561 children of those tested were lacking basic literacy skills when they reached kindergarten. *Exhibit 38* illustrates the percentage of students whose PALS-K scores do not meet Kindergarten Readiness Levels. One of the key elements of a child's experience that can ready them for future expectations is participation in pre-school.

**STANDARDS OF LEARNING (SOL) TEST SCORES.** Virginia SOL scores provide one commonly accessible measurement for a regional comparison of

school performance. While often criticized as an imperfect measurement on an individual basis, SOL test scores offer a collective indicator of how well a community has kept pace with academic expectations and predictors of future success. The first SOL predictor measures the ability to read at grade level in 3rd grade. In general, if a child is still learning to read after third grade, the child will have more difficulty comprehending what they are reading as times goes on. Over the past three years, City of Richmond and Charles City County school divisions have alternated between having the highest percentage of students failing the third grade reading SOL (*Exhibit 39*).

A second indicator of students' academic performance as well as an indicator of future success is the proficiency in 8th grade math. The Virginia SOL scores also provide insight into the ability of students to achieve this goal. The findings show some unfortunate trends (*Exhibit 40*) as the Region continued to increase the failure rate over the past three years. Some of this can be explained by the fact that the test changed significantly in 2011-12, but

Chesterfield County appears to be the only district with improvement in 8th grade math. While educators anticipated a drop in test scores with the new technology enhanced approach to testing, some counties saw dramatic drops. Charles City County saw the most dramatic turnaround in scores with the pass/fail rates essentially flip-flopping before and after the implementation of the new test.







**Exhibit 39: Third Grade Reading SOL Pass and Fail Rates**

	2009 - 2010				2010 - 2011				2011 - 2012			
	Pass Total %	Pass Adv %	Pass Proficient %	Fail %	Pass Total %	Pass Adv %	Pass Proficient %	Fail %	Pass Total %	Pass Adv %	Pass Proficient %	Fail %
Charles City	53%	23%	30%	47%	86%	42%	43%	14%	78%	32%	46%	22%
Chesterfield	87%	47%	40%	13%	87%	46%	41%	13%	89%	41%	49%	11%
Goochland	81%	44%	37%	19%	91%	49%	42%	9%	90%	47%	42%	10%
Hanover	92%	57%	35%	8%	91%	54%	37%	9%	91%	53%	38%	9%
Henrico	85%	43%	42%	15%	85%	43%	43%	15%	87%	39%	48%	13%
New Kent	85%	38%	46%	15%	84%	37%	47%	16%	87%	34%	53%	13%
Powhatan	85%	41%	44%	15%	84%	42%	42%	16%	83%	35%	48%	17%
Richmond	80%	35%	45%	20%	79%	31%	48%	21%	81%	34%	47%	19%
<b>Virginia</b>	<b>83%</b>	<b>41%</b>	<b>43%</b>	<b>17%</b>	<b>83%</b>	<b>41%</b>	<b>42%</b>	<b>17%</b>	<b>86%</b>	<b>38%</b>	<b>48%</b>	<b>14%</b>

Source: Virginia Department of Education

**Exhibit 40: Eighth Grade Math SOL Pass and Fail Rates**

	2009 - 2010				2010 - 2011				2011 - 2012*			
	Pass Total %	Pass Adv %	Pass Proficient %	Fail %	Pass Total %	Pass Adv %	Pass Proficient %	Fail %	Pass Total %	Pass Adv %	Pass Proficient %	Fail %
Charles City	87%	25%	62%	13%	71%	21%	50%	29%	28%	2%	27%	72%
Chesterfield	91%	64%	27%	9%	86%	56%	30%	14%	95%	16%	79%	5%
Goochland	98%	72%	26%	2%	90%	49%	41%	10%	62%	2%	60%	38%
Hanover	97%	72%	25%	3%	90%	61%	28%	10%	75%	6%	69%	25%
Henrico	88%	51%	38%	12%	82%	46%	36%	18%	41%	2%	39%	59%
New Kent	85%	50%	35%	15%	88%	54%	34%	12%	70%	7%	63%	30%
Powhatan	88%	43%	45%	12%	88%	37%	51%	12%	44%	1%	43%	56%
Richmond	79%	30%	50%	21%	68%	24%	44%	32%	32%	2%	30%	68%
<b>Virginia</b>	<b>87%</b>	<b>53%</b>	<b>34%</b>	<b>13%</b>	<b>82%</b>	<b>47%</b>	<b>35%</b>	<b>18%</b>	<b>60%</b>	<b>6%</b>	<b>54%</b>	<b>40%</b>

Source: Virginia Department of Education

\*In the 2011-12 school year a new version of the math SOL test was used. Lower pass rates indicate that the state raised the bar, not that students were learning less.





**PUBLIC SCHOOL ENROLLMENT CHARACTERISTICS.** The differences among the school systems in the Region are apparent when looking at several key characteristics of the 2011-2012 student enrollment characteristics (*Exhibit 41*). Hanover County has experienced the highest on-time graduation at 91 percent, while the City is shown to have the lowest graduation rate and the highest drop-out rate, at 60 percent and 11.2 percent, respectively. Chesterfield and Henrico appear to have the most active technical education

program attendance in absolute numbers, while Charles City County has the highest percentage of students in technical education. Chesterfield County offers a dual degree program to more students, both in absolute and percentage terms. Recent program changes affecting the dual degree programs now offered in some counties such as Henrico are not reflected in the 2011-12 program information.

**Exhibit 41: Public School Enrollment Characteristics, 2011-2012**

Public School System	2011-12 Enrollment <sup>1</sup>	Graduation Rate <sup>2</sup>	# Drop Outs	Drop Out Rate <sup>3</sup>	# Tech Education <sup>4</sup>	% Tech Education	# Dual Enrollment <sup>5</sup>	% Dual Enrollment
Charles City	804	83%	<	<	133	16.5%	<	<
Chesterfield	59,200	83%	300	6.1%	3,688	6.2%	2,137	20.1%
Goochland	2,399	86%	15	5.6%	115	4.7%	86	11.4%
Hanover	18,531	91%	44	2.8%	1,498	8.0%	628	10.4%
Henrico	49,654	80%	269	6.7%	3,736	7.5%	266	1.7%
New Kent	2,938	83%	14	5.8%	207	7.0%	61	6.5%
Powhatan	4,436	85%	11	2.7%	415	9.3%	63	4.5%
Richmond	23,336	60%	175	11.2%	1,766	7.5%	121	2.2%

Source: Virginia Department of Education.

Below State definition for disclosing personally identifiable results.

<sup>1</sup> As of September 30 for 2011-2012 School Year

<sup>2</sup> Percent of students who earned a standard or advanced studies diploma in four years

<sup>3</sup> Schools report annually on the number of students in grade 7-12 who drop out. Percent represents the number of dropouts for a given school year divided by the membership on September 30.

<sup>4</sup> Sum of NOCTI assessment, State licensures, industry certification, workplace readiness and CTE completers

<sup>5</sup> High School Students who are dually enrolled in college courses





## CAREER & TECHNICAL EDUCATION.

All of the eight school systems in the Region offer Career and Technical Educational (CTE) courses at the high school levels. *Exhibit 42* indicates the variety of classes offered for the 2012-13 academic year by SCCI occupational cluster (see III. Regional Economy).

### Bridging Communities Regional Technical Center

Each of the school systems offer separate CTE programs, except Charles City County, which in 2012, began offering CTE courses at the Bridging Communities Regional Technical Center (BCRTC). The new center provides CTE options to its five member school systems - Charles City County, New Kent County, and three neighboring counties outside of the Richmond Region. (New Kent County also offers its own CTE courses.)

### MathScience Innovation Center

The MathScience Innovation Center (MSiC) is the innovator, incubator and advocate of 21st Century math and science programs for K-12 educators and students in five of the Region's and three additional neighboring school systems. MSiC provides expanded opportunities in emerging math and science fields (fractal geometry, engineering, nanotechnology, environmental modeling and simulation).

### Occupational Clusters Lacking in the Region

Three career clusters as categorized by the National Center for Education Statistics of the U.S. Department of Education are noticeably absent from the choices in the Region: Government and Public Administration, Manufacturing, and Transportation, and Distribution and Logistics.

**Exhibit 42: School Systems Career Technical Education (CTE) Programs**

Career Cluster	Related Courses	Charles City <sup>†</sup>	Chesterfield <sup>†</sup>	Goochland	Hanover <sup>†</sup>	Henrico <sup>†</sup>	New Kent	Powhatan <sup>†</sup>	Richmond <sup>†</sup>
Agriculture, Food, and Natural Resources	Culinary Arts, Agriculture, Horticulture, Greenhouse Products	X <sup>‡</sup>	X			X	X <sup>‡</sup>	X	X
Architecture and Construction	Architecture Drawing, Carpentry, Drawing		X	X	X		X	X	X
Arts, Audio-Video Technology, and Communications	Digital Arts & Design, 3D Animation, Television Production	X <sup>‡</sup>	X	X		X	X	X	X
Business and Administration	Business Management, Accounting			X		X	X	X	X
Education and Training	Cosmetology, Education for Employment		X	X			X	X	X
Finance	Banking, Finance			X			X	X	
Government and Public Administration	Accounting, Public Management								
Health Science	Human Anatomy, Nursing, Nutrition	X <sup>‡</sup>	X	X		X	X <sup>‡</sup>	X	X
Hospitality and Tourism	Restaurant & Hotel Management			X	X	X			X
Human Services	Family and Consumer Sciences					X			
Information Technology	Computer System Technology, Website Design	X <sup>‡</sup>	X	X			X	X	X
Law, Public Safety, Corrections, and Security	Legal Systems Administration	X <sup>‡</sup>	X				X <sup>‡</sup>		
Manufacturing	Machining Technology								
Retail/Wholesale Sales and Services	Marketing		X		X	X		X	X
Scientific Research and Engineering	Engineering, Robotics	X <sup>‡</sup>	X	X	X		X		X
Transportation, Distribution, and Logistics	Emergency Services								

Sources: Bridging Communities; MathScience Innovation Center; Chesterfield County Public Schools, Goochland County Public Schools, Hanover County, Henrico County Public Schools, New Kent County Public Schools, Powhatan County Public Schools, and the City of Richmond Public Schools.

<sup>†</sup> Counties Served by MSiC

<sup>‡</sup> Clusters served through BCRTC

#### Bridging Communities (BCRTC)

Pre-Engineering Technology/STEM  
Heating, Ventilation, Air Conditioning, Refrigerator  
Criminal Justice (Administration of Justice)  
Diesel Equipment Technology  
Culinary Arts  
Modeling and Simulation  
Health Science

#### Math and Science Innovation Center (MSiC)

##### K-2 Classroom Lesson Clusters

Biology, Earth & Environmental Sciences  
Math & Physical Science

##### 3-5 Classroom Lesson Clusters

Biology, Earth & Environmental Sciences  
Math & Physical Science

##### 6-8 Science Classroom Lesson Cluster

Biology, Earth & Environmental Sciences  
Cryogenics  
Magic Planet  
Physical & Space Sciences

##### 6-12 Mathematics Classroom Lesson Clusters

Middle School Math Investigations  
Math Connections: Math 6 to Geometry

##### 9-12 Science Classroom Lesson Clusters

Biological and Earth Sciences  
Earth & Environmental Sciences  
Chemistry & Physics  
Scientific Research, 7-12





## EDUCATIONAL ATTAINMENT

An educated labor force is essential to attract and retain business and industry. The Richmond MSA is performing somewhere in the middle of its peer regions. Of the population 25 years and older, 14.2 percent of the Richmond MSA do not have a high school degree, which ranks second to last behind Memphis at 15.3 percent (*Exhibit 43*). Conversely, 20.1 percent of the Richmond MSA has at least a bachelors degree, putting the region third behind Austin and Raleigh. The Richmond MSA is also ranked in the middle, behind Hartford, Austin, and Raleigh, at 11.1 percent for people who hold a post-graduate degree. This indicates while the Richmond MSA is better positioned than some of these other peer regions there is still room for improvement.

Disparities in educational attainment show up more dramatically within the Region (*Exhibit 44 and 45*). Charles City County has the highest percentage of population whose highest attainment is a high school diploma, and also has the greatest proportion without high school education, followed by the City of Richmond and Powhatan. The counties of Henrico, Chesterfield, and Hanover are the best positioned jurisdictions in the Region with more of its residents holding a bachelor degree.

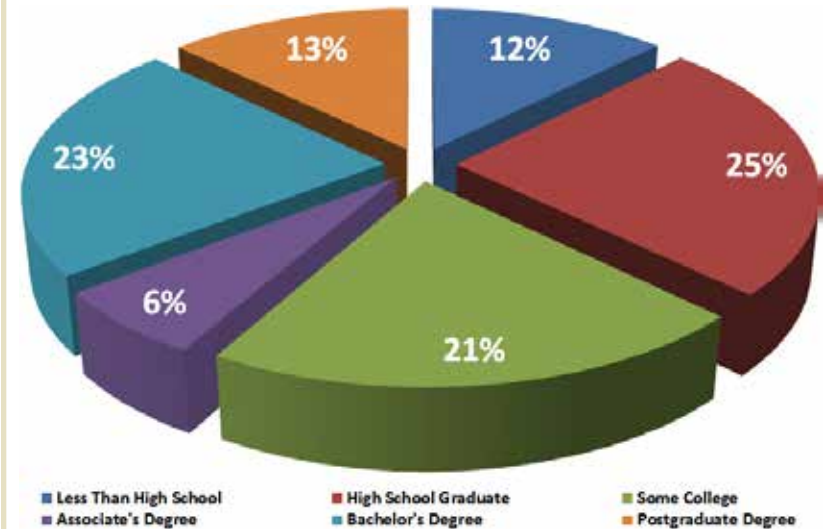


**Exhibit 43: Educational Attainment by Peer Regions**

MSA	Less Than High School	High School Graduate	Some College	Associate Degree	Bachelor Degree	Postgraduate Degree
Austin, TX	12.4%	19.5%	21.7%	6.5%	26.0%	13.9%
Raleigh-Cary, NC	10.3%	20.1%	19.3%	8.5%	27.9%	14.0%
Hartford, CT	11.3%	28.1%	17.8%	8.0%	19.8%	15.0%
Jacksonville, FL	11.7%	29.5%	23.6%	8.8%	17.8%	8.6%
Memphis, TN	15.3%	29.5%	23.9%	6.3%	16.2%	8.9%
Louisville, KY	13.3%	32.3%	22.3%	7.1%	15.2%	9.7%
Richmond, VA	14.2%	27.6%	20.9%	6.1%	20.1%	11.1%

Source: JobsEQ ©2013, Chmura Economics and Analytics; U.S. Census Bureau, 2007-2011 American Community 5-Year Survey.

**Exhibit 44: Richmond Region Educational Attainment**



Source: JobsEQ ©2013, Chmura Economics and Analytics; U.S. Census Bureau, 2007-2011 American Community 5-Year Survey.





## HIGHER EDUCATION

During the 2011-2012 academic year, over 87,000 students were enrolled in colleges and universities located in the Richmond Region (*Exhibit 46*). Measured in full-time equivalents (FTE) an estimated 56,000 students are enrolled.

Virginia Commonwealth University is the largest higher education institution in the Region with over 36,000 total students (see *Exhibit 61* for locations of institutions of higher education throughout the region). J Sargeant Reynolds and John Tyler Community Colleges make up over 35,000 total students. Over 300 higher education academic programs are offered and 11,217 degrees were conferred in 2012 which is an increase of more than 60 percent over the number of graduates ten years ago in 2002. Retention of graduates and assessment of curriculum gaps that need to be filled based on growing occupations are an important part of this strategy as addressed in the following section with a focus on Workforce Development.



(cc) BY (See p. 90)

**Exhibit 45: Educational Attainment by Jurisdiction**

Jurisdiction	No High School	High School Graduate	Some College	Associate Degree	Bachelor Degree	Postgraduate Degree
Town of Ashland	15.5%	34.2%	20.7%	4.3%	13.0%	12.3%
Charles City	25.4%	40.3%	18.6%	3.4%	7.2%	5.2%
Chesterfield	10.1%	24.7%	22.1%	7.1%	23.6%	12.4%
Goochland	15.5%	24.6%	17.9%	4.9%	21.9%	15.2%
Hanover*	8.7%	27.9%	23.1%	6.6%	22.5%	11.2%
Henrico	10.7%	22.9%	20.9%	6.3%	24.8%	14.4%
New Kent	14.0%	33.5%	21.8%	7.8%	17.3%	5.6%
Powhatan	18.4%	28.7%	21.3%	7.3%	15.8%	8.5%
City of Richmond	19.5%	24.0%	18.6%	5.0%	20.1%	12.9%

Source: JobsEQ ©2013, Chmura Economics and Analytics; U.S. Census Bureau, 2007-2011 American Community 5-Year Survey.

\* Data for Hanover County includes the Town of Ashland.

**Exhibit 46: Higher Education Enrollment in the Richmond Region, 2011-2012**

University/College	Student Headcount <sup>1</sup>	Full-Time Equivalent <sup>2</sup>	Degrees <sup>3</sup>
J Sargeant Reynolds Community College	20,109	8,740	859
John Tyler Community College	14,895	6,350	668
Randolph-Macon College	1,299	1,250	242
University of Richmond	5,449	4,179	1,046
Virginia Commonwealth University	36,887	28,744	7,146
Virginia State University	6,758	5,745	974
Virginia Union University	1,728	1,755	282
<b>Total</b>	<b>87,125</b>	<b>56,763</b>	<b>11,217</b>

Source: State Council of Higher Education for Virginia

<sup>1</sup> Unduplicated headcount, includes part-time and full-time students

<sup>2</sup> To be considered full-time must be taking 12 credit hours for undergraduate level and community college, and 9 credits hours for graduate level

<sup>3</sup> Includes degrees at all levels from Associates through Doctorate, 2012 graduates

# VI: Workforce Development



## INTRODUCTION

The educational system is the foundation for Workforce Development establishing the individual's ability to sustain a livelihood. Although this CEDS separates the topics of Education and Workforce Development for exploration, the two are inextricably linked. Workforce Development focuses on the needs and means by which youth and adults "prepare for the careers of today and tomorrow, and connects businesses to a highly skilled workforce." (Building Career Pathways to Success: Workforce Investment Act & Wagner-Peyser State Plan, September 2012).

## WHY WORKFORCE MATTERS

Workforce capabilities are one of the primary drivers of economic growth and prosperity for the Richmond Region. Workforce availability and quality is consistently listed among the top reasons why businesses choose to establish, relocate or expand. In fact, in a 2011 Survey of national site selectors conducted by Atlas Advertising for the City of Richmond, 96 percent of the respondents identified the "ability to recruit workforce" as the most important factor in the location decision. In the Richmond Region, it is not so much an issue of the availability of workforce, but the suitability of the qualifications of the workforce to meet employers' needs. In fact, as of May 2013 (*Exhibit 47*), there are nearly 1.3 job openings for each unemployed person in the Region. This has shifted in the past nine months when there was an almost equal match of the unemployed to job openings. The City at first



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appears to have the fewest unemployed persons for available job openings with Charles City County having almost four (4) unemployed persons for every job opening. However, if commuting patterns (see *Exhibit 13*) are taken into consideration, the City also has the highest capture rate of both internal and external commuters, implying greater competition for available jobs.

According to a Man Power, Inc. June 2011 survey, 55 percent of employers were looking to hire, but not able to find qualified applicants despite the regional 6.1 percent unemployment rate at that time. These facts illuminate the first issue to be considered in developing effective workforce development strategies. Development of *soft skills* needs to be included as a centerpiece of any strategy. These include: work ethic, communication, motivation, and mindset of individuals to successfully gain and maintain employment.

### ISSUE 1: SKILLS GAP BETWEEN WHAT MANY JOB SEEKERS HAVE TO OFFER AND WHAT EMPLOYERS ARE SEEKING

There are several ways to address the skills gap between what many job seekers have to offer and what employers are seeking:

- **IMPORT QUALIFIED WORKFORCE** from outside the Region to fill the demand; and
- **TRAIN EXISTING WORKFORCE** with skills that are in demand; or
- **MISS OPPORTUNITIES** to grow and expand employers

Part of the mis-match can be seen in the relationship between the educational attainment of those currently seeking work and the educational requirements anticipated to be required for jobs projected over the next ten (10) years. A brief snapshot shows that those with technical training are expected to be most in demand, while the two-year and four-year college graduate will be oversupplied for the jobs predicted (see *Exhibit 48*). Graduate degree holders will be essentially in equilibrium with jobs available. A high school diploma will continue to be a necessary minimum prerequisite for employment.

**Exhibit 47: Jobs and Job Seekers by Jurisdiction**

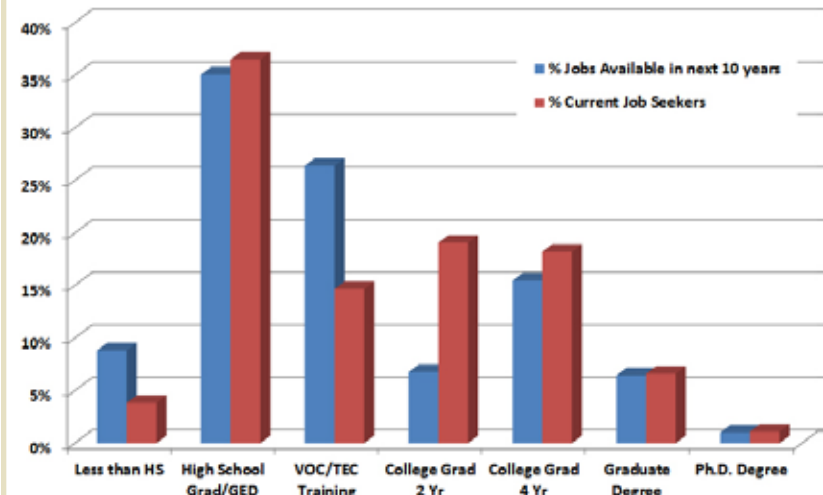
Jurisdiction	Unemployed	Job Openings <sup>1</sup>	Job Openings per Unemployed
Charles City	223	58	0.3
Chesterfield	9,577	6,796	0.7
Goochland	570	269	0.5
Hanover <sup>2</sup>	2,766	2,267	0.8
Henrico	9,313	6,437	0.7
New Kent	530	235	0.4
Powhatan	708	208	0.3
Richmond	7,990	25,933	3.2
<b>Richmond Region</b>	<b>31,677</b>	<b>42,203</b>	<b>1.3</b>

Sources: U.S. Bureau of Labor Statistics, May 2013;  
Virginia Workforce Connection, Advertised Job Data, Jobs by Area, May 2013.

<sup>1</sup> Includes all posted jobs (full-time, part-time, and temporary).

<sup>2</sup> Data for Hanover County includes the Town of Ashland.

**Exhibit 48: Jobs Seekers and Educational Attainment in the Richmond Region**



Source: JobsEQ ©2013, Chmura Economics and Analytics; Virginia Workforce Connection.







## ISSUE 2: RATE OF WORKFORCE PARTICIPATION

To maintain competitiveness, the Richmond Region must recognize and train a higher proportion of the population which are part of the larger working age population (those age 16-64 considered to be in the labor force) to be productive workforce participants. This will require intentional action to overcome obstacles of those who were unemployed as of 4th quarter 2012 (31,546, or 6.0 percent Regional unemployment) or underemployed 13,388 or 2.5 percent of Regional employment. Additional resources need to be laser focused on those who are isolated in the most distressed areas of the region (7,385 population in civilian labor force) to economically advance. The actual unemployment rate in the most distressed neighborhoods is estimated to be 16.4 percent and represents a lower 61 percent workforce participation rate. Together, these segments represent 10 percent of the total labor force who need actionable attention if the Region is to advance in a competitive posture.

Due to declining birth rates and immigration experienced nationally and true for the Richmond Region, competition for qualified workforce will be increasing in the future. In fact, projections from 2012 to 2040 by the US Census Bureau indicate the net annual change in the working age population in the US will be in a dramatic slump for the 2020 decade before it starts to increase once again. These generational shifts will set the long-range framework that is an important part of short-term strategies to maintain a competitive workforce.

## WHERE WE ARE

The overall regional landscape for Workforce Development covers a full spectrum of providers and many different programs or support addressing

a wide variety of needs for both workforce and employers. Understanding the many disaggregated programs through which outcomes are difficult to measure has been challenging and leads to one central conclusion: the Richmond Region has a need for a workforce development system.

## ISSUE 3: THE RICHMOND REGION IS NOT SERVED BY A WORKFORCE DEVELOPMENT SYSTEM

Paraphrasing a high-level summary of the challenges the Region's Workforce Development system faces as presented by the *Mayor's Anti-Poverty Commission Report* (January 18, 2013), the current landscape suggests a complex set of employment supports that vary in focus, scale, scope and access based on eligibility and program target population.



Virginia Workforce Council serves as the State Board for the federal Workforce Investment Act [WIA], regulating local Workforce Investment Boards [WIB] through the Virginia Workforce Network and Virginia Workforce Connection to help match job seekers with employers and training opportunities; generating wage data, skills requirements, and industry trends.

The Resource WIB manages WIA funding for the Richmond Region (WIA-9). Multiple adult and youth service provider contracts has resulted in some service disruptions and a decrease in overall service. These transitions have been challenged with the geographic location and accessibility of these workforce supports present[ing] barriers for low-resource employment training and job seekers with limited transportation. An updated strategic plan calls for renewed focus on employers as the client to provide better job outcomes for prospective employees and a more measurable return on investment for economic development.







Richmond Workforce Pipeline [RWP] through the Workforce Innovation Center in Marshall Plaza was established by the City Department of Economic and Community Development to identify and create employment opportunities, and provide employee placement, transition and coaching grounded in national models of self-sufficiency. With limited staffing, services support individuals with a range of employment challenges, including periods of incarceration and inconsistent employment histories, which may require longer term support (i.e. one-to-three years) to move successfully to stable, permanent employment. RWP is designed to work in conjunction with the programs administered by the Resource WIB (Mayor's report, pp. 40-41).

The Community College Workforce Alliance (CCWA) working in conjunction with J. Sargeant Reynolds and John Tyler Community Colleges makes educational programs available to current and future employees that enhance marketplace knowledge, skills and abilities by offering job fairs, assessments and training, and incumbent employee training in a variety of fields.

Richmond-based nonprofit organizations such as Goodwill Industries, Offender Aid and Restoration (OAR), William Byrd Community House, Boaz and Ruth, Fulton Neighborhood Resource Center, Positive Vibe Café, East District Family Resource Center and Another Chance to EXCEL (ACE), a variety of faith based religious organizations (e.g. ROC Richmond, St. Paul's Baptist Church) and local specialized organizations provide employment support.

## WHERE WE ARE GOING

### *ESTABLISHING A CONTINUOUS WORKFORCE FRAMEWORK*

The Richmond Region is fortunate to have a large higher education community with a wide variety of resources to support Richmond students and workforce in developing the skills necessary for employment. Working to 'bridge' the gap between education, skill development and workforce preparation, Bridging Richmond (BR) is a recently renewed regional collaboration established in 2008 to provide collaboration of all sectors along the educational pipeline. "Bridging Richmond focuses its efforts on supporting student

success from early childhood, K-12, through college and technical training, increasing the likelihood that they will have access to a meaningful and fulfilling career and economic self-sufficiency. The concept and framework for Bridging Richmond comes from the STRIVE model which builds a 'unique partnership of education, business, nonprofit, community, civic and philanthropic groups'. Collaborators successfully competed to bring th[is] strategy to Richmond 'and adopt its promise that every student in the region will be prepared for school, be supported in and out of school, succeed academically, enroll in college or career training, and graduate and enter a meaningful career" (p. 43).

In order to lay the groundwork for success across the full spectrum of education and workforce, the Capital Region Collaborative (CRC) is considering a number of proposals from the Workforce Preparation work group, co-chaired by the Executive Director of BR:

1. Shared Agenda-establish regional goals and community indicators across the education and workforce pathway
2. Shared Measurement-create trust and the technical capacity to use data and other forms of evidence to inform decision making for regional strategies and accountability
3. Coordinated Activity-convene and align diverse efforts toward a shared agenda and goals by forming four strategic networks across the talent pathway, including early childhood & elementary, middle years, secondary & young adults, and workforce
4. Communication-improve communication within and among segments of the pathway
5. Support Organization-establish a support organization to convene, communicate and coordinate across the talent pathway, facilitate and maintain the attention to share goals and provide leadership for shared measurement.

### *ACTIVATING A FULL WORKFORCE*

Raising the value proposition for building a Regional Labor Force that can better compete, while also addressing the need for increased participation

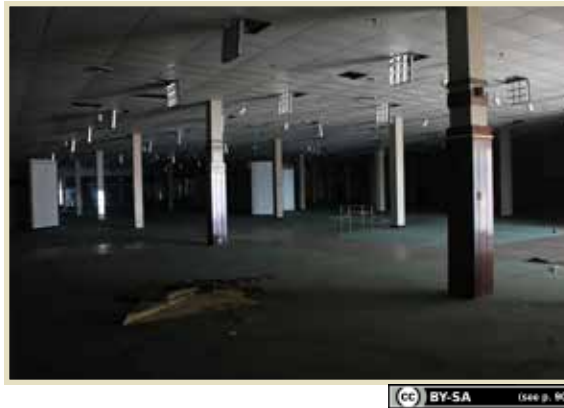




in the active workforce will require clear understanding and coordination among the available programs and providers. For the job seeker, job postings, training and educational connections are increasingly web-based, requiring computer and software literacy which may be least accessible to the unemployed or lower skilled job seeker. The Mayor's report makes the observation that "It is notable that despite the availability of these multiple employment support services, from the user's perspective, access to resources may appear fragmented, and the quality, capacity and effectiveness of these services is not transparent. In addition, it is not clear that there are consistent and sustainable funding streams for many of these initiatives" (p. 42).

Within the larger framework proposed by the CRC, selected recommendations (pp. 48-49) offered by the Mayor's Anti-Poverty Commission merit attention:

1. Establish [an] ongoing infrastructure that links education and workforce training resources with business leaders to support the 'agility' of training to meeting workforce demands.
2. Establish a centralized inventory or database of available local and regional education and workforce development resources, including an examination of the relevant program capacity and indices of success.
3. Strengthen awareness of, access to and capacity of effective education and workforce development resources.
4. Examine opportunities, via collaboration and reallocation, to use existing (social services, public education, housing authority) to develop and implement comprehensive and integrated 'self-sufficiency' models of workforce education training and service coordination.
5. Consider the development of interim strategies that may engage unemployed workers in productive activity until there is recovery in available jobs.



Although the Resource WIB provides a relatively narrow bandwidth of workforce development services when considering the total number of those who may need or qualify for assistance to gain employment, they offer one Regional portal through which most of the underserved population should be able to enter. As established in the WIA legislation, Resource administers programs particularly geared to three categories of the workforce population: adults over age 18, dislocated workers (unemployed), and disconnected or opportunity youth (age 16-24, disadvantaged, not in school or labor market). Core services not requiring WIA funding can be provided to the general public without meeting specific eligibility requirements for each of these population categories. Core services include information, self-service and services required

to determine eligibility for more intensive services that would assist a WIA eligible customer obtain or retain employment that leads to self-sufficiency. According to the WIA Scorecard assessing Federal and State program performance measures for the Commonwealth's WIBs, the participation rate from 2008-2011 in Resource administered programs has increased by 31 percent, to a reported 2,898 persons at an average expenditure of \$2,300 per participant in 2011. This only addresses a small proportion of the need, and includes administrative costs that do not necessarily attribute directly to the participant.

Resource recently completed a strategic plan to help set the direction for the July 2013 to June 2016 time period which focuses on a number of goals, including a principal shift of priority to business and industry as the client, serving as a valued resource by equipping workforce with the necessary the skills they need:

1. Establish recognition and credibility with business and economic development
2. Influence the education system's approach to helping individuals attain skills and credentials
3. Improve Resource's financial standing and stabilize funding





4. Continue to establish the Resource brand
5. Become a 501(c) 3 for the purpose of fund raising

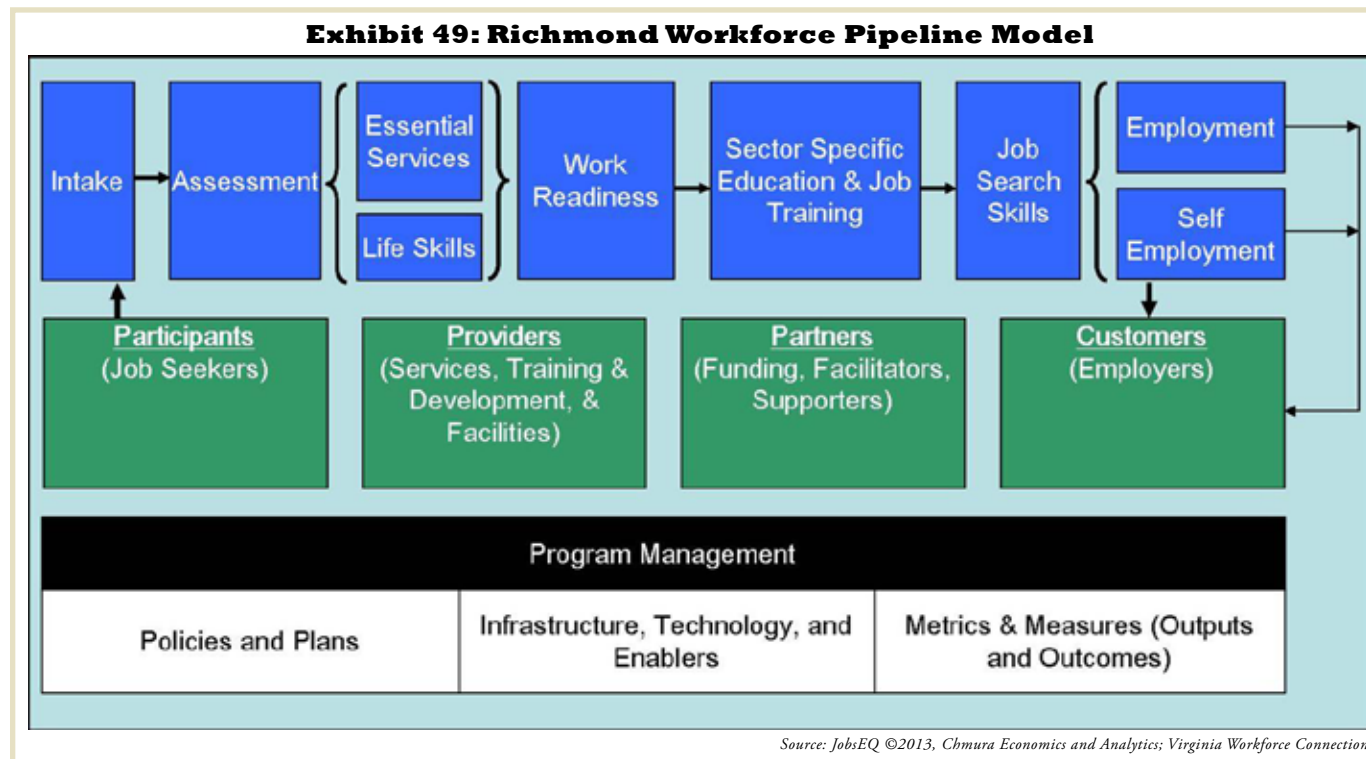
The performance of Resource is and will continue to be measured by specific Federal and State metrics for all WIBs across the Commonwealth. As of the most recent measurement for 2011, Resource is not meeting the entered employment rate standard, youth employment/education placement and youth degree/certificate attainment. Each of the One-Stop centers will develop numerical goals for the number of businesses, individuals, and youth to be served through workforce programs.

Additional measures will be added by Fall 2013 through the input of the Virginia Workforce Council, including Career Readiness Certificate attainment, employment and credential attainment, employment related training

and costs per participant. Future measures are in development and include: (1) return on investment, (2) employer and customer satisfaction and (2) employer penetration

Going forward, the biggest challenge for Resource and its partners in program and service delivery in the Richmond Region is “to do a more effective job at ensuring that the training and education programs the workforce system offers are aligned with what business requires in terms of skills and competencies required for growing occupations and jobs. Workforce development programs must provide training to individuals that help businesses become more productive and competitive and that create a bridge for learners to be ready and prepared to enter the workplace.”

## GROWING AND EXPANDING THE WORKFORCE PIPELINE



Meeting this challenge will require active engagement of business and industry to better address occupational skills in demand. State-wide the top training occupations are in the medical field, including registered nurses, aides, assistants and technicians. Grass-roots efforts to establish ad-hoc apprentice or training programs, such as those being tried at the local level with Richmond Workforce Pipeline where specific employers are matched with very specific populations who need training, provide a prototype that could lead the Region, and should be scaled up for the Region in conjunction with a closer working relationship with the Resource WIB (see Exhibit 49).





In a presentation to the Virginia Workforce Council by Jane Kusiak of the Council on Virginia's Future, collaborative long term efforts are currently underway that are intended to help improve outcomes that will increase overall workforce quality and economic growth, including:

1. College and career readiness initiative that is aligning post-secondary expectations with high school performance;
2. Virginia Education Wizard;

3. Achieve 2015, a strategic plan for the Virginia Community College System establishing goals for access, affordability, success, workforce and resources;
4. Data initiatives, including Workforce Quality Data Initiative and the Virginia State-wide Longitudinal Data System, drawing data from the Department of Education, SCHEV, VCCS and VEC to track educational attainment and workforce quality.

**Exhibit 50: Occupational Apprentice Sponsorships in the Richmond Region**

Apprenticeship Programs	Apprentice Reqs (Hrs)	SOC Code	SOC Title	Current Employment	2023 Replacement Demand <sup>1</sup>	2023 Growth Demand <sup>2</sup>	2023 Projected Employment <sup>3</sup>
Truck Driver Heavy	2,000	53-3032	Heavy and Tractor-Trailer Drivers	5,915	1,199	1,432	7,347
Electrician	8,000	47-2111	Electricians	2,637	734	777	3,414
Carpenter	8,000	47-2031	Carpenters	2,503	543	601	3,104
Maintenance Repairer	8,000	49-9071	Maintenance and Repair workers, general	4,311	802	576	4,887
Plumber/Pipefitter	8,000	47-2152	Plumbers, Pipefitters and Seamfitters	1,834	545	572	2,406
HVAC Mechanic	8,000	49-9021	Heating, Air Conditioning and Refrigeration Mechanics and Installers	1,274	231	488	1,762
Cosmetologist	3,000	39-5012	Hairdressers, Stylists and Cosmetologists	1,567	302	276	1,843
Maintenance Supervisor	8,000	49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	1,599	429	250	1,849
Welder	6,000	51-4120	Welders, Cutters, Solderers and Brazing Workers	905	250	191	1,096
Sheet Metal Worker	8,000	47-2211	Sheet Metal Worker	600	105	141	741
Bricklayer	8,000	47-2021	Brickmasons and Blockmasons	299	64	138	437
Heavy Vehicle Mechanic	**	49-3040	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	581	156	129	710
Diesel Mechanic	8,000	49-3031	Bus and Truck Mechanic and Diesel Engine Specialists	793	173	125	918
Roofer	6,000	47-2181	Roofer	469	98	104	573
Machinist	8,000	51-4041	Machinist	665	126	97	762

Source: Virginia Department of Labor and Industry; JobsEQ ©2013; Chmura Economics and Analytics, 1st quarter 2013; Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

\*\* not all listed apprenticeships are also included in list of total apprenticeship hours.

<sup>1</sup> Minimum demand due to separations such as retirement and moves into different occupations over a 10 year period.

<sup>2</sup> Represents employment growth (or loss) over a 10 year period only; it does not include replacement demand.

<sup>3</sup> Employment projected out 10 years as of 1st quarter 2013 (current employment + total growth demand).







These initiatives provide important ground work that, together with models for grass-roots service delivery, should be explored as part of an overall economic development strategy. A major purpose of this CEDS is to start to align workforce preparedness with the skills required by emerging business and industrial employers, to right-size as envisioned by the CRC Workforce Preparation work group so that “the people in our Region will have the education and skills necessary to sustain themselves and their households while providing our employers with the talent needed to excel.”

## APPRENTICESHIPS

The Virginia Department of Labor and Industry (DoLI) works with employers or sponsors to meet their needs for skilled workers through a system of registered apprenticeships. Employers provide on-the-job training, where participants spend 4-6 hours per week in related classroom instruction. Given the fact that Virginia is a “right-to-work” state without widespread union activity, information on apprenticeship programs is not as pertinent to the workforce readiness discussion.

In an effort to determine if the available apprenticeship programs are appropriately aligned with both workforce needs and addressing the skills needed in growing occupations, apprenticeships registered with the DoLI were categorized using the same Standard Occupational Classification (SOC) codes used to identify occupational clusters and gaps. Some apprenticeship programs were not possible to categorize because the occupation was either too broad or narrow. Once all sponsored apprenticeships in the Richmond Region were cataloged and matched



(cc) VARIOUS (see p. 90)

with their specific SOC, the corresponding ten year forecast was assigned and then sorted by the highest total growth demand.

*Exhibit 50* depicts the top 15 apprenticeship programs projected to have the highest growth demand over the next ten years. However, it is important to note DoLI states their listing of registered program sponsors is intended to be a resource for information on sponsors and is not a complete listing, and sponsors listed may not be actively seeking employees. This analysis is intended to highlight areas where more apprenticeships may be most warranted due to healthy growth prospects, areas where less demand is anticipated and may be over-subscribed, and areas that may not be addressed adequately with available apprenticeship programs.

## HIGHER EDUCATION PIPELINE

As home to five four-year colleges/universities and two community colleges representing a collective student enrollment of over 56,000 students (FTE), the Richmond Region is positioned with excellent resources for continuing along the workforce development pipeline. With an estimated annual graduation of more than 11,000 students, the Region is especially poised to reap the benefits of retaining talent.

*Exhibit 51* shows how the job and career training offered at the higher education level aligns with the highest demand jobs over the next ten years. An inventory of all listed academic programs offered by the Region’s higher educators which best correlates



**Exhibit 51: Correlation Between Higher Education Programs and Jobs in the Richmond Region**

Higher ED Programs	JSRC	JCC	RMC	UR	VCU	VUU	VSU	LQ	SOC Code	Title	Current Employment	Total Replacement Demand <sup>1</sup>	Total Growth Demand <sup>2</sup>	2023 Projected Employment <sup>3</sup>
Accounting	X	X	X	X	X		X	1.27	13-2011	Accountants and Auditors	5,534	1,193	908	6,442
Anatomy & Neurobiology					X			1.07	29-1069	Physicians and Surgeons, all other	1,304	258	314	1,618
Pre-Med			X	X	X			1.07	29-1069	Physicians and Surgeons, all other	1,304	258	314	1,618
Computer & IT Security					X	X	X	1.17	15-1179	Information Security Analysts, Web Developers, and Computer Network Architects	1,288	191	293	1,581
Web Design	X	X						1.17	15-1179	Information Security Analysts, Web Developers and Computer Network Architects	1,288	191	293	1,581
System Model and Analysis					X			1.17	15-1179	Information Security Analysts, Web Developers and Computer Network arch	1,288	191	293	1,581
Radiation Sciences					X			1.12	29-2037	Radiologic Technologists and Technicians	978	152	276	1,254
Health Administration					X			1.04	11-9111	Medical and Health Services Managers	1,186	290	265	1,451
Health Record Technology	X							1.04	11-9111	Medical and Health Services Managers	1,186	290	265	1,451
Computer Programmer	X	X						1.1	15-1131	Computer Programmers	1,450	338	183	1,633

Source: JobsEQ ©2013, Chmura Economics and Analytics, 1st quarter 2013, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

<sup>1</sup> Minimum demand due to separations such as retirement and moves into different occupations over a 10 year period.

<sup>2</sup> Represents employment growth (or loss) over a 10 year period only; it does not include replacement demand.

<sup>3</sup> Employment projected out 10 years as of 1st quarter 2013 (current employment + total growth demand).

with specific occupations was matched. If a specific education program was too broad to match with a single occupation as in Health Sciences, individual academic programs within this area are assigned for purposed of matching with SOC and growth potential. These matched occupations were distributed by their location quotient (LQ), a measure of the relative size of an occupation group compared to average in the nation. Any matched occupation with an LQ greater than 1.0 was further sorted by its total growth demand presented in absolute terms over the next ten years. *Exhibit 51* depicts the ten most relevant higher education programs within the Region as they pertain to specific high growth jobs.

This analysis is a first step in showing how the Region is positioned through the higher education system to prepare the current and future workforce with the skills most needed to meet estimated projected job growth. It is important to note how many of these higher education programs fall within the Health and Life Science and the Professional and Creative Service emerging clusters, but also to start the conversation about academic programs that may be missing or need to be expanded and realigned to meet anticipated productive employment.





## START-UPS AND ENTREPRENEURSHIP

If the Richmond Region is going to successfully retain college graduates and remain competitive, business start-up assistance and a positive climate for entrepreneurship needs to be a focus of the CEDS. Recent research provided by AdvanTech, an incubator sponsored by the City of Richmond's Economic Development Authority provides an important backdrop for understanding the importance:

- New businesses in the U.S. add an average of 3 million jobs in their first year, while older firms lose 1 million jobs annually (Kauffman Foundation)
- Each \$10,000 investment in incubators produces an average of 46 new jobs, and every \$1 invested in an incubator results in \$30 of increased tax revenue (Economic Development Administration and National Business Incubation Association)
- New business formation has been flat from 2010-2013, and Virginia has one of the lowest rates of entrepreneurial activity (City of Richmond, Kauffman Foundation Index of Entrepreneurial Data)
- Innovative models of new venture support include a blend of support facilities, social capital, mentoring, skills development, and access to finance.

In response to this foundation, the following recommendations are offered by AdvanTech to address both some of the challenges and act on the opportunities:

1. **Priority One – Assist in Under-Resourced Communities.** Opportunities exist to assist in the establishment and growth of community-based businesses – retail, trades, construction contractors, arts and handicrafts, and food-based businesses to name a few--also to the benefit of residents and as an important component of neighborhood revitalization. Comprehensive programs that include instruction, mentorship and microfinance are the most effective with those who have no experience in



establishing a new business. [See referenced examples for building social capital such as the Evergreen Cooperative Initiative in Cleveland, OH and the Charlottesville Works Initiative in *Exhibit 69: Goals, Objectives, Strategies*]

2. **Priority Two – Develop a Hub of Shared Information.** Over 45 organizations and State agencies (see listing in Appendix) provide support services for new businesses and small business, including public sector agencies, private investors groups, incubator and accelerator programs, academic institutions, trade groups, corporate social responsibility programs, and other nonprofits. Collaboration across this landscape is ad hoc, and sharing of information could provide a significant benefit for other support agencies. The scope of an information hub would include a shared calendar, shared resources such as web site, webinars, reports, and data, meetup group listings, and contact directory searchable by type of assistance required.

3. **Priority Three – Foster a Unique Position for Richmond as an Entrepreneur Destination.** Richmond offers an excellent opportunity for the startup community to collaborate with policy makers at the local and State levels on issues relevant to the public sector, namely transportation, energy, health care, education, poverty, food access, housing and homelessness. Catalyzing the flow of new ventures with the increased interest in social

entrepreneurship and impact investing can introduce market-based solutions to these 'public' challenges through coordinated research, venture acceleration and public-private partnerships. A new shared center could be nationally relevant as a destination for aspiring social innovation.

One immediate task of the CEDS ahead is to explore these options within the Start-Up community (see Appendix for list of organizations in the Richmond Region) so that assignment of responsibility and timeframe are clear.





# VII: Community Infrastructure



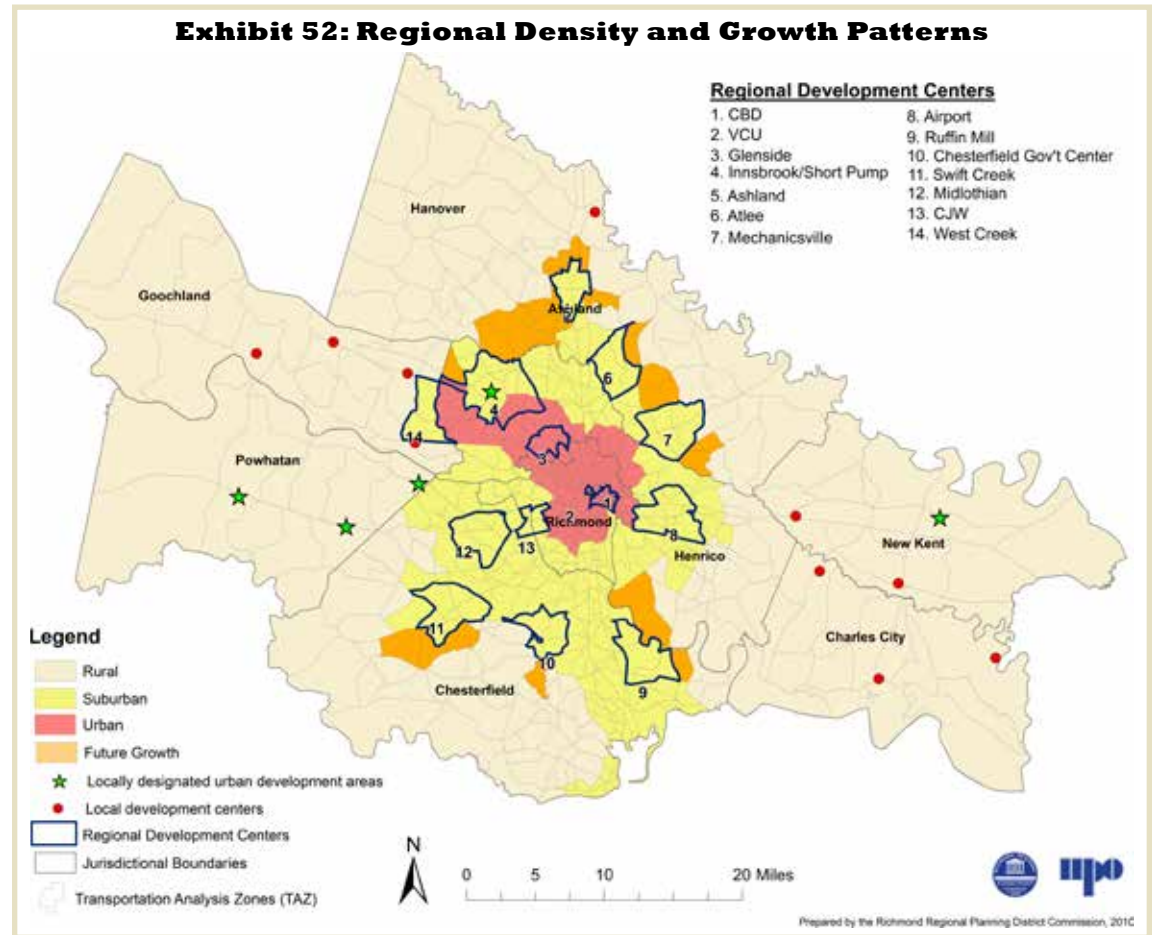
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## LAND USE, GROWTH & DEVELOPMENT

Viewed as a vitally important framework for economic development, the existing pattern of development can set the stage for the growth or decline of a community. The relationship between places of residence and places of employment in a region, the transportation network and modes of travel, and the cultural assets of a community are all elements of the economic development ecosystem.

As showcased earlier (see *Exhibit 3*), the Richmond Region has experienced an 83 percent population increase in the last 40 years, and is projected to increase another 49 percent over the next 30 years according to the Weldon Cooper Center for Public Service. Where and how this growth occurs both in residential land use and corresponding employment will evolve through thousands of decisions by developers, investors, elected leaders and their advisors and constituents.

To be realistic, the scope of the CEDS must be broad enough to place the proposals for economic development strategy in the context of this ecosystem, and in fact, try to influence the shorter term decision making with the benefit of a longer term vision for economic prosperity. As such, this chapter of the CEDS acknowledges the existing





framework in a general way with the benefit of companion studies, but does not presume to be an exhaustive study unto itself.

The Richmond Region Socioeconomic Data Analysis (February 2012) used 2008 population and employment estimates as distributed to 712 Transportation Analysis Zones (TAZ) throughout the Region to distinguish urban, suburban and rural development character. Fourteen regional development centers (*Exhibit 52*) emerged from this analysis representing the intersection of the highest concentrations of residential and employment.

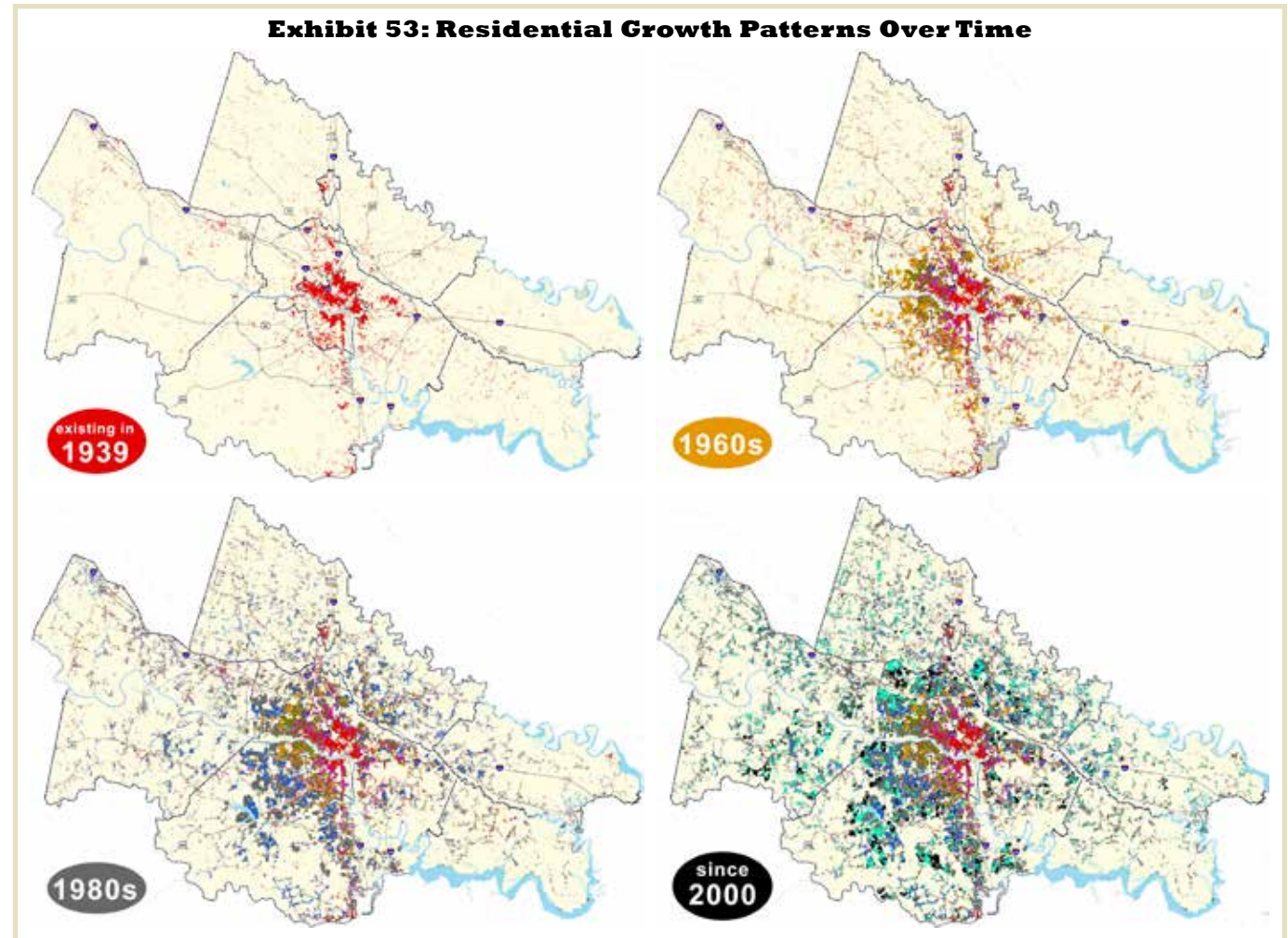
A Regional Existing Land Use Inventory completed by the RRPDC in July 2012 based on 2009-2012 parcel data and other sources also provides a good layer of base line information that will be regularly updated to provide direction on growth trends. This study also helps to inform the CEDS process through a broad lens of understanding development patterns, in particular, where people live and where they work.

## HOUSING TRENDS

Housing is closely related to economic development, though the link is often overlooked. As stated so clearly in the March 2013 study of “Housing the Richmond Region’s Future Workforce” by the George Mason University School of Public Policy [GMU Study]: “The ability of

the Richmond region to be competitive and to meet - and even exceed - its economic development potential depends critically on the availability of a sufficient amount of housing in the right places and of the right types and prices. Without regional cooperation and local policies to develop a comprehensive regional housing strategy, the quality of life and economic vitality of the Richmond Region could be at risk” (p. 1).

**Exhibit 53: Residential Growth Patterns Over Time**





The Richmond Region is characterized by typically older housing stock in the city and inner suburbs, with newer residential spreading throughout the suburban counties, thinning into sparse, large-lot development in the rural counties. *Exhibit 53* illustrates this residential growth pattern in the Region since 1939, with a single dot representing each residential structure (not taking into account demolitions).

### HOMEOWNERS MARKET

The Richmond regional home buyers market reflects the national market - the housing bubble burst and ensuing economic downturn has lowered home prices and created stagnation in a once-thriving market, and construction of new homes has slowed.

The housing market is tied tightly to the overall economy; the market bubble burst is widely blamed for the initial economic downturn, and barriers to increased housing activity are pinpointed as the key to stimulating the depressed economy.

The year 2006 saw an all-time high in national housing prices. Since then the market has fallen an average of 33 percent, for a total national loss in home capital of \$7 trillion. New homeowners are kept out of the market due to much stricter lending qualifications, even when they are credit-worthy, causing further market stagnation.

However, multiple factors are beginning to show that the downturn has reached an end. After the peak in national unemployment in 2010, 2011 showed a percent decrease, and 2012 and 2013 are projected to continue the decrease. The National Association of Realtors tracks market trends related to the housing market, and projects that after bottom in 2009 of new housing units built with nominal increases in 2010 through 2012, 2013 should show increases in new units built. Though construction is increasing slowly, obstructions to small home builders being able to acquire construction loans keeps the pace down. Following a few years behind but on the same curve, new and existing home sales reached a recent low in 2010 and 2011, with projected small increases in 2012 and 2013 (National Association of Realtors).

In Central Virginia, sales activities continue to strengthen. Sales increased in 2010 due to the extension of the Federal First-Time Homebuyer Credit. Signs point to market stabilization ensuing and first quarter 2012 sales are up 8 percent over first quarter 2011. Sales in Chesterfield and Henrico counties were strong, while sales in Hanover County and the City of Richmond fell behind. Prices are expected to increase as sales increase (Richmond Association of Realtors First Quarter 2012 Market Status Report).

### RENTAL MARKET

The Richmond area rental market is growing stronger, due in large part to the decrease in homeownership. While the strengthening of the rental market is positive for homeowners needing to rent out their homes and for people who wish to rent, it does increase rental prices, and potentially decreases the number of rental units available at “affordable” housing prices.

The National Association of Realtors projects that rent, after reaching a low in 2010 and increasing significantly in 2011, will continue to increase over the new couple of years. The factors mentioned above, like increased foreclosures and restrictions on new mortgage credit, are steadily increasing the number of households who rent.

### OWNER VS. RENTER OCCUPIED HOUSING IN THE REGION

During the same time of significant Regional population growth, the mix of owner versus rental occupied housing has not changed dramatically. In 1970 62 percent of the housing stock was homeowner occupied, compared to 67 percent in 2010. Powhatan County has witnessed the greatest percentage increase in homeowner occupied housing, while Chesterfield County rental housing has increased by the highest percentage in the Region. The City has actually has the smallest increase in housing stock and a decline in owner occupied housing during the past 40 years.





## AFFORDABLE HOUSING

Housing is considered affordable if a household is paying no more than 30 percent of total income for the unit in which they reside, including rent/mortgage, taxes and utilities. As the factors affecting the national and regional homeownership and rental markets, the affordability of housing is affected as well.

High unemployment, few new job opportunities, increased rents and decreased home ownership potential all create a scenario in which many working families are forced to pay more than they can afford to have a decent, safe and sanitary place to live. The 2013 GMU housing study indicates that more than one-half of the Region's existing renter households and 29 percent of the Region's homeowners are housing burdened, they spend 30 percent or more of their income on housing costs (p. ii).

## PUBLIC HOUSING

The Richmond Regional Housing Authority (RRHA), through its Property Management and Assisted Housing rental housing program, serves nearly 10,000 residents in approximately 4,100 public housing units located in the City, and through the Housing Choice Voucher Program (also known as Section 8) provides housing assistance to nearly 3,000 families. Significant waiting lists for public housing units are typical and an indication of the demand for shelter by low and low-to-moderate income residents. Affecting Regional response to the provision of such housing choice, the RRHA is pursuing a transformation for some of the oldest units by entering a master-development agreement to turn the East End communities (950 units) into new mixed-income neighborhoods. The plan calls for "home ownership and rental components, including both affordable and market-rate units along with a strong commercial component and a world-class multiplex facility for athletic, recreational and other community uses" (Zullo, Richmond Times Dispatch, April 25, 2013).

## HOMELESSNESS

A non-profit organization, Homeward serves as "the regional voice on homelessness and related human services for the Greater Richmond area." Their Ten Year Plan set in motion a twice annual count, point-in-time survey of the homeless (sheltered and unsheltered) to collect demographic and service data so that trends and measurable objectives could be developed. The conclusion of their plan is that "ending homelessness is possible". Looking at their point-in-time survey results from 2007 to 2013, they report a 13 percent drop in the homeless population, reaching a current low of 999. There are multiple non-profits, such as Virginia Supportive Housing and Home Again, working together to provide transitional housing, helping those to move from homelessness into more permanent shelter by way of a rapid-rehousing strategy.

## PREDICTING FUTURE HOUSING NEEDS IN THE REGION

The GMU study cited earlier was sponsored by the Richmond Association of Realtors and the Partnership for Housing Affordability. The research focused on new workers taking new jobs in the next twenty years, and made a direct correlation between economic growth and the need for providing appropriate housing choices.

In order to project the housing needs of the region's future workforce, analysts collected data on projected job growth from IHS Global Insight and the GMU Center for Regional Analysis, and determined, from job sector information along with median incomes per sector and typical household makeups, what types of housing the projected new workers would require.

The predominant assertion of the GMU study is that housing needs to be included in the region's overall economic development strategy since it is impossible to disassociate job growth from worker housing. The study predicts that new housing stock will need to vary in price, size and location from current availability. In all, the Region will need to add over 94,000 new housing units in the next twenty years, or approximately 4,700 new units each year. This is considered a conservative estimate because the study findings rest on new workers filling new positions, not "replacement workers" (new





workers filling already existing positions which will be vacated due to workers retiring or moving to other jobs).

The study found increasing demand for multi-family and rental housing options, which predicted a growing need for affordable housing choices as employment demographics shift in the coming decades. The study states: “To ensure that the future workforce can have access to affordable housing, these demand forecasts suggest that about two-thirds of the Region’s future renters will need units that rent for below \$875 per month. The demand forecasts indicate that 52 percent of future homeowners will be able to afford homes priced below \$175,000... there is a need for the construction of smaller and more moderately priced housing, as well as efforts to preserve the existing stock of affordable rental and owner housing.”

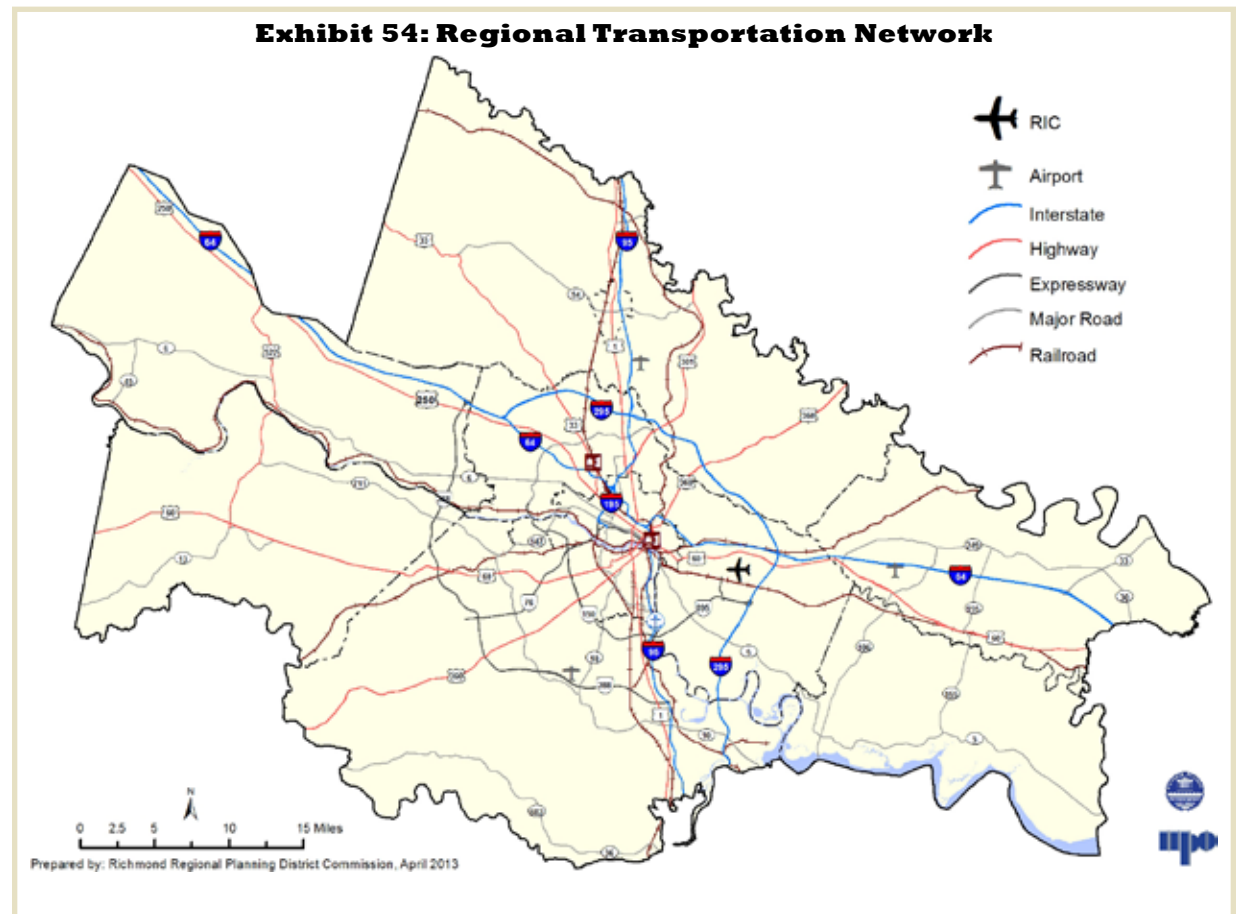
## TRANSPORTATION INFRASTRUCTURE

The Richmond Region is advantageously located in the middle of the eastern seaboard, two hours drive from Hampton Roads, two hours from Washington, D.C. and the populous northern Virginia area and less than ½ hour from the Tri-Cities of Petersburg, Hopewell and Colonial Heights. As cited by the Logistics Task Force of Richmond’s Future in their October 27, 2012 report *The Future of Logistics in the Richmond Region: Getting to the Tipping Point*, “The locational advantages of the Richmond Region make logistics a natural point of emphasis, one in which the transport and distribution of goods is not simply a cost to be borne by the regional infrastructure, but is an economic development catalyst for the region broadly conceived.”

Understanding the potential for logistics in the global sense - along with intraregional connections for business, industry and employment - within the framework of the Region’s existing transportation network is an essential focus of the Regional CEDS.

## HIGHWAY & INTERSTATE SYSTEM

The primary means of transportation is the regional highway network, carrying both passenger and freight vehicles. Interstate Highways 64 and







95 converge in Richmond City, bisecting the region from east to west and north and south connecting the Region to the entire East Coast, the Atlantic and all directions west. An outer Regional ring made up of I-295 and Route 288 provides an option for through-traffic around the urban center and has allowed residential and commercial growth to extend into surrounding counties. Route 76 (Powhite Parkway) and 195 (Downtown Expressway) also provides access from the city center as an inner loop much as does Route 150 (Chippenhams Parkway) connection to Route 895 for connection to the Richmond International Airport (RIC).

The Richmond Region is not constrained by significant traffic congestion relative to other areas of the Commonwealth such as Northern Virginia and Hampton Roads. For example, according to counts by Virginia Department of Transportation, traffic volumes in the area of I-95/I-64 through the City of Richmond has remained relatively stable from 2001 to 2012, increasing only a net of 2,500 average trips per day (AADT). The highest volume occurred in 2004, with an average of 73,500 AADT. This enhances the quality of life through the freedom it provides those who have access to a car, and keeps

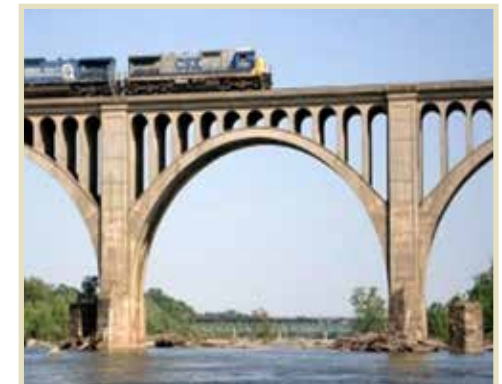
the Region competitive for freight movement and attraction of logistics and distribution operations. However, as land use patterns continue to move outward the potential for traffic congestion also increases. In order to stay economically competitive, the Region will need to take steps to provide multi-modal alternatives for both people and freight.

## RAIL TRANSPORTATION

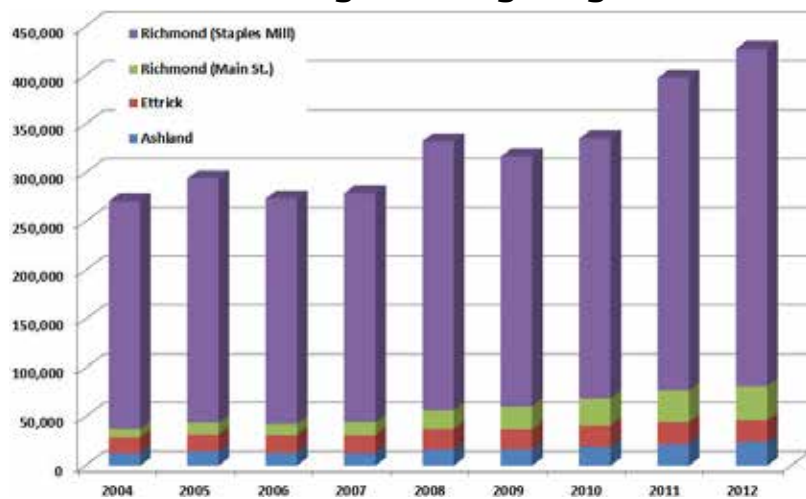
The Region is served by two Class I rail lines, Norfolk Southern and CSX. A smaller Buckingham Branch line primarily transports coal. The Federal Railroad Administration (FRA) forecasts that in order to serve a growing nation, the rail network will need to carry 2.8 billion additional tons of freight. A majority of rail freight in- and out- of the region involve ten large commodities. Of those, six are carried by rail, totaling 369,217 tons a year inbound and 278,924 outbound. Together inbound and outbound rail freight tonnage equates to 648,141 tons: one percent of total freight tonnage in the region. Rail only accounts for just over 1 percent of inbound/outbound freight for the top 10 commodities. For a more complete picture of freight transport in the Region, please see the *Richmond Region Long-Range Transportation Plan*, Chapter 11 - Freight and Intermodal Systems.

Consistent with regional economic trends, intermodal transportation in the Region is expected to continue to grow. When comparing the total value of outbound versus inbound commodity flows, the region is a net exporter in terms of “value”, exporting approximately \$1.8 billion more than is imported.

Amtrak provides passenger service from Main Street Station in downtown Richmond, Staples Mill Station in northern Henrico, the Town of Ashland in Hanover and village of Ettrick in southern Chesterfield County. A total of 34 southbound and northbound trains serve the Richmond region each week



**Exhibit 55: Richmond Region Amtrak Stations: Boardings and Alightings**



Source: Amtrak, 2012 (data is by federal fiscal year).





along this corridor. Amtrak ridership has grown 58 percent region-wide in the years between 2004 and 2012 (compared to 83 percent state-wide in the same time period), as illustrated in *Exhibit 55*. Amtrak carried a total of 427,087 passengers boarding and alighting in the Richmond Region.

### WATER TRANSPORTATION

Located on the James River in the I-95 corridor at the southeastern tip of the City, the Port of Richmond provides the capability to link with international markets through the Port of Virginia terminals in Hampton Roads. The Virginia Port Authority (VPA) is leasing the Port of Richmond from 2011 to 2016 as part of their system of terminals. Through the 64-Express Barge connection to VPA Hampton Roads terminals, the Port of Richmond presents significant logistical advantages, and offers a vital mode alternative to replace truck traffic in the congested I-64 corridor; in fact, from 2009-11, 36,000 truck trips were eliminated from local highways for a 45 percent reduction in emissions on cargo moves to Richmond. Charles City County is investigating opportunities to realize greater potential through a smaller inland port, Port Tobacco at Shirley, located at the confluence of the James and Appomattox Rivers. New Kent County recently revisited the feasibility of creating an inland port for barge service along the Pamunkey River south of West Point.

### AIR TRANSPORTATION

The Richmond Region is served by the Richmond International Airport (RIC) by seven air carriers. The RIC now handles more than 90 million pounds of air cargo annually, and its growing international business is incentivized in the area around the airport through a Foreign Trade Zone. Operated by the Capital Region Airport Commission, RIC has been the gateway to Virginia's Capital Region since 1927. The airport handles 105,000 landings/take-offs annually attracting more than 3 million travellers to and from Fredericksburg, Williamsburg, Washington D.C., Charlottesville, Virginia Beach, and points to the east and west each year.

### LOGISTICS NETWORK

Given the Region's locational advantages with interstate access north-south and east-west at a mid-point of the East Coast, the area is witnessing significant growth of distribution hubs (see *Exhibit 56*), including opportunities to the south with the \$2.0 billion repurposing of Fort Lee as a logistics center. Economic impact on the larger MSA region is estimated to be from \$860 million in 2003 to \$1.7 billion in 2013 (*The Future of Logistics in the Richmond Region: Getting to the Tipping Point*, Richmond's Future, October 2012).

### REGIONAL TRANSIT

Incorporated in 1973, the GRTC Transit System (GRTC) is the sole fixed route bus service provider in the Richmond area. Although AMTRAK offers intercity rail service to the public, with several routes boarding and alighting in the Richmond area, GRTC's fixed route bus service remains the principal mass transit option for travel within the Richmond metropolitan area.

GRTC is a non-profit public service corporation, owned equally by the City of Richmond and Chesterfield County and governed by a Board of Directors. At this time, there are 154 transit vehicles, including both buses and cutaway vans, which provide fixed route services in the Cities of Richmond and Petersburg, and the Counties of Henrico and Chesterfield. Fixed route services are a combination of local and express bus service, with all local route





buses equipped with low-floor entry, wheelchair ramps, and front-mounted bicycle racks. Currently, GRTC operates 43 routes, eleven of which are express routes. Service in the City of Richmond operates from 5:00 a.m. to 1:00 a.m., 7 days a week, and service in Henrico County operates 6:00 a.m. to 7:00 p.m. Monday through Friday (no weekend service). Only express routes operate in Chesterfield County. Total systemwide ridership for FY2012 was just under

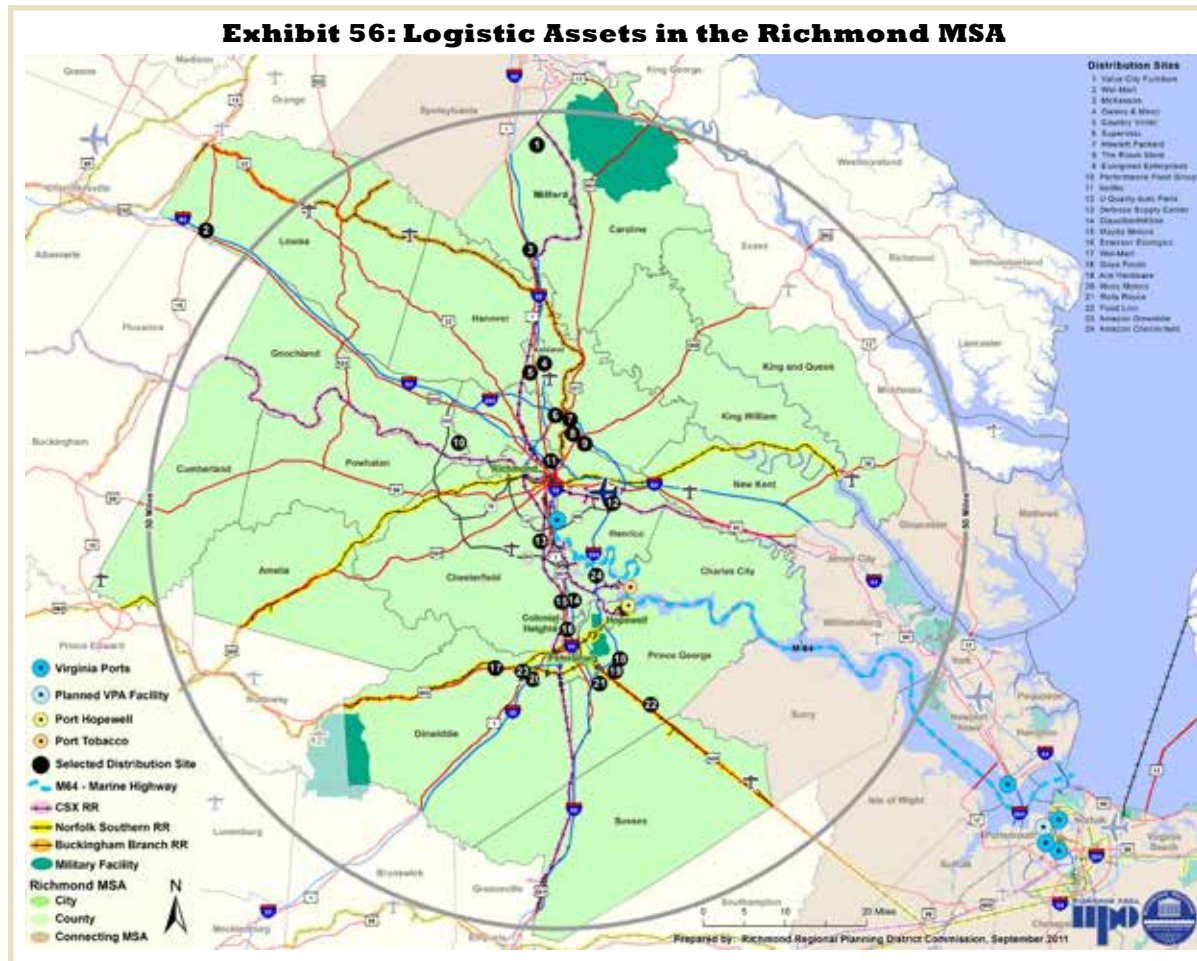
ten million (9,999,843), whereas the average for the past five fiscal years has been slightly over ten million (10,161,244).

For qualified disabled riders who are unable to use fixed-route service, GRTC offers paratransit service through the CARE program. CARE provides curb-to-curb service for eligible riders. Eligibility for the program is in accord with the Americans with Disabilities Act (ADA).

GRTC oversees RideFinders, the region's ride-sharing coordinator, supports the Capital Region Taxicab Advisory Board (CRTAB), and oversees C-VAN, a welfare-to-work transportation service provided in cooperation with local social service agencies. C-VAN provides transportation assistance to participants in the "Virginia Initiative for Employment not Welfare" (VIEW) program who live more than  $\frac{3}{4}$  of a mile from fixed-route transit service, to reach work and day-care facilities. The service is an important component in increasing the number of regional workers by providing access to jobs.

## WHAT IS THE FUTURE OF TRANSIT?

Physical access to available jobs in the Region is one component of the workforce equation. The *Mayor's Anti-Poverty Commission* report cites American Community Survey data that indicates an estimated 18 percent of all households in the City do not have a car, and 27 percent of 2-adult households have only one car, making these households dependent on public transportation. Residents in surrounding counties are not as likely to be without a personal vehicle. A 2011 study by the Brookings Institution "confirmed that Richmond has one of the most severe mismatch problems in the nation... just 30.8 percent of working age Richmond metropolitan





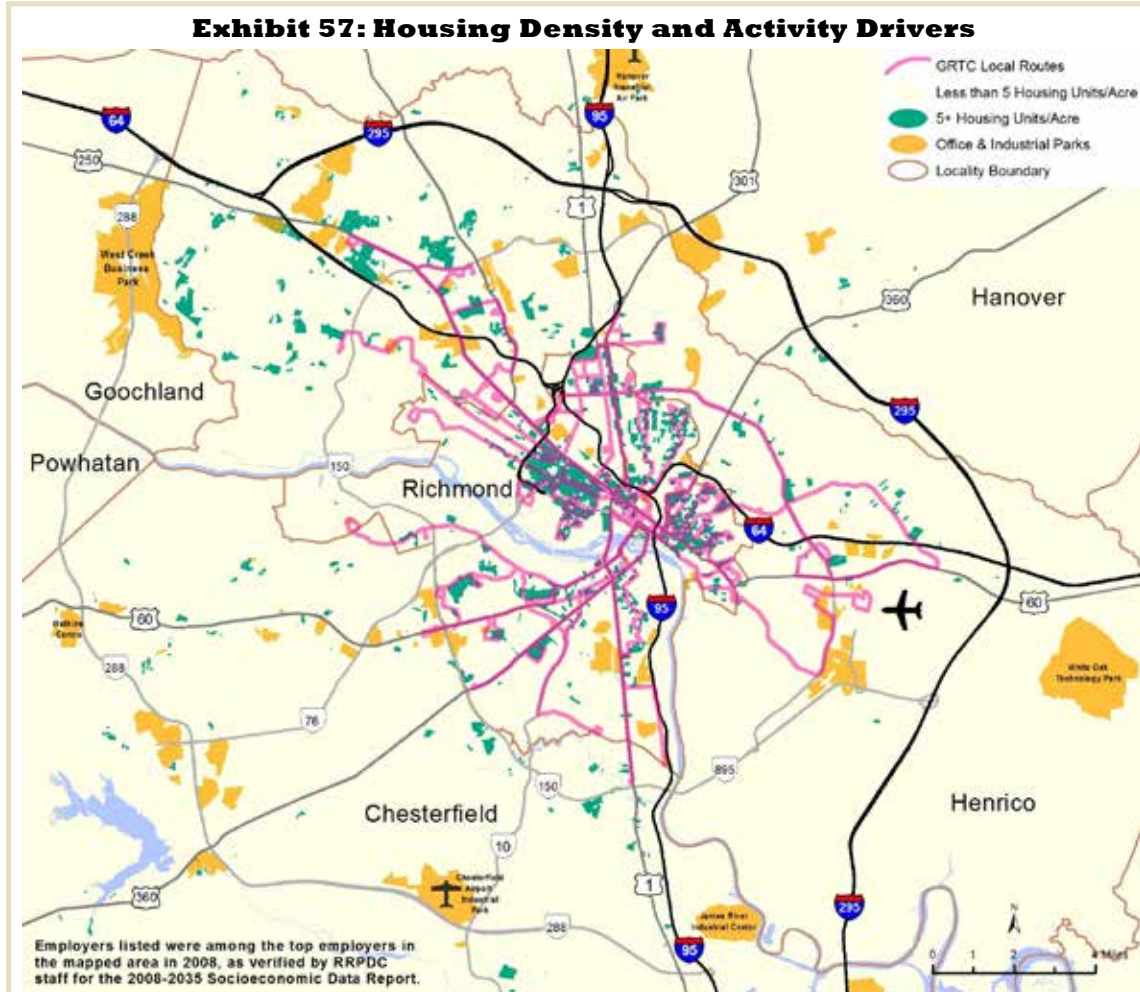


residents lived in a neighborhood within 3/4 of a mile of a mass transit stop... ranking Richmond 95th out of the nation's top 100 metropolitan areas, and when considering job access, an estimated 26.5 percent of jobs are accessible to residents living in transit served neighborhoods." Just as limits to housing and education choice disproportionately affect low and moderate income

residents, lack of public transportation severely affects the ability of these residents to access jobs throughout the Region.

The cost effectiveness of operating public transit is largely a function of population density and connections between activity centers, or origin-destination considerations for economic viability. Seven dwelling units per acre is considered a minimum density necessary.

## Exhibit 57: Housing Density and Activity Drivers



To determine whether a development pattern supporting transit could emerge within the reach of the region's existing system, a map of current GRTC local routes was overlaid with those areas with an average density of five (5) units per acre or more, along with major activity drivers – business and industrial centers, major employers, and hospitals (see *Exhibit 57*).

Using this conservative approach, a rather dispersed existing development pattern shows some cohesive circulator areas extending out from the city center, moving to the west and south. However, the challenge appears between the city center and the ultimate destinations, suggesting the need to expand public transit while exploring public-private sector solutions.

The Bus Rapid Transit System (BRT) proposal between Rocketts Landing in the City and Willow Lawn shopping center in Henrico County offers the potential not only to serve as a main spine for a Regional public transit system, but offers the opportunity to spur redevelopment/revitalization and job creation along the Broad Street corridor. The CRC through the Coordinated Transportation work group recommends the BRT as a place to start for the mid-to-long term, for a more regional transit system. Other CRC recommendations call for perpendicular connections to the BRT and its coordination with land use, encouraging appropriate densities that will ensure ridership.







Immediate improvements moving toward a more responsive regional transportation system can be addressed through one central goal: Make public transit best-in-class as a mode choice for a metropolitan area of its size:

- Implement a ‘bus bridge’ between the Staples Mill Road Amtrak Station and Main Street Station
- Find ways to add flexibility in routes and schedules made more possible by the recently enacted City Ordinance which removes GRTC changes from purview of City Council.
- Support “RVA Rides” marketing for GRTC
- Provide a Downtown circulator within the City

Additionally, the CEDS recommends an immediate step of working with large private employers to find cost-effective ways to supplement public transit with private transit circulators that tie into the GRTC system to the benefit of their employees. A more detailed look of corporate employee commuting patterns to indicate whether national trends of increased “reverse commute” (by inner-city residents to outer area employment centers) should help to set the stage for such conversations.

## TELECOMMUNICATIONS

The consistent availability of adequate high-speed internet access (1.5 Mbps) throughout the Region is spotty at best and has been mentioned universally by all the localities within the Region as a problem. Certain areas of the core and most rural locations lack reliable service, and comprehensive analysis is required to identify and prepare solutions for better coverage.

High-speed internet connections are absolutely vital to all aspects of economic development from K-12 through university education, vocational training, job seeking, business and industry. Research by Brookings Institute shows that a 1 percent increase in broadband correlates to a increase in employment of 0.2 to 0.3 percent annually for a community. Adequate provision of service throughout the Richmond Region needs to be a collective economic development priority.

## PUBLIC WATER AND SEWER INFRASTRUCTURE

A 2010 Inventory of Richmond Regional Public Water & Sewer services found that the inter-jurisdictional agreement for the provision of utility service have created an interwoven, almost regional system operated at the individual locality level. The Region is water-rich with 97 percent of public water coming from surface water resources, and the remainder from public and community well systems, mostly to the east of I-95. Total permitted water capacity in the Region at that time was approximately 277 million gallons per day (MGD) with an average daily use approaching nearly one-half of capacity. An estimated 60 percent of the Region’s hydraulic capacity based on dry weather flow was utilized, although environmental controls for discharge of nitrogen, phosphorous and sediment are more of a controlling influence on sewerage and stormwater capacity as regulated by the Clean Water Act and Chesapeake Bay Restoration Act. From an economic development standpoint, public water and sewer service is most readily available in a large land area stretching to the northern and southern reaches of the Region along I-95 and within the primary highway beltway formed by Route 288 and I-295.



**Exhibit 58: Health Outcomes**

Health Outcomes Ranking is based on a summary score of Mortality and Morbidity

MORTALITY (LENGTH OF LIFE)		+	MORBIDITY (QUALITY OF LIFE)		=	HEALTH OUTCOMES	
Rank	Locality		Rank	Locality		Rank	Locality
11	Powhatan		9	Goochland		9	Powhatan
12	Hanover		19	Powhatan		15	Hanover
13	New Kent		31	Hanover		17	New Kent
20	Chesterfield		35	New Kent		19	Chesterfield
22	Charles City		45	Chesterfield		30	Goochland
23	Henrico		58	Henrico		36	Henrico
34	Goochland		85	Charles City		55	Charles City
126	Richmond		108	Richmond		125	Richmond

The Greater Richmond Age Wave Plan, 2012

Healthy Factors Ranking is based on a summary score of Health Behaviors, Clinical Care, Social and Economic, and Physical Environment.

HEALTH BEHAVIORS		+	CLINICAL CARE		+	SOCIAL & ECONOMIC		+	PHYSICAL ENVIRONMENT		=	HEALTH FACTORS	
Rank	Locality		Rank	Locality		Rank	Locality		Rank	Locality		Rank	Locality
12	Goochland		7	Henrico		6	Hanover		80	Powhatan		30	Hanover
16	Hanover		8	Goochland		20	Chesterfield		86	Hanover		17	Chesterfield
17	Henrico		12	Chesterfield		23	Powhatan		92	New Kent		18	Goochland
29	Chesterfield		20	Hanover		29	New Kent		99	Charles City		31	Henrico
38	Powhatan		51	New Kent		32	Goochland		101	Chesterfield		33	Powhatan
43	New Kent		56	Richmond		33	Henrico		104	Richmond		42	New Kent
100	Richmond		86	Charles City		62	Charles City		115	Goochland		88	Charles City
107	Charles City		112	Powhatan		128	Richmond		122	Henrico		125	Richmond

Health Behaviors include smoking, diet and exercise, alcohol use, and unsafe sex.

Specific measures include:

- Adult Smoking
- Adult Obesity
- Excessive Drinking
- Vehicle Crash Death Rate
- Sexually Transmitted Infections
- Teen Birth Rate

Clinical Care includes access to care and quality of care.

Specific measures include:

- Uninsured Adults
- Primary Care Physicians
- Preventable Hospital Stays
- Diabetic Screening
- Mammography Screening

Social and Economic factors include education, employment, income, family and social support, and community safety.

Specific measures include:

- High School Graduation
- Some College
- Unemployment
- Children in Poverty
- Inadequate Social Support
- Children in Single-Parent Households
- Violent Crime or Homicide

Physical Environment includes environmental quality and built environment.

Specific measures include:

- Air Pollution-Particulate Matter Days
- Air Pollution-Ozone Days
- Access to Healthy Foods
- Access to Recreational Facilities

The Greater Richmond Age Wave Plan, 2012

## COMMUNITY HEALTH & CULTURE

In the Richmond region, environmental health most often depends on where a person lives and the lifestyle choices that he or she makes. On a State-wide scale, the Region's jurisdictions vary greatly in their health rankings. In overall "health outcomes", Richmond City consistently ranks among the least positive (125 out of 132 counties and cities in Virginia), as shown in *Exhibit 58*. Powhatan, Goochland and Hanover often rank in the top 20.

### AIR & WATER QUALITY

Outdoor Air Quality in this region is generally good for a metropolitan area of this size. The region is currently designated as a "maintenance" area for ozone pollutants by the EPA. This status was dropped from "non-attainment" after a nominal improvement in ozone levels over the past decade. Ozone is one of eight ambient air pollutants that the Clean Air Act designates as harmful to human health.

Water Quality in the region has improved over the past decades. However, our waterbodies still struggle with pollution, environmental degradation and habitat loss. The James River Association's annual State of the James River report for 2011 gave the river an overall grade of C for health, including wildlife, habitat, pollution and protection and restoration actions.

### PUBLIC SAFETY

Real or perceived, the feeling of being safe, without threat of crime, affects regional economic development potential, and the City's statistics are usually the one's to garner attention for the entire Region. Violent crime, including





murders, reached an all-time high in the 1990s, and the rates have been declining steeply since. The City of Richmond's crime is higher than most of the U.S., according to City Rating Richmond's violent crime rate (per 100,000 population) in 2010 was 81 percent higher than the national average and almost 2-1/2 times higher than the state average. The City's property crime rate is over 41 percent higher than the national average, and almost 79 percent higher than the state average.\*

Although crime has been declining in the Region in the past five years, violent crime in the counties of Chesterfield, Henrico and Hanover has risen slightly. In 2012, the majority of property crime was divided fairly evenly between Richmond, Henrico and Chesterfield.

### ARTS & CULTURE

Cultural and recreational amenities are economically important for three major reasons: one, they create an attractive destination for tourists, generating income from outside the Region; two, they make for a great place to live, which factors in the Region's ability to attract talent, and in turn, prospective employers; and three, they can strengthen the educational opportunities for the Region's population.

A Richmond's Future study prepared by Peggy J. Baggett (April 25, 2013) of *The Arts as a Key Economic and Community Development Driver in the Richmond Region* suggests a number of important findings:

- A direct indication of the Region's relative strength is that, "According to the Bureau of Labor Statistics, among metropolitan regions of comparable size, Richmond is ranked 5th in the number of people working in the arts, design, media, and entertainment industry... Austin, Texas is ranked 1st and Raleigh-Durham, North Carolina is ranked 4th" (p. 5).
- Another direct benefit from the arts as cultural tourism generation, for example, total spending by visitors to the 2011 Picasso exhibit at the Virginia Museum of Fine Arts was estimated to be \$22.5 million, resulting in over \$350,000 in state and local tax revenues [Chmura Economic & Analytics].



- U.S. News & World Report ranks the VCU School of the Arts as #1 in quality among U.S. public universities; and an estimated 30 percent of the graduates from this school stay in Richmond after graduation (p. 3), a positive indication that the Creative Career Cluster offers opportunities to retain them, and they find the Richmond scene enticing enough to stay.
- Students benefit greatly either directly or indirectly from skills learned through arts education. A National Governors Association study found that children who study the arts are four times more likely to be recognized for academic achievement and participate in a math/science fair, and three times as likely to attend school.

Another study for Richmond's Future, the YRVA Study completed in April 2013 was based on a survey designed and conducted by the Southeastern Institute of Research (SIR) with the assistance of 30 of the Richmond Region's (RVA) young professionals. The premise of the study is that "the long-term economic prosperity of metropolitan areas will be based, in part, on a region's ability to become and remain competitive as one of the preferred places for young professionals to live and work today." Key findings of the study relative to economic growth and vitality include:

- RVA college students and Virginia College students outside of RVA both say job opportunities are the most important thing they are looking for in a city, 95 and 96 percent, respectively (p. 5).
- Not only is the location decision all about work, but the opportunity to be "creative" or "innovative" is particularly important to the Millennial college students (p. 7).
- One primary factor that will keep young professionals in RVA is the feeling that they are building a community, a place where "culture is [the] community" (p. 11).

Specific recommendations with regard to bolstering the business start-up and entrepreneurship opportunities (see p. 49) are also intended to address the needs to make the Richmond Region an attractive and viable marketplace for the 'Creative Class' emerging from the Region's educational institutions and other venues.





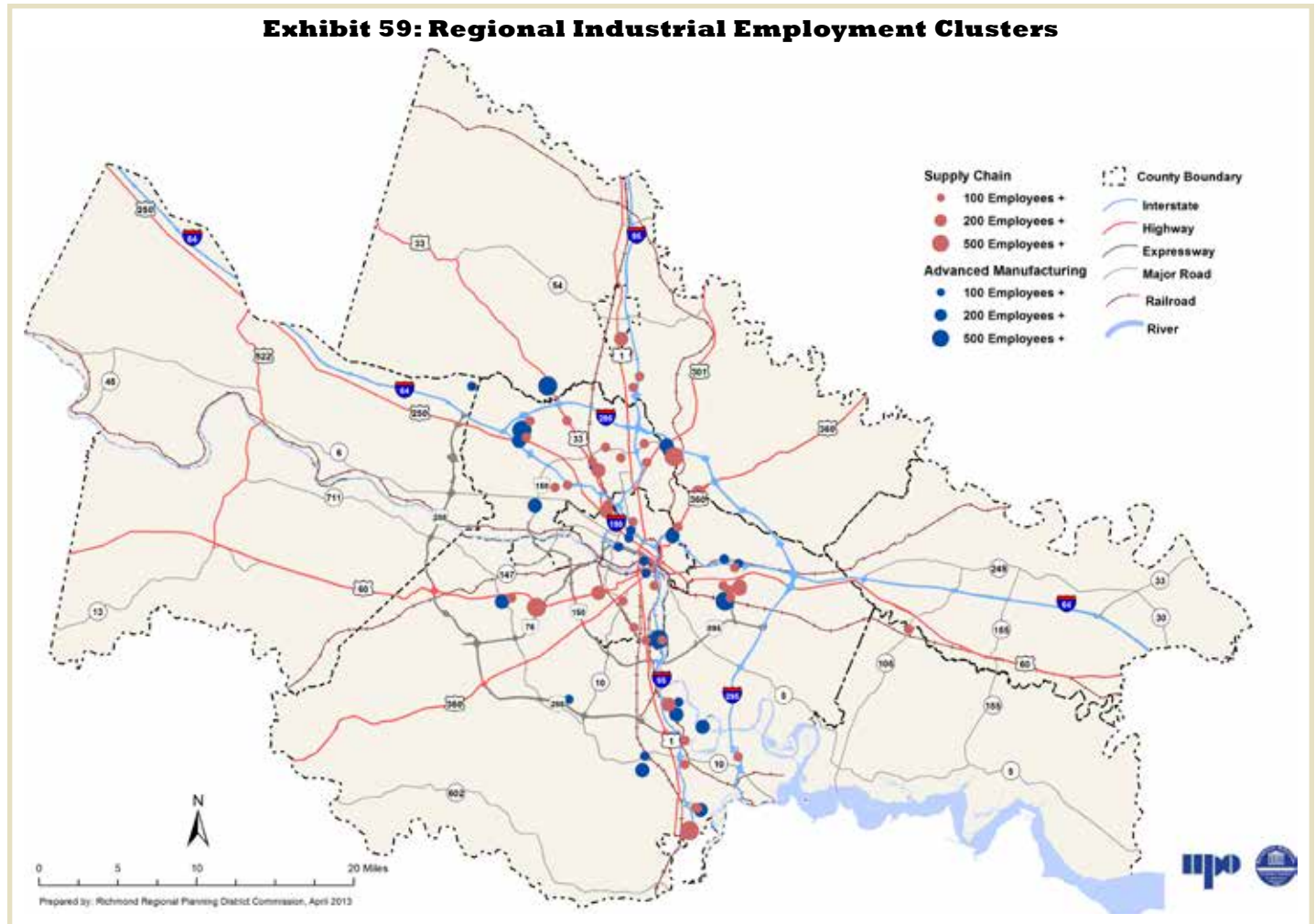
# VIII: Focal Areas and Sites

## IDENTIFYING FOCAL AREAS

To delineate regional focal areas for economic development, staff identified patterns of activity around the five emerging industry clusters (Advanced Manufacturing, Supply Chain Management, Health and Life Sciences, Finance and Insurance, and Professional and Creative Services) described by the Greater Richmond Partnership's *Target Cluster Analysis: Technical Memo* (see pages 16-18).

Employers were classified by the specific 6-digit North American Industry Classification System (NAICS) for each cluster (see Appendix) and geographically mapped using the 2008 employment data gathered and verified through the RRPDC's 2008-2035 Socioeconomic Data Analysis.

As illustrated in *Exhibits 59 and 60*, employment concentration patterns, not surprisingly, followed major transportation corridors. *Exhibit 59* shows major industrial employers tend to be concentrated along I-95 and Route 1, primarily north and south of the City. *Exhibit 60* shows patterns where major corporate employers were concentrated in the Central Business District (CBD), and expanding westward along I-64 and Route 250.





An underlying purpose of the CEDS is to identify regional impactful areas that will form a connection between the creation and expansion of jobs to guide infrastructure investment. Through this process five regional focal areas were identified offering the most impact:

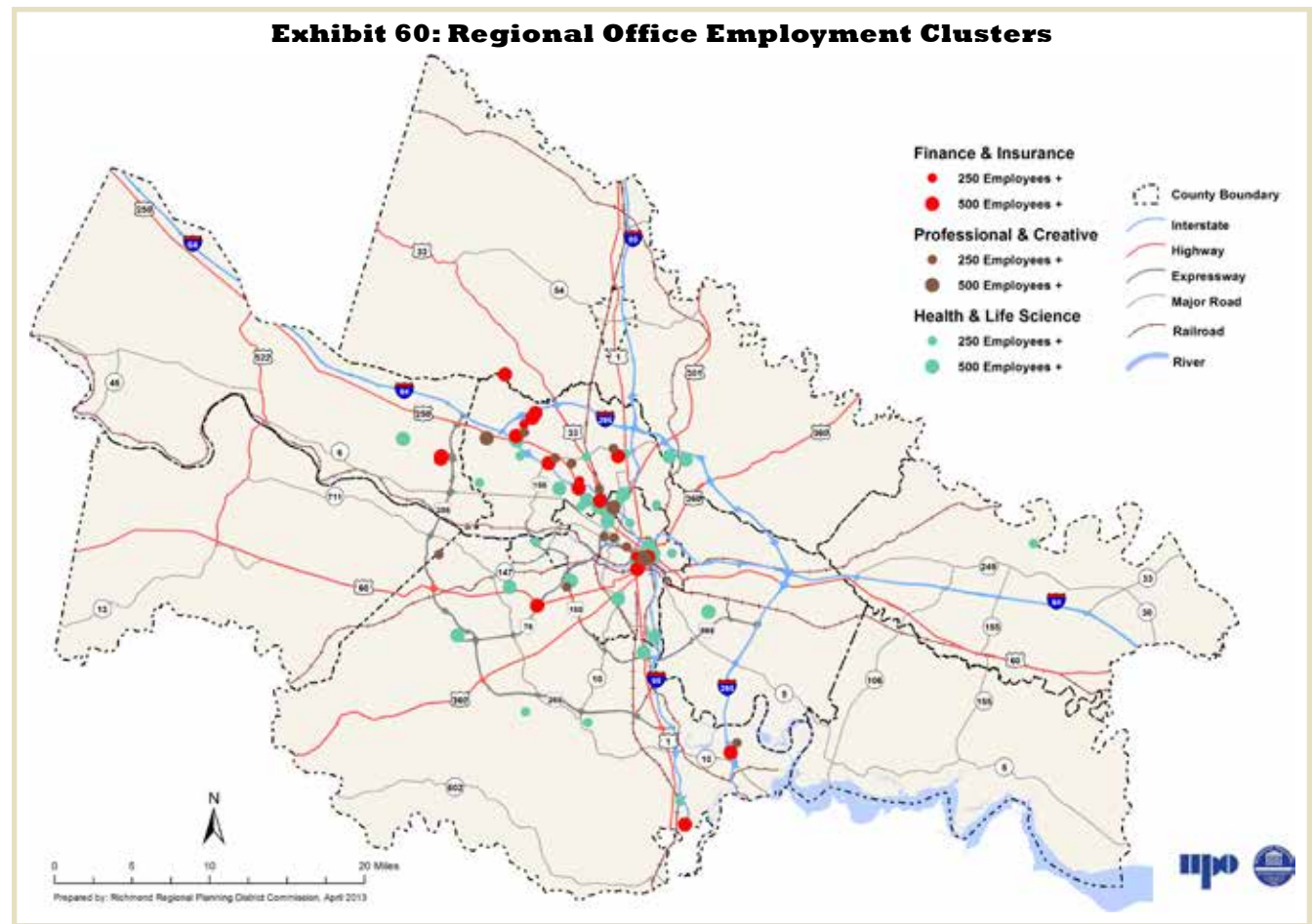
1. Route 1 – I-95/295;
2. RIC Airport / White Oak;
3. Port of Richmond Activity Area;
4. Meadowville; and
5. Innsbrook / West Creek.

The specific locations of these five focal areas are shown in *Exhibit 61* and are outlined individually in the following pages.

A descriptive list of the sites and buildings within the rural jurisdictions was also cataloged and can be found in the Appendix. A high level inventory of potential office tower sites in the urban core (see Downtown Activity in *Exhibit 61*) is also presented in the Appendix. This process was vetted with both the Infrastructure and Employment Cluster workgroups, and the larger CEDS committee.

Within the five focal areas, a detailed inventory of available sites and buildings was cataloged by using Virginia Scan. This is an interactive website with available sites and buildings for sale or lease and maintained by the Virginia Economic Development Partnership. All available sites and buildings within each focal area, as of August 14, 2013 were inventoried. As such, the site details represent a point in time and are subject to change. RRPDC staff

**Exhibit 60: Regional Office Employment Clusters**



worked closely with local economic development staff to identify sites and buildings with the greatest opportunity relating to job creation and infrastructure funding. Within all the focal areas close attention was paid to current and future infrastructure projects i.e. local Capital Improvements Plan (CIP) and Richmond Area Metropolitan Planning Organization (RAMPO) funded projects. The first look at known funding along with development opportunities was intended to identify gaps where additional funding through EDA and other sources may be harnessed for job creating activity.



## ROUTE 1 – I-95/295

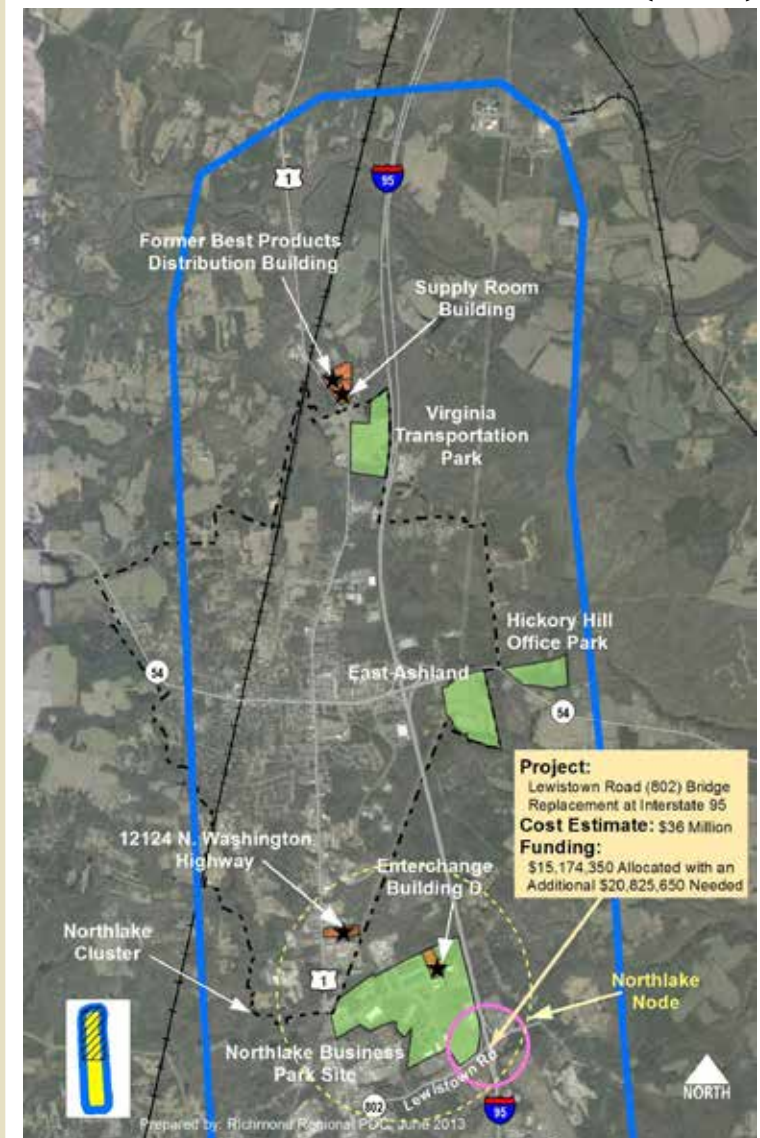
The Route 1/I-95 Corridor, north of the City consists mostly of industrial, retail, and residential uses. With two major regional corridors in Route 1 and I-95 running through the entire Focal Area, and I-295 bisecting the southern portion, it is positioned well for logistics related opportunities, i.e. the Vitamin Shoppe distribution center. Public water and sewer is generally serviced between Route 1 and I-95 and recent infrastructure projects will open up more development opportunity to the east. Development potential to the west of Route 1 (Northern Portion) can be limited by the lack for gravity sewer.

Within the Route 1 – I-95/295 Focal Area, two development nodes have been taking shape – the Virginia Transportation Park Node and the Northlake Node – as illustrated in *Exhibits 62 and 63*. Announcement in August 2012 of the Vitamin Shoppe distribution operations center in northern Ashland is expected to create 174 new jobs, with construction now underway. Further south, in the Northlake Node, the action by RAMPO allocated over \$15 million for the replacement of the Lewistown Road bridge over I-95. Additionally, an outlet mall in the Northlake Industrial Park is expected to open in late 2014.

### SITES

- The Virginia Transportation Park
  - 82 +/- acre site subdivided into three parcels (one of which is now being developed for the Vitamin Shoppe location)
  - Additional 22 acre and 16 acre parcels available
  - Hanover County has extended sewer to serve the park
- East Ashland
  - 96 +/- acre mixed use site with PUD zoning
- C.B. Robertson's Hickory Hill Office Park
  - 51 +/- acre site that can be adapted with flexible zoning options
- Northlake Business Park
  - 350 +/- acre site with 77 acres suitable for construction
  - Building II (200 acres) is in phase 2

**Exhibit 62: Route 1 - I-95/295 Focal Area (North)**







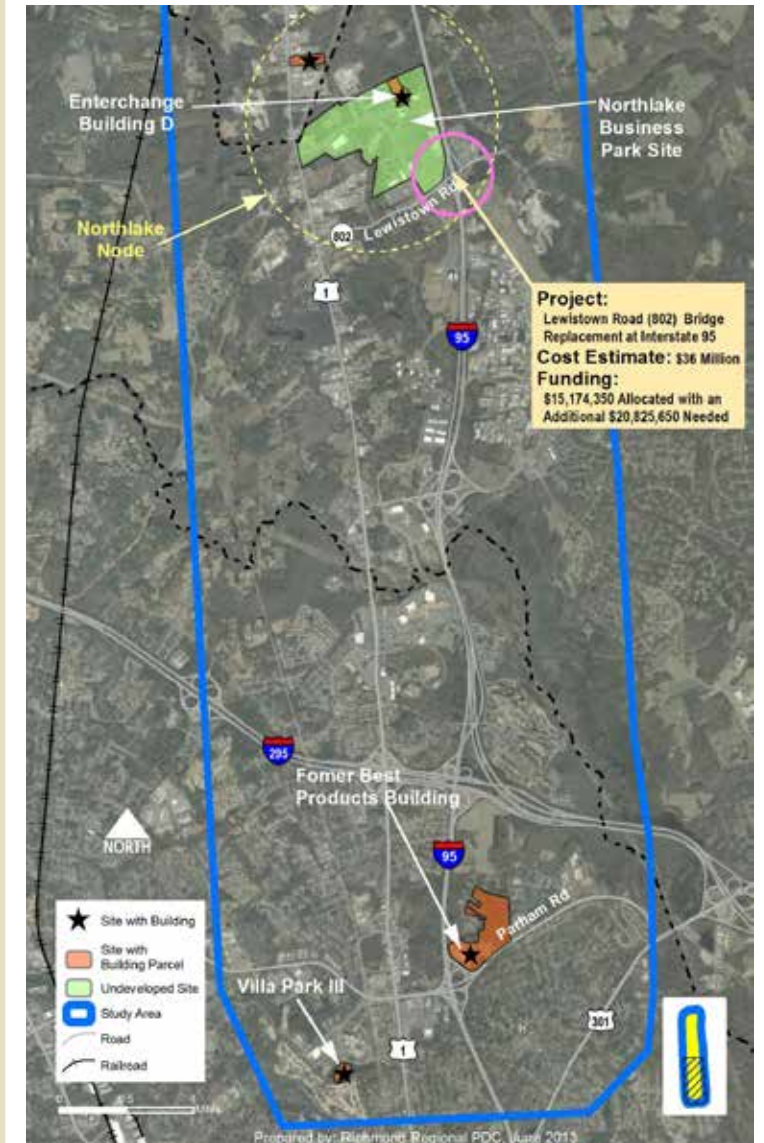
- Building IV has been purchased by VA Dept. of Game and Inland Fisheries for their new HQ

### BUILDINGS

- Former Best Products distribution building
  - 95,000 +/- sf available of distribution space
  - Potential to become class C office space or to be converted to a continuing education use
- Supply Room building
  - 100,000 +/- sf available of distribution space
  - Supply Room owns a third of the building and subleasing a portion
- 12124 N. Washington Hwy
  - 70,000 +/- sf available of distribution space
- Enterchange Building D @ Northlake
  - Proposed 302,990 sf on 18 acres
  - Pad ready
- Villa Park III
  - 63,000 +/- sf available of flex space
- Former Best Products Headquarters
  - 285,000 +/- sf available office space
  - Building on 34 acres of subdividable land with an additional 58.5 acres of unimproved land



**Exhibit 63: Route 1 - I-95/295 Focal Area (South)**





## RIC AIRPORT/WHITE OAK

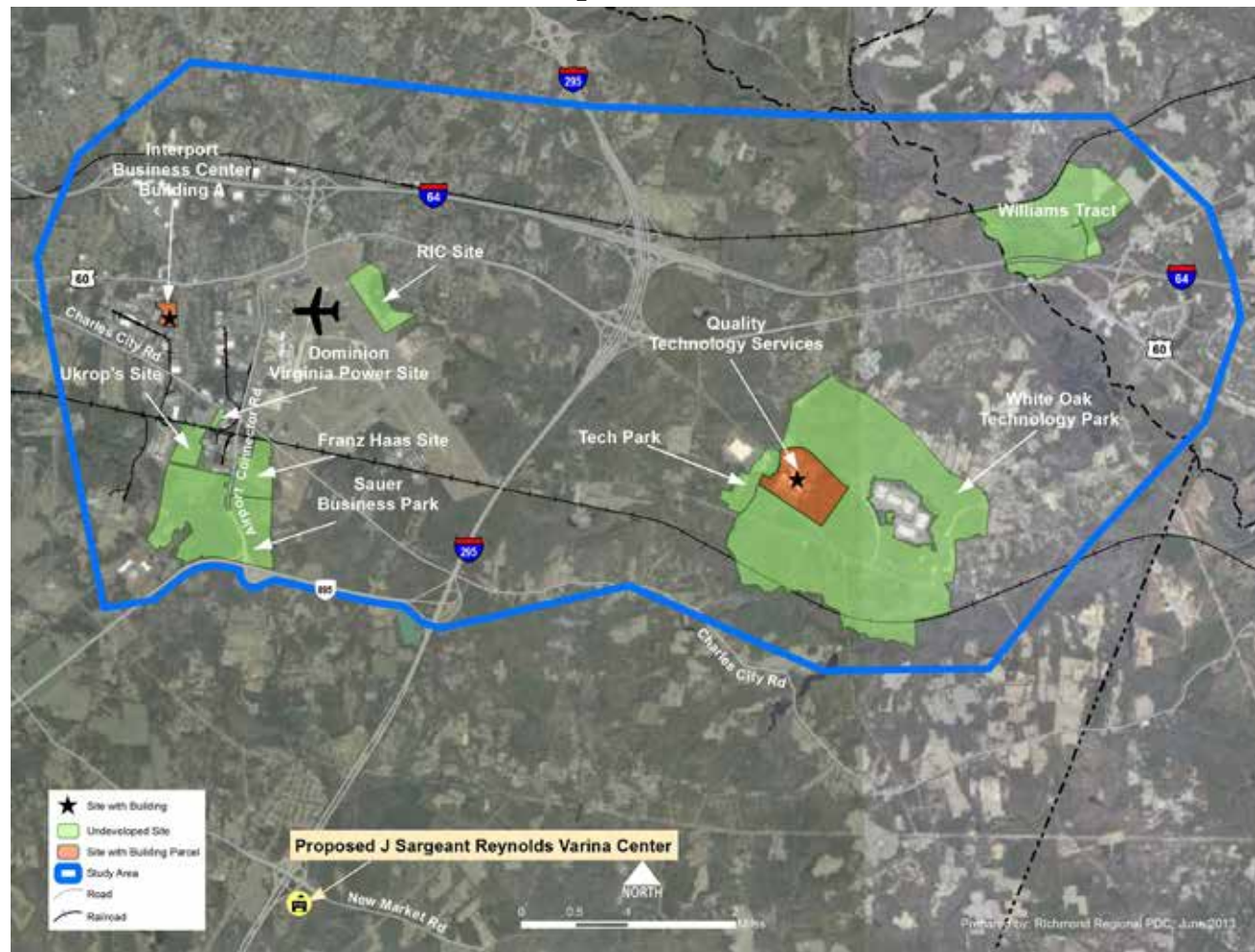
The RIC Airport/White Oak Focal Area is located east of the City, along Route 60 and I-64, as shown in *Exhibit 64*. Similar to the Route 1 – I-95/295 Focal Area there is an excellent transportation infrastructure already in place

with Route 60 and I-64 running parallel through the core of the Focal Area and bisected by I-295. Public water and sewer are generally provided west of I-295, where the industrial uses are concentrated, but utility infrastructure is limited east of I-295.

One of the major drivers in this Focal Area includes the Richmond International Airport (RIC). According to the *Richmond Region 2035 Long-Range Transportation Plan* the RIC currently serves over 3.3 million travelers per year and is reporting total cargo in the range of 90 million pounds per year. Additionally, recently completed major elements of its capital improvement program include a new terminal, 10 new airline gates, construction of a new FAA air traffic control tower, the 2010 completion of Airport Drive (creating a four-lane divided roadway between Clarkson Road and Charles City Road), and the 2011 completion of the connector between Charles City Road and Pocahontas Parkway. Its close proximity to Downtown allows for a 15 minute door-to-door commute by car.

According to the Richmond International Airport Master Plan there is also an opportunity to develop a 100 acre site within the airport, called out as RIC Site in *Exhibit 64*. The adjacent 8,000 linear foot air strip was previously used by the Virginia Air National Guard. This poses a unique opportunity to develop the adjacent site as an aeronautics research and manufacturing

**Exhibit 64: RIC Airport/ White Oak Focal Area**





facility, using the air strip as a testing site. The opportunity to capitalize on the market for unmanned aircraft and other new product development in the aeronautics industry may be a possibility to position the Region to take advantage of the emerging industry in Advanced Manufacturing.

Another important driver includes the heavily invested high-technology White Oak Technology Park, anchored by Quality Technology Services, one of the largest data center providers in the US. Although the adjacent tracts of land to the technology park have limited existing utility infrastructure in place, Henrico County has heavily invested in White Oak Technology Park over the years to attract high-technology manufacturers, including those in the microelectronics and biosciences sectors, and most recently uses as a major distribution center.

In August of 2013 Lumber Liquidators announced plans to operate a 1 million square foot distribution center here. The \$46 million project is expected to be finished in the third quarter of 2014. The new warehouse - about the size of Amazon fulfillment center in Meadowville Technology Park - is part of Lumber Liquidator's national distribution initiative and will help in creating jobs locally. Part of the deal includes Lumber Liquidators extending White Oak Creek Drive to Elko Road, allowing access of truck cargo to White Oak via I-64.

The proposed 100 acre site for J Sargeant Reynolds Community College (JRCC) Varina Center, near the intersection of I-295 and New Market Road (Route 5), will be positioned to create a direct workforce pipeline between the labor supply and future jobs. A feasibility study was recently completed calling for construction in four to five years. This is an opportunity for JRCC to form partnerships with prospective employers in RIC/White Oak, who may benefit from the technical training of students in the future i.e. high-tech firm in White Oak Technology Park and other prospective companies in RIC/White Oak in developing curriculum.

### SITES

- Dominion Virginia Power Site
  - 9 +/- acre site suitable for construction
  - Serviced by all utilities, site leveled, with rail potential

- Environmental studies still need to be completed
- Tech Park
  - 111 +/- acre site suitable for construction
  - Environmental studies still need to be completed
- White Oak Technology Park
  - 1,014 +/- acre site suitable for construction for class A and high-tech manufacturing center
  - Phase I environmental audit complete
- Franz Haas Site
  - 102 +/- acre site suitable for construction
  - pad ready site
- Sauer Business Park
  - 400 +/- acre site suitable for construction
  - pad ready site
- Ukrop's Site
  - 60 +/- acre site suitable for construction
  - pad ready site
- RIC Site
  - Potential 100 acre site (not listed on VA SCAN)
  - Ideal for aeronautics manufacturing/research/testing facility
- Williams Tract
  - 400+/- acre site suitable for construction
  - adjacent to I-64 and Bottoms Bridge exit
  - close proximity to White Oak Technology Park

### BUILDINGS

- Interport Business Center – Building A
  - 366,000 +/- sf available of distribution space
- Quality Technology Services (QTS)
  - 1.36 million +/- sf available for data processing center
  - QTS has converted old Qimonda building into a data center and investing another \$100 million in improvements with the intention of recruiting another data center.





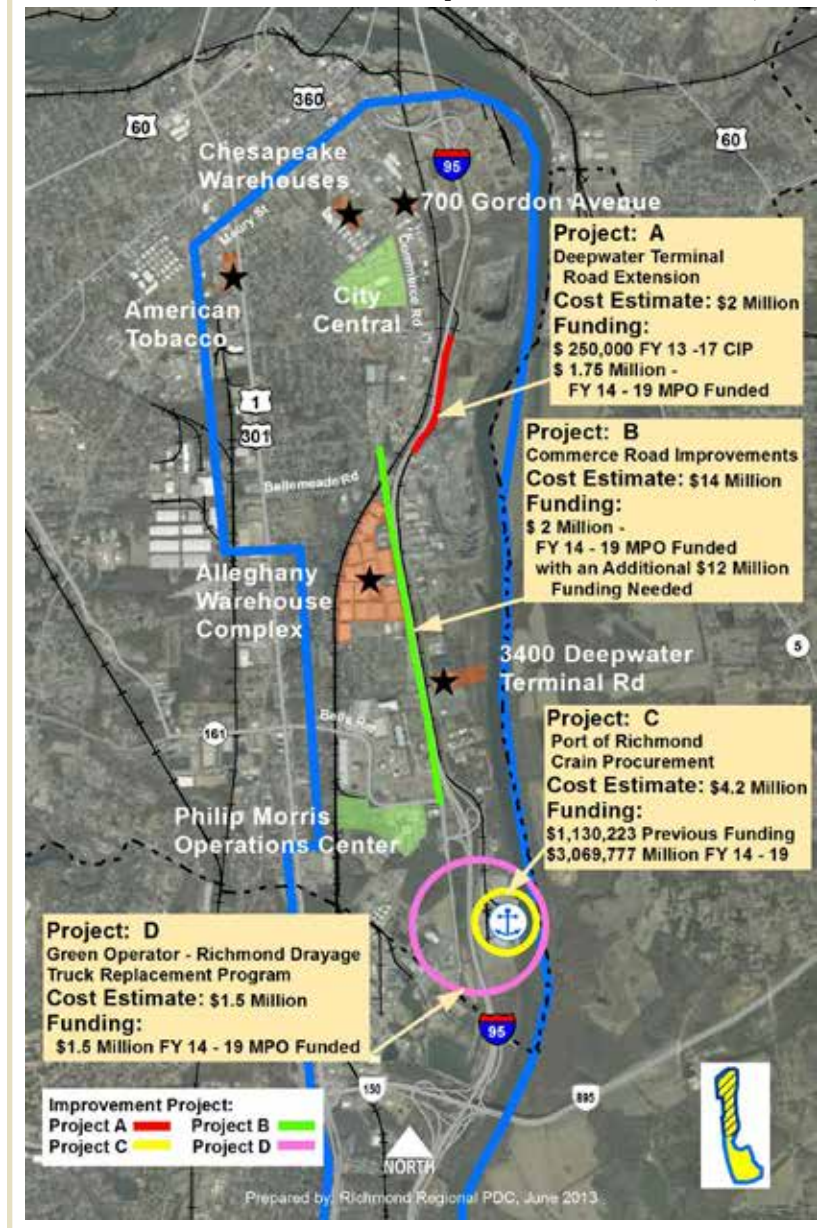
## PORT OF RICHMOND ACTIVITY AREA

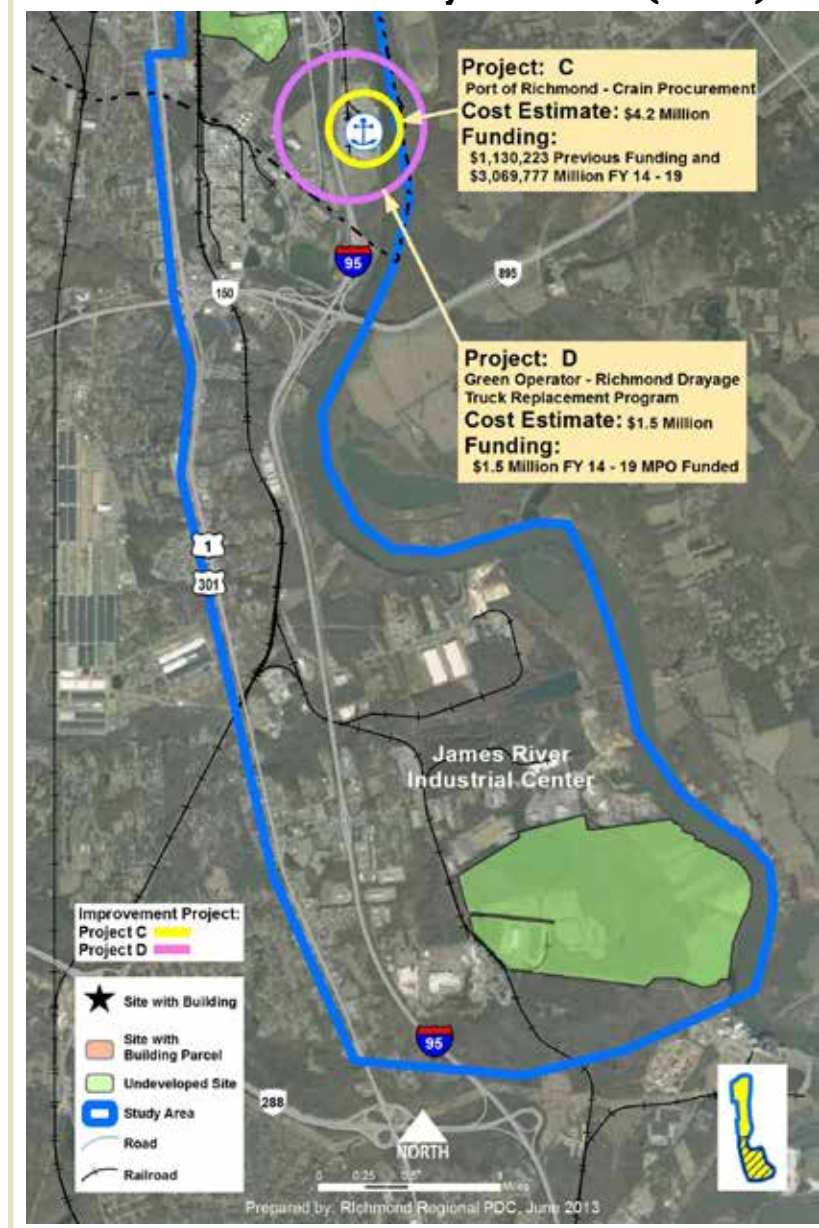
The Port of Richmond Activity Focal Area is located along I-95, confined by the James River to the north and Route 288 to the south, as illustrated in *Exhibits 65 and 66*. Potentially one of the greatest economic development drivers in the Region is the Port of Richmond by virtue of its location with access to the James River; close proximity to the major corridors of I-95, I-64, I-85, I-295 and US 460; the railway of CSX, the Port of Richmond is strategically positioned to take advantage of intermodal freight activity.

According to the *Richmond Region 2035 Long-Range Transportation Plan* prepared by the Richmond Area Metropolitan Planning Organization, the lease and management of the Port of Richmond was assumed in July 2011 by the Virginia Port Authority (VPA) from the City of Richmond with the option to renew for three successive five-year terms. The presence of VPA in the City drives Virginia's international gateway 100 miles inland, allowing VPA the opportunity to redefine the future purpose and vision of the Port of Richmond and adjacent land uses. A container-on-barge service currently operates between the Port of Richmond and the VPA terminal of Hampton Roads three days per week, allowing an alternative to truck cargo traffic along I-64 and US 460. A fully loaded barge has the capacity to carry up to one hundred containers. As of late 2011 the primary cargoes moving on the



**Exhibit 65: Port Activity Focal Area (North)**



**Exhibit 66: Port Activity Focal Area (South)**

large service included paper for Mead Westvaco and tobacco for Altria and Universal Leaf.

Increased activity at the Port of Richmond creates significant potential for job creation both within the gates of the port, but most significantly on adjacent properties around the Port and throughout the Region in the logistics, transportation, warehousing and processing sectors. This type of job creation can be particularly beneficial by creating entry-level and initial career-step job opportunities in logistics, manufacturing and the trades for low income populations located in close proximity, as indicated in *Exhibit 33*.

Despite the great assets of the James River and the renewed Port of Richmond there is unrealized potential. An existing unused rail line connects properties along Deepwater Terminal Road to the Port. The development of this short haul rail line would allow freight delivered to the Port to be moved via rail to nearby warehouses, increasing efficiencies and the marketability of nearby buildings and properties for job creation. In fact, the Virginia Department of Rail and Public Transportation (DRPT), through the VPA, is funding the four and a half mile stretch of short haul rail line leading up to the CSX rail line at Goodes Street, along Deepwater Terminal, for improvements.

The Bells Road interchange and height clearance limitations for the underpass leading from Commerce Road to Deepwater Terminal Road impedes the efficient movement of good to and from the Port. The two existing Deepwater Terminal Road I-95 overpass clearances at the Bells Road and Commerce Road intersections are only 14 feet and not adequate for large truck cargo access to the Port. With these obstacles in mind a number of road improvements have been identified by the Richmond Area MPO and the City of





Richmond to improve access to the Port of Richmond, including the following funded projects:

- Deepwater Terminal Road connector to Goodes Street to provide and address height limitations related to the underpass at Bells Road (Project A)
- Improvements to Commerce Road (Project B)
- Improvements to Bells Road interchange (currently no planned funding)

Other road access constraints exist further south near James River Industrial Park, shown in *Exhibit 66*. The configuration of the current interchange is very tight for trucks transporting inbound and outbound goods. Improvements to the Willis Road interchange on I-95 will promote economic development related to the Port, enhancing industrial goods movement potential from the James River Industrial Park and the Defense Supply Center. Thinking holistically, excellent opportunities for cargo transport from the Port within the Region and beyond from Fort Lee and Centerpointe Industrial Center (Rolls Royce) in Prince George will be essential to create a productively viable Inland



Port of the VPA port system.

## SITES

- James River Industrial Park
  - 506 +/- acre site suitable for construction
  - Utility infrastructure is on site and designed for heavy industrial users
- Altria/Philip Morris Operations Center site
  - 570,000 +/- sf available for office/manufacturing/research space
  - 186 acre site, or 60 acre portion with existing building
- City Central
  - 20 acres clear and available for industrial/distribution space with existing warehouse on adjacent 30 acres of land which will be demolished (no timetable has been identified on demolition)
  - City interested in having a virtual site located here

## BUILDINGS

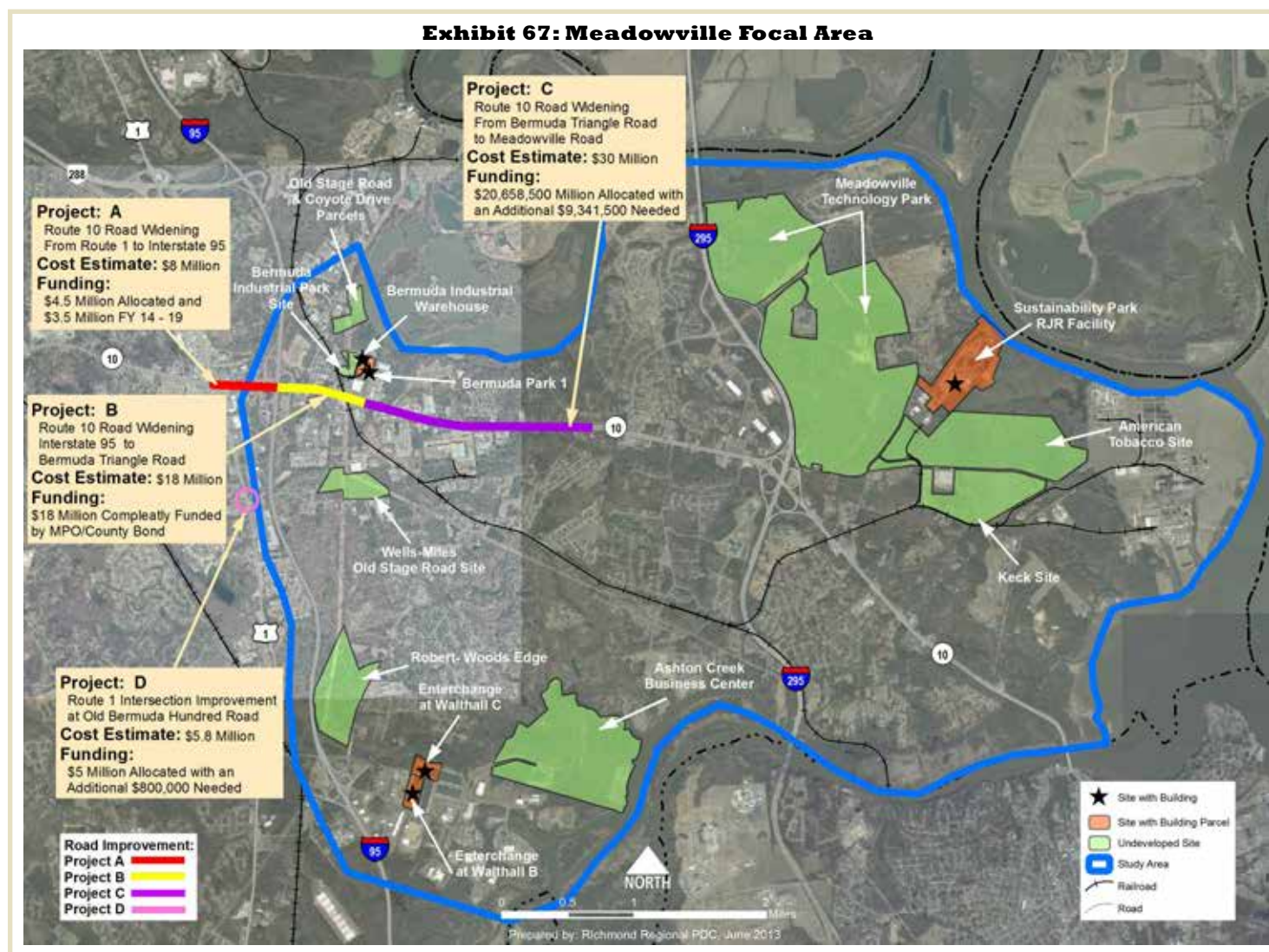
- Alleghany Warehouse Complex (redevelopment)
  - 1.2 million sf available
  - Phasing in demolition and development after current leases expire
  - City interested in having a virtual site located here which would help speed up the approval process for redevelopment
- Altria/Philip Morris Operations Center
  - 570,000 +/- sf available for office/manufacturing/research space
- 3400 Deepwater Terminal Road
  - 179,000 +/- sf available
- Chesapeake Warehouses
  - 164,000 +/- sf available of warehouse space
  - Need funding for demolition of warehouses along with strategic assistance
- 700 Gordon Avenue
  - 130,000 +/- sf available of distribution/flex space
- American Tobacco Warehouse
  - 120,000 +/- sf available of warehouse space



## MEADOWVILLE

The Meadowville Focal Area is located south of the Port of Richmond Activity Focal Area, bound by the James River to the east and Route 1 to the west,

shown in *Exhibit 67*. Chesterfield County has heavily invested in this area over the last twenty years through transportation and infrastructure projects, specifically around Meadowville Technology Park. As such, this area offers a great transportation network with I-95 and I-295 and close proximity to





I-85 and US 460 to the south. Similar to the Port of Richmond Activity, Meadowville offers potential for job creation throughout the Region in the logistics, transportation, warehousing, and processing sectors. Additionally, economic development investments in Meadowville Technology Park offer opportunities in data center and corporate sites.

Three of the major anchors at Meadowville includes the Amazon distribution center, Virginia Information Technology Agency, and Capital One's data processing center, located at Meadowville Technology Park. Amazon has invested \$85 million for the Meadowville Technology Park location, creating 1,000 jobs, and an additional \$50 million in nearby Dinwiddie County, expected to create 350 jobs. The Meadowville fulfillment center has 1.1 million square feet of distribution space and started sending packages in October 2012. In June 2012 Capital One announced it was investing more than \$150 million to establish a new data center. Both of these announcements provide employment opportunities to the entire Region.

Close proximity to the Tri-Cities, Fort Lee and Prince George offer key markets just outside the Region. The Commonwealth Center for Advanced Manufacturing (CCAM), located in nearby Prince George, is an applied research center that bridges the gap between research typically done at university level and product development routinely performed by companies. CCAM has been able to accelerate the transition of research innovation from the laboratory to commercial use. CCAM was established in 2010 and began operation in January 2011 through a partnership with a number of universities and employers including the University of Virginia, Virginia State University, Virginia Tech, Canon, Rolls-Royce, Newport News Shipbuilding, among others. This positions Advanced Manufacturing and high-tech companies in Meadowville the opportunity to accelerate their research and development through some type of partnership with CCAM.

The major constraint in Meadowville includes access to and from Meadowville Technology Park to I-95 via Route 10. Currently, Route 10 (east of Route 1) has 4 lanes. The current capacity will not be able to support the anticipated employment growth in and out of Meadowville Technology Park. To help alleviate traffic for commuters and cargo trucks on Route 10 funding has been allocated to widen the lanes to 6-8 lanes. As illustrated in *Exhibit 67*, Projects A-C shows where the investment along Route 10 is being made.

### SITES

- Meadowville Technology Park
  - 973 +/- acre site suitable for construction
- Old Stage Road and Coyote Drive Parcels
  - 31 +/- acre site suitable for construction
- Bermuda Industrial Park Site
  - 16 +/- acre site suitable for construction
- Wells-Miles/Old Stage Road Site
  - 64 +/- acre site suitable for construction
- American Tobacco Site
  - 296 +/- acre site suitable for construction
  - Electric transmission feed to the site can be configured to provide service from two transmission sources
- Keck Site
  - 107 +/- acre site suitable for construction
  - Property is positioned to offer availability for redundant power
- Robert-Woods Edge
  - 125 +/- acre site suitable for construction
- Ashton Creek Business Center
  - 347 +/- acre site suitable for construction
  - Needs some additional infrastructure – increased water flow capacity

### BUILDINGS

- Enterchange at Walthall C
  - 218,000 +/- sf available of distribution space
- Enterchange at Walthall B
  - 48,000 +/- sf available of distribution space
- Sustainability Park (RJR facility)
  - 100,000 +/- sf available of heavy industrial space
- Bermuda Park 1
  - 54,000 +/- available of warehouse/distribution space
- Bermuda Industrial Warehouse
  - 90,000 +/- sf available of warehouse space







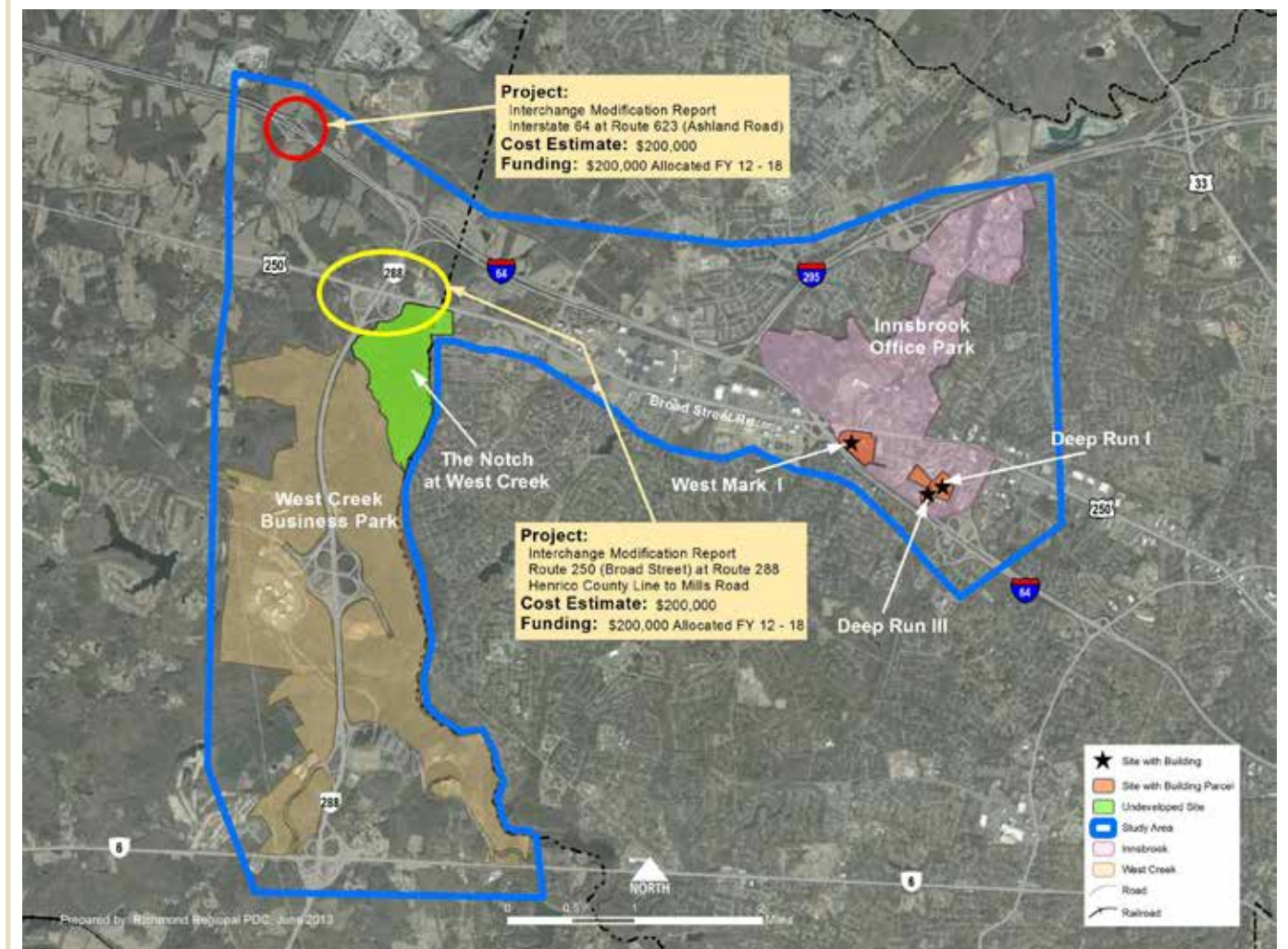
## INNSBROOK / WEST CREEK

The Innsbrook / West Creek Focal Area captures Innsbrook and Short Pump, along Henrico's West Broad Street, as well as the eastern portion of Goochland County, where West Creek is located (*Exhibit 68*). This area includes mixed-use, office, retail/commercial, and residential uses. Innsbrook and West Creek represent major employment centers in the Region including large corporate offices such as Markel, Capital One, CarMax, and Dominion Virginia Power. West of Innsbrook is the retail center of Short Pump Town Center and the recent mixed-use development of West Broad Village. Similar to the aforementioned focal areas, Innsbrook / West Creek has good transportation access, situated near two major highway systems – I-64 and I-295 on the east and Route 288 to the west. Route 250/West Broad Street bisects the area connecting to these major regional connectors.

Innsbrook is roughly 1,300 acres consisting mostly of Class A office space ringed by retail and residential. Innsbrook has traditionally been identified as a corporate office park. According to Henrico County's Vision 2026: Special Focus Area – Innsbrook Study Area, in 2009 the Henrico Board of Supervisors authorized its Planning

Department to study changing the land-use designation for Innsbrook from Office to Urban Mixed Use (UMU). In 2010 its Board of Supervisors designated Innsbrook as a mixed-use for future land use, an Urban Development Area (UDA) and a Technology Zone. This re-designation of land uses allows

**Exhibit 68: Innsbrook / West Creek Focal Area**



for high density development to be requested through rezoning action to a UMU district.

The InnsbrookNEXT Master Plan sets a framework for designing new infill development, transforming Innsbrook from a suburban office park into a mixed-use urban community. The creation of an urban street grid, adding structured parking facilities, vertical integration of retail and residential, and improving the parks and open spaces will foster an environment where people will live, work, and play. This will provide development opportunities for a variety of businesses, retail, and residential uses on land currently underutilized by surface parking areas. Future development will incorporate these higher density uses through several districts and phased in over the long term. This will create economic development opportunities and job creation within the retail sector and higher paying jobs especially within the Professional and Creative Services and Finance and Real Estate employment clusters, along with a substantial number of entry-level support jobs.

West Creek was developed over twenty years ago with the intent of creating a large scale corporate headquarters office park. West Creek is currently home to Capital One, CarMax, Virginia Farm Bureau, Hospital Corporation of America (HCA), and Performance Food Group. The business park totals approximately 3,200 acres of land, with 800 acres developed, 1,700 acres undeveloped, and another 650 acres are preserved in the flood plain.

The Notch at West Creek is a newly approved 230-acre mixed-used development in the northern portion of West Creek, located at the interchange of Route 288 and West Broad Street. This project will include multi-family housing, a medical office park, retail and corporate offices. The first phase of the project was started in the late 2012, beginning construction of a 3-mile road connecting West Broad Street with Tuckahoe Creek Parkway, allowing West Creek direct access to West Broad Street. Similar to Innsbrook this will allow job creation opportunities, specifically in the Health and Life Sciences employment cluster.

These future developments in Innsbrook / West Creek will require investments in infrastructure as density and traffic increases. Improvements to Route 288/ Route 250 interchange and I-64/Ashland Road (Route 623) will be necessary to support future development areas such as the Notch and other sites in

West Creek as well as adjacent developments in Henrico County. RAMPO has funded interchange modification studies for both of these (*Exhibit 68*) with the results expected in the first quarter of 2014. Contracted public sewer from the City and the public water from Henrico County to serve the Tuckahoe Creek Sanitary District provides adequate capacity limits to accommodate this growth but will necessitate new line extensions for distribution.

## SITES

- West Creek Business Park
  - 1,600 +/- acres available
  - Ideal for corporate headquarters site
- The Notch at West Creek
  - 230 +/- acres of mixed-use development to include multi-family, medical offices, retail, and corporate office

## BUILDINGS

- West Mark I
  - 225,000 +/- sf available of office space
  - Ideal for a corporate headquarters
- Deep Run I
  - 91,000 +/- sf available of office space
- Deep Run III (former Circuit City building)
  - 200,000 +/- sf available of office space





# IX: Strategies

## STRATEGY PREMISE

By its very nature, the Richmond Regional CEDS is aligned with a renewed way of thinking about how metropolitan areas should operate as expressed by a recent issue of the Next American City: Brookings Metropolitan Policy Program (Bruce Katz and Jennifer Bradley, “Mastering the Metro”, Forefront, Vol. 1, Issue 6):

“...new collaborations among business incubators and community colleges are working to grow (and prepare workers for) better jobs. Networks like these have been slowly rising for some time, but they have never been better suited to our current political and economic moment. The realities of economic restructuring, global competition, fiscal pressures, environmental imperatives, technological possibilities and a dysfunctional federal government require new models of collaboration within and among metropolitan regions.”

Observed by Colorado Governor Hickenlooper, “Collaboration is the new competition.” Metropolitan areas more and more realize they need to collaborate to be globally competitive.

The authors of the Brookings study outline a helpful framework for a path forward for the formulation of integrated CEDS strategies, and subsequent efforts to keep it refreshed, as follows:

1. **MEASURE WHAT MATTERS**, in other words “change how we measure growth and propriety in metropolitan America” using the ‘right’ statistics such as exports, migration, industry clusters, innovation, and human capital.
2. **DARE TO BE DIFFERENT** and employ strategies that rise up from a clear understanding of the metropolitan region itself - rather than ‘shelfware’ strategies - so that the region can operate proactively more like a successful business enterprise.

3. **SEE THE WORLD**, and look beyond our own regional boundaries for global models that have similar business/industrial clusters, partnering to network, learn and operate with the benefit of other regions.
4. **THINK LONG-TERM, ACT NEAR-TERM**, gaining impetus from preparing for future events or activities, allowing the milestones to drive permanent, more efficient ways of planning and operating.
5. **FIND LEADERS THAT REFLECT WHO YOU ARE NOW, NOT WHO YOU WERE 50 YEARS AGO**, suggesting that new partnerships within metros which create a ‘broader and more diverse set of leaders, as heads of non-profit and philanthropic organizations, such as hospitals, universities and foundations, have become more involved and exerted greater influence.”



Our CEDS research has been broadly cast. While working through the wide variety of statistical sources and the extensive work of many partner organizations, we probably have only scratched the surface in our quest to identify all the ingredients of a ‘strategy’ that is comprehensive enough in its scope to address the community needs for economic development. The CEDS strategy cannot be the single answer for addressing such a wide-ranging set of community needs, but it is a starting point. A more appropriate way of presenting the strategy would be to provide a menu of options, from which to devise a recipe for success.

Therefore, what this CEDS attempts to do is to help to order the ingredients which, if combined to effect real economic growth and development, will make a difference. The work toward an economically viable, sustainable Region will never be finished, but what should we do first? What can we do best given the resources, opportunities and challenges we have? How can the incremental actions benefit the collective whole to ensure that strengthening the Region also benefits the Region’s localities and their residents? For purposes of the CEDS, success is expressed by a single vision statement around which five central goals are organized for directing recommended actions.







### VISION

#### STRATEGIC INVESTMENTS IN HUMAN CAPITAL AND PHYSICAL INFRA-STRUCTURE WILL LEAD TO A MORE DYNAMIC RICHMOND REGION.

The central purpose of the CEDS is to combine essential elements related to workforce and physical infrastructure to address where and how the Region can most strategically invest to create sustainable jobs for the workforce now and in the future. Goals, objectives, strategies, actions, and ideas about models both in the Region and elsewhere form an operational framework for overall strategy development and are presented in *Exhibit 69* as a Draft Strategy Matrix:

- 1 Create Best-In-Class Pre-K-12 Public Education System
- 2 Expand Productive Workforce Participation
- 3 Focus Capital Investments on Priority Economic Development Opportunities
- 4 Grow and Retain Jobs that Advance the Region
- 5 Expand Regional Choice in Housing and Transportation Access to Employment

#### CAPITAL REGION COLLABORATIVE

The conversation around these goals began in 2010 through the actively engaged public participation process of the Capital Region Collaborative (CRC), and continues today through the CRC work groups and the CEDS Strategy Committee. To summarize, the CRC is a cooperative effort between the RRPDC and the Greater Richmond Chamber of Commerce (GRCC) to engage community, government, and business stakeholders in a process of identifying, prioritizing, and implement actions that will enhance the quality

of life in the Region. The CRC is led by an Organizing Council comprised of representatives of government and business.

The public communication process began with focus group identification of a 'strawman draft' made up of seven regional priorities which were used to generate wide reaching conversation in more than 85 different public forums involving 8,000+ participants. The outcome of the public process yielded seven (7) key priorities considered central to the Richmond Region's sustained health, well-being and thriving:

1. Workforce Preparation
2. Job Creation
3. Quality Place
4. Coordinated Transportation
5. Healthy Community
6. James River
7. Social Stability



The public input gained through the 2010-2011 dialogue has formed the basis for work by active multi-sector work groups who reported on their recommendations to the Organizing Council from June to September 2013. Key issues revolving around the work of the CRC have informed the CEDS process and contribute to recommended actions and models as identified in the CEDS matrix shown in *Exhibit 69*.

### CLIMATE FOR JOB CREATION

The culmination of the Richmond Region's Comprehensive Economic Development Strategy is focused on Job Creation and understanding the economic ecosystem required to best ensure success in creating additional employment opportunities in the Region.

Throughout this study we have taken a high level snapshot of the existing economic development landscape, exploring demographic trends, identifying indicators of economic well-being, examining the barriers to opportunity in distressed areas, systems already in place or lacking for education and





workforce training, and the community infrastructure of land use, transportation, utilities, arts and culture that provide the very foundation for economic advancement.

The previous section of the report more specifically addressed the geography of sites and buildings, those poised and marketed to accommodate new and expanding employers, and their locations relative to workforce and investments which can start to identify gaps and priority projects.

A companion analysis of Job Creation by the Capital Region Collaborative work group provides a good framework for developing strategies to address employment growth through a multi-tiered approach to:

1. Attract New Business
2. Grow and Retain Existing Business
3. Match Supply of Jobs with the Demand for Jobs

Workforce is the critical component for all three, with the first and second strategy area centered principally on the quantity of jobs; and the third, more of a quality assessment. As pointed out in the Workforce section of this report, there are a number of ways to address the skills mismatch, and the competitive environment demands the Richmond Region to better equip our existing workforce through education and training with skills that are in demand. Job creation strategies must build on the positive attributes and overcome the obstacles to Recruit, Grow and Incubate jobs both in absolute terms, and those that are the right kind of jobs to ensure positive growth.

Review of research for this CEDS (see Bibliography) paints a broad picture of the positive and negative attributes of the Richmond Region for job creation, particularly for attraction and start-ups recognized by the strategies and summarized as follows:

### STRENGTHS/OPPORTUNITIES

- Location
- Diversity of employment base

- Higher education
- Lack of traffic congestion/ease of travel

### WEAKNESSES/CHALLENGES

- Strain on resources to implement, conservative approach
- Lack of confidence-leadership, common agenda, silos of information
- Disparity of wealth, opportunity and choice

Recognizing the need for a balanced, ongoing, long-term effort especially in the areas of education and workforce (See Strategy Matrix, Goals 1 and 2), there are a number of immediate action steps that should be taken to contribute to a more complete Job Creation climate, along with preliminary recommendations for corresponding implementation partners:

### IMMEDIATE ACTIONS

1. Continue building GIS inventory layers of Community Infrastructure for base line analysis by the RRPDC, including Socioeconomic data, transportation networks, existing land use and corridor analysis.
2. Use the CEDS and the CRC platform, work group process and CRC Organizing Council recommendations as a springboard to form active collaborative networks arranged around common and cross-sector purposes, with

special emphasis on:

- Education curriculum (all levels)- involving school systems, non-profits, Bridging Richmond, Adult Basic Education, Community College Workforce Alliance
- Workforce Preparation-Resource WIB, City Pipeline, local EDAs, GRP, CCWA, Higher Ed practitioners
- Distressed Neighborhoods Region-wide-Mayor's Anti-Poverty Commission, housing & community health non-profits, local community development and revitalization staffs, GRTC
- Job Creation-GRCC, Richmond's Future, Start-up promoters, angel investors, GRP, small jurisdiction economic developers



3. Form data advisory committee with cross-sector participants to foster working relationships and assign responsibilities to identify existing data regularly collected, determine data gaps and immediate needs to fill in order to measure performance starting with the general guidance offered by the CEDS; set up data sharing protocol and responsibilities for maintaining (RRPDC responsibility to be determined with Community Indicators project).
4. Working with the GRCC, local economic developers, and local chambers, VEDP, and Retail Merchants Association, broaden a business retention and contact program to the smaller localities (similar to GRP Business First) setting up trained volunteers with local knowledge to contact local business and industry and report back challenges and opportunities to be addressed by the locality, through the Regional network, or State.
5. RRPDC will collaborate with the Workforce network using similar models such as those offered in Cincinnati to establish cross business career ladder for employment referrals through local business community, and with the local 4-year colleges and universities to establish a tracking system for retained graduates in the Richmond market.
6. Provide support through the GRCC and others to support the business start-up network needs identified for priority in the April 2013 “Developing a Startup Ecosystem in Richmond” by William & Mary for New Richmond Ventures, including securing an iconic space for start-ups and more active involvement of higher education institutions.
7. Propose and provide documentation that supports effective routing expansions of the GRTC to serve underserved populations while creating better service for existing employment centers, i.e. CJW Hospital-Boulders, Stonebridge. Work through the CRC Transportation work group to accomplish the objectives outlined in their report.
8. Focus joint local, Regional, and State efforts for revitalization in the Region’s distressed neighborhoods starting with the **Port of Richmond Activity Focal Area** that offers a direct link between expanded port activity jobs and surrounding neighborhoods (50,000 estimated population);



directly tie job training with employers in the area and prioritize capital improvement investments to leverage additional sources of funds, including both physical infrastructure and workforce training programs.

## PORT OF RICHMOND LOGISTICS STRATEGY

Using this focal area as a high priority example for building a strategy made up of many ingredients, we provide the following scenario that weaves together knowledge of existing resources, investments and opportunities to identify gaps or challenges that could be met through a project which brings together a variety of sources and partners toward the creation of an inland logistics hub:

1. **Background** – The James River Barge Service received start-up funding from RAMPO providing a direct connection to the tidewater ports operated by the Virginia Port Authority (VPA). Since the VPA began managing the Port of Richmond in the Summer of 2012, the amount of freight received by barge has significantly increased; 3-day a week service is soon to expand to 5-days a week. Major employers such as Altria and DuPont view the I-95 Corridor as their front door. Others with product to be shipped and operating to the south in the Bellwood/James River Industrial Center see the potential for connecting market access points inland and also capitalizing on Fort Lee and Rolls Royce activity.
2. **Site/building opportunities** – Within the vicinity of the Port, selected sites and buildings available for reuse or redevelopment as reviewed in the Focal Areas and Sites section of this report collectively offer more than 742 acres and 1.8 million square feet of building potential most suited for uses in logistics, transportation, warehousing and processing sectors.
3. **Infrastructure Improvements** – Approximately \$4.0 million in capital improvements have been identified or committed to related off-site improvements in the area of the port, including initial improvements to Deep Water Terminal and Commerce Roads. On-site operational improvements to the Port committed by RAMPO are on the order of





\$5.7 million over the next 5 years. Additional capital improvements to improve the short haul rail connections are planned as described in the previous section of this report and are essential to provide a competitive rail component. The funding gaps for full realization of Port logistical potential are substantial, including possible I-95 interchanges to replace Bells Road and Willis Road, but these could be driven by private redevelopment of the sites/buildings if improved access to the Port and points beyond are provided.

4. **Building Workforce Connections** – An estimated 50,000 working age (ages 18-64) population reside within or in close proximity to the Port, and of these, more than 40 percent are considered to be residing in low-and-moderate income households. Further research can identify other pertinent characteristics of this population, including educational attainment and employment status to begin to craft appropriate workforce training programs which need to be addressed for the area population to be employed in port related industry. Such workforce training skills would be related to the trades (welders, machinists, etc.) and cross-parallel skill development related to transportation (logistics) and manufacturing. With sufficient need and demand, a strong workforce training component would be a natural ingredient for any employer attraction strategy.
5. **Development Incentives and Leveraged Funding** – Underwriting site acquisition, partnering among investors and City or Chesterfield County on infrastructure improvements related to water-dependent industry, promoting tax incentives for port activities leveraging outside funding by the EDA and other sources for public works and workforce training would also be an essential culmination of the strategy for the Port Activity Focal Area, providing the impetus required to overcome the obstacles faced with aging infrastructure and outmoded buildings. Programs of the EDA have identified competitive funding rounds in which further development of the Port Area strategy would be competitive, i.e. Investing in Manufacturing Communities Partnership (IMCP) which is focused on targeted industries that will enhance regional competitiveness, build on assets of region, and



attract significant private investment. Additional incentives such as those offered through the Foreign Trade Zone, the Enterprise Zone, and Income Tax Credit for new cargo by rail or barge provide a strong foundation for renewed activity related to the Port. The newly formed Logistics Roundtable of Richmond's Future provides a strong starting point for Regional discussion of strategies.

## RIC AIRPORT / WHITE OAK EDUCATIONAL COLLABORATION STRATEGY

1. **Background** – As described and depicted by *Exhibit 64*, significant drivers of economic development are present in the area around the airport, offering a variety of older industrial sites and buildings along the Laburnum Avenue corridor and larger sites with several structures suited for high-technology uses. The value-added potential in the area includes an 8,000 linear foot unused runway (former Air National Guard), a 100-acre adjacent development site controlled by the Capital Region Airport Commission, and proposed 100-acre site for the new Varina Center of J. Sargeant Reynolds Community College.
2. **Infrastructure Improvements** – Specific capital improvements have not been identified that could leverage additional funding, but private investments in repurposing the QTS building in White Oak and public investments in infrastructure have positioned the area to attract data centers that require secure sites with redundant power. There is also a good 'reshoring' platform (not only in White Oak, but also Meadowville and West Creek) to attract large multinational firms looking for an east coast satellite or relocation of headquarters from other states or within the Commonwealth.
3. **Building Workforce Connections** – This is the golden opportunity offered by the prospect of the Varina Center on a 100-acre site at I-295/895 and Route 5. Developing curriculum keyed to growing careers in advanced manufacturing, related to the aeronautic industry and/or supplementing gaps with the CCAM





and area universities collaboration put the JSRCC in a foundational position as plans get underway for the new center.

4. **Development Incentives and Leveraged Funding** – Given the investments made to-date, available facilities, and the potential rooted in workforce training, a strategy geared to bringing all these components together would be competitive for EDA challenge grant opportunities such as the i6 Challenge grant to establish the Virginia Innovation Partnership, a proof of concept center that supports entrepreneurs and new ventures throughout the Commonwealth in partnership with UVA, Virginia Tech and SRI International.

## REGIONAL INFRASTRUCTURE CONNECTIVITY STRATEGY

1. **Highway infrastructure:** In addition to infrastructure improvements proposed for specific focal areas, a number of Region-wide improvements are being studied and represent a component of a multi-faceted strategy development to support private investment and tourist dollar attraction:
  - I-95/I-64 Overlap Study-VDOT study from Hermitage Road interchange to the James River Bridge, \$45 million of \$62 million allocated FY 2015-2019
  - I-64 Peninsula Draft Environmental Impact Study-Alternative 1B endorsed by the RAMPO calling for addition of a general purpose lane in the median through Federal and State support.
  - Route 288/Route 250 and I-64/Route 623 Interchange Modification studies with recommendations expected in early 2014
2. **Transit/alternative mode connections**
  - Incremental rail improvements that can decrease passenger travel time between Richmond and Washington DC, identify small projects of independent utility in a phased approach with the Virginia Department of Rail and Public Transportation
  - Bus bridge between Main Street Station, Staples Mill Station and Richmond International Airport-inter-transit shuttles coordinated with air and train schedules to provide seamless connections especially

important for the business and tourist travelling public; this is a recommendation of the CRC Transportation workgroup.

- Bus Rapid Transit (BRT) between Rocketts Landing and Willow Lawn focused on spurring revitalization and job growth in the Broad Street corridor with a total cost of \$68 million, one-half to be supported by Federal funds, \$17 million by the Commonwealth and a \$17 million gap to be fulfilled locally, along with \$4-\$5 million in annual operation
  - Expand public transit options Regionally along major corridors as a way to provide access to jobs by urban residents and provide better overall connections for everyone, starting with incremental steps as recommended by the CRC transportation workgroup report, including a downtown circulator, satellites at main transit route termini such as West Creek / Innsbrook / Short Pump, as supported by population density, employment activity and commuting patterns.
3. **Telecommunications Systems**
    - The Region has areas of weakness, both within the urban core, but most especially in the rural jurisdictions that need to be addressed fully utilize distance learning, expanding businesses, new industries and tourism opportunities. The CRC has called for a collaborative group of providers, localities, educators to work together to better pin-point specific barriers and recommended solutions that could be addressed as any other economic development infrastructure need.
  4. **Utilities (Water, Sewer, stormwater, gas)**
    - Localities in the eastern portion of the Region are more limited in terms of public water due to geology and their necessary dependence on groundwater resources. Building on excellent multi-jurisdictional cooperation for water supply planning, New Kent and Charles City counties need to be involved in overall planning in order to support economic development in their own jurisdictions that can also have a Regional impact. There is significant unmet demand by food and beverage manufacturing and distribution right now which are big water users, and also require large sites, transportation access and reliable workforce. Many of these ingredients are available in the more densely developed counties of the Region. Natural gas is also a utility need that requires Regional collaboration as system-wide capacity constraints have begun to affect development potential from Richmond into southeastern Virginia.



**Exhibit 69: Goals, Objectives, and Strategies**

GOALS	OBJECTIVES	STRATEGIES	ACTIONS	MODELS/SOURCES
Goal 1 - CREATE BEST-IN-CLASS Pre-K to 12 PUBLIC EDUCATION SYSTEM	<b>1.1 - IMPLEMENT CRADLE TO CAREER PARTNERSHIP (See Bridging Richmond and CRC Workforce Preparation Report; shared Regional agenda)</b>	1.1.1 Establish readiness goals for kindergarten focused on areas with low pre-school attendance or options	1) Focus holistic approach on families with children at-risk* by census tract/ block group (*low parental-education level, homelessness, developmental delay, poverty, few pre-school options) 2) Explore ways to create a coordinated 'system' of pre-schools for the Region	1) United Way Smart-Beginnings, Virginia Pre-school Initiative; Head Start; Results Based Accountability (RBA) approach to success measures 2) Va. Early Childhood Foundation, Smart Beginnings-Virginia Star Quality System
		1.1.2 Establish and Make Readily Available Creative Ways to Learn Year-Round	Regional school systems best practices; develop partnerships with families, providers, and sponsors; transportation to sites;	MSiC (i.e. Arena Racing); Chesterfield Children's Engineering; STEM Camps; Summer Reading Clubs; Goochland Artists-in-Residence Program; Out-of-School (OST) network options
		1.1.3 Use Innovative Technology to Enhance Learning both inside and outside the classroom	More technology in classroom, new instructional methods, i.e. project based; shared resources pooled with transportation connections	look for high quality blended learning programs to leverage technology; Ibots, Robotic, Lego competitions; consider James River outdoor classroom for biology and ecology; Danville, KY schools project based learning
		1.1.3 Increase public school competitiveness	Foster range of options based on successful models, i.e. charter, Governor's, & specialty schools based on experiments underway or success achieved; market public schools to all	Patrick Henry School of Science & Arts ES (in progress); replicate Maggie Walker Gov School; IBM partnership in Chicago for 6-yr HS with community colleges
	<b>1.2 - INTERVENE IN CULTURE OF ISOLATED POVERTY</b>	1.2.1 Complete neighborhood and key corridor improvements (City and surrounding counties)	Support organic efforts already occurring, recognize need to expand choice through investment in revitalization, community supports, socioeconomic incentives; public transportation options; build social capital in neighborhoods	North Church Hill revitalization; RRHA strategy for Dove Court, East End Initiative; Winchester Green; Stonebridge and surrounding Chesterfield/ City; expand key performance indicators (KPI) from IBM Smarter Cities for Region; Evergreen Initiative in Cleveland; Charlottesville Orange Dot
		1.2.2 Set clear system-wide guidance for school attendance as early predictor of successful learning at different levels of K-12	Use school attendance records, and summer loss indicators; RBA as tool	City "Every Day Counts" campaign
		1.2.3 Decrease economic disparity in public schools where % of low income are highest	Invest in neighborhood revitalization to lead the way; foster active leadership of school principals for enrollment campaigns	Intervention models for success-Community In Schools, Promise neighborhoods
		1.2.4 Make use of pre-referral intervention strategies to engage students within the classroom providing differentiated support	Identify best practices, and make known throughout all school systems	Micah Mentors in Region, Chesterfield Mega-Mentors; Middle Years Summit of Bridging Richmond
		1.2.5 Recognize need to prepare for changing demographics with locational choice and instruction geared to the changes	Respond to demand south of river in City and Chesterfield with ESL programming and capital improvements geared to other cultures	Hull Street revitalization plan by City and Chesterfield County; Chesterfield Multi-Cultural Commission model
	<b>1.3 - MEASURE STUDENT SUCCESS ALONG THE CONTINUUM</b>	1.3.1 Establish a Regional Data Advisory Committee	1) Kindergarten readiness & on-time registration program 2) 3rd Grade Reading 3) 8th Grade Math 4) On-time transition to 9th grade 5) Complete Algebra II by 10th grade 6) On-time graduation or GED completion 7) Measure intrinsic student success 8) K-12 continual tracking with focus on teaching methods	1) PALS, and other measures 2) SOL Reading on Grade Level; Campaign for Grade Level Reading 3) SOL Advanced Proficiency in Math 4) Bridging Richmond 5) SOL 6) Intervention programs; Resource WIB & CCWA GED programs 7) Gallup: Hope, Engagement & Well-being; Ready by 21 (Bridging Richmond); Chesterfield Expeditionary Learning (feeder schools); 8) Hartford, CT-student performance track back to previous teachers; provide teacher training to correct
		1.3.2 Establish Metrics & Critical Path to Proactively Measure Progress toward shared Regional agenda through Cradle to Career partnership		
	<b>1.4 - DEFINE CAREER PATHWAYS</b>	1.4.1 Expose Students to Career Choices in MS	Work with data updates and HR mgrs to id occupational SWOT annually; align specific schools with business partners; mentorship/career coaches in schools	CCWA; Middle School Renaissance; Virginia Career Pathways; Middle Years Summit of Bridging Richmond
		1.4.2 Provide HS Students with direct career access whenever possible	1) Expand dual degree programs with Community College system 2) Additional tech schools? STEM-H career alignment	1) Advance College Academy at JR Tucker with JSRCC 2) STEM Academy (LC Bird), RTC, Bridging Communities (NK)
		1.4.3 Work to remove stigma from careers in the trades	1) Provide statistics to increase knowledge of CTE courses leading to industry certifications 2) Collect data to support Governor's Magnet School for the Trades; and consider leveraging capital investments committed to make it happen, i.e. Huguenot/Wythe; provide #s on earning potential	1) County Tech Centers Workplace Transition Programs 2) Richmond Technical Center revitalization for school day and evening classes







GOALS	OBJECTIVES	STRATEGIES	ACTIONS	MODELS/SOURCES
Goal 2 - EXPAND PRODUCTIVE WORKFORCE PARTICIPATION	<b>2.1 - CREATE A WORKFORCE DEVELOPMENT SYSTEM (NOT A COLLECTION OF PROGRAMS)</b> (see Workforce Pipeline, Workforce Innovation Center WIC)	2.1.2 Work with Resource WIB & ABE to better measure outcomes for underserved population	Focus on business as client; devise clear life skills/academic credential building blocks for direction to the job seeker; use of common assessment tools	Middle College tailored curriculum for GED completion; Cincinnati Agenda 360 on-line guidance for career ladders
		2.1.2 Seek input from business partners specific to hiring needs and challenges	Identify supplemental support and alternative delivery mechanisms for the underserved; identify true barriers to completion, i.e. childcare, transportation, soft skill development, criminal records, subsistence support eligibility requirements	City Workforce Pipeline as model scaled up to Region
		2.1.3 Look beyond mandated partners for Resource WIB alliances; establish working relationship with WIC	Identify other sources of workforce development for those with varying needs for advancement platform for 21st Century skills	1) In-house industry or business partnerships with educational partners; Virginia Peninsula Career Pathways Project - TNCC/WIB 'Skills to Succeed' 2) Bridging Richmond; Ambition 2020: World Class Skills and Jobs for the UK
		2.1.4 Determine Structural or Programmatic Issues with current workforce development approach, particularly for underserved	Tie progress back to outcome measurement and employer satisfaction and consider systemizing workforce development center following WIC	Peninsula Council for Workforce Development; Dayton, OH Comprehensive Workforce Resource Center
	<b>2.2 - DEVELOP BUSINESS AND INDUSTRY PARTNERSHIPS IN THE TRADES</b>	2.2.1 Assess activity in apprenticeship programs, # sponsors & jobs resulting	Look to feasible ideas for apprentice programs from Germany and other programs; create a network of 'Passionate Tradespersons'	Manufacturing HUB for small manufacturers in product and process (Purdue Univ model); KVK story in Shenandoah
		2.3.1 Recognize Higher Ed as an Economic Driver of the Regional Economy	1) Identify # retained annually & why; statistically reinforce both direct (payroll) and indirect (educated workforce) benefits to all workforce 2) Assign values to innovation through university research, commercial patents, business start-ups 3) Through advisory boards for tech centers, develop and make available labor market information so that curriculum can be more responsive to demand	1) College/Univ placement offices, alumni associations; CC advancement to 4-year degrees; 2) VCU Tech Transfer; CCAM; VBRP Biotech 1 tenants 3) I.e. Chesterfield Clover Hill Tech Ctr in mechatronics, logistics leading to VSU and other programs; opportunity with Varina Center for JSRCC to tailor curriculum
	<b>2.3 - INCREASE RETENTION OF HIGHER EDUCATION GRADS IN REGION &amp; FOSTER START-UPS AND ENTREPRENEURSHIP</b>	2.3.3 HE curriculum development closely aligned with labor market opportunities	Identify academic programs most likely to lead to employment based on occupations in target industries, and identify gaps not serving needs for 21st century skills	See RRPDC preliminary analysis, and further research using "A Matter of Degrees"
		2.3.4 Industry partnerships with Higher Education for R & D	1) Explore opportunities for JSRCC in Richmond, i.e. logistics, aeronautics at RIC site 2) Tie HS career advancement to certification as stepping stone to industry	1) CCAM with JTCC, VSU in Advanced Manufacturing; JSRCC Varina Center 2) Establish Governor's Magnet School for the Trades
		2.3.5 Define clear paths for new HE grads which will give them opportunities to stay for work in Region	1) Identify barriers and make opportunities known to new graduates, i.e. establish cross-business career ladder for referrals 2) Identify barriers to start-ups (capital, mentors, QofL); and make known existing opportunities such as New Richmond Ventures angel investor 3) Highlight high-energy activity to ensure success and broad-based participation to achieve results	1) Cincinnati Workforce Network for referrals; peer networks in Charlottesville Works Initiative 2) Start-up Hubs in DC, Chicago, Kansas City; Larkin Garbee 804 RVA, Rich Tech; AdvanTech research 3) GRCC i.e.; TEDxRVA; Virginia Department of Business Assistance, Virginia Jobs Investment program





GOALS	OBJECTIVES	STRATEGIES	ACTIONS	MODELS/SOURCES
Goal 3 - FOCUS CAPITAL INVESTMENTS ON PRIORITY ECONOMIC DEVELOPMENT OPPORTUNITIES	<b>3.1 - TIE EXISTING INVESTMENT AND KNOWN PROSPECT ACTIVITY TO CEDS SITES AND BUILDING INVENTORY</b>	3.1.1 Identify funding gaps for capital improvements on CEDS priorities in focal areas	Update annually priority sites/buildings based on input from ED partners, and geographically related to underserved populations	See Focal Areas opportunities and identified funding sources, RRCEDS
		3.1.2 Work with ED partners to better identify and direct the types of jobs that could be created at key opportunity sites	Define skill sets, credentials that would be required; and identify populations which could fill, and outline ways to train-up and provide entry level career opportunities	Target Industry Analysis, skills tied to jobs; Jobs EQ & VEDP refresh
	<b>3.2 - TARGET CAPITAL IMPROVEMENTS TO REVITALIZE AREAS WITH UNDER-UTILIZED CAPACITY</b>	3.2.1 identify key indicators of under-utilization along key corridors, i.e. land to improvement ratio, utility, highway, unused rail or air transport facilities	Capacity analysis, quantify potential if put to use; shared opportunities to increase efficiencies in Region; focus on gateway corridors of Region - Rts 1, 60, 360, 250, 5; I-95 & 64; opportunities offered by plentiful water supply	See Focal Areas opportunities and identified funding sources, RRCEDS; ongoing Existing Land Use inventory and corridor studies of RRPDC
	<b>3.3 - PRODUCE WELL-DEFINED AND FUNCTIONING GOODS MOVEMENT (i.e. distribution hubs)</b>	3.3.1 Recognize importance of interconnected networks for information, highways/ rail distribution, communication of ideas and talent; capital investments	Use Regional logistics framework as starting point; support and track efforts of the Richmond's Future Logistics roundtable	Chattanooga broad-band; Commonwealth Center for Advanced Logistics (CCALS)
	<b>3.4 CREATE PUBLIC/ PRIVATE PARTNERSHIPS TO SUPPORT MOVEMENT OF PEOPLE REGIONALLY</b>	3.4.1 Integrated transit availability is key to so many things, access to jobs, connections to K-12/ HE/industry training resources-- public/private coordinated transit system needs to be #1 priority and will require incremental implementation solutions	Build on proposed BRT system. Look to private business partners with significant employment bases or activity centers generating the critical mass to support transit	Charlotte, NC. Integrated transit system; Genetec private transit system for employees;
		3.4.2 Make GRTC best-in-class within existing footprint to enable expansion of transit to the Region	Work to remove obstacles to providing efficient public transit for the area served, i.e. remove routing decisions from City ordinance; consider circulators that feed into primary system; support public-private partnerships for transit	CRC Coordinated Transportation Report recommendations; Mayor's Anti-Poverty Commission recommendations for long term changes; Genetech transit example in San Diego, saving land from employee parking
		3.4.3 Provide multi-modal connectivity	Look for ways and justification to provide system-wide improvements through a phased approach, i.e. bus-bridge between Staples Mill and Main Street for AMTRAK passengers; shuttles to airport from both	CRC Coordinated Transportation Report recommendations





GOALS	OBJECTIVES	STRATEGIES	ACTIONS	MODELS/SOURCES
Goal 4 - GROW AND RETAIN JOBS THAT ADVANCE THE REGION	4.1 - EXPAND AND GROW EXISTING BUSINESSES	4.1.1 Critical mass of related small businesses (i.e. clusters) to support more Regional growth	Tie cluster locations to opportunities for growth, defined by presence of sites, talent, networks (See 3.2 and 3.3); tertiary retail, tourism, agricultural	GRP, RRCEDS; Loudoun County Rural Business Development Councils
		4.1.2 Growth dependent on markets, supply chains, transport requirements	Start with case studies to understand needs, i.e. users of the Port of Richmond, largest employers; identify opportunities for suppliers of products or services Region-wide	RRPDC, VPA, GRP Business First, VEDP
		4.1.3 Link existing firms with local HE to retain graduates	1) Interview top 10 biggest hiring firms and determine talent needs, skills, easy or hard to fill 2) Build entrepreneurial community based program (see Start-Up HUBs 2.3.5)	CRC Workgroup; See 4.1.5
		4.1.4 Recognize big opportunities in vicinity of Region not only for trade, product, but talent	i.e. Fort Lee, retiring talent looking for second careers	other metro regions with large military presence
		4.1.5 Activate integrated resource team that links area employers with qualified candidates	Identify active partners, i.e. retirees with specific industry experience who understand the business	VEDP industry experts; Resource Solutions Team (revised) PRISM (NE Ohio) transforming existing into emerging growth, i.e. green tech from auto manufacturing
	4.2 - ATTRACT NEW BUSINESSES WITH A FOCUS ON EMERGING TARGETS AND BASIC INDUSTRY	4.2.1 Consistent information on Regional economic assets	i.e. Google search building 'interest' network, on how many people from outside the Region are looking to 'relocate'	VEDP, GRP, local Eds and Chambers; Research by CRC work groups
Goal 5 - Expand Regional Choice in Housing and Transportation Access to Employment	4.3 - MATCH SUPPLY AND DEMAND	4.3.1 Characterize the mis-match in quantifiable terms; set goals and milestones for better alignment	1) More research on order of magnitude barriers, is it education & training, or geographic obstacles making public transit essential? 2) Develop career ladders where unskilled can at least get started 3) Provide immediate opportunities to make suitable jobs available for low to middle skilled candidates (see 5.2.2)	1) VCU Research on Intersection of Technology, Workforce & Economic Development (digital divide) 2) City Workforce Pipeline and work with TANF, RRHA, local industry 3) Industry specific roundtables; referral hubs for job sourcing; Resource WIB and partners using Cincinnati Agenda 360 as model; Mayor's Anti-Poverty Report, App C
	5.1 - IMPROVED TRANSIT ACCESS TO EMPLOYMENT	5.1.1 Address a Regional approach Public/Private Transit (see 3.4 for Capital Investment related ideas)	Phased approach that combines reasonable extensions/improvements to existing public transit and employers who could benefit by having transit (see 3.4 objective)	RRPDC/MPO and RMA; Last - Mile Transit with Silicon Valley employers; Mayor's Anti-Poverty Commission Report
	5.2 - INCREASE AFFORDABLE HOUSING OPTIONS NEAR JOBS	5.2.1 Explore elements of a Regional Housing Strategy to ensure housing options suitable for existing and future workforce	Translate variable housing demand predictors (type, density, location, price) for local policy consideration	RAR/GMU study of Workforce Housing 3/20/13; RRHA redevelopment strategies, City housing plan; RAR Regional Housing Readiness Plan
		5.2.2 Place-Based Development Where Jobs/Housing Together	new data to redefine Regional Development Centers; mixed use/mixed-income neighborhoods	RRPDC Socioeconomic Data 2012 update; Rocketts Landing, Innsbrook revitalization





# X: Implementation

## PERFORMANCE MEASURES

Identification of priority CEDS projects grounded by this comprehensive review of the Richmond Region's economic ecosystem takes into account compatible considerations:

- Meeting EDA Investment Priorities
- Integration of Richmond Region CEDS Goals
- Degree of Regional Impact
- Maximum leverage of resources
- Capitalizing on private/public investments

## GENERAL PERFORMANCE MEASURES

The following generalized performance measures are identified as guiding principles (13 CFR § 303.7(9)) by which to measure successful implementation of the CEDS on an annual basis:

### 1 Job Creation

- Number of Jobs created in the Region upon approval of the CEDS.
- Number of jobs created in the Priority Focal Areas.
- Number of jobs created in the Target Industry Clusters.

### 2 Job Retention or Expansion

- Increase in number of jobs provided by existing employers in the Region.
- Increase in the number of jobs provided by existing employers in the Priority Focal Areas.
- Increase in the number of jobs provided by existing employers in the Target Industry Clusters.

### 3 Workforce Development

- Number of unemployed residents in the Region who found a job.
- Increase in the number of individuals placed in jobs by the Resource WIB and Center for Workforce Innovation.

### 4 Investment

- Number, types and locations of investments undertaken in the Region.
- Amount of private investment stimulated by public investment in Priority Focal Areas.
- Number of Projects identified with a funding gap that would be qualified by EDA funding.
- Changes in the economic environment in the Region.

## GOAL-SPECIFIC PERFORMANCE MEASURES

The CEDS Performance Measures listed above are being advanced as foundational support for a more comprehensive Region-wide evaluation of Community Indicators through the Capital Region Collaborative (CRC), a joint partnership of the RRPDC and the Greater Richmond Chamber of Commerce. As the Community Indicator work advances through the CRC process over the next year, more specific indicators within the CEDS goal framework will be considered as essential indicators of quantitative and qualitative progress being made toward improvement in the Regional economic environment.

An important part of the first CEDS Annual Report will include a summary of the Regional Community Indicators selected for measurement. The following more specific measurements are being considered depending on availability of reliable data sources:

### Goal 1: Create Best in Class Pre-K to 12 Public Education System

- Increase in enrollment in Smart Beginnings, Virginia Pre-School Initiative and Head Start programs.
- Number of students who are Ready-to-Read by Third Grade and increased participation in Campaign for Grade Level Reading programs.
- Number of 7th grade students who have worked with a counselor or career coach to develop an Academic Career Plan.
- Advancement of Career and Technical Educational (CTE) opportunities Region-wide.
- Increase in high school graduation and lower drop-out rates along with improved transition support to next steps, i.e. work, trade or college.





### Goal 2: Expand Productive Workforce Participation

- Increase in percentage of workforce participation by populations in identified Distressed Neighborhoods.
- Increase in measurable participation and placement of clients by existing Workforce Development entities, i.e. Resource WIB, City Workforce Innovation Center.
- Some measure of program sharing, non-duplication, and degree of understanding of program availability by program participants.
- Employer satisfaction with employee placement, readiness, “products” of the workforce development.

### Goal 3: Focus Capital Investments on Priority Economic Development Opportunities

- Amount of funds leveraged by committed capital improvements to complete projects with identified funding gaps.
- Amount of development directed to underutilized industrial/commercial corridors.
- Increase in tax revenues generated by redevelopment of priority development sites/buildings.

### Goal 4: Grow and Retain Jobs that Advance the Region

- Increase in number of new and retained jobs.
- Increase in number of new and retained jobs in emerging target clusters.
- Increase in number of business start-ups.
- Increase in venture capital for start-ups.

### Goal 5: Expand Regional Choice in Housing and Transportation Access to Employment

- Degree of change in Housing Affordability index (HAI, percent of median household income required to occupy a median cost housing unit including both sold and rental housing) for the Richmond Region.
- Degree of change in Housing Cost Burden or “affordability outcome” of housing choices made by individual households, or the percentage of households spending more than 30 percent on housing costs.
- Number of new housing units (by tenure and price point) added to the Regional inventory relative to change in median family income.
- Changes in public transit service coverage area, i.e. population served, as measured by new routes, changes in existing routes, service delivery.

- Increase in GRTC ridership, car or van-pooling programs, car sharing programs, bike and pedestrian facilities.

## STRATEGIC PROJECTS

The following strategic projects offering the greatest opportunity for Regional impact within the defined Regional Economic Development Focal Areas have been identified by the CEDS Strategy Committee through active engagement of the individual work groups focused on Talent, Education & Training, Infrastructure, and Employment Clusters:

### 1 Northlake/Lewistown Road Development Area

Completion of the Lewistown Road bridge at interchange with I-95 (\$36 million total, \$20 million needed) will more fully serve this major business center and open up more than 200 additional acres for light industrial, distribution center, and commercial development. An estimated 700+ jobs (including retail) are expected to be possible at full development. With the extension of public sewer west of Route 1 (preliminary estimate of \$1.0 million in capital costs) in response to specific development proposals, an additional 300+ acres of industrial/commercial property would be available for development as indicated on the Hanover County Comprehensive Plan. The development of this acreage would produce opportunities for an estimated 100 jobs. Along with the improved interstate access, the availability of fiber and redundant power makes this area well suited for technology uses and knowledge-based jobs.

### 2 RIC Airport/White Oak Development Area

Complete build-out of the remaining 1600 acres of the Henrico County owned White Oak Technology Park (WOTP) is estimated to support at least 2,200 mostly technology-related jobs, requiring additional investment of \$7.2 million appropriated through Henrico County’s Utility Enterprise Fund in public utility infrastructure.

A separate 100-acre site located immediately east of the RIC airport is controlled by the Capital Region Airport Commission (CRAC) and included in their master plan for prospective aerospace/aviation-related firms particularly in conjunction with the adjacent landing strip and hanger previously





used by the Virginia Air National Guard. A number of prospects have recently looked at this site for either aircraft manufacturing or maintenance, with employment ranging from 150 to 800 jobs. Road access and public utilities would need to be extended into the site to serve any of the prospective users. The environmental review for site clearance of outdated structures is underway.

Proximity of both the WOTP and the airport site offer a unique opportunity to establish a dynamic, interrelated curriculum in the technical fields related to mechanical and electrical engineering, computer-controlled machining technology, advanced manufacturing and industrial logistics through the Varina Center being explored by Reynolds Community College (formerly called J. Sargeant Reynolds). A 100-acre site located south of the WOTP at the southeast corner of Route 5/Route 295 is in a feasibility study phase (May 2013) for the phased construction of such a center, with potential build-out of 415,000 SF accommodating up to a 1,860 FTE enrollment by 2035. Feasibility and funding are dependent on increased residential density in the Projected Enrollment Area (PEA); however, the first phase (\$36 million 80,000 GSF STEM building) could be advanced at a faster pace in conjunction with industry partners as part of an educational consortium. Alternative sources of funds included in the May 2013 Feasibility study include State bonds through the Pooled (9D) program of the Virginia College Building Authority, public-private partnerships, tax increment financing, and State Challenge Grant Matching donations.

### **3 Port of Richmond Activity Area**

The I-95/Commerce Road/Deep Water Terminal Drive portion of this priority Focal Area offers a number of potential redevelopment opportunities. Using the renewed activity at the Port of Richmond made possible through significant investment in an active barge service connection and lease with the Virginia Port Authority, the area offers the potential to be redeveloped (see Exhibit 65) into over 3.0 million SF of light manufacturing, assembly and distribution space, supporting an estimated 2,000 new jobs in a wide range of fields from the trades to supply chain management, including many that would support the City of Richmond's efforts to address the high poverty rate.

The biggest challenge in this area is property control and site readiness. Investments in infrastructure have been substantial, including \$4.0 million in road improvements and on-site port improvements of \$5.7 million by the Richmond Area Metropolitan Planning Organization. An estimated \$12.0 million gap in basic off-site infrastructure remains and should be a priority consideration for leverage through the EDA, additional State and local resources. Access to the former Philip Morris/Altria operations center site require immediate roadway access improvements that are estimated to cost \$700,000.

As part of an integrated strategy, the Port Area is surrounded by a significant number of low-to-moderate-income residential neighborhoods representing a working age population of approximately 36,000 (age 16-64). A relatively high unemployment rate (13.2%) and lower than average educational attainment (32% without high school education) strongly suggests the need for a focus on workforce development with an emphasis on the trades to support existing and potential port users. Large employers already located in the area such as Altria and DuPont have expressed interest in participating in discussions about establishing such a comprehensive workforce center. The CRC has begun the discussion and will advance concrete proposals over the next year to explore a consortium of local employers, investment requirements, and site feasibility. This is a high priority project and would be considered eligible for EDA funding. An estimated 1,200 people within the Region, many of whom live in the immediate area of the Port of Richmond to be offered training in the trades is established as an annual goal to start to meet the demand (reference to Exhibit 50 showing annual demand for electricians, maintenance repair, pipefitters, HVAC mechanic, welder, diesel mechanic, and machinists).

### **4 James River Industrial Center**

Site development ready, 650-acres of contiguous property with single owner control and zoned appropriately for heavy industry, an industrial use at full build-out would yield an estimated 5,000 jobs. Active engagement by the VEDP has raised the profile of this industrial prospect making it a top priority project for a port user, further strengthening the supply chain connections and leveraging public investment in major highway access improvements such as the Willis Road interchange with I-95 (estimated cost of \$40.0 million).







### 5 Meadowville Technology Center Development Focus

Chesterfield County investments in land acquisition and infrastructure improvements over the past 20 years provides a good foundation for further high-profile advanced manufacturing, data centers, R&D, and supply chain management uses. At full development, the remainder of the park could support an estimated 15,000 jobs. In order to realize the full development potential of the park, highway access needs to be improved, and toward this end, an estimated \$47 million has been committed or allocated in FY14-19 through the MPO and County bond investments to complete the Route 10 widening project to serve the park. Another \$9.3 million is needed to fill the gap.

### 6 Innsbrook/West Creek Business Centers

Building on the average employment density already in these two large business centers (approximately 3.5 employees/gross acre), opportunities for infill for increased density along with new development on vacant parcels is estimated to yield up to 2,500 additional jobs over the next several years. Public investment of \$400,000 through the RAMPO in studies of two major highway interchanges currently underway are intended to strategically plan for this anticipated growth.

### 7 Central Business District Focal Area

As detailed in the Appendix (A10-A20) of the CEDS document, a number of headquarters development sites are positioned for infill, renovation and/or redevelopment. Over the near term (5 years) based on existing prospect activity, 5,200 estimated jobs within a proposed 1.0 million square feet of office are predicated to be created or retained. Representing nearly one-third of the capital cost of a project, construction of structured parking within these developments is the biggest obstacle for the City to overcome for many development deals in order to be competitive within the Region. A negotiated portion of an estimated \$117 million would be required to be publicly supported in these projects representing a private investment of \$270 million.

### 8 Regional Infrastructure Connectivity

Two priority infrastructure needs regionally are for improved telecommunications and a workforce development network. Both of these require further study to better define gaps and priorities, understanding the existing landscape of providers and programs. The following activities are considered primary for Regional interconnectivity:

- More systematic workforce development efforts have begun to coalesce with RVA TechWorks! through the preparation of a proposal recently submitted to the U.S. Department of Labor by the Capital Region Workforce Partnership through the Youth CareerConnect Program. Responding to the DOL grant opportunity accelerated the Region's efforts to create a workforce network made up of employers, educators, government and civic participants. The request for \$6.5 million, matched by \$1.6 million, would align existing community assets to address the IT career cluster, creating varied pathways for students from all backgrounds and leveraging the strength of existing high school Career and Technical Education programs, core academics, dual enrollment programs and counselors to ensure a seamless transition to college, apprenticeships and employment with long-term learning.
- The CEDS also addresses the need for better collaborative support for the startup business community. A recent request for \$500,000 in State funds would support a startup accelerator to foster collaboration between existing private sector partners and Virginia Commonwealth University to leverage an investment of \$200,000 in private funds and in-kind services of \$900,000. This accelerator could serve as a model for other public/private partnerships to work together in workforce development.
- Regional transit, particularly as an essential infrastructure for greater access to jobs throughout the Region is gaining traction as a point of discussion among existing organizations with varying responsibilities for public transit, including the Greater Richmond Transit Corporation (transit provider), the Richmond Metropolitan Authority (financing vehicle), and the RAMPO (planning and fund allocation).



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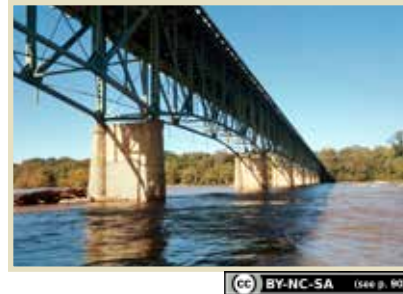
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- Chmura Analytics, Jobs EQ Software
- Virginia SCAN, Virginia Economic Development Partnership
- Longitudinal Employer-Household Dynamics
- Bureau of Labor Statistics
- Virginia Atlas of Community Health







# Acknowledgements

## PARTNER ORGANIZATIONS

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# Appendix

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## **Chmura Economics & Analytics Industry Clusters** **A1**

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### **GRP's Emerging Target Industry Clusters** **A4**

Advanced Manufacturing . . . . .	A4
Supply Chain Management. . . . .	A4
Finance and Insurance . . . . .	A5
Professional and Creative Services . . . . .	A5
Health and Life Science . . . . .	A6

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### **SCCI Occupation Clusters** **A7**

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### **Support Services for Small Businesses and Startups** **A9**

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### **Development Opportunities in Downtown Area** **A10**

2nd and Marshall (EDA site) . . . . .	A10
2323 E Main Street (Lorrillard Building) . . . . .	A11
Foundry Park . . . . .	A12
Fulton Gas Works. . . . .	A13
Reynolds South. . . . .	A14
North Falls Tower (Reynolds North) . . . . .	A15
Richmond on the James . . . . .	A16
South 6th Street (Centennial Tower Site) . . . . .	A17
South 10th Street (James Center) . . . . .	A18
WhiteHead Warehouse (S 15th and E Cary St). . . . .	A19
Rocketts Landing (data sheet) . . . . .	A20

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### **Priority Development Opportunities throughout the Region** **A21**

Route 1 – I-95/295 Focal Area . . . . .	A22
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RIC Airport/ White Oak Focal Area . . . . .	A25
Port of Richmond Activity Focal Area . . . . .	A28
Meadowville Focal Area . . . . .	A31
Innsbrook / West Creek Focal Area . . . . .	A34
Charles City County Priority Undeveloped Sites and Buildings .	A36
New Kent County Priority Undeveloped Sites . . . . .	A38
Goochland County Priority Undeveloped Sites . . . . .	A41
Powhatan County Priority Undeveloped Sites. . . . .	A43



BY (see p. 90)





## Chmura Economics & Analytics Industry Clusters

This list specifies the higher level NAICS codes defined by Chmura Analytics that were used to define the industry clusters depicted in *Exhibit 19*.

### AGRICULTURE

- 111 Crop Production
- 112 Animal Production
- 114 Fishing, Hunting and Trapping
- 115 Support Activities for Agriculture and Forestry
- 3111 Animal Food Manufacturing
- 3112 Grain and Oilseed Milling
- 3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing

### AUTO/AUTO-RELATED

- 811 Repair and Maintenance
- 3336 Engine, Turbine, and Power Transmission Equipment Manufacturing
- 3361 Motor Vehicle Manufacturing
- 3362 Motor Vehicle Body and Trailer Manufacturing
- 3363 Motor Vehicle Parts Manufacturing

### CHEMICAL

- 3251 Basic Chemical Manufacturing
- 3252 Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
- 3255 Paint, Coating, and Adhesive Manufacturing
- 3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing
- 3259 Other Chemical Product and Preparation Manufacturing
- 3261 Plastics Product Manufacturing

- 3262 Rubber Product Manufacturing
- 3271 Clay Product and Refractory Manufacturing
- 3272 Glass and Glass Product Manufacturing
- 3274 Lime and Gypsum Product Manufacturing
- 3279 Other Nonmetallic Mineral Product Manufacturing

### COAL/OIL/POWER

- 486 Pipeline Transportation
- 2111 Oil and Gas Extraction
- 2121 Coal Mining
- 2123 Nonmetallic Mineral Mining and Quarrying
- 2131 Support Activities for Mining
- 2211 Electric Power Generation, Transmission and Distribution
- 2212 Natural Gas Distribution
- 3241 Petroleum and Coal Products Manufacturing

### CONSTRUCTION

- 2361 Residential Building Construction
- 2362 Nonresidential Building Construction
- 2371 Utility System Construction
- 2372 Land Subdivision
- 2373 Highway, Street, and Bridge Construction
- 2379 Other Heavy and Civil Engineering Construction
- 2381 Foundation, Structure, and Building Exterior Contractors
- 2382 Building Equipment Contractors
- 2383 Building Finishing Contractors

- 2389 Other Specialty Trade Contractors
- 3273 Cement and Concrete Product Manufacturing

### CONSUMER SERVICE

- 481 Air Transportation
- 485 Transit and Ground Passenger Transportation
- 487 Scenic and Sightseeing Transportation
- 493 Warehousing and Storage
- 531 Real Estate
- 711 Performing Arts, Spectator Sports, and Related Industries
- 713 Amusement, Gambling, and Recreation Industries
- 721 Accommodation
- 722 Food Services and Drinking Places
- 812 Personal and Laundry Services
- 814 Private Households

### EDUCATION

- 611 Educational Services
- 712 Museums, Historical Sites, and Similar Institutions
- 813 Religious, Grantmaking, Civic, Professional, and Similar Organizations

### ELECTRIC/ELECTRONICS MANUFACTURING

- 3332 Industrial Machinery Manufacturing





3333 Commercial and Service Industry Machinery Manufacturing  
 3341 Computer and Peripheral Equipment Manufacturing  
 3342 Communications Equipment Manufacturing  
 3343 Audio and Video Equipment Manufacturing  
 3344 Semiconductor and Other Electronic Component Manufacturing  
 3345 Navigational, Measuring, Electromedical, and Control Instruments Manufacturing  
 3351 Electric Lighting Equipment Manufacturing  
 3352 Household Appliance Manufacturing  
 3353 Electrical Equipment Manufacturing  
 3359 Other Electrical Equipment and Component Manufacturing

### **FINANCIAL SERVICE**

521 Monetary Authorities - Central Bank  
 522 Credit Intermediation and Related Activities  
 523 Securities, Commodity Contracts, and Other Financial Investments and Related Activities  
 524 Insurance Carriers and Related Activities  
 525 Funds, Trusts, and Other Financial Vehicles  
 533 Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)

### **FOOD MANUFACTURING**

3113 Sugar and Confectionery Product Manufacturing  
 3114 Fruit and Vegetable Preserving and Specialty Food Manufacturing  
 3115 Dairy Product Manufacturing  
 3116 Animal Slaughtering and Processing  
 3117 Seafood Product Preparation and Packaging

3118 Bakeries and Tortilla Manufacturing  
 3119 Other Food Manufacturing  
 3121 Beverage Manufacturing  
 3122 Tobacco Manufacturing

### **FREIGHT TRANSPORTATION**

482 Rail Transportation  
 483 Water Transportation  
 484 Truck Transportation  
 488 Support Activities for Transportation  
 491 Postal Service  
 492 Couriers and Messengers

### **HEALTH**

621 Ambulatory Health Care Services  
 622 Hospitals  
 623 Nursing and Residential Care Facilities  
 624 Social Assistance

### **MACHINERY MANUFACTURING**

3322 Cutlery and Handtool Manufacturing  
 3325 Hardware Manufacturing  
 3327 Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing  
 3329 Other Fabricated Metal Product Manufacturing  
 3331 Agriculture, Construction, and Mining Machinery Manufacturing  
 3334 Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing  
 3335 Metalworking Machinery Manufacturing  
 3339 Other General Purpose Machinery Manufacturing

3346 Manufacturing and Reproducing Magnetic and Optical Media  
 3364 Aerospace Product and Parts Manufacturing  
 3365 Railroad Rolling Stock Manufacturing  
 3366 Ship and Boat Building  
 3369 Other Transportation Equipment Manufacturing  
 3391 Medical Equipment and Supplies Manufacturing  
 3399 Other Miscellaneous Manufacturing

### **MEDIA**

511 Publishing Industries (except Internet)  
 512 Motion Picture and Sound Recording Industries  
 515 Broadcasting (except Internet)  
 519 Other Information Services  
 3231 Printing and Related Support Activities

### **METAL AND PRODUCT MANUFACTURING**

2122 Metal Ore Mining  
 3311 Iron and Steel Mills and Ferroalloy Manufacturing  
 3312 Steel Product Manufacturing from Purchased Steel  
 3313 Alumina and Aluminum Production and Processing  
 3314 Nonferrous Metal (except Aluminum) Production and Processing  
 3315 Foundries  
 3321 Forging and Stamping  
 3323 Architectural and Structural Metals Manufacturing





- 3324 Boiler, Tank, and Shipping Container Manufacturing
- 3326 Spring and Wire Product Manufacturing
- 3328 Coating, Engraving, Heat Treating, and Allied Activities

## PHARMACEUTICAL

- 3254 Pharmaceutical and Medicine Manufacturing

## PROFESSIONAL SERVICE

- 516 Internet Publishing and Broadcasting
- 517 Telecommunications
- 518 Internet Service Providers, Web Search Portals, and Data Processing Services
- 532 Rental and Leasing Services
- 541 Professional, Scientific, and Technical Services
- 551 Management of Companies and Enterprises
- 561 Administrative and Support Services

## PUBLIC ADMINISTRATION

- 921 Executive, Legislative, and Other General Government Support
- 922 Justice, Public Order, and Safety Activities
- 923 Administration of Human Resource Programs
- 924 Administration of Environmental Quality Programs
- 925 Administration of Housing Programs, Urban Planning, and Community Development
- 926 Administration of Economic Programs
- 927 Space Research and Technology
- 928 National Security and International Affairs

## OTHER

- 9999 Unclassified

## RETAIL

- 423 Merchant Wholesalers, Durable Goods
- 424 Merchant Wholesalers, Nondurable Goods
- 425 Wholesale Electronic Markets and Agents and Brokers
- 441 Motor Vehicle and Parts Dealers
- 442 Furniture and Home Furnishings Stores
- 443 Electronics and Appliance Stores
- 444 Building Material and Garden Equipment and Supplies Dealers
- 445 Food and Beverage Stores
- 446 Health and Personal Care Stores
- 447 Gasoline Stations
- 448 Clothing and Clothing Accessories Stores
- 451 Sporting Goods, Hobby, Book, and Music Stores
- 452 General Merchandise Stores
- 453 Miscellaneous Store Retailers
- 454 Nonstore Retailers

## TEXTILE/LEATHER

- 3131 Fiber, Yarn, and Thread Mills
- 3132 Fabric Mills
- 3133 Textile and Fabric Finishing and Fabric Coating Mills
- 3141 Textile Furnishings Mills
- 3149 Other Textile Product Mills
- 3151 Apparel Knitting Mills
- 3152 Cut and Sew Apparel Manufacturing
- 3159 Apparel Accessories and Other Apparel Manufacturing
- 3161 Leather and Hide Tanning and Finishing
- 3162 Footwear Manufacturing

- 3169 Other Leather and Allied Product Manufacturing

## UTILITIES

- 562 Waste Management and Remediation Services
- 2213 Water, Sewage and Other Systems

## WOOD/PAPER

- 113 Forestry and Logging
- 3211 Sawmills and Wood Preservation
- 3212 Veneer, Plywood, and Engineered Wood Product Manufacturing
- 3219 Other Wood Product Manufacturing
- 3221 Pulp, Paper, and Paperboard Mills
- 3222 Converted Paper Product Manufacturing
- 3371 Household and Institutional Furniture and Kitchen Cabinet Manufacturing
- 3372 Office Furniture (including Fixtures) Manufacturing
- 3379 Other Furniture Related Product Manufacturing

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## GRP's Emerging Target Industry Clusters

This listing identifies the NAICS codes - as defined by Greater Richmond Partnership (GRP) - that make up the five clusters of emerging target industries.

### ADVANCED MANUFACTURING

#### ENERGY TECHNOLOGY

- 2211 Electric Power Generation, Transmission and Distribution
- 2212 Natural Gas Distribution
- 2213 Water, Sewage and Other Systems
- 2362 Nonresidential Building Construction
- 2361 Residential Building Construction
- 2371 Utility System Construction
- 3241 Petroleum and Coal Products Manufacturing
- 3344 Semiconductor and Other Electronic Component Manufacturing
- 3345\* Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
- 3353 Electrical Equipment Manufacturing

#### RESEARCH AND DEVELOPMENT

- 5413\* Architectural, Engineering, and Related Services
- 5414\* Specialized Design Services
- 5415\* Computer Systems Design and Related Services
- 5416 Management, Scientific, and Technical Consulting Services
- 5417 Scientific Research and Development Services
- 5419 Other Professional, Scientific, and Technical Services

#### SPECIALTY FOODS PROCESSING AND PACKAGING

- 3111 Animal Food Manufacturing
- 3113 Sugar and Confectionery Product Manufacturing
- 3116 Animal Slaughtering and Processing

- 3117 Seafood Product Preparation and Packaging
- 3118 Bakeries and Tortilla Manufacturing
- 3119 Other Food Manufacturing
- 3121 Beverage Manufacturing
- 3122 Tobacco Manufacturing

### SUPPLY CHAIN MANAGEMENT

#### MULTI-MODAL TRANSPORTATION AND WAREHOUSING

- 4812 Nonscheduled Air Transportation
- 4811 Scheduled Air Transportation
- 4881 Support Activities for Air Transportation
- 4884 Support Activities for Road Transportation
- 4842 Specialized Freight Trucking
- 4889 Other Support Activities for Transportation
- 4931 Warehousing and Storage
- 4885 Freight Transportation Arrangement
- 4841 General Freight Trucking

#### WHOLESALE TRADE

- 4242 Drugs and Druggists' Sundries Merchant Wholesalers
- 4248 Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers
- 4543 Direct Selling Establishments
- 4239 Miscellaneous Durable Goods Merchant Wholesalers
- 4247 Petroleum and Petroleum Products Merchant Wholesalers
- 4251 Wholesale Electronic Markets and Agents and Brokers
- 4231 Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers
- 4243 Apparel, Piece Goods, and Notions Merchant Wholesalers
- 4249 Miscellaneous Nondurable Goods Merchant Wholesalers

\* Indicates NAICS codes not included in the specific clusters since they were duplicated in other clusters as defined by Greater Richmond Partnership.





- 4235 Metal and Mineral (except Petroleum) Merchant Wholesalers
- 4234 Professional and Commercial Equipment and Supplies Merchant Wholesalers
- 4244 Grocery and Related Product Merchant Wholesalers
- 4237 Hardware, and Plumbing and Heating Equipment and Supplies Merchant
- 4246 Chemical and Allied Products Merchant Wholesalers
- 4238 Machinery, Equipment, and Supplies Merchant Wholesalers
- 4233 Lumber and Other Construction Materials Merchant Wholesalers
- 4241 Paper and Paper Product Merchant Wholesalers
- 4236 Household Appliances and Electrical and Electronic Goods Merchant Wholesalers
- 4232 Furniture and Home Furnishing Merchant Wholesalers

## **FINANCE AND INSURANCE**

### ***BANKING AND SECURITIES***

- 5211 Monetary Authorities-Central Bank
- 5191\* Other Information Services
- 5221 Depository Credit Intermediation
- 5222 Nondepository Credit Intermediation
- 5223 Activities Related to Credit Intermediation
- 5231 Securities and Commodity Contracts Intermediation and Brokerage
- 5239 Other Financial Investment Activities
- 5259 Other Investment Pools and Funds
- 5412 Accounting, Tax Preparation, Bookkeeping, and Payroll Services
- 5611 Office Administrative Services
- 5614 Business Support Services

### ***INSURANCE***

- 5242 Agencies, Brokerages, and Other Insurance Related Activities
- 5241 Insurance Carriers
- 5182\* Data Processing, Hosting, and Related Services

## **PROFESSIONAL AND CREATIVE SERVICES**

### ***INFORMATION AND COMMUNICATION TECHNOLOGY***

- 5171 Wired Telecommunications Carriers
- 5172 Wireless Telecommunications Carriers (except Satellite)
- 5179 Other Telecommunications
- 5182\* Data Processing, Hosting, and Related Services
- 5191\* Other Information Services
- 5419 Other Professional, Scientific, and Technical Services
- 5415\* Computer Systems Design and Related Services

### ***ADVERTISING, PR, AND CREATIVE SERVICES***

- 5416 Management, Scientific, and Technical Consulting Services
- 7115 Independent Artists, Writers, and Performers
- 7113 Promoters of Performing Arts, Sports, and Similar Events
- 5412 Accounting, Tax Preparation, Bookkeeping, and Payroll Services
- 5411 Legal Services
- 7121 Museums, Historical Sites, and Similar Institutions
- 5418 Advertising, Public Relations, and Related Services
- 7111 Performing Arts Companies
- 5414\* Specialized Design Services
- 5413\* Architectural, Engineering, and Related Services
- 5511 Management of Companies and Enterprises

\* Indicates NAICS codes not included in the specific clusters since they were duplicated in other clusters as defined by Greater Richmond Partnership.





## HEALTH AND LIFE SCIENCE

### INNOVATIVE CARE

- 6222 Psychiatric and Substance Abuse Hospitals
- 6241 Individual and Family Services
- 6215 Medical and Diagnostic Laboratories
- 6233 Continuing Care Retirement Communities and Assisted Living Facilities for the Elderly
- 6212 Offices of Dentists
- 6213 Offices of Other Health Practitioners
- 6239 Other Residential Care Facilities
- 6211 Offices of Physicians
- 6219 Other Ambulatory Health Care Services
- 6232 Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities
- 6221 General Medical and Surgical Hospitals
- 6214 Outpatient Care Centers
- 6223 Specialty (except Psychiatric and Substance Abuse) Hospitals

### HEALTH INFORMATION AND MANAGEMENT

- 5112 Software Publishers
- 5416\* Management, Scientific, and Technical Consulting Services
- 5419\* Other Professional, Scientific, and Technical Services
- 5611\* Office Administrative Services
- 5415\* Computer Systems Design and Related Services
- 5511 Management of Companies and Enterprises

### LIFE SCIENCES

- 3251 Basic Chemical Manufacturing
- 3259 Other Chemical Product and Preparation Manufacturing
- 3255 Paint, Coating, and Adhesive Manufacturing

- 3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
- 3254 Pharmaceutical and Medicine Manufacturing
- 3252 Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing
- 3256 Soap, Cleaning Compound, and Toilet Preparation Manufacturing
- 3261 Plastics Product Manufacturing
- 3391 Medical Equipment and Supplies Manufacturing
- 3345 Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
- 5417\* Scientific Research and Development Service

Source: JobsEQ®, Greater Richmond Partnership's Target Cluster Analysis, Accessed 3/14/2012 2:01 PM.

\* Indicates NAICS codes not included in the specific clusters since they were duplicated in other clusters as defined by Greater Richmond Partnership.





## SCCI Occupation Clusters

This listing details the 16 groups of occupation clusters identified by the States' Career Clusters Initiative (see *Exhibit 21*), which groups occupations into categories requiring common skills.



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### The 16 Career Clusters®



One of the keys to improving student achievement is providing students with relevant contexts for studying and learning. Career Clusters® do exactly this by linking school-based learning with the knowledge and skills required for success in the workplace. The National Career Clusters® Framework is comprised of 16 Career Clusters® and related Career Pathways to help students of all ages explore different career options and better prepare for college and career.

Each Career Cluster® represents a distinct grouping of occupations and industries based on the knowledge and skills they require. The 16 Career Clusters® and related Career Pathways provide an important organizing tool for schools to develop more effective programs of study (POS) and curriculum.

- **Agriculture, Food & Natural Resources**  
*The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.*
- **Architecture & Construction**  
*Careers in designing, planning, managing, building and maintaining the built environment.*
- **Arts, A/V Technology & Communications**  
*Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.*
- **Business, Management & Administration**  
*Careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.*
- **Education & Training**  
*Planning, managing and providing education and training services, and related learning support services such as administration, teaching/training, administrative support, and professional support services.*
- **Finance**  
*Planning and related services for financial and investment planning, banking, insurance, and business financial management.*

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#### Career Clusters® Overview

The 16 Career Clusters®  
2008 Knowledge & Skills Statements  
Career Clusters® & Pathways  
Programs of Study  
Common Career Technical Core

#### Career Clusters® Resources

Green/Sustainability Statements  
Green/Sustainability Knowledge & Skills Module

#### Career Cluster® Institute

#### Product Store

#### Publications



- **Government & Public Administration**  
*Planning and executing government functions at the local, state and federal levels, including governance, national security, foreign service, planning, revenue and taxation, and regulations.*
- **Health Science**  
*Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.*
- **Hospitality & Tourism**  
*Preparing individuals for employment in career pathways that relate to families and human needs such as restaurant and food/beverage services, lodging, travel and tourism, recreation, amusement and attractions.*
- **Human Services**  
*Preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care, and consumer services.*
- **Information Technology**  
*Building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.*
- **Law, Public Safety, Corrections & Security**  
*Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.*
- **Manufacturing**  
*Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.*
- **Marketing**  
*Planning, managing, and performing marketing activities to reach organizational objectives such as brand management, professional sales, merchandising, marketing communications and market research.*
- **Science, Technology, Engineering & Mathematics**  
*Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.*
- **Transportation, Distribution & Logistics**  
*The planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.*



## Support Services for Small Businesses and Startups

AdvanTech, an incubator for start-up business sponsored by the City of Richmond's Economic Development Authority, identified these organizations and agencies that provide support services for new businesses and small business, including public sector agencies, private investment groups, incubator and accelerator programs, academic institutions, trade groups, corporate social responsibility programs, and other nonprofits:

- 80 amps – The Martin Agency
- 804RVA
- AdvanTech - Richmond EDA
- BizWorks Enterprise Center
- Bon Secours SEED Program
- The Center for Women's Enterprise
- CIT (Center for Innovative Technology)
- City of Richmond, Economic & Community Development
- City of Richmond, Office of Minority Business Development
- Community College Workforce Alliance
- Dominion Resources Innovation Center (Ashland)
- Gangplank
- Greater Richmond Chamber of Commerce
- Greater Richmond GATE
- Greater Richmond Small Business Development Center
- Harbert Management Corporation
- Innova Partners
- J. Sargeant Reynolds
- Lean Startup Circle
- Lighthouse Labs
- New Dominion Angels
- Randolph Macon
- REDC
- Richmond Times Dispatch
- RichTech
- SCORE – Service Corp of Retired Executives
- SeedRVA
- Small Business Administration
- StartRVA
- United VA
- University of Richmond
- Urban League of Greater Richmond
- VCCS One Stop Career Centers
- VCU DaVinci Center
- Venture Forum
- Virginia Asian Chamber of Commerce
- Virginia Capital Partners
- Virginia Community Capital
- Virginia Department of Business Assistance
- Virginia Hispanic Chamber of Commerce
- Virginia Innovators Network (VINE)
- Virginia State University
- Virginia Union
- Workforce Investment Board



## **Development Opportunities in Downtown Area**

Pages A-12 through A-23 provide detailed information on development opportunities in the urbanized core of Richmond. These sites represent infill development potential as it relates to revitalizing downtown.”

### **2ND AND MARSHALL (EDA SITE)**

#### **OPPORTUNITY: 2ND & MARSHALL ST RICHMOND, VA**



- Owner: City of Richmond's Economic Development Authority
- Acreage: 0.755 Acres
- Zoning: B-4 Business (Central Business)
- Map Ref. #: N0000038025
- Neighborhood: Central Office
- Council District: 6
- City Assessment: \$1,035,000
- Potential uses: Hotel, Office, Residential & Retail







## 2323 E MAIN STREET (LORILLARD BUILDING)

OPPORTUNITY:  
2321 & 2323 E. MAIN ST.  
RICHMOND, VA



- Owner: Lorillard Building LLC
- Acreage: 0.7997 Acres
- Building area 63,200 Sq. ft.
- Zoning: M-1; Light Industrial
- Map Ref. #: E0000302001, E0000302004, E0000302006
- Neighborhood: Shookoe Bottom
- Council District: 7
- Potential Use: Office, Residential, & Retail
- City Assessment: \$1,505,000



ECONOMIC & COMMUNITY  
DEVELOPMENT  
CITY OF RICHMOND



1500 East Main Street  
Suite 400  
Richmond, VA 23219  
  
Phone: 804.646.5633  
Fax: 804.646.6793  
E-Mail: [econdev@richmondgov.com](mailto:econdev@richmondgov.com)







## FULTON GAS WORKS

### OPPORTUNITY: FULTON GAS WORKS RICHMOND, VA



- Owner: City of Richmond and Richmond Redevelopment and Housing Authority
- Acreage: 19.487 Acres
- Zoning: M-1; Light Industrial and M-2; Heavy Industrial
- Map Ref. #: E0000738009, E0001429003, and E0001128001
- Neighborhood: Shockoe Bottom
- Council District: 7
- City Assessment: \$1,998,000
- Potential Uses: Office, residential and re-tail



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E-Mail: [econdev@richmondgov.com](mailto:econdev@richmondgov.com)



## REYNOLDS SOUTH

OPPORTUNITY:  
321 S. 10TH ST  
RICHMOND, VA



- Owner: North Falls Towers LLC
- Acreage: 1.267 Acres
- Zoning: B-4 Business (Central Business)
- Map Ref #: E0000038002
- Neighborhood: Central Office
- Council District: 6
- City Assessment: \$2,680,000
- Potential Uses: Mixed Use (Hotel, Office, Residential, & Retail )



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E-Mail: [econdcv@richmondgov.com](mailto:econdcv@richmondgov.com)



## NORTH FALLS TOWER (REYNOLDS NORTH)

### OPPORTUNITY:

**REYNOLDS SOUTH  
423 HULL STREET  
RICHMOND, VA**

- Owner: Reynolds Packing LLC
- Acreage: 16.661 Acres
- Zoning: RF-2, Riverfront & B-7; Business
- Map Ref. #: S0000038001, 56001, 56010, 55001, 55009, 55018, 54001
- Neighborhood: Old Town Manchester
- Council District: 6
- City Assessment: \$8,852,000
- Potential Uses: Mixed Use (Office, residential and retail)



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## **RICHMOND ON THE JAMES**

**OPPORTUNITY:**

**RICHMOND ON THE JAMES**  
**3011 DOCK STREET**  
**RICHMOND, VA**



- Owner: USP Echo Harbour LLC
- Acreage: 5.207 Acres
- Proposed Gross Building Area: 536,436 Sq. Ft. Office Space
- Proposed Parking: 1,249 Spaces
- Zoning: M-2; Heavy Industrial
- Map Ref. #: E0000587003, E0000587004
- Neighborhood: Shoccoe Bottom
- Council District: 7
- City Assessment: \$3,402,000
- Potential Uses: Office, Hotel, Retail



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 CITY OF RICHMOND



1500 East Main Street  
 Suite 400  
 Richmond, VA 23219

Phone: 804.646.5633  
 Fax: 804.646.6793  
 E-Mail: [econdcv@richmondgov.com](mailto:econdcv@richmondgov.com)



## SOUTH 6TH STREET (CENTENNIAL TOWER SITE)

### OPPORTUNITY: 6 1/2 SOUTH 6TH STREET RICHMOND, VA

- Owner: Investors USA, LLC
- Acreage: 0.692 Acres
- Zoning: B-4 Business (Central Business)
- Map Ref. #: W0000013034
- Neighborhood: City Central
- Council District: 6
- Potential Use: Office, Residential , & Re-tail
- City Assessment: \$1,935,000



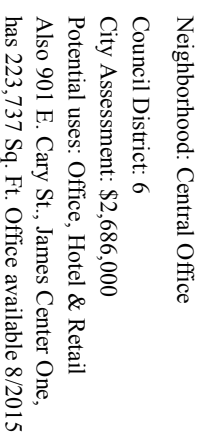
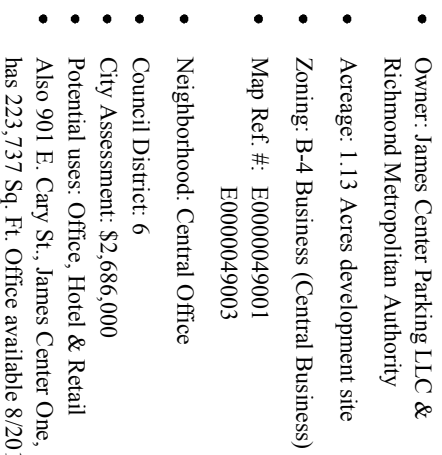
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**OPPORTUNITY:**  
**JAMES CENTER**  
**201 SOUTH 10TH STREET**  
**RICHMOND, VA**



1500 East Main Street  
Suite 400  
Richmond, VA 23219  
Phone: 804.646.5633  
Fax: 804.646.6793  
E-Mail: [econdey@richmondgov.com](mailto:econdey@richmondgov.com)



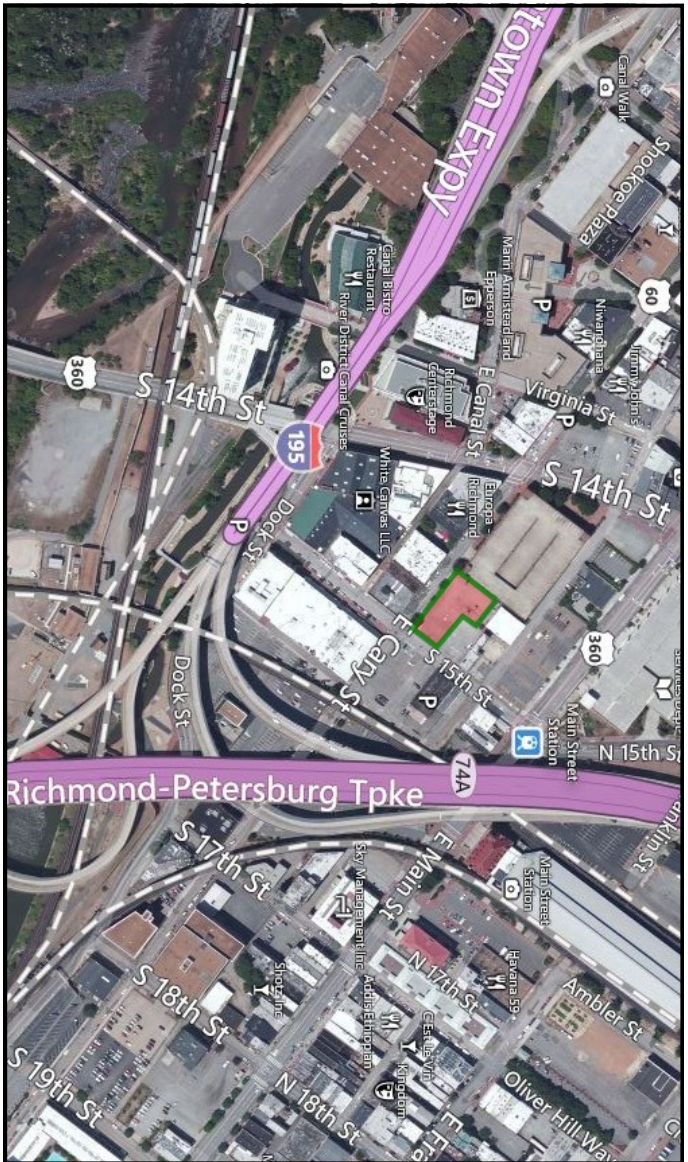


## WHITEHEAD WAREHOUSE (S 15TH AND E CARY ST)

OPPORTUNITY: WHITEHEAD WAREHOUSE CO.  
S. 15TH ST AND E. CARY ST  
RICHMOND, VA



- Owner: WhiteHead Warehouse Co.
- Acreage: 0.353 Acres
- Zoning: M-1; Light Industrial
- Map Ref. #: E0000087028-87032
- Neighborhood: Shockoe Slip
- Council District: 7
- City Assessment: \$647,000
- Potential Uses: Hotel, Office, Residential, & Retail



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## **ROCKETTS LANDING (DATA SHEET)**

### **ROCKETTS LANDING NEW MARKET ROAD & OLD OSBORNE HENRICO COUNTY, VA**

New construction along scenic New Market Road, Old Osborne Turnpike and the James River. Site available capable of accommodating a corporate headquarters up to +/- 200,000 square feet.



- Acreage: ±50 acres total (35 acres in Henrico County; 15 acres in the City of Richmond)
- Zoning: UMC (Urban Mixed Use Conditional)
- TAX PARCEL NUMBERS: 797-711-6071 and 797-712-4180.
- Water: 8" line along Old Osborne Turnpike
- Sewer: 30" line along Old Osborne Turnpike, approximately 1,500 feet south of site
- Gas: 8" line along Old Osborne Turnpike
- Fiber Optic Cable: Comcast and Verizon with T-3 lines fiber running to each building.
- Distance to nearest Interstate interchange: 7.5 miles to I-295 and New Market Road
- Distance to nearest major arterial: Site is adjacent to New Market Road/Old Osborne Turnpike.



- Distance to Richmond International Airport: 8.5 miles
- Contact:  
Robert Hensley  
Rocketts Landing/WVS  
Companies, LLC  
804. 536.5597

Henrico County Economic Development Authority  
4300 East Parham Road  
Henrico, Virginia 23228  
Phone: (804) 501-7654  
Fax: (804) 501-7890



## **Priority Development Opportunities throughout the Region**

Pages A22 - A44 provide details on buildings and undeveloped sites that provide opportunities for development throughout the Richmond Region.

Route 1 – I-95/295 Focal Area . . . . .	A22
RIC Airport/ White Oak Focal Area . . . . .	A25
Port of Richmond Activity Focal Area . . . . .	A28
Meadowville Focal Area . . . . .	A31
Innsbrook / West Creek Focal Area . . . . .	A34
Charles City County Priority Undeveloped Sites and Buildings .	A36
New Kent County Priority Undeveloped Sites . . . . .	A38
Goochland County Priority Undeveloped Sites . . . . .	A41
Powhatan County Priority Undeveloped Sites. . . . .	A43







## ROUTE 1 – I-95/295 FOCAL AREA

These undeveloped sites and buildings listed in this section are described in the narrative for the Route 1 – I-95/295 Focal Area found on page 64. They can also be found on the maps in Exhibits 62 and 63.

### UNDEVELOPED SITES (LISTED NORTH TO SOUTH)

Virginia Transportation Park (Undeveloped Site)									
Location						Jurisdiction			
Washington Highway						Hanover County			
Owner					Zoning		Dist. to Interstate		
M & M Associates Limited Partnership					M-1		2.6 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓						82 acres	38 acres	22 acres	
Incentives / Local Funding									
\$115,000 (FY'15) for Waterline improvements along Rt. 1									
Comments									
82 acre site subdivided into 3 parcels with 2 parcels of 22 and 16 acres available. County has extended a sewer line to serve the park. 300,000 sq ft Vitamin Shoppe distribution center on 40+ acres will be operational by spring of 2013.									

East Ashland (Undeveloped Site)									
Location							Jurisdiction		
SE corner of I-95 and Rt 54							Town of Ashland		
Owner						Zoning	Dist. to Interstate		
EAI LLC						PUD	0.3 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓						96 acres	96 acres	96 acres	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.



Hickory Hill Office Park (Undeveloped Site)									
Location							Jurisdiction		
Route 54 & Patrick Henry Road							Hanover County		
Owner						Zoning	Dist. to Interstate		
Hickory Hill II, LLC						A-1	0.9 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓		✓	✓	✓	51 acres	51 acres	51 acres	
Comments									
New development that can be adapted for the end user with flexible zoning options. The site is comp planned for business, good for Class A or B and/or Medical Office. Not properly zoned.									

Northlake Business Park (Undeveloped Site)									
Location							Jurisdiction		
Lewistown Road							Hanover County		
Owner						Zoning	Dist. to Interstate		
EMAC, LLC						M-2	0.7 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		350 acres	77 acres	15 acres	
Comments									
Improvements planned for Lewistown Rd and interchange. Northlake Business Park II (200 acres) is phase 2. Building 4 site in park has been purchased by VA Dept of Game and Inland Fisheries for their new HQ (no site plan approval yet).									

## AVAILABLE BUILDINGS (LISTED NORTH TO SOUTH)

Former Best Products Distribution Building									
Location					Jurisdiction				
14174 N. Washington Highway					Hanover County				
Owner					Zoning	Dist. to Interstate			
Clemons Warehouses, LLC					M-2	3 miles			
Year Built	Ceiling Height	Utilities					Building Space		
		E	G	W	S	T	F	Total Space	Total Available
1960	16'	✓	✓	✓	✓	✓		392,000 SF	95,000 SF
Incentives / Local Funding									
CIP funding: \$115,000 (FY'15) water improvements along Rt. 1.									
Comments									
Purchased by Orbit Logistics, 3rd party, along with adjacent 15 acres. Located near the Virginia Transportation Park.									

Interchange Building D @ Northlake (Building)									
Location					Jurisdiction				
11600 N. Lakeridge Parkway					Hanover County				
Owner					Zoning	Dist. to Interstate			
CDH Properties, LLC					M-2	0.25 miles			
Year Built	Ceiling Height	Utilities					Building Space		
		E	G	W	S	T	F	Total Space	Total Available
n/a	32'	✓	✓	✓	✓	✓		302,990 SF	302,990 SF
Comments									
PAD ready, shortlisted for a past project but fell off. Not a existing building but site planning already complete.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





Supply Room Building										
Location							Jurisdiction			
14140 N. Washington Highway							Hanover County			
Owner						Zoning	Dist. to Interstate			
YSJ, LLC						M-2	2 miles			
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
n/a	30'	✓	✓	✓	✓	✓	✓	240,000 SF	100,000 SF	100,000 SF
Incentives / Local Funding										
CIP funding: \$115,000 (FY'15) water improvements along Rt. 1.										
Comments										
Supply Room owns a third of the building and is subleasing a portion.										

12124 N. Washington Highway (Building)										
Location								Jurisdiction		
12124 N. Washington Highway								Town of Ashland		
Owner							Zoning	Dist. to Interstate		
Holden Executive Enterprises							M-1	1 mile		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1976	24'	✓	✓	✓	✓	✓	✓	99,660 SF	70,000 SF	70,000 SF

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.







## RIC AIRPORT/ WHITE OAK FOCAL AREA

The undeveloped sites and buildings listed in this section are described in the narrative for the RIC Airport/ White Oak Focal Area found on page 66. They can also be found on the map in Exhibit 64.

### UNDEVELOPED SITES (LISTED WEST TO EAST)

Ukrop's Site (Undeveloped Site)									
Location						Jurisdiction			
6228 Miller Rd						Henrico County			
Owner						Zoning	Dist. to Interstate		
Ukrops Super Market Inc						M-2	3.3 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		60 acres	60 acres	60 acres	
Comments									
Water: 16" line west side of Laburnum and 12" line along Seven Hills Blvd. Sewer: 24" line east of Laburnum and 15" line along Seven Hills Blvd. 17.5 ac is zoned M-2 and the 43.09 ac is zoned M-2[C]. Parcel could be further subdivided to accommodate a 15-20 ac requirement. Pad ready site - best opportunity ready to go sites.									

Sauer Business Park (Undeveloped Site)									
Location							Jurisdiction		
6349 Miller Rd							Henrico County		
Owner						Zoning	Dist. to Interstate		
Sauer Properties Inc						M-1	2.5 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		450 acres	400 acres	400 acres	
Comments									
Pad ready site - best opportunity ready to go sites.									

Dominion Virginia Power Site (Undeveloped Site)									
Location						Jurisdiction			
Charles City Rd and Miller Rd						Henrico County			
Owner						Zoning	Dist. to Interstate		
VA Electric & Power Co.						M-2	2.6 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		13 acres	9 acres	9 acres	
Comments									
All utilities, level, cleared, rail potential. Environmental studies still need to be done. Parcel doesn't look like it has been subdivided yet. Adjacent property to the east (in the same parcel) has been developed									

Franz Haas Site (Undeveloped Site)									
Location						Jurisdiction			
6207 Settler Rd						Henrico County			
Owner						Zoning	Dist. to Interstate		
International Real Estate Dev						M-2, A-1	2.8 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		102 acres	102 acres	102 acres	
Comments									
Outstanding transportation infrastructure. Pad ready site - best opportunity ready to go sites.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





RIC Site (Undeveloped Site)									
Location							Jurisdiction		
Thunder St							Henrico County		
Owner						Zoning	Dist. to Interstate		
Capital Region Airport Commission						M-2C	0.3 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓						100 acres	n/a	n/a	
Incentives / Local Funding									
Located within a Foreign Trade Zone.									
Comments									
Ideal for aeronautics research and/or advanced manufacturing facility.									

Tech Park (Undeveloped Site)									
Location							Jurisdiction		
Technology Blvd (adjacent to White Oak Technology Park.)							Henrico County		
Owner						Zoning	Dist. to Interstate		
Atack Me Tech Park Partners LLC						M-2	2 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		225 acres	111 acres	40 acres	
Incentives / Local Funding									
<ul style="list-style-type: none"><li>Enterprise funds towards sewer improvements.</li><li>CIP Funding (FY '14 - '16): White Oak SPS Improvements \$1,770,885; White Oak SPS FM \$5,516,550</li></ul>									

White Oak Technology Park (Undeveloped Site)									
Location						Jurisdiction			
Elko Rd and Portugee Rd						Henrico County			
Owner						Zoning	Dist. to Interstate		
Industrial Dev Auth Henrico Co						M-2	2.4 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		2,250 acres	1,014 acres	1,014 acres	
Incentives / Local Funding									
<ul style="list-style-type: none"><li>Enterprise funds towards sewer improvements.</li><li>CIP Funding (FY '14 - '16): White Oak SPS Improvements \$1,770,885; White Oak SPS FM \$5,516,550</li></ul>									
Comments									
Class A, high tech manufacturing center, 760 fab site available. Two additional large sites of 140 and 94 acres. Phase I environmental audit complete. Ready to got - top priority site.									

Williams Tract (Undeveloped Site)									
Location							Jurisdiction		
Clint Lane & New Kent Hwy							New Kent County		
Owner							Zoning	Dist. to Interstate	
William C L Est							EO	0.25 miles	
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		609 acres	400 acres	400 acres	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.



## AVAILABLE BUILDINGS (LISTED WEST TO EAST)

Interport Business Center - Bldg A (Building)										
Location								Jurisdiction		
4800-4890 Eubank Rd								Henrico County		
Owner							Zoning	Dist. to Interstate		
Interport A LP							M-1	1 mile		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1998	24'	✓	✓	✓	✓	✓	✓	447,412 SF	366,506 SF	366,506 SF

Quality Technology Services (QTS) (Building)										
Location							Jurisdiction			
6000 Technology Blvd							Henrico County			
Owner						Zoning		Dist. to Interstate		
Richmond Semiconductor LLC						M-2		0.5 mile		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1994	21'	✓	✓	✓	✓	✓		1,432,515 SF	1,041,000 SF	353,451 SF
Incentives / Local Funding										
<ul style="list-style-type: none"><li>Enterprise funds towards sewer improvements.</li><li>CIP Funding (FY '14 - '16): White Oak SPS Improvements \$1,770,885; White Oak SPS FM \$5,516,550</li></ul>										
Comments										
QTS has converted old Qimonda bldg into a data center. Investing another \$100 million in improvements chasing another data center.										

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.







## PORT OF RICHMOND ACTIVITY FOCAL AREA

The undeveloped sites and buildings listed in this section are described in the narrative for the Port of Richmond Activity Focal Area found on page 68. They can also be found on the maps in Exhibits 66 and 66.

### UNDEVELOPED SITES (LISTED NORTH TO SOUTH)

City Central (Undeveloped Site)									
Location							Jurisdiction		
1401-1501 Commerce Rd.							City of Richmond		
Owner						Zoning	Dist. to Interstate		
City Central LLC						M-1	1.8 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓	✓	50 acres	20 acres	10 acres	
Incentives / Local Funding									
<ul style="list-style-type: none"><li>• Located in an Enterprise Zone.</li><li>• Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li></ul>									
Comments									
<p>CIP funding includes access road for taller trucks to reach the Port of Richmond by extending Deepwater Terminal Road .69 miles north to Goodes Street.</p> <p>City has sent out RFP for shortline spurs - will need \$150K near Moxley for off loading area. Looking at a lease to operate the rail line.</p> <p>City is working with VEDP in having a virtual site.</p> <p>20 acres clear with another 30 acres adjacent totaling 50 acres.</p> <p>Existing warehouse buildings on adjacent 30 acres will be demolished. No timetable has been identified for demolishing existing buildings on site as they are leasing space until the property is sold.</p>									

Philip Morris/ Altria Operations Center (Undeveloped Site & Building)									
Location						Jurisdiction			
2001 Walmsley Blvd.						City of Richmond			
Owner						Zoning		Dist. to Interstate	
Philip Morris Inc C/O Real Estate						M-2		0.25 miles	
Utilities						Acreages and Building Size			
E	G	W	S	T	F	Site Size	Existing Bldg Occupies	Available Bldg Space	
✓	✓	✓	✓	✓	✓	186 acres	60 acres	570,149 SF	
Incentives / Local Funding									
<ul style="list-style-type: none"><li>• Located in an Enterprise Zone.</li><li>• Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li></ul>									
Comments									
City is marketing separate 60-acre site. Has recommended 5 major projects, but would rather sell whole 186-acre site altogether.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.



James River Industrial Center (Undeveloped Site)									
Location							Jurisdiction		
10001 Coach Rd.							Chesterfield County		
Owner						Zoning	Dist. to Interstate		
Reynolds Real Est. Ventures LLC						I-3	1.6 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		650 acres	506 acres	250 acres	
Incentives / Local Funding									
<ul style="list-style-type: none"><li>Located in an Enterprise Zone.</li><li>Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li></ul>									
Comments									
Barge access is feasible along James River. Utility infrastructure is on site and designed for heavy industrial users.									

Chesapeake Warehouses (Building)										
Location						Jurisdiction				
1100 Dinwiddie Ave						City of Richmond				
Owner						Zoning	Dist. to Interstate			
Chesapeake Partners						M-1	1 mile			
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1937	16'	✓	✓	✓	✓	✓		164,000 SF	164,000 SF	164,000 SF
Incentives / Local Funding										
<ul style="list-style-type: none"> <li>Located in an Enterprise Zone.</li> <li>Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li> </ul>										
Comments										
Need funding for demolition of warehouses and need strategic assistance. CIP includes Dinwiddie Ave. road improvements, as well as extension of Deepwater Terminal Road .69 miles north to Goodes Street to provide access for taller trucks to reach the Port of Richmond.										

## AVAILABLE BUILDINGS (LISTED WEST TO EAST)

American Tobacco Warehouse (Building)										
Location						Jurisdiction				
800 Jefferson Davis Hwy						City of Richmond				
Owner						Zoning	Dist. to Interstate			
Keck's Warehouses Inc						M-1	5 miles			
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1939	16.5'	✓	✓	✓	✓	✓		361,000 SF	120,000 SF	40,000 SF
Incentives / Local Funding										
<ul style="list-style-type: none"> <li>Located in an Enterprise Zone.</li> <li>Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li> </ul>										

700 Gordon Ave (Building)										
Location						Jurisdiction				
700 Gordon Ave						City of Richmond				
Owner						Zoning	Dist. to Interstate			
Virginia Bonded Warehouse Corp						M-2	1 mile			
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1962	21'	✓	✓	✓	✓	✓		130,000 SF	130,000 SF	130,000 SF
Incentives / Local Funding										
<ul style="list-style-type: none"> <li>Located in an Enterprise Zone.</li> <li>Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li> </ul>										
Comments										
CIP funding includes access road for taller trucks to reach the Port of Richmond by extending Deepwater Terminal Road .69 miles north to Goodes Street.										

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





Alleghany Warehouse Complex (Building)										
Location							Jurisdiction			
3021-3205 Commerce Rd							City of Richmond			
Owner						Zoning		Dist. to Interstate		
Alleghany Warehouse Co. Inc						M-1		1 mile		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1970	28'	✓	✓	✓	✓	✓		2,483,802 SF	1,211,188 SF	868,400 SF
Incentives / Local Funding										
<ul style="list-style-type: none"><li>Located in an Enterprise Zone.</li><li>Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li></ul>										
.Comments										
City has current leases that will be put in place for at least a year - phasing in demolition and development. City is working with VEDP in having a virtual site. May need to re-establish rail site.										
CIP funding includes access road for taller trucks to reach the Port of Richmond by extending Deepwater Terminal Road .69 miles north to Goodes Street.										

3400 Deepwater Terminal Rd (Building)										
Location							Jurisdiction			
3400 Deepwater Terminal Rd							City of Richmond			
Owner						Zoning		Dist. to Interstate		
International Paper Co.						M-2		1.5 miles		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1969	20'	✓	✓	✓	✓	✓		179,339 SF	179,339 SF	179,339 SF
Incentives / Local Funding										
<ul style="list-style-type: none"><li>Located in an Enterprise Zone.</li><li>Transportation investments (see Exhibits 65 &amp; 66) with local and RAMPO funding.</li></ul>										
Comments										
CIP funding includes access road for taller trucks to reach the Port of Richmond by extending Deepwater Terminal Road .69 miles north to Goodes Street.										

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.







## MEADOWVILLE FOCAL AREA

The undeveloped sites and buildings listed in this section are described in the narrative for the Meadowville Focal Area found on page 71. They can also be found on the map in Exhibit 67.

### UNDEVELOPED SITES (LISTED WEST TO EAST)

Old Stage Rd./ Coyote Dr. Parcels (Undeveloped Site)									
Location							Jurisdiction		
11311 Old Stage Rd.							Chesterfield County		
Owner						Zoning	Dist. to Interstate		
Atkinson David & Jacalyn						I-3	0.8 mile		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		31 acres	31 acres	25 acres	
Incentives / Local Funding									
• Located in an Enterprise Zone.									

Bermuda Industrial Park (Undeveloped Site)									
Location							Jurisdiction		
12411 Old Stage Rd.							Chesterfield County		
Owner						Zoning	Dist. to Interstate		
Fullerton Properties Inc						I-2	0.8 mile		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		16 acres	16 acres	10 acres	
Incentives / Local Funding									
• Located in an Enterprise Zone.									

Wells / Old Stage Rd. Site (Undeveloped)									
Location					Jurisdiction				
1800 Old Bermuda Hundred Rd.					Chesterfield County				
Owner					Zoning	Dist. to Interstate			
Miles and Wells					A; I-1; I-3	1 mile			
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		64 acres	64 acres	53 acres	

Robert-Woods Edge (Undeveloped Site)									
Location							Jurisdiction		
15100 Woods Edge Rd.							Chesterfield County		
Owner						Zoning	Dist. to Interstate		
Roberts J W						I-1	0.5 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		125 acres	125 acres	125 acres	
Incentives / Local Funding									
• Located in an Enterprise Zone.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





Ashton Creek Business Center (Undeveloped Site)									
Location						Jurisdiction			
1600 Ashton Park Dr.						Chesterfield County			
Owner						Zoning	Dist. to Interstate		
Coyner Carrie E Trustee						I-2	2.4 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		382 acres	347 acres	347 acres	
Incentives / Local Funding									
• Located in an Enterprise Zone.									
Comments									
Wetlands delineation in 2003. Needs some additional infrastructure (increased water flow capacity).									

Meadowville Technology Park (Undeveloped Site)									
Location							Jurisdiction		
11600 N. Enon Church Rd.							Chesterfield County		
Owner						Zoning	Dist. to Interstate		
Meadowville LLC						I-2; CUPD	0.8 mile		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓	✓	1,200 acres	973 acres	250 acres	

American Tobacco Site (Undeveloped Site)									
Location						Jurisdiction			
2400 Bermuda Hundred Rd.						Chesterfield County			
Owner						Zoning		Dist. to Interstate	
Lowe Riley B & Helen F						I-3		2.2 miles	
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		353 acres	296 acres	296 acres	
Comments									
Electric transmission feed to the site can be configured to provide service from two transmission sources.									

Keck Site (Undeveloped Site)									
Location							Jurisdiction		
2401 Bermuda Hundred Rd.							Chesterfield County		
Owner						Zoning	Dist. to Interstate		
Winston Thomas S III						I-3	2.2 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		166 acres	166 acres	107 acres	
Comments									
Property is positioned to offer availability for redundant power.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.



### AVAILABLE BUILDINGS (LISTED WEST TO EAST)

Bermuda Industrial Warehouse (Building)										
Location								Jurisdiction		
1821 Battery Dantzer Rd.								Chesterfield County		
Owner							Zoning	Dist. to Interstate		
Fullerton Properties Inc							I-2	1 mile		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1990	24'	✓	✓	✓	✓	✓	✓	129,400 SF	90,100 SF	45,100 SF

Enterchange at Walthall C (Building)										
Location								Jurisdiction		
1936-1962 Ruffin Mill Rd.								Chesterfield County		
Owner							Zoning		Dist. to Interstate	
Walthall C LP							I-1		1 mile	
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
2000	32'	✓	✓	✓	✓	✓	✓	261,922 SF	218,386 SF	116,449 SF

Bermuda Park 1 (Building)										
Location								Jurisdiction		
12600 Bermuda Triangle Rd.								Chesterfield County		
Owner						Zoning		Dist. to Interstate		
Fullerton Properties Inc						I-2		1 mile		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1979	20'	✓	✓	✓	✓	✓	✓	108,000 SF	54,000 SF	54,000 SF

Sustainability Park – RJR facility (Building)										
Location								Jurisdiction		
13101 N. Enon Church Rd.								Chesterfield County		
Owner						Zoning		Dist. to Interstate		
Sustainability Park LLC						I-3		2 miles		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1966	16’	✓	✓	✓	✓	✓	✓	337,722 SF	100,000 SF	100,000 SF

Enterchange at Walthall B (Building)										
Location							Jurisdiction			
1900-1934 Ruffin Mill Rd.							Chesterfield County			
Owner						Zoning		Dist. to Interstate		
Walthall A&B LP						I-1		1 mile		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
2000	32'	✓	✓	✓	✓	✓	✓	327,614 SF	48,448 SF	48,448 SF

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.







## INNSBROOK / WEST CREEK FOCAL AREA

The undeveloped sites and buildings listed in this section are described in the narrative for the Innsbrook / West Creek Focal Area found on page 73. They can also be found on the map in Exhibit 64.

### UNDEVELOPED SITES (LISTED WEST TO EAST)

West Creek Business Park (Undeveloped Site)									
Location					Jurisdiction				
West Creek Parkway & VA-288					Goochland County				
Owner					Zoning	Dist. to Interstate			
Multiple owners					m1	0.25 miles			
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		3,500 acres	1,600 acres	400 acres	

The Notch at West Creek (Undeveloped Site)									
Location							Jurisdiction		
W Broad St and Rt 288							Goochland County		
Owner						Zoning	Dist. to Interstate		
West Creek Associates						B1/R0	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓	✓	230 acres	n/a	n/a	
Comments									
Mixed-use development will include multi-family, medical offices, retail and corporate offices. First phase of project will include a 3-mile road connecting West Broad St and Tuckahoe Creek Pkwy.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.



## AVAILABLE BUILDINGS (LISTED WEST TO EAST)

West Mark I (Building)									
Location							Jurisdiction		
11011 West Broad Street							Henrico County		
Owner						Zoning		Dist. to Interstate	
Rer/New Boston W Broad St						O-3		1 mile	
Year Built	Utilities						Building Space		
	E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1976	✓	✓	✓	✓	✓	✓	278,529 SF	227,036 SF	227,036 SF

Deep Run I (Building)									
Location							Jurisdiction		
9950 Mayland Drive							Henrico County		
Owner						Zoning		Dist. to Interstate	
Deep Run SPE LLC						M-1		0.8 mile	
Year Built	Utilities						Building Space		
	E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
	✓	✓	✓	✓	✓		306,284 SF	91,117 SF	56,000 SF

Deep Run III – formerly Circuit City (Building)									
Location							Jurisdiction		
9954 Mayland Drive							Henrico County		
Owner						Zoning	Dist. to Interstate		
Dr. III LLC						M-1	0.8 mile		
Year Built	Utilities						Building Space		
	E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1997	✓	✓	✓	✓	✓		382,579 SF	382,579 SF	382,579 SF
Comments									
Market will be investing \$17 million in improvements and parking garage.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





# CHARLES CITY COUNTY PRIORITY UNDEVELOPED SITES AND BUILDINGS

## UNDEVELOPED SITES

Kinney Tract 1 (Undeveloped Site)									
Location							Jurisdiction		
Route 106 & Chamber Rd							Charles City County		
Owner						Zoning	Dist. to Interstate		
The Lexington Corporation						M-2	7 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		465 acres	380 acres	300 acres	
Comments									

Virginia Turf Farm (Undeveloped Site)									
Jurisdiction					Owner				
Charles City County					Charles City County				
Zoning					Dist. to Interstate				
M-1					5 miles				
Utilities					Acreages				
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓						131 acres	110 acres	60 acres	

Lowe Property (Undeveloped Site)									
Jurisdiction					Owner				
Charles City County					Riley Lowe				
Zoning					Dist. to Interstate				
M-1					5 miles				
Utilities					Acreages				
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓						125 acres	88 acres	88 acres	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Bates Property (Undeveloped Site)									
Jurisdiction						Owner		Zoning	Dist. to Interstate
Charles City County						Nancy B. Bates		A-1	7 miles
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓						35 acres	30 acres	30 acres	
Comments									
Would need to be rezoned.									

Layfield Property (Undeveloped Site)									
Jurisdiction						Owner		Zoning	Dist. to Interstate
Charles City County						Paul Layfield, Jr.		A-1	7 miles
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓						178 acres	166 acres	80 acres	
Comments									
Would need to be rezoned.									

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





## AVAILABLE BUILDINGS

Warrior Xpress Building (Building)										
Location								Jurisdiction		
5900 Chamber Rd.								Charles City County		
Owner						Zoning		Dist. to Interstate		
Robinson, John C. & Ellen Trustees						I		6 miles		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1992	22'	✓		✓	✓	✓		21,800 SF	21,800 SF	21,800 SF

312 Roxbury Industrial Center (Building)										
Location								Jurisdiction		
312 Roxbury Industrial Center								Charles City County		
Owner						Zoning		Dist. to Interstate		
CEC Building, LLC						PDIP		4 miles		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1995	20'	✓	✓	✓	✓	✓		45,600 SF	45,600 SF	40,800 SF

104 Roxbury Industrial Center (Building)										
Location								Jurisdiction		
104 Roxbury Industrial Center								Charles City County		
Owner						Zoning		Dist. to Interstate		
Roxbury Partners - Eagle						PDIP		4 miles		
Year Built	Ceiling Height	Utilities						Building Space		
		E	G	W	S	T	F	Total Space	Total Available	Contiguous Space
1985	12'	✓	✓	✓	✓	✓		20,800 SF	17,800 SF	17,800 SF

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.







## NEW KENT COUNTY PRIORITY UNDEVELOPED SITES

Williams Tract* (Undeveloped Site)									
Location							Jurisdiction		
Clint Lane & New Kent Hwy							New Kent County		
Owner						Zoning	Dist. to Interstate		
Williams C L Est						EO	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		609 acres	400 acres	400 acres	

Alvis Tract (Undeveloped Site)									
Location							Jurisdiction		
Emmaus Church Rd. & Business Park Rd.							New Kent County		
Owner							Zoning	Dist. to Interstate	
Central VA Sports Park LLC							EO	0.5 miles	
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		26 acres	21 acres	15 acres	

Fisher Tract (Undeveloped Site)									
Location							Jurisdiction		
Emmaus Church Rd. & Halstead Ln.							New Kent County		
Owner						Zoning	Dist. to Interstate		
County of New Kent						EO	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		146 acres	100 acres	146 acres	

Theatre Square LC Tract (Undeveloped Site)									
Location							Jurisdiction		
I-64 & Rt. 106							New Kent County		
Owner							Zoning	Dist. to Interstate	
Theatre Square LC							EO	0.25 miles	
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		94 acres	65 acres	94 acres	

Horsley Tract (Undeveloped Site)									
Location							Jurisdiction		
Emmaus Church Rd. & Halstead Ln.							New Kent County		
Owner						Zoning	Dist. to Interstate		
Horsley David L SR						I	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		50 acres	40 acres	45 acres	

Kinney Tract 1 (Undeveloped Site)									
Location							Jurisdiction		
Eltham Rd. & Rt. 33							New Kent County		
Owner						Zoning	Dist. to Interstate		
Jonathan C Kinney Trustee						I	4 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		705 acres	705 acres	705 acres	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





Kinney Tract 2 (Undeveloped Site)									
Location							Jurisdiction		
Eltham Rd. & Theron Rd.							New Kent County		
Owner						Zoning	Dist. to Interstate		
Jonathan C Kinney Trustee						I	5 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		787 acres	787 acres	787 acres	

New Kent Farms (Undeveloped Site)									
Location						Jurisdiction			
N. Courthouse Rd. & I-64						New Kent County			
Owner						Zoning	Dist. to Interstate		
New Kent Farms LLC						EO	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		138 acres	138 acres	138 acres	

Kinney Tract 3 (Undeveloped Site)									
Location							Jurisdiction		
Eltham Rd. & Stage Rd.							New Kent County		
Owner						Zoning	Dist. to Interstate		
Jonathan C Kinney Trustee						EO	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		700 acres	700 acres	700 acres	

Best Industries (Undeveloped Site)									
Location						Jurisdiction			
N. Courthouse Rd. & I-64						New Kent County			
Owner						Zoning	Dist. to Interstate		
Suthanthiran Krisham						A-1	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		442 acres	442 acres	442 acres	

New Kent City Center (Undeveloped Site)									
Location							Jurisdiction		
Emmaus Church Rd. & I-64							New Kent County		
Owner						Zoning	Dist. to Interstate		
SPF Invetment LLC						I	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		1,600 acres	1,600 acres	1,600 acres	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





Weir Creek Industrial Park (Undeveloped Site)									
Location							Jurisdiction		
Polish Town Rd. & New Kent Hwy							New Kent County		
Owner						Zoning	Dist. to Interstate		
Weir Creek LLC						I	3.5 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		152 acres	152 acres	152 acres	
Comments									
Shovel ready									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





## GOOCHLAND COUNTY PRIORITY UNDEVELOPED SITES

Midpoint Industrial Park (Undeveloped Site)									
Location							Jurisdiction		
Midpoint Dr							Goochland County		
Owner						Zoning	Dist. to Interstate		
Goochland County EDA						M1/M2	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		*	†	✓		150 acres	114 acres	50 acres	
Comments									
44 lots available; design build opportunities.							* Well	† Septic	

Oilville Enterchange (Undeveloped Site)									
Location							Jurisdiction		
Oilville Rd. & I-64							Goochland County		
Owner						Zoning	Dist. to Interstate		
Dover Associates Inc						B1/A2	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	*	†	✓		152 acres	125 acres	125 acres	
Comments									
							* Well	† Septic	

Rockville Commerce Center (Undeveloped Site)									
Location					Jurisdiction				
Ashland Rd. & Commerce Center Dr.					Goochland County				
Owner					Zoning	Dist. to Interstate			
multiple owners					M1	0.5 miles			
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		72 acres	5.8 acres	5.8 acres	

Lanier Industrial Park (Undeveloped Site)									
Location					Jurisdiction				
Lanier Rd.					Goochland County				
Owner					Zoning	Dist. to Interstate			
Nuckols Family LLC					M2	1 miles			
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		11.6 acres	11.6 acres	11.6 acres	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.







West Creek Business Park* (Undeveloped Site)									
Location							Jurisdiction		
West Creek Parkway & VA-288							Goochland County		
Owner						Zoning	Dist. to Interstate		
multiple owners						M1	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓		3,500 acres	1,600 acres	400 acres	

The Notch at West Creek*									
Location						Jurisdiction			
W Broad St and Rt 288						Goochland County			
Owner						Zoning	Dist. to Interstate		
West Creek Associates						B1/RO	0.25 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓	✓	✓	✓	✓	✓	230 acres	n/a	n/a	
Comments									
Mixed-use development will include multi-family, medical offices, retail and corporate offices. First phase of project will include a 3-mile road connecting West Broad St and Tuckahoe Creek Pkwy.									

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





## POWHATAN COUNTY PRIORITY UNDEVELOPED SITES

Oak Bridge Industrial Park (Undeveloped Site)									
Location							Jurisdiction		
Rt. 60 & Oakbridge Dr.							Powhatan County		
Owner					Zoning		Dist. to Interstate		
Oak Bridge Corporation					Light Industrial		3.5 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		*	†	✓		32 acres	32 acres	19 acres	
Comments									
							* Well	† Septic	

Powhatan Commercial Center (Undeveloped Site)									
Location							Jurisdiction		
Route 60 & New Dorset Rd							Powhatan County		
Owner					Zoning			Dist. to Interstate	
Robert Lipscomb					C-W/Industrial Uses			7 miles	
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		*	†	✓		1.5 acres	1.5 acres	1.5 acres	
Comments									
* Well      † Septic									

South Creek II (Undeveloped Site)									
Location							Jurisdiction		
2038 Anderson Hwy.							Powhatan County		
Owner					Zoning		Dist. to Interstate		
Shady Oaks Urbine LLC					Heavy Industrial		6 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		38 acres	38 acres	38 acres	

Batterson Site (Undeveloped)									
Location							Jurisdiction		
2206 Batterson Road							Powhatan County		
Owner						Zoning	Dist. to Interstate		
Charles Brown						Agriculture	6.5 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		26 acres	26 acres	26 acres	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





Urbine Site (Undeveloped)									
Location							Jurisdiction		
1980 Anderson Hwy.							Powhatan County		
Owner						Zoning	Dist. to Interstate		
Urbine Family, LLC						Agriculture	6 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		52 acres	52 acres	52 acres	

County Line Drive Site (Undeveloped)									
Location							Jurisdiction		
17650 Midlothian Tpke.							Powhatan County		
Owner						Zoning	Dist. to Interstate		
Oakbridge Corporation						Commercial	3 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		✓	✓	✓		21 acres	21 acres	21 acres	

Genito Road Site (Undeveloped)									
Location							Jurisdiction		
2040 Genito Rd.							Powhatan County		
Owner						Zoning	Dist. to Interstate		
NB Goodwyn & Sons, Empire Acquisition & Development and Hatton						Agriculture	unknown		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		*	†	✓		123 acres	123 acres	94 acres	
Comments									
Norfolk Southern rail spur on site.							*Well		†Septic

Pence-Briggs Site (Undeveloped)									
Location							Jurisdiction		
Anderson Hwy./Flat Rock Area							Powhatan County		
Owner						Zoning	Dist. to Interstate		
Pence-Briggs, Inc.						Commercial	9 miles		
Utilities						Acreages			
E	G	W	S	T	F	Site Size (Acres)	Suitable for Construction	Largest Contiguous	
✓		*	†	✓		9 acres	9 acres	9 acres	
Comments									
							*Well	†Septic	

Utilities: E - electric; G - gas; W - water; S - sewer; T - telecommunications; F - fiber optic.

Source: Virginia Economic Development Partnership, Virginia SCAN, as of 8/14/13.





## **RICHMOND REGIONAL PLANNING DISTRICT COMMISSION**



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