

Housing the Richmond Region's Future Workforce

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Housing Demand in the Richmond Region: 2012-2032

Executive Summary

Over the next 20 years, the Richmond region is projected to add more than 134,000 jobs. At the same time, the region will need about 180,000 replacement workers to fill jobs vacated by retirees and others moving out of the regional workforce. 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.

This research forecasts the future housing demand associated with net new job growth in the Richmond region between 2012 and 2032. Because it is a jobs-driven forecast of housing demand, it explicitly links the potential economic growth in the region to the availability and affordability of housing. The forecasts use assumptions about the age distribution, household composition, and wage levels of new workers. The housing demand forecasts include an analysis of the type (single-family detached and townhouse/multi-family), tenure (owner and renter), price or rent, and location of the housing that will be needed in the region over the next 20 years.

These housing demand estimates are based on the need that will be generated by the projected 134,000 expected net new workers in the region. The forecasts do not include the housing that will be demanded by replacement workers, nor do they include an assessment of the additional units needed for current residents who are underhoused or housing burdened. As such, the forecasts underestimate the amount of housing that will ultimately be needed in the region over the next two decades.

Main Findings

- The Richmond region is projected to add more than 134,000 jobs over the next two decades. The fastest growing sector will be the Construction sector; the Professional and Business Services and Administrative and Waste Services sectors are also projected to grow faster than the overall economy. The region is projected to continue to lose Manufacturing jobs, and to see slower growth in the Government sector over the 20-year period.
- If each jurisdiction in the region provided enough housing to accommodate all of its future workers, the Richmond region would need to add more than 94,000 housing units between 2012 and 2032.
 Supplying this amount of housing will require the construction of about 4,700 net new housing units each year throughout the forecast period.
- The location of housing demand in the region is closely associated with where job growth is projected to be the strongest. Henrico County is projected to add more jobs than any other

jurisdictions in the region, and thus has a projected need for more housing than any other jurisdiction. Based on an analysis of recent residential construction trends, **Henrico County is not on pace to provide a sufficient amount of housing** to accommodate its future workforce.

- The types of housing that will be needed to accommodate new workers over the next 20 years reflects the changing demographics of the working age population and the mix and wage levels of jobs that the region is projected to gain. The housing demand forecasts suggest a need for 66,412 single-family detached homes and 27,718 townhouse and multi-family units between 2012 and 2032. The shift in the demand for more townhouse and multi-family units is strongest in the fastest growing, closer-in suburbs, which suggests a need for changes in builders' approaches to new home construction and local governments' policies guiding residential development to accommodate this needed growth. In the City of Richmond, there is a slight preference for a greater share of single-family detached housing than is currently in the stock.
- There will be a slight shift in the homeownership rate among the region's future workforce. The current homeownership rate in the Richmond region is 67 percent. However, less than 65 percent of the new workers in the region over the next 20 years will be homeowners, while more than 35 percent will be renters.
- The Richmond region's future housing must be at prices and rents that are affordable to new workers. More than half of the region's current renter households and 29 percent of the region's homeowners are housing burdened—that is, they spend 30 percent or more of their income on housing costs. 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. Thus, in order to have sufficient housing that is affordable to new workers, 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.

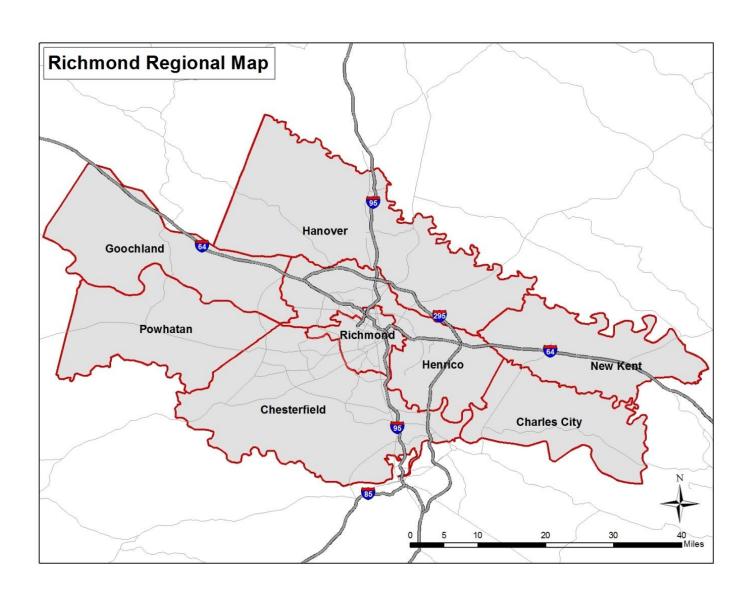
Policy Implications

Housing needs to be thought of as part of the Richmond region's larger economic development strategy. As the regional economy continues to improve following the recession, the opportunities for economic growth and community sustainability depend heavily on the availability and affordability of housing. The Richmond region could establish a clear competitive advantage relative to its peer regions, if local jurisdictions cooperate regionally and plan strategically for housing that is linked to economic development potential.

Several policy implications are suggested by these jobs-driven housing demand forecasts:

 Employment forecasts for the Richmond region indicate modest job growth, with increasing geographic disparity in terms of income growth. Regional policy makers should consider strategies that would increase job growth in key sectors and plans that address regional economic inequalities.

- Overall, the Richmond region has been building enough housing to meet the demands of
 future workers; however, there will be additional demands from replacement workers and
 others. Understanding the cycling of residents into and out of the local jurisdictions will be
 important to understanding the additional demand generated by the region's large group of
 replacement workers.
- There is a need for more townhouse and multi-family units in the suburbs. Currently, local suburban jurisdictions do not have sufficient undeveloped land designated for townhouse and multi-family development in their land use plans.
- The City of Richmond is projected to experience demand for a slightly greater share of single-family detached units compared to its existing stock. The potential housing supply in the City depends on the amount of developable land, as well as the current condition of and future plans for vacant and substandard units in some neighborhoods.
- Future housing needs to be generated at prices and rents that are affordable to new workers.
 Given recent trends in rents and home prices, and the share of current households that are cost burdened, it is important to encourage the construction of units that are affordable to more moderate income households, while also preserving affordable units in the current housing stock.
- Having a sufficient, appropriate and affordable supply of housing is an important factor in the
 Richmond region's future economic vitality and sustainability. Maintaining the Richmond
 region's high quality of life, being able to continue to attract skilled workers, and competing
 with its peer regions are critically dependent on the amount, quality and affordability of housing
 in the region's localities.



Housing Demand in the Richmond Region: 2012-2032

Introduction

Over the next two decades, the Richmond region¹ has the opportunity to outpace its competitor regions in terms of economic growth and sustainability. There are fundamental interdependencies among the growth of the regional economy, its ability to house its future workforce, and its fiscal capacity and ability to maintain and expand the infrastructure required to remain competitive. The availability of a sufficient supply of housing in the region—affordable to workers along the entire earnings spectrum—is essential to the Richmond region's ability to compete with other regional economies and will be critical to whether the region will be able to achieve its full economic potential.

The Richmond region currently is home to about 532,000 jobs and just over a million people. Over the past decade, the number of residents in the region has grown faster than the number of jobs. The Richmond Metropolitan Statistical Area (MSA)² experienced modest economic growth over the past decade, adding about 20,600 jobs over the 2001-2011 period, an increase of 3.5 percent. The eight-county/city Richmond region gained 6,900 jobs between 2001 and 2011, growing just 1.4 percent. The City of Richmond lost 15,400 jobs over that period, but the suburban jurisdictions posted job growth. The Richmond region gained jobs faster than the Norfolk-Virginia Beach metropolitan area over the past decade, but experienced somewhat slower job growth than some of its other peer regions.

The Richmond regional economy is projected to expand at about the same rate over the next two decades, adding about 134,300 net new jobs between 2012 and 2032.³ The types of jobs forecasted for the region represent a shift from the current structure of the economy. Currently, the Government sector (and predominantly State Government) is the largest sector in the regional economy (17% of all jobs). The Health Services sector is the second largest (12%). Over the next two decades—and particularly over the 2012-2022 period—the Construction sector will be the fastest growing sector in the region, adding 24,600 jobs. The Professional and Business Services and Administrative and Waste Services sectors are also projected to grow faster than the overall average, adding 28,900 and 17,000 jobs, respectively, over the 20-year period. Aside from the Professional and Business Services sector, the sectors poised for growth in the region tend to have relatively lower wages than the Government sector. The projected shifts in the structure of the region's economy, therefore, have implications for future housing affordability.

¹ The Richmond region is defined as the city of Richmond and the counties of Chesterfield, Henrico, Hanover (including the Town of Ashland), Goochland, New Kent, Powhatan, and Charles City. Forecasts were generated for the region, as well as for each county and the City of Richmond. Due to data limitations, it was not possible to develop a full set of forecasts for the Town of Ashland.

² The Richmond Metropolitan Statistical Area (MSA) includes the eight jurisdictions in the Richmond region referred to in this report, along with 13 additional counties and cities. The U.S. Office of Management and Budget defines the nation's MSAs. The Richmond MSA figures are used here in order to make comparisons with other MSAs.

³ These job forecasts are derived from county- or city-level economic forecasts produced by IHS Global Insight.

Table 1. Job Growth: 2001-2011 Richmond Region and Peer Regions

Region	2001 Jobs	2011 Jobs	Change	Percent Change
Richmond MSA	588,900	609,500	20,600	3.5
Richmond Region (8 counties & city)	496,967	503,869	6,902	1.4
Norfolk-Virginia Beach MSA	730,500	736,800	6,300	0.9
Northern Virginia	1,161,900	1,329,200	167,300	14.4
Charlotte, NC MSA	771,100	826,700	55,600	7.2
Raleigh-Cary, NC MSA	439,100	508,600	69,500	15.8
Durham-Chapel Hill, NC MSA	256,700	273,500	16,800	6.5
Greensboro, NC MSA	362,700	341,700	-21,000	-5.8
Louisville, KY MSA	608,200	599,000	-9,200	-1.5
Nashville, TN MSA	693,700	751,700	58,000	8.4

Source: U.S. Bureau of Labor Statistics, GMU Center for Regional Analysis. Full-time jobs only.

Projected job growth over the next two decades is not distributed evenly throughout the region. Henrico County is projected to add the most jobs between 2012 and 2032 (about 58,000 net new jobs), but all of the suburban jurisdictions will have faster job growth than the city. The number of jobs in Chesterfield County is projected to increase by 38.2 percent between 2012 and 2032. In Goochland County, the number of jobs increases by 45.0 percent, and the rates of increase are also strong in Powhatan and New Kent counties. The regional job forecasts indicate slow job growth in the City of Richmond, with just 8,200 net new jobs anticipated over the two decade period, an increase of 5.2 percent.

Over the entire study period, there continues to be a geographic shift in regional economic activity, with stronger job growth in the suburbs and a somewhat faster pace of growth in higher wage jobs in the City of Richmond and in the counties to the north and west of the city. Nearly 30 percent of the region's jobs are currently located in the City. By 2032, Richmond's share drops to 24.8 percent and the suburbs all gain shares (with the exception of Charles City). Henrico County is currently home to 34.5 percent of the region's jobs, but that share is projected to increase to 36.2 percent by 2032. Chesterfield County's share of the region's jobs grows from 22.6 percent to 24.9 percent. The availability of housing in the locations where job growth is the strongest is important for fostering economic sustainability and reducing intraregional commuting.

Beyond the number of net new jobs, and the wages and locations of those new jobs, the Richmond region will also experience an extraordinary change in the characteristics and housing needs of its existing workforce as Baby Boomers retire. (The last of the Baby Boom population will reach age 65 in 2029.)

Combined with normal turnover in the workforce (e.g. workers relocating outside the region, choosing not to work for a variety of reasons, or switching jobs to a different sector), retiring workers will create a need for an estimated 184,000 replacement workers in the region between 2012 and 2032.⁴ While some of these vacating workers will also leave the region and free up housing for their replacements, many retirees will stay in the region, precipitating further demands for housing on the part of the workers moving in to replace them.

Demographic changes that are already underway and that will accelerate in the coming years will also have repercussions for the housing demand and for the housing types that will be needed in the future. The overall population is growing older, but the large Generation Y cohort (generally between the ages of 12 and 30) will be fully moving into the workforce over the study period. Household sizes are getting somewhat smaller and Gen Y'ers are delaying marriage and childbearing. Greater demand for smaller houses and for rental units is being driven by changing demographics and preferences, but also as a result of backlash from the housing bust and mortgage crisis.

These trends highlight the importance of understanding the extent of the housing needs of the region's future workforce, including the demand for different housing types and affordability levels.

There are some parts of the Richmond region where housing is very affordable. But data from the past decade indicate that the region has a growing affordability problem. While the Richmond region is still recovering from the housing bust, the run-up in housing prices was somewhat steeper in Richmond compared to other mid-sized southeastern metropolitan areas. According to the Housing Price Index (HPI) produced by the Federal Housing Finance Agency (FHFA), compared to 2002, home prices are up by more than 140 percent in the Richmond MSA. At the peak of the housing market in mid-2007, the HPI indicates that prices in the Richmond MSA were 175 percent higher than in 2002. Compared to Norfolk-Virginia Beach and the Washington DC metropolitan areas, the increase in home prices in the Richmond area are not particularly notable. But, home prices in Richmond have accelerated faster than its other peer regions.

Rents have also risen dramatically over the past decade. In the Richmond MSA, the median rent over the 2009-2011 period was \$936, up from \$613 in 2000, or an increase of 52.7 percent. Median rents are around \$1,000 for each of the eight jurisdictions in the study area, and the biggest rent jump was in the City of Richmond where the median rent nearly doubled over the decade.

GMU Center for Regional Analysis

⁴ The number of replacement workers is estimated based on industry and occupation trend data from EMSI and the GMU Center for Regional Analysis.

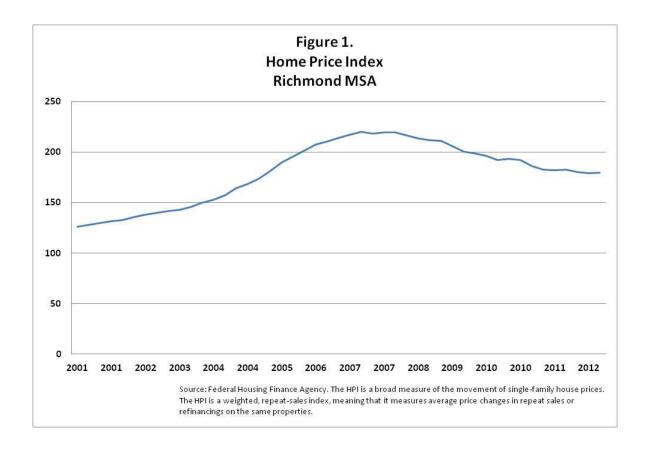


Table 2. Median Rent: 2000 – 2011 Richmond Region and MSA

Jurisdiction	2000 \$s	2011 \$s*	Change	Percent Change
City of Richmond	540	1,073	533	98.7
Chesterfield County	717	1,051	334	46.6
Henrico County	676	977	301	44.5
Hanover County	686	997	311	45.3
Goochland County	589	1,001	412	69.9
New Kent County	636	1,060	424	66.7
Powhatan County	623	1,073	450	72.2
Charles City County	420	807	387	92.1
Richmond MSA	613	936	323	52.7

Source: U.S. Census Bureau, 2000 Census Summary File 3; 2011 American Community Survey 3-year and 5-year estimates.

^{*}The 2011 median rent estimates are for the 2009-2011 or 2007-2011 period depending on the size of the jurisdiction. Rents are in current dollars; they are not adjusted for inflation.

As home prices and rents increased, a growing share of households—particularly low and moderate income renter households—experienced substantial housing burden. Across the Richmond region, more than one-third of households are housing burdened—defined as spending 30 percent or more of their gross income on housing costs.⁵ Over 52 percent of the region's renters and 29 percent of owners pay more than 30 percent of their income on housing. The greatest share of renters who are housing burdened is in the City of Richmond, where more than 58 percent of renters spend more than 30 percent of their income on rent. The biggest burden falls to low and moderate income renters. In the region, among renters with household incomes below \$50,000, nearly three-quarters spend 30 percent or more of their income on rent and utilities.

Study Objective

The primary objective of this research is to analyze future housing need in the Richmond region and specifically to produce employment-driven housing demand forecasts to 2032. These housing forecasts represent the housing demand associated with net new job growth in the Richmond region. Because these are jobs-driven forecasts of housing demand, they explicitly link economic growth in the region to the availability and affordability of housing. However, because the forecasts are based on the housing need generated solely by net new workers, they significantly underestimate the amount of housing that will ultimately be needed in the region. Specifically, the forecasts exclude housing needed for the estimated 184,000 replacement workers that will be needed between 2012 and 2032. This group of workers will put increasing pressure on the housing supply, particularly in the middle part of the forecast period. The demand forecasts also exclude housing needed for people not in the labor force (including retirees, disabled individuals, and others), people currently underhoused or paying too much for housing, or people who will have second homes in the region. As a result, these demand forecasts are a lower bound of the housing need over the coming decades, and are tied explicitly to job growth.

Employment-Driven Housing Demand Forecasts for the Richmond Region

According to estimates from IHS Global Insight and the GMU Center for Regional Analysis, the Richmond region is forecasted to add 134,296 jobs over the next two decades, an increase of 25.3 percent. This job growth reflects an annual growth rate of 1.2 percent, or about the same rate of growth as the past decade. And yet, this economic future is not destiny. In the 2011 *Target Clusters Analysis* report, the Greater Richmond Partnership identified five key sectors as promising growth industries in the post-recession economy—supply chain management, advanced manufacturing, finance and insurance, professional and creative services and health and life sciences. The employment forecasts used for this analysis are based on macroeconomic trends, current industrial mix, and past economic performance, and do not take into account how these strategies could shift future job growth.

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⁵ Housing costs include rent and utilities for renters. and mortgage, real estate taxes, homeowners insurance, condo/HOA fees, and utilities for homeowners.

As the Richmond region considers economic development strategies such as those outlined in the *Target Clusters Analysis* report, it is important to understand that a sufficient supply of housing that is affordable to the entire spectrum of workers will be a critical factor in whether the Richmond region achieves—or even surpasses—its economic growth potential. Workers are increasingly making decisions about where to live based on quality of life issues, including the affordability and quality of housing and neighborhoods. Businesses are then following the workers. In this vein, the Richmond region has opportunities to develop a comprehensive housing strategy that meets the needs of both the current and future workforce. A coordinated housing and economic development strategy should consider not only the amounts of new housing that will be needed to accommodate the region's future workers, but also the locations of new housing units in existing and growing employment centers, the appropriate types of units needed to meet shifting demands, and affordable price and rent ranges so that there are housing options available for households all along the income spectrum.

Table 3. Net New Jobs: 2012 – 2032 Richmond Region

Jurisdiction	Net New Jobs	Percent Change
City of Richmond	8,173	5.2
Chesterfield County	45,896	38.2
Henrico County	57,967	31.6
Hanover County	12,028	25.7
Goochland County	5,250	45.0
New Kent County	2,197	55.6
Powhatan County	2,673	38.9
Charles City County	112	7.3
Region Total	134,296	25.3

Source: IHS Global Insight, GMU Center for Regional Analysis. Full-time jobs only.

This research forecasts the amount of housing that will be required to house the Richmond region's future workforce in order to ensure the region can fulfill its economic potential and remain a competitive economy with a high quality of life. These forecasts start with net new jobs as the driver of future demand for housing and use assumptions about workers' wages, age structures and household compositions to forecast the amount, location, type and price of housing that will be needed over the 2012-2032 period. Specifically, this research addresses four questions:

- 1. How much housing will be needed to house the region's new workers? Using a jobs-driven model of housing demand, these forecasts provide an estimate of the number of housing units that will be needed to house the region's net new workers over the 2012-2032 period. These demand projections are compared to residential construction trends over the past decade.
- **2.** Where should housing be located? With the goal of reducing jurisdiction-to-jurisdiction commuting, the housing demand forecasts explicitly link the locations of needed housing with the locations of projected job growth, at the jurisdiction level.
- **3.** What types of housing units will be needed? Shifting demographics and changes to the job and wage mix in the region suggest that not only is the total amount of housing needed important, but so too is the type of housing. These forecasts estimate the projected need for single-family detached homes and townhouses/multi-family units, as well as ownership versus rental units.
- **4.** What prices and rents will new workers be able to afford? The housing available to the region's future workforce must be priced at affordable levels. These forecasts take into account the wages of new jobs in order to forecast housing demand at different price and rent levels.

How much housing will be needed to house the region's new workers over the next two decades?

If each of the jurisdictions in the Richmond region supplied enough housing to accommodate all of its future workers, the region would need to add 94,131 net new housing units between 2012 and 2032. These housing forecasts assume that all new workers in the region live in the region and, specifically, live in the jurisdiction in which their job is located. The implication of this assumption is that the levels of inter-jurisdictional commuting will not increase over time if people live and work in the same jurisdiction, and will therefore reduce the level of capital investment needed for transportation infrastructure expansions to accommodate increases in intra-regional commuting flows. Currently, the Richmond region has a relatively high share of within jurisdiction commuting, which is a competitive advantage the region should seek to maintain.

GMU Center for Regional Analysis

⁶ A detailed methodology section is included in the Appendix

Table 4. Estimates of Housing Demand*: 2012 – 2032 Richmond Region

Jurisdiction	Units Needed 2012-2022	Units Needed 2012-2032
City of Richmond	3,551	7,551
Chesterfield County	14,220	28,377
Henrico County	21,894	42,921
Hanover County Town of Ashland	4,289 <i>320</i>	8,144 <i>608</i>
Goochland County	1,602	3,556
New Kent County	849	1,702
Powhatan County	867	1,779
Charles City County	65	101
Region Total	47,337	94,131

^{*}These estimates assume new workers live in the jurisdiction in which they work.

Of course, not everyone lives and works in the same jurisdiction. Households with multiple workers are located in one jurisdiction, while the workers might commute to different jurisdictions. Some people choose to live outside the jurisdiction in which they work despite longer commutes for a variety of reasons, such as the particular housing stock offered, quality of the school district, or proximity to natural resources or to family. Many people would like to live closer to where they work, but cannot find adequate and affordable housing. Thus, while many workers in the Richmond region do live and work in the same jurisdiction, every day about 180,000 workers commute from their house in one jurisdiction to their job in another. There are also workers who live outside the region and commute to jobs inside.

Planning for sufficient housing within the region and near existing and growing employment centers will help ensure that traffic congestion and commute times do not worsen over time. The 94,131 new units needed over the next 20 years equate to about 4,700 net new housing units each year between 2012 and 2032. Based on recent historic residential construction trends, the Richmond region overall appears to be on track to approve and build enough housing for the projected number of new workers, provided the current construction slowdown does not endure. Over the past 10 years, the region's local jurisdictions have issued building permits for an average of 5,511 units per year. Since the recession, the pace of residential construction has slowed dramatically, mirroring trends nationally. Between 2007 and 2011, there was an average of just 2,741 building permits for residential units issued regionwide. However, residential construction activity in the region appears to have started rebounding; in 2012, there were 3,695 residential building permits approved in the Richmond region.

While the regionwide new construction totals suggest the Richmond region has been on-pace to approve and build enough housing to accommodate the growth in the future workforce (assuming production levels continue to ramp up to recent historic levels), there is some disparity between the locations and types of housing that will be needed by new workers in the region and the locations and types of housing that has been built in the recent past.

Where should new housing be located?

These jobs-driven housing demand forecasts place the greatest future need for housing in locations with the most job growth over the 2012-2032 period. Among the eight jurisdictions, Henrico County is forecasted to add the greatest number of net new jobs over the next 20 years. Goochland and New Kent counties will experience the fastest increase in percentage terms, but Chesterfield and Powhatan counties will also have job growth rates faster than the regional average. The City of Richmond, along with Charles City County, will experience relatively slow job growth over the study period.

Nearly one-half (45.6%) of the units forecasted for the Richmond region are located in Henrico County. This urbanizing jurisdiction is home to fast job growth and is attractive to households wanting to be closer to urban amenities. Based on the 57,967 net new jobs forecasted in Henrico, there will be a need for 42,921 housing units between 2012 and 2032, or 2,146 new units per year each year. Over the last 10 years, there has been an average of only 1,461 building permits issued each year for new units in the county. Based on trends in residential construction activity over the past decade, Henrico County is not building housing at a pace fast enough to accommodate the jobs it is projected to gain.

In other jurisdictions, the number of units being built is more in line with projected demand. About 30 percent of the new units are forecasted for Chesterfield County. Over the 20-year period, Chesterfield County is projected to add 45,896 jobs, which translates into a need for 28,377 units to accommodate its future workforce. This amount equates to 1,419 net new units each year. Over the past 10 years, Chesterfield County outpaced that level, with an average of 2,181 units approved for construction per year.

About eight percent of the region's new units are forecasted for the City of Richmond, which is projected to need 7,551 units over the next 20 years to accommodate 8,173 net new workers in the city. These forecasts suggest a need for 378 net new units per year over the forecast period, a level somewhat below the 580 units that received building permits each year between 2002 and 2012.

The remainder of the region's jurisdictions account for relatively small shares of both job growth and future housing need. Based on an assessment of future housing need and recent residential construction trends, the remaining jurisdictions in the Richmond region have been producing housing at rates more than or consistent with future worker-driven demand.

⁷ According to the 2010 Census, the City of Richmond has about 3,000 vacant units (excluding vacant units for rent or sale or waiting to be occupied, seasonal units and units for migrant workers). The number of vacant units in the City is about three percent of the total housing stock. Some of these units may be potentially available to new households but a large share are likely in need of serious repair or are in some other way uninhabitable.

Table 5. Comparison of Forecasted Housing Need and Recent Production Richmond Region

Jurisdiction	Units Needed Each Year 2012-2032	Average No. of Building Permits Approved Each Year 2002-2012
City of Richmond	378	580
Chesterfield County	1,419	2,181
Henrico County	2,146	1,461
Hanover County	407	577
Goochland County	178	209
New Kent County	85	235
Powhatan County	89	234
Charles City County	5	35
Region Total	4,708	5,511

Source: U.S. Census Bureau, GMU Center for Regional Analysis

In seven out of eight jurisdictions in the Richmond region, the number of units approved through the building permit process has been at or above the level suggested by the jobs-driven housing demand forecasts—that is, given the patterns of construction activity over the past decade, these jurisdictions are on pace to produce an adequate amount of housing to accommodate their net new workers (assuming building levels return to these averages as the economy and housing market continue to improve). Henrico County is the notable exception where recent construction trends suggest an inadequate supply of housing to accommodate future job growth in the county.

Having the appropriate mix of different housing types and units at affordable prices and rents is just as important as absolute levels for supporting economic growth and sustainable communities in the region.

What types of housing units are needed?

These housing forecasts include an assessment of the future demand for four different housing types—single-family detached owner, single-family detached rental, townhouse/multi-family owner, and townhouse/multi-family rental.⁸ The mix of housing types that will be demanded by future workers in the

⁸ The forecasts include townhouses and multi-family units in one group—that is, townhouse units are not forecasted separately from units in multi-family buildings. This approach is consistent with most of the jurisdictions' land use classifications that combine these uses into one category.

region is a function of the shifting demographics (e.g. younger workers, more single-person households) and the wages of the region's future growth sectors.

About 71 percent of the 94,131 net new units that will be needed to accommodate future workers in the Richmond region are projected to be single-family detached. Regionwide, the single-family share in the forecasts is roughly the same as in the current stock. However, there is some variation across the jurisdictions. In particular, in the future there will be demand for a greater share of townhouse/multifamily units in the region's suburban jurisdictions. For example, in Chesterfield County, the current housing stock is split 82 percent single-family detached and 18 percent townhouse/multi-family. Based on the forecasts, the demand by new workers will be for units split 77 percent single-family detached and 23 percent townhouse/multi-family. In Henrico County, 63 percent of the forecasted units are single-family detached and 37 percent are townhouse/multi-family, compared to a 66/34 split in the current stock. This pattern also is evident in the region's other suburban jurisdictions. In the City of Richmond, on the other hand, the jobs-driven housing demand forecasts suggest a need for single-family detached housing that is not met by the current stock—the forecasts for Richmond are for 55 percent single-family and 45 percent townhouse/multi-family, up from a 50/50 split in the current stock.

The share of units that will be needed by future workers is tilted somewhat less heavily towards homeownership compared with existing housing units, again due to the fact that new workers are younger than existing workers and will have somewhat lower household incomes. Just under 65 percent of the units forecasted for new workers in the region are projected to be owner-occupied units, compared with a current regional homeownership rate of 67 percent. As job growth accelerates in the suburbs, and more workers are younger and living alone (and therefore have only one income), the shift towards more rental housing is more pronounced in the region's suburban jurisdictions. For example, in Chesterfield County, the forecasted units are 65 percent owner-occupied, lower than the current homeownership rate of 77 percent. In Hanover County, 76 percent of the forecasted new units are ownership units, compared to 82 percent of the current stock.

Table 6. Estimates of Housing Demand by Unit Type: 2012 – 2032 Richmond Region

Jurisdiction	Total Units	Single- Family Detached	Townhouses and Multi- Family
City of Richmond	7,551	4,172	3,379
Chesterfield County	28,377	21,811	6,566
Henrico County	42,921	27,252	15,669
Hanover County	8,144	7,054	1,090
Goochland County	3,556	3,098	457
New Kent County	1,702	1,404	298
Powhatan County	1,779	1,535	245
Charles City County	101	85	15
Region Total	94,131	66,412	27,718

Table 7. Estimates of Housing Demand by Tenure: 2012 – 2032 Richmond Region

Jurisdiction	Total Units	Owner- Occupied	Renter- Occupied
City of Richmond	7,551	3,308	4,243
Chesterfield County	28,377	18,646	9,731
Henrico County	42,921	27,486	15,435
Hanover County	8,144	6,225	1,919
Goochland County	3,556	2,774	782
New Kent County	1,702	1,171	531
Powhatan County	1,779	1,347	432
Charles City County	101	74	26
Region Total	94,131	61,032	33,099

Note: Numbers may not sum due to rounding.

Table 8. Comparing Unit Types: Existing and Future Housing Richmond Region

Housing Type	Current Housing Stock (%)*	Housing Needed for Net New Workers (%)
Single-Family	71.1	70.6
Multi-Family	28.9	29.4
Owner	66.9	64.8
Renter	33.1	35.2

^{*}Single-family/multi-family from the 2011 American Community Survey 5-Year files.

Owner/renter from the 2010 decennial Census Summary File 1. Note: These existing characteristics do not take into account recent residential construction.

What prices and rents will new workers be able to afford?

Under the assumption that new workers will be housed in the jurisdiction in which they work, it is important that the housing units available in those jurisdictions are priced so that they are affordable to new workers at all wage levels. While the Richmond region will attract many white collar, high-wage jobs over the next two decades, much of the region's employment growth will be in sectors with more moderate wages. Furthermore, generational shifts in the population toward younger workers and trends towards more one-worker households lead to a need for relatively moderate prices and rents for forecasted units.

Of the 134,296 net new jobs that will be added in the Richmond region between 2012 and 2032, the fastest growth will be in the Construction sector, along with the Professional and Technical Services and the Administrative and Waste Services sectors. Median wages of Construction and Administrative and Waste Services jobs in the region range between \$25,000 and \$35,000, depending on the jurisdiction. New Professional and Business Services sector jobs will have higher wages, with medians between \$46,000 and \$65,000 depending on location within the region.

These median wages, along with assumptions about household composition based on past trends and forecasts of age distribution of new workers, were used to calculate household incomes and to estimate the range of home prices and rents that will be affordable to the region's future workforce. It was assumed that the maximum affordable home price was 3.5 times the household income, while the maximum rent depended on household income and did not exceed 30 percent of household income.

Table 9. Employment Forecasts and Estimated Median Wages by Sector Richmond Region

Sector	Net New Jobs 2012-2032	Median Wage (\$)
Total	134,296	40,000
Construction	24,628	30,000
Manufacturing	-1,100	46,000
Transportation & Utilities	1,749	37,000
Wholesale Trade	2,795	42,000
Retail Trade	8,172	30,800
Information	2,824	45,000
Finance & Insurance	3,846	53,000
Real Estate	1,883	45,000
Prof & Tech Services; Mgmt.	28,884	60,000
Admin & Waste Services	17,023	30,000
Education	3,395	43,000
Health Services	21,427	40,000
Leisure & Hospitality	3,042	19,000
Other Services	414	30,000
Government	10,369	51,000
Military	39	51,000

Source: IHS Global Insight, 2010 American Community Survey. Full-time workers only. Data on military wages were not available from the ACS. Therefore, the median wage for military employment was assumed to be the same as the median wage for government employment.

The jobs-driven housing demand forecasts indicate a need for 33,099 rental units in the Richmond region to accommodate new workers over the next 20 years. About 12 percent of those units need to have rents below \$625 per month in order to be affordable to the new workers in the lowest income range. The largest share—54.6 percent—of forecasted rental units need to have rents between \$625 and \$874. About 27 percent of the forecasted units are projected to need to have rents between \$875 and \$1,124. Only 6.3 percent of the rental units forecasted for the Richmond region has rents at \$1,125 or higher (4.4% between \$1,125 and \$1,399 and just 1.9% at \$1,400 or above).

The need for rental units with rents under \$875 is not being met by the existing rental housing stock, particularly in the region's suburbs. In Chesterfield County, for example, the forecasts suggest that about

three-quarters of the rental housing that will be needed to accommodate future workers needs to be at rents below \$875 per month. Currently less than 30 percent of the rental units in Chesterfield County have rents in that range. The situation is similar in Henrico and Hanover counties. Only in the City of Richmond does the share of units with the lowest rents (under \$625) exceed the share that will be demanded by the City's future workers.

There is a need for 61,032 homeownership units in the Richmond region to accommodate job growth over the next 20 years. As with rental housing, the majority of the need is in the moderate price ranges. About 36 percent of the forecasted owner-occupied units need to be at prices between \$87,500 and \$174,999 while 31.2 percent are projected for between \$175,000 and \$259,999. The demand for owner-occupied units includes 17.7 percent in the \$260,000 - \$349,999 price range and 9.3 percent at prices of \$350,000 and above.

Examining regional home sales data from 2012 reveals that while there is a stock of affordable for-sale units in the region, they are highly concentrated in the City of Richmond. Nearly 30 percent of the homes sold in Richmond in 2012 were priced under \$87,500. ¹⁰ Substantial numbers of foreclosures and short sales continued to put downward pressure on home prices in the city last year, and while they are being worked through, Richmond remains the regional hot spot for foreclosures. Even excluding the City of Richmond, the existing home sales data indicate a sufficient stock of for-sale housing in the suburbs in the lowest price ranges, but deficiencies in the supply of housing priced from \$87,500 - \$174,999. As the region's housing market continues to improve, there will be upward pressure on prices in these more modest ranges.

⁹ Data on current rents are estimated from the 2011 American Community Survey 3-year file.

¹⁰ Data on home sales and prices are from the Central Virginia Regional Multiple Listing Service (CVR MLS).

Table 10. Estimates of Housing Demand: 2012 – 2032 Renter-Occupied Units Richmond Region

Jurisdiction	Total Renter-	Monthly Unit Rent				
	Occupied Units Needed	Less than \$625	\$625 - 874	\$875 - 1,124	\$1,125 - 1,399	\$1,400 or More
City of Richmond	4,243	56	2,337	1,456	251	143
Chesterfield County	9,731	2,678	4,669	1,854	359	171
Henrico County	15,435	456	9,386	4,726	610	258
Hanover County	1,919	458	820	509	111	22
Goochland County	782	211	327	131	89	23
New Kent County	531	126	327	70	9	0
Powhatan County	432	130	190	81	25	6
Charles City County	26	0	20	6	0	0
Region Total	33,099	4,114	18,075	8,834	1,453	622

Table 11. Estimates of Housing Demand: 2012 – 2032 Owner-Occupied Units Richmond Region

Jurisdiction	Total Owner-			Home Price		
	Occupied Units Needed	Less than \$87,500	\$ 87,500 – 174,999	\$175,000 – 259,999	\$260,000 – 349,999	\$350,000 or More
City of Richmond	3,308	23	1,154	1,458	471	203
Chesterfield County	18,646	1,836	6,885	5,660	2,603	1,662
Henrico County	27,486	421	10,036	8,425	6,004	2,600
Hanover County	6,225	537	2,073	2,128	980	507
Goochland County	2,774	249	785	630	525	585
New Kent County	1,171	130	642	331	68	0
Powhatan County	1,347	158	514	372	176	127
Charles City County	74	0	45	29	1	0
Region Total	61,032	3,355	22,133	19,032	10,828	5,684

Note: Numbers may not sum due to rounding.

Policy Implications

Housing Strategies and the Region's Economic Development and Sustainability

Housing should be thought of as part of the region's larger economic development strategy. As the regional economy continues to improve following the recession, the opportunities for economic growth and community sustainability depend heavily on the availability and affordability of housing. The Richmond region could create a competitive advantage, if local jurisdictions plan strategically for housing that is linked to economic development potential.

Housing is where the workforce lives; it is where workers spend a large proportion of their income and where they pay their taxes. Recognizing and institutionalizing this critical link between housing and economic growth is important for the future viability and sustainability of the Richmond region's economy. The results of these jobs-driven housing demand forecasts suggest several implications for local and regional housing and economic development policy.

Employment forecasts for the Richmond region indicate modest job growth between 2012 and 2032, with growing geographic disparities. The City of Richmond and the communities to the north and west of the city (Henrico, Hanover and Goochland counties) continue to experience faster growth in higher paying sectors, while overall job growth is increasingly moving to the suburbs.

Policymakers in the Richmond region can use these job forecasts as a starting point for developing a comprehensive, economically-linked housing strategy. There are also opportunities to use these employment projections to gauge the potential for growth of the five targeted industries recommended in the *Target Cluster Analysis* given underlying macroeconomic conditions and the region's baseline economy which drive the job forecasts used in this research. These job forecasts could potentially be altered, if economic development strategies are successful in attracting jobs in these targeted industries. From a housing demand perspective, it will be important to understand how much the targeted strategies could, in fact, shift future job growth and what the implications will be for wages and housing affordability.

In addition, these employment forecasts highlight regional disparities in the growth of higher wage sectors. Additional analysis of the geographic patterns of employment and income growth could suggest strategies local officials could take to slow emerging inequality in economic opportunities and growth across the region.

The pace of residential construction in the Richmond region has been sufficient to supply the amount of housing that will be needed over the next 20 years to accommodate net new workers; however, additional demand will be generated by replacement workers.

Residential construction activity has begun to pick up again in the Richmond region, after five years of near-record low production. As the economy continues to improve, there should be sustained increases in the amount of new housing construction in the region. If the levels return to recent historic averages,

the number of new units built each year in the region should be sufficient to house the region's net new workers.

However, there will be additional housing demand from replacement workers which outnumber net new workers by 1.4 to 1. Some of these replacement workers will be accommodated in housing units vacated by workers leaving the region, but many of the thousands of Baby Boomers who will be retiring over the next two decades will stay in the region. (Research has shown that around 60 percent of retirees remain in the region or state in which they were working, when they leave the labor force.) Additional housing will be needed to house those replacement workers, who may have characteristics and housing needs that are different from the new workers.

In addition, the region's current population includes households that are housed in substandard units, are paying too much for housing, and/or live in units that require long commutes to jobs. Each jurisdiction in the region has households with housing needs that currently are not being met.

Given recent development activity and projected future job growth, Henrico County is planning for an insufficient amount of housing to accommodate its future workers.

Housing and economic development are regional issues; but policies and regulations for both are dictated to a large degree at the local level (as well as by the local market). Henrico County is projected to add more jobs than any other jurisdiction in the region. The Richmond Area Metropolitan Planning Organization forecasts of housing units for Henrico County between 2010 and 2035 are higher than these jobs-driven housing demand forecasts. But based on recent residential construction activity, the county is not on-track to deliver a sufficient supply of housing to accommodate projected job growth. An analysis of potential obstacles to residential development—including market, regulatory and political factors—would be helpful in understanding how more housing could be built in Henrico County.

There is a need for more townhouse and multi-family units in the suburbs.

In the region's suburban jurisdictions—even where the total units produced is sufficient to accommodate future job growth—there is a particular shortage in the provision of townhouse and multi-family units, which will be highly demanded by future workers. The demand for smaller units and for townhouse and multi-family units is driven by changes in the demographic characteristics of new workers, which will include younger workers and smaller household sizes, as well as shifts in wages.

According to a land use analysis conducted by the Richmond Regional Planning District Commission, only six percent of Henrico County's undeveloped land (that is inside the regional water and sewer system) is zoned for "Multi-Family High." This category includes townhomes, condominiums/apartments, and group-care facilities. In Chesterfield County, three percent of the undeveloped land available is zoned "Multi-Family High." How these relatively small tracts of land are developed will be important for the counties' ability to meet future housing demand. Alternative strategies such as re-zoning and parcel consolidation could be used in tandem with land development policies; however, these can be challenging to implement within the existing community and built environment.

The City of Richmond will experience a disconnect between future demand for somewhat higher-priced single-family homes and the current stock of lower-priced and vacant or substandard units.

Like many other older central cities, Richmond has a large stock of obsolete housing units, most of which are concentrated in distressed neighborhoods. While there is demand for new and better quality housing in these areas of the city, there are economic, environmental, and political barriers that make revitalization extremely difficult. As demand increases for housing within the city limits, particular attention should be paid to how these new units (and new residents) are integrated into the existing city neighborhoods.

A significant share of the region's households—and in particularly its lower-income renter households—is currently housing cost burdened; future housing needs to be generated at prices and rents that are affordable to new workers.

Regionwide, there will be significant future demand for rental housing, with a particular need for units that rent for between \$625 and \$874 per month, affordable to households earning between \$25,000 and \$49,999 and below the current median rent in all jurisdictions. There will also be growing demand from future households in this income range for ownership units. The biggest share of forecasted owner-occupied units is projected to be in the \$87,500 and \$174,999 range. The current stock of for-sale housing in the region includes a substantial share of units in this price range, but they are not necessarily located in the places future workers will need them. For example, the largest share of modestly priced homes is in the City of Richmond which has been hard hit by foreclosures and short sales in the wake of the housing bust.

At the same time the local jurisdictions must plan to house their future workers, there is a substantial share of their current residents who are cost-burdened, particularly renters making less than \$50,000. Increasing the rental stock with rents below \$875 will benefit current workers in the region, in addition to the future workforce.

Having a sufficient supply of housing—in the right places, of the right types, and with affordable prices and rents—is an important factor in the Richmond region's future economic vitality.

Quality of life considerations are increasingly important to workers. Issues such as high quality and affordable housing, access to cultural and recreational amenities, and short commutes are factors the younger, mobile workforce takes into account when choosing where to live. And then businesses follow workers. The Richmond region has a number of features making it attractive to potential new workers, including a growing housing stock and less jurisdiction-to-jurisdiction commuting than some of its peer regions. A comprehensive regional strategy that focuses on encouraging housing in existing and potential employment growth centers will help ensure that traffic congestion does not worsen in the region.

A strong central city can also be attractive to younger workers, and investments in the City of Richmond can build on its on-going revitalization. The provision of a sufficient amount of housing that will be in demand by future workers is critical to those efforts. In the close-in suburbs, particularly Henrico County, the types of housing that will be in demand are part of the growing broader demand for access to more urban-like amenities in fast-growing, close-in suburbs.

Table 12a. Summary of Housing Demand: 2012-2032

City of Richmond

Household	Single-I	Family	Multi-I	amily	Total	
Income	Owner	Renter	Owner	Renter	TOLAI	
<\$25K	22	0	1	56	79	
\$25-49K	1,079	518	75	1,819	3,491	
\$50-74K	1,264	439	194	1,017	2,914	
\$75-99K	471	67	0	184	722	
\$100K+	203	110	0	33	346	
Total	3,038	1,134	270	3,109	7,551	

Table 12b. Summary of Housing Demand: 2012-2032

Chesterfield County

Household	ehold Single-Family		Multi-Family		Total
Income	Owner	Renter	Owner	Renter	TOLAT
<\$25K	1,701	941	136	1,738	4,515
\$25-49K	6,475	1,900	410	2,769	11,554
\$50-74K	5,442	875	219	979	7,514
\$75-99K	2,518	221	85	138	2,962
\$100K+	1,633	106	29	65	1,833
Total	17,769	4,042	877	5,689	28,377

Table 12c. Summary of Housing Demand: 2012-2032

Henrico County

Household	Single-Family		Multi-Family		Total
Income	Owner	Renter	Owner	Renter	iotai
<\$25K	331	59	89	397	877
\$25-49K	8,230	1,691	1,806	7,695	19,421
\$50-74K	7,378	1,129	1,046	3,597	13,150
\$75-99K	5,584	160	420	450	6,615
\$100K+	2,545	144	56	114	2,859
Total	24,069	3,184	3,417	12,252	42,921

Table 12d. Summary of Housing Demand: 2012-2032 Hanover County

Household	Single-Family		Multi-Family		Tatal
Income	Owner	Renter	Owner	Renter	Total
<\$25K	528	199	9	259	995
\$25-49K	2,008	400	65	419	2,893
\$50-74K	2,066	288	62	222	2,637
\$75-99K	976	74	4	37	1,091
\$100K+	494	21	12	1	528
Total	6,072	982	153	937	8,144

Table 12e. Summary of Housing Demand: 2012-2032 Goochland County

Household	Single-I	Single-Family		Multi-Family	
Income	Owner	Renter	Owner	Renter	Total
<\$25K	245	93	4	118	460
\$25-49K	758	154	26	173	1,112
\$50-74K	610	77	20	54	761
\$75-99K	517	51	8	38	614
\$100K+	573	19	12	4	608
Total	2,703	395	71	387	3,556

Table 12f. Summary of Housing Demand: 2012-2032New Kent County

Household	Household Single-Family		Multi-Family		Total
Income	Owner	Renter	Owner	Renter	TOLAT
<\$25K	128	62	2	64	256
\$25-49K	619	155	22	172	968
\$50-74K	322	44	9	26	401
\$75-99K	68	7	0	1	77
\$100K+	0	0	0	0	0
Total	1,137	268	34	263	1,702

Table 12g. Summary of Housing Demand: 2012-2032

Powhatan County

Household	Single-Family		Multi-Family		Total
Income	Owner	Renter	Owner	Renter	TOLAI
<\$25K	156	56	2	74	288
\$25-49K	498	91	16	99	704
\$50-74K	362	52	10	30	454
\$75-99K	175	16	1	9	201
\$100K+	124	6	3	1	133
Total	1,315	220	32	212	1,779

Table 12h. Summary of Housing Demand: 2012-2032

Charles City County

Household	Single-I	amily	Multi-I	amily	Total
Income	Owner	Renter	Owner	Renter	Total
<\$25K	0	0	0	0	0
\$25-49K	43	9	2	11	65
\$50-74K	28	4	1	2	35
\$75-99K	1	0	0	0	1
\$100K+	0	0	0	0	0
Total	72	13	2	13	101

Note: Numbers may not sum due to rounding.

Home Prices and Rents Affordable at Different Household Income Levels

Household	Owner	Renter
Income	Home Price (\$)	Rent (\$)
<\$25K	0-87,499	0-624
\$25-49K	87,500-174,999	624-874
\$50-74K	175,000-259,999	875-1124
\$75-99K	260,000-349,999	1125-1399
\$100K+	350,000+	1400+

Assumes owners can purchase homes with prices that are 3.5 times the household's income.

Assumes affordable rent as a percentage of household income as follows:

<\$25K	30%
\$25-49K	21%
\$50-74K	21%
\$75-99K	18%
\$100K+	18%



 $Copies \ of the study \ and \ additional \ information \ are \ available \ at \ www. Affordable Housing Richmond. com$





