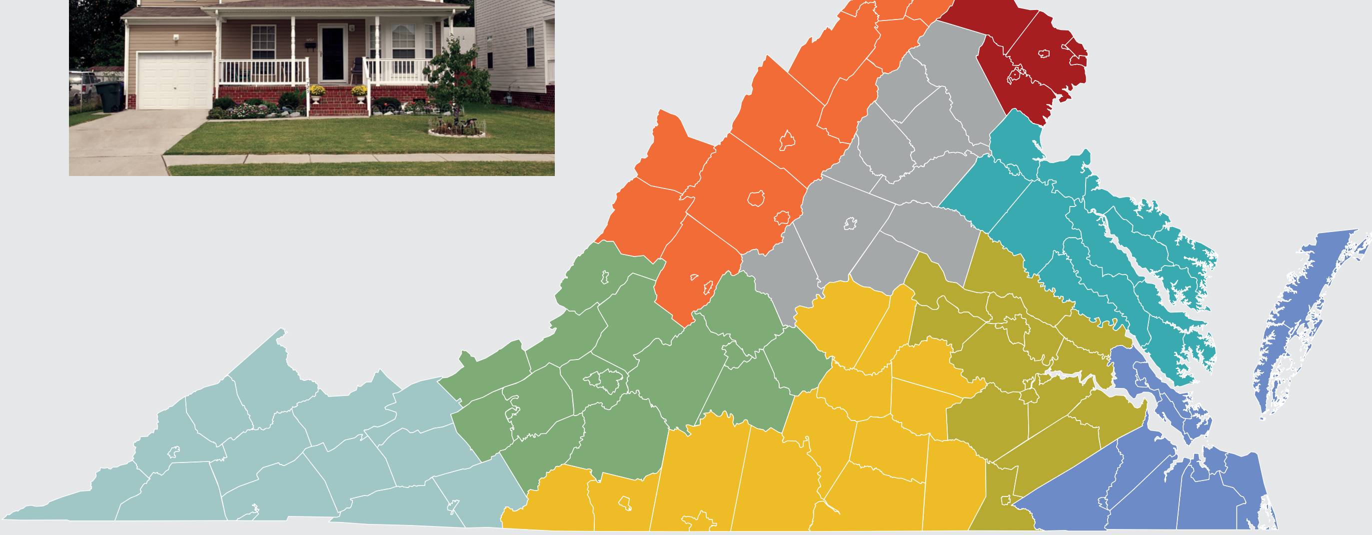
Economic *and* Programmatic Impacts *of* Virginia Housing



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About Virginia Housing

Virginia Housing is a housing finance agency created in 1972 by the General Assembly to help address the housing needs of low- and moderate-income Virginians. Operating as an independent, self-supporting organization, Virginia Housing offers first-time homebuyer mortgages as well as financing for rental developments and community revitalization efforts. Virginia Housing also administers federal housing subsidies on behalf of Virginia, including rental and homebuyer tax credits and tenant assistance. A significant portion of Virginia Housing's net revenue is reinvested into communities through the REACH *Virginia* program, which supports strategic housing initiatives. The organization further offers housing education assistance and supports housing counseling services throughout the Commonwealth. Virginia Housing conducts its mission by working in public–private partnerships with stakeholders such as local governments, community service organizations, lenders, REALTORS®, and developers.

About the Study

This report is the product of a research collaboration between the George Mason University Center for Regional Analysis, the Virginia Center for Housing Research at Virginia Tech, the Virginia Tech Institute for Policy and Governance, Longwood University, and the Virginia Commonwealth University Center for Urban and Regional Analysis (collectively hereafter, the "research team"). Through the mainly exploratory research project, the team spent nearly a year analyzing Virginia Housing administrative data and interviewing Virginia Housing staff, partners, and clients. Literature relevant to the outcomes of Virginia Housing activities was also reviewed.

This report details the outputs, economic impacts, and outcomes of the work of Virginia Housing for the state's economy and households. Program assessment and critique or evaluation of the effectiveness of Virginia Housing programs were excluded from the project scope. Virginia Housing and the research team hope that the details discussed here encourage more households, communities, organizations, and companies to connect with Virginia Housing and continue the growth, reach, and improvement of Virginia Housing's services. Although the agency ranks among the top state housing finance agencies in terms of economic impact, similar studies show that there is still room to grow[1]. Furthermore, widespread housing shortages and ever-increasing housing costs make the extensions and growth of Virginia Housing's activities timely and necessary.

Through the research team's work, four theme areas have emerged: impact, integration, intelligence, and improvement. The research team was commissioned to measure the economic impact and characterize the outcomes of Virginia Housing. Impacts that are not easily measured are most often characterized by Virginia Housing's careful integration of policies, programs, resources, and people. For example, Virginia Housing has coordinated funding and directed resources to build a homebuyer counseling and education program that is accessible to all households throughout Virginia. To produce rental housing for low-income households, Virginia Housing has adapted to

[1] In a separate analysis, the research team reviewed the findings of economic impact studies performed for 16 housing development agencies in other states, several of which had multiple studies. Given the variation in years covered, the specific programs administered, and economic impact assessment methodology, direct comparisons of agency impacts are not readily comparable. However, two conclusions can be drawn based on these combined studies: 1) Virginia Housing is among the leading agencies in the nation in supporting economic activity in their jurisdiction; and 2) the impacts of Virginia Housing are growing, granting more families in Virginia access to affordable rental housing and increased opportunities for homeownership, which is not the case for some states.

market demands and federal housing policy by integrating Virginia Housing's REACH *Virginia* resources with the Low-Income Housing Tax Credit (LIHTC) program and other public subsidies including federal funds for transforming public housing. Integration would not be possible without a high degree of intelligence and continued learning. Finally, the research team has highlighted areas where Virginia Housing is working to improve activities or where opportunities may exist for the advancement of Virginia Housing's mission. For example, the agency is supporting the development of a capital campaign for Virginia Habitat for Humanity Affiliates to increase affiliates' capacity to address Virginia's shortage of affordable housing by building and rehabilitating homes.

Organization

The report describes Virginia Housing's outputs and their associated economic impacts and outcomes using three categories: homeownership, rental, and outreach/administration. The two largest categories, homeownership and rental, include an analysis of Virginia Housing's primary functions: lending, allocation of federal resources, and strategic investments that advance its policy priorities. Homeownership includes Virginia Housing's mortgage lending and supporting grants, allocation of federal tax subsidies such as mortgage credit certificates and HUD Homebuyer Counseling grant funds, and capacity building in partner organizations. The rental category includes lending/financing for rental housing development, grants for pre-development activities, and administration and allocations of federal housing choice vouchers (HCVs) and Low-Income Housing Tax Credits. Outreach supports non-profit organizations and local governments who are important partners in realizing affordable homeownership and rental housing goals in Virginia. Virginia Housing has allocated REACH *Virginia* program resources to growing partner capacity and supporting their efforts to plan for or develop affordable housing.

Throughout the report, the team has worked to signal whether each output is associated with lending, allocation of federal resources, or Virginia Housing's own investments or grants. Virginia Housing is both a mortgage lender for individual homebuyers and a financing agency for rental and mixed-use developments in Virginia. Lending is Virginia Housing's primary function, generating revenues that allow the organization to be fully self-supporting and to serve the other functions described in this report. In addition to mission-driven lending and financing, Virginia Housing administers and allocates federal resources such as tax credits and Housing Choice Vouchers to assist regions that lack the resources to administer vouchers locally. "Allocation" indicates that the federal government is the source of the funds described, and "administration" signals the value that Virginia Housing adds by directing, increasing access to, or providing support that improves the effectiveness of such federal funding. Over the 5-year study period, Virginia Housing has also invested or granted $144.5 million of its own net revenues to advance its mission and support federal, state, and local programs and initiatives. These funds applied in each of the program areas are referred to as REACH *Virginia* investments.

Methods

Short descriptions of methods are included in this introductory section. Details about data and methods are included in a separate technical memorandum.

Administrative Data Review

Virginia Housing staff provided the team with administrative data for 5 fiscal years (FY) from 2014–2018, each ending on June 30. The team analyzed spending and output data in the following categories:

- **Administration:** Operations, direct payroll employment, capital spending (i.e., agency facilities), and community support programs with broad mandates such as sponsoring local agency activities and community outreach activities.
- **Homeownership programs:** Mortgage lending, down-payment assistance, federal Mortgage Credit Certificates, support for local Habitat for Humanity programs, homebuyer education, and accessibility grant programs.
- **Rental housing programs:** Long-term development financing using taxable bonds and federally authorized tax-exempt bonds and administration of federal tax credits, capital subsidies, and federal project-based Section 8 rental subsidies and tenant-based Housing Choice Vouchers.

Virginia Housing staff also provided program descriptions and program output data, including anonymized loan data, grant recipient data, rental housing development data, and anonymized homebuyer education participant data.

Economic Impact

The research team examined the economic impacts of administrative and programmatic spending by Virginia Housing. The study period for this analysis includes FY2018 and the summative impacts of spending over the 5 years FY2014–2018. Our analysis includes operations and related capital spending for homeownership programs and rental property development and support.

To assess how Virginia Housing spending flows through the Virginia economy, we used the IMPLAN economic input–output model. This model is widely used in academic and professional research and provides estimates of the direct, indirect, and induced effects of agency-related spending. The estimated impacts include output (a measure of business transactions), value added (gross state product), labor income (salaries, wages, and benefits), employment (jobs), and combined state and local taxes (property taxes, income taxes, sales taxes, fees, and other government revenue).

Key assumptions are as follows:

- Spending data reported in calendar years are adjusted to correspond with fiscal years.
- Mortgage Credit Certificate program federal tax credit allocations are treated as an increase in household income.
- The effects of some programmatic spending may overlap with other programs. For example, REACH *Virginia* subsidies overlap with tax credit and taxable bond financing programs. Although these overlaps are reported, spending was not duplicated in the analysis.
- Multiyear employment is expressed as employment person-years. A person-year of employment is one job lasting for 1 year.

Regional Analysis

The Virginia Initiative for Growth and Opportunity in Each Region (GO Virginia) is a legislatively created program that encourages regional collaborations on economic and workforce-development activities. GO Virginia recognizes nine distinct regions across the Commonwealth with geographic, labor market, and economic development similarities. Because the regions represent functional economic areas, the boundaries of the nine GO Virginia regions were used to show how the outputs and economic impacts of Virginia Housing spending spread across the Commonwealth. These analyses are included in Appendix 1.

Qualitative Data Collection

The research team conducted 26 interviews to learn more about Virginia Housing programs and their outcomes. Interviewees shared additional information about projects and programs funded by Virginia Housing as well as outcomes for communities, households, and individuals benefiting from these activities.

Literature Review

The research team conducted literature reviews to identify other finance agencies that have conducted economic impact studies and to understand the potential outcomes of Virginia Housing programs. Information from the literature review is included in the report and Appendix 2.

Executive Summary

Over the 5-year study period FY2014–2018, Virginia Housing activities helped more than 70,000 households access an affordable housing unit and generated almost $10 billion in state economic activity. This economic activity includes 65,900 jobs with salaries totaling more than $3.5 billion. In addition, state and local taxing jurisdictions received over $361 million in revenues associated with Virginia Housing activities and programs.

TABLE 1. Economic Impacts Summary

Total Impact		
	FY 2018	*FY 2014–2018*
Output (Economic Activity)	**$3,455,962,860**	**$9,981,962,432**
Value Added (Gross State Product)	$1,959,306,854	$5,730,451,370
Labor Income (Salaries, Wages, and Benefits)	$1,250,968,286	$3,564,474,637
Employment (Number of Jobs/Person-Years)	22,872	65,916
State and Local Taxes	$125,212,288	$361,342,871

Virginia Housing's impacts are a representation of the coordination of its mortgage lending and internally generated REACH *Virginia* resources with federal, state, and local programs, and partnerships with nonprofit, for-profit, and government entities.

Virginia Housing's broad and creative efforts to increase access to affordable housing have addressed supply- and demand-side challenges, ranging from community acceptance and understanding the need for affordable housing to supporting consumer engagement with new loan and grant products, homeownership counseling, and education. Four theme areas emerged from the research team's analysis of Virginia Housing's activities: impact, integration, intelligence, and improvement.

Impact: Virginia Housing has more than 250 employees focused on increasing access to affordable, quality housing for low- and moderate-income households. Virginia Housing's activities have supported the development of more than 32,000 rental units over 5 years and have served more than 27,000 homebuyers.

Integration: Virginia Housing coordinates federal and state resources, leverages private resources, and supports local initiatives to create inclusive, vibrant communities. Partnerships throughout the state are integral to fulfilling Virginia Housing's mission. Virginia Housing depends on partners to deliver its homeownership products that serve populations that cannot readily benefit from other federal or market-based mortgage products. The Virginia network of nonprofit and for-profit developers and local housing authorities generate affordable rental housing.

Intelligence: Virginia Housing embraces education, creativity, and technology to further its mission, providing educational resources to homebuyers and partners to increase their success and grow their capacity. The organization supports research and planning efforts that help communities and nonprofit partners prepare to address existing and future housing needs.

Improvement: Virginia Housing incentivizes creativity and technological advancement that address tough challenges like land-use regulation and energy conservation. It maintains close relationships with partners, learning from their experiences and acting on suggestions and criticisms.

Virginia Housing's activities can be grouped by housing tenure: rental and ownership. Rental activities focus on the creation, rehabilitation, and preservation of housing affordable for low- and moderate-income households. In addition to efforts to support the development of quality housing in neighborhoods of choice, Virginia Housing investments support accessibility modification, tenant education, community engagement and development, and the use of innovative building technologies and energy efficiency building practices to support energy and cost savings. Virginia Housing's allocation, administration, and REACH *Virginia* investment programs for rental housing have directly served nearly 43,000 households and generated more than $8.2 billion in state economic activity, including more than 52,700 jobs.

Virginia Housing's homeownership activities focus on homebuyer education and mortgage lending that improves access to homeownership opportunities for low- and moderate-income households throughout Virginia. Virginia Housing issued mortgage loans to 27,293 households and provided homeownership education for more than 80,000 people under its homeownership programs during the FY2014–2018 period. Virginia Housing's homeownership activities have generated $1.27 billion in state economic activity, including more than 8,600 jobs with combined salaries paying in excess of $428 million over FY2014–2018. In addition to lending and education, Virginia Housing has provided grants for down payments and home modification, homebuyer and foreclosure counseling, and to support for community homeownership goals.

Homeownership Executive Summary

During the FY2014–2018 period, Virginia Housing issued mortgage loans to 27,293 households and provided homeownership education to more than 80,000 potential homebuyers. The homeownership activities have generated $1.27 billion in state economic activity, including more than 8,600 jobs paying combined salaries in excess of $428 million over FY2014–2018. In total, 97% of loans were made to first-time home buyers[2], and more than a quarter were issued to low- and moderate-income homebuyers with household incomes at or below 80% of HUD area medium income (AMI).

TABLE 2. Summary of Homeownership Programs Economic Impact

Description	Impact	
Homeownership Programs	*FY2018*	*FY2014–2018*
Output (Economic Activity)	$441,007,037	$1,274,563,236
Value Added (Gross State Product)	$258,944,873	$738,797,124
Labor Income (Salaries, Wages, and Benefits)	$146,386,637	$428,041,489
Employment (Number of Jobs/Person-years)	3,010	8,689
State and Local Taxes	$ 20,227,371	$54,197,215

Virginia Housing's products and services have enabled first-time low- and moderate-income home buyers to find loans that fit their needs. The range of these products and services includes homeownership education, home loans, second mortgages and grants for down-payment assistance, closing-cost grants, and annual federal tax credits for mortgage interest payments. More than 500 individual loan officers across Virginia offer Virginia Housing loan products and services and are dedicated to aligning the best combination of loan and grant products and support that fit consumers' needs. Virginia Housing's expansive network helps integrate players such as lenders, community development and service organizations, builders, and realtors that are familiar with this range of products and services who can connect potential home buyers with appropriate resources.

Virginia Housing's homebuyer education and in-house loan servicing, which includes assistance to prevent and mitigate loan default and foreclosure, support long-term homeownership success. Virginia Housing's homebuyer education network of 49 partners reached nearly 80,000 homebuyers and potential homebuyers during the 5-year period.

Virginia Housing has developed several initiatives to reach specific geographic areas. The organization's mobile mortgage offices (MMOs) have increased homeownership in rural regions outside of U.S. Census Bureau-defined metro areas, issuing about 300 loans during the study period. Similarly, Virginia Housing made more than 2,000 loans in federally designated areas targeted for reinvestment under the Mortgage Revenue Bond program. In addition, Virginia Housing REACH *Virginia* initiative bought down interest rates on mortgage loans to encourage homeownership in neighborhoods designated by local governments through the Community Homeownership Revitalization Program (CHRP) program.

[2] Federal housing regulations define first-time buyers as people who have not owned and occupied a primary residence within the last 3 years.

Rental Housing Executive Summary

Virginia Housing's rental lending activities, allocation and administration of federal rental subsidies, and REACH *Virginia* program funding for rental housing have generated more than $8.2 billion in state economic activity, creating over 52,700 jobs and directly serving nearly 43,000 households. Virginia Housing plays a critical leadership role in the development and preservation of Virginia's rental housing, providing first-mortgage assistance and investing significant capital to catalyze partnerships with developers, investors, nonprofit housing providers, and housing authorities. These partnerships are responsible for most of Virginia's affordable housing construction and preservation and produce significant economic activity.

TABLE 3. Rental Program Economic Impact Summary

Description	Impact	
Rental Programs	*FY2018*	*FY2014–2018*
Output (Economic Activity)	$2,916,790,507	$8,243,807,821
Value Added (Gross State Product)	$1,613,580,165	$4,609,935,077
Labor Income (Salaries, Wages, and Benefits)	$1,046,734,350	$2,864,399,528
Employment (Number of Jobs/Person-years)	18,894	52,749

Virginia Housing is responsible for administering the federal Low-Income Housing Tax Credit program in Virginia, helping develop 24,000 affordable rental units over the study period[3]. Between FY2014–2018,[4] Virginia Housing allocated tax credits and issued tax-exempt bonds for 281 developments. Total tax credits allocated and tax-exempt bonds approved by Virginia Housing was approximately $190 million, and total development expenditures resulting from credit allocations were $4.51 billion.

Virginia Housing incentivizes green building through the competitive allocation[5] of 9% tax credits. These incentives have successfully promoted affordable housing development that, on average, saves residents 45% in annual energy costs at little cost difference compared to standard housing (McCoy et al., 2017). Virginia Housing's leadership in "greening" the federal tax credit program has been recognized nationally[6].

Virginia Housing has invested more than $120 million of its own net revenues through its REACH *Virginia* program at a median interest rate of 2.95% to address finance gaps in developments that serve high-priority populations (e.g., individuals and families experiencing homelessness or people with disabilities) or contribute to community revitalization. This investment is a salient example of Virginia Housing's integrated approach to supporting affordable housing development. Since 2014, REACH *Virginia* investments have supported 276 rental developments in the Commonwealth, representing 8,909 housing units. Developers interviewed noted that REACH *Virginia* funds have been imperative to filling funding gaps in tax-credit project budgets. In addition, Virginia Housing has made a commitment to public housing transformation by allocating 17% of each annual allocation of funds to its REACH *Virginia* initiative to developments participating in HUD's Rental Assistance Demonstration (RAD) conversion.

[3] Two types of tax credits are available: 9% and 4%. The 9% credit is highly competitive and enables Virginia Housing to address state policy priorities through an annual application scoring incentive process (e.g., innovation and green building). The 4% credit is available for both new construction and rehabilitation projects that are financed through tax-exempt bonds. Developments financed with tax-exempt private activity bonds are eligible to receive 4% LIHTCs.

[4] Fiscal year (FY) is used for economic impact modeling and REACH Virginia expenditure reporting, whereas calendar year (CY) is used for reporting project and unit counts.

[5] Virginia Housing establishes criteria for the competitive allocation of credits in the Qualified Allocation Plan.

[6] Global Green graded Virginia's tax credit green building policy "A-", 1st in the southeast and tied for 4th nationally.

Outreach Executive Summary

Virginia Housing's outreach activities support and advance the organization's primary functions of creating affordable homeownership and rental opportunities throughout Virginia, with a particular focus on the roles of housing in community revitalization or transformation. Virginia Housing's administration and outreach activities have contributed more than $463.5 million to the Virginia economy over the FY2014–2018 period.

Virginia Housing's outreach activities focus on organizational and project development to expand the capacity of housing organizations, local governments, and other key partners in the provision of affordable housing. Virginia Housing builds capacity and addresses service gaps, whether geographic- or service-related, through direct technical assistance (Virginia Housing operations and employment) and REACH *Virginia* program grants. Many efforts addressing service gaps have been implemented in recent years and continue to be developed. In total, $24.5 million in REACH *Virginia* funds have been invested to provide more affordable housing in Virginia.

TABLE 4. Outreach and Administration Economic Impact Summary

Description	Impact	
Operations, Capital Spending, Outreach Programs	*FY2018*	*FY2014–2018*
Output (Economic Activity)	$98,165,316	$463,591,375
Value Added (Gross State Product)	$86,781,816	$381,719,168
Labor Income (Salaries, Wages, and Benefits)	$57,847,299	$272,033,620
Employment (Number of Jobs/Person-years)	968	4,478
State and Local Taxes	$ 3,973,139	$18,511,169

From FY2014–2018, Virginia Housing made 159 capacity building grants and 25 grants to support community-led development or revitalization. Virginia Housing's Community Impact Grant program was initiated in 2016, and its 25 grants have delivered almost $2 million to support local government, nonprofits, and regional initiatives to address housing challenges. Projects are generally preliminary efforts that are not readily funded by other agencies or organizations. Interviewees described these efforts as imperative to building community understanding and supporting affordable housing plans and projects. In some cases, these grants funded predevelopment activities that allowed grantees to leverage other funds to make their community vision a reality.

Virginia Housing's Capacity Building Grants have contributed to the health of organizations that are integral to addressing the needs of hard-to-serve regions and populations and helped grow their capacity to provide additional housing despite increasing costs and decreasing resources. These grants support organizational development efforts such as strategic planning and succession planning and management. Over the FY2014–2018 period, the agency granted $4.88 million in capacity building and organizational development funds to local governments, nonprofits, and regional Continuum of Care entities.

Overall Impact

Virginia Housing has been successful in increasing access to affordable housing by coordinating its resources with federal, state, and local programs, and through its partnerships with non-profit, for-profit, and government entities. Over the period FY2014–2018, Virginia Housing activities have helped more than 70,000 households access an affordable housing unit and generated almost $10 billion in state economic activity, including 66,000 jobs paying in excess of $3.5 billion in salaries.

Virginia Housing, through its programs and operations, supports economic activity across the Commonwealth of Virginia. This includes spending for agency administration and community support programs, rental assistance and rental property development, and homeownership programs. In FY2018, programmatic and operational spending by Virginia Housing generated almost $3.5 billion in state economic activity, boosting gross state product by almost $2 billion and supporting almost 23,000 jobs totaling in excess of $2.5 billion in salaries, wages, and benefits. The economic activity associated with Virginia Housing operations and spending generated over $125 million in revenues for state and local taxing jurisdictions in FY2018. Examining these impacts over a longer period, we find that Virginia Housing activities generated almost $10 billion in state economic activity; increased gross state product by $5.7 billion; and supported almost 66,000 person-years of employment that boosted employee earnings by more than $3.5 billion for FY2014–2018. Over this 5-year period, state and local tax jurisdictions received over $361 million in revenues associated with Virginia Housing activities and programs.

TABLE 5. Total Impact Summary

Description	Impact	
	FY2018	*FY2014–2018*
Operations, Capital Spending, Community Programs		
Output (Economic Activity)	**$98,165,316**	**$463,591,375**
Value Added (Gross State Product)	$86,781,816	$381,719,168
Labor Income (Salaries, Wages, and Benefits)	$57,847,299	$272,033,620
Employment (Number of Jobs/Person-years)	968	4,478
State and Local Taxes	$ 3,973,139	$18,511,169
Homeownership Programs		
Output (Economic Activity)	**$441,007,037**	**$1,274,563,236**
Value Added (Gross State Product)	$258,944,873	$738,797,124
Labor Income (Salaries, Wages, and Benefits)	$146,386,637	$428,041,489
Employment (Number of Jobs/Person-years)	3,010	8,689
State and Local Taxes	$ 20,227,371	$54,197,215
Rental Programs		
Output (Economic Activity)	$2,916,790,507	$8,243,807,821
Value Added (Gross State Product)	$1,613,580,165	$4,609,935,077
Labor Income (Salaries, Wages, and Benefits)	$1,046,734,350	$2,864,399,528
Employment (Number of Jobs/Person-years)	18,894	52,749
State and Local Taxes	$101,011,778	$288,634,487

(Table continues next page)

TABLE 5. Total Impact Summary *(continued)*

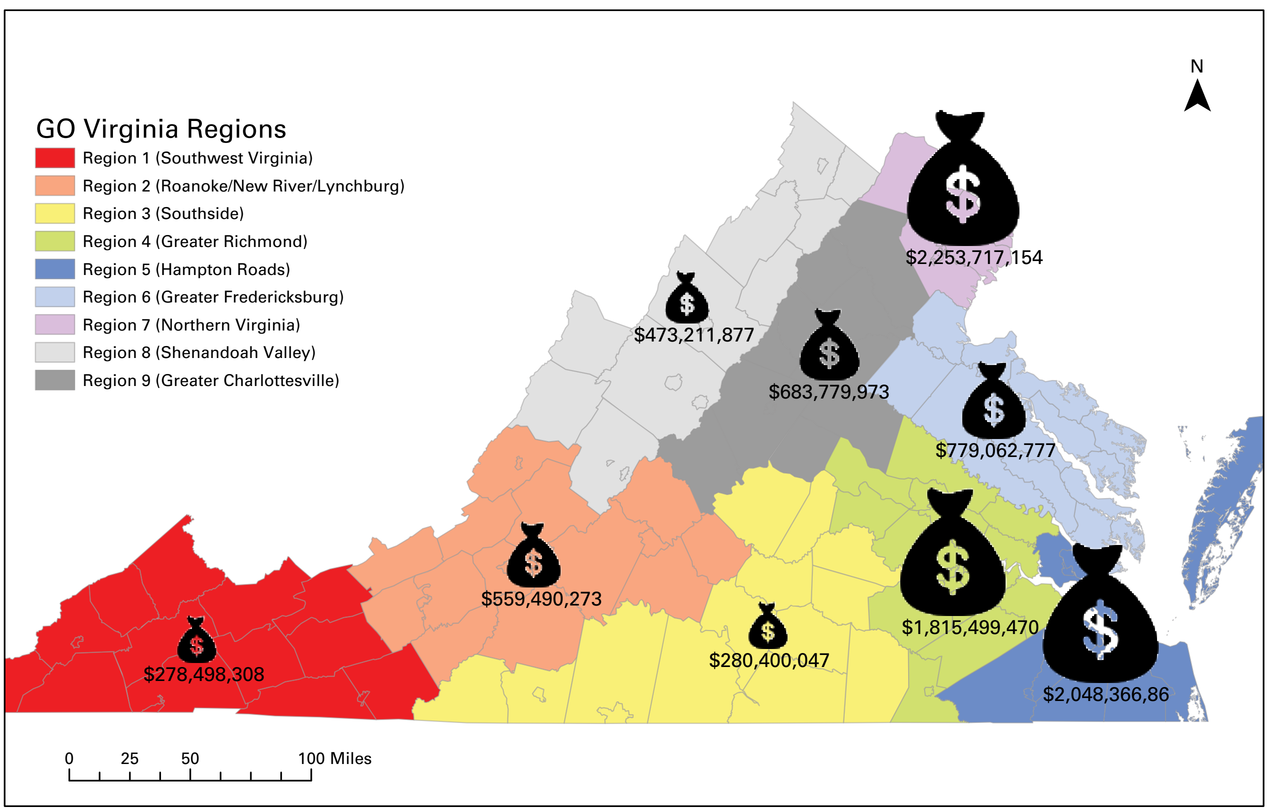
Description	Impact	
	FY2018	*FY2014–2018*
Total Impact		
Output (Economic Activity)	**$3,455,962,860**	**$9,981,962,432**
Value Added (Gross State Product)	$1,959,306,854	$5,730,451,370
Labor Income (Salaries, Wages, and Benefits)	$1,250,968,286	$3,564,474,637
Employment (Number of Jobs/Person-years)	22,872	65,916
State and Local Taxes	$125,212,288	$361,342,871

Sources: Virginia Housing, IMPLAN, VCU, GMU.

Go Virginia Impact

In addition to state-level impacts, the research team examined the economic impacts associated with rental and homeownership program spending on regional economies across Virginia. The geographic boundaries correspond to the nine regions defined in the Growth Opportunities for Virginia (GO Virginia) economic growth and diversification program. The analysis of regional impacts used the same methodology and assumptions as the state-level analysis; however, because only the impacts of the two largest program areas (rental and homeownership programs) were examined, administrative expense programs were not included. Map 1 shows the economic impacts of the two major program areas by region. The method by which the IMPLAN model treats economic leakage implies that the sum of the regional impacts is not the same as the state-level ones.

MAP 1. Economic Impact of Homeownership and Rental Programs by GO Virginia Region



Homeownership

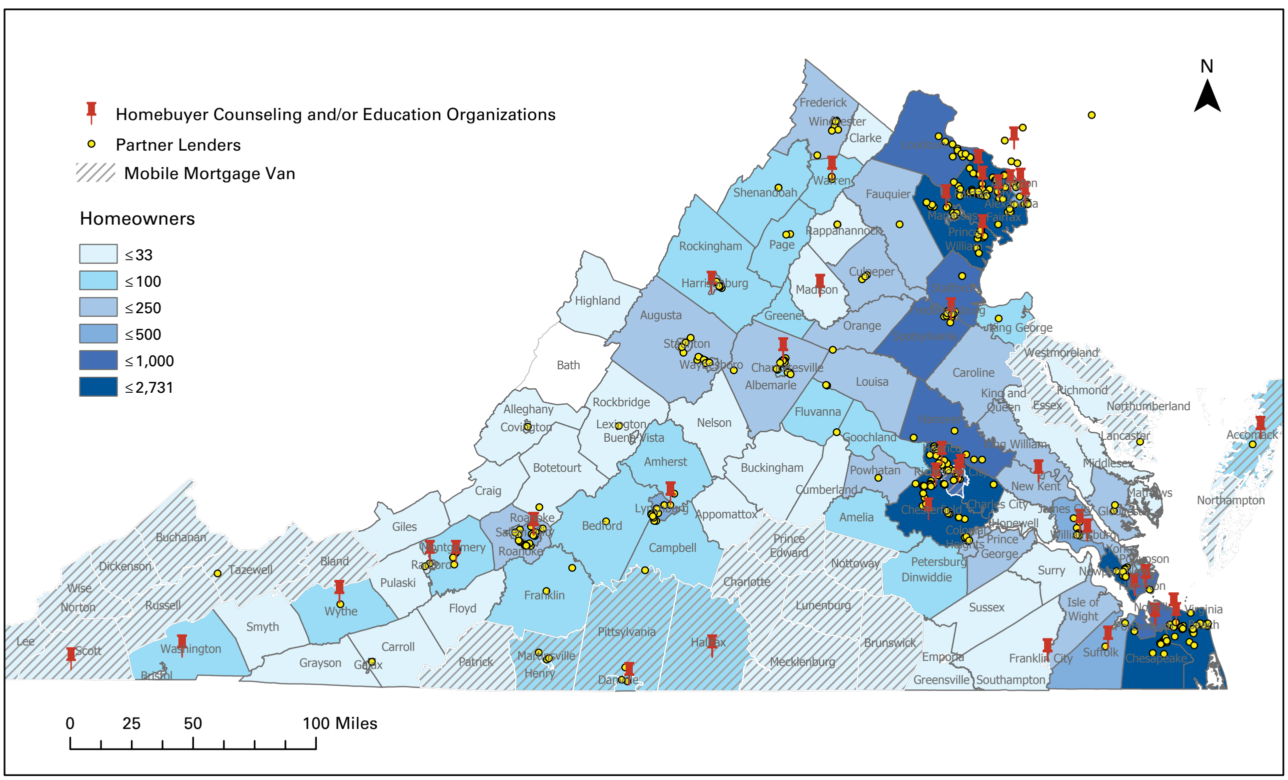
The efforts of Virginia Housing to increase access to affordable housing have been broad-based and creative, addressing supply- and demand-side challenges ranging from community acceptance for affordable housing programs to supporting consumer engagement with new loan and grant products through homeownership counseling and education. By pairing financial products with education and counseling, the agency can better address individual homebuyer circumstances.

Over FY2014–2018, Virginia Housing issued 27,293 mortgage loans totaling more than $5 billion and provided homeownership education to more than 80,000 people, generating $1.27 billion in state economic activity and creating over 8,600 jobs paying more than $428 million in salaries.

Virginia Housing offers an array of services and loan programs that facilitate homeownership among low- and moderate-income first-time homebuyers throughout the state. Education and counseling services prepare households for the homebuying process, and homeownership and loan programs make homeownership affordable for households that would otherwise find homeownership unattainable. Moreover, Virginia Housing targets underserved communities through its lending, education and counseling partners and has developed a mobile mortgage office to serve rural communities that lack access to traditional mortgage lending entities.

Virginia Housing's homeownership-related outreach, mortgage lending, and support for partner organizations has had a $1.27 billion impact on the Virginia economy and has facilitated the

MAP 2. Virginia Housing Homeowners, Network of Lender Partners, and Homebuyer Counselors and Educators



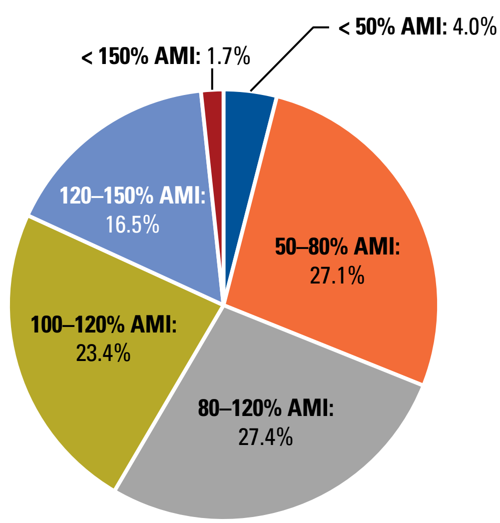
complex integration of resources from organizations and local, state, and federal governments for homebuyers and homeowners. These investments and connections not only create new access to homeownership but also generate positive outcomes for households, neighborhoods, cities, and organizations.

Mortgage Lending

Virginia Housing issued mortgage loans to 27,293 households during the period FY2014–2018, with over 26,500 (97%) issued to first-time homebuyers and most issued to low- and moderate-income households with incomes at or below 150% of local HUD Area Median Income (AMI). Virginia Housing's loan products are complementary to and often coordinated with other local, federal, and private loan products and financing tools that serve low- and moderate-income borrowers. Each of its 23 mortgage loan products offer terms and conditions that may be appropriate and advantageous to borrowers based on their financial circumstances, location, and homeownership goals/preferences. Most Virginia Housing loans are originated by private mortgage lenders and, when necessary, supported by a HUD-certified homebuyer counseling agency. Both lenders and counselors can guide borrowers to the most-advantageous mortgage product(s) for the borrower regardless of whether the product is offered or administered by Virginia Housing.

All Virginia Housing first-time home purchase borrowers are required to take a free homebuyer education class using Virginia Housing's homebuyer education curriculum prior to receiving a loan. Borrowers can attend a local class in-person or complete it online. Classroom sessions are offered by a variety of industry partners, including HUD-certified counseling agencies (which lack the geographic presence and staff/resources to fully meet this statewide need). More information on homebuyer education is below.

FIGURE 1. Percent of Loan Products by Housing Income as a Percent of HUD AMI, FY2014–2018



Virginia Housing also offers complementary financing products, such as down-payment assistance grants (DPA grants), second mortgages, federal Mortgage Credit Certificates (MCCs), interest rate buy-downs, and closing cost assistance grants. Each of these products creates opportunities for households that may have not been able to buy homes without these financing tools. In some cases, these products allow households to better manage housing and other expenses or obligations, such as retaining an emergency fund, planning for home upgrades and maintenance, or paying student loans.

Down-payment assistance may bridge the financial gap for those households that do not benefit from multigenerational wealth. The down-payment requirement is an important financial constraint that most households face when buying a home (Engelhardt & Mayer, 1998). If this requirement is high, only those with funds or who can obtain additional funds qualify for homeownership (Freeman & Harden, 2015). Intergenerational transfer recipients (i.e., those receiving assistance from parents), tend to buy homes faster or larger homes than non-recipients of such assistance (Engelhardt & Mayer, 1998; Guiso & Jappelli, 2002; Luea, 2008). The prevalence of this type of assistance from parents varies by race: 90% of African Americans rely on their own savings to pay a down payment, whereas only 54% of whites do so. Over 90% of whites receiving assistance do so from their families (Charles & Hurst, 2002). In addition, income-constrained buyers and households with overdue credit are more likely to rely on external assistance in buying a home (Mayer & Engelhardt, 1996). These findings suggest that external assistance such as down-payment assistance affects and may support homeownership among populations that would otherwise find it inaccessible.

"A Little Can Go A Long Way" – Using data from the 1996 panel of the Survey of Income and Program Participation that tracks some 11,000 renter households over a 3-year period, Herbert and Tsen (2007) found evidence that liquid financial wealth is a predictor of housing purchase. They anticipated that the size of the savings increases the effect on transition from renting to owning. However, the study showed that savings of $1,000 were more powerful than those of $1,000–5,000 and $5,000–20,000. This may imply that small down payment and closing-cost assistance can have a big impact on home purchase.

Virginia Housing also provides federal MCCs to qualifying homebuyers. The credit converts a percentage of the interest the borrower pays on the mortgage loan to a dollar-for-dollar tax credit on federal income tax liability. This credit has been particularly valuable to low- and moderate-income households who have not itemized deductions since the 2017 standard deduction change was enacted and therefore no longer receive a mortgage interest-deduction benefit. Virginia Housing does not charge a fee for the credit and it can be used every year the borrower remains in the original home purchased with the original mortgage in place. Even without federal tax liability in one of the years, the borrower can carry the credit forward up to 3 years. Virginia Housing distributed the first MCCs and DPA grants in FY2015, pairing them with 70% and 40% of all loans made, respectively. In addition, 36% of borrowers received both an MCC and a DPA grant. Virginia Housing now markets a "loan combo" that includes the appropriate mortgage loan option plus an MCC and DPA grant, combining several benefits into a streamlined product.

Virginia Housing reaches most of its borrowers through more than 500 private loan officers in its network that offer Virginia Housing mortgage loan products as part of their portfolio. Moreover, a network of 38 HUD-certified homebuyer counselors and nonprofit partners administer the Virginia Housing homebuyer education curriculum.

Outreach to Underserved People & Communities

Virginia Housing's efforts to reach underserved people and communities are conducted primarily though homebuyer education, programs for underserved geographies, and the mission focus of partner organizations (e.g., the Latino Economic Development Center in Arlington). Virginia Housing conducts outreach and builds partnerships with community-based organizations who serve underrepresented and low-income homebuyers. Virginia Housing provides homebuyer education training to participating organizations that deliver the Virginia Housing curriculum. Finally, Virginia Housing has developed special programs to serve places targeted for transformation or places that lack access to mortgage lenders.

Neighborhood Revitalization

Virginia Housing's homeownership programs support neighborhood transformation primarily through the Mortgage Revenue Bond Program and its Community Homeownership Revitalization Program (CHRP). For the Mortgage Revenue Bond Program, the federal government has designated "targeted areas" where economic conditions warrant special homeownership outreach and assistance. Virginia Housing has issued 2,031 loans in these targeted areas, mostly for existing homes. Pursuant to IRS guidelines, Virginia Housing has increased the maximum allowable income and price limits and waived first-time homebuyer restrictions to expand lending and thereby bolster growth in targeted areas. The Mobile Mortgage Office (MMO) program that reaches many of these targeted areas has also been launched by the organization and is detailed later in this report.

Virginia Housing offers the CHRP to support homeownership in neighborhoods designated by local governments for revitalization. Qualifying buyers can receive a 1% interest rate reduction from the standard Virginia Housing mortgage interest rate when they buy in CHRP-designated areas with as little as 1% down. For example, Arlington has designated three CHRP zip codes to preserve affordable housing in these areas and to help middle-income homebuyers retain their condos long term. Statewide, Virginia Housing loaned more than $47.25 million through CHRP. Interviewees described the CHRP program as a highly valued and "wildly successful" lending tool.

Mobile Mortgage Offices

The Virginia Housing Mobile Mortgage Office (MMO) program operates in Southwest Virginia, Southside, Middle Peninsula-Northern Neck, and the Eastern Shore to ensure rural residents have access to Virginia Housing's home purchase programs and services. Virginia Housing loan officers travel with MMO vans and regularly extend homeownership services to rural homebuyers who may otherwise lack access to credit, lenders, referrals, and technical support for homeownership. The MMO also offers access to information on other housing services and assistance available to low-income rural residents (e.g., rental assistance).

The MMO serves as a resource for realtors, nonprofit, and housing organizations to better connect Virginia Housing products with their clients via telephone, email, or in-person visits. Because of improving technology, decades of capacity building (15 years in Southside Virginia and 24 years along the Eastern Shore), and the physical presence of MMO vans, clients in Virginia rural areas can access a variety of services. The MMO has typically distributed USDA rural development guaranteed loans; recently, owing to recommendations from Virginia Housing's rural advisory council, they started providing closing-cost assistance grants as well. In a seller's market, closing-cost assistance grants help rural borrowers finance with zero down payment, allowing those who have not been able to save enough for down payments and closing costs to start building equity through homeownership. [insert MMO van picture]

Virginia Housing partners with the U.S. Department of Agriculture (USDA) by facilitating the origination of 502 direct loans. These loans assist low- and very-low income applicants in obtaining decent, safe, and sanitary housing in eligible rural areas by providing payment assistance that

The MMO has made its first loans associated with a new pilot program through a partnership with USDA-RHS that allows Virginia Housing and borrowers to originate mortgage loans for the purchase of existing manufactured homes built in 2006 or later and has improved the ability of rural manufactured home owners to sell their homes. Ten loans have been originated by the MMO through this pilot as of September 2019, providing better financing than had been available through other financing mechanisms. For example, under the pilot, a buyer of a 14-month old manufactured home was able to qualify for a rural development (RD) mortgage rather than an FHA one, saving her more than $18,000 over the life of the loan due to a favorable loan guarantee fee and lower monthly payments[7]. Virginia Housing does not vary rates and loan terms across manufactured housing based on subjective measures as chattel lending does; instead, financing terms for homebuyers are consistent.

fills the gap between amounts borrowers can afford based on their income and the payment required to purchase a modest home. The MMO vans provide access to this affordable loan product for families that are located in hard-to-reach rural communities. MMO loan officers gather pertinent borrower information, including income and credit documentation, in an effort to prequalify borrowers for their home purchase. All documentation is packaged and submitted to USDA for a decision on eligibility prior to the selection of a home. Once eligibility is determined, MMO loan officers continue to assist borrowers as they navigate the purchase process. This partnership increases both USDA's administrative capacity and MMO loan officers' ability to serve rural clients.

Homebuyer Education

Virginia Housing requires its first-time borrowers to complete its homebuyer education course, in which more than 80,000 homebuyers or potential homebuyers have participated. Virginia

[7] VHDA. (n.d.) VHDA/USDA Loan Program Helps Rural Home Buyers Purchase Existing Manufactured Homes. Retrieved from https://www.vhda.com/about/NewsCenter/Pages/VHDA-Rural-Development.pdf

Housing developed the education curriculum for the use of trainers throughout Virginia. Virginia Housing provides homebuyer education training to participating organizations. This training includes the Train the Trainer initiative, where housing counselors, realtors, lenders, and volunteer speakers in the homebuyer education classes learn how to teach the homebuyer education curricula. The Real Estate Professionals Training program provided by Virginia Housing's Business Development Officers (BDOs) is also offered to inform housing professionals (e.g., local government, nonprofits, counselors/educators, lenders, real estate agents, home inspectors, and closing agents) about Virginia Housing's various loan and grant products. A HUD-certified housing counselor noted that because the realtor or lender is often the first point of contact for many homebuyers, disseminating this information through multiple channels in a structured manner can benefit underserved or more vulnerable borrowers throughout their homebuying process.

Virginia Housing has special initiatives to reach homebuyers potentially marginalized owing to access to lenders who speak their first language, primarily Spanish. Spanish-speaking outreach is conducted through Hispanic and Latino organizations and Spanish-language homebuyer education classes. Virginia Housing is also working to improve outreach to minority groups in new and creative ways. These efforts have included a radio program that discusses homeownership and homeownership opportunities in Spanish, where listeners can call in to ask questions about homeownership and access to finance opportunities. Virginia Housing has also formed a relationship with Virginia Latino Higher Education Network and participates with their financial education curriculum for pre-college students. Virginia Housing expects to connect with faith-based community organizations in the future.

Virginia Housing has contributed more than $7 million for 49 partners to deliver homebuyer education and counseling services, and it allocates federal housing counseling grants to 38 HUD-approved counseling agencies totaling $5 million. Virginia Housing trains educators and provides curriculum for in-person homebuyer education classes and offers online curriculum that can be independently accessed by potential homebuyers. Classes are offered in Spanish and English, with active additions of Spanish-language classes through intentional outreach to Hispanic and Latino communities. Nearly three times as many people (80,000) completed the Virginia Housing homebuyer education curriculum as the number that received Virginia Housing loans during the 5-year study period. In total, 2,784 people participated in the Spanish-language classes.

Virginia Housing's coordination with and support for the HUD homebuyer counseling initiative is an example of integration for Virginia homebuyers. HUD-certified counseling services complement Virginia Housing's curriculum with budget and financing guidance as well as expert referrals for homebuying services, such as realty and inspection. HUD counselors also provide support and guidance to homeowners in mortgage default or foreclosure, which may complement Virginia Housing foreclosure-prevention efforts.

Counseling before home purchase helps potential homeowners determine if they are ready to buy a home and leads them to safer, more affordable mortgage products. Mortgage counseling also helps lenders avoid high-risk loans. Several empirical studies have shown the positive effects of pre-and post-counseling. Experiments of pre-purchase homeownership counseling by the Federal Reserve Bank of Philadelphia have shown a long-term positive impact on credit score, debt levels, and debt delinquencies (Smith, Hochberg, & Greene, 2014), and 2-year loan performance from NeighborWorks America's network of counseling agencies has shown that over the study period, borrowers with counseling were one-third less likely to become 90-or-more days delinquent than those without counseling (Mayer & Temkin, 2013).

Housing counseling can also be an effective intervention in helping distressed homeowners avoid foreclosure. Under NeighborWorks America's National Foreclosure Mitigation Counseling (NFMC) program, clients who received counseling were 2.83 times more likely to receive a loan modification and 70% less likely to redefault on a modified loan than borrowers without counseling (Temkin et al., 2014). Counseled borrowers could save $732 per year compared with modifications given to non-counseled borrowers (Mayer et al., 2009). Other studies suggest that counseling can help avoid foreclosure and in obtaining mortgage remedies (Been et al., 2013; Chan et al., 2014; Collins et al., 2013; Jefferson et al, 2012).

Homeowner Support and Loan Servicing

Once households have achieved their homeownership goal, they may continue to benefit from Virginia Housing resources. Homebuyers often stay in contact with Virginia Housing and Virginia Housing partners to ensure they can maintain homeownership, and Virginia Housing supports nonprofit organizations that provide general housing support to homeowners throughout the state. Virginia Housing's in-house loan servicing is an important asset to the success of its borrowers.

Virginia Housing's servicing officers prevent reputational, financial, compliance, and operational risks by representing the best interests of clients while helping process payments and manage defaults in a timely manner, abiding by regulatory guidance and ensuring that policies and procedures are consistent and can be measured for evaluation. Virginia Housing follows National Servicing Standards implemented in response to the Dodd–Frank Act and issued by the Consumer Financial Protection Bureau. Virginia Housing requires escrow accounts for all loans to help borrowers pay taxes and insurance, and the organization follows a strategic intervention framework to stabilize risks and prevent borrowers from defaulting on their loans. Therefore, Virginia Housing maintains or exceeds a 90% current loan rate, with less than 2% of its homeownership servicing portfolio more than 90 days delinquent not in foreclosure or bankruptcy. Virginia Housing reports that its collections department makes an average of 35,000 outbound contact attempts each month and receives an average of 2,300 inbound calls each month regarding delinquency and default, averaging a 2.86% abandonment rate during FY2014–2018.

Components of Loan Servicing

Portfolio Management	Payment Processing	Investor Reporting
New Loan Set-Up	Customer Service	Escrow Administration
Payoffs & Assumptions	Records Management	Collections
Loss Mitigation	Foreclosure	Bankruptcy
Short Sales and DIL	Claims	REO
Quality Assurance	Project Management	Compliance

Virginia Housing loss-mitigation staff help borrowers request assistance in the event of delinquency or default and can assist with developing an alternative payment plan that can be legally fulfilled. Modifications to the loan product that can reduce borrower risk may include capitalization, interest rate reductions, term extensions, principal deferment, or a partial claim (possible with FHA loans). If the delinquency cannot be resolved by the 120th day using these channels, Virginia Housing is required to initiate foreclosure following fair and regulatory compliant procedures. Over the 5-year study period, Virginia Housing initiated foreclosure for approximately 2% of Virginia Housing borrowers. Foreclosure entails a period where the homeowner can become current on their monthly payments, modify or refinance the loan to reverse the foreclosure process. Five percent of Virginia Housing borrowers refinanced their loan products during the study period, most likely to acquire a better interest rate, to decrease or increase the life of the loan depending on their payment capacity, to consolidate debt, or to change the loan type.

Increasing the Stock of Affordable Homes

Virginia has a shortage of for-sale housing inventory and competition for existing inventory crowds out low- and moderate-income households. More than 890,000 households in Virginia need more affordable housing. The state added 83,000 households over the last 5 years, and growth projections suggest that Virginia could add an average of 22,560 net new households annually (Virginia Coalition of Housing and Economic Development Researchers, 2017). With recent high levels of economic growth, Virginia could add nearly 54,000 units per year through 2030 (Virginia Coalition of Housing and Economic Development Researchers, 2017). Adding an average of 30,500 units annually since 2014 (which helps meet projected demand from net new workers), Virginia has yet to ramp up building to meet its high-growth potential. With demand increasing faster than

Permanent mortgage financing has helped the Newport News Housing Authority construct 131 homes in the Madison Heights neighborhood, contributing to the continuing revitalization of a once-blighted neighborhood. The Housing Authority leveraged the community's progress and partnership with Virginia Housing to secure a $30 million HUD Choice Neighborhood Initiative (CNI) implementation grant.

supply, prices in Virginia continue to increase and competition for more affordable units is intensifying.

Virginia Housing recognizes that there exists a shortage of units, particularly those that are affordable to low- and moderate-income households. The agency is therefore looking for ways to encourage the construction of ownership units for low- and moderate-income families (e.g., through its evolving partnership with Habitat for Humanity Virginia) in addition to rental units (which are detailed in the following section). Moreover, permanent mortgage financing can support the construction of new, affordable homes on a household-by-household basis, as in the case of Madison Heights in Newport News.

Habitat for Humanity Virginia

Virginia Housing supports Habitat for Humanity Virginia's goal of increasing access to affordable housing and homeownership through pro-bono servicing programs for Habitat Virginia and its local chapters, extending lines of credit for construction of Habitat homes, and providing various capacity building support to affiliates. Individuals and families who receive home loans from Habitat Virginia also participate in a first-time homebuyer course developed by Virginia Housing, where they learn about the home buying process and prepare for the responsibilities of homeownership. In addition, Virginia Housing offers all phases of loan servicing to Habitat chapters in Virginia, including customer service, escrow analysis, and loss mitigation. The pro-bono servicing aims to provide substantial savings to Habitat chapters, helping them build more affordable housing across Virginia.

Since 2013, Virginia Housing has provided over $5.1 million in servicing support to Habitat projects in the localities of Fauquier, Nelson, Charlottesville, and Culpepper, and in the Eastern Shore, Tri-Cities, Northern Virginia, and South Hampton Roads regions. This funding has supported 111 projects during the 5-year period. Virginia Housing allocated $13 million to support Habitat building projects, but only $5.7 million were used. The gap between allocation and use is attributed to several factors, including that few Virginia Habitat affiliates produce or rehabilitate homes at a volume that warrants the use of Virginia Housing loans. Affiliates also report that the 3% loan pool would be used more extensively if loans were provided for 25–30 years or if the interest rate were 2%. Qualifying Habitat homeowners are increasingly using Virginia Housing-supported 502 USDA loans, which is often more enticing as 38-year/1% interest rate loans than as 30-year/0% ones, owing to a lower monthly payment. Moreover, the Virginia Department of Housing and Community Development (DHCD) Neighborhood Stabilization Program (NSP) and Virginia Housing's Community Homeownership Revitalization Program (CHRP) funds can be used to support development and revitalization in blighted, non-rural areas and combined with the Acquire, Renovate, Sell (ARS) program funded by Virginia Housing and administered by DHCD as NSP funds phase out.

While a utilization gap has existed, Habitat leadership in the state has reported that affiliates would have produced fewer homes if the loans had not been available or without other forms of Virginia Housing support, including expertise on a range of loan products, free loan servicing, and managing mortgages and federally regulated liability concerns. These support programs have been a much-valued resource, providing training that helps increase affiliate capacity and supports the development of affiliate strategic plans and fundraising strategies. Through a capacity building grant, Virginia Housing is supporting an upcoming capital campaign effort that will benefit both local Habitat affiliates and the ability of Habitat Virginia to centralize and leverage loan pool funding. Virginia Housing's investments and support through its Outreach Division is considered unique in comparison to other state housing authorities.

Rental Housing

From FY2014–2018[8], Virginia Housing rental programs generated more than $8.2 billion in state economic activity and over 52,700 jobs, directly serving nearly 43,000 households and significantly impacting Virginia's rental housing coordination, investment, and infrastructure.

Virginia Housing administers the Low-Income Housing Tax Credit program in the state and invests its REACH Virginia funds to further development of affordable rental housing. Virginia Housing's allocations and investments financed the development of 32,900 rental units over the study period.

More than 456,000 households that rent in Virginia spend more than 30% of their income (of which more than 220,000 of these spend more than 50%) on rent and utilities. Households that spend more than 30% of their income on housing are considered housing cost-burdened because many are forced to make tough choices between housing and other needs like medical care, education, transportation, food, and clothing. Renters are more often cost-burdened than owners—44% of renters pay more than 30% of their income toward housing compared to 21% of owners that do so.

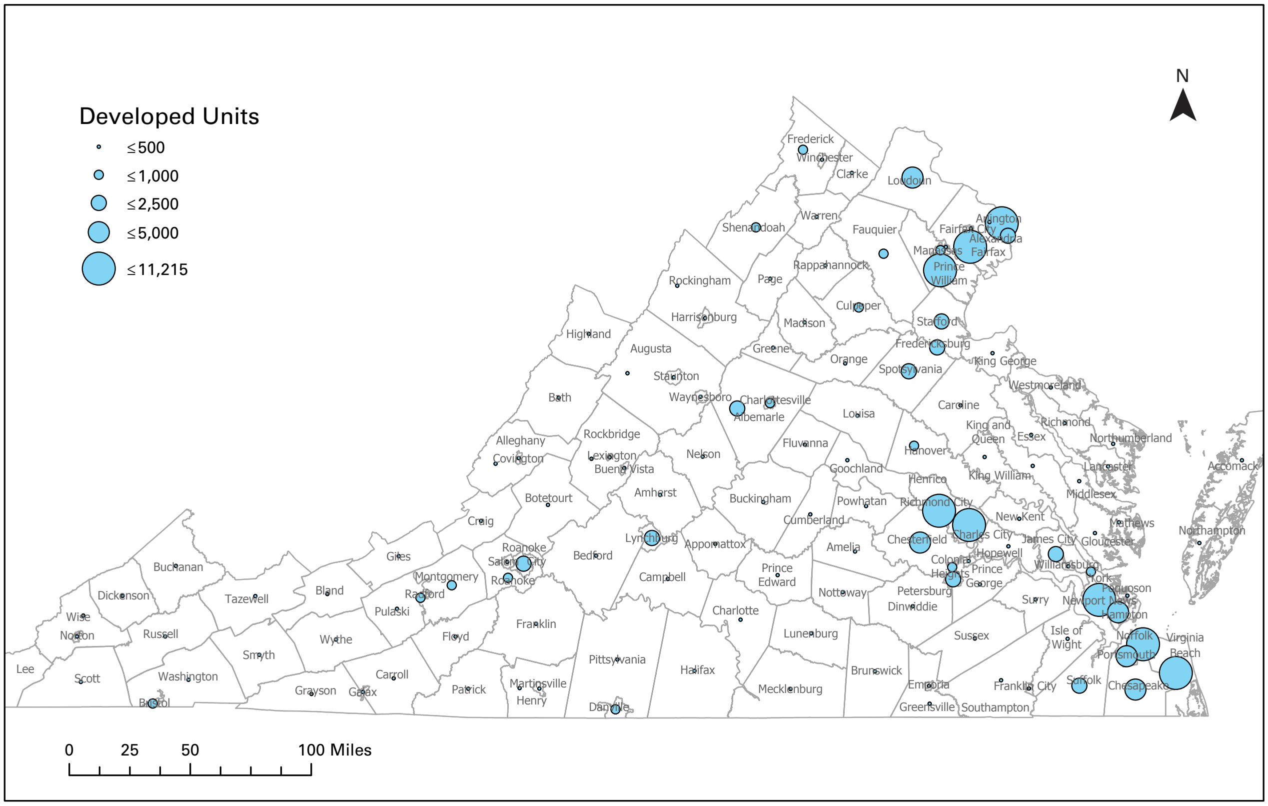
Virginia Housing plays a critical leadership role in the development and preservation of Virginia's affordable rental housing. The organization provides first mortgage assistance and invests significant capital to catalyze partnerships with developers, investors, nonprofit housing providers and housing authorities. Private builder–developers, nonprofit housing providers, and local housing authorities pursue affordable housing development with a diverse collection of professionals. Architecture firms, general contractors, and legal, accounting, banking, and property management professionals are all needed to execute a successful rental housing development. And increasingly, local governments are playing a role in the development of affordable rental housing through direct financial support and zoning enhancements. These partnerships (referred to hereafter as "development teams") enable the integration of Virginia Housing's financial, programmatic, and technical resources toward the development and preservation of Virginia's affordable rental housing stock. These development teams are responsible for the majority of Virginia's affordable housing production and preservation as well as significant economic activity (see Table 6). Virginia Housing construction financing and investment, allocation of federal resources such as federal tax credits and Housing Choice Vouchers, and programs that support rental development and renter households generated more than $8.2 billion in economic activity over FY2014–2018.

TABLE 6. Summary of Rental Programs Economic Impact

Description	Impact	
Rental Programs	*FY2018*	*FY2014–2018*
Output (Economic Activity)	$2,916,790,507	$8,243,807,821
Value Added (Gross State Product)	$1,613,580,165	$4,609,935,077
Labor Income (Salaries, Wages, and Benefits)	$1,046,734,350	$2,864,399,528
Employment (Number of Jobs/Person-years)	18,894	52,749

[8] Fiscal year (FY) is used for the economic impact modeling and REACH *Virginia* expenditure reporting, while calendar year (CY) is used for reporting project and unit counts.

MAP 3. **Virginia Housing Rental Unit Development Coordination 2013–2018**



Development teams engage Virginia Housing's rental housing program throughout the development lifecycle. Virginia Housing offers several funding opportunities for rental housing development; for example, the organization manages the Commonwealth's allocation of federal Low-Income Housing Tax Credits (LIHTCs). The LIHTC program is Virginia's primary source for expanding and preserving the supply of rental housing (Scally et al., 2018). The strategic lending through Virginia Housing's REACH *Virginia* program supports many tax credit projects and other affordable rental housing developments in addition to public housing transformation conducted through the federal Rental Assistance Demonstration (RAD) program. These programs catalyze both new construction and rehabilitation activities. The geographic impact of Virginia Housing's rental program in the development and preservation of rental housing can be seen in Map 3.

Low-Income Housing Tax Credits

The LIHTC program is the federal government's primary program to incentivize private development investment in affordable rental housing (McClure, 2006). In Virginia, the LIHTC program is the primary source for expanding and preserving the supply of affordable rental housing (Scally et al., 2018). Enacted by Congress as part of the Tax Reform Act of 1986, the LIHTC program gives state and local LIHTC-allocating agencies (e.g., Virginia Housing in the Commonwealth of Virginia) the equivalent of a nearly $8 billion annual budget to issue tax credits for the acquisition, rehabilitation, and new construction of rental housing targeted to lower-income households (HUD, 2019a). Two types of tax credits exist: 9% and 4%. The 9% credit is highly competitive and enables Virginia Housing to promote public policy priorities through an annual application scoring incentive process (e.g., innovation and green building). The 4% credit is available for both new construction and rehabilitation projects and are financed through tax-exempt bonds. All developments financed with tax-exempt private activity bonds are eligible to receive 4% credits. There is no application deadline for the 4% credit, so developers can leverage this resource on a first come, first serve basis.

The LIHTC program is critical to rural communities. Scally et al. (2018) analyzed LIHTC impacts in rural communities, finding that more than 10% of rental units are financed using LIHTCs in 3% of U.S. counties. These 51 counties, most of which are rural communities, have larger-than-average shares of black or Hispanic residents and higher poverty and unemployment rates (Scally et al., 2018). Developer interviewees reinforced the role of the LIHTC in rural communities and praised Virginia Housing's role in not only reinvesting in rural Virginia but also ensuring the projects were a success.

LIHTC Impacts on Construction, Utility Expenditures, and Investors

Between 2013 and 2018, Virginia Housing allocated tax credits for 281 projects, representing 24,000 low-income units. Of the 281 projects, 48% were new construction and 52% were rehabilitations of existing properties. Figure 2 represents the 5-year trend of Virginia LIHTC projects.

During the 2013–2018 period, approximately $190 million total LIHTCs were allocated by Virginia Housing. Total development expenditures resulting from the credit allocations were $4.51 billion. The construction and rehabilitation of affordable housing from LIHTCs creates significant economic activity through jobs, material purchases, and taxes over the 3-year LIHTC project schedule. Virginia Housing staff noted that during a 3-year LIHTC project cycle, approximately 70% of the expenditures catalyzed by the LIHTCs occurs in the last 1.5 years. The development economic impacts are generated when project expenditures occur.

Beyond direct construction spending, LIHTC projects provide a lasting impact for investors through equity building and local utilities through utility payments. The value created by development spending, operations, and investor equity in rental housing demonstrates the impact of Virginia Housing on the Commonwealth's economic vitality. Furthermore, Virginia Housing's rental housing programs impact local and regional utility service revenues. Virginia Housing's rental portfolio is responsible for approximately $122 million in annual utility payments (e.g., energy, water, sewer, and trash services). Newport News had the highest total utility expenditures

FIGURE 2. **Count of projects approved during 2013–2018 by construction type**

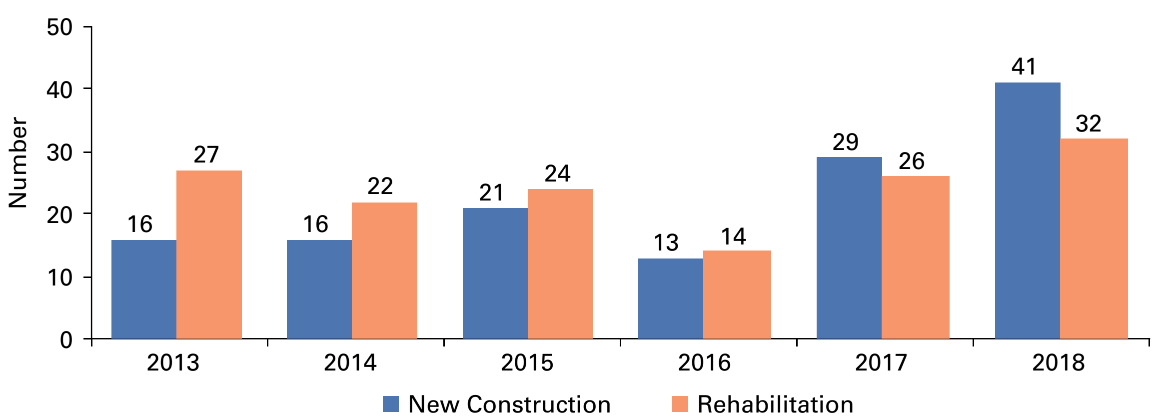


TABLE 7. FY2014–2018 LIHTC Overview

Program		2013	2014	2015	2016	2017	2018
9% Tax Credits	Projects	27	33	28	15	32	43
	Units	1,419	2,207	1,421	950	2188	2651
	Credits ($)	$13,998,489	$18,343,915	$15,133,967	$10,945,671	$25,253,891	$35,755,201
4% Tax Credits	Projects	16	5	17	12	23	30
	Units	2124	641	1,838	1,363	3,370	3,862
	Credits ($)	$6,837,405	$3,169,620	$9,219,496	$6,112,668	$18,337,092	$26,617,705
Hybrid 9% + 4% Tax Credits	Projects	0	0	4	3	5	20
	Units	0	0	279	175	372	1,449
	Credits ($)	$0	$0	$4,060,873	$3,058,322	$6,348,237	$19,612,101

($3,913,365), followed by the cities of Norfolk ($2,583,836), Chesapeake ($2,568,780), and Virginia Beach ($2,160,346).

The total number and cost of qualified projects (and, consequently, the total allocation of credits) significantly increased in the last 2 years of the study period (2017–2018), implying an increased investment in affordable housing projects in Virginia compared to the 2013–2016 period. Table 7 characterizes the LIHTC program outputs during FY2014–2018.

In 2015, Virginia Housing began a "hybrid" program that enables housing developments to use both 9% and 4% tax credits. With the hybrid approach, teams develop projects that compete for 9% credits while integrating less-competitive 4% credits through tax-exempt bond financing for a portion of the project. The goal of the 9% + 4% hybrid LIHTC funding is to maximize the 9% credit, for which demand substantially exceeds supply. Since 2015, 32 projects have secured 9% + 4% hybrid LIHTC funding. Some developers have noted that the hybrid approach enables them to pursue larger projects, whereas others have described increased transaction costs associated with such an approach. According to the LIHTC developers interviewed, the transaction costs of the 9% + 4% hybrid LIHTC are not reflective of Virginia Housing's rental program(s) but relate to the challenge of closing two projects simultaneously. Furthermore, LIHTC developers interviewed have noted that while the 9% + 4% Hybrid LIHTC approach is more burdensome, it is necessary to meet affordable housing challenges in the Commonwealth.

A breakdown of credits issued by GO Virginia regions suggests that Northern Virginia has received the highest amount of credits to date, followed by Hampton Roads, Greater Richmond, and Greater Fredericksburg. Since 2016, the amount of credits allocated to these four regions has grown substantially. Based on developer interviews, the increase in credit allocations is the result of increased construction and land costs. Subsidies received in the rest of the state during the FY2014–2018 period were consistent over the years measured.

Green Building

Beyond the economic impact resulting from credit allocations, the LIHTC program has affected Virginia's broader housing infrastructure. The highly competitive nature of the 9% LIHTC program has enabled Virginia Housing to incentivize development best practices and service-centered features for residents. Over the last 12 years, Virginia Housing has utilized green building rating system incentives as a policy vehicle in the LIHTC program to encourage energy efficiency (EE) in the affordable rental stock in Virginia. Since 2008, 100% of Virginia LIHTC developments have been certified under the EarthCraft Multifamily Green Building Program. These incentives have been successful in promoting affordable housing development that, on average, saves residents 45% of their annual energy costs at small cost difference to standard housing (McCoy et al., 2017). Virginia Housing's leadership in "greening" the LIHTC program has been recognized nationally. Global Green graded Virginia's LIHTC green building policy an "A-", 1st in the southeast and tied for 4th in the country.[9] Virginia Housing's green building policy has positively impacted housing affordability and reduced the impact of housing on Virginia's infrastructure systems. During zoning meetings, LIHTC developments often face "not in my backyard" (NIMBY) attitudes (Nguyen, 2005; Pendall, 1999). Developers have noted that Virginia Housing's focus on green building has helped ease these attitudes.

Strategic Lending

One example of supporting rental housing development using an integrated approach is Virginia Housing's REACH *Virginia* program. Under the program, mortgage rates can be reduced to facilitate the development of housing serving low-income populations: the median REACH project interest rate was 2.95% over FY2014–2018. REACH *Virginia* targets three critical rental needs: 1) housing for individuals and families who have experienced homelessness, 2) housing for people with disabilities, and 3) developments supporting neighborhood revitalization. REACH *Virginia* also supports lending for affordable rental units broadly. During the FY2014–2018 period, the REACH *Virginia* program supported 276 rental developments in the Commonwealth, representing 8,909 housing units and providing $120.1 million in subsidies.

Virginia Housing offers rental management training for properties it finances and tenant education curriculums for renters throughout Virginia, including online resources such as an e-book and online course. This training and education may improve the long-term success of newly developed or rehabilitated housing. Virginia Housing issued 1,139 property manager certifications over the FY2014–2018 period.

Public Housing Transformation

Virginia Housing has made a commitment to public housing transformation by allocating 17% of REACH *Virginia* funds to developments participating in HUD's Rental Assistance Demonstration (RAD). Enacted by Congress in 2012, the RAD program was developed to meet the capital improvement needs of aging public housing stock. The program converts previous housing operating-assistance contracts to long-term project-based Section 8 rent subsidy contracts. This enables local public housing authorities to finance the rehabilitation or replacement of the public housing development. RAD requires a public or nonprofit entity to always maintain a controlling interest in the property and provide residents the same basic rights as they possess in the public housing program: the right of return, a prohibition against rescreening, and robust notification and relocation rights (HUD, 2019b). Developer interviewees have noted that Virginia Housing has been instrumental in public housing transformation. For example, deals that face strict HUD requirements have been made thanks to Virginia Housing's rental program.

[9] Global Green USA: http://static1.squarespace.com/static/5548ed90e4b0b0a763d0e704/t/55520ec5e4b0b1995caa0f9c/1431441093899/2013QAP_FINAL.pdf

Newport News Redevelopment and Housing Authority (NNRHA) partnered with Virginia Housing to revitalize Cypress Terrace. The 82-unit project was an early pilot for HUD's RAD program. The development was able to leverage financing typically not available to public housing developments. Virginia Housing supported a blend of 9% LIHTCs ($491,238) and REACH *Virginia* funding ($ 2,285,815.00). Jeff Michael Meyers, the Senior Development Office for Virginia Community Development Corporation (VCDC), managed the tax credit syndication for the project. Jeff noted, when compared to other state housing finance housing agencies Virginia Housing was "way ahead of the curve on public housing financing."

Mixed-Use-Mixed-Income Developments

Virginia Housing finances developments that include mixed-income housing and commercial or other uses. Mixed-use developments with retail and office space on lower floors and residences on upper ones have become widespread in high-cost and high-growth areas. These developments are often incentivized by local governments through zoning, because they promote community cohesion and vitality and offer better economic opportunities for residents. Virginia Housing has increased the development of affordable housing that is accessible to different income levels and promotes community vitality by providing mixed-use/mixed-income (MUMI) funding in high-cost and high-growth areas. In total, the organization made REACH *Virginia* investments in 13 MUMI developments during the study period.

Virginia Housing has invested $1.3 million in REACH *Virginia* funds for the transformation and development of the Old Prices Fork Elementary school in the Village of Prices Fork in Montgomery County just outside of Blacksburg. The school will include six senior housing units in former classrooms along with an industrial kitchen, a restaurant, and a brewery open to the public.

Increasing Accessibility

The U.S. housing stock is not well-equipped to accommodate people with disabilities. This need is becoming more acute as the number of older Americans with both ambulatory limitations and a desire to age in place grows. According to the 2011 American Housing Survey (AHS), most U.S. homes are not fully accessible. Bo'sher et al. (2015) created an accessibility index to measure the availability of accessible features in housing for persons with serious difficulty walking or climbing stairs or who use a mobility device for a condition that is not a temporary injury. Although approximately one third of units have essential accessibility features and are potentially modifiable, fewer than 5% of units have the features needed to accommodate a person with moderate mobility difficulties. The percentage of wheelchair-accessible units is even smaller: less than 1% of all units are equipped with features that would allow a wheelchair user to live independently.

Over the 5-year period FY2014–2018, Virginia Housing provided 342 grants to low-income renters to help with accessibility improvements for their rental units. These improvements included 156 ramps, 9 stairlifts, and 2 railings as well as 91 accessibility modifications to bathrooms. Virginia Housing grants to improve the accessibility of rental units have totaled almost $800,000 over the 5-year period. These modifications help current residents and increase the availability of accessible stock for disabled populations.

Vouchers

The Housing Choice Voucher (HCV) program is the largest U.S. housing subsidy program for low-income households, providing assistance to approximately 2.2 million households each year (Ellen, 2020). Virginia Housing administers vouchers as needed by local communities, making HCVs accessible to residents that would not otherwise have an administration agency. Virginia Housing administered an average of 8,895 HCVs annually in the FY2014–2018 period. The rent, utilities, and administration fees associated with the 8,834 vouchers administered in 2018 by Virginia Housing totaled $93.46 million.

Some studies have reported that vouchers have reduced rent burden and improved economic opportunity. Therefore, recipients have extra money to spend on goods such as food (Milles et al., 2006). Furthermore, compared to households in emergency shelter not receiving vouchers, those that do are less likely to experience homeless again (Gubits et al., 2016). Voucher recipients live in less-disadvantaged neighborhoods than non-recipients and those in HUD-assisted housing do (Devine et al., 2003; Hartung & Henig, 1997; Kingsley et al., 2003; Lens et al., 2011; Newman & Schnare, 2017; Pendall, 2000). Some evidence exists that voucher holders move to slightly better neighborhoods over time (Eriksen & Ross, 2013; Feins & Patterson, 2005) and that voucher holders with children are likely to move to neighborhoods with better schools, especially in looser housing markets (Ellen et al., 2016). However, some voucher holders still live in poor neighborhoods, which may be a worse environment than housing developed with Low Income Housing Tax Credits (McClure, 2006).

Vouchers affect the school performance of children. Children with vouchers are less likely to be absent due to health, financial, or disciplinary problems and do not lag other students in test scores (Jacob et al, 2015; Mills et al., 2006; Schwartz et al., 2017). In addition, vouchers reduce financial stress, allowing recipients to focus on learning skills and finding jobs (Collinson et al., 2016).

Administration and Outreach

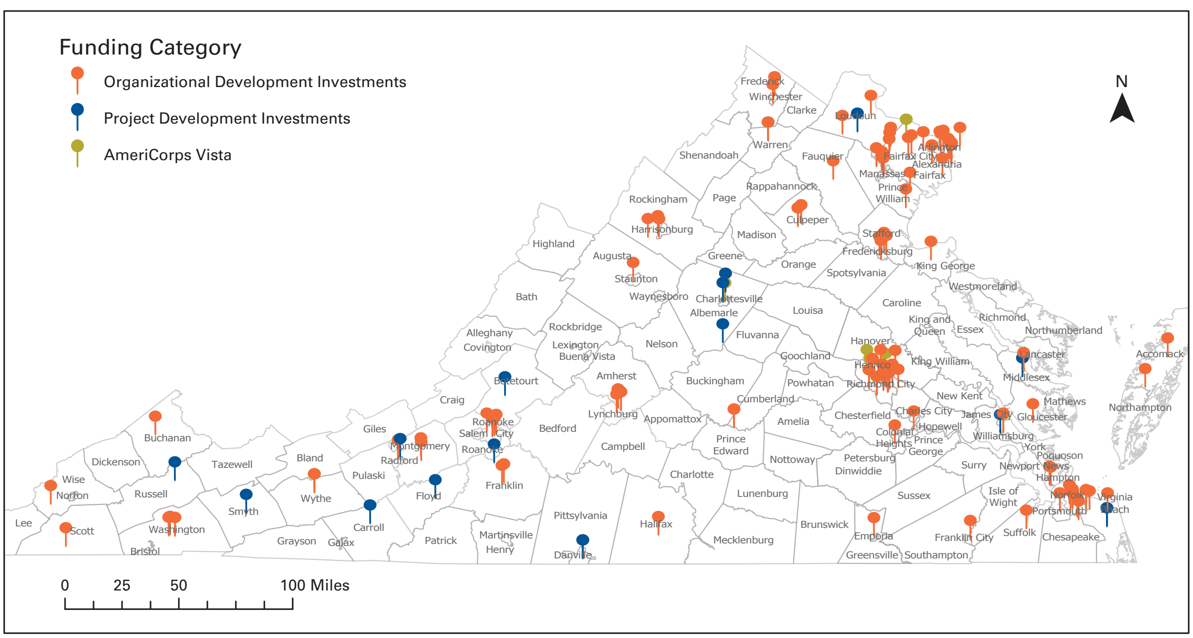
Virginia Housing partnerships are integral to fulfilling its mission. The agency depends on its partners and network of non-profit and for-profit developers and local housing authorities to deliver both homeownership products that serve populations that cannot easily or readily benefit from other federal or market-based mortgage products and rental housing serving low-income and otherwise underserved individuals and families.

Virginia Housing addresses service-related and geographic gaps through direct technical assistance, seed investments, and organizational development. Over the FY2014–2018 period, $24.5 million of Virginia Housing's REACH Virginia funds have been invested to assist its partners and provide more affordable housing in the state.

Administration and community support reflect agency operational spending for facilities, general administration, and small programs that support local agencies across a wide range of housing-related programs. The largest component of this spending in FY2018 was employee-related spending for the 447 employees and contractors working directly for Virginia Housing. Together, administration and outreach generate nearly $464 million in economic activity throughout the state. Although Virginia Housing's administration is concentrated in Richmond, outreach investments span much of the state.

Virginia Housing's outreach strategically addresses project and organizational development among its partners and throughout the state. Over the 5 years FY2014–2018, Virginia Housing made 159 capacity building grants and 25 grants supporting community-led development or revitalization. Virginia Housing has more than 10 staff devoted to connecting organizations, localities, and experts to develop projects that meet Virginia's housing needs. Interviewees consistently reported that in addition to grants, Virginia Housing staff time and expertise benefited their initiatives; furthermore, they stressed that Virginia Housing staff are easy to contact and willing to visit and participate in the visioning of local projects.

MAP 4. Virginia Housing Organization and Project Development Investments



Project Development

Virginia Housing's Community Impact Grant program was initiated in 2016, and its 25 grants have delivered almost $2 million dollars to support local government, nonprofit, and regional initiatives in addressing housing challenges. The projects are generally preliminary efforts that are not readily funded by other agencies or organizations. Grants for less than $50,000 commonly focus on research, study, and analysis required in advance of housing initiatives. Larger grants of up to $250,000 have generally funded design, architecture, engineering, and/or construction in addition to consulting services. These are intended to advance major transformative projects at the local level often designed to promote inclusive Mixed-use, Mixed-income communities.

The research team discussed some studies with grantees. Grantees engaged consultants for studies with a variety of goals, including basic research used to develop goals and programs and studies intended to inform the public of housing affordability needs or gauge the feasibility of a proposed project. Each grantee designed their study requirements in consultation with Virginia Housing staff. Studies were conducted with full or partial support from Virginia Housing REACH *Virginia* funds.

The research team interviewed two grantees receiving larger grants for housing developments. In both cases, Virginia Housing funded predevelopment activities, such as community engagement, design, and engineering. Although all projects are still in development, the grantees reported that the predevelopment activities partially paid for with REACH *Virginia* funds have deeply enhanced preparation and advanced their projects.

Interviewees expressed that Virginia Housing's Community Impact Grants are an important source of flexible and "strategically patient" funding not available from other sources. Grantees indicated that the Community Impact Grant complemented later-stage Virginia Department of Housing and Community Development (DHCD) planning and project grants. The Community Impact Grants also provided information grantees needed to pursue policy changes, program development, or development projects with local stakeholders, staff, elected officials, and the public.

Most grantees developed their project ideas with valuable input from Virginia Housing's outreach staff. Interviewees explained that the staff provided information and contacts that helped them refine their project ideas or connect with contractors that could help them complete their projects. Interviewee level of engagement with Virginia Housing ranged, with some connecting with Virginia Housing on an ongoing basis and integrating as much as possible with Virginia Housing initiatives and others working with Virginia Housing on an as-needed basis. Nonetheless, each grantee suggested that getting to know Virginia Housing staff and better understanding Virginia Housing funding opportunities has been critical to their organizations' growth and sustainability.

Organizational Development

Since the 1980s, nonprofit housing organizations have played and increasingly important role in the delivery of housing affordable to low- and moderate-income households (Rohe et. al., 2001). However, nonprofit organizations face ever-decreasing resources and increased need for their services (Gratton, 2018). Organizational development, which includes information and technology upgrades, strategic planning, and succession planning, is required for the sustainability and continued success of nonprofits and governments as they strive to serve more people with less resources. As nonprofit builders, developers, and managers become more significant providers of low- and moderate-income housing in our state, the health of these organizations have a direct impact on the health of the state (Virginia Coalition of Housing and Economic Development Researchers, 2017).

Virginia Housing's Capacity Building Grants support organizational development efforts that include strategic planning, succession planning, and management. Over the period FY2014–2018, Virginia Housing granted $4.88 million capacity building and organizational development funds to local governments, nonprofits, and regional Continuum of Care entities. Individual grants ranged from $2,000 to $156,000, and recipients served diverse needs throughout the state. Table 8 tallies recipient organizational types. Although organizations receiving community impact grants differ in focus, each addresses housing in some capacity. This diversity is reflective of the connections between housing and other social and economic issues, such as health, workforce development, and community development (Virginia Coalition of Housing and Economic Development Researchers, 2017). Map 3 shows where each FY2014–2018 grant was applied.

The research team interviewed recipients to learn more about their activities funded through Capacity Building Grants. Funded efforts represent varying needs and initiatives, including technology upgrades, staff training, board development, and AmeriCorps Vista projects. Grantees described Virginia Housing's tiered investments in the development of their organizations, often starting with technology upgrades and then trainings and technical assistance. Each grantee described Virginia Housing's capacity building grants as integral to their successful expansion.

Research suggests that training activities have a positive impact on the performance of organizations and individuals. Training helps workers increase job performance (Hill & Lent, 2006; Satterfield & Hughes, 2007) and improves factors directly related to job performance such as tacit skills, self-management skills, and innovation (Arthur et al., 2003; Barber, 2004; Davis & Yi, 2004; Frayne & Geringer, 2000). In addition, training aids organizations in improving profitability, effectiveness, productivity, and revenue per employee (Aragon-Sanchez et al., 2003; Guerrero & Barraud-Didier, 2004; Mabey & Ramirez, 2005), and results in direct and indirect outcomes related to performance like reduced costs, improved quality and quantity, employee turnover, reputation, and social capital (Benson et al., 2004; Brown & Van Buren, 2007; Clardy, 2005; Sirianni & Frey, 2001).

TABLE 8. Capacity Building Grants by Grantee Organizational Focus

Primary Focus or Line of Business	Number of Grantees
Housing Construction and Rehabilitation	24
Housing and Community Support Services	18
Homelessness	10
Housing Authority	6
Advocacy or Membership Organization	6
Supportive Housing	4
Regional Commission	4
Workforce Development	2
Finance	2
Aging	2
Other: Faith, Energy Conservation, HOA (1 each)	3

Source: Virginia Housing Tabulation of Virginia Housing Administrative Data FY 2014–2018

Strategic planning is a vehicle for organization development (Gratton, 2018) and is an important component of long-term success among business, nonprofits, and local governments. Interviewees also noted that strategic planning is critical to growth and sustainability of their organizations, emphasizing the value of the strategic-planning process for staff, management, and leadership. One interviewee discussed the connection between strategic planning and succession management using the Virginia Housing-funded strategic plan to preserve organizational continuity through the administration of three executive directors.

In addition to the capacity building grants detailed in Table 8, Virginia Housing supported the work of 31 AmeriCorps VISTA Volunteers. AmeriCorps VISTA members are skilled, full-time volunteers who serve to build capacity in nonprofit organizations and public agencies. With the support of Virginia Housing, VISTA volunteers have served organizations including the Maggie Walker Community Land Trust in Richmond, Habitat for Humanity Virginia, New River Community Action, and Prince William County.

Nonprofit housing organizations and state and local government partners have benefited from long-term leadership to develop housing policy, programs, and projects. The study team recognized the benefits of the long tenure of many housing leaders interviewed as part of this study. Therefore, the long-term trajectory of housing organizations and the development of existing and future leaders as well as the succession of long-time, retiring leaders is an emphasis of Virginia Housing's outreach. As such and at the request of its partners, Virginia Housing has added succession planning to the list of activities that can be funded by Capacity Building Grants, recently granting the first Capacity Building Grant for succession planning.

McKee and Froelich (2016) emphasized the timeliness and importance of succession planning for executive positions in the nonprofit sector and noted the relative lack of emphasis on succession planning among nonprofit organizations and their boards. Virginia Housing capacity building grants for succession management and board development likely provide encouragement and money to develop and sustain the leadership that may otherwise faulter or dissolve.

Conclusion

Virginia Housing programs and activities facilitate the delivery of affordable housing throughout the Commonwealth; in doing so, they grow the Virginia economy and increase the wellbeing and economic opportunity of Virginia households. Over the 5-year study period FY2014–2018, Virginia Housing activities helped more than 70,000 households access affordable housing units and generated almost $10 billion in state economic activity, including 65,900 jobs with salaries totaling more than $3.5 billion. Virginia Housing works to maximize its impact through an emphasis on integration, intelligence, and improvement.

Virginia Housing integrates lending with federal, state, and local policy and programs through its allocation of federal funds, partnerships with other state-level agencies, and funding for local development, planning, and programs. Virginia Housing lends and grants its own funds to address gaps in housing programs and financing, making housing programs more effective, accelerating the development of affordable housing, and increasing access to reputable, affordable financing for homeownership.

Virginia Housing's mission is enhanced by an emphasis on intelligence and improvement. The agency works to incentivize innovation and increase capacity among its partners. Furthermore, Virginia Housing's lending and grants are sufficiently flexible and agile to be responsive to changes in economy, state, and federal policy or partner needs, and the organization continues to seek potential improvements.

Virginia Housing strives to create many opportunities to receive feedback and suggestion from partners and recognizes some areas for improvement. In addition to regular input sessions for activities like the allocation of federal Low-income Housing Tax Credits, Virginia Housing encourages staff to seek input from partners and experts. However, although stakeholder and advisory groups in some areas of the state have been very effective, areas without these groups lack regular and general opportunities for engagement. Furthermore, connections to homeowners that have received Virginia Housing financing and education is very limited.

In addition to estimating economic impact and exploring outcomes, the research team has kept a record of suggestions from the team as well as from interviewees that will be presented in a subsequent report. These suggestions include opportunities for further data collection and research. The research shared in this report was limited by data availability, time, and resources. In the future, Virginia Housing may consider setting output and outcome related goals and employing a system for tracking outcomes associated with outputs. With these resources in place, researchers can better specify program outcomes and measure the effectiveness of Virginia Housing programs.

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Appendix 1: Regional Economic Impacts of Virginia Housing's Programming Activity

The research team examined the economic impacts associated with rental and homeownership program spending on regional economies across Virginia. In keeping with the state level impact analysis that can be found in the main body of the report, this analysis covers Fiscal Year (FY) 2018 and the summative impacts of spending over five years, FY2014 through FY2018. The geographic boundaries correspond to the nine regions defined in the Growth Opportunities for Virginia (GO-Virginia) economic growth and diversification program. The figure below shows the GO-Virginia regions.[10]

Source: Virginia Department of Housing and Community Development

For this project we include only spending associated with rental and homeownership programming. Community Outreach program has social and economic benefits that spread across the Commonwealth of Virginia, but the staff who provide these services are often based in a different region and thus would distort a regional impact analysis. However, since the rental and homeownership programs combine to represent about 95% of all state level economic impacts, ignoring the spending associated with agency administration and outreach programming does not meaningfully affect the estimated impacts of Virginia Housing programs for most of the Commonwealth's regions. The programmatic spending in this analysis includes:

- Homeownership Programs:
  - Home Purchase Financing,
  - First Mortgage Loans,
  - Down Payment and Closing Cost Assistance,
  - Mortgage Credit Certificates,
  - Support for local Habitat for Humanity programs,
  - Accessibility grant programs,
  - Loan serving activities, and
  - Community engagement programs targeting homeownership..

[10] Additional details about GO-Virginia regions can be found at: https://govirginia.org/regions/

- Rental Housing Programs:
    - Low Income Tax Credit programs,
    - Taxable Bond programs,
    - Long Term Development Financing,
    - Section 8 Voucher programs,
    - Rental Assistance programs,
    - Property Management and other training, and
    - Strategic Lending and REACH programs.

To assess how Virginia Housing spending flows through each of the state's regions, we used the IMPLAN economic input-output model. The IMPLAN model is widely used in academic and professional research and provides estimates of direct, indirect, and induced effects created by agency-related spending.

- Direct Effects: Capture the value of programmatic spending by Virginia Housing.
- Indirect Effects: Impacts related to Virginia Housing (VH) vendor spending across the housing supply chain. For example, VH programs support the construction of new housing units providing revenue to a general contractor. The general contractor in turn hires trades, rents equipment, and has office operations. The equipment rental company hires employees, purchases equipment, and engages an accountant to prepare their tax returns. The accountant rents office space and hires a janitorial service to clean the office and so on.
- Induced effects reflect the economic value of employees of all of these entities spending a portion of their earnings in the state economy.

At each stage, the model allows that some of the spending will leave the subject region, what is called economic leakage. For example, the diesel fuel used for construction equipment was not distilled in Virginia, so little of that spending, except for local delivery and seller profits, are counted towards total regional impacts.

The estimated impacts include:

- Output: a measure of business transactions that is often called "economic activity,"
- Value Added: the equivalent of gross state product/gross regional product,
- Labor Income: includes salaries, wages, and benefits,
- Employment: number of headcount jobs supported by the economic activity. Expressed as the number of jobs for a single year. For multi-year periods, employment impacts are expressed as person-years of employment. A person-year of employment is one job lasting for one year. If there are 500 person-years of employment supported for five years, that suggests an average annual employment impact of 100 jobs each year,

Other key assumptions in our analysis include:

- If spending data are reported in calendar years, we adjusted the values to correspond with fiscal years.
- Mortgage Credit Certificate program spending is treated as an increase in household income. This is a more conservative approach that assumes the additional money made available to participating households is used for general spending.

- The effects of some programmatic spending overlaps with other programs. For example, REACH subsidies overlap with tax credit and taxable bond programs. Duplicative spending is not included in the analysis.

The table below shows the economic impacts of each of the two major program areas by region. We must caution that due to how the IMPLAN model treats economic leakage, the sum of the regional impacts would not be the same as the impacts estimated at the state level. As expected, the distribution of the impacts of Virginia Housing's programs generally aligns with the distribution of the state's population. The largest impacts are seen in Regions 4, 5 , 6 and 7, which is roughly the state's "golden crescent" running from Northern Virginia through Richmond and onto the Hampton Roads area. Still, even in the smaller (by population) regions, programmatic spending by Virginia Housing supports thousands of jobs and generates hundreds of million in regional economic activity.

Economic Impacts of Virginia Housing's Programmatic Spending GO-Virginia Regions

	Impacts	
Description	2018	2014–2018
Region 1		
Output	$87,421,024	$278,498,308
Value Added	$38,802,922	$123,938,435
Labor Income	$25,356,292	$77,685,266
Employment	712	2,263
Region 2		
Output	$197,699,568	$559,490,273
Value Added	$97,800,998	$280,952,058
Labor Income	$61,340,919	$167,667,997
Employment	1,463	4,111
Region 3		
Output	$82,687,806	$280,400,047
Value Added	$34,761,696	$116,297,734
Labor Income	$23,334,001	$77,562,163
Employment	700	2,359
Region 4		
Output	$718,157,041	$1,815,499,471
Value Added	$406,315,497	$1,043,283,917
Labor Income	$248,684,451	$603,814,285
Employment	4,607	11,495
Region 5		
Output	$637,374,230	$2,048,366,869
Value Added	$334,282,064	$1,070,415,933
Labor Income	$217,408,678	$695,276,933
Employment	4,494	14,387

(Table continues next page)

Economic Impacts of Virginia Housing's Programmatic Spending GO-Virginia Regions *(continued)*

	Impacts	
Description	2018	2014–2018
Region 4		
Output	$718,157,041	$1,815,499,471
Value Added	$406,315,497	$1,043,283,917
Labor Income	$248,684,451	$603,814,285
Employment	4,607	11,495
Region 5		
Output	$637,374,230	$2,048,366,869
Value Added	$334,282,064	$1,070,415,933
Labor Income	$217,408,678	$695,276,933
Employment	4,494	14,387
Region 6		
Output	$271,939,942	$779,062,778
Value Added	$136,777,180	$396,612,229
Labor Income	$81,461,071	$222,697,099
Employment	2,044	5,812
Region 7		
Output	$815,983,662	$2,253,717,154
Value Added	$490,006,231	$1,360,024,826
Labor Income	$340,171,999	$925,576,263
Employment	4,739	13,125
Region 8		
Output	$116,575,442	$473,211,878
Value Added	$56,878,050	$227,097,874
Labor Income	$36,021,233	$139,484,977
Employment	885	3,516
Region 9		
Output	$210,838,398	$683,779,973
Value Added	$116,888,696	$391,865,233
Labor Income	$62,568,985	$183,643,652
Employment	1,451	4,540

Sources: Virginia Housing, IMPLAN, VCU, GMU.

Appendix 2. State Housing Finance Agencies—Finding and Practices

As part of the research effort for the economic impact study of the Virginia Housing Development Authority, the research team has contacted other HFAs in order to:

1. Examine if they have conducted their own economic impact studies to help guide the impact study contracted for VHDA.
2. Use other studies as a source of comparison for methodology and total impact.

Key Findings

- 16 Housing Finance Agencies have conducted some sort of economic impact study in the past decade
- The majority of these studies used IMPLAN and a "but for" approach to their modeling
- Most employment gains were in the construction sector
- Studies ranged in detail, but most did not provide full transparency on their methodology
- Very few studies broke down economic impacts by county

Data Acquisition

Using the National Council of State Housing Agencies (NCSHA) as a guide, HFAs were contacted to determine if an economic impact study had ever been conducted on their entire organization or a specific program they offer, and if the results of their study could be shared with the research team. HFAs were contacted in two ways: by phone call and by email. The research team created a script for the phone calls (completed June 10), and calls began taking place on June 17. The aim was to speak with someone at each HFA with knowledge of past evaluation studies, either in a communications department or someone who is a policy analyst. If phone contact could not be made with the department or person we were referred to, follow-up emails were sent. If we were unable to successfully contact someone at the HFA, their website was vetted to see if an impact report was posted.

The acquired data has been compiled in an Excel spreadsheet, which will be made available to VHDA. The spreadsheet also tracks when the HFAs were contacted, who in the organization was spoken to, and what their position/title is.

Findings

Of all the HFA members listed in the NCSHA directory (excluding Associate Members), we received 29 definitive responses from someone working at the HFA. We were unable to obtain a definitive answer from the remaining HFAs, but there was no posting or indication of an impact report on their website.

Of the 29 HFAs which responded, only 16 have done some sort of economic impact study, and from these 16 we have collected 24 studies in total. Most of these studies exclusively used IMPLAN for their impact modeling, while two of the studies used only REMI, Florida used both IMPLAN and REMI, and several studies did not mention which software was used.

While most HFAs conducted a full economic impact of all programs and operations spending, Ohio only measured the impact of their trust fund, and Missouri the impact of its LIHTC program. The studies gathered took a standard "but for" approach to calculate direct, indirect, and induced economic impacts. One common practice was to exclude the impact of the cost savings of HFA housing programs compared to market prices, likely due to the difficulty in accurately estimating this impact. In additional, although most studies did not limit their employment numbers to construction jobs, it was always the most impacted sector.

Studies ranged in length and detail, with few offering a detailed appendix of their methodology. In terms of details, New Jersey had the most detailed write-up on methodology, and would be a good benchmark for transparency. Idaho, on the other hand, lacked the same detail but is an excellent example of how to use infographics to concisely display key information. While most studies broke down the economic impact of each program (new construction, rehabilitation, LIHTC, etc.), only Florida broke down operations spending by individual line items. Some studies (such as South Carolina and Tennessee) broke down the economic impact by county, while most did not provide this level of granularity.

A summary of the main economic impacts of these studies may be found in the table below.

HFA Economic Impact Studies Summary

HFA	Economic Impact (Millions of dollars)	Jobs Supported	Tax Revenue (Millions of dollars)	Year
California**	3,000	9,800	98.7	2010–2016
Connecticut	2,727.75	13,814	183	2011–2017
Delaware	420	3,395	43.4	2004
Florida	5,460	38,454	—	2016
Florida	6,920	47,995	—	2017
Idaho	1,180	4,384	47.35	2015
Maine	259	2,444	1.4	2015–2016
Maine	132.4	1,080	0.7	2017–2018
Maryland	2,593	16,519	45.8	2015
Maryland	3,129	19,315	80.7	2016
Maryland	3,612.7	16,782	69.3	2017
Maryland	2,907.8	12,814	49.7	2018
Minnesota*	499	3,745	—	2007–2010
Missouri**	3,395	35,580	—	2011–2016
New Jersey	4,100	24,350	145.3	2008–2012
North Carolina**	498	8,400	48	2018
Ohio*	589	4,358	—	2011–2016
Ohio*	320.2	2,537	5.6	2017–2018
Oklahoma**	575	3,900	—	2015–2018
South Carolina	793.2	5,336	53.6	2017
South Carolina	869	5,758	58	2018
Tennessee	1,379	9,074	43	2018
Wisconsin	500	3.200	—	2015
Wisconsin	650	4,100	—	2016

* Row values are annual averages over the time period.
** Economic impact study on only a single program offered by the HFA.
"—" Data not stated in the study.