Evolution of Abundant Data to Meaningful Information

Patricia Amend, Director of Research, Information & Marketing Strategies Will Parry-Hill, Manager of Government & Industry Relations





Prior to 2007

- Spreadsheets
- Access databases
- Manual additions and calculations
- 6–8 month project for annual reporting between Policy and IT





2007-2012

- Business Line of Business Systems (LOB) evolving
- DataMart (DM) created
- SSRS and SQL Queries in use
- 6 month project between Policy and IT—more replicable
 - Late Summer, repair links between LOB and DM
 - Fall, input manual information
 - January, verify and freeze year end data set
 - March, finalize reports





2012-2015

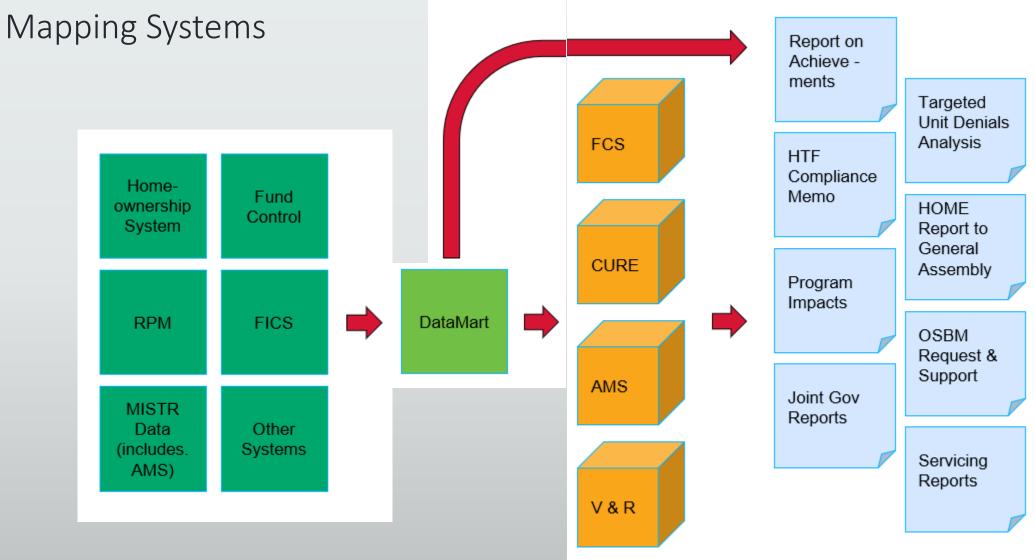


- Hired BI Specialist into Policy group (blended skill set)
- Standardized data in DataMart (DM)
- Created RPTCoreLogic—business layer between LOB & DM
- Most projects geocoded
- 4 month project, more Policy, less IT started in October
 - Still had to repair links between LOB & DM
 - Less time needed as it became more ingrained to include this work as part of any IT enhancements/fixes
 - Less manual input
 - Shorter verification time





Cubes







2015-2017

- Creation of CURE—County Unit Report Experiment
 - A slice and dice cube (pivot table)

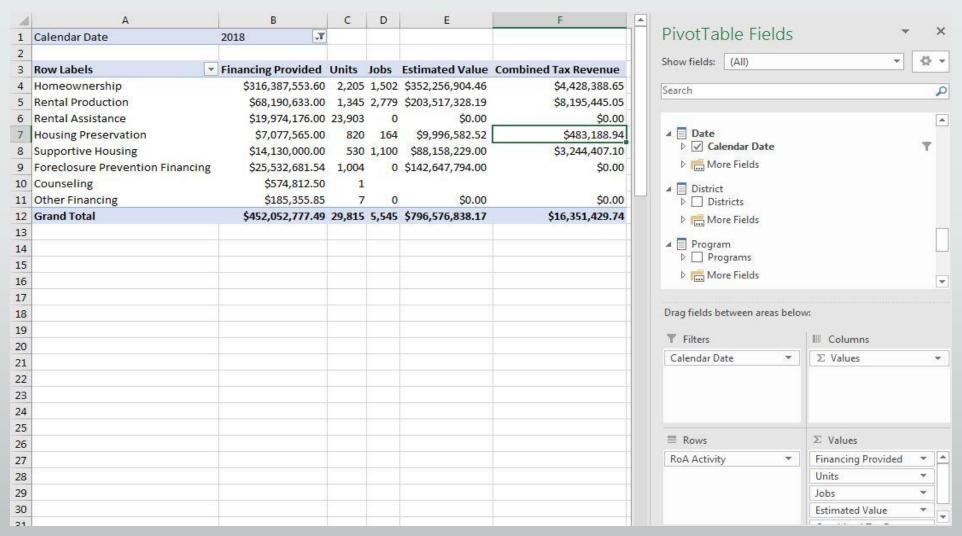
THIS WAS HUGE!!!

- Stood up specialized BI business unit augmenting Policy group
- Reliable GIS abilities
- 3 month project for Policy and BI with expanded capacity





Cubes









2017-2019

- Had all skills, software and hardware, added in PolicyMap to replace manual external data gathering
- Moved from just reporting to enhancing:
 - Operational areas
 - E.g. Servicing—decreased number of reports from ~150 to ~40, increased usefulness
 - PR & Marketing support
 - E.g. provide specific impact information for each program activity—posters, microsites
 - Legislative Outreach support
 - E.g. provide information by district or at a glance maps upon request
 - Research & Quality Control
 - E.g. dig deep in to data and compare affordable housing to market housing

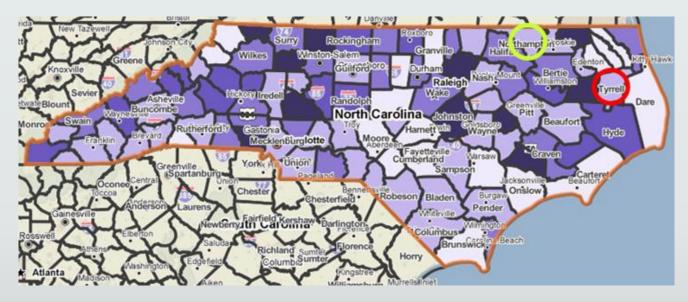




Policy Map

CPLP Lending Analysis

- Northampton County has a low level of lending to low-income borrowers according to HMDA data but has the second-highest per capita CPLP investment over the past five years. This may mean that our program is helping offset a shortage in access to traditional lending in that county.
- However, nearby **Tyrrell County**, which also has little low-income lending, has seen no CPLP loans in the past five years. This may be due to lack of demand, but it could also reveal an opportunity to expand our program's outreach in that county.





Percent of loans where the borrower's income is between 50% and 80% of MSA Median Income in 2015.

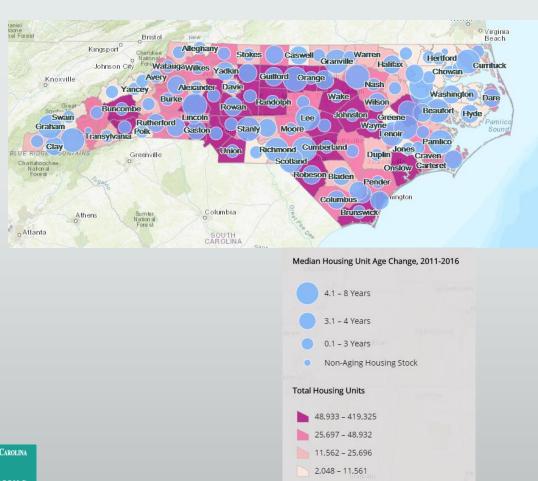






GIS

NC State of Housing



- Interactive map showing housing needs as a function of cost burden, available stock and population trends
- Spreadsheet listing housing data for homeowners and renter by county



Web Resources

Policy & Research Website

- Housing Research page with links to onepagers on the benefits of housing to health, education, communities, and the economy as well as interactive "State of Housing" map (PolicyMap widget)
- Agency Investment Impacts page with a collection of one-page policy briefs and other documents highlighting the impacts of housing programs across the state



En Español News Events Policy & Research Careers Press Investors Help Contact Us

About Us Home Buyers Homeowners Renters Home Ownership Partners Rental Housing Partners

Mission and Values

AGENCY

- Hurricane Resources
- Leadership
- Housing Partnership
- Our Financing

Impacts

- O Investments and Impact
- Research, Reporting and

Housing Research Agency Investment

Plans and Reports

- Housing North Carolina Awards
- Requests for Proposals
- Careers
- Fair Housing
- Request Public Records
- O Consumer Privacy Notice
- Report Fraud

Policy Matters Blog

Research, Reporting and Policy

In addition to financing affordable housing, the North Carolina Housing Finance Agency reports on housing-related data and the impact of affordable housing investments on citizens, communities and state and local economies. The Agency also monitors housing research and policy in North Carolina and nationally.

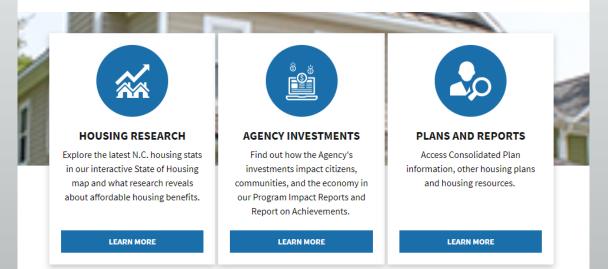
The Agency also supports North Carolina's 5-Year Consolidated Planning process. which examines the state's housing needs and conditions, sets out a strategy to meet needs, identifies available resources and establishes one- and five-year investment plans to meet priority needs.

Check out the sections below to see what's going on with North Carolina's housing market, the impact of the Agency's investments and to access Consolidated Planning documents. Click Policy Matters Blog on the left to learn about the latest research and studies on affordable housing.

Recent News

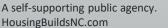
Preparation Resources Available for North Carolinians in Hurricane Dorian's Path September 3, 2019

State to Gain \$623.7 Million in Affordable Apartments August 12, 2019









Now produce:

- Annual reporting is less than a 1 month Policy & BI project
 - Not only Reporting on Achievements (ROA), but also:
 - Benefits of Housing for Education, Health, Economy and Community
- Enhanced Research—producing one page white papers
 - Medicaid savings, Benefits of Housing Credit, Benefits of Home Ownership
 - Targeted Unit eviction/denial study, turnover benchmarks, etc.
 - DataJam
- Ability to be responsive to new requirements/opportunities
 - Fannie Made income restrictions, NC Prepaid Health Plans investing in housing





Policy Matters Blog

- Affordability
 - NLIHC "Out of Reach" report
 - Local government plans can produce affordable housing outcomes
- Quality
 - Housing quality impacts childhood asthma
 - Energy efficiency linked to lower commercial mortgage default rates
- Opportunity
 - North Carolina Opportunity Zones
 - Economic segregation within communities reduces economic mobility
- Access
 - Housing challenges for people with disabilities
 - Supreme Court ruling strengthens Fair Housing law



Affordable Housing Still Out of Reach for Many

Housing affordability continues to be a struggle for both owners and renters nationwide. according to Harvard University's Joint Center for Housing Studies recently...

Read more



Health and Housing Initiatives Could Benefit from Federal Coordination

June 20, 2018 by Erike Brandt

A report from the Bipartisan Policy Center suggests that the U.S. Departments of Housing and Urban Development (HUD) and Health and Human Services (HHS) can operate more...

Read more



"Out of Reach" Report Reveals the Depth of the Rental Affordability Crisis

The 2018 Out of Reach report from the National Low Income Housing Coalition finds that in no state, city, or county can a working earning minimum wage afford a two-bedroom...



Housing Quality Impacts Childhood

June 14, 2018 by Erike Brandt

A recent study examined data from the 2015 American Housing Survey in order better understand the relationship between childhood asthma and housing-related asthma triggers...



High Opportunity Neighborhoods Can Improve Health Among Low-Income Children

June 12, 2018 by Erika Brandt

A new study from San Francisco State University and the University of California, San Francisco, suggests that children who live in high opportunity neighborhoods may be...

Read more



Aging Population Will Increase Affordable Housing Needs

May 14, 2018 by Erika Brandt

The growth explosion in North Carolina's senior population will be in the spotlight next month when the Division of Aging and Adult Services holds listening sessions...



North Carolina Nominates Census Tracts for New Opportunity Zones Program

April 24, 2018 by Erike Brendt



FHFA Releases Map of "High Needs Counties" for Duty to Serve

April 12, 2018 by Emile Sutton

The Federal Housing Finance Agency (FHFA)

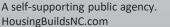


New Report Shows Affordability Gap Still Significant for Renters

March 28, 2018 by Charlotte R. Stewart

The National Low-Income Housing Coalition's





Reports in More Detail

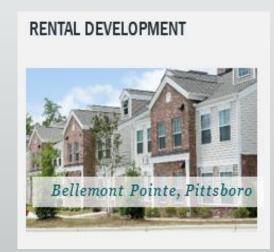
HERE'S WHAT our budget could do	BUDGET REQUEST	HOUSING IMPACT	ECONOMIC IMPACT
Housing Trust Fund	\$20,000,000	2,600 units	1,400 jobs \$81.2 million of housing \$7.1 million of state & local revenues
HOME Match	\$3,000,000	200 units	400 jobs \$23.1 million of housing \$1.7 million of state & local revenues
Workforce Housing Loan Program	\$35,000,000	5,900 units	13,800 jobs \$738.9 million of housing \$62.1 million of state & local revenues

Housing Trust Fund Appropriations (in millions) \$20 ■ Special Attorney General Settlement Allowance \$18 ■ Non-recurring \$16 \$14 Recurring \$12 \$10 \$8 \$6 \$2 the the top top top top top top top top top

OSBM Request

Potential Impacts of Fully-Funded Housing Trust Fund











Telling Our Story

30 Years of the Housing Trust Fund

Investment Impacts Over Time

IN ITS 30-YEAR HISTORY, THE NORTH CAROLINA HOUSING TRUST FUND HAS REALIZED A SIGNIFICANT RETURN ON INVESTMENT, LEVERAGING \$903.7 MILLION IN PRIVATE AND PUBLIC FUNDS.

North Carolina's nationally recognized Housing Trust
Fund has a strong record of accomplishment of
revitalizing distressed areas and has led to improvements
in 680 communities in all 100 counties. It impacts
households with extremely low incomes and fills gaps
in housing needs statewide, especially in rural areas that
have lower incomes and fewer resources.



THE TRUST FUND'S ECONOMIC IMPACT HAS BEEN PROFOUND: 21,000 JOBS AND \$140.6 MILLION IN TAX REVENUE.



ALL TOLD, THE FUND HAS FINANCED 32,400 HOMES AND APARTMENTS, HELPING COUNTLESS NORTH CAROLINIANS



Emergency repairs and accessibility modifications allow veterans, the elderly and people with disabilities to remain at home, particularly in less-served rural areas, saving up to \$19 of Medicaid for every dollar invested.



More than 20% of renters pay half of their income or more for housing. Trust Fund dollars leverage more development in rural areas and make rents more affordable in tighter urban markets.



Home ownership financing has made an incalculable difference for families with lower incomes. Children in stable housing are more academically successful and less likely to drop out of school



As a significant source of funding for emergency housing, the Trust Fund has financed 28 domestic violence shelters—protecting families and children statewide.

Trust Fund financing allows people with disabilities to live and work in their communities.



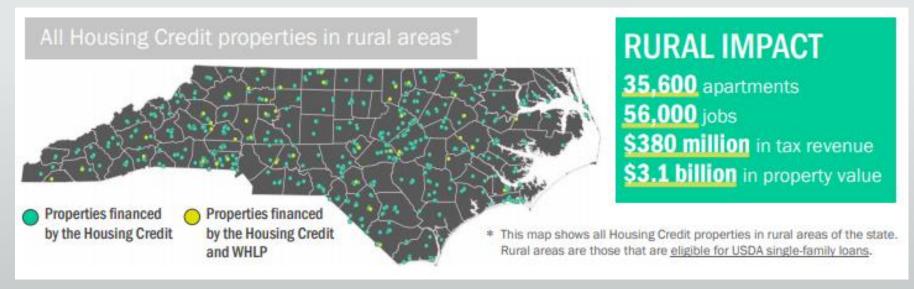
GOOD HOUSING FOR NORTH CAROLINIANS. GOOD BUSINESS FOR NORTH CAROLINA.



Program Impact

In short, every tax dollar invested in the Housing Credit generates value for all North Carolinians.









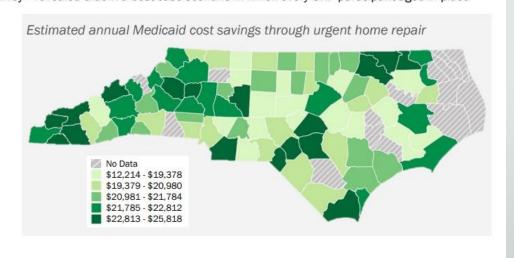


Program Impact **Urgent Repair**

QUALITY OF LIFE IMPACTS & PUBLIC COST SAVINGS

In a survey of homeowners who received URP assistance between 2005 and 2015, 91% reported general satisfaction with the program. Cost/benefit analysis using URP participant survey data and data from Genworth's annual "Cost of Care" survey6 revealed that in a best-case scenario in which every URP participant aged in place

rather than moving into institutional care, the state of North Carolina would save more than \$550 million over the estimated average remaining lifespan of those individuals. This means that every \$1 of URP funding could save up to \$19 of Medicaid/ Medicare spending.





November 2017

"Our back door did not have steps...We were scared if we had a fire, we might not be able to get out...we would have to move in with family because we do not have the money to fix it."

- Homeowner, Madison Co.

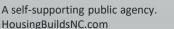
"Sanitation improved with repair of sink. My quality of life would be poorer with exposure to mold/mildew and leaks."

- Homeowner, Forsyth Co.

"I would have had to do without other necessary things to pay for the repair." - Homeowner, Lee Co.





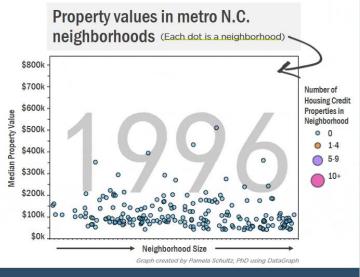


Affordable Housing MYTHBUSTERS

Think affordable housing hurts nearby property values?

THINK AGAIN!

No correlation exists between the presence of apartments financed by the federal Low-Income Housing Tax Credit and median home values in North Carolina.



Don't believe the myth, believe the evidence.

Affordable housing builds community.

The Low-Income Housing Tax Credit and Neighborhood Property Values in North Carolina

In both urban and rural North Carolina, affordable rental properties funded through the Low-Income Housing Tax Credit have no effect on the median home values of their communities, showing that local homeowner fears about the impact of affordable housing developments on their property values are unfounded.

BACKGROUND

The Low-Income Housing Tax Credit, a public-private partnership, is the most crucial affordable housing tool in the country. The Housing Credit incentivizes private developers and investors to build apartments that low-income residents, including families, people with disabilities, seniors and formerly homeless veterans, can afford. Without the credit, apartments charging rents affordable to low-income tenants would not generate enough cash flow to be financially feasible.¹

The credit also produces economic and social benefits. In North Carolina, every \$1 in development equity raised through the Housing Credit leverages almost twice as much in additional public and private funds and generates state and local tax revenue. The credit also promotes residents' well-being by offering an affordable alternative to unsafe, overcrowded or otherwise substandard apartments that can contribute to physical and mental illness in children and parents.^{2,3} In fact, the Housing Credit can save taxpayer dollars by reducing expenses that low-income residents incur to public health systems such as Medicaid. Affordable housing can also prevent frequent moves, which improves children's educational outcomes by supporting school attendance.⁴

NORTH CAROLINA

HOUSING FINANCE AGENCY





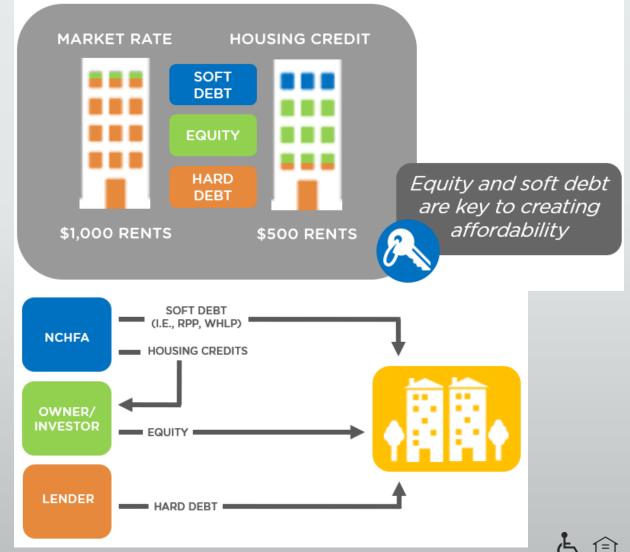
Showing How Affordable Housing Development Works

Like any real estate development, affordable housing developments require capital. However, the rents must be affordable to families earning lower incomes. Special financing tools are required to make the development feasible.

On the equity side, the Housing Credit leverages the power of the private market to attract private investment by providing tax benefits to investors.

On the **debt** side, the North Carolina Housing Finance Agency provides developments with below-market-rate loans.

This financing makes it possible to charge rents that are affordable for families earning lower incomes.







Report for Representative W. C. Owens, Jr.

Housing Investments in House District One Counties

In House District One counties, the North Carolina Housing Finance Agency has provided \$22,660,000 of capital to finance 609 homes valued at \$31,229,900. In 2004, the Agency administered an additional \$1,578,700 of HUD rent assistance for 317 households.

By managing state and federal loan programs, the Agency has financed statewide more than 163,500 affordable homes and apartments.

First-Time Home Buyer Loans		Housing Trust Fund	
Homes financed:	170	Housing units built or rehabilitated:	
Value of housing financed:	\$11,502,500	Funds provided:	\$934,200
		Value of housing financed:	\$3,104,500
Housing Credits		Multifamily Bond Program	
Rental units financed:	225	Rental units financed:	52
Value of housing financed:	\$13,091,200	Value of housing financed:	\$1,938,200
HOME Funds		HUD Monthly Rent Subsidies	
Housing units financed:	196	Families assisted:	317
Funds provided:	\$3,626,600	Annual subsidy provided:	\$1,578,700
Value of housing financed:	\$9,157,600		

Counties in House District One:

Camden, Currituck, Pasquotank and Tyrrell

Income targeting:

Recipients' incomes are generally below 80% of median for home ownership, below 60% for rental housing and below 50% for the Housing Trust Fund.

Units with financing from more than one Agency program are counted separately under each contributing program, but only once in the grand totals.

For more information: Margaret Matrone, 919-877-5606



NC Housing Finance Agency

2018 Investment and Impact

Report for Representative Edward Goodwin

Housing Investments in House District One Counties

Statewide, the Agency has financed or provided rent assistance for 282,080 homes and apartments totaling \$23.2 billion. This work has supported 242,300 jobs and generated \$2 billion in state and local taxes. The Agency has financed foreclosure prevention loans for 29,480 homeowners struggling due to job loss or a temporary financial hardship such as illness or who were transitioning from the military to civilian life.

All-Time Results in Your District



HOME OWNERSHIP MORTGAGES AND PRODUCTION

370 Homes Valued at \$36,878,000



AFFORDABLE APARTMENTS FINANCED

1,150 Apartments Valued at \$93,219,600



HOMES REPAIRED

470 Homes Valued at \$6,871,600



FORECLOSURES PREVENTED

380 Homes Valued at \$52,403,300



SUPPORTIVE HOUSING FINANCED

20 Units Valued at \$2,865,500 2018 Statewide Results



5,890



RENTERS



4,100



18,800

 $\textbf{COUNTIES IN SENATE DISTRICT ONE:} \ Camden, \ Chowan, \ Currituck, \ Pasquotank, \ Perquimans \ and \ Tyrrell$

INCOME TARGETING: Recipients' incomes are generally below 60% of area median for rental housing and below 50% for home rehabilitation, emergency repairs and supportive housing. **FOR MORE INFORMATION:** Will Parry-Hill. 919-877-5605

HOUSING
FINANCE
AGENCY

NORTH CAROLINA

A self-supporting public agency
Director | R. Gene Davis, Jr., Chair

Scott Farmer, Executive Director | R. Gene Davis, Jr., Chair www.HousingBuildsNC.com

North Carolina

HOUSING FINANCE AGENCY





Value of housing financed:

Before

How North Carolina Uses Housing Bonds, Housing Credits and HOME

Report prepared for Representative Mark Walker

Housing Bonds, Housing Credits and the HOME Program enable North Carolina to raise capital and leverage private investment to build affordable housing. These investments strengthen the economy directly by creating jobs in the construction industry, and indirectly by supporting jobs in industries from brick manufacturing to banking. They create housing for working families that communities need to retain and attract businesses.

Housing Bonds, Housing Credits and HOME have financed 185,100 homes and apartments worth \$15.0 billion in North Carolina since their authorization by Congress. They have supported:

- 194,000 jobs
- \$1.4 billion in state and local tax revenues.

Thank you for your support of these programs. We hope you will share their accomplishments with your constituents.

Single Family Bond Program Home buyers assisted: Value of housing financed:	District Six Counties 15,003 \$1,231,178,500	Statewide 83,506 \$6,982,862,400
Housing Credit Program Rental homes financed: Value of housing financed:	12,686 \$1,078,875,800	78,202 \$6,815,156,300
Multifamily Bond Program Rental homes financed: Value of housing financed:	2,304 \$95,704,000	9,734 \$406,507,800
HOME Program Households assisted: Value of housing financed:	3,875 \$334,968,500	30,649 \$2,327,988,800
Hardest Hit Fund• (N.C. Foreclosure Prevention Fund) Households assisted: Property value:	4,017 \$556,221,800	24,671 \$3,464,260,900

Note: To make housing affordable for lower-income households, HOME funds may be combined with either Housing Bonds or Housing Credits. The totals and estimated economic impact have been adjusted accordingly.

Income Targeting: Incomes of home buyers who use bond financing are generally below 100% of median. Buyers who use HOME Program funds have incomes below 80% of median. Apartments financed through the Housing Credit Program are affordable to households earning below 60% of median.





After

Housing Bonds, Housing Credits and HOME Investments

Report Prepared for Representative Mark Walker

Housing Bonds, Housing Credits and the HOME Program enable North Carolina to raise capital and leverage private investment to build affordable housing.

Statewide, this federal funding has supported:









North Carolina Impacts

Program	District 6	Statewide
Multifamily Bond Program		
Rental Homes Financed	2,300	9,730
Value of Housing Financed	\$95,704,000	\$406,507,800
Hardest Hit Fund		
Households Assisted	5,670	31,930
Property Value	\$768,719,500	\$4,486,520,100
HOME Program		
Households Assisted	4,350	32,640
Value of Housing Financed	\$390,244,200	\$2,603,202,800
Housing Credit Program		
Rental Homes Financed	13,980	87,280
Value of Housing Financed	\$1,264,935,300	\$8,239,092,900
Single-Family Bond Program		
Homebuyers Assisted	16,750	91,420
Value of Housing Financed	\$1,459,193,400	\$8,148,810,000

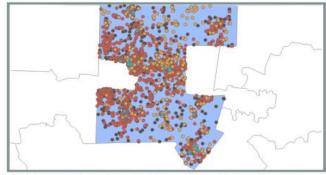




To make housing affordable for lower-income households, HOME funds may be combined with either Housing Bands or Housing Credits. The totals and estimated economic impact are adjusted accordingly. Incomes of buyers who use bond financing are generated below 100% of median. Buyers who use the HOME Program have incomes below 80% of median. Housing Credit apartments are affordable to households earning below 60% of median.

Thank you for your support of these programs!

North Carolina Housing Finance Agency Federal and State Investments in District 6



This map is representative of the Agency's production in this district. The numbers indicate cumulative production.

4,570 homes saved from foreclosure.

21,150 home purchases financed.

2,880 homes rehabilitated.
 16,130 apartments produced.

2018 Statewide Results



13,690

homes and apartments



17,750 jobs supported



\$1.9 billion

These investments strengthen the economy directly by creating jobs in the construction industry and indirectly by supporting jobs in industries from brick manufacturing to banking. They create housing for working families that communities need to retain and attract businesses.



The NC Housing Finance Agency is a Self-Supporting Public Agency.
R. Gene Davis, Jr., Chair | Scott Farmer, Executive Director
3508 Bush Street, Raleigh, NC | www.nchfa.com





AGENCY

NORTH CAROLINA





Questions?



