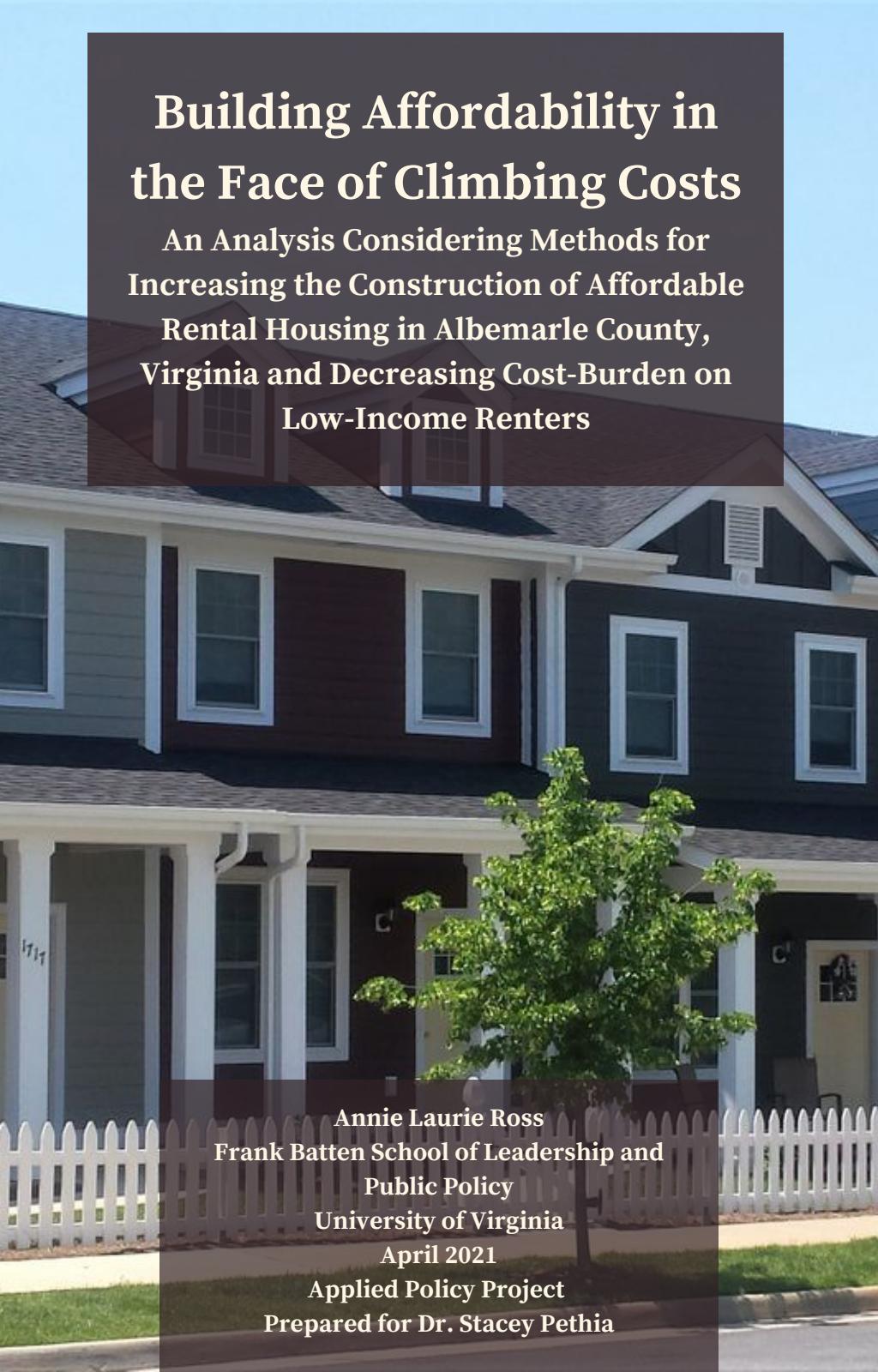


Building Affordability in the Face of Climbing Costs

**An Analysis Considering Methods for
Increasing the Construction of Affordable
Rental Housing in Albemarle County,
Virginia and Decreasing Cost-Burden on
Low-Income Renters**



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April 2021
Applied Policy Project
Prepared for Dr. Stacey Pethia

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Prepared for:

Dr. Stacey Pethia

Principal Planner for Housing

Office of Community Development

Albemarle County, Virginia

The author conducted this study as part of the program of professional education at the Frank Batten School of Leadership and Public Policy, University of Virginia. This paper is submitted in partial fulfillment of the course requirements for the Master of Public Policy degree. The judgments and conclusions are solely those of the author, and are not necessarily endorsed by the Batten School, by the University of Virginia, or by any other agency.

On my honor as a student, I have neither given nor received unauthorized aid on this assignment.

A handwritten signature in black ink that reads "Annie Laurie Ross". The signature is fluid and cursive, with "Annie" and "Ross" being more distinct than "Laurie".

Annie Laurie Ross

April 2021

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I would like to extend my utmost thanks to my client, **Dr. Stacy Pethia**, who took me on without hesitation and has always been an open, honest, and available mentor and partner in this process. Thank you so very much for your time, your insight, and your support throughout a challenging year.

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Table of Contents

Acknowledgements	2
Table of Contents	3
List of Tables and Figures	5
List of Acronyms	6
Important Definitions	7
Executive Summary	8
Problem Definition	9
Client Overview	9
Background	11
Albemarle County	11
Understanding County Policy	12
Why Renters?	15
Quantifying the Problem: The Consequences of Unaffordable Housing	16
Costs to Current Renters	16
Costs to County Government	17
Opportunity Costs - Time and Transportation	19
Contributing Factors	21
Rising Housing Burdens	21
Stagnating Wages	23
Population Growth	24
NIMBYism	24
Potential Solutions	29
Creating Affordable Housing Units - External Funding Options	29
The Low-Income Housing Tax Credit	29
Opportunity Zones	31
Creating Affordable Housing Units - Internal Incentives	32
Inclusionary Zoning	32
Evaluative Criteria	35
Effectiveness	35
Alignment with County Goals	36
Comparative Costs	37

Policy Alternatives	38
1. Expand Development Areas to neighborhoods where public water utility infrastructure already exists and will not harm the South Fork Rivanna Reservoir Watershed.	38
2. Increase length of affordability requirements from 10 to 30 years.	40
3. County-wide adoption of a Form Based Code based on the recently passed Rio29 Form Based Code Overlay.	41
4. Require inclusionary zoning (density bonuses) for all residential developments applying for rezoning.	42
Evaluation of Policy Alternatives	45
Expand Development Areas	46
Extend Length of Affordability	48
Form Based Code	49
Mandating Inclusionary Zoning Alongside Rezoning	50
Recommendation	53
Considerations for Implementation	55
Conclusion	60
Appendices	61
Appendix A: Map of Opportunity Zones in Albemarle County and Charlottesville City	61
Appendix B: Scoring, Alignment of Alternatives With County Goals	62
Appendix C: Cost-Analysis	70
Expansion of the Development Areas	70
Extension of Affordability Length Requirement	72
Form Based Code	72
Mandatory Density Bonuses	73
Appendix D: Proposed Neighborhoods to be Added to the DA	76
Appendix E: Sec. 20C.12 of the Albemarle County Code	84
References	85

List of Tables and Figures

Fig. 1 Albemarle County Renters in 2019 By Household Income and Housing Costs	9
Fig. 2 The Development Areas in Albemarle County's 2015 Comprehensive Plan	13
Fig. 3 Household Characteristics of Homeowners Versus Renters in Albemarle, 2019	16
Fig. 4 Characteristics of Albemarle and Charlottesville Residents and Workers	20
Table 1 Count of households paying different rental brackets in 2015 and 2018	21
Table 2 Monthly Housing Costs as a Percentage of Households Income in the Past 12 Months for Renters	22
Fig. 5 Share of Albemarle County Employees by Sector and Average Wage in Selected Sectors, 2018	23
Fig. 6 Characteristics of Local Density Bonus Programs	34
Fig. 7 Timeline of Future Work	56

List of Acronyms

ALICE - Assets Limited, Income Constrained, Employed

AMI - Area Median Income

BOS - Albemarle County Board of Supervisors

DA - Development Area

EDA - Albemarle County Economic Development Authority

ELI - Extremely Low Income

FMR - Fair Market Rent

HCV - Housing Choice Voucher

HMI - Households Median Income

HUD - United States Department of Housing and Urban Development

IZ - Inclusionary Zoning

LIHTC - Low Income Housing Tax Credit

OCD - Albemarle County Office of Community Development

OZ - Opportunity Zone

PC - Albemarle County Planning Commission

QOF - Qualified Opportunity Fund

RA - Rural Area

USCB - United States Census Bureau

UVA - University of Virginia

Important Definitions

Area Median Income (AMI) - The 50% percentile of regional annual income.

ALICE - ALICE refers to households who are Assets Limited and Income Constrained but also Employed. The organization, United for ALICE, developed ALICE to expand the definition of financially struggling households beyond the traditional qualifier: the poverty line. The term ALICE is meant to acknowledge that there are many households with incomes above the poverty line who are financially constrained.

Extremely Low Income (ELI) - Extremely Low Income households are those whose incomes are at or below the poverty line or are below 30% AMI, whichever measure is higher.

Gross Rent - Total monthly housing costs including costs of utilities.

Housing-Cost Burdened - When a household spends more than 30% of their monthly income on gross rent.

NIMBYism - Not In My Backyard(ism), or NIMBYism, is a catch-all acronym to describe when residents do not want construction near where they live although they typically acknowledge that it needs to happen somewhere.

Severely Housing-Cost Burdened - When a household spends more than 50% of their monthly income on gross rent.

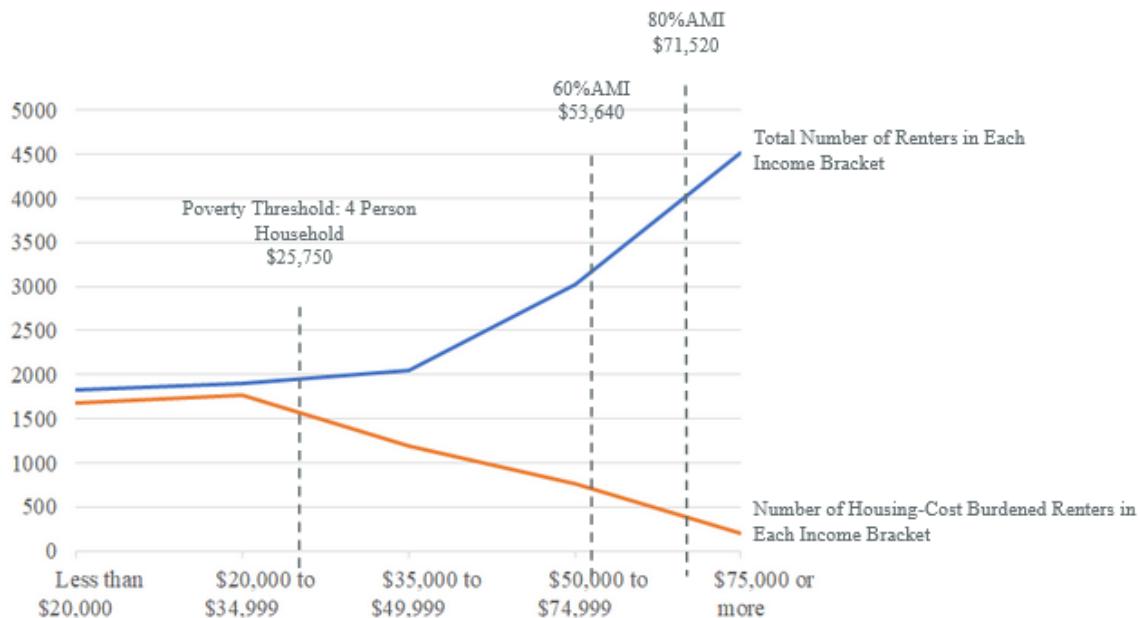
Executive Summary

Too many low-income renting households in Albemarle County are spending more than 30% of their incomes on gross rent. The supply of affordable housing, especially for those in lower income-brackets, has not kept up with demand. Many factors contribute to unaffordable housing including stagnating wages, accelerating population growth, and NIMBYism. Solutions to combating unaffordable housing fall into two buckets: subsidizing housing costs or constructing additional housing. All the recommendations proposed within the analysis focus on the later approach. Policy options explored include expanding the size of the County's Development Area, extending the length of time that units remain affordable, adoption of a Form Based Code modeled after an existing code within the County, and combining the mechanisms of rezoning and inclusionary zoning to create a mandatory incentive. All proposals are evaluated on the number of units they are projected to create (effectiveness), their Alignment with County Goals, and comparative costs to the County government. Ultimately this paper recommends extending the minimum length of affordability requirements in combination with the establishment of mandatory inclusionary zoning. Implementation of these policies will require revision to the Draft Affordable Housing Policy, support from the County Board of Supervisors, amendments to the County Code, and continuous close collaboration with other members of County planning staff. Ultimately, however, this report stresses the importance of the actions and will of the County's Board of Supervisors in the potential success or failure of any and all affordable housing policies in Albemarle County.

Problem Definition

In 2019, over 7,400 renting households in Albemarle County had incomes below 60% of the Area Median Income (AMI), or \$53,640, and 80% of those renters were housing-cost burdened (USCB, 2019). In 2021, there are only 1,048 rental units in Albemarle County required to be kept affordable to households at the 60% AMI level (Pethia, 2021). This is only enough units to provide affordable housing for 14% of renting households who make below 60% AMI. With more households projected to move into the County in the coming decades, a significantly larger affordable housing stock is needed. The housing needs of low-income renters in the County are not being met through the private market. The County government must adopt a strong affordable housing policy to encourage a rental housing supply that will more closely meet the needs of renters.

Fig. 1 Albemarle County Renters in 2019 By Household Income and Housing Costs



(USCB, 2019)

Client Overview

My client is Dr. Stacy Pethia, Principal Planner for Housing in Albemarle County. Albemarle County is mandated by the code of the State of Virginia to designate and implement measures for constructing, rehabilitating, and maintaining affordable housing “which is sufficient to meet the current and future needs of residents of all levels of income in the locality” through the County’s Comprehensive Plan (Virginia Code § 15.2-2223D). The County’s Housing Goal reiterates the commitment to ensure “housing will be safe, decent, and sanitary; available to all income and age levels” (Albemarle County, n.d.).

Dr. Pethia took on the role of Albemarle County’s Principal Planner in December of 2018. In August of 2020, Dr. Pethia submitted a list of policy proposals to the County’s Planning Commission and in March 2021 presented an updated draft to the County Board of Supervisors. Dr. Pethia is attempting to catch the County up on state-allowed programs and initiatives first and, once those policies are being implemented, take more drastic actions to address the current and future affordable housing needs of the County.

It is a pivotal time to address affordable housing needs. Real wages in Albemarle County have been stagnating (BLS, 2020), causing more households to become housing-cost burdened (United for ALICE, 2018). Population growth in Albemarle County is also accelerating (Weldon Cooper Center, n.d.), so there is a greater future projected demand for housing in general.

Background

Albemarle County

In 2019, Albemarle County was home to nearly 110,000 people in 47,000 households (USCB, 2019). Situated in central Virginia, Albemarle is about an hours drive from Richmond, VA and 2.5 hours South of Washington D.C. I-64, which runs through Albemarle, is the Southernmost East-to-West Interstate in Virginia, connecting I-95 and I-81 and thus a crossroads of the Eastern and Western parts of the state.

Charlottesville City is completely surrounded by Albemarle County and has been governed independent from the County since 1888. However, because of the nature of their geographic relationship, the City and County's relationship is close and coordination between them is frequently necessary. In 2019, Charlottesville's population was over 47,000 people (USCB, n.d.).

Between both Charlottesville and Albemarle County is situated the University of Virginia, which employs approximately 30,000 people with over 23,000 undergraduate and graduate students enrolled in 2021 (UVA, n.d.). The University brings in migration for the purposes of study and employment as well as businesses who want to work with or sell to students or the University itself.

Charlottesville City is the near geographic center and certainly the population center of the County, even if it is not technically part of the County. Population centers within Albemarle County itself include the neighborhoods encircling Charlottesville, Crozet in the West, Rivanna in the East, Hollymead in the North, and Scottsville in the South. However, Scottsville is an incorporated town and is governed separately from the rest of Albemarle County.

Understanding County Policy

In 1971, Albemarle County adopted its first Comprehensive Plan (Comp Plan) and established its first growth management policy. It was during this period that growth was first intentionally directed to the newly designated Development Areas (then called Growth Areas). These areas are distinct from Rural Areas of the County as they allow for higher density construction and more commercial building use. These Development Areas still exist today and their purpose remains the same, although they are marked by different boundaries. The 1971 plan, meant to accommodate population growth up to 185,000 people, designated 37,000 acres plus an additional 14 villages throughout the County as Development Areas (Planning Commission, n.d.). The current Plan includes only 23,820 acres of Development Area meant to accommodate 138,000 people by 2040 (Weldon Cooper Center, n.d.).

Fig. 2 shows the Development Areas per the 2015 Comp Plan, the most recent version. In 2019, 62% of the County's population lived in the Development Areas (Knuppel, 2019). Per the state code of Virginia, the County is required to review its Comp Plan every five years, although this does not require that the County update the Plan frequently. The Comp Plan is meant not only to document the current state and needs of the County but explicitly lists the policy priorities of County leadership. In all aspects of County planning and decision-making the Comp Plan is looked to for guidance and constraint. Thus, the Comp Plan is a useful tool for understanding the espoused policy priorities of the County.

The 2015 Comp Plan listed ten specific policy goals of focus for the County:

- Growth Management
- Natural Resources
- Historic, Cultural, and Scenic Resources
- Economic Development
- The Rural Area
- The Development Areas
- Housing
- Transportation
- Parks and Recreation, Greenways, Blueways, and Green Systems
- Community Facilities

Fig. 2 The Development Areas in Albemarle County's 2015 Comprehensive Plan

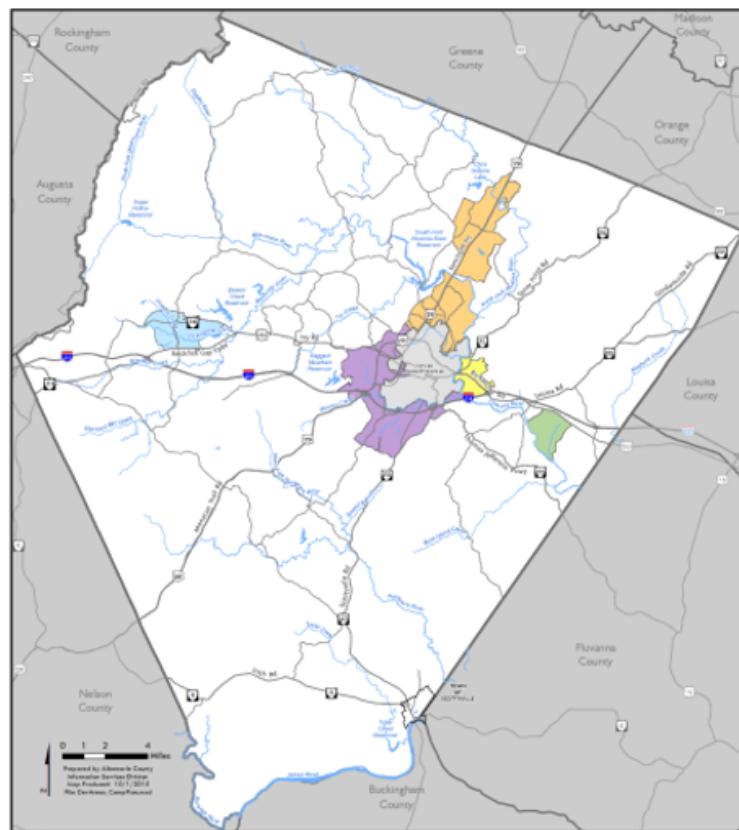


Figure 1: The Development Areas



(Albemarle, 2015)

That ‘Growth Management,’ ‘The Development Areas,’ and ‘Housing’ are all distinct sections of the Comp Plan would indicate that developing policies to accommodate the housing needs demanded by County growth are important to County leadership. In relation to affordable housing, the state code of Virginia also says about the Comp Plan,

“The comprehensive plan shall include the designation of areas and implementation of measures for the construction, rehabilitation and maintenance of affordable housing, which is sufficient to meet the current and future needs of residents of all levels of income in the locality while

considering the current and future needs of the planning district within which the locality is situated.” (VA§ 15.2-2223D)

Before the Comp Plan, in 1969, Albemarle County adopted its first Zoning Ordinance and Zoning Map. In 1980, the County’s Zoning Ordinance was updated to match the recommendations of the most recent Comp Plan. The Zoning Ordinance has not been comprehensively updated since 1980. Nevertheless, the Comp Plan has changed and evolved since 1980 while the Zoning Ordinance has been unable to keep up with the growing needs of the County and the desired policy changes of its leadership.

The County is governed by a six person Board of Supervisors (BOS) representing the six magisterial districts of Albemarle County. The current board includes:

- Chair Ned Gallaway, Rio District
- Vice Chair Donna Price, Scottsville District
- Ann Mallek, White Hall District
- Diantha McKeel, Jack Jouett District
- Bea LaPisto-Kirtley, Rivanna District and
- Liz Palmer, Samuel Miller District

These six board members are the primary elected local government leadership in Albemarle County¹. Ultimately, because they are the elected officials, everything from changes to County Ordinance to approval of Zoning Map Amendments must be approved by the BOS.

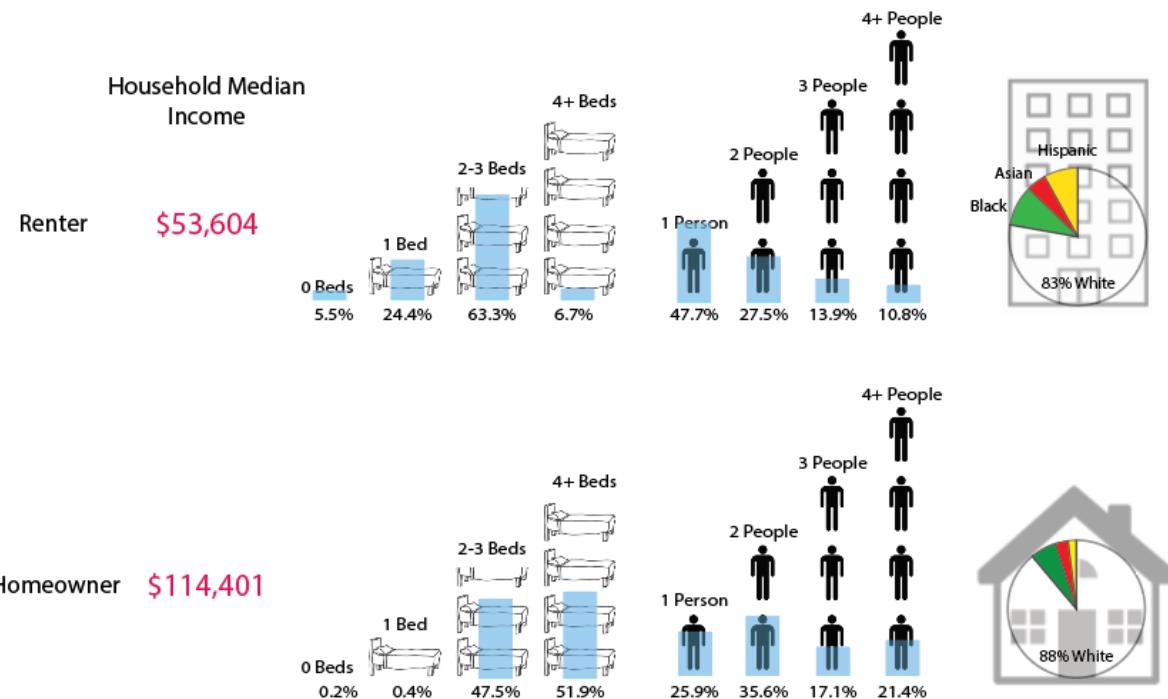
¹ County residents also elect the School Board as well as the Sheriff, Commonwealth’s Attorney, and Circuit Court Clerk.

Why Renters?

Nationally, cost burdened renting households have consistently outnumbered cost burdened homeowners since 2012 (JCHSHU, 2019). In 2019, 10.9 million extremely low income (ELI) rental households had access to 3.9 million affordable units through the private and subsidized rental markets, indicating a national shortage of over 7 million rental units (NLIHC, 2020). In Virginia there were approximately 246,000 ELI rental households and only 89,000 affordable and available units as of 2018. In the same year, approximately 87% of Virginia's ELI rental households were cost burdened along with 81% of rental households making between 30% and 50% AMI and 47% of rental households between 50% and 80% AMI (NLIHC, 2018). Rural areas especially struggle to provide access to affordable rental units (NLIHC, 2019).

In 2019, approximately 30% of occupied housing units in Albemarle were rented, so renters make up a minority of households (USCB, 2019). However, renting households are significantly more likely to be housing-cost burdened than homeowners. In 2019, approximately 42% of Albemarle renters, or 5,592 households, were spending more than 30% of their incomes on housing each month compared to 17% of homeowners, or 4,895 households (USCB, 2019). Renters have significantly lower household median incomes than homeowners (See **Fig. 3**) and the County AMI, which was \$89,400 in 2019 (HUD, 2019). Renters are also more likely to be of a racial or ethnic minority.

Fig. 3 Household Characteristics of Homeowners Versus Renters in Albemarle, 2019



(USCB, 2019)

Quantifying the Problem: The Consequences of Unaffordable Housing

Costs to Current Renters

When households are housing-cost burdened, spending on other things often declines out of necessity. United for ALICE identifies seven distinct components of a household's budget needed to survive, components of the aptly named Household Survival Budget. Besides housing these are *taxes, technology, health care, transportation, food, and child care* (United For ALICE, 2020). Notably, savings and investments are not included in this survival budget. Households stretching their incomes in order to survive often have nothing left over to save or invest in themselves or their children.

At the most basic level, the annual cost to renters of high housing-cost burdens is the difference between what they are paying in housing-costs and what they should be paying per HUD recommendation: 30% of their income or less. Housing-cost burdened renters in Albemarle County would have saved between \$17,500,000 and \$50,700,000² in 2015³ if they were all spending only 30% of their incomes on housing⁴. This also serves as an estimate of the cost of subsidization to keep all renting households spending 30% or below on housing for that year. These funds could have been used on any of the aforementioned spending categories, put into savings or invested in renters or their children.

Costs to County Government

There are a variety of government programs to help households pay rent and fund the construction and maintenance of affordable housing. These programs produce costs that would not exist if there was enough supply of affordable housing to meet demand across all income levels. In FY20, the US government spent over \$55 billion on affordable housing programs throughout the nation (NLIHC, 2020b). The costs to Albemarle County government are subsidized in part by this federal spending as well as state funds. The Housing Choice Voucher (HCV) Program, for example, although it is administered through the County Housing Department, is federally funded. In FY20, Albemarle received \$3,448,866⁵ in HUD HCV Program funding, so these funds do not count as County expenditures although they are being spent on County residents. Most spending on affordable housing in Albemarle are federal and state dollars rather than County funds. Besides HCV funding, approximately 72% of the

² In 2021 dollars.

³ Most recent year for which granular data is available.

⁴ Details and calculations [here](#).

⁵ Well below the need of renters as estimated in the previous section, *Costs to Current Renters*.

County's affordable rental housing is funded through the Low-Income Housing Tax Credits (LIHTC) (Pethia, 2021). Much of the other affordable housing constructed in the County, generally built to target households at 80% AMI, is constructed through proffers or density bonuses⁶. Neither of these mechanisms cost the County directly.

The most consistent form of direct spending on the part of the County has been giving to regional non-profits who construct, repair, and manage affordable housing. In FY20 Albemarle allocated \$472,757⁷ to local housing-focused nonprofits (Albemarle, 2019). Recently the County has been more open to directly investing in affordable housing development in the County. In FY19 the County established a formal Housing Fund, transferring \$1,300,000⁸ of County revenue into the fund that year to start it (Albemarle, 2019). So far the main development to receive direct County funds has been Southwood, a development by Habitat for Humanity of Greater Charlottesville (Habitat). The County first gave Habitat \$675,000 in 2018 and in 2019 promised up to \$1,800,000 more over the next several years⁹ in cash contributions (EDA, 2019). Besides straightforward cash contributions the County has also offered Southwood up to \$1,400,000 in tax rebates over the next 10 years (EDA, 2019). Similar tax rebates have also been taken advantage of by the Brookdale development (EDA, 2018). In FY20 the County allocated \$280,000 through their Economic Development Authority to fund these tax rebates with Brookdale and Southwood (Albemarle, 2019). However, both Southwood and Brookdale are

⁶ Units constructed through density bonuses are required to be affordable at 60% AMI. However, currently there are only 26 such active units (Pethia, 2021).

⁷ This amount is very similar to previous years.

⁸ As the Housing Fund is new this was the first and, so far, only payment into the fund. Thus, this is not yet a regular annual expenditure.

⁹ To be distributed “when specific milestones are achieved by Habitat during Fiscal Years 2020 through 2022, or later.” (EDA, 2019)

outliers in that they are very large projects that have been in development for years and involve many parties. The County's contributions were not the only financial incentives utilized by each of these projects and the County's spending on these projects is not generalizable to all or most affordable housing developments in Albemarle. Currently, County spending on affordable housing could be characterized as small and inconsistent. In FY20, Albemarle's spending on affordable housing constituted approximately 0.01% of the County's General Government expenditures¹⁰.

Opportunity Costs - Time and Transportation

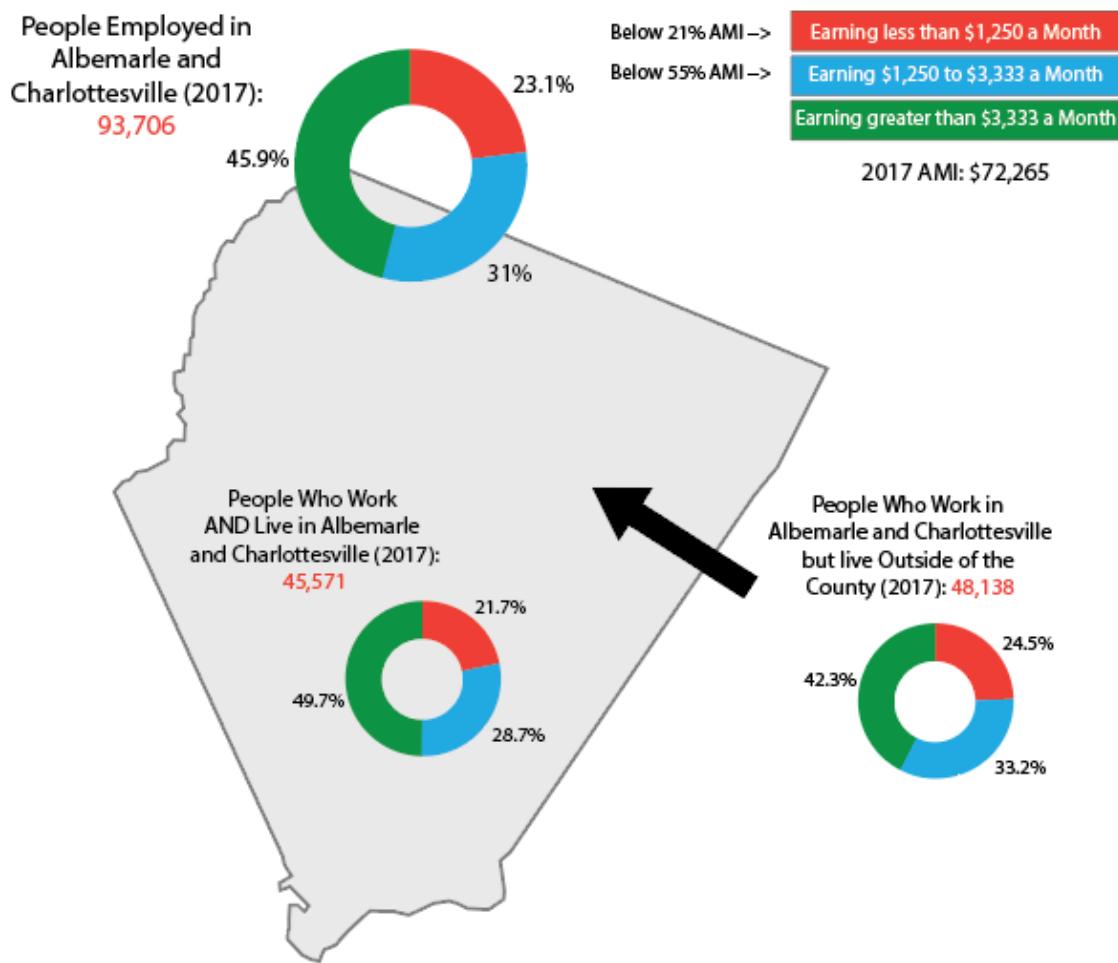
I have already estimated the costs of housing-cost burdens to renters living in Albemarle, but it must be acknowledged that there are many households who work in Charlottesville or Albemarle but do not live here simply because they cannot afford to. The number and characteristics of these households are unknown. However, for people in these households who work in Albemarle or Charlottesville but cannot afford to live in the County there are significant additional transportation costs compared to if they lived in Albemarle. The opportunity cost of their time spent commuting must be considered.

Fig. 4 shows the share of the Charlottesville and Albemarle workforce who live in the County and City versus those who do not, and how much these groups were paid in 2017. Just over half of the area's workforce commutes from outside of Albemarle. Just under 30% of the region's workforce not only commuted into the area but made less than \$40,000 a year.¹¹

¹⁰ This takes into account the \$472,757 given to local nonprofits, \$280,000 spent on tax rebates, approximately \$740,000 in cash contributions to Southwood, and the \$146,878,128 FY20 Adopted General Government Expenditures (Albemarle, 2019).

¹¹ \$3,333 a month would be \$39,996 over a year. All dollar estimates in this figure are in 2017 dollars.

Fig. 4 Characteristics of Albemarle and Charlottesville Residents and Workers



(USCB, 2020a)¹²

About 58% of out-of-County commuters made under \$40,000 in 2017 compared to 50% of workers who both lived and worked in Albemarle or Charlottesville. This makes intuitive sense as many of those who commute likely cannot afford the high housing-costs of the County and City. Considering the added cost of gas and time taken to commute into Albemarle, the

¹² This data does not differentiate between renters or homeowners nor those who may live in the same household.

estimated opportunity cost to the sum of these commuters is approximately \$958,000 per work day or \$19.92 a day per person¹³. It would not be practical for every person who works in Albemarle or Charlottesville to also live in the County, and certainly there are people who would prefer not to. As such the true opportunity cost specific to renters who would otherwise live in Albemarle if not for prohibitively high costs is less than the estimate given, though by how much is unable to be determined.

Contributing Factors

Rising Housing Burdens

Demand for rentals in Albemarle has increased significantly over the last decade. In 2010, the rental vacancy rate in Albemarle was over 10% compared to only 2.6% in 2019. (USCB, 2010; 2019). The Virginia average rental vacancy rate in 2019 was 5.5%, significantly higher than in Albemarle, indicating a higher than state average demand to rent in Albemarle (USCB, 2019).

Furthermore this change is indicative of a growing strain on the County's rental housing stock. Increasing demand has likely contributed to increasing rental costs, seen in **Table 1**. Real median rents increased nearly 5% in four years.

Table 1, Count of households paying different rental brackets in 2015 and 2018

	2015	2018	% Change
Less than \$500	543	423	-24.8%
\$500 to \$999	4042	3289	-20.5%
\$1,000 to \$1,499	5609	6409	13.3%
\$1,500 to \$1,999	1768	3148	56.1%
\$2,000 to \$2,499	455	593	26.4%
\$2,500 to \$2,999	126	127	0.6%
\$3,000 or more	88	127	35.8%
Total	12632	14116	11.7%
Median Rent (2018 dollars)	\$ 1,186	\$ 1,244	4.8%

(USCB, 2015; 2018a)

¹³ In 2021 Dollars. Details and calculations [here](#).

However, Inflation over this period can account for a 6% increase in rental costs, so median rents were essentially stagnant. But what is significant in this table is the observable shift in the proportions of the renting population in each cost bracket. The number of households paying less than \$1000 a month went down by over 21% in four years while the number of households paying between \$1,500-\$2,000 a month went up by 56%. Over four years it is unlikely that the incomes of a significant number of renting households increased (Campbell, 2018).

Table 2, Monthly Housing Costs as a Percentage of Households Income in the Past 12 Months for Renters

Monthly Housing Costs as a Percentage of Household Income in the Past 12 Months for Renters		
Yearly Income	Percent of Renters	
	2015	2018
Less than \$20,000	13.3%	12.8%
Less than 20 percent	0.0%	0.0%
20 to 29 percent	5.3%	2.3%
30 percent or more	94.7%	97.7%
\$20,000 to \$34,999	13.5%	14.7%
Less than 20 percent	0.0%	0.0%
20 to 29 percent	3.7%	5.4%
30 percent or more	96.3%	94.6%
\$35,000 to \$49,999	18.2%	14.8%
Less than 20 percent	5.5%	8.1%
20 to 29 percent	21.4%	26.4%
30 percent or more	73.1%	65.5%
\$50,000 to \$74,999	21.6%	19.4%
Less than 20 percent	43.5%	25.8%
20 to 29 percent	43.1%	41.8%
30 percent or more	13.9%	32.5%
\$75,000 or more	25.2%	29.1%
Less than 20 percent	66.7%	73.9%
20 to 29 percent	27.4%	23.4%
30 percent or more	6.0%	2.7%

(U.S. Census Bureau, 2010b; 2018b)

Thus, much of the movement between cost brackets must derive from inflation or poorer households leaving and wealthier households moving into the County. This is not inconsistent with the data in **Table 2**.

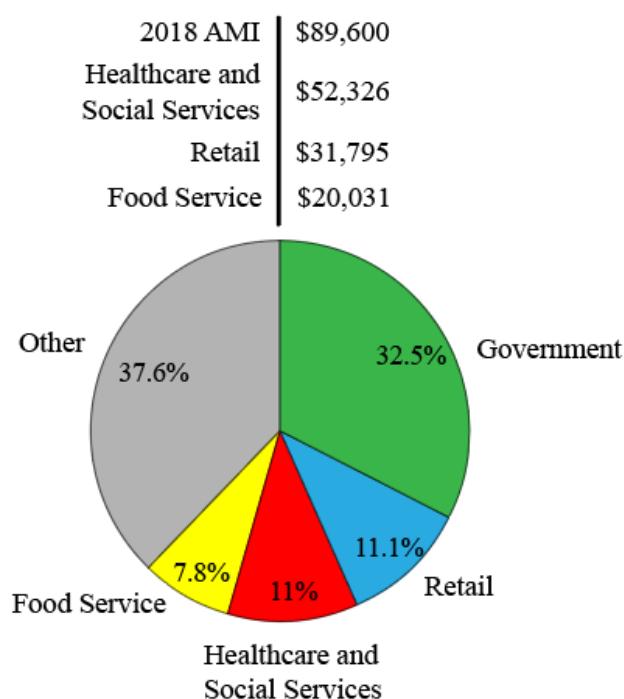
Table 2 shows general consistency in the proportion of households in most income brackets. However, there is a significant decrease in the share of households in the \$35,000-50,000 income brackets and a similar increase in the share of households making above \$75,000 between 2015 and 2018.

The share of renters within the \$35,000-50,000 income brackets who were housing-cost burdened also decreased during this time, supporting the notion that those who could not afford to stay moved out of the County.

Over the same period more affluent rental households, making over \$75,000 a year, moved into the County and the proportion in this income bracket paying less than 20% of their income on housing increased by over seven percentage points. Sandwiched between these groups, those making between \$50,000-75,000 a year, were on average spending significantly more of their incomes on housing in 2018 than in 2015, with an over 18 percentage point increase in the proportion of housing-cost burdened renters in this income bracket.

Stagnating Wages

Fig. 5 Share of Albemarle County Employees by Sector and Average Wage in Selected Sectors, 2018



In 2016 the average annual wage in Albemarle County was \$52,177 (BLS, 2020). In 2019 the average annual wage was \$55,177 (BLS, 2020) but in 2016 dollars this only amounts to \$51,839 (BLS, n.d.). Average real wages in the County thus stayed the same if not decreased somewhat over this period.

(VEPD, 2020; BLS, 2020; HUD, 2018)

The top five employment sectors in Albemarle, in 2018, were State and Local Government, Retail, Healthcare and Social Assistance and Food Service (see **Fig. 5**). These sectors accounted for just over 60% of employment in Albemarle (VEDP, 2020). Those employed in healthcare, retail, and food service jobs make significantly less than the County average annual wage and thus face higher housing-cost burdens (BLS, 2020).

Population Growth

Between 2010 and 2019, Albemarle's population grew just over 10% (USCB, n.d.-a) but it is projected to grow nearly 25% between 2020 and 2040 (Weldon Cooper Center, n.d.). This rapid growth is likely due to a desire by many to live and work in Charlottesville City or at the University of Virginia. Between 2007 and 2017 the number of people employed within Charlottesville grew by over 50% (USCB, 2020). However, Charlottesville City can only hold so many residents. Between 2010 and 2019 Charlottesville's population grew nearly 9% (USCB, n.d.-b) but it is only projected to grow 5% between 2020 and 2040 (Weldon Cooper Center, n.d.). In 2017 only 18.4% of people employed in Charlottesville actually resided within the City while 30.7% of Albemarle residents worked in Charlottesville City or for the University of Virginia (USCB, 2020). Thus, the County's rapid growth will require a greater housing stock and a dedicated affordable housing stock as increasing demand for housing will likely lead to continual rising rents.

NIMBYism

Not In My Backyard(ism), or NIMBYism, is a catch-all acronym to describe when residents do not want construction near where they live although they typically acknowledge that

it needs to happen somewhere. In this case, the NIMBYism is specifically in regards to resistance to multifamily rental housing. NIMBYist arguments often follow similar claims, including that:

- Multifamily apartments will lower the value of single-family homes in the surrounding neighborhood and area.
- People who live in apartments are less desirable neighbors.
- Apartments overburden schools, produce less revenue for local governments, and require more infrastructure support.
- Higher-density housing creates traffic congestion and parking problems.

(Obrinsky and Stein, 2007)

Of course, many of the characteristics of NIMBYism can also be genuine concerns when a new development is being proposed. It is the job of the County leadership to balance the County's transportation, housing, educational, and other infrastructure needs and its affordable housing and growth management needs. However, in Albemarle County there is a pattern of behavior, especially amongst residents, which lends evidence to strong NIMBYism within the County.

For example, all of these elements were present at the County's Planning Commission (PC) meeting of March 2, 2021.¹⁴ At this public hearing twenty-five residents, members of

¹⁴ This case is discussed because it is a recent example and fits all of the classic characteristics of NIMBYist behavior. As stated above, NIMBYism requires repeated behavior. Some other recent examples of public meetings where NIMBYist comments were made include but are not limited to:

- Crozet Community Advisory Committee Meeting (July, 2020),
<https://www.youtube.com/watch?v=jFgb-55nzl8>
- Planning Commission Meeting (November 24, 2020),
<https://www.youtube.com/watch?v=7dMdoVcYtUk&t=4089s>
- Crozet Community Advisory Committee Meeting (March, 2021),
<https://www.youtube.com/watch?v=QaAbAKmHVRc>

several Home-Owners Associations (HOAs), spoke on behalf of their neighborhoods and represented a petition that had garnered over 500 signatures against the proposed development. The HOAs contracted their own outside traffic analysis and brought to the meeting a coordinated presentation. This level of organization and community commitments of time, money, and other resources are accessible to large HOAs such as these. Those who reside in dense and cheaper apartments are less likely to be a part of organizations like HOAs nor have the time and resources for appeals to their public institutions on the same scale as more affluent neighborhoods.

These residents cited all of the above NIMByist arguments against the proposed development, which would create up to 370 dwelling units, but also complained that the buildings would be “ugly” and “unwelcoming,” as well as contribute to “changing the character” of the Rio area. Speakers were very cognisant of potential criticisms and repeatedly reminded listeners that they are all for affordable housing, just not like this (Albemarle County, 2021).

Perhaps more important is the presence of NIMBYism in County leadership. While residents can exhibit NIMBY behavior, it is the members of the BOS who make the ultimate determination of whether or not they bend to these demands or stick to their espoused priority of creating affordable housing. On March 17, 2021, Dr. Pethia presented the updated Draft Housing Policy to the BOS¹⁵. The BOS repeated throughout the meeting how important affordable housing policy is for the County but most members were hesitant to consider programs which would increase residential density.

● BOS Regular First Meeting, (March 4, 2020),
http://albemarle.granicus.com/player/clip/439?view_id=1&redirect=true

¹⁵ This meeting represents simply one example of NIMBYist behavior.

The very first objective of the Draft Affordable Housing Policy is to “increase supply to meet the needs of all current and all future residents of Albemarle County.” However, a Supervisor repeatedly asked that the word “all” be removed because they felt it was an unattainable goal. This Supervisor prioritized “not creat[ing] havoc for the 110,000 people who already live here, and to whom we are their servants, we are working for them. [...] We have to be careful to protect the people who live here now.” Another Board member pointed out that “there are a lot of people who have attempted to live here now who haven’t been able to and we have to make some changes [...] in order to allow them to do so.”

Later, the assertion was made that “triplexes” and similar dense rental housing is inherently “commercial” and has the potential to destroy the residential feel of current neighborhoods.

One recommendation of the Draft policy is to make the construction of accessory dwelling units easier for property owners across the Development Areas, a recommendation which is similar to that in the 2015 Comp Plan. Supervisors were very concerned about the potential for accessory dwelling units to be occupied by students, including graduate students or married students. “They are not our teachers, our nurses, and our police officers.”

Supervisors rebuffed “recent discussions ridiculing local governments’ objectives for green space interfering” with the potential development of “hundreds” more units of affordable housing; “I am concerned about this talk of, in the name of affordable housing, getting rid of all of the green space.” Nothing in the Draft Housing Policy insinuated that green space should or would be sacrificed for the sake of affordable unit construction. It is arguments like these that are too often used as excuses to solving real problems.

These are simply some examples of subtle NIMBYist behaviors that were present at the Draft Affordable Housing meeting. In a meeting such as this, affordable housing is the groups' primary focus and yet other policy areas were still being prioritized. In other settings, affordable housing is simply one of many policies in consideration, and it is more likely to be overlooked and denied as other policy areas are prioritized despite espoused commitment to the provision of affordable housing (BOS, 2021).

Potential Solutions

There are two methods to approach a lack of affordable housing within a community: creating affordable housing units or directly helping households access and afford private-market housing units. This analysis focuses solely on how the County can create more affordable housing units.

In above sections an estimate was provided as to the existing gap for renters between their current housing-costs and what would be affordable. This was estimated to be approximately \$17,500,000 and \$50,700,000 for a single year. Even at the low end, attempting to subsidize this gap for all cost-burdened County residents would require over 13% of the County government's FY20 budget (Albemarle County, 2019). Additionally, as contributing factors continue to converge, more and more middle and low-income households are likely to move out of Albemarle. Additionally, many middle and low-income households will never move to Albemarle who perhaps would have if they could afford to do so. Generally, households must be residents of a County before they are able to apply for and utilize rental subsidy programs. The median household income in the County will likely continue to rise. Offering rental subsidies, in the case of Albemarle County, would be expensive and ineffective in keeping rents low and the County accessible in the long-term.

Creating Affordable Housing Units - External Funding Options

1. The Low-Income Housing Tax Credit

The Low-Income Housing Tax Credit (LIHTC) was created in 1986 and offers developers tax breaks if their projects provide affordable units. Developers compete at the state level for federally funded tax breaks. LIHTC projects had created 3.2 million housing units

throughout the US as of 2018 (HUD, 2020). Affordable rents for LIHTC projects are either 60% or 50% of local AMI, depending on the project (TPC, 2020). Thus, it is unsurprising that in 2009 and 2010 the majority, 55%, of LIHTC project residents had incomes in the 30-60% AMI band. The remaining 45% of LIHTC households were ELI (O'Regan & Horn, 2013). An interesting finding of this study was that the same pool of households had altogether higher incomes when they initially qualified for LIHTC housing. At initial certification only 34% of households were ELI. Additionally, 50% of LIHTC residents studied were found to receive rental assistance¹⁶ despite only 33% receiving rental assistance at initial certification. Because LIHTC projects are required to rent at the 50 or 60% level, this means that households with incomes below this level are still at a great risk of being cost-burdened. Considering only households not receiving any rental assistance, 58% of these ELI LIHTC households in the sample were severely cost-burdened.

However, the same study also observed that the proportion of ELI households varied greatly across the states analyzed. Furthermore, only 13% of projects in this study were in rural areas. Although this is very similar to the actual proportion of rural LIHTC projects at the time, 14%, the small subsample size means that there is not the capacity for granular analysis as to whether these national trends differ across rural localities (O'Regan & Horn, 2013).

In 2020, Virginia approved 22 new LIHTC projects that will eventually produce an estimated 1,359 affordable housing units (Virginia Housing, 2020). Albemarle has ten active LIHTC properties totaling 1,022 units, 219 of which specifically target elderly and disabled populations. The oldest active property was funded in 1990 and will no longer qualify for LIHTC

¹⁶ The data does not specify between different sources of rental assistance.

benefits after 2021¹⁷ while the most recent project was funded in 2017 (Virginia Housing, 2021). Additionally, LIHTC rentals make up practically all of the rental housing in the County held to 60% AMI or less.

2. Opportunity Zones

A newer federal opportunity for reducing the costs of development was implemented in 2017. These federally recognized Opportunity Zones (OZs) were established as part of the 2017 Tax Cuts and Jobs Act. OZs are simply census tracts nominated by the state they are in to qualify for federal development incentives. There are two OZ census tracts within Albemarle County and two within Charlottesville City¹⁸. OZs are meant to spur investment by giving investors an opportunity to avoid capital gains tax through long-term investment in development projects in OZs. After selling a project, an investor would normally have to pay a tax on the resulting capital gains from the sale of that project. However, by instead putting that money into a Qualified Opportunity Fund (QOF), investors can defer their capital gains tax payments with the total percent of tax they will eventually have to repay decreasing the longer their money remains invested in the QOF. Because of inflation and the time value of money, by deferring the capital gains tax payment through QOFs investors are increasing the net present value of their investment. Additionally, if the investment remains in the QOF for at least 10 years, not only will the tax owed on the original capital gains be significantly decreased, but any capital gains reaped from the investments in the QOF will be tax-exempt (Lester et. al, 2018).

There is currently one QOF in Albemarle County: Habitat for Humanity of Greater Charlottesville's (Habitat) Southwood mobile home park redevelopment (Orton, 2019).

¹⁷ This property has 144 affordable units.

¹⁸ Map of local OZs available in **Appendix A**.

However, Habitat's Southwood project started nearly a decade before the region was designated an OZ rather than developing out of the OZ opportunity. Given the newness of OZs, there is little substantive research on their effectiveness. Additionally, OZs were not specifically intended for financing affordable housing, but rather economic development generally. The little analysis that has been done has been focused on the potential pitfalls of the program as written rather than as practiced (Eastman, 2019; Lester et. al, 2018). One observation from preliminary qualitative research is that the program, as written, incentivizes investments in high-return projects over projects with higher social impacts, i.e., luxury apartments rather than affordable units (Theodos et. al, 2020). However, this conclusion was based off of interviews with a small and unsystematically selected sample of people involved, in a variety of positions, with OZ projects across the county. Nevertheless, there are numerous affordable housing QOF developments underway around the country. In the coming years, as these projects are completed and occupied, there will be further research and results to develop best practices from.

Creating Affordable Housing Units - Internal Incentives

1. Inclusionary Zoning

Inclusionary Zoning (IZ) is a broad term for a variety of approaches, based around the local government's ability to regulate land use, which require or incentivize developers to include affordable units in their housing developments. There are a variety of IZ options for localities including directly subsidizing projects, trading density for affordable units (density bonuses), and offering tax abatements (ULI, 2016). Offering density bonuses, specifically, has been correlated with the construction of more housing units than in areas without density bonuses (Schuetz et. al, 2010). IZ policies vary greatly in implementation and design across the country and localities

vary in the quality and quantity of data they collect and keep about local programs (Leckington and Gottesman 2010).

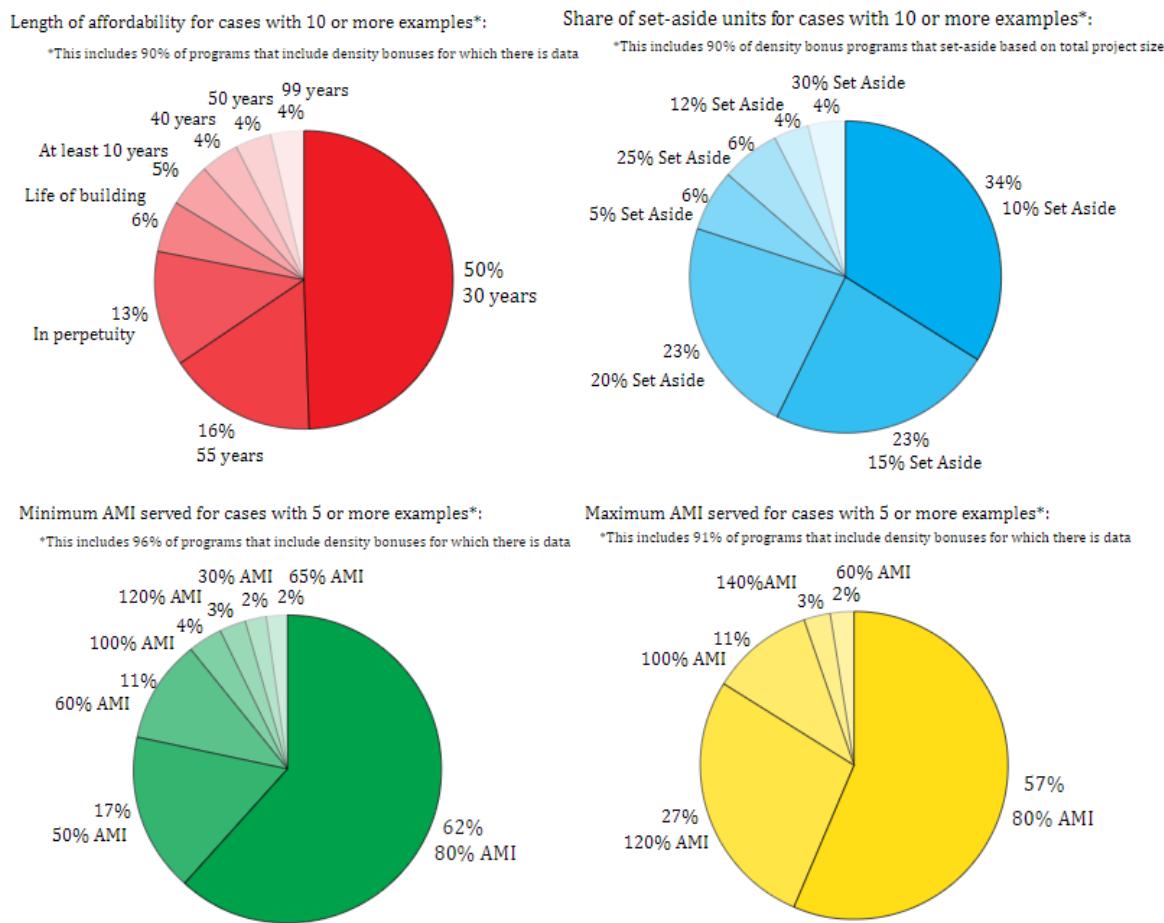
A recent study set about amassing data on IZ mechanisms utilized by localities throughout the US. The study examined the characteristics of 1,032 IZ programs in 734 jurisdictions¹⁹ (Wang & Balachandran, 2021). By examining the data of the study some characteristics of common practices are revealed. Of the 734 jurisdictions, 387 included density bonus programs. Density bonuses were found to be the most common form of IZ (Wang & Balachandran, 2021). **Fig. 6** shows the most common characteristics of density bonus programs including minimum and maximum AMI served, length of affordability requirements, and the share of units typically set aside as affordable. Of note is that, in mandating share of units to be set aside as affordable, eight programs determined set aside as a share of total square footage,²⁰ and five determined set aside as a share of units added (through the density bonus). Of those five, four required that 10% of units added through the density bonus be kept affordable. Meanwhile, 327 programs based the share set aside on the size of the total project (GSN, 2020). Importantly, 73% of programs examined were in either Massachusetts, California, or New Jersey as those states require IZ state-wide and the study had access to more complete data; data on other states is not so thorough (Wang & Balachandran, 2021). Unfortunately, the 2021 study struggles to estimate effectiveness. Results across jurisdictions studies were variable and only 35% of jurisdictions reported any number of affordable units being created by their programs at all²¹.

¹⁹ Across 678 municipalities.

²⁰ All of these programs specified between 8% and 20% sq ft.

²¹ 48% did not know how many affordable units had been created and 17% reported 0.

Fig. 6 Characteristics of Local Density Bonus Programs



(GSN, 2020)

Concerning IZ more generally, there is evidence that whether a municipality is already experiencing new and sustained development when IZ policies are put into place is a key indicator as to whether or not IZ policies will be successful (Mintz-Roth 2008; ULI, 2016). It has also been found that IZ policies have been most effective in urban markets (NAHB, 2019).

Evaluative Criteria

Effectiveness

Effectiveness is measured by the estimated **number of additional net affordable rental units** that would be created under each recommendation, both at 80% AMI and 60% AMI. The time frame for creation considered is between 2022 and 2040.²² Each estimate assumes that there will be little to no change in the housing and construction market, outside of following present trends.²³

It is important to note that most relevant trends have been negatively impacted by COVID-19, leading to depressed estimates across the board. However, as the impact on estimation is the same across all recommendations and the present trends estimate, if anything these depressed trends will result in uniformly depressed estimations. As the purpose of these estimations is to compare policy alternatives to each other rather than to achieve an accurate forecast, the impact of COVID-19 on the integrity of this analysis is projected to be minimal.

A low and high range of net units added is calculated for each alternative. The estimation of units created without intervention is a static measure rather than a range; without intervention an estimated 545 80% AMI units and (1)²⁴ 60% AMI units will be created between 2022 and 2040. The estimations of effectiveness for each alternative are *in addition* to these units. It is important to consider net rather than gross units because many rental units in Albemarle are not perpetually kept as affordable. The current affordability length requirement in Albemarle is 10 years for locally-incentivized units (Sec. 13.4.3 Albemarle Code). Please see [attached file](#) for full

²² My client has directed the scope of analysis to be over the next 20 years.

²³ There is sensitivity testing in the spreadsheet for each policy effectiveness estimate.

²⁴ "(1)" indicates a negative number; the number of total 60% AMI units in the County is estimated to decrease by 1 between 2022-2040.

effectiveness analysis.

Alignment with County Goals

The County Goals, as established in the County's Comp Plan, are the guiding principles for all County actions. Any policy alternative that Dr. Pethia recommends or that the BOS adopts should align with the Goals the County has set for itself. The current Comp Plan was approved in 2015 although the County is in the process of reviewing and revising the Plan. Dr. Pethia's current Draft Affordable Housing Policy will eventually be approved by the BOS and become part of the 2020 update to the Comp Plan. Thus, both the Affordable Housing Goal of the 2015 Plan and of Dr. Pethia's Draft are considered, with more weight given to Dr. Pethia's Draft²⁵.

However, the Affordable Housing Goals are not the only Goals which the proposed policies must align with. To accurately and holistically evaluate the extent to which proposed recommendations align with County Goals I went through each Goal and corresponding Objectives established in the 2015 Comp Plan and identified all Objectives that would be impacted by any of the proposed options. By looking to Strategies of each of the identified Objectives I was able to determine whether each policy would or would not align with an Objective. Each Goal then received an overall score based on how many Objectives an alternative did or did not align with. Each alternative ultimately received one overall score (on a 0-1 scale) capturing the extent to which the alternative aligned with all relevant County Goals. A score of 1/1 would, for example, indicate perfect alignment with all relevant Count Goals. See **Appendix B** for detailed Methodology and breakdown of scoring.

²⁵ This Draft more accurately reflects the Goals under which the proposed policies would likely be instituted. Furthermore, the BOS has made little objection to the proposed Goals of the Draft and it is unlikely they will change significantly between the writing of this paper and ultimate approval.

Comparative Costs

All policies incur costs, and all municipalities are limited by a budget. For each of the policies considered, all direct and indirect costs are listed. If possible, these costs are estimated. For a full list and description of costs for each policy option see **Appendix C**.

Each individual cost item is identified as either a direct or indirect cost. Furthermore, who bears each cost is identified. Of primary interest in evaluating each policy option are the total direct costs to Albemarle County. Currently, as established above, the County bears very little of the costs of affordable housing development in the County.²⁶ Indeed developers bear most, if not all, of the direct costs of development under the current systems in Albemarle County. Certainly, many developers utilize a variety of outside mechanisms and incentives to reduce these costs. LIHTC properties and units created through density bonuses make up 83% of the current affordable rental stock in Albemarle and are all examples of developers finding external mechanisms to reduce costs (Pethia, 2021). Furthermore, the remaining 17% of the rental stock was created despite the complete burden of costs being borne by developers.

Thus, this evaluation prioritizes highlighting costs to the County government as these costs would represent new costs for the County who has not traditionally borne the costs of affordable housing development. Changes in County spending on affordable housing would require taking away funding from some other policy and the trade-offs must be considered.

²⁶ See pages 17-19 of this report.

Policy Alternatives

1. Expand Development Areas to neighborhoods where public water utility infrastructure already exists and will not harm the South Fork Rivanna Reservoir Watershed.

The current Development Area (DA) is confined to 23,820 acres while 439,877 acres of Albemarle are preserved as Rural (Knuppel, 2020a). The DAs make up just over 5% of the County's land mass but are home to 62% of the County's population (Knuppel, 2019). Dense residential and industrial development is generally not allowed outside of the specified DAs. The DAs have not increased in size since the 1996 Comp Plan although the County's 2019 population is 167% of the 1996 population²⁷. Meanwhile development costs have increased dramatically, primarily due to skyrocketing land costs in the DAs. From the 2019 Albemarle Growth Management Report:

"Continued demand combined with a decreased supply of developable land have placed significant pressure on land values. [...] A single-family lot in the urban ring that once cost \$30,000-\$50,000 in the 1990s [would] now [be] closer to \$160,000." (Knuppel, 2019)

Greenfields, or multi-acre undeveloped sites, are increasingly scarce within the DAs. This is especially evident if University owned parcels and public parks are excluded from total land in consideration. The most straightforward way to decrease land costs and strain on developers in current DAs is to increase the size of the DAs. Developing the current Rural Areas also has challenges. First, expansion of the DAs is not politically popular. That the DA borders have not changed since 1996 is indicative of this as well as many of the Objectives and Strategies within the most recent Comp Plan which specify that growth and development should be directed to the current DAs.²⁸ Part of this desire to focus growth is fueled by environmentalism as well as a

²⁷ In 1996 the population of Albemarle was approximately 73,000 people (USCB, 1996) and in 2019 it was approximately 109,000 people (USCB, n.d.-a).

²⁸ See Growth Management Objective 1 Strategy 1a, Rural Areas Objective 1 Strategy 1a, and

desire to preserve the County's rural areas and rural character (Knuppel, 2020b). Additionally, there is the notion that it is ostensibly cheaper to focus development to areas where infrastructure already exists as the expansion of electrical, water/sewer, transportation, and other utility infrastructure is very expensive both for the public and the County. The County has previously cited the expense of expanding utilities as one reason for not expanding the DA boundary (Albemarle, 2015).

I have identified 1,175 acres of parcels that would be added to the DAs per this alternative²⁹. These areas were chosen because the existing neighborhoods within them entail existing road infrastructure and they are already hooked up to electrical and public water utilities.³⁰ Although there are no neighborhoods outside of the current DA with public sewer access, these neighborhoods at least have water infrastructure, which would make future development less expensive than in areas without. Additionally, all of these neighborhoods either lie outside of the South Fork Rivanna Reservoir Watershed, as that watershed has been identified as vulnerable to pollution from further development (Knuppel, 2020b)), or around Crozet which already has infrastructure in place to protect the Watershed.

By adding these areas to the DAs it would expand the current areas open to dense redevelopment. Certainly property owners would be under no obligation to participate in higher density development but it would open these areas up to future development and redevelopment interest and opportunity. Additionally, several of the areas identified³¹ contain undeveloped greenfield spaces which are increasingly scarce in the DAs.

Housing Objective 6 Strategies 6a and 6g (Albemarle, 2015).

²⁹ See **Appendix E** for details about these neighborhoods.

³⁰ Water only, not necessarily sewer.

³¹ Specifically the Key West Dr., Ridge Trail, and Foxdale Lane neighborhoods.

2. Increase length of affordability requirements from 10 to 30 years.

Developers who proffer affordable units or take advantage of inclusionary zoning are required to rent out their promised affordable units for a period of 10 years from date of first occupancy. The current affordable rental stock of these 10-year units (proffered and IZ) is 243, about 18% of all designated affordable units in the County (Pethia, 2021.). About 75% of the County's rental stock is made up of LIHTC developments and all but one of these projects was constructed before 2010. LIHTC projects make up such a large portion of affordable units in the County because they are subsidized for 30-50 years and are all developed and maintained by non-profits committed to the provision of affordable housing. These organizations have kept their units affordable past the minimum requirements of the LIHTC³² because it is their mission. Because the required length of affordability for rental units in Albemarle County is so short, near constant redevelopment is needed to maintain the stock of affordable units, let alone increase it. This alternative proposes increasing the length of local affordability requirements to 30 years, a current recommendation in the County Draft Affordable Housing Policy. Beyond being the current recommendation in the Draft, which members of the BOS and PC have not objected to, nearly 50% of surveyed US programs in 2019 held a 30 year affordability requirement, so this recommendation would follow common precedent (GSN, 2020).

On its own this policy may disincentivize developers from including affordable units in their developments as keeping units affordable for 20 additional years would decrease the net present value of a project. Because rezoning requests are generally not recommended by staff unless developers proffer at least 15% affordable units, there is the potential for overall

³² 30 years is the minimum.

redevelopment and residential unit construction in the County to decrease. However, the availability and promotion of appropriate incentives would offset any potential negative impacts of extending length requirements.

It is important to note that the benefits from this recommendation would be seen in the long term. Once this policy is in place it would be at least 10 years before this policy would contribute net additional units to the County's affordable housing stock. Additionally, after 30 years the County would be in much the same place of needing to build at least at the same rate that units are phasing out to keep the County's total stock steady.

3. County-wide adoption of a Form Based Code based on the recently passed Rio29 Form Based Code Overlay.³³

The Rio29 Form Based Code (FBC) Overlay, if adopted County-wide, would set required standards for affordable unit inclusion in new developments, set 30 year affordable length requirements, and set the default AMI level for inclusion to 60% AMI rather than current practice of 80% AMI.

Albemarle's current ZO has not been comprehensively revised since 1980, making it over 40 years old. Over that time, there have been many approved zoning amendments stemming from developers seeking rezoning, leaving the ZO very patchwork and inconsistent. The overall ZO is generally out of line with the modern Goals of the County's Comp Plan. After the County finalizes its latest update of the Comp Plan the County plans to tackle a ZO overhaul.

On March 17, 2021, the BOS approved an optional Form Based Code Overlay for the Rio29 area. County staff had been working on the Rio29 plan for over a year by the time it came

³³ Up to date version, as of March 17, 2021, of the Rio29 FBC Overlay [available here](#) and Affordable Housing section of the Overlay available in **Appendix F**.

before the BOS in March 2021. In general, FBCs regulate the form of buildings rather than density and are much more liberal in regulating use than traditional ZOs. The Rio29 Overlay also features requirements for affordable unit inclusion for all developments of more than five units. Developers have a choice of making 20% of units affordable to 60% AMI, 15% of units affordable to 50% AMI or 10% of units affordable to 40% AMI. For 5% more affordable units, above the minimum threshold, developments can qualify for an additional floor of building height.

The approved FBC Overlay is optional but to be really effective the Code should be mandatory when implemented at the County level, although only within the DAs. This recommendation is somewhat different from the others because the Overlay already requires that units be affordable for a period of 30 years and a FBC would mostly eliminate the need for rezoning requests. FBC would be compatible with expansion of the DAs but the process of implementation would not be dissimilar from expanding the DAs under the current ZO.

4. Require inclusionary zoning (density bonuses) for all residential developments applying for rezoning.

Currently, the County strongly encourages that developments applying for rezoning proffer 15% of their units as affordable. County staff does not typically recommend approval of requests that do not include this 15%. The County also offers an incentive for any developers, applying for rezoning or developing by-right, to include affordable units in their development through an IZ mechanism: density bonuses. Utilizing a density bonus, a developer can qualify for an up to 30% increase in allowed density in exchange for 50% of additional units being maintained as affordable housing (Sec. 16.4.3 Albemarle Code). This alternative combines Albemarle's current approach to inclusionary zoning with that of Loudoun County. Loudoun

County is the only other County³⁴ in Virginia whose affordable dwelling policy is regulated by the same section of the State Code. In Loudoun County, all developments applying for rezoning³⁵ qualify for and must utilize density bonuses. In Loudoun, density bonuses offer up to 20% increased density in exchange for 12.5% of total units in the development being set aside as affordable³⁶ (Sec. 7-103.B Loudoun County Zoning Ordinance). A similar methodology should be applied in Albemarle.

Based on current informal rezoning policy,³⁷ it can be estimated that one market rate rental unit subsidizes approximately 0.176³⁸ 80% AMI units. Furthermore, 60% AMI units bring in 75% of the revenue of 80% AMI units, so under the same assumptions it can be estimated that one market rate rental unit subsidizes approximately 0.132³⁹ 60% AMI units. This is consistent with current density bonus policy which assumes that one market rate rental unit subsidizes approximately 0.130⁴⁰ 60% AMI units.

Following the example of Loudoun County, this recommendation proposes that those

³⁴ There are also three cities: Alexandria, Charlottesville, and Fairfax.

³⁵ Who also plan to utilize public water and sewer utilities.

³⁶ Alternatively, multifamily developments are encouraged to utilize density bonuses of 10% in exchange for 6.25% of total units being set aside.

³⁷ That 15% of units in developments applying for rezoning be affordable and that affordable in this case has typically been set to 80% AMI.

³⁸ 85% of units are covering the lost revenue of the 15% 80% AMI units; $0.85 / 0.15 = 0.176$

³⁹ $0.85 * x = 0.15 \rightarrow x = 0.176$

$1/1.176 = 5.7$; it takes about 5.7 market rate units to subsidize the cost of one 80% AMI unit

$80/60 = 1/0.75 = 1.33$; a 60% AMI unit costs about 33% more for a developer than an 80% AMI unit

$1.33 * 5.7 = 7.6$; it takes about 7.6 market rate units to subsidize the cost of one 60% AMI unit

$1/y = 7.6$

$1 = 7.6y$

$y = 0.132$; one market rate rental unit subsidizes approximately 0.132 60% AMI units

⁴⁰ 88.5% of units are covering the lost revenue of the 11.5% 60% AMI units; $0.885 / 0.115 = 0.130$

applying for rezoning or special use permits should be eligible for up to a 20% density bonus. This is below the current amount of 30% because if all developments applying for rezoning were to increase their maximum density by 30%, the County's DAs would become very dense. There already exists resistance amongst County residents and leadership to high density development, so a 20% increase would be more in line with current preferences.

Furthermore, 10% of units for the entire development must be set aside as affordable at 60% AMI⁴¹. This percentage is somewhat less than Loudoun's standard but closer to the market indications of what developers in Albemarle County can afford⁴² as well as falling in line with current standard practice, considering that 10% of total units was the most popular set aside amount for local density bonus programs found by Grounded Solutions Network in 2020.

For this policy to be effective the set aside of 10% of units in developments requesting rezoning or a special use permit should be mandatory, requiring an amendment to the County Code. To compensate, the 20% density bonus must equally be offered to all applying for rezoning or a special use permit as an incentive to offset costs.

⁴¹ This would specifically apply to rental units. Loudoun sets higher AMI affordability standards for for-sale units, as does Albemarle.

⁴² $(1-z)(0.132) = z$

$0.132 - 0.132z = z$

$0.132 = 1.132z$

$z = 11.7$; based on current trends, up to 11.7% of units in a development could be afforded at 60% AMI if the remaining 88.3% were rented at market rate

Evaluation of Policy Alternatives

Outcomes Matrix				
	Effectiveness 80% AMI	Effectiveness 60% AMI	Costs to the County	Alignment with County Goals
Expand DAs	38-76	22-44	\$1,165,000-\$5,200,000 per year by 2040	0.24
Extend Length of Affordability	419-533	12-14	No direct costs	0.47
Adopt Form Based Code	(740)-(762) ⁴³	402-611	\$5,300,000-\$8,800,000	0.94
Mandate Inclusionary Zoning	(762)	457-615	\$(1,400,000) ⁴⁴ - \$7,700,000 per year by 2040	0.78
Expand DA AND Lengthen Affordability	590-648	36-59	\$1,165,000-\$5,200,000 per year by 2040	0.18
Mandate Inclusionary Zoning AND Lengthen Affordability	(762)	795-1063	\$(1,400,000)- \$7,700,000 per year by 2040	0.84

⁴³ Numbers in parentheses are negative.

⁴⁴ Negative costs represent cost-savings.

Expand Development Areas

The proposed expansion of the DAs is projected to have low effectiveness when it comes to creation of 60% AMI units. This is because current policies would remain the same, the areas influenced by affordable housing policies would simply be about 5% bigger. Thus current trends, the creation of many 80% AMI units and stagnation of the 60% AMI unit stock, are followed with just a bit more unit creation. Although a relatively small number of additional 80% AMI units are projected to be added under this policy there are several policies which would lead to a smaller 80% AMI stock, so this policy scores relatively better than those as it still adds to the stock. The ultimate effectiveness of this policy is similar to what could be accomplished if there were a commitment to more dense development within the current DAs.

When this policy is combined with extending affordability length requirements the range of 60% AMI units created is slightly increased. The estimated range of 80% AMI units created by combining these policies increases significantly with hundreds more units created. The affordability requirement extension would only benefit proffered and density bonus units as LIHTC units are already affordable for at least 30 years. Thus the 60% AMI units are barely affected whilst the 80% AMI stock is able to grow significantly since housing is not phasing out as quickly.

This policy does have very low alignment with County Goals. This is because Objectives of three different County Goals as well as the Draft Housing Policy prioritize keeping development within the current DAs⁴⁵. Ignoring these Objectives the policy would still have a

⁴⁵ Rural Areas Objective 2 Strategy 2a, Development Areas Objective 2 Strategy 2a, Housing Objective 6 Strategy 6g, and Draft Objective 1 Strategy 1a, Objective 8 Strategy 8c, and Objective 12 Strategy 12a all refer to the Development Areas explicitly.

middling alignment score of 0.5. Although the policy would mostly adhere to current County practice, it does nothing to build on those policies. Most of the Objectives and Strategies of the 2015 Housing Goal and the Draft Housing Policy push for innovation and change to County policy, not more of the same.

When this policy is considered in combination with extending affordability length requirements its alignment score is even lower, 0.18/1. In all Goals except for the Draft Housing Policy the scoring is the same between these two options. However, where the expansion of the DAs on its own had many N/A scores in the Objectives of the Draft Housing Policy, when the policy is combined with affordability length requirements this is no longer the case. Extending affordability length requirements have the capacity to disincentivize development, setting the combination of these policies further apart from the Goals of the Draft Housing Policy which encourages programs which would incentivize affordable development.

The costs to the County incurred by this policy are borne by the County schools and by increases in public spending from population growth⁴⁶. The designation of these neighborhoods as within the DAs and anticipated consequent increased dense development would bring in new families to the areas and children to Albemarle County Public Schools (ACPS). The costs of this policy represent *maximum* annual cost increases rather than total costs. It would take several years for the population of the proposed neighborhoods to adjust from their current state to the full projected population increase. During those years when the area is growing the burden on County schools and public resources would increase until reaching the proposed range of 1,165,000-\$5,200,000⁴⁷. These are the only direct costs of this policy on the would be borne by

⁴⁶ County Public Safety, Health and Welfare, and Parks and Rec spending.

⁴⁷ In 2021 dollars.

the County itself. It is important to note as well that, if families with students moved from within the County into these areas, these costs would actually represent a transfer as that money would have been spent on those residents anyway.

Combining this policy with extending affordability length requirements would not add any additional costs for the County. No additional units are created by extending affordability requirements so population and public spending are unaffected.

Extend Length of Affordability

On its own, extending the length of affordability requirements from 10 to 30 years would produce the fewest 60% AMI units of any proposed policy. This is because over 97% of the County's current 60% AMI rental stock is funded through LIHTC units which already have 30 year minimums for affordability. This policy would make units that are proffered or created through density bonuses much more effective as they would last longer, but it does nothing to incentivize the development of more of these units. Although this policy does nothing to incentivize 80% AMI units, it would create the second greatest amount of additional 80% AMI units of all of the options. This is because 100% of the County's current 80% AMI units are proffered and bound by the County's current 10 year affordability requirement. Thus, all proffered units in the County going forward, under this policy, would become much more effective since they would last for 30 years.

This policy has a low alignment with County goals with a score of 0.47/1. Most of the points lost for this policy were in the 2015 Housing Goal and Draft Housing Policy. This policy lost points in ways that other policies did not because it has the potential to disincentivize overall development and especially affordable housing development. This is the pitfall of extending

affordability length requirements: it makes all housing constructed much more impactful because it will last three times as long but, on its own, this extension will likely lead to less development to begin with. However, if paired with adequate incentives that could balance out the disincentive of the extension of affordability the policy has the potential to increase impact without decreasing development.

This policy entails no direct costs to the County. This is the only policy which entails no direct costs to the County. Indeed, this policy would simply involve a change to the County Code and the County's direct involvement would be done. The costs of extending affordability length requirements falls almost entirely on developers. Thus, the main consequences of the costs of this policy would be a decrease in residential development. Importantly, effectiveness analysis took this decrease in overall development into account in estimating net units added.

Form Based Code

The adoption of a County-wide FBC is projected to decrease the overall stock of 80% AMI units in the County to zero or close to it. This is because the FBC would specifically require the inclusion of 60% AMI or below rental housing in developments moving forward. Although effectiveness estimates assumed that the FBC would not be implemented until 2027, by 2040 all of the 80% AMI units, still bound to the 10 year affordability requirement, would have phased out. Instead of 80% AMI units, the FBC is projected to create many 60% AMI and below units. The range of 60% AMI units created under this policy is wider than for mandating density bonuses but mostly overlaps with that estimate range. The major differences between these policies, in effectiveness, is that this policy would take significantly longer to implement as development and planning would be a multiyear and very involved process. That gap between

the estimated year a FBC would be implemented, 2027, and when mandating density bonuses in combination with extending affordability length requirements are projected to be implemented, 2023, is why the effectiveness between the two is so different. The FBC would be implemented much later than any other policy considered because it would have a much longer planning and development process between now and implementation than any other policy.

FBC has the highest alignment with County goals with a score of 0.94/1. This policy would incentivize and require affordable unit inclusion while funneling development to the DAs. The only downside of the FBC, per the County Goals, is that it could do more to incentivize affordable unit creation, offer a greater variety of incentives. Although the FBC aligns well with espoused County Goals, it would still face great objection from County residents and leadership because it would require such large scale change in how development and construction in the County works on a fundamental level.

The development of a County-wide FBC overlay is where all County costs of the policy come from. Based on the time and staff it took to develop the Rio29 overlay, the cost of developing an overlay for the entire County was estimated. The actual costs of implementing this policy would fall on developers who must find ways to subsidize the added cost of affordable unit requirements. This cost is different from the others estimated as it is not an annual cost but a total cost.

Mandating Inclusionary Zoning Alongside Rezoning

The adoption of this mandatory incentive is projected to decrease the County's stock of 80% AMI units to zero but would increase the stock of 60% AMI by hundreds of units. As addressed in the previous section, the range of units created under this policy is similar to those

created under adoption of a FBC. When this policy is combined with the extension of affordability length requirements the number of 60% AMI units is greater than for any other policy. The combination of a pseudo-mandate, an incentive, and all units becoming more impactful as they are affordable for 30 rather than 10 years, are projected to be very successful in creating 60% AMI and below units. The major downside of this policy, along with others above that focus on 60% AMI units, is the loss of 80% AMI units. It should be considered, however, that there are currently only 217 80% AMI units available in the County to begin with. Furthermore, the County has shown an interest in potentially piloting ‘Workforce Housing’ programs that specifically target 80% AMI renters.

This policy aligns well with Count Goals with a score of 0.781. Both the Development Areas and Housing (2015) Goals have Strategies that specify utilizing rezoning decisions to create affordable housing, which only this policy interacts with.⁴⁸ A trade-off for this policy is that it explicitly does not reach the Housing (2015) Strategy outlining that 15% of units in projects requesting rezoning be kept as affordable. However, this Strategy has proven ineffective in creating units affordable to 60% AMI and below while the proposed policy is projected to create many 60% AMI and below units.

When combined with extending the length of affordability requirements this policy’s alignment with County Goals increases to 0.84/1. This is because there is a Strategy in the Draft Housing Policy which specifically calls for provisions that increase the length of time units are kept affordable, which this policy would not provide for without also extending the length of affordability requirements. Unlike extending the length of affordability requirements on its own,

⁴⁸ See Development Areas Objective 2 Strategy 2i and Housing Objective 4 Strategy 41.

this policy combines that policy with an incentive and so aligns with County Goals to incentivize affordable development rather than disincentive development. This combination of policies aligns perfectly with the Draft Housing Policy, scoring 2/2.

The costs to the County incurred by this policy are borne by the County schools and by increases in public spending from population growth⁴⁹. This policy entails the highest direct costs to the County. However, that is in large part because this policy would impact the overall amount of development in the County to a much greater degree than any other proposed policy. The costs of this policy derive from its capacity to increase overall population capacity in the DAs over present trends based on the number of units that would be developed. Because this policy could lead to the creation of more units than would be built otherwise, the population capacity of the DAs could also increase more than it otherwise would. However, the extent to which this policy *will* increase population in the DAs is not clear; this policy could also potentially *decrease* the number of units constructed and thus the population capacity of the DAs. Because of this policy's capacity to decrease population capacity, the estimate of costs includes the potential for cost-savings. Thus this policy option has the potential to entail the greatest cost-savings of any policy or the greatest costs.

Combining this policy with extending affordability length requirements would not add any additional costs for the County. No additional units are created by extending affordability requirements so population and public spending are unaffected.

⁴⁹ County Public Safety, Health and Welfare, and Parks and Rec spending.

Recommendation

This paper recommends that a combination of two alternatives be pursued. First, this paper prioritizes extending the length of affordability requirements. As things stand, new affordable units are often replacing old affordable units rather than contributing to additional net unit creation. If the length of affordability were increased from 10 to 30 years by 2023, the effectiveness of two of the other alternatives would increase as well as the effectiveness of other potential incentives.

In combination with increasing the length of affordability, mandatory density bonuses should be enforced for all developments pursuing rezoning within the DAs. This combination of alternatives could create between 795-1063 net additional 60% AMI units between 2022 and 2040, far greater than any other alternative or combination of alternatives. This combination of policies aligns well with County Goals, scoring 0.84/1, and aligns perfectly with the Draft Housing Policy, scoring 2/2. This is the only policy that aligns perfectly with the Draft Housing Policy.

The policy has the capacity to cost more than any other policy but also to garner greater cost-savings than any other policy. However, in considering high costs, it must be considered that the County's population is projected to grow significantly over the next 20 years. The County is considering whether it will have the housing capacity to accommodate projected growth and how it can increase housing stock to meet that growth. The projected growth in population capacity is the driving factor behind costs for this policy. Thus, an increase in population capacity should not be seen as a bad thing. As the population increases, public spending will increase. This will entail higher direct costs for the County, but this is not

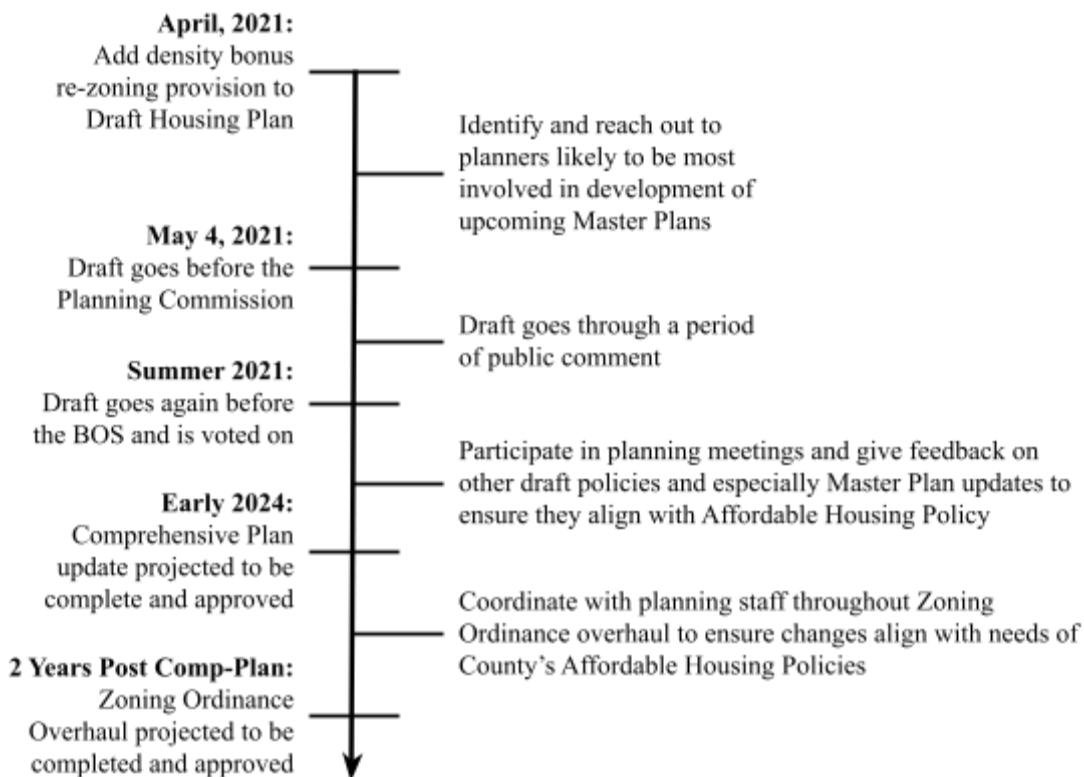
inherently a bad thing. There is a great need in Albemarle for rental housing at 60% AMI and this combination of policies would greatly contribute to the future construction of just such housing.

Considerations for Implementation

My client has already created a Draft Affordable Housing Policy for inclusion in the upcoming Comp Plan revision. Dr. Pethia has already run the Draft past the PC and BOS once and it will go through this process at least one more time before being voted on by the BOS for approval or deferral. I recommend that she continue to include provisions for the extension of affordability requirements from 10 to 30 years in the Draft. In addition I recommend that she add provisions for density bonuses to be a compulsory addition to developments applying for rezoning or a special use permit within the County's DAs and that the character of density bonuses be altered to reflect the proposals above.

The County is planning to completely rewrite its current ZO following the Comp Plan update. Developers typically only request rezoning or a special use permit when they cannot construct their developments by right. Most requests for residential rezoning in the DAs are either a request to change zoning from Commercial to Residential or from lower density Residential to higher density Residential (OCD, 2021). In either case, rezoning requests are typically meant to increase the number of units that can be constructed. To design the updated ZO to be completely in line with intended future density would thus actually be detrimental to affordable units development in the County. This must be kept in mind when the new ZO is being designed. Rather than simply assigning a higher residential density designation to parcels in the DAs where future residences are desired by County planners, their density designation should actually be approximately 20% less than the County would be willing to accept.

Fig. 7 Timeline of Future Work



This alone will not be enough. Besides shaping the ZO to be compatible with the density bonuses the County Code of Ordinance must also be updated and the proposed section of the Comp Plan be clear: the County must promise to accept density bonuses up to 20% density over ZO and Comp Plan designation if the development is participating in density bonuses for the sake of affordable unit inclusion. Loudoun County writes this out specifically in their ZO to make it clear for developers and future County leaders that the provision of affordable units is a County priority which trumps concerns over density (Sec 7-103.A1 Loudoun ZO,). Loudoun County is the primary example for crafting this policy as they share the same legal basis for designing Affordable Units Ordinances as Albemarle per the VA State Code §15.2-2304. Their

standard sets a legal precedent, legality being something that Albemarle has been concerned over in the past (Kamptner, n.d.).

Rezoning and developments attempting to request density increases below 30% should be actively discouraged through the language of the Comp Plan and the Code of Ordinance, unless they proffer a greater share of affordable units than would be achieved under the full 20% increase⁵⁰. This language of acquiescence and discouragement are necessary as the Comp Plan is the guiding document for all County decisions. The current density bonus provision in the 2015 Affordable Housing Policy has been ineffective (producing less than 50 units) in large part because 30% density bonuses are inconsistent not only with current ZO but also with the intended future use as designated in the 2015 Comp Plan (CVRHP, 2021). If the Comp Plan designates a maximum potential future use in a parcel as less than what would be achieved utilizing a density bonus, then developers are likely not going to get their proposals past staff and the PC let alone get approved by the BOS. Thus Dr. Pethia must not only include language about density bonus rezoning policy in the Draft Affordable Housing Policy but work with other departments as they craft their Drafts to ensure that their language and designations align with the needs of this policy.

The members of the planning staff who will be designing the ZO are close colleagues of Dr. Pethia. Because affordable housing development is so influenced by zoning she must be able to weigh in on aspects of the ZO design. There is no regulation keeping her from participating in these ZO design meetings and the planning processes and she has previously stated that she intends to be involved in the ZO development.

⁵⁰ There will always be exceptions to the rules. See Loudoun County ZO Sec. 7-102D for how Loudoun County defines exceptions.

Dr. Pethia is not the only major player in the implementation of the proposed policies. Even for the Draft Policy to be passed it must be recommended by the PC and voted upon favorably by the BOS. The BOS and PC like the current Draft and had only minor notes at their last reviews of the Draft (PC, 2020; BOS, 2021). Additionally, when it comes to developers in the future, who would be the ones proffering affordable units, the actual approval of developments which would include affordable units is dependent on County planning staff, the PC, and the BOS. All affordable housing developed in Albemarle must ultimately be approved by the BOS; they hold all decision-making power.

Unfortunately, groups who would benefit the most from additional affordable housing in the County are those who cannot afford to live in the County. However, given the technical nature of this recommendation it is likely that the most vocal stakeholders will be local developers, including non-profit developers, and members of the BOS. While renters are ultimately the intended beneficiaries of affordable housing policies, developers are those most immediately impacted. Developers have expressed frustration at the lack of navigability of Albemarle's contradictory ZO, Comp Plan, and housing policies (CVRHP, 2021). A diligent process of aligning these policies and facilitating a robust incentive tied up with rezoning, a process developers of large projects are likely going to have to engage in anyway, would likely be supported by these groups.

The BOS are likely to be more hesitant. The BOS is frustrated that past affordable housing policies have produced little housing and for this reason may be hesitant of a redesign of the density bonus approach. Additionally, the BOS has repeatedly expressed an aversion to increasing density in many of the DAs urban neighborhoods. However, I believe these anxieties

can be calmed. It is important that Dr. Pethia explain to the BOS how inconsistencies in espoused affordable housing policy and actual future land-use designations within the Comp Plan were at fault for the ineffectiveness of density bonuses in the past. Additionally, the BOS could be agreeable to ZO designations that limit by-right development to 20% less dense than what the County is actually willing to allow. Under these provisions all of the most dense new residential developments would require approval by the BOS, likely limiting density throughout the DAs, and would include affordable housing.

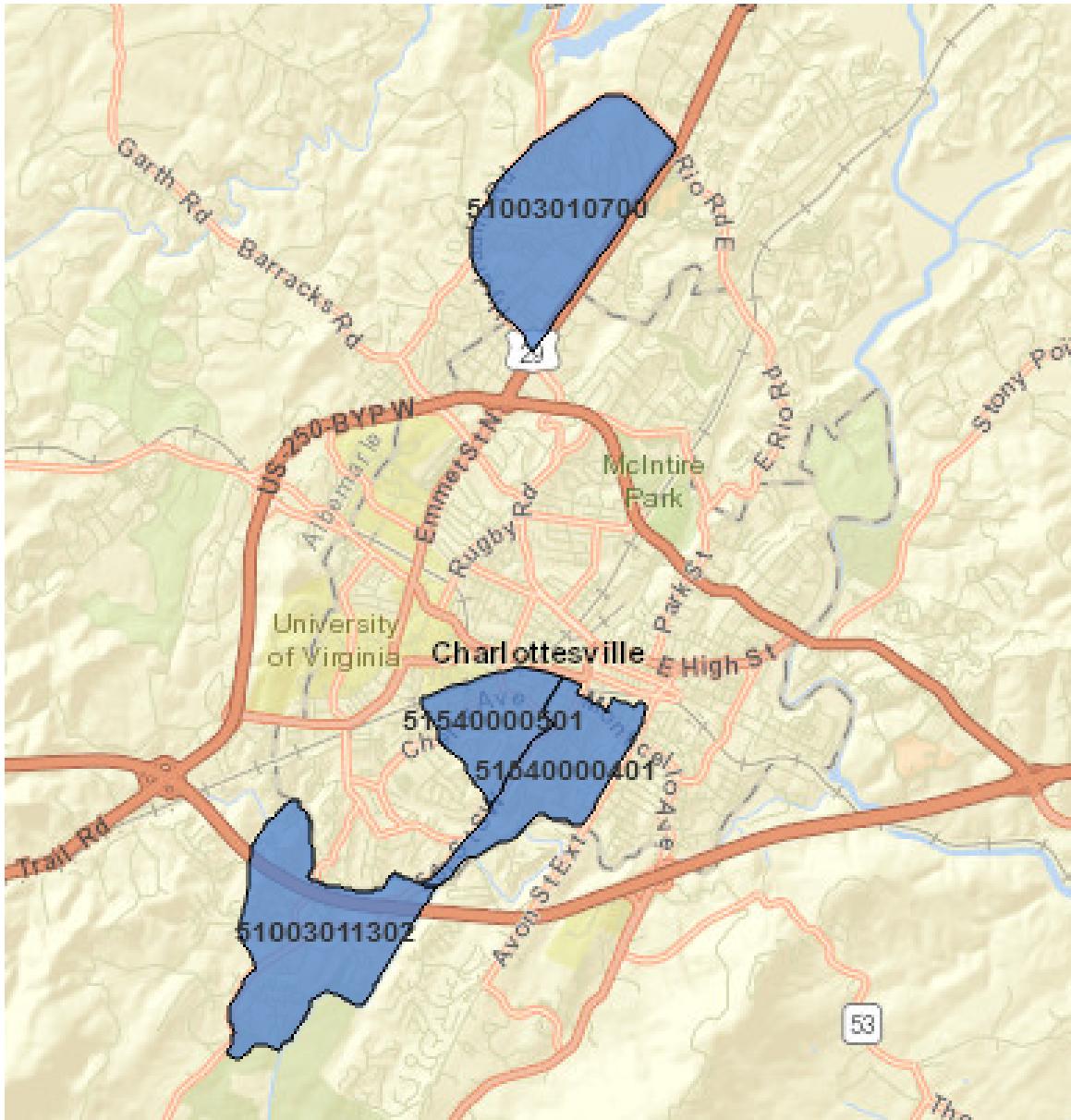
Translating the proposed policy recommendations into living and effective policy is in the hands of many beyond Dr. Pethia; much of the success of the policies she recommends are outside of her direct control. The best hope for success for these recommendations and all policies within the Draft are regular and continuous communication and partnership with other County planning staff and the BOS. Buy-in and actions from the BOS which match their espoused commitments to affordable housing will be needed in order for any affordable housing policies to succeed in Albemarle.

Conclusion

Rental households in Albemarle are spending between \$17,500,000 and \$50,700,000 more on housing than they cannot afford. Many of these households have little choice but to pack up and move out of the County altogether. This report recommends that Albemarle pursue extending the length of its affordable rent requirements and create a mandatory inclusionary zoning mechanism through combining two existing, but underperforming, systems. The estimated effect of these policies, working in tandem, is the creation of 795-1063 rental units between 2022 and 2040, affordable to households with incomes at the 60% AMI level. This would nearly double the County's stock of rental housing available at this price range and help hundreds of families better afford to live in Albemarle County.

Appendices

Appendix A: Map of Opportunity Zones in Albemarle County and Charlottesville City



(OpportunityDb, n.d.)

Appendix B: Scoring, Alignment of Alternatives With County Goals

Methodology

I went through each Goal, Objective, and Strategy of the 2015 Comprehensive Plan (Comp Plan) and the current Proposed Affordable Housing Policy to determine which Strategies were relevant to the alternatives proposed in this report. In each chart below I determine whether each alternative aligns with the relevant Strategy (YES), does not align with the Strategy (NO), is not related to the Strategy (N/A), or has mixed alignment (DEPENDS). Some Strategies are not relevant to every alternative. To make up for this, the Overall Score for each Goal is influenced only by relevant Strategies (N/As removed from calculation). Each alternative receives a total score between 0 and 1 for each Goal, except for the Housing Goals, which are weighted differently. This Goal score is equivalent to the proportion of YESs to NOs for relevant Strategies for that Goal. DEPENDS receive half points. For example, an alternative which aligns with all Strategies of a Goal would receive a score of 1 (out of 1). An alternative which aligns with one of four Strategies of a Goal would receive a score of 0.25. An alternative that aligns with two out of four strategies and whose alignment for one of the four strategies DEPENDS would receive a score of 0.625^{51} . Because the new Proposed Affordable Housing Policy is nearing the final months of drafting and has already been reviewed once by the PC and the BOS, a version very similar to the current draft is likely to be approved for implementation in the next Comp Plan. Thus I weighted the Goal as outlined in the Draft Housing Policy out of 2, rather than 1. However, the Goal of the previous Housing Policy from the 2015 Comp Plan should also be taken into account since the new policy has yet to be officially approved, so I have included it

⁵¹ $(1 + 1 + 0.5 + 0) / 4 = 0.625$

in this evaluation. Since it is likely to be replaced soon I weighted it less than other Goals with 0.5 as the maximum possible score. The OVERALL SCORE is calculated as all points received divided by all points possibly received.

Alternatives and Goals	Alternative 1: Expansion of Development Areas	Alternative 2: Lengthen Affordability Requirement	Alternative 3: Form Based Code	Alternative 4: Require IZ with Rezoning	Alternatives 1 + 2	Alternatives 2 + 4
Growth Management	0	1	1	1	0	1
Rural Area	0	1	1	0.5	0	0.5
Development Areas	0.5	0	1	1	0.5	1
Housing (2015) (Out of 0.5)	0.17	0.17	0.5	0.1	0.17	0.1
Housing (Draft) (Out of 2)	0.67	0.4	1.67	1.67	0.33	2
OVERALL	0.24	0.47	0.94	0.78	0.18	0.84

Growth Management: Albemarle's Development Areas will be attractive, vibrant, areas for residents and businesses, supported by services, facilities, and infrastructure. Growth will be directed to the Development Areas and the County's Rural Area with its agricultural, forestal, historic, cultural, scenic, and natural resources will be preserved for future generations.

Objectives	Strategies	1	2	3	4	1+2	2+4
<u>Objective 1:</u> Continue to consistently use the Growth Management Policy As the basis on which to guide decisions on land use, capital expenditures, and service provision.	<u>Strategy 1a:</u> Continue to encourage approval of new development proposals in the Development Areas as the designated location for new residential, commercial, industrial, and mixed-use development. Only approve new development proposals in the Rural Area that are supported by Rural Area goals, objectives, and strategies.	NO	YES	YES	YES	NO	YES

Rural Areas: Albemarle's Rural Area will have thriving farms and forests, traditional crossroads communities, protected scenic areas, historic sites, and preserved natural resources.

Objectives	Strategies	1	2	3	4	1+2	2+4
<u>Objective 2:</u> Protect and preserve natural resources,which include mountains, hills, valleys, rivers, streams, groundwater, and continuous and unfragmented land for agriculture, forestry, biodiversity and natural resource protection.	<u>Strategy 2a:</u> Direct residential development to and continue to make the Development Areas more livable, attractive places.	NO	YES	YES	DEPE NDS	NO	DEPE NDS

Development Areas: Albemarle's Development Areas will be vibrant active places with attractive neighborhoods, high quality, mixed-use areas, thriving business and industry, all supported by services, infrastructure, and multimodal transportation networks.

Objectives	Strategies	1	2	3	4	1+2	2+4
<u>Objective 1:</u> Use Master Plans to guide development and investment in each Development Area.	<u>Strategy 1c:</u> To the extent possible, create uniformity in format and land use categories in Master Plans.	N/A	N/A	YES	N/A	N/A	N/A
<u>Objective 2:</u> Create a physical environment that supports healthy lifestyles through application of the Neighborhood Model Principles.	<u>Strategy 2g:</u> Through Master Plans and rezoning approvals, ensure that all Development Areas provide for a variety of housing types and levels of affordability.	NO	N/A	YES	YES	NO	YES
	<u>Strategy 2i:</u> Through rezoning and special use permit decisions, ensure that affordable housing units are dispersed throughout the Development Areas rather than built in enclaves.	N/A	N/A	N/A	YES	N/A	YES
<u>Objective 6:</u> Promote infill and redevelopment that is compatible with surrounding neighborhoods and uses.	<u>Strategy 6b:</u> Use design and architectural techniques to help infill and redevelopment blend into existing neighborhoods, and, if needed, create guidelines for residents and developers.	N/A	N/A	YES	N/A	N/A	N/A
<u>Objective 7:</u> Create thriving, active employment and commercial areas.	<u>Strategy 7a:</u> Continue to ensure that sufficient developable land is available for future commercial and industrial development needs.	YES	NO	YES	YES	YES	YES

Housing (2015): Albemarle County's housing will be safe, decent, and sanitary; available to all income and age levels; located primarily in the Development Areas; and available equally to all current and future County residents

Objectives	Strategies	1	2	3	4	1+2	2+4
<u>Objective 3:</u> Ensure sufficient land area exists in the Development Area to accommodate future residential housing needs.	<u>Strategy 3a:</u> Continue to monitor the supply of land designated and zoned for residential use in the Development Areas to ensure adequate capacity for future populations.	YES	NO	YES	YES	YES	YES
<u>Objective 4:</u> Provide for a variety of housing types for all income levels and help provide for increased density in the Development Areas.	<u>Strategy 4a:</u> Through rezonings and special use permits, continue to ensure a mixture of housing types are provided that also support all income levels of County residents.	N/A	N/A	N/A	YES	N/A	YES
	<u>Strategy 4b:</u> Amend the ZO to provide for more opportunities to construct accessory units that will help diversify the housing supply as well as meet a portion of the County's affordable housing needs	N/A	N/A	YES	N/A	N/A	N/A
<u>Objective 6:</u> Provide affordable housing options for low-to-moderate income residents of Albemarle And those persons who work within Albemarle who wish to reside in Albemarle.	<u>Strategy 6a:</u> Provide guidance, resources, and incentives to non-profit and for-profit development and financing entities to increase the supply of affordable housing (both rental and owned) for households with incomes between 0% and 80% of AMI.	NO	NO	YES	YES	NO	YES
	<u>Strategy 6b:</u> Continue to ensure that at a minimum, 15% of all units developed under rezoning and special use permits are affordable,	N/A	N/A	YES	NO	N/A	NO

	as defined by the County's Office of Housing, or a comparable contribution be made to achieve the affordable housing goals of the County.						
	<u>Strategy 6f:</u> Where necessary, amend the ZO with relation to density and minimum lot size in residential districts to provide greater flexibility in the provision of affordable housing.	N/A	N/A	YES	N/A	N/A	N/A
	<u>Strategy 6g:</u> Continue to direct affordable housing activities to the designated Development Areas.	NO	YES	YES	YES	NO	YES

Objectives	Strategies	1	2	3	4	1+2	2+4
<u>Objective 1:</u> Increase the supply of housing to meet the diverse housing needs of all current and future Albemarle residents.	<u>Strategy 1a:</u> Allow, encourage, and incentivize a variety of housing types (such as bungalow courts, triplexes and fourplexes, accessory dwelling units, live/work units, tiny homes, and modular homes); close to job centers, public transit and community amenities; and affordable for all income levels; and promotes increased density in the Development Areas.	NO	N/A	YES	YES	NO	YES
<u>Objective 2:</u> Increase the supply of long-term affordable and workforce rental housing in Albemarle	<u>Strategy 2a:</u> Promote Affordable and workforce rental housing development and preservation. <u>Strategy 2b:</u> Provide incentives to increase production of affordable rental housing.	N/A	NO	YES	YES	NO	YES

	<u>Strategy 2d:</u> Develop mechanisms, such as deed restrictions, to ensure affordable rental units developed utilizing County incentives remain affordable for a minimum of 30 years with the long-term goal of creating a stock of permanently affordable rental housing units.	N/A	YES	YES	NO	YES	YES
<u>Objective 8:</u> Reduce regulatory barriers to affordable and workforce housing production.	<u>Strategy 8c:</u> Ensure all future zoning text amendments and zoning map amendments support the construction of innovative housing types and creative infill development projects to help provide for increased density in the Development Areas	NO	NO	YES	YES	NO	YES
<u>Objective 12:</u> Promote healthy, sustainable communities and housing.	<u>Strategy 12a:</u> Promote mixed-income development throughout the County's Development Areas.	NO	NO	YES	YES	NO	YES

Appendix C: Cost-Analysis

For all details on calculations see [this spreadsheet](#). All cost estimates are in 2021 dollars.

Expansion of the Development Areas

There are three direct costs to expanding the Development Areas:

- The additional burden of new students on Albemarle County Public Schools (ACPS):
 - This cost would be long term and permanent.
 - Albemarle County would bear the burden of these costs.
 - The costs of additional students from the development of these areas would be an estimated \$815,000-\$3,200,000 each year. However, this cost would not happen all at once but would grow gradually until reaching this amount as the areas develop and more families move in.
- The costs of new transportation and utility infrastructure
 - The brunt of these costs would be in the short-term although there would be perpetual costs to upkeep infrastructure
 - Costs to construct new roads and improve (pave) old roads would fall to VDOT, not the County.
 - Costs to expand utility infrastructure, namely sewer, would fall on developers, not the County.
 - Developers would ultimately spend approximately \$6,600,000 to expand sewer services to all units in the proposed neighborhoods.
 - Developers would ultimately spend approximately \$670,000 to hook up new units to existing water infrastructure.

- The costs of new infrastructure and maintenance:
 - This policy would impact all residential construction in the proposed additions, not just affordable housing and not just rental housing. Their incorporation into the County's DAs would increase the populations in these neighborhoods by 456-2627 people between 2022 and 2040.
 - The brunt of these costs would be long-term as infrastructure is in perpetual need of updating and upkeep.
 - The costs to County public spending, in 2040, of the additional population from this policy would be between \$350,000-\$2,000,000. Between 2022 and 2040 costs would increase (or decrease) until reaching these amounts.

In addition, there are a number of indirect costs:

- From the expansion of transportation infrastructure:
 - There will be increased congestion due to construction, at least in the short term.
 - Local streams and other waterways could be polluted by construction materials.
 - Busier and larger roads may be less safe and convenient for bikers and joggers.
 - An increase in paved surfaces, roads and driveways/parking lots, would increase runoff and watershed pollution.
- From the expansion of sewer infrastructure:
 - There would be soil erosion from the construction process.
 - Increased burden on sewer infrastructure reduces capacity for the rest of the Development Areas.
- The character of these rural neighborhoods would change.

The combination of this policy with the extension of affordability length requirements would not incur any additional direct or indirect costs to the County. See the section below on Extension of Affordability Length Requirement for details.

Extension of Affordability Length Requirement

There is only one direct costs to extending affordability length requirements:

- The increased costs of affordable unit construction on Developers:
 - The cost for developers to build affordable units would increase as their affordable units would have to be kept affordable longer.
 - Because the County generally does not approve of redevelopment requests that do not include units affordable to at least 80% AMI, redevelopment generally would be disincentivized and decrease.
 - Less units being constructed would increase demand for current units and thus price.
 - The increased costs for developers would be transferred to renters and in neither case would be born by the County.

There are no significant indirect costs associated with this policy.

Form Based Code

There are two direct costs to creating a Form Based Code:

- The cost to adapt the Rio29 Overlay to the entire Development Area:
 - This cost would be short term, concerning development rather than implementation of the policy.
 - This cost would be borne by the County.

- Staff could spend time working on other projects if they were not working on the development of a County-wide FBC.
 - The estimated costs in staff time of developing a FBC overlay for the entire County are between \$5,300,000 and \$8,800,000.
- The cost to incorporate affordable units into developments:
 - This cost would be borne by developers.
 - For developments that would currently require rezoning 15% of units are already required to be set aside at 80% AMI. Under this policy the standard set aside would increase to 20% at 60% AMI.
 - Redevelopment generally would be disincentivized and decrease.
 - Less units being constructed would increase demand for current units and thus price.
 - The increased costs for developers would be transferred to renters and in neither case would be born by the County.

In addition, there is a possible indirect cost:

- The character of many urban neighborhoods may change.

Mandatory Density Bonuses

There are several direct costs to Mandating Density Bonuses:

- The additional burden of new students on Albemarle Public schools:
 - This cost would be long term and permanent.
 - Albemarle County would bear the burden of these costs.
 - The costs to ACPS, in 2040, of additional students from this policy would be between a decrease in annual spending of \$3,400,000 and an increase in spending up to

\$18,000,000. Between 2022 and 2040 costs would increase (or decrease) until reaching these amounts.

- The costs of new infrastructure and maintenance:
 - This policy would impact all residential construction in the County's DAs, not just affordable housing and not just rental housing. It is likely that this policy would increase densification in the DAs, leading to a population increase of up to an additional 10,000 people by 2040⁵² (see Assumptions tab of Costing spreadsheet). This policy could, alternatively, slightly decrease development and lead to population growth of slightly below current construction trends.
 - The brunt of these costs would be long-term as infrastructure is in perpetual need of updating and upkeep.
 - Costs to construct new roads and improve (pave) old roads would fall to VDOT, not the County.
 - Costs to expand utility infrastructure would fall on developers, not the County.
 - The costs to County public spending, in 2040, of the additional population from this policy would be between a decrease in annual spending of \$1,400,000 and an increase in spending up to \$7,700,000. Between 2022 and 2040 costs would increase (or decrease) until reaching these amounts.

In addition, there are a number of indirect costs:

- The character of many neighborhoods in the DAs would change.
- The cost of adapting to the system.

⁵² On top of the population increase that would have been seen considering current construction trends.

- This cost is borne by the developers who must learn to navigate the new system.
 - This would be a short-term cost as developers would learn to adapt and no longer be stymied by the unfamiliarity of the process.
- From the expansion of population growth:
 - There will be increased congestion due to construction and more people being on the road.
 - Local streams and other waterways could be polluted by construction materials and runoff from paved surfaces.
 - Roads may be less safe and convenient for bikers and joggers.

The combination of this policy with the extension of affordability length requirements would not incur any additional direct or indirect costs to the County. See the section above on Extension of Affordability Length Requirement for details.

Appendix D: Proposed Neighborhoods to be Added to the DA

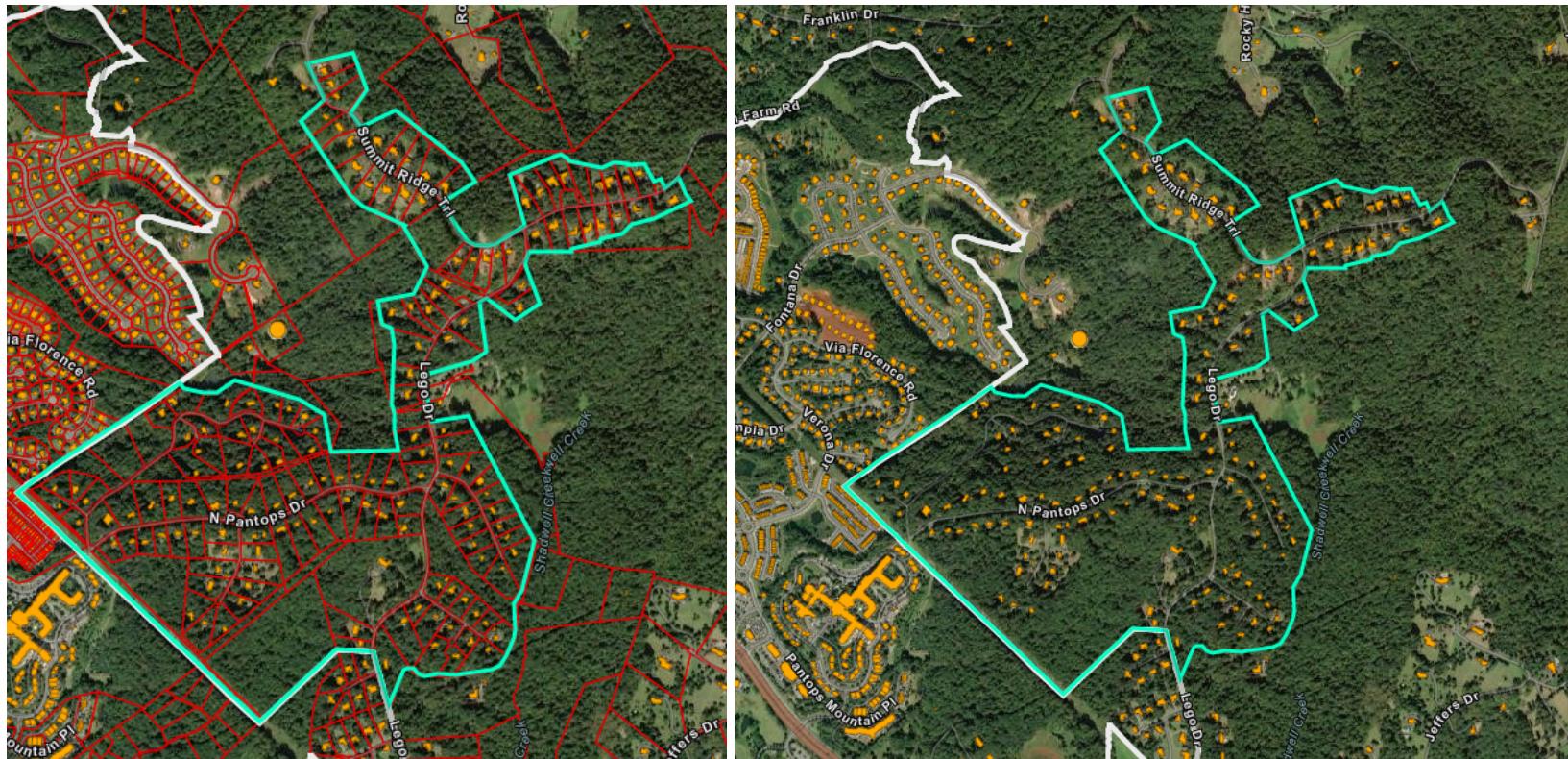


Key West Dr. - Explorers Rd Neighborhood

Approximately 448 Acres

Currently part of Rural Area 2

Currently approx 210 SFD units



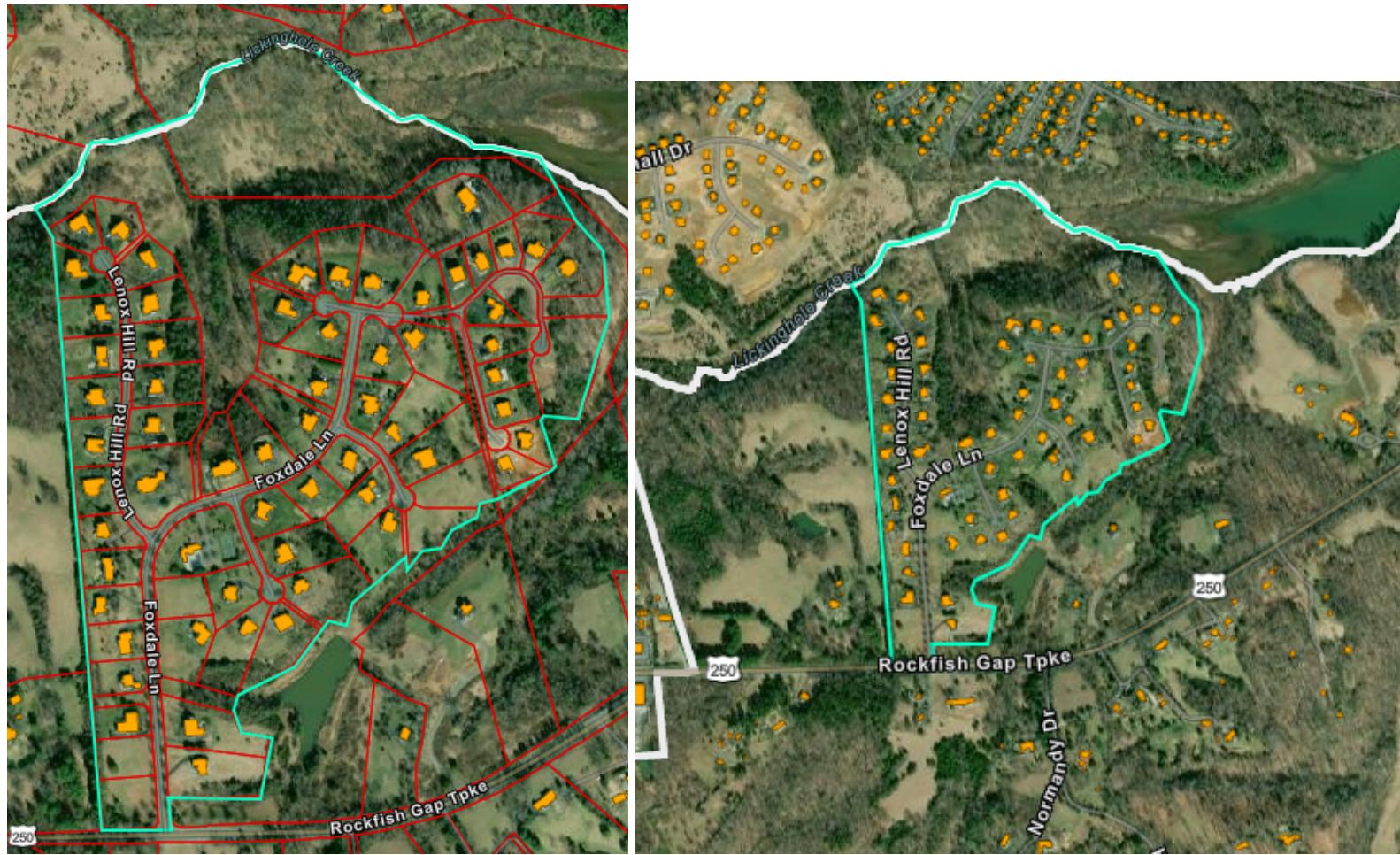
Ridge Trl. Neighborhood
Approximately 279 acres
Currently part of Rural Area 2



Thurston Dr. and Buck Rd. Neighborhoods

Approximately 170 acres

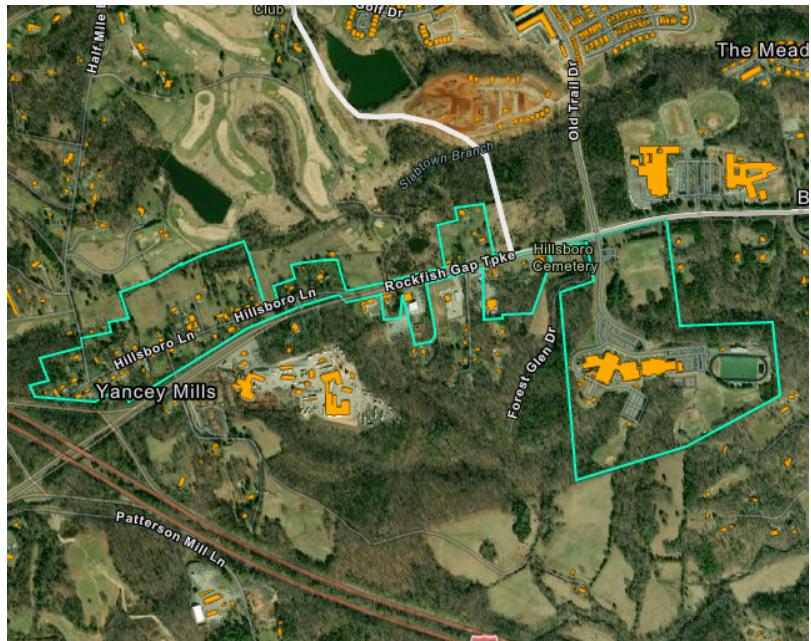
Currently part of Rural Area 3



Foxdale Ln. Neighborhood
Approximately 110 acres
Currently part of Rural Area 3



Terrybrook Dr. Neighborhood
Approximately 70 acres
Currently part of Rural Area 2



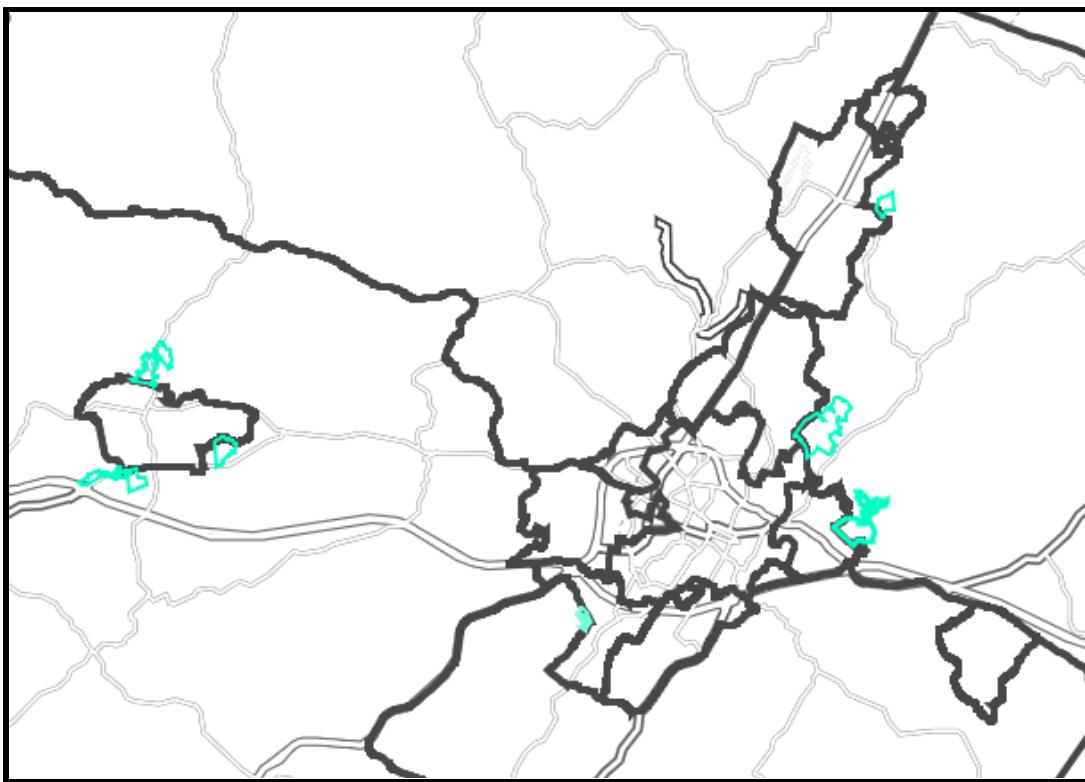
Western Albemarle High School and Yancy Mills

Approximately 65 acres excluding Western Albemarle High School

Currently part of Rural Area 3



Fieldstone Rd. Neighborhood
Approximately 33 acres
Currently part of Rural Area 4



Crozet: 2,883 acres

Piney Mountain: 682 acres

Hollymead: 4,508 acres

Rivanna Village: 1,730 acres

Neighborhood 1: 1,183 acres

Neighborhood 2: 2,981 acres

Neighborhood 3: 1,513 acres

Neighborhood 4: 2580 acres

Neighborhood 5: 2042 acres

Neighborhood 6: 2,808 acres

Neighborhood 7: 892 acres

Total Current DA: 23,820 acres

Total Proposed Additions:

1,175 acres or the equivalent of 5% of the current DA

Overlays created using ArcGIS. Acreage calculated using ArcGIS.

Appendix E: Sec. 20C.12 of the Albemarle County Code

“Sec. 20C.12 - Affordable housing requirement.

A. Affordable housing requirements generally.

1. Affordable housing in the Rio29 FBC District is governed by the Albemarle County Affordable Housing Policy and the standards of this section.
2. Affordable housing requirements may be met by provision of owner-occupied affordable housing, rental affordable housing, or a combination of the two, as approved by the Agent.

B. Affordable housing requirement (owner-occupied). Each development containing five or more owner-occupied residential dwelling units under the Rio29 FBC must provide at least:

1. 20% affordable housing units at 80% of the area median income (AMI); or
2. 15% affordable housing units at 60% AMI; or
3. 10% affordable housing units at 50% AMI.

C. Affordable housing requirement (rental). Each development containing five or more rental residential dwelling units under the Rio29 FBC must provide at least:

1. 20% affordable housing units at 60% of the area median income (AMI);
2. 15% affordable housing units at 50% AMI; or
3. 10% affordable housing units at 40% AMI.

D. Anti-displacement and tenant relocation requirements. The following activities must comply with the Albemarle County Tenant Relocation Guidelines for Non-Federally Funded Residential Developments:

1. Redevelopment or rehabilitation of existing residential units;
2. Conversion of rental housing to non-residential use(s);
3. Demolition for rebuilding a site; and
4. Sale by contract where the contract requires an empty building.

E. Incentives. Additional affordable housing units above the requirement (section 20C.12.A.) may qualify for incentives.

1. Eligibility. Developments that provide at least five percent more affordable housing units than the required number of such units may qualify for one story of building height in addition to the maximum permitted in the Core and Flex character areas. Units must remain affordable at the AMI levels below for at least 30 years.

2. To qualify for this incentive, a development of owner-occupied residential dwelling units must include at least:

- a. 25% affordable housing units at 80% AMI;
- b. 20% affordable housing units at 60% AMI; or
- c. 15% affordable housing units at 50% AMI.

3. To qualify for this incentive, a development of rental residential dwelling units must include at least :

- a. 25% affordable housing units at 60% AMI;
- b. 20% affordable housing units at 50% AMI; or
- c. 15% affordable housing units at 40% AMI.”

References

- Albemarle County. (June 10, 2015). *Albemarle County Comprehensive Plan*.
- Albemarle County. (April, 2019). FY 2020 Adopted Budget.
- Albemarle County. (March, 2021). *Planning Commission Meeting 03 02 2021* [youtube video.] Retrieved March 30, 2021 from
<https://www.youtube.com/watch?v=5GPpqST83c&t=6779s>
- Albemarle County. (n.d.). *Housing*. Retrieved September 15, 2020 from
<https://www.albemarle.org/government/community-development/learn-more-about/housing>
- Board of Supervisors. (March 17, 2021). Regular Second Meeting [recorded meeting]. Albemarle County. Retrieved March 29, 2021 from
http://albemarle.granicus.com/player/clip/536?view_id=1&redirect=true
- Campbell, Colleen. (November, 2018). One and Done: Modeling a One-Time FAFSA. Center for American Progress. <http://hdl.handle.net/10919/89179>
- Central Virginia Regional Housing Partnership. (January, 2021). CVRHP's 2021 Spring Speaker Series [youtube video]. Thomas Jefferson Planning District Commission. Retrieved March 29, 2021 from <https://www.youtube.com/watch?v=1BQcItrhZiU>
- Eastman, Scott and Karding, Nicole. (January, 2019). *Fiscal Fact No. 630: Opportunity Zones: What We Know and What We Don't*. The Tax Foundation, Washington D.C. Retrieved December 4, 2020 from
<http://realnex.production.s3.amazonaws.com/ListingAttachment/748585/7311275.pdf>
- Economic Development Authority. (April, 2018). *Performance Agreement: Brookdale Partners LP*. Albemarle County.

Economic Development Authority. (July, 2019). *Agreement, County of Albemarle and Habitat for Humanity of Greater Charlottesville*. Albemarle County.

Grounded Solutions Network. (2020). Inclusionary Housing Database. Retrieve from
<HTTP://INCLUSIONARYHOUSING.ORG/MAP/>

Joint Center for Housing Studies of Harvard University. (2019). *The State of the Nation's Housing*. The President and Fellows of Harvard College.

https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_State_of_the_Nation_Housing_2019%20%281%29.pdf

Kamptner, Greg. (n.d.). *Enabling Legislation Summary* [unpublished manuscript]. Albemarle County Attorney's Office.

Knuppel, Andrew. (2019). 2019 Growth Management Report. Albemarle County.

Knuppel, Andrew. (March 4, 2020). "Current land use plan as of 5/21/2020, Albemarle County Comprehensive Plan." [layer]. Accessed March 1, 2021 at

<https://services2.arcgis.com/8k2PygHqghVehzy/arcgis/rest/services/AlbemarleCountyCompPlan/FeatureServer>

Knuppel, Andrew. (December, 2020b). *Watershed Moments in a Suburbanizing County: Environmentalism, Exclusion, and Land Use in Albemarle County, Virginia, 1960-1980*. University of Virginia, School of Architecture. Accessed March 10, 2020 at

<https://doi.org/10.18130/v3-efbt-dm30>

Leckington, Marc and Randall M. Gottesman. (2010). *Understanding UHAC: A guide to the uniform housing affordability controls for administrators of affordable housing*. Trenton, NJ: New Jersey Council on Affordable Housing

Lester, R., Evans, C., and Tian, H. (October 15, 2018). Opportunity Zones: An Analysis of the Policy's Implications. *TaxNotes, State & Local*, 90(3): 221-235.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3292423

Mintz-Roth, Jesse. (2008). *Long-term affordable housing strategies in hot housing markets*. Cambridge, MA: Joint Center for Housing Studies of Harvard University.

National Association of Home Builders. (August, 2019). *Inclusionary Zoning Primer*. Washington, D.C.

<https://www.nahb.org/-/media/NAHB/advocacy/docs/industry-issues/land-use-101/state-local-affordability/inclusionary-zoning-primer-082019.pdf>

National Low Income Housing Coalition. (2018). *Virginia*. Washington, DC. Retrieved October 19, 2020 from <https://reports.nlihc.org/gap/2018/va>

National Low Income Housing Coalition. (August 22, 2019). *Housing Needs in Rural America*. Washington, DC.

<https://nlihc.org/sites/default/files/Housing-Needs-in-Rural-America.pdf>

National Low Income Housing Coalition. (March, 2020). *The Gap:A Shortage of Affordable Homes*. Washington, DC.

https://reports.nlihc.org/sites/default/files/gap/Gap-Report_2020.pdf

National Low Income Housing Coalition. (November 10, 2020b). FY21 Budget Chart for Selected HUD and USDA Programs. Retrieved December 5, 2020 from

https://nlihc.org/sites/default/files/NLIHC_HUD-USDA_Budget-Chart.pdf?bust=2

Obrinsky, M., Stein, D. (March, 2007). *Overcoming Opposition to Multifamily Rental Housing*. Joint Center for Housing Studies Harvard University.

Office of Community Development. (2021). “Dashboard Developments 20200213” [csv data set]. Albemarle County. Retrieved March 29, 2021 from

<https://www.albemarle.org/government/community-development/view/development-dashboard>

OpportunityDb. (n.d.) *Opportunity Zones in Albemarle County, Virginia*. Esri, HERE, Garmin, NGA, USGS map tool, Accessed December 5, 2020 at

<https://opportunitydb.com/zones/51003010700/>

O'Regan, Katherine and Horn, Keren. (2013). What Can We Learn About the Low-Income Housing Tax Credit Program by Looking at the Tenants? *Housing Policy Debate*. 23(13) 597-613. <https://doi.org/10.1080/10511482.2013.772909>

Orton, Kathy and Schmidt, Samantha. (June 16, 2019). *In an old mobile-home park in Virginia, the residents get a say in the redevelopment*. The Washington Post. Retrieved December 4, 2020 from

https://www.washingtonpost.com/realestate/in-an-old-mobile-home-park-in-charlottesville-the-residents-get-a-say-in-the-redevelopment/2019/06/05/b3396420-8569-11e9-a491-25df61c78dc4_story.html

Pethia, Stacy. (2021a). *Affordable Units by Development Area* [unpublished manuscript]. Albemarle County Office of Community Development.

Planning Commission. (August 11, 2020). Planning Commission Meeting [recorded meeting]. Albemarle County. Retrieved March 29, 2021 from

<https://www.youtube.com/watch?v=EoIRnu5QiU4>

Planning Commission. (n.d.) *Planning Commission Retreat: Overview of Planning History in Albemarle* [ppt]. Albemarle County. Retrieved April 20, 2021 from <https://www.albemarle.org/home/showpublisheddocument/266/637202449461530000>

Rogers, P., Stevens, K., and Boymal, J. (2009) “Qualitative Cost-Benefit Evaluation of Complex, Emergent Programs, Evaluation and Program Planning.” 32(1), 83-90.

<https://doi.org/10.1016/j.evalprogplan.2008.08.005>

Schuetz, J., Meltzer, R., and Been, V. (2010). Silver Bullet or Trojan Horse? The Effects of Inclusionary Zoning on Local Housing Markets in the United States. *Urban Studies*, 48(2), 297-329. <https://doi.org/10.1177/0042098009360683>

Stevens, K., Rogers, P., and Boymal, J. (2008). *Evaluation of the Stronger Families and Communities Strategy, 2000-2004: Qualitative Cost Benefit Analysis*. RMIT University Circle.

Tax Policy Center. (May, 2020). *What is the Low-Income Housing Tax Credit and how does it work?* Urban Institute & Brookings Institute. Retrieved December 4, 2020 from <https://www.taxpolicycenter.org/briefing-book/what-low-income-housing-tax-credit-and-how-does-it-work>

Theodos, B., Hangen, E., Gonzalez, J., Meixell, B. (June, 2020). *An Early Assessment of Opportunity Zones for Equitable Development Projects*. Urban Institute. Retrieved December 5, 2020 from <https://www.urban.org/sites/default/files/publication/102348/early-assessment-of-opportunity-zones-for-equitable-development-projects.pdf>

United for ALICE. (2018). *Virginia - 2018 County Profiles: Albemarle*. United Way of Northern New Jersey. Retrieved November 30, 2020 from
<https://www.unitedforalice.org/county-profiles/virginia>

United For ALICE. (2020). ALICE in Virginia: A Financial Hardship Study, 2020 Virginia Report. United Way of Virginia. Retrieved December 3, 2020 from

https://www.unitedforalice.org/Attachments/AllReports/2020ALICEReport_VA_FINAL.pdf

University of Virginia. (n.d.) *Facts and Figures*. Retrieved April 20, 2021 from
<https://www.virginia.edu/facts/>

Urban Land Institute. (2016). *The Economics of Inclusionary Development*. Terwilliger Center for Housing, ULI. Washington, D.C.

<http://uli.org/wp-content/uploads/ULI-Documents/Economics-of-Inclusionary-Zoning.pdf>

U.S. Bureau of Labor Statistics. (2020). *Quarterly Census of Employment and Wages*. U.S. Department of Labor, U.S. Department of Labor Statistics.

U.S. Bureau of Labor Statistics. (n.d.). *CPI Inflation Calculator*. Retrieved February 17, 2021, from https://www.bls.gov/data/inflation_calculator.htm

U.S. Census Bureau. (1996). *Statistical Abstract of the United States: 1996, Appendix II*. Washington, D.C. 116th Edition. Accessed March 12, 2020 at

<https://www.census.gov/library/publications/1996/compendia/statab/116ed.html>

U.S. Census Bureau. (2010). *2010 American Community Survey 1-Year Estimates*. Washington, D.C.

U.S. Census Bureau. (2015). *2011-2015 American Community Survey 5-Year Estimates*. Washington, D.C.

U.S. Census Bureau. (2017). *2013-2017 American Community Survey 5-Year Estimates*.

Washington, D.C.

U.S. Census Bureau. (2018). *2015-2018 American Community Survey 5-Year Estimates*.

Washington, D.C.

U.S. Census Bureau. (2019). *2019 American Community Survey 1-Year Estimates*.

Washington, D.C.

U.S. Census Bureau. (2020). *LEHD Origin-Destination Employment Statistics*

(2002-2017). Washington, D.C.: Longitudinal-Employer Household Dynamics Program,

accessed on September 15, 2020 at <https://onthemap.ces.census.gov>. LODES 7.4

U.S. Census Bureau. (n.d.-a). Quickfacts, Albemarle County, Virginia. U.S. Department of Commerce, U.S. Census Bureau. Retrieved September 15, 2020 from

<https://www.census.gov/quickfacts/albemarlecountylouisiana>

U.S. Census Bureau. (n.d.-b). Quickfacts, Charlottesville City, Virginia. U.S. Department of Commerce, U.S. Census Bureau. Retrieved September 15, 2020 from

<https://www.census.gov/quickfacts/charlottesvillecityvirginia>

U.S. Department of Housing and Urban Development. (2018). FY 2018 Income Limits Summary. Retrieved March 29, 2020 from

<https://www.huduser.gov/portal/datasets/il/il2018/2018summary.odn>

U.S. Department of Housing and Urban Development. (2019). FY 2019 Income Limits Summary. Retrieved March 29, 2020 from

<https://www.huduser.gov/portal/datasets/il/il2019/2019summary.odn>

U.S. Department of Housing and Urban Development. (June 5, 2020). *Low-Income Housing Tax Credits*. Retrieved October 19, 2020 from

<https://www.huduser.gov/portal/datasets/lihtc.html>

Wang, B., Balachandran, S. (2021). *Inclusionary Housing in the United States*. Grounded Solutions Network.

Weldon Cooper Center for Public Services. (n.d.). Virginia Population Projections. University of Virginia, Weldon Cooper Center for Public Services. Retrieved September 15, 2020 from <https://demographics.coopercenter.org/virginia-population-projections/>

Virginia Economic Development Partnership. (2020). Community Profile: Albemarle County, Virginia. Virginia Employment Commission, Virginia Economic Development Partnership.

Virginia Housing. (June, 2020). *2020 Low Income Housing Tax Credit Program: Final Rankings*.

<https://www.vhda.com/BusinessPartners/MFDevelopers/LIHTCProgram/LowIncome%20Housing%20Tax%20Credit%20Program/2020%20Final%20Rankings-%20Board%20Approved.pdf>

Virginia Housing.. (March, 2021). *Current Tax Credit Properties*.

<https://www.vhda.com/BusinessPartners/MFDevelopers/LIHTCProgram/LowIncome%20Housing%20Tax%20Credit%20Program/Tax%20Credit%20Property%20Listing%2003-2021.xlsx>

Ziller, A. and Phibbs, P. (2003) “Integrating social impacts into cost-benefit analysis: a participative method: case study: the NSW area assistance scheme, Impact Assessment and Project Appraisal.” 21:2, 141-146. <https://doi.org/10.3152/147154603781766365>