Student Enrollment Analysis and Projections for Albemarle County Schools

Prepared for Albemarle County Public Schools
December 14, 2016

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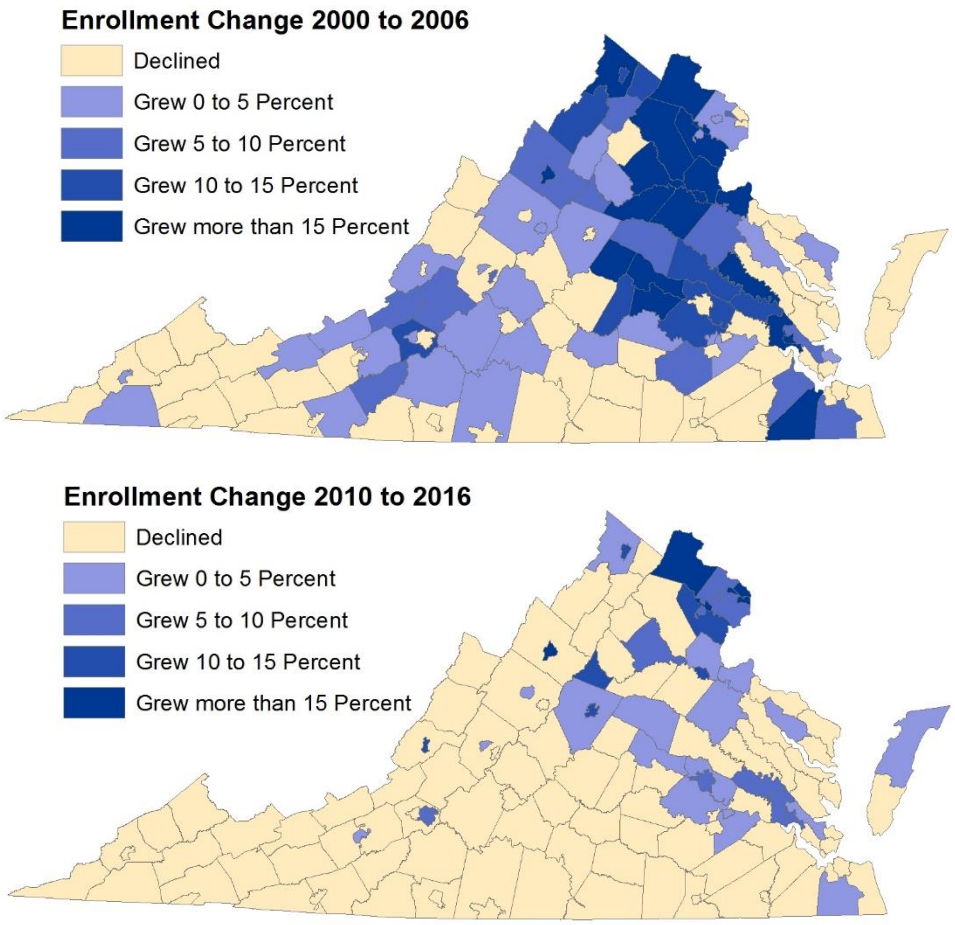
I. Student Enrollment Trends

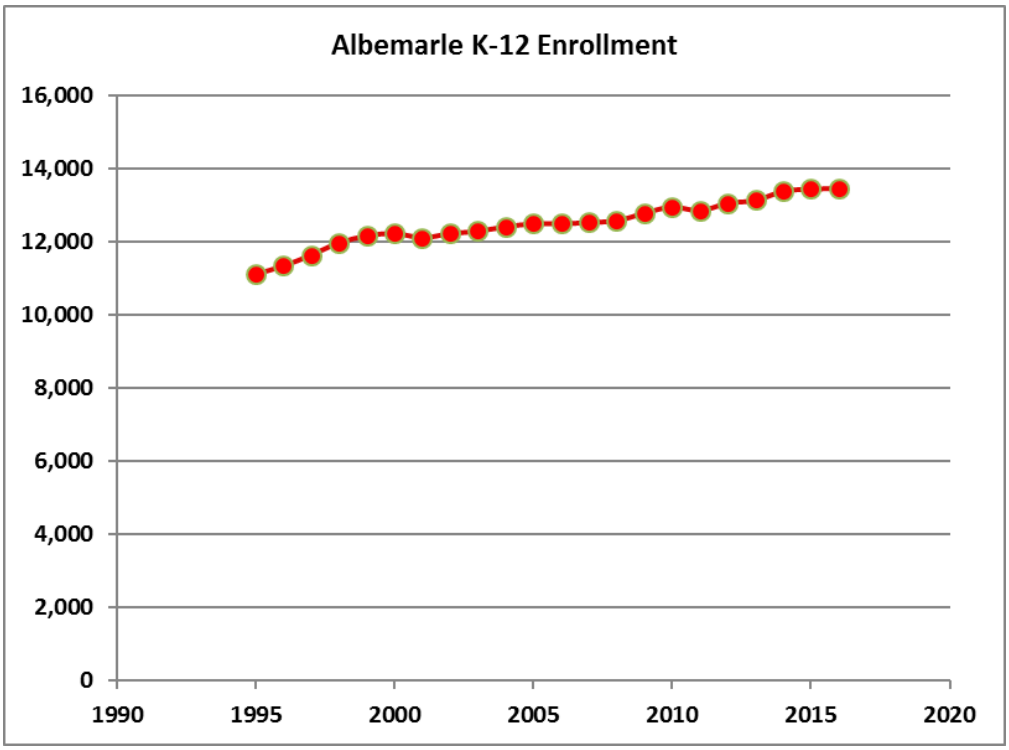
Enrollment in Albemarle County Public Schools has gradually continued to increase while student enrollment in most neighboring school divisions is declining. However, unless the number of families moving into the county surges, Albemarle's enrollment is likely to stop growing by the end of the decade.

Statewide, public school enrollment is growing more slowly this decade than last. While enrollment grew by 5.4 percent between 2000 and 2006, it has grown by only 3.2 percent so far this decade. This trend is also reflected in Virginia's school divisions. Student enrollment increased in most divisions between 2000 and 2006, but since 2010, enrollment has declined in 94 of Virginia's 133 counties and cities.



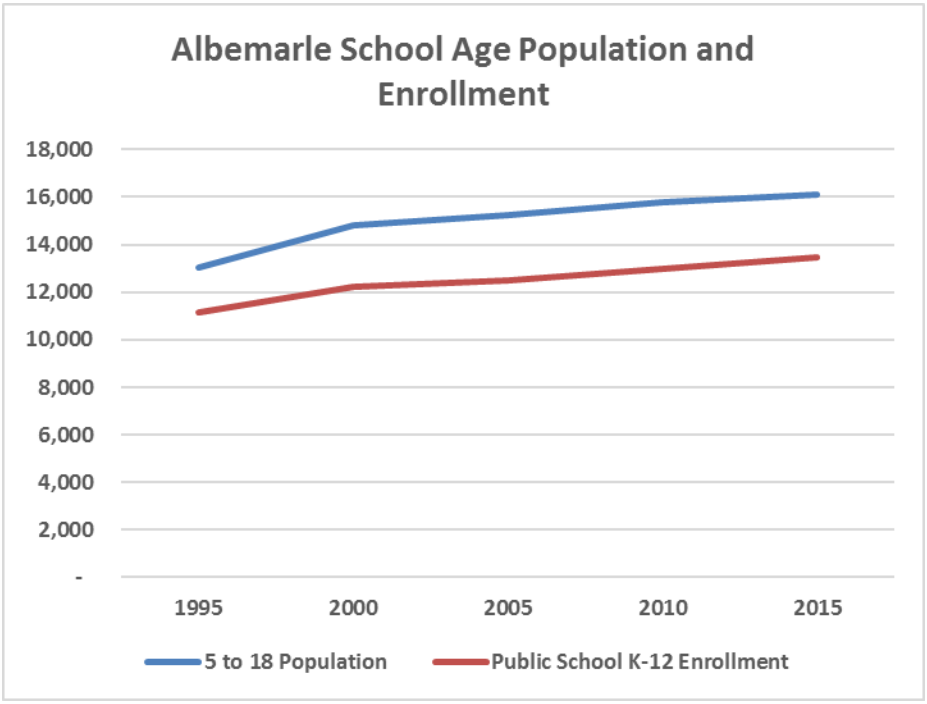
Source: Virginia Department of Education, Fall Count.

The change in enrollment trends from the last decade to this one is most noticeable in many of Virginia's smaller metropolitan areas, such as Blacksburg, Lynchburg, Roanoke and Staunton, where student enrollment grew between 2000 and 2006, but has been declining so far this decade. Exceptions to this trend are Albemarle County and the Charlottesville Metropolitan Area, where student enrollment has continued to grow this decade.



Source: Virginia Department of Education, Fall Count

Like most school divisions in Virginia, growth in Albemarle's public school enrollment has closely followed growth in the division's school-age population.

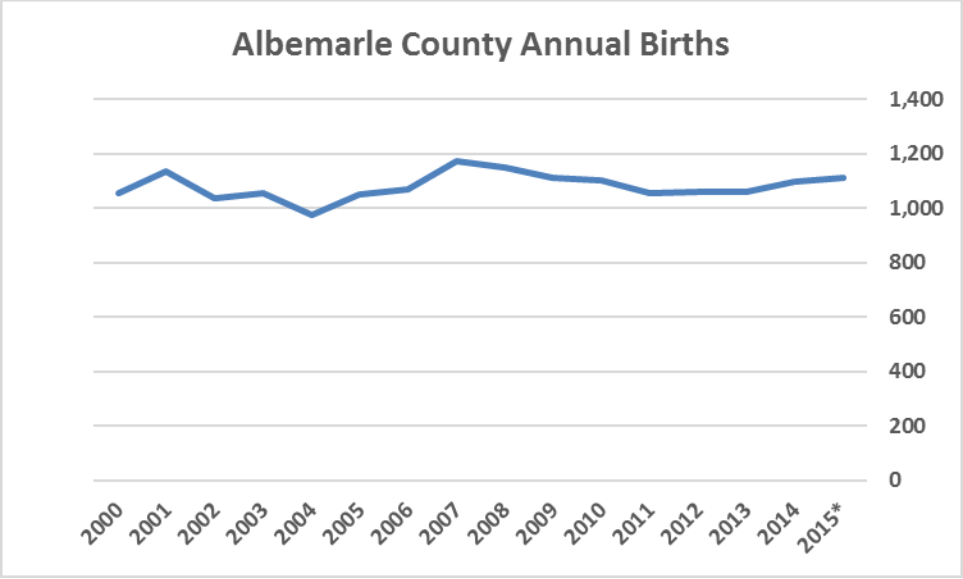


Source: Virginia Department of Education, Fall Count. Census Bureau County Age Estimates

See the Appendix B for annual birth counts by elementary school attendance zones.

Albemarle's school-age population has grown since the recession, in large part, due to the region's relatively healthy economy. Unlike most other small metro areas in Virginia, Albemarle did not experience as large a decline in births during the recession and the region continued to attract families.

However, as the chart below shows, the annual number of births in Albemarle County is not much higher than it was a decade ago. This means that incoming kindergarten classes will likely remain smaller in Albemarle for the rest of the decade, and in fact, Albemarle has already seen a decline in kindergarten enrollment in the past two years. As these smaller student cohorts advance through the lower grades, replacing larger classes, Albemarle's enrollment growth will likely slow.



Source: Virginia Department of Health

**2015 Birth Counts are preliminary.*

After 2020, Albemarle will likely experience more growth in enrollment, in part, because the number of births in the division and across Virginia should begin to rise. Currently, the national birth rate is at a record low, so a small rebound in births is likely over the next few years. Even if birth rates remain low, the number of births should increase as the number of women between 15 and 44 is projected to grow by 5 percent in Virginia and 8 percent in Albemarle County (according to the University of Virginia Weldon Cooper Center) by 2020. Additionally, by 2020, the majority of the large millennial cohort will be within most common age range to have children (25 to 35), further boosting the number of births.

II HOUSING IN ALBEMARLE COUNTY

As a result of population changes in Albemarle County over the last decade, the number of students per dwelling unit has declined. In addition, more families are living in townhomes and mobile homes rather than detached single-family homes, which are typically more expensive.

Though Albemarle's school-age population has increased more slowly in recent years, the rest of Albemarle's population has continued to grow at a rate much faster than Virginia as a whole. Over the last ten years, Albemarle's school-age population grew by 5 percent while the county's adult population grew by 20 percent.

As a result, Albemarle's housing stock has also expanded at a faster rate than Albemarle's school-age population, which has further resulted in a decline in the number of students per dwelling unit.

The number of students living in detached single-family homes, which make up three/fifths of Albemarle's housing stock, has decreased. The student generation rate (the number of public school students living in detached single-family homes divided by the total number of detached single-family homes in Albemarle) declined from .4 per home in 2006 to .35 in 2016. However, the number of students per dwelling unit has increased slightly for attached single-family homes and multi-family units and significantly for townhomes and mobile homes.

The Number of Albemarle County Public School Students Generated by Housing Type

2006

Type of Dwelling Unit	Elementary	Middle	High	Total
Single Family Detached	0.16	0.11	0.13	0.40
Single Family Attached	0.12	0.07	0.06	0.25
Town Home	0.13	0.04	0.03	0.20
Multi-Family	0.12	0.04	0.03	0.19
Mobile Home	0.20	0.09	0.10	0.39

2016

Type of Dwelling Unit	Elementary	Middle	High	Total
Single Family (Detached)	0.15	0.08	0.12	0.35
Single Family (Attached)	0.13	0.05	0.08	0.26
Town Home	0.15	0.06	0.08	0.29
Multi-Family	0.12	0.03	0.05	0.21
Mobile Home	0.26	0.10	0.11	0.46

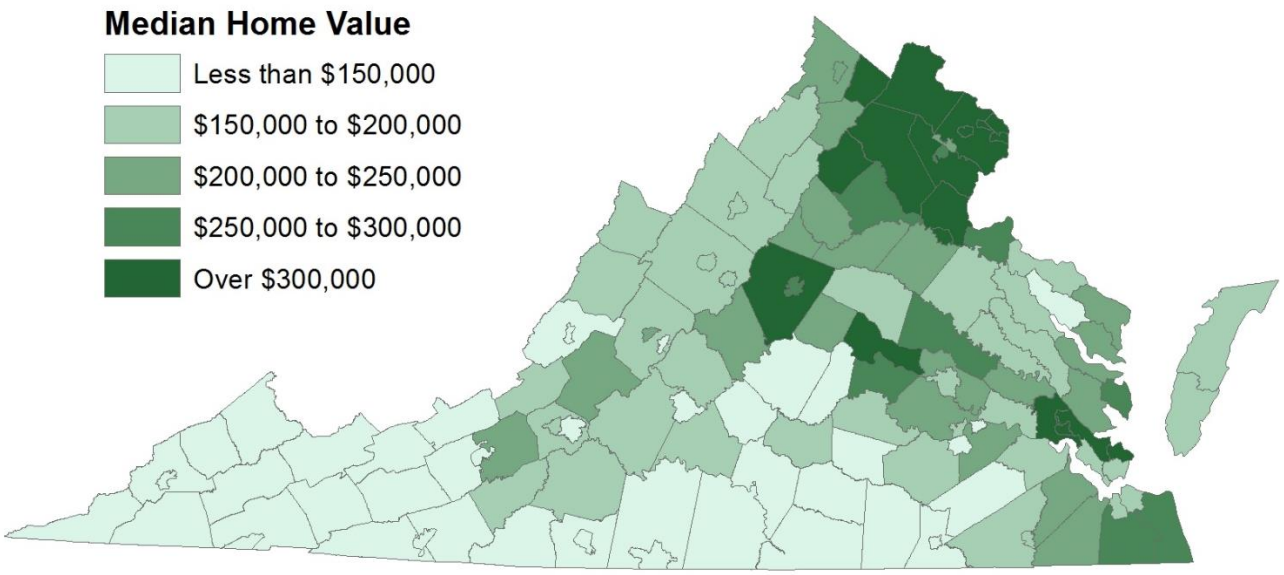
Source: The 2006 Student Generation Rates were provided by Albemarle County. The 2016 Student Generation Rates were calculated using Albemarle County's Student Residence Addresses and Albemarle County's Real Estate Records.

2016 student generation rates by housing type for elementary attendance zones and planning areas are available in the Appendix D and E.

Demographic trends, in part, explain why student generation rates have changed across Albemarle's housing types, but economic trends have also had a large impact on student generation rates in Albemarle. Similar to birth rates, the national homeownership rate has declined to a 50-year low due to the continued impacts of the recession. More families are choosing to rent rather than to buy homes, which has led to an increase in the number of public school students living in townhouses and multi-family units, which typically offer more rental opportunities than detached or attached single-family homes. In addition, there has been a significant rise in the number of public school students living in mobile homes - which make up the smallest share of Albemarle's housing unit types – because, in part, they are often the most affordable housing available for families. In

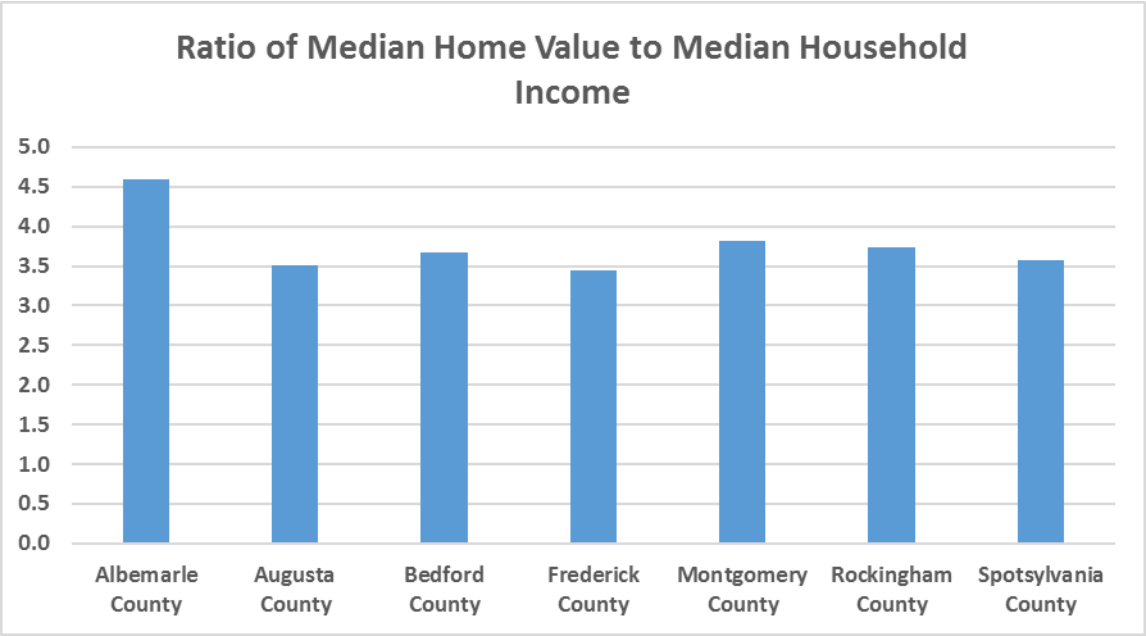
contrast, since 2007, there has been a decline in the number of public school students living in Albemarle's four rural areas, where the housing stock is predominantly owner-occupied, older single-family units.

The type of home a family can afford has a major impact on student enrollment in divisions throughout Virginia. The most recent recession only intensified this trend. In many of Virginia's cities, which typically have a more affordable mix of housing to buy or rent, student enrollment has grown faster than in neighboring counties since the recession. In Charlottesville, student enrollment declined before the recession, but since 2010, Charlottesville's enrollment has grown faster than in Albemarle County. Alexandria, Richmond and Roanoke have all experienced similar enrollment trends, which can be seen in the first two maps of this report.



Source: Median Value of Owner-occupied housing units, Census Bureau 2015 American Community Survey

Housing affordability is even more of a challenge for families in Albemarle County than in most of Virginia. Albemarle County is the only locality outside Virginia's Urban Crescent where the median home value is above $300,000. While the typical household in Albemarle also earns more than households in neighboring counties, Albemarle's median household income is lower than other counties with a median home value above $300,000. As a result, in 2015, Arlington and Fairfax were the only Virginia counties that had a higher ratio (6.1 and 4.8, respectively) of home values to household incomes than Albemarle County.



Source: Census Bureau 2015 American Community Survey

Though the recession caused more families to move into Charlottesville and the parts of Albemarle County with a large mix of rental homes, IRS migration data shows that before the recession, families often moved to neighboring counties to buy affordable homes. Between 2000 and 2006, for example, growth in student enrollment in Fluvanna, Louisa, Orange and Greene outpaced enrollment growth in Albemarle. Since the recession, a large number of workers still commute into the county from other parts of the metro area and neighboring counties. The most current commuting data available from 2013 shows that Albemarle and Charlottesville attract a larger share of their workers from nearby counties (28 percent) than core localities do in similar-sized metro areas in Virginia, such as Blacksburg (20 percent), Harrisonburg (16 percent) and Lynchburg (15 percent).

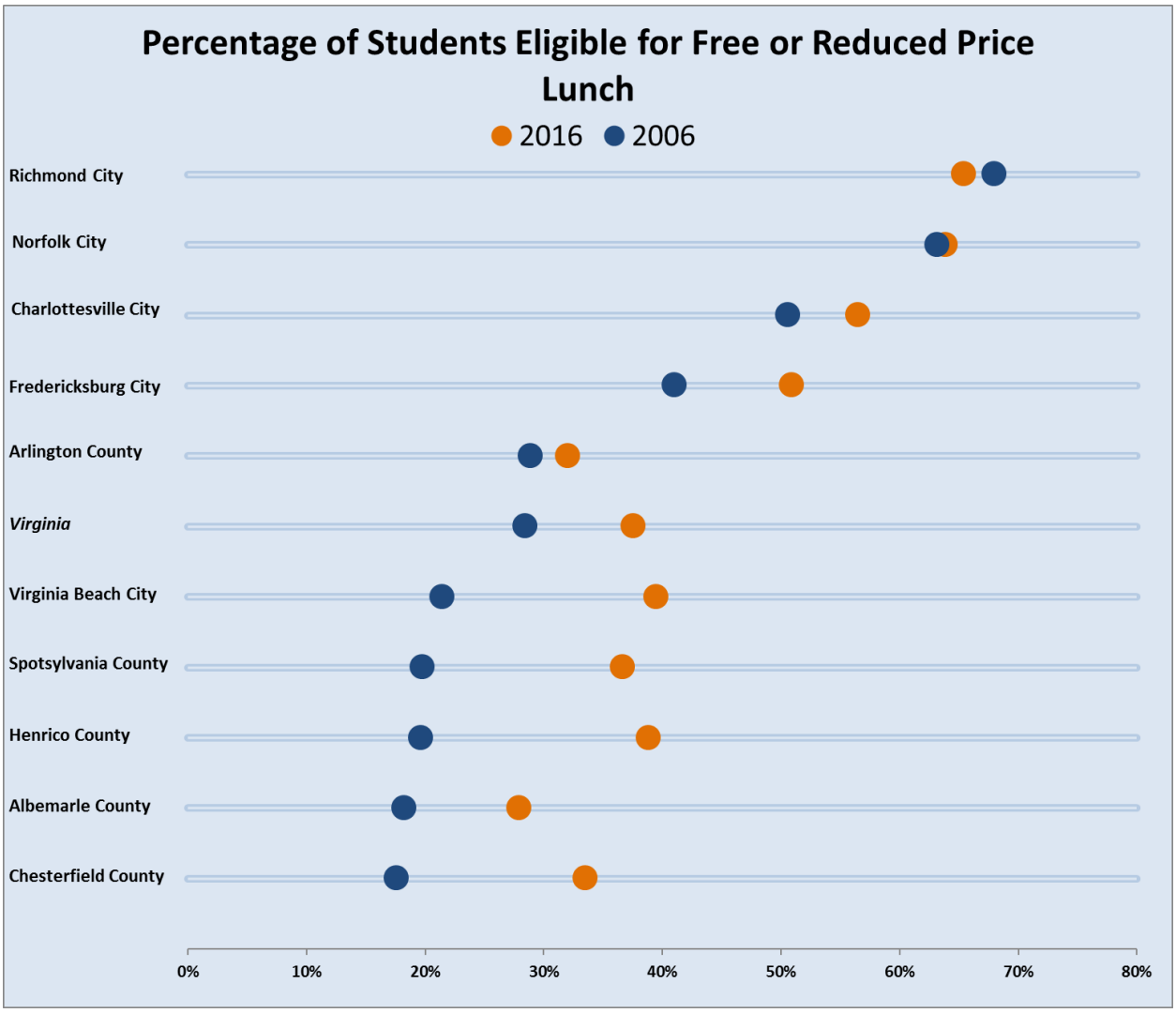
Understanding the demographic and housing dynamics in Albemarle and the rest of metro area is necessary to accurately use student generation rates by housing type to predict future enrollment changes. If more affordable single-family housing is built in Albemarle County, the student generation rate could rise, as more families who would have otherwise moved to neighboring counties buy homes in Albemarle County instead. Similarly, the majority of the projected growth in the U.S. and Virginia's population over the next decade is expected to be among the population older than 65. With an aging population, Albemarle' student generation rate per housing unit should overall be expected to continue to gradually decline.

III. STUDENT POVERTY IN ALBEMARLE COUNTY

Albemarle County, like most of Virginia's predominantly suburban counties, is experiencing the highest levels of student poverty in decades. The relative depreciation of home values in many aging subdivisions has caused student poverty rates to grow rapidly in some of Albemarle County's inner suburbs. Though Virginia's student poverty rate *should* continue to decline as the economy recovers, Albemarle County's *may not* decline due to its aging suburbs.

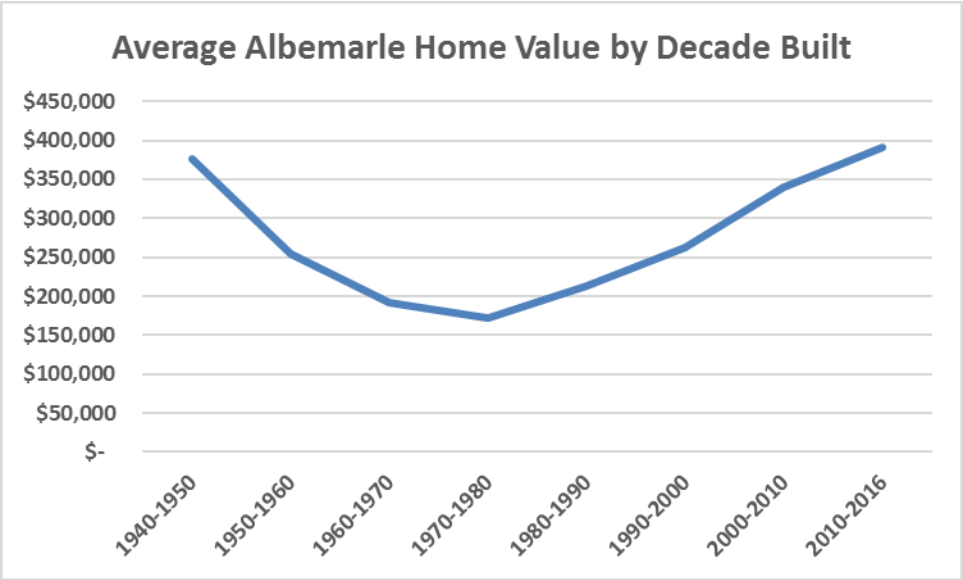
Albemarle County's housing stock also has a large impact on the share of its students that are eligible for free or reduced-price lunch. Many families with incomes that qualify their children for free or reduced-price lunch also find themselves living in areas where affordable housing is available. In 1970, when Albemarle County was still primarily a rural county with a large share of older and less expensive housing, the poverty rate for families with children was 13 percent compared to 9 percent in Charlottesville. After Charlottesville stopped annexing new subdivisions in the county, Albemarle's population grew rapidly during the 1970s and 1980s. Many families who could afford to buy new and more expensive homes moved into the county's suburbs, and as a result, Albemarle's population grew by 80 percent during those two decades. By 1990, the poverty rate for families with children in Albemarle County had fallen to below 5 percent, while in Charlottesville it grew to 10 percent.

Since the mid-2000s, the percentage of Albemarle students eligible for free or reduced-price lunch has steadily risen, from 18 percent in 2006 to 28 percent in 2016. However, in many parts of the county that experienced rapid growth in the 1970s and 1980s, such as in the attendance zones for Agnor Hurt, Greer and Woodbrook Elementary Schools, the percentage of students eligible for free or reduced-price lunch has grown much more quickly than in the rest of the county. Across Virginia, many other suburban school divisions that grew rapidly in the post-World War II period have also experienced a steady rise in the percentage of students eligible for free or reduced-price lunches, despite the fact that the statewide percentage has been declining as the economy continues to recover. In suburban Chesterfield and Henrico Counties, for example, the percentage of students eligible for free or reduced-price lunches has risen by 16 and 19 percentage points respectively.



Source: Virginia Department of Education, Fall Count.

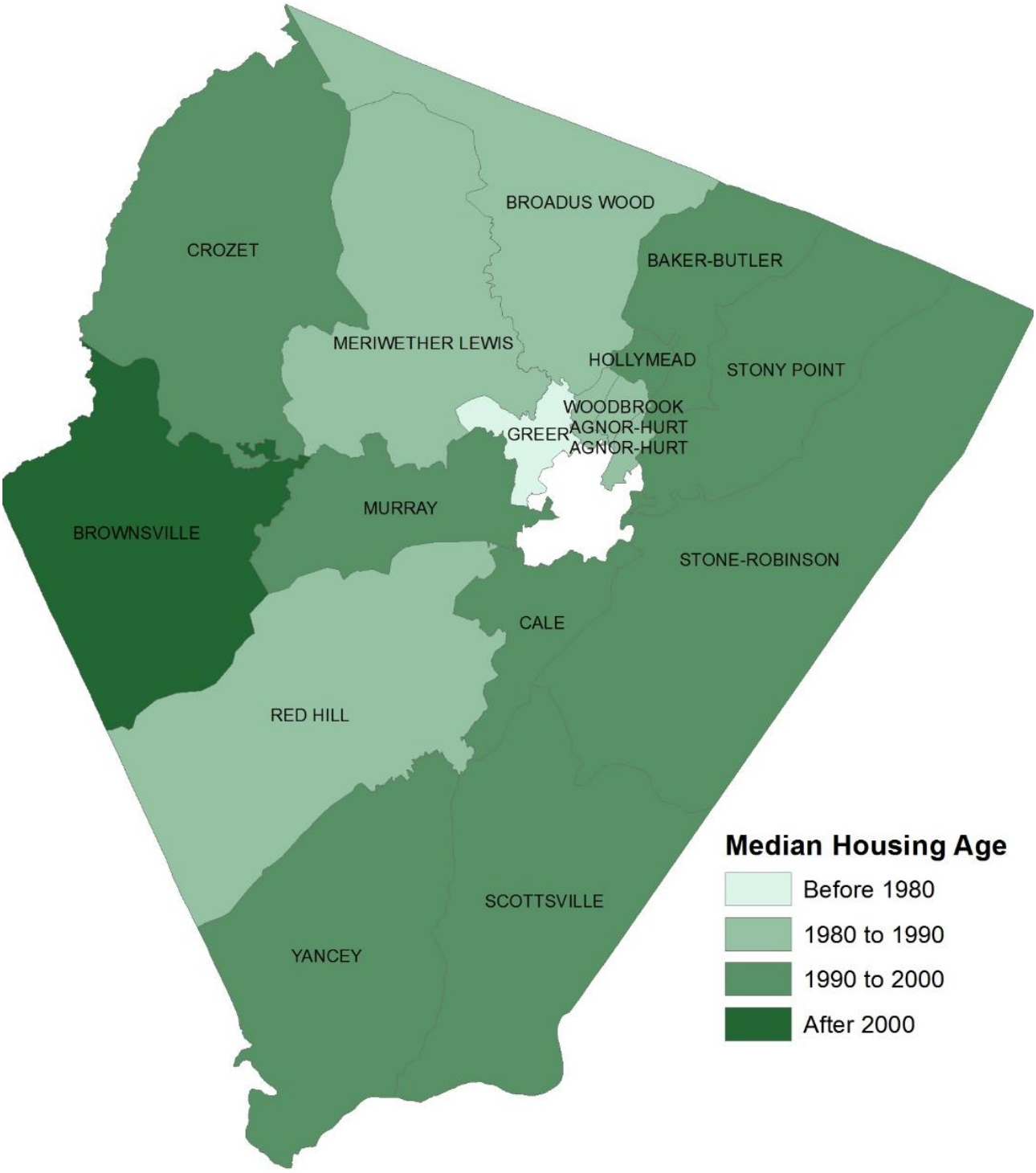
The rapid growth of many suburban neighborhoods in Albemarle and much of Virginia in the decades after World War II means that today the housing stock of many suburban neighborhoods is very homogenous, with most homes the same age and size. Because homes typically lose value as they age, many suburbs dominated by housing built in the same period are at risk of neighborhood-wide depreciation in relative home values. As a result, many aging suburban neighborhoods in Virginia have experienced rapid changes, particularly in their residents' socioeconomic status, during the past few decades.



Source: Albemarle Real Estate Records, Improvements value for non-multifamily homes with a specified construction year.

In Albemarle County, like most of Virginia, the current stock of homes that have the lowest value are those built between 1970 and 1980. The average home built during the 1960s in Albemarle County is worth nearly $20,000 more than one built during the 1970s, likely, in part, because more have been renovated. Albemarle homes built during the 1940s and 1950s are worth even more, likely for the same reason. Though homes built in Albemarle during the 1980s are on average worth $40,000 more than homes built during the 1970s, they are also worth $40,000 less than homes built during the 1990s.

Albemarle County Elementary School Attendance Zones' Housing Age



Source: Albemarle County Public Schools, Albemarle County Real Estate Records

As the table below shows, most elementary schools with the highest percentage of students eligible for free or reduced-price lunch also typically have older and less expensive homes in their attendance zones than the rest of the county. While age has a significant influence on housing prices, the size of the home also affects its price. Homes in the attendance zones for Yancey and Cale are generally newer than in most of the county, but they are also much smaller and, as a result, less valuable than in most of the county. Similarly, homes in Meriwether Lewis and Braudus Wood's attendance zones are older than the county overall, but their homes are typically more valuable, in part, because they are larger than most homes in the county.

Albemarle County Elementary Attendance Zones Housing Comparison

Elementary Schools	Percent Free or Reduced Lunch Eligible	Median Home Value	Median Year Built	Median Square Feet
Meriwether Lewis	8%	$ 467,400	1986	2,352
Murray	10%	$ 648,200	1990	2,648
Hollymead	10%	$ 295,800	1997	1,888
Brownsville	11%	$ 342,000	2002	2,055
Broadus Wood	18%	$ 325,200	1986	2,044
Stony Point	24%	$ 342,500	1994	2,016
Baker-Butler	24%	$ 250,100	1991	1,600
Crozet	25%	$ 216,100	1990	1,520
Stone-Robinson	30%	$ 267,500	1995	1,710
Albemarle County K-5 Students	34%	$ 271,150	1990	1,688
Scottsville	43%	$ 191,300	1990	1,472
Cale	44%	$ 250,900	1996	1,551
Red Hill	48%	$ 231,450	1983	1,560
Woodbrook	53%	$ 307,200	1983	2,002
Agnor-Hurt	54%	$ 210,350	1988	1,428
Yancey	72%	$ 127,100	1995	1,248
Greer	75%	$ 170,100	1979	1,230

Source: Albemarle Real Estate Records, Improvements value for non-multifamily homes with a specified construction year.

Due to Albemarle's past growth patterns, certain neighborhoods have a disproportionate share of housing built during the 1970s and 1980s. As these homes age and, in many cases, their relative value declines, these neighborhoods will also have a disproportionate share of the county's affordable housing. As a result, their elementary schools may also see rapid growth in the number of students eligible for free or reduced-price lunch. While there is little the school division can do to alter these trends, understanding the influence that housing has on students' socioeconomic status is valuable for planning or future redistricting.

Projecting Economically Disadvantaged Student Enrollment

There are few cases where a methodology has been developed for accurately projecting the number of students eligible for free or reduced-price lunch, largely because the projection not only needs to account for overall student enrollment trends, but also regional and national economic trends. Additionally, policy changes can affect the number of students who are eligible for or apply for free or reduced-price meals. On the school level, a projection would also need to account for local factors, including housing trends.

Despite these challenges, the grade-progression ratio projection model can account for a number of trends. In addition, the number of students eligible for free or reduced-price lunch usually follows a consistent pattern with the number declining as the students age, in part, due to an increase in their parents' income as they advance in their careers.

Provided the student enrollment is large enough to keep progression rates between grades from being too variable, the grade-progression ratio projection model works reasonably well for projecting the number of economically disadvantaged students enrolled in Albemarle County Public Schools. When tested on the division level, the grade-progression ratio model projected the total number of economically disadvantaged students in Albemarle within 4 percent of the actual enrollment between 2014 and 2016. For elementary, middle and high school students, the model projected economically disadvantaged student enrollment within 6 percent of the actual enrollment total. The model may work for projecting on the school level as well, but it would be necessary to have access to a complete count by grade which is often suppressed by VDOE to protect student privacy.

Economically Disadvantaged Student Enrollment Projection

	K-2	3-5	6-8	9-12	Total
2016-2017	1,026	954	776	1,010	3,766
2017-2018	991	998	787	1,001	3,778
2018-2019	991	957	839	987	3,776
2019-2020	999	930	876	960	3,765
2020-2021	1,021	907	912	939	3,779
2021-2022	1,059	905	875	992	3,830
2022-2023	1,095	911	851	1,026	3,883
2023-2024	1,131	933	830	1,055	3,949
2024-2025	1,168	967	828	1,056	4,019
2025-2026	1,204	1,000	834	1,031	4,069
2026-2027	1,234	1,033	854	1,006	4,128

Source: Virginia Department of Education, Fall Count. University of Virginia, Weldon Cooper Center, Demographics Research Group Enrollment Projections

On the division level, the number of economically disadvantaged students is likely to follow a similar trend as the overall student enrollment, with little growth for the rest of the decade, before rising in the next decade as a result of the expected rise in births. In Albemarle County, the percent of students who are economically disadvantaged should rise slightly during the projection period.

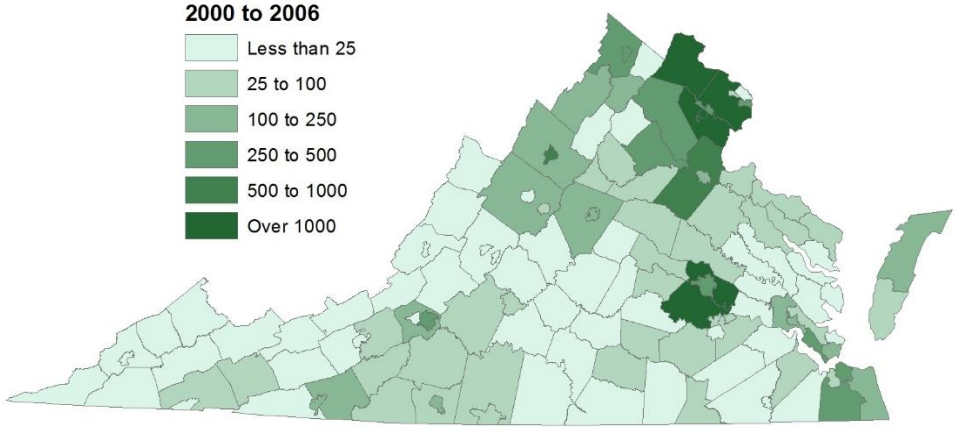
A key limitation of the grade-progression ratio model is that it cannot anticipate changes in economic trends. For example, the overall percent of students in Virginia who are economically disadvantaged has declined over the past few years, but the model alone cannot account for poverty rates continuing to decline during the projection period. While it is possible to raise or lower grade progression rates for economically disadvantaged students to account for an expected rise or fall in poverty rates, progression rates for the Albemarle projection were not adjusted based on the assumption that an improving economy will be balanced by an aging housing stock.

IV. LIMITED ENGLISH PROFICIENCY ENROLLMENT

After decades of growth, the increase in the number of limited English proficiency students in Virginia is slowing due to changing immigration trends. In Albemarle County, the number of limited English proficiency students is unlikely to continue growing over the next decade; additionally, most of the limited English proficiency students are highly concentrated in the county's most affordable housing types, according to Albemarle County housing data.

During the 1980s and 1990s, the United States experienced rapid growth in its limited English proficiency population. Though the United States has a small native born population (concentrated in Puerto Rico) with limited English proficiency, the growth was primarily driven by immigration from Mexico and Central America. Virginia was affected later than some states by the increase in immigration, but during the 2000s, the percentage of public school students in Virginia with limited English proficiency doubled to 9.4 percent.

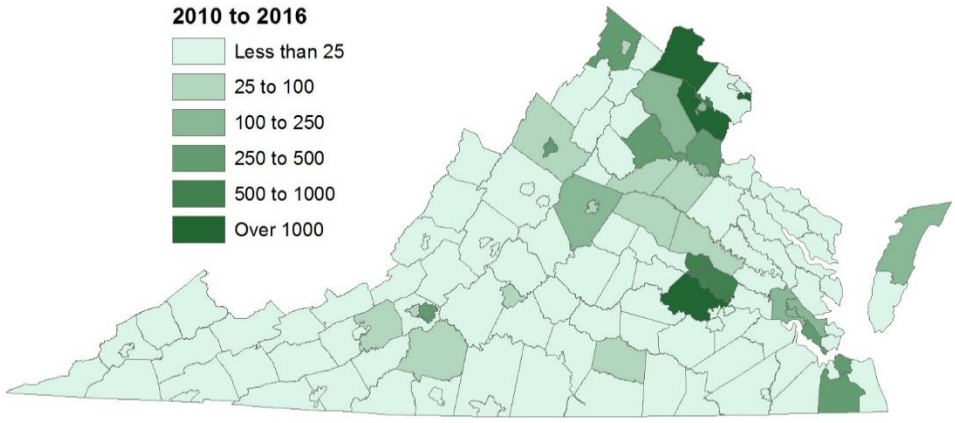
Growth in Limited English Proficiency K-12 Enrollment



Source: Virginia Department of Education, Fall Count.

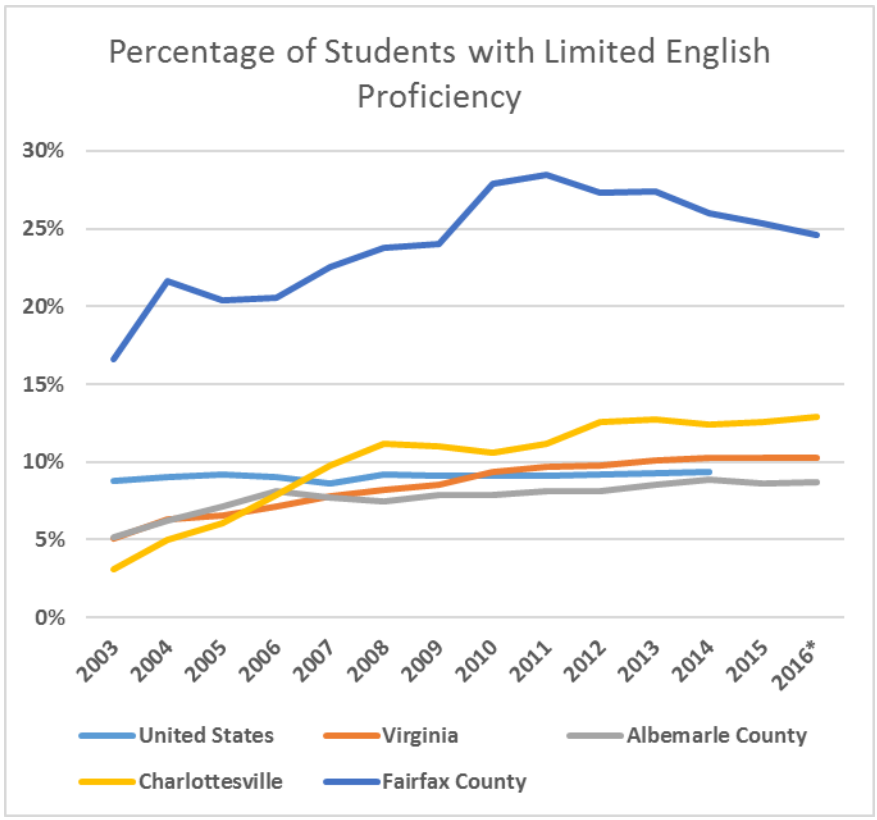
Much of Virginia's growth in students with limited English proficiency during the 2000s was concentrated in its largest metropolitan areas, particularly Northern Virginia. Some rural areas with sizeable agricultural industries, including the Shenandoah Valley, Eastern Shore and Southside, also experienced considerable growth in the number of students with limited English proficiency.

Growth in Limited English Proficiency K-12 Enrollment



Source: Virginia Department of Education, Fall Count.

Since 2010, growth in the number of Virginia students with limited English proficiency has been considerably slower than during the 2000s. Nationally, the percent of students with limited English proficiency has stopped growing. In some Northern Virginia counties, such as Arlington and Fairfax, the percent of students with limited English proficiency has declined since 2010. In Albemarle County, the percent of students with limited English proficiency has grown by less than one percent since 2010.



Source: Virginia Department of Education, Fall Count.

**VDOE changed its definition of limited English proficiency students in 2016, the 2016 percentages were calculated using the past definition to allow for comparison*

The reason that the growth in the number of students with limited English proficiency has slowed and, in some cases reversed, is that the countries where U.S. immigrants originate has changed considerably since the 2000s. Immigration from Mexico has fallen by nearly 70 percent since 2000, but the number of U.S. immigrants from China and India has increased (surpassing even Mexico), making these two countries the largest source of U.S. immigrants. Census data shows that recent immigrants from China and India typically have a higher educational attainment than those from Mexico and are usually more fluent in English. As a result, students' native languages are growing more diverse, but overall, a rising share of first- and second-generation students are fluent in English.

Limited English Proficiency Enrollment Projections

Limited English proficiency enrollment projections have many of the same challenges as projecting economically disadvantaged student enrollment and are also not commonly produced. Limited English proficiency enrollment has been significantly impacted by economic and political trends. Additionally, federal and state requirements for limited English proficiency programs can change from year to year, altering the number of students enrolled in limited English proficiency programs.

Similar to economically disadvantaged students, the grade progression ratio method works reasonably well for projecting limited English proficiency enrollment. Limited English proficiency students typically follow a clear pattern: as they progress from grade to grade, more and more students typically become fluent in English and no longer enroll in limited English proficiency programs.

When tested on the division level, the grade-progression ratio model projected the total number of limited English proficiency students in Albemarle within 4 percent of the actual enrollment between 2013 and 2015. For elementary students, which make up the largest portion of Albemarle's limited English proficiency enrollment, the model projected enrollment within 5 percent of the actual enrollment in those years. For middle and high school students, the model did not perform as well, only projecting within 20 percent of the actual enrollment. The reason the model did not perform well for this cohort is that the number of students is much smaller and the progression rates between grades is much more variable. The grade progression ratio projection model may work on the school level as well, but similar to economically disadvantaged students, VDOE's unsuppressed grade counts would need to be made available.

Limited English Proficiency Enrollment Projections

	K-2	3-5	6-8	9-12	Total
2016-2017	372	406	308	307	1,393
2017-2018	348	402	303	331	1,384
2018-2019	363	325	305	391	1,385
2019-2020	357	321	269	428	1,374
2020-2021	362	304	265	430	1,361
2021-2022	373	316	216	438	1,343
2022-2023	388	310	213	399	1,310
2023-2024	400	315	200	374	1,290
2024-2025	413	325	209	334	1,281
2025-2026	426	338	205	304	1,273
2026-2027	436	349	209	299	1,293

Source: Virginia Department of Education, Fall Count. University of Virginia, Weldon Cooper Center, Demographics Research Group Enrollment Projections

On the division level, the number of limited English proficiency students is likely to decline slowly but gradually over the next ten years. After the large cohorts of limited English proficiency students progress to high school, middle school enrollment should decline. High school limited English proficiency enrollment is likely to rise until the early 2020s before declining. Elementary limited English proficiency enrollment should remain stable until the early 2020s, at which point it will likely grow due to the rising number of births. Overall, the percentage of Albemarle students enrolled in limited English proficiency programs should stop growing and decline slightly over the next ten years, mirroring national and state trends.

As has been noted earlier, projecting special populations, including economically disadvantaged or limited English proficiency enrollment, typically results in a higher margin of error than projecting total student enrollment. If data were available to project on the school level, the margins of error for those projections would, in many cases, be too high for them to be useful.

2016 Limited English Proficiency Yield Rate by Housing Type

Type of Dwelling Unit	All Students
Single Family Detached	0.02
Single Family Attached	0.04
Townhouse	0.07
Multi-family	0.13
Mobile Home	0.26

Source: Albemarle County Public Schools, Albemarle County Real Estate Records

Albemarle does have other tools for predicting student enrollment for special populations below the division level. Comparing Albemarle's student residence addresses with Albemarle's housing data shows that limited English proficiency students are highly concentrated in certain parts of the county and specific housing types. Limited English proficiency students are much more likely to live in mobile or multi-family homes and less likely to live in detached single-family homes than most Albemarle students. Typically, an immigrant with limited English proficiency has limited earning potential and, thus, limited housing options. As a result, many of these immigrant families live in low-cost housing, such as mobile or multi-family homes. Using the limited English proficiency enrollment projections along with the student' housing data can help Albemarle better anticipate future changes in limited English proficiency enrollment.

V. APPENDICES

Appendix A: Ten Year Enrollment Projections for 16 Elementary Schools

Agnor-Hurt Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	81	85	73	87	89	73	488
2017 -2018	105	76	78	72	83	86	500
2018 -2019	93	100	71	79	70	79	493
2019 -2020	96	89	95	72	76	67	495
2020 -2021	100	90	84	97	70	73	514
2021 -2022	101	94	85	84	93	67	523
2022 -2023	106	95	88	85	81	89	544
2023 -2024	109	101	90	89	82	77	548
2024 -2025	113	103	95	91	85	79	565
2025 -2026	116	106	97	96	87	82	584
2026 -2027	118	109	100	98	92	83	600

Baker-Butler Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	91	86	111	105	100	90	583
2017 -2018	104	93	87	114	104	105	607
2018 -2019	92	106	93	89	113	110	604
2019 -2020	99	92	107	95	89	119	600
2020 -2021	100	99	94	108	93	93	587
2021 -2022	103	101	101	95	107	97	604
2022 -2023	106	104	102	103	94	113	622
2023 -2024	110	107	105	104	101	99	626
2024 -2025	113	110	109	107	103	106	649
2025 -2026	117	114	112	111	105	108	667
2026 -2027	119	118	116	114	109	110	686

Benjamin F. Yancey Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	15	24	17	16	20	26	118
2017 -2018	16	16	24	17	17	20	110
2018 -2019	14	18	15	23	19	17	105
2019 -2020	15	16	17	14	25	18	105
2020 -2021	17	17	15	16	16	25	106
2021 -2022	17	19	17	14	17	15	99
2022 -2023	17	19	18	16	15	17	103
2023 -2024	18	19	18	17	18	15	105
2024 -2025	19	20	18	17	19	17	110
2025 -2026	19	21	19	17	19	19	114
2026 -2027	20	21	20	18	19	18	116

Broadus Wood Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	34	38	42	41	52	40	247
2017 -2018	28	37	38	43	40	50	236
2018 -2019	30	30	36	38	40	38	212
2019 -2020	32	33	29	36	36	38	203
2020 -2021	33	35	31	28	33	34	194
2021 -2022	34	36	34	31	27	31	193
2022 -2023	36	37	35	33	29	25	196
2023 -2024	37	39	36	34	31	28	204
2024 -2025	38	39	37	35	32	30	212
2025 -2026	39	41	38	37	33	31	218
2026 -2027	40	42	40	38	35	31	225

Brownsville Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	106	115	138	122	137	109	727
2017 -2018	113	117	120	147	126	139	763
2018 -2019	128	127	121	128	151	125	781
2019 -2020	106	146	133	130	132	154	801
2020 -2021	110	121	155	143	132	134	796
2021 -2022	118	126	128	167	146	135	821
2022 -2023	123	134	132	137	171	148	846
2023 -2024	127	140	140	142	141	174	864
2024 -2025	131	145	148	151	145	143	863
2025 -2026	135	150	153	159	155	148	898
2026 -2027	137	154	157	164	163	157	932

Crozet Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	58	59	58	72	62	48	357
2017 -2018	48	61	59	61	73	62	364
2018 -2019	55	50	61	61	61	73	361
2019 -2020	59	57	49	62	63	61	351
2020 -2021	59	61	57	50	66	63	355
2021 -2022	61	61	60	59	53	66	361
2022 -2023	62	64	61	62	61	53	363
2023 -2024	64	65	63	63	65	61	381
2024 -2025	67	67	64	65	65	65	393
2025 -2026	69	69	67	66	68	65	404
2026 -2027	70	71	69	69	69	68	416

Hollymead Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	61	59	79	82	86	86	453
2017 -2018	70	61	58	77	81	85	432
2018 -2019	57	73	63	59	79	81	412
2019 -2020	53	59	76	64	61	79	391
2020 -2021	61	54	59	75	66	61	376
2021 -2022	67	62	55	59	77	67	388
2022 -2023	68	69	63	55	61	77	394
2023 -2024	71	70	70	64	57	61	393
2024 -2025	73	72	72	71	65	57	410
2025 -2026	75	74	74	72	72	65	433
2026 -2027	77	77	76	74	74	73	450

Mary Carr Greer Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	128	103	128	100	87	76	622
2017 -2018	110	120	104	119	104	86	643
2018 -2019	117	100	123	94	124	101	660
2019 -2020	131	106	102	109	100	120	667
2020 -2021	129	119	108	91	116	95	659
2021 -2022	134	118	123	99	98	112	683
2022 -2023	136	122	120	111	104	95	689
2023 -2024	141	124	125	108	118	101	717
2024 -2025	146	129	127	112	115	114	743
2025 -2026	150	133	132	114	120	111	760
2026 -2027	153	137	136	119	122	115	782

Meriwether Lewis Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	65	79	77	70	83	74	448
2017 -2018	54	68	81	76	71	79	429
2018 -2019	61	57	70	81	77	68	414
2019 -2020	63	65	60	71	83	73	415
2020 -2021	64	67	67	60	73	79	411
2021 -2022	68	70	70	67	63	70	407
2022 -2023	70	72	72	70	69	59	413
2023 -2024	72	74	75	73	72	66	432
2024 -2025	75	77	77	75	75	68	448
2025 -2026	77	80	80	78	78	71	463
2026 -2027	78	82	83	80	80	74	478

Paul H. Cale Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	93	107	132	98	111	73	614
2017 -2018	104	104	132	100	111	75	626
2018 -2019	111	104	100	127	97	106	645
2019 -2020	108	110	102	96	124	93	633
2020 -2021	107	107	108	97	94	119	631
2021 -2022	111	106	104	102	95	89	607
2022 -2023	117	111	103	100	99	90	621
2023 -2024	121	117	108	98	97	95	636
2024 -2025	125	120	114	103	96	93	651
2025 -2026	128	124	117	108	100	92	669
2026 -2027	130	127	121	112	106	96	691

Red Hill Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	24	23	23	18	20	24	132
2017 -2018	23	22	22	21	20	18	126
2018 -2019	19	21	21	20	22	18	122
2019 -2020	18	18	20	20	22	21	118
2020 -2021	21	18	16	18	21	20	114
2021 -2022	23	20	16	15	19	18	112
2022 -2023	24	22	19	15	16	17	113
2023 -2024	24	23	21	17	16	14	115
2024 -2025	25	24	21	19	18	14	122
2025 -2026	26	24	22	19	20	17	128
2026 -2027	27	25	23	20	20	18	133

Scottsville Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	31	33	27	35	28	27	181
2017 -2018	22	30	33	25	34	29	172
2018 -2019	29	21	29	31	25	36	171
2019 -2020	24	29	22	28	31	27	160
2020 -2021	27	25	28	20	28	33	162
2021 -2022	29	27	25	27	21	30	159
2022 -2023	31	29	27	23	27	22	159
2023 -2024	31	31	29	26	23	29	169
2024 -2025	32	32	30	27	26	25	172
2025 -2026	33	32	31	29	28	28	181
2026 -2027	34	33	32	29	29	29	187

Stone Robinson Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	79	51	72	58	71	59	390
2017 -2018	81	81	51	71	60	69	412
2018 -2019	62	80	81	50	74	59	406
2019 -2020	77	61	79	78	51	72	418
2020 -2021	78	75	61	76	80	49	420
2021 -2022	81	75	75	60	79	79	448
2022 -2023	83	80	75	73	62	77	449
2023 -2024	85	81	80	73	75	60	454
2024 -2025	88	83	81	77	75	74	478
2025 -2026	91	86	83	79	80	73	491
2026 -2027	92	88	86	81	81	78	506

Stony Point Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	37	37	45	44	43	29	235
2017 -2018	40	36	40	42	44	41	241
2018 -2019	31	39	39	37	41	43	229
2019 -2020	31	32	42	36	36	40	217
2020 -2021	35	32	36	41	35	35	214
2021 -2022	38	36	35	34	40	34	216
2022 -2023	39	38	39	33	34	39	220
2023 -2024	40	39	41	37	32	33	222
2024 -2025	41	40	43	39	36	31	230
2025 -2026	42	41	44	41	38	35	242
2026 -2027	43	43	46	42	40	37	250

Virginia L. Murray Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	36	42	33	47	49	33	240
2017 -2018	39	38	42	37	49	44	250
2018 -2019	42	42	38	46	38	45	251
2019 -2020	47	44	42	43	47	35	257
2020 -2021	47	49	43	47	43	43	271
2021 -2022	45	48	48	48	48	39	277
2022 -2023	46	47	47	54	49	44	288
2023 -2024	48	48	47	53	55	45	296
2024 -2025	50	50	48	52	54	50	304
2025 -2026	52	52	49	53	54	49	309
2026 -2027	52	53	51	55	55	49	315

Woodbrook Elementary

	KG	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
2016 -2017	48	52	63	52	52	46	313
2017 -2018	53	46	53	58	57	52	318
2018 -2019	56	51	46	48	63	55	320
2019 -2020	55	53	51	42	54	61	315
2020 -2021	56	53	54	47	47	52	309
2021 -2022	58	54	54	48	52	45	312
2022 -2023	61	56	54	49	53	51	324
2023 -2024	63	58	56	49	55	52	333
2024 -2025	64	60	58	51	55	53	342
2025 -2026	66	61	60	53	57	53	352
2026 -2027	68	63	62	55	59	55	362

Source: University of Virginia Weldon Cooper Center, using geocoded birth data from the Virginia Department of Health and enrollment data provided by Albemarle County Public Schools.

Appendix B: Birth Counts by Attendance Zone

Elementary Schools	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Agnor-Hurt	97	64	82	66	78	77	87	109	88	96	105	116	101	109
Baker-Butler	97	71	84	60	90	65	80	97	80	68	79	87	72	83
Broadus Wood	51	45	56	40	60	51	51	51	51	39	44	27	39	38
Brownsville	61	57	60	60	63	92	84	64	73	65	84	78	95	67
Cale	156	137	132	150	155	160	183	164	172	164	157	139	174	155
Crozet	66	55	51	47	57	55	65	64	54	61	48	47	56	57
Greer	222	199	205	156	169	190	195	194	185	197	177	174	181	206
Hollymead	39	53	52	50	46	46	55	38	50	49	34	51	32	37
Meriwether Lewis	39	43	37	36	44	45	42	40	37	42	33	31	36	35
Murray	25	23	31	29	30	26	33	26	28	28	23	31	29	35
Red Hill	38	30	28	31	24	25	35	39	31	32	28	29	22	23
Scottsville	41	58	34	34	35	34	37	41	35	38	39	22	39	28
Stone-Robinson	65	73	86	63	80	68	65	65	77	81	83	86	64	93
Stony Point	59	34	38	55	45	48	57	60	50	49	45	52	41	42
Woodbrook	46	63	54	49	49	56	72	64	73	67	56	64	62	67
Yancey	30	29	22	25	26	31	30	30	26	23	18	24	18	22
Albemarle County	1,132	1,034	1,052	951	1,051	1,069	1,171	1,146	1,110	1,099	1,053	1,058	1,061	1,097

Source: Birth data from the Virginia Department of Health, geocoded by the University of Virginia Weldon Cooper Center.

Appendix C: Housing Yield Rates by Housing Age

Type of Dwelling Unit	Pre-2000	2000s	2010s
Single Family (Detached)	0.26	0.54	0.59
Single Family (Attached)	0.30	0.36	0.18
Town Home	0.27	0.50	0.38
Multi-Family	0.21	0.18	0.14

Source: Albemarle County Real Estate Records, dwelling units with specified construction year.

Appendix D: Housing Yield Rates by Elementary Attendance Zone

Single Family Detached

	Elementary	Middle	High	Total
Agnor-Hurt	0.13	0.08	0.10	0.31
Baker-Butler	0.18	0.11	0.16	0.45
Broadus Wood	0.11	0.06	0.11	0.28
Brownsville	0.23	0.12	0.15	0.49
Cale	0.14	0.07	0.10	0.32
Crozet	0.18	0.08	0.14	0.40
Greer	0.09	0.04	0.09	0.22
Hollymead	0.31	0.18	0.23	0.72
Meriwether Lewis	0.19	0.08	0.11	0.38
Murray	0.14	0.07	0.09	0.29
Red Hill	0.11	0.04	0.08	0.22
Scottsville	0.15	0.06	0.10	0.32
Stone-Robinson	0.10	0.05	0.08	0.24
Stony Point	0.14	0.08	0.12	0.33
Woodbrook	0.13	0.08	0.12	0.33
Yancey	0.12	0.06	0.10	0.28

Single Family Attached

	Elementary	Middle	High	Total
Agnor-Hurt	0.12	0.04	0.06	0.22
Baker-Butler	0.24	0.09	0.14	0.47
Broadus Wood	-	-	-	-
Brownsville	0.22	-	-	0.52
Cale	0.09	0.05	0.05	0.18
Crozet	0.17	0.08	0.09	0.35
Greer	0.13	0.06	0.09	0.28
Hollymead	0.22	-	0.13	0.41
Meriwether Lewis	-	-	-	-
Murray	-	-	-	0.04
Red Hill	-	-	-	0.50
Scottsville	-	-	-	0.27
Stone-Robinson	-	-	-	0.03
Stony Point	-	-	-	0.30
Woodbrook	-	-	-	-
Yancey	-	-	-	-

Townhouse

	Elementary	Middle	High	Total
Agnor-Hurt	0.12	0.04	0.06	0.22
Baker-Butler	0.19	0.08	0.08	0.36
Broadus Wood	-	-	-	-
Brownsville	0.22	0.14	0.11	0.47
Cale	0.11	0.04	0.09	0.24
Crozet	-	0.20	0.20	0.53
Greer	0.13	0.06	0.09	0.29
Hollymead	0.33	0.09	0.09	0.51
Meriwether Lewis	-	-	-	-
Murray	-	-	-	0.16
Red Hill	-	-	-	-
Scottsville	-	-	-	-
Stone-Robinson	0.13	-	0.06	0.22
Stony Point	-	-	-	0.14
Woodbrook	-	-	-	0.18
Yancey	-	-	-	-

Multi-family

	Elementary	Middle	High	Total
Agnor-Hurt	0.16	0.05	0.07	0.28
Baker-Butler	0.02	-	-	0.02
Broadus Wood	-	-	-	-
Brownsville	0.10	0.03	0.03	0.15
Cale	0.04	0.01	0.03	0.08
Crozet	-	-	-	-
Greer	0.13	0.03	0.06	0.22
Hollymead	0.26	0.06	0.08	0.40
Meriwether Lewis	-	-	-	-
Murray	-	-	-	-
Red Hill	-	-	-	-
Scottsville	0.06	0.11	-	0.17
Stone-Robinson	0.02	-	0.01	0.03
Stony Point	0.10	0.04	0.04	0.17
Woodbrook	0.31	0.11	0.15	0.57
Yancey	-	-	-	-

Mobile Homes

	Elementary	Middle	High	Total
Agnor-Hurt	0.31	0.17	0.17	0.64
Baker-Butler	0.21	0.07	0.09	0.37
Broadus Wood	-	-	-	-
Brownsville	-	-	-	-
Cale	0.42	0.14	0.17	0.73
Crozet	-	-	-	-
Greer	-	-	-	-
Hollymead	-	-	-	0.06
Meriwether Lewis	-	-	-	-
Murray	-	-	-	3.00
Red Hill	-	-	-	0.50
Scottsville	-	-	-	1.13
Stone-Robinson	-	-	-	-
Stony Point	-	-	-	-
Woodbrook	-	-	-	-
Yancey	-	-	-	0.67

Source: Albemarle County Real Estate Records. The total can be greater than the sum of school levels because the student generation rates were not calculated for geographies and school levels with less than 10 counts in a category.

Appendix E: 5 Housing Yield Rate by Comprehensive Plan Area

Single Family Detached

	Elementary	Middle	High	Total
Crozet	0.32	0.14	0.19	0.64
Hollymead - Places 29	0.26	0.15	0.20	0.60
Neighborhood 1 - Places 29	0.13	0.06	0.09	0.28
Neighborhood 2 - Places 29	0.14	0.08	0.12	0.34
Neighborhood 3 - Pantops	0.22	0.11	0.11	0.44
Neighborhood 4	0.13	0.06	0.10	0.29
Neighborhood 5	0.16	0.10	0.11	0.38
Neighborhood 6	0.14	0.05	0.05	0.25
Neighborhood 7	0.13	0.04	0.10	0.27
Piney Mtn. - Places 29	0.19	0.10	0.19	0.49
Village of Rivanna	0.09	0.04	0.09	0.23
Rural Area 1	0.11	0.06	0.10	0.27
Rural Area 2	0.11	0.07	0.10	0.28
Rural Area 3	0.15	0.07	0.11	0.33
Rural Area 4	0.13	0.06	0.10	0.29
Town of Scottsville	0.12	0.06	0.07	0.25

Single Family Attached

	Elementary	Middle	High	Total
Crozet	0.18	0.09	0.10	0.37
Hollymead - Places 29	0.18	-	0.11	0.33
Neighborhood 1 - Places 29	0.16	0.06	0.09	0.30
Neighborhood 2 - Places 29	-	-	-	0.11
Neighborhood 3 - Pantops	-	-	-	-
Neighborhood 4	0.10	0.05	0.05	0.21
Neighborhood 5	-	-	-	0.13
Neighborhood 6	-	-	-	-
Neighborhood 7	-	-	-	0.12
Piney Mtn. - Places 29	0.26	0.10	0.15	0.52
Village of Rivanna	-	-	-	-
Rural Area 1	-	-	-	0.29
Rural Area 2	-	-	-	-
Rural Area 3	-	-	-	-
Rural Area 4	-	-	-	-
Town of Scottsville	-	-	-	-

Townhouse

	Elementary	Middle	High	Total
Crozet	0.20	0.15	0.13	0.48
Hollymead - Places 29	0.24	0.08	0.07	0.39
Neighborhood 1 - Places 29	0.17	0.08	0.10	0.34
Neighborhood 2 - Places 29	0.09	0.03	0.05	0.16
Neighborhood 3 - Pantops	0.12	-	0.07	0.22
Neighborhood 4	0.09	-	0.06	0.16
Neighborhood 5	0.15	-	0.15	0.37
Neighborhood 6	-	-	-	-
Neighborhood 7	-	-	-	-
Piney Mtn. - Places 29	0.23	0.17	0.18	0.58
Village of Rivanna	-	-	-	-
Rural Area 1	0.17	0.07	0.12	0.36
Rural Area 2	-	-	-	-
Rural Area 3	-	-	-	-
Rural Area 4	-	-	-	-
Town of Scottsville	-	-	-	-

Multi-Family

	Elementary	Middle	High	Total
Crozet	0.02	0.01	0.01	0.05
Hollymead - Places 29	0.19	0.04	0.06	0.29
Neighborhood 1 - Places 29	0.13	0.04	0.05	0.23
Neighborhood 2 - Places 29	0.26	0.08	0.13	0.47
Neighborhood 3 - Pantops	0.05	0.02	0.02	0.09
Neighborhood 4	0.05	0.01	0.03	0.09
Neighborhood 5	0.04	0.01	0.03	0.08
Neighborhood 6	0.13	0.03	0.07	0.23
Neighborhood 7	0.06	0.01	0.03	0.10
Piney Mtn. - Places 29	-	-	-	-
Village of Rivanna	-	-	-	-
Rural Area 1	0.43	0.08	0.15	0.65
Rural Area 2	-	0.50	0.50	1.00
Rural Area 3	0.05	-	-	0.05
Rural Area 4	0.12	-	-	0.12
Town of Scottsville	0.20	0.40	-	0.60

Mobile Homes

	Elementary	Middle	High	Total
Crozet	-	-	-	-
Hollymead - Places 29	0.14	0.04	0.06	0.24
Neighborhood 1 - Places 29	0.31	0.17	0.17	0.65
Neighborhood 2 - Places 29	-	-	-	-
Neighborhood 3 - Pantops	-	-	-	-
Neighborhood 4	-	-	-	-
Neighborhood 5	0.42	0.14	0.17	0.73
Neighborhood 6	-	-	-	-
Neighborhood 7	-	-	-	-
Piney Mtn. - Places 29	-	-	-	-
Village of Rivanna	-	-	-	-
Rural Area 1	-	-	-	-
Rural Area 2	-	-	-	-
Rural Area 3	-	-	-	-
Rural Area 4	0.55	-	-	0.85
Town of Scottsville	-	-	-	-

Source: Albemarle County Real Estate Records. The total can be greater than the sum of school levels because the student generation rates were not calculated for geographies and school levels with less than 10 counts in a category.