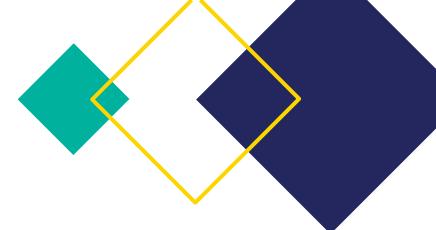




**Facility Condition Assessment  
and Master Planning Services**  
September 2024

# Project Team



## Rob Tanner

Vice President, Education Solutions

Mr. Tanner has worked on projects for both private and public entities including higher education and public education where he served as an operations leader in Human Resources, Property Management, and Maintenance. Mr. Tanner joined MGT as the Director of Education Solutions, with a specific focus on school building condition and site assessments, transportation management, and continuity of operations as part of larger assessments for facility master planning.

## Lance Richards, Ed.D.

Manager, Education Solutions

Dr. Richards is an Educational Performance Manager with MGT. Prior to that he worked for over thirty-three years in public education as a teacher, principal, district administrator, and superintendent. He works with school communities to help them make impactful decisions that will serve all stakeholders.

## Monica Farirai

Analyst

Ms. Farirai assists with market research, stakeholder engagement, and data analysis. She is adept in managing data and developing actionable reports. She also has proficiency in small group facilitation and community engagement.

# Agenda

- Welcome & Introductions
- Demographic Overview
- General Demographics
- Household Income and Values
- Migration Trends
- Education Overview
- Employment and Economic Trends
- Comparative Demographic Overview
- Comparative Economic Overview
- Enrollment Projections
- Capacity and Utilization
- Findings and Themes

# Demographic Overview



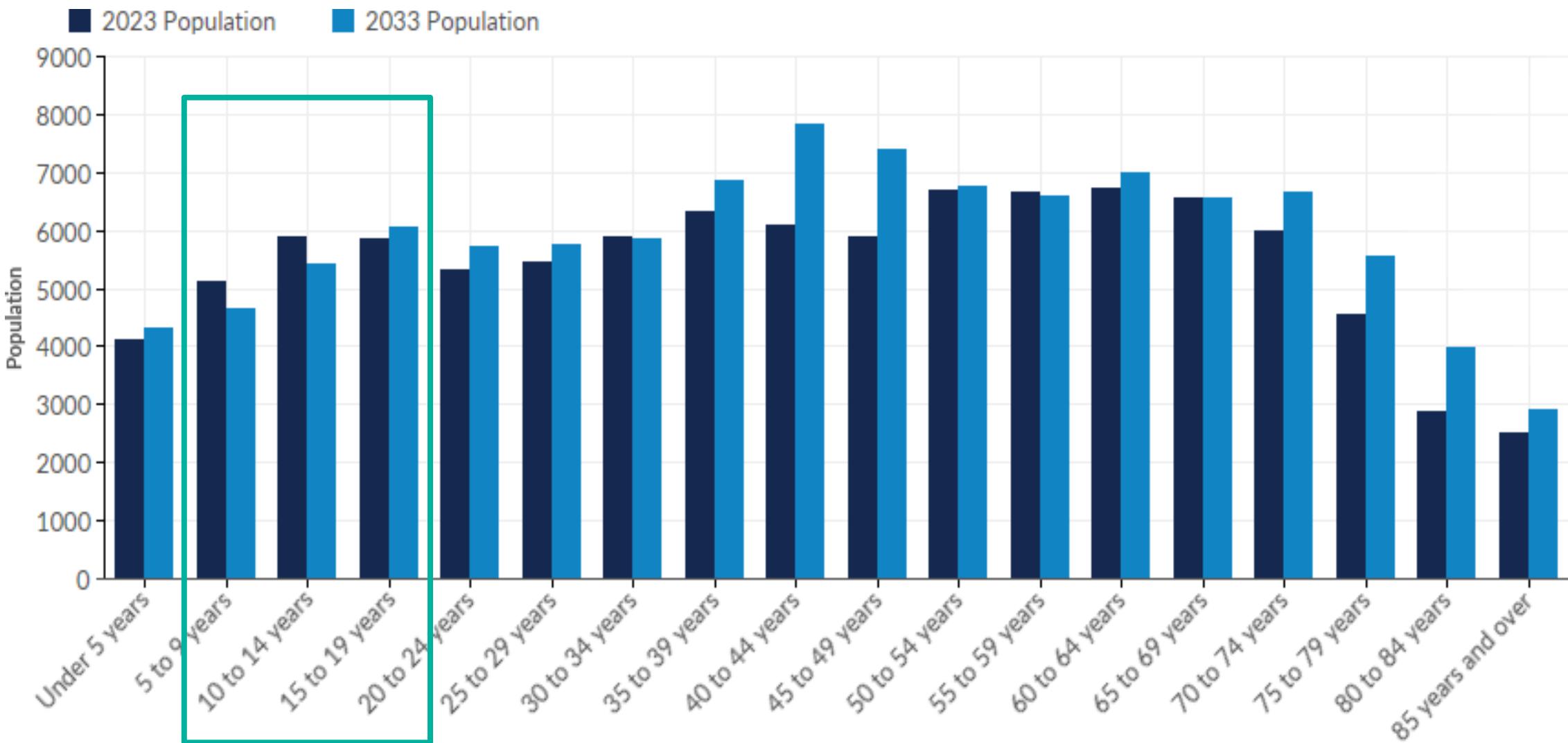
Area	2023 Population	2033 Population	Change	% Change
Roanoke County	<b>98,507</b>	<b>105,906</b>	<b>7,399</b>	<b>8%</b>
State	8,750,052	9,208,484	458,433	5%
Nation	335,839,277	352,569,519	16,730,242	5%

Source: LIGHTCAST, Q4 2023 Data Set.

Age Cohort	2023 Population	2033 Population	Change	% Change	2033 % of Cohort
<b>Under 5 years</b>	4,105	4,309	203	5%	4.1%
<b>5 to 9 years</b>	5,135	4,652	(483)	(9%)	4.4%
<b>10 to 14 years</b>	5,890	5,415	(474)	(8%)	5.1%
<b>15 to 19 years</b>	5,846	6,048	202	3%	5.7%
<b>20 to 24 years</b>	5,325	5,712	387	7%	5.4%
<b>25 to 29 years</b>	5,450	5,769	319	6%	5.4%
<b>30 to 34 years</b>	5,880	5,852	(28)	(0%)	5.5%
<b>35 to 39 years</b>	6,327	6,872	545	9%	6.5%
<b>40 to 44 years</b>	6,094	7,816	1,722	28%	7.4%
<b>45 to 49 years</b>	5,884	7,411	1,527	26%	7.0%
<b>50 to 54 years</b>	6,699	6,774	74	1%	6.4%
<b>55 to 59 years</b>	6,655	6,593	(62)	(1%)	6.2%
<b>60 to 64 years</b>	6,732	6,992	261	4%	6.6%
<b>65 to 69 years</b>	6,567	6,561	(7)	(0%)	6.2%
<b>70 to 74 years</b>	5,996	6,668	671	11%	6.3%
<b>75 to 79 years</b>	4,544	5,562	1,018	22%	5.3%
<b>80 to 84 years</b>	2,861	3,981	1,120	39%	3.8%
<b>85 years and over</b>	2,516	2,920	404	16%	2.8%
<b>Total</b>	98,507	105,906	7,399	8%	100.0%

Source: LIGHTCAST, Q4 2023 Data Set.

# Population by Age

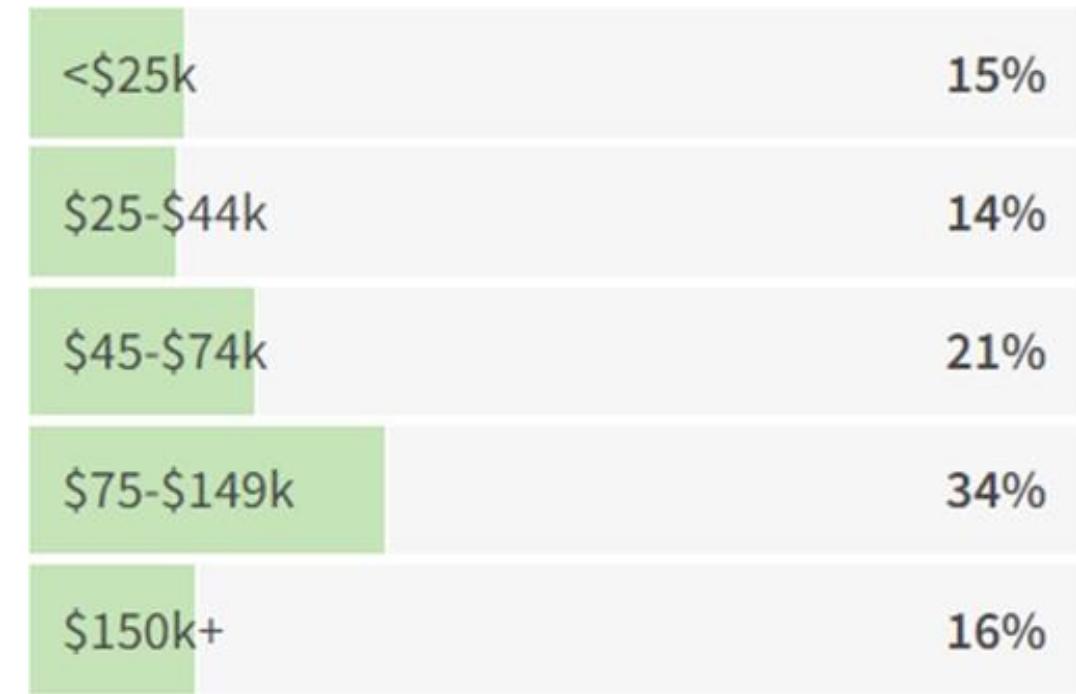


# Household Income and Values

	Median Household Income 2021	Per Capita Income 2021	% Poverty Level 2021
2020	\$70,076	-	6.6%
2021	\$74,622	\$39,999	8.1%

Median Home Value	Median Rent
\$215,800	\$1,029

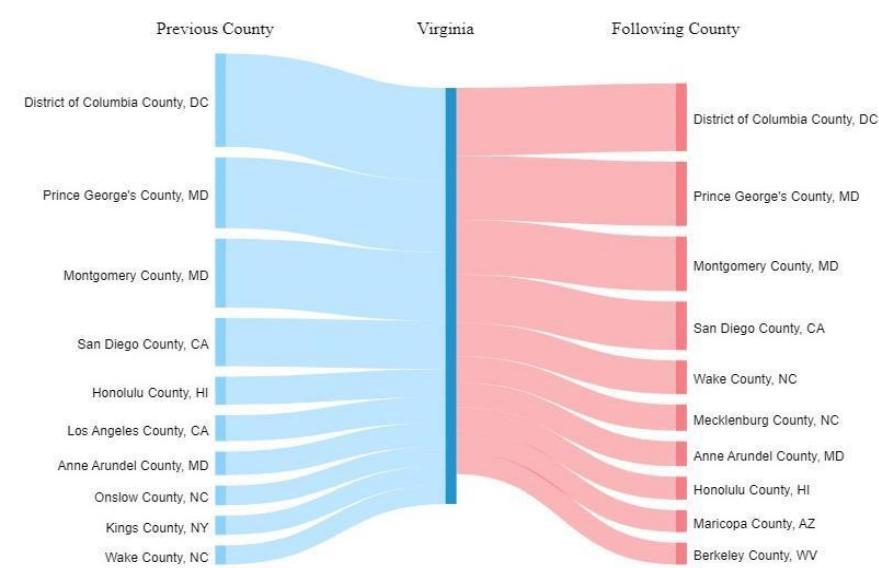
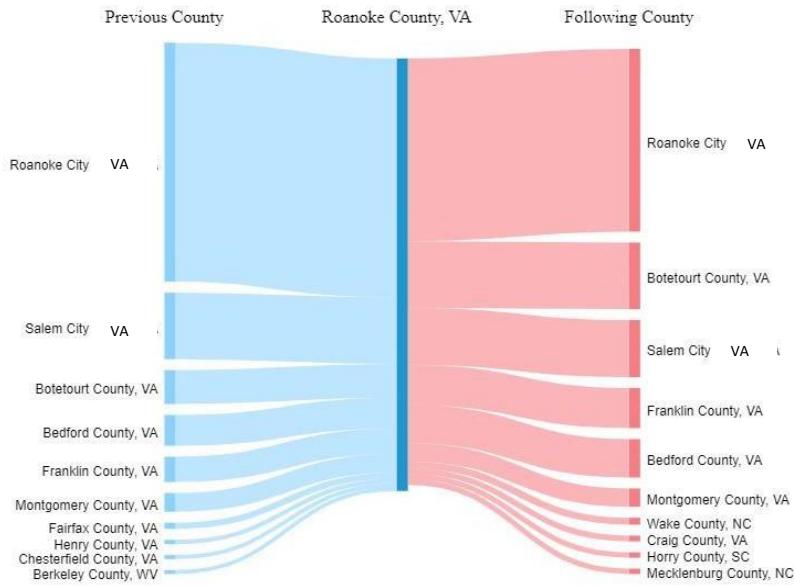
*Household Income Bracket Breakdown, 2021.*



# Migration Trends

Roanoke County, 2020

Virginia, 2020



Top Previous Counties	Migrations
Roanoke City, VA	2,112
Salem City, VA	587
Botetourt County, VA	300
Bedford County, VA	271
Franklin County, VA	224
Montgomery County, VA	165
Fairfax County, VA	54
Henry County, VA	38
Chesterfield County, VA	35
Berkeley County, WV	35

Top Following Counties	Migrations
Roanoke City, VA	1,615
Botetourt County, VA	588
Salem City, VA	504
Franklin County, VA	354
Bedford County, VA	340
Montgomery County, VA	161
Wake County, NC	61
Craig County, VA	51
Horry County, SC	47
Mecklenburg County, NC	47

Top Previous Counties	Migrations
District of Columbia County, DC	9,055
Prince George's County, MD	6,850
Montgomery County, MD	6,674
San Diego County, CA	4,669
Honolulu County, HI	2,715
Los Angeles County, CA	2,489
Anne Arundel County, MD	2,275
Onslow County, NC	1,898
Kings County, NY	1,857
Wake County, NC	1,846

Top Following Counties	Migrations
District of Columbia County, DC	6,571
Prince George's County, MD	6,230
Montgomery County, MD	5,283
San Diego County, CA	4,689
Wake County, NC	3,247
Mecklenburg County, NC	2,543
Anne Arundel County, MD	2,404
Honolulu County, HI	2,221
Maricopa County, AZ	2,123
Berkeley County, WV	2,121

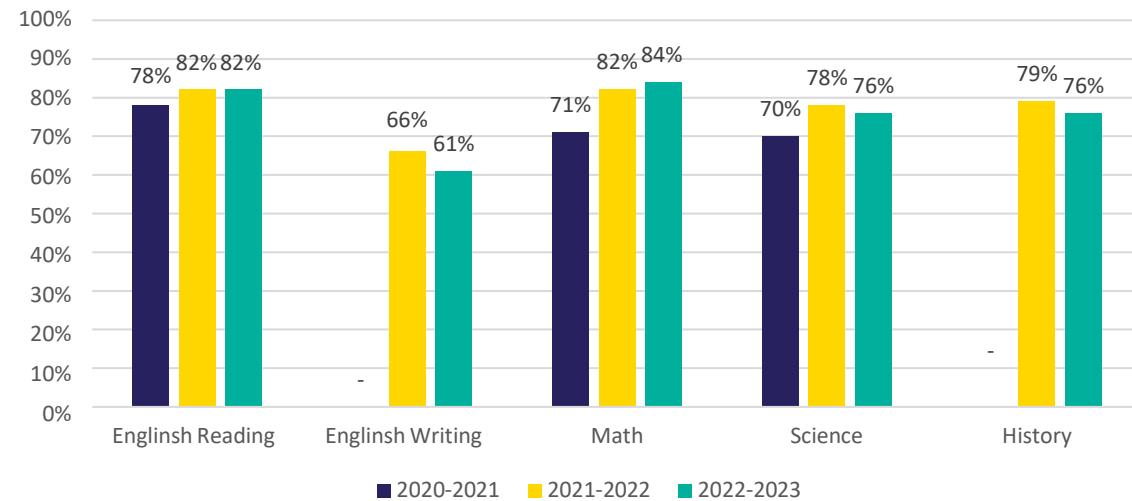
# Education Overview

## RCPS Enrollment by Grade, Fall 2020-2022

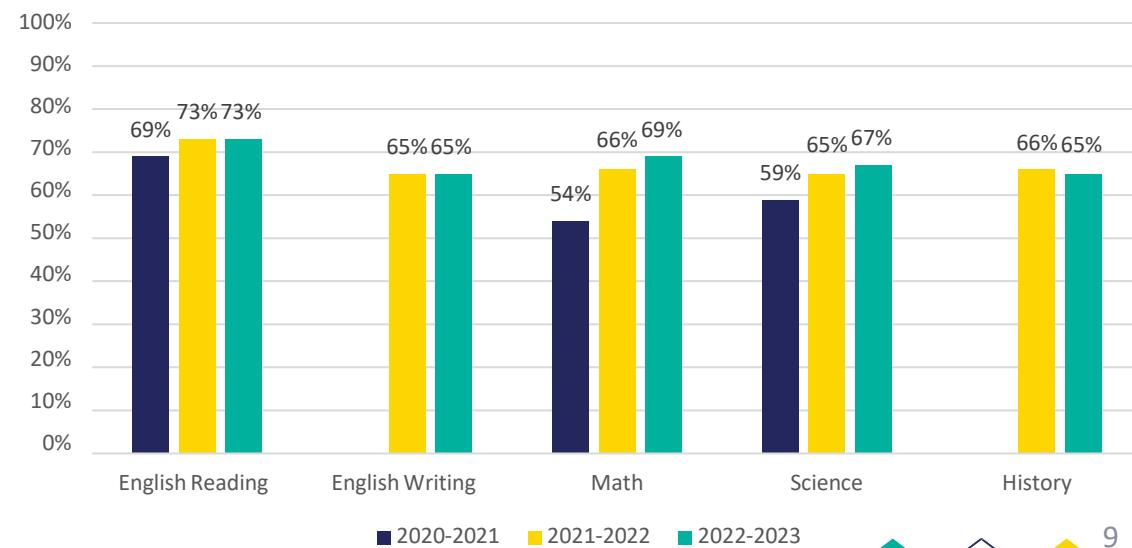
Grade	2020-2021	2021-2022	2022-2023
Pre-kindergarten	355	364	342
Kindergarten	882	934	894
Grade 1	884	904	959
Grade 2	962	860	902
Grade 3	912	991	902
Grade 4	959	923	1,025
Grade 5	1,040	971	958
Grade 6	1,049	1,079	1,041
Grade 7	1,105	1,071	1,089
Grade 8	1,128	1,146	1,100
Grade 9	1,203	1,267	1,231
Grade 10	1,126	1,170	1,217
Grade 11	1,035	1,057	1,109
Grade 12	1,052	994	1,050
Total Students	13,692	13,731	13,819

Source: Virginia Department of Education.

## Roanoke County Standards of Learning Proficiency by Subject

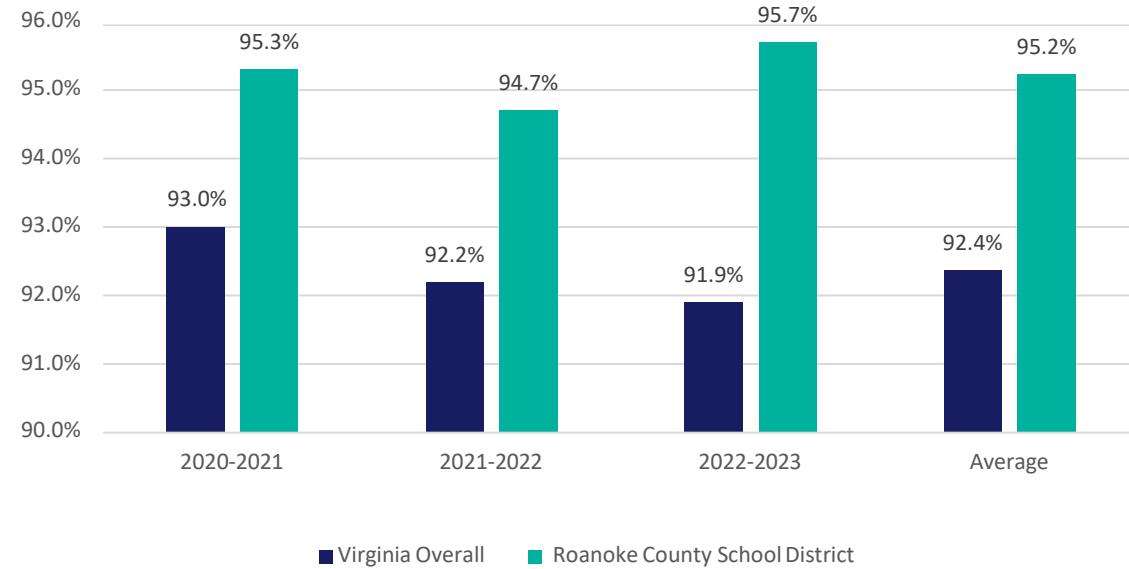


## Virginia Standards of Learning Proficiency by Subject

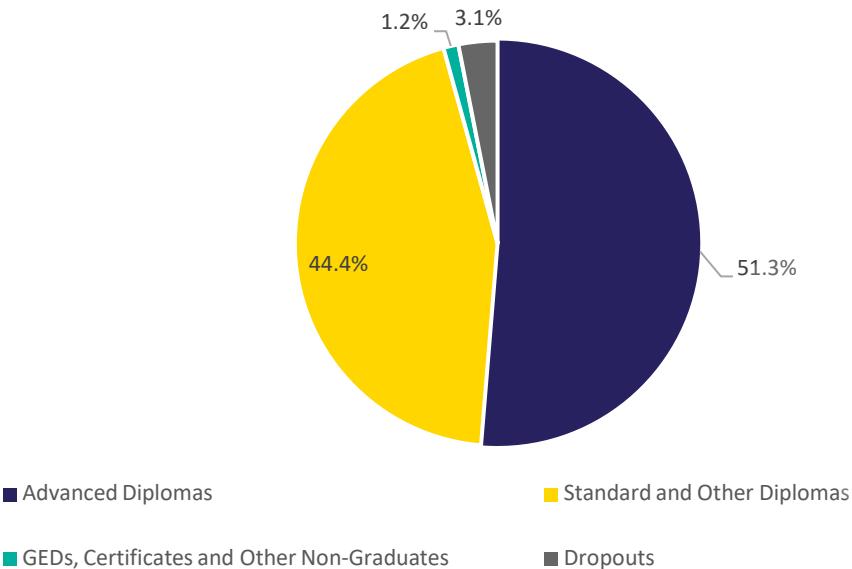


# Educational Attainment

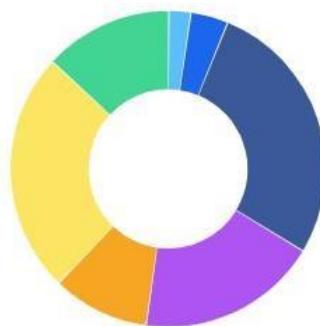
## High School Graduation Rates



## Diplomas and Completion Outcomes Class of 2022



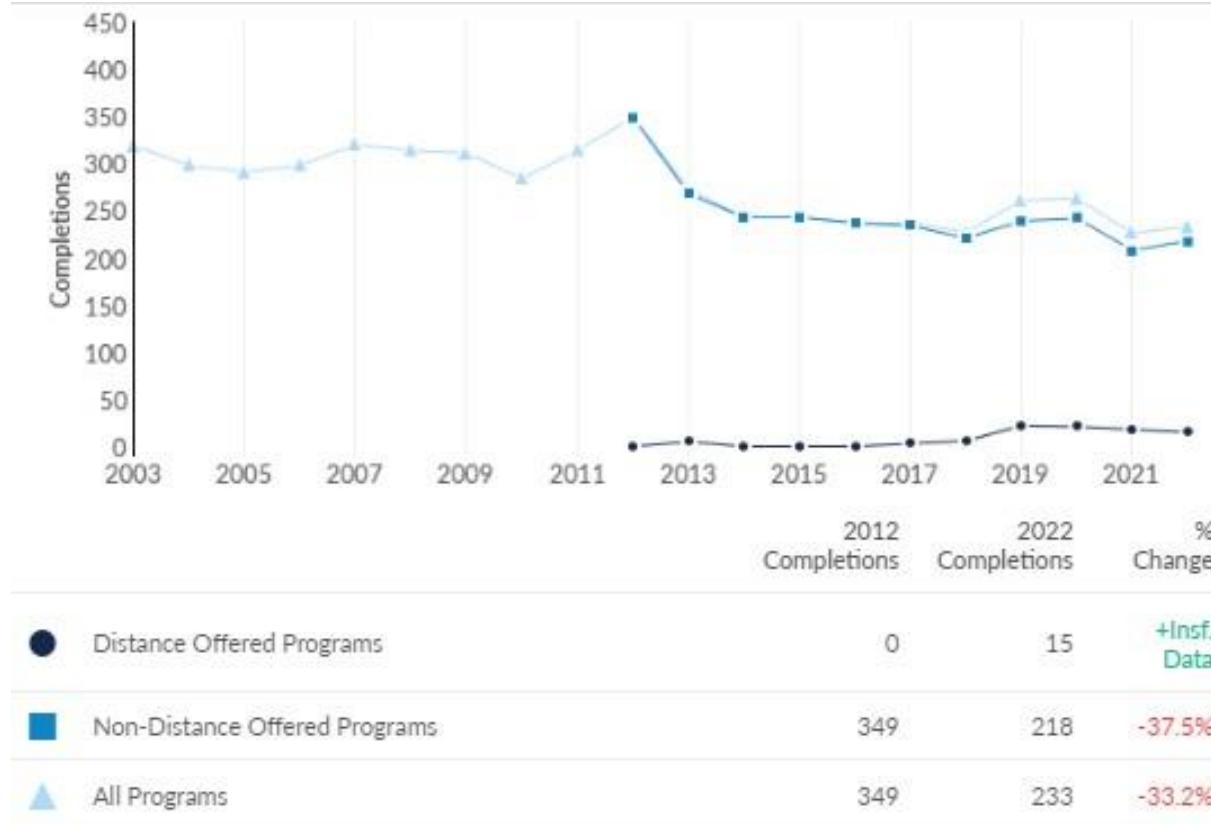
## Educational Attainment, 2022



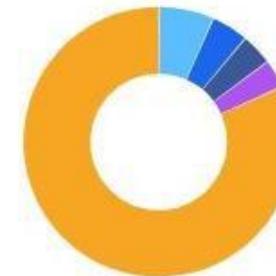
	% of Population	Population
Less Than 9th Grade	2.3%	1,591
9th Grade to 12th Grade	3.8%	2,708
High School Diploma	27.5%	19,376
Some College	18.6%	13,075
Associate's Degree	10.0%	7,012
Bachelor's Degree	24.7%	17,421
Graduate Degree and Higher	13.2%	9,281

# Postsecondary Educational Pipeline

Completion Trends Roanoke County, 2012-2022



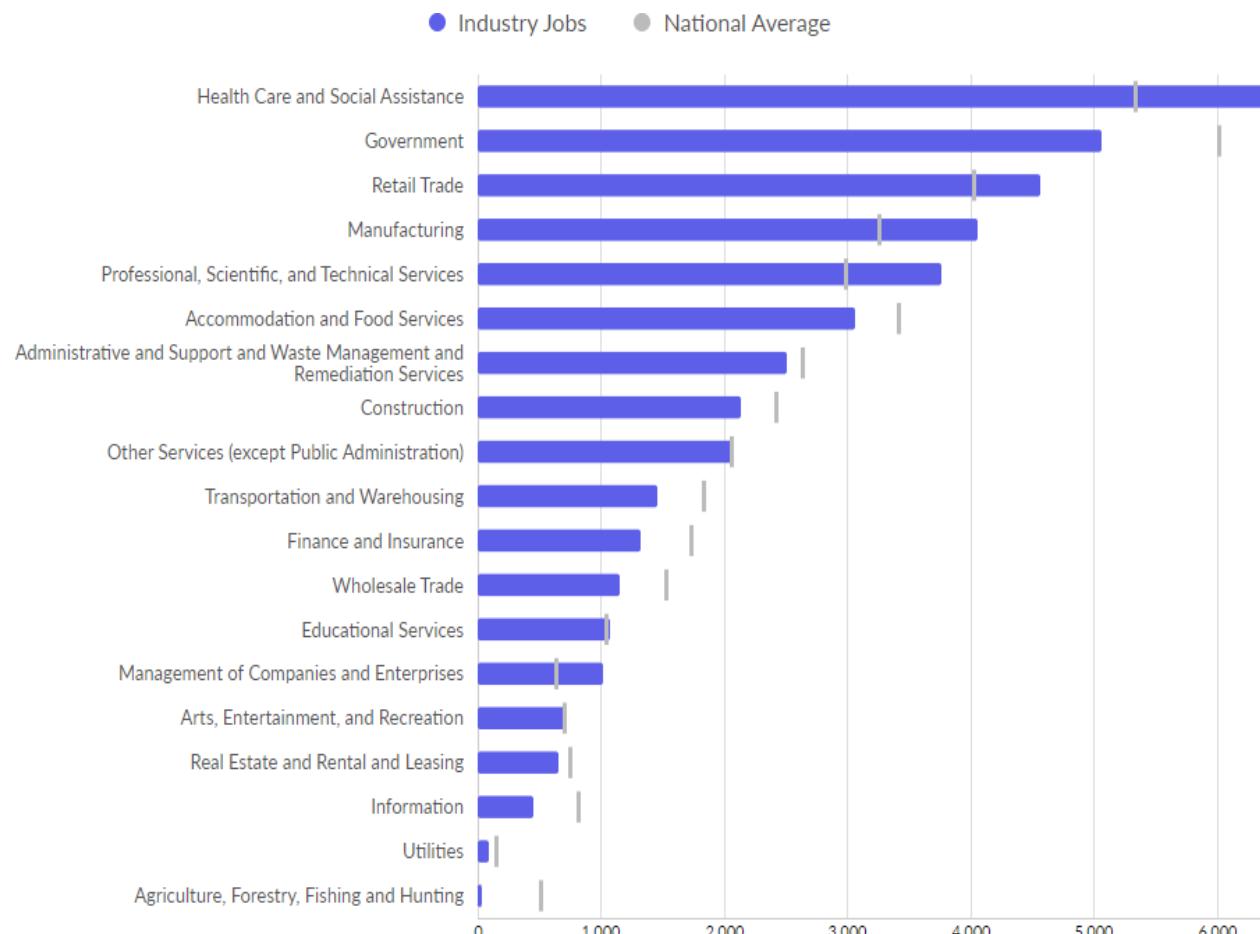
Market Share by Program Roanoke MSA, 2022.



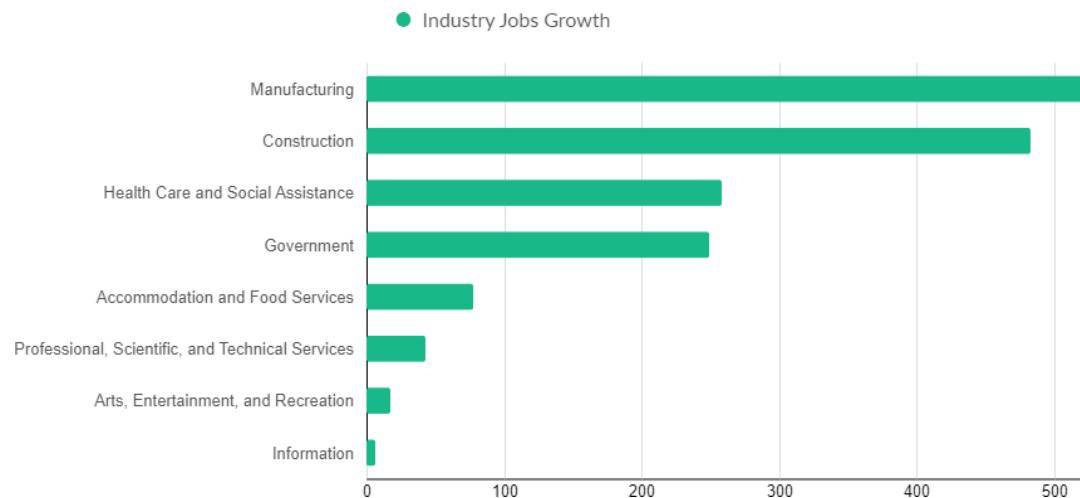
Program	Completions (2022)	Market Share
Business Administration and Management, General (52.0201)	155	6.5%
Biological and Physical Sciences (30.0101)	105	4.4%
General Studies (24.0102)	90	3.8%
Computer and Information Sciences, General (11.0101)	80	3.4%
Other	1,937	81.8%

# Employment

### Largest Industries



### Top Growing Industries



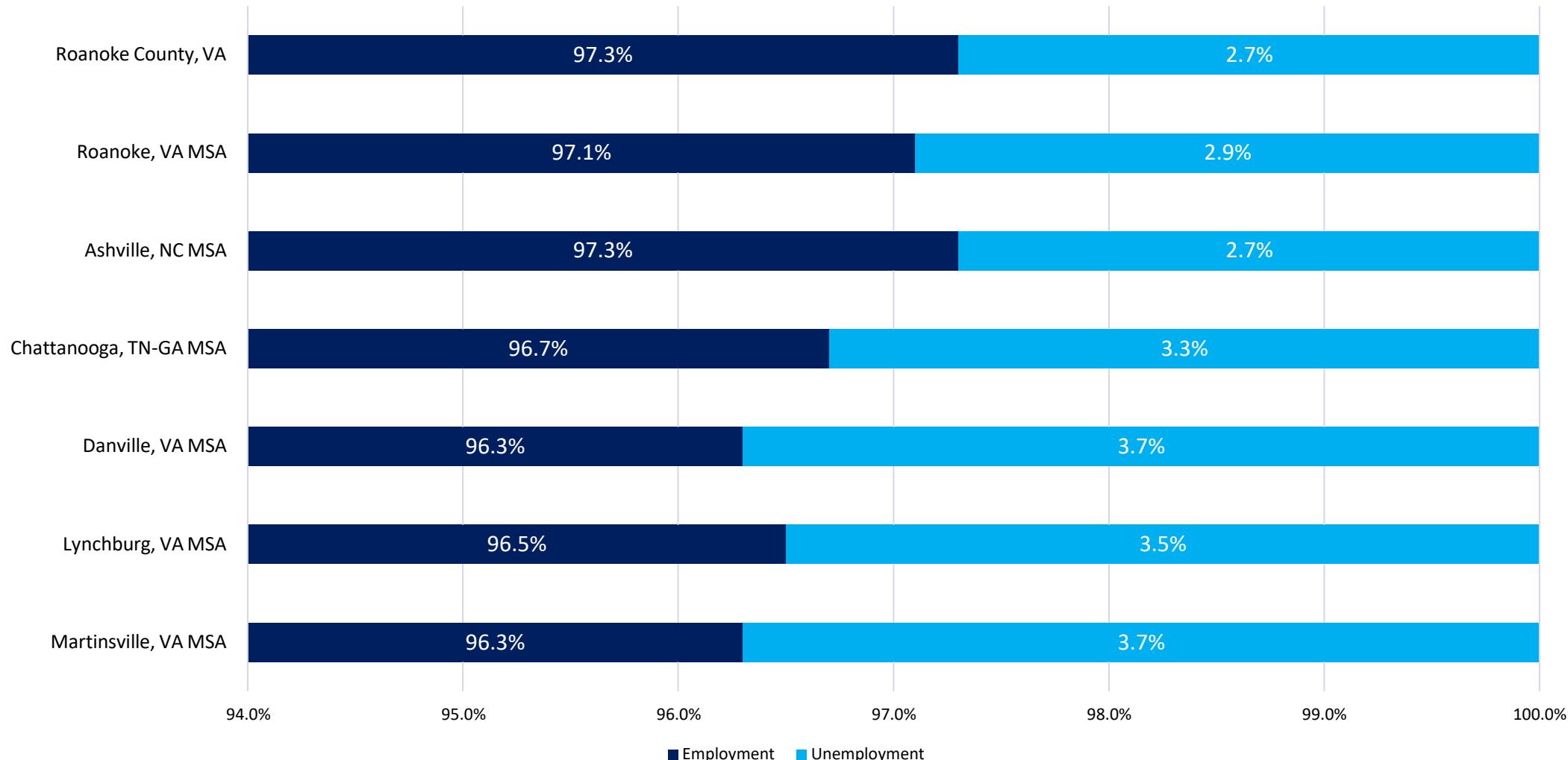
### Labor Force Trends



	Population
16+ Civilian Non-Institutionalized Population	79,657
Not in Labor Force (16+)	27,849
Labor Force	51,808
Employed	50,432
Unemployed	1,376
Under 16, Military, and institutionalized Population	18,390

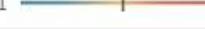
- 97% employment
- 3% unemployment

# Employment vs Unemployment



# Top Occupations and Employers

## Roanoke County

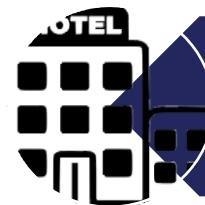
Occupation (SOC)	Total/Unique (Jun 2022 - Jun 2023)	Posting Intensity
Registered Nurses	1,653 / 777	2 : 1 
Retail Salespersons	438 / 238	2 : 1 
Licensed Practical and Licensed Vocational Nurses	333 / 191	2 : 1 
Nursing Assistants	391 / 189	2 : 1 
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	282 / 166	2 : 1 
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	240 / 162	1 : 1 
First-Line Supervisors of Retail Sales Workers	294 / 149	2 : 1 
Heavy and Tractor-Trailer Truck Drivers	301 / 144	2 : 1 
Medical and Health Services Managers	213 / 143	1 : 1 
Customer Service Representatives	252 / 125	2 : 1 

Company	Total/Unique (Jun 2022 - Jun 2023)	Posting Intensity
Carilion Clinic	2,903 / 1,363	2 : 1 
Randstad	365 / 225	2 : 1 
Lennox International	244 / 151	2 : 1 
Medical Facilities Of America	168 / 128	1 : 1 
Carilion Services	160 / 103	2 : 1 
Commonwealth Of Virginia	161 / 98	2 : 1 
Virginia Western Community College	121 / 72	2 : 1 
Harmony Senior Services	102 / 63	2 : 1 
Roanoke County Public Schools	87 / 63	1 : 1 
Quest Diagnostics	327 / 62	5 : 1 

# Top Industries for Economic Growth



Health Care and Social Assistance



Tourism and Hospitality



Government



Development



Retail Trade



Finance



Manufacturing



Technology, Life Sciences, and Biotechnology

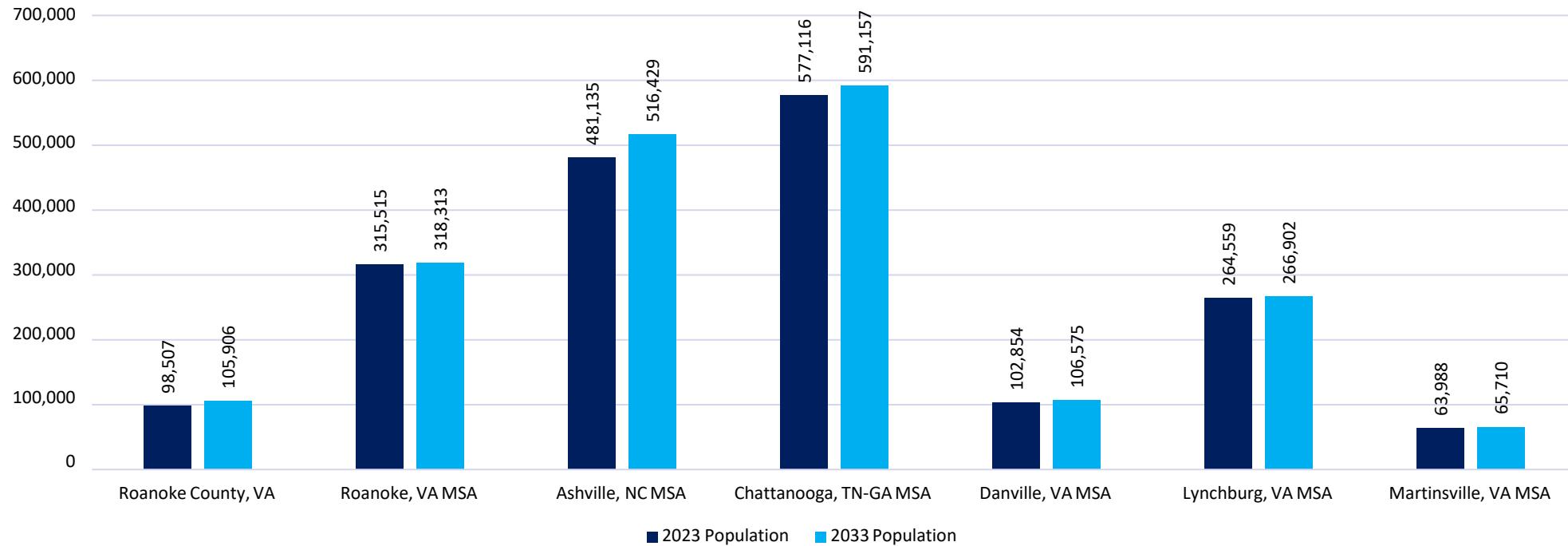


Professional, Scientific, and Technical Services



Mobility and Transportation

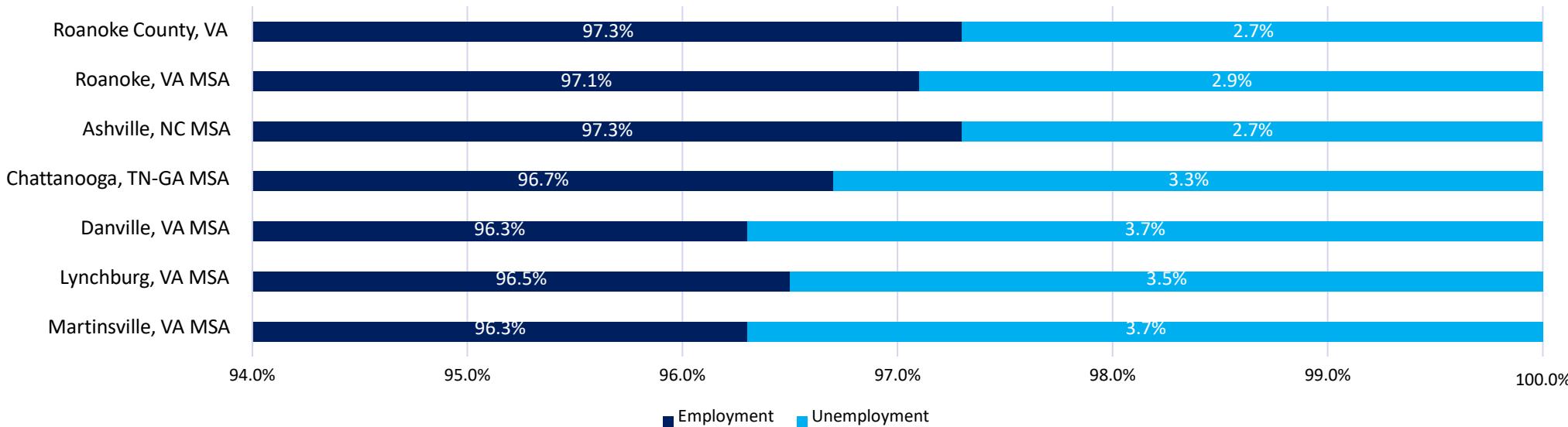
# Comparative Demographic Overview



Area	2023 Population	2033 Population	Change	% Change
Roanoke County, VA	98,507	105,906	7,399	8%
Roanoke, VA MSA	315,515	318,313	2,798	1%
Ashville, NC MSA	481,135	516,429	35,294	7%
Chattanooga, TN-GA MSA	577,116	591,157	14,041	2%
Danville, VA MSA	102,854	106,575	3,720	4%
Lynchburg, VA MSA	264,559	266,902	2,343	1%
Martinsville, VA MSA	63,988	65,710	1,722	3%

# Comparative Economic Overview

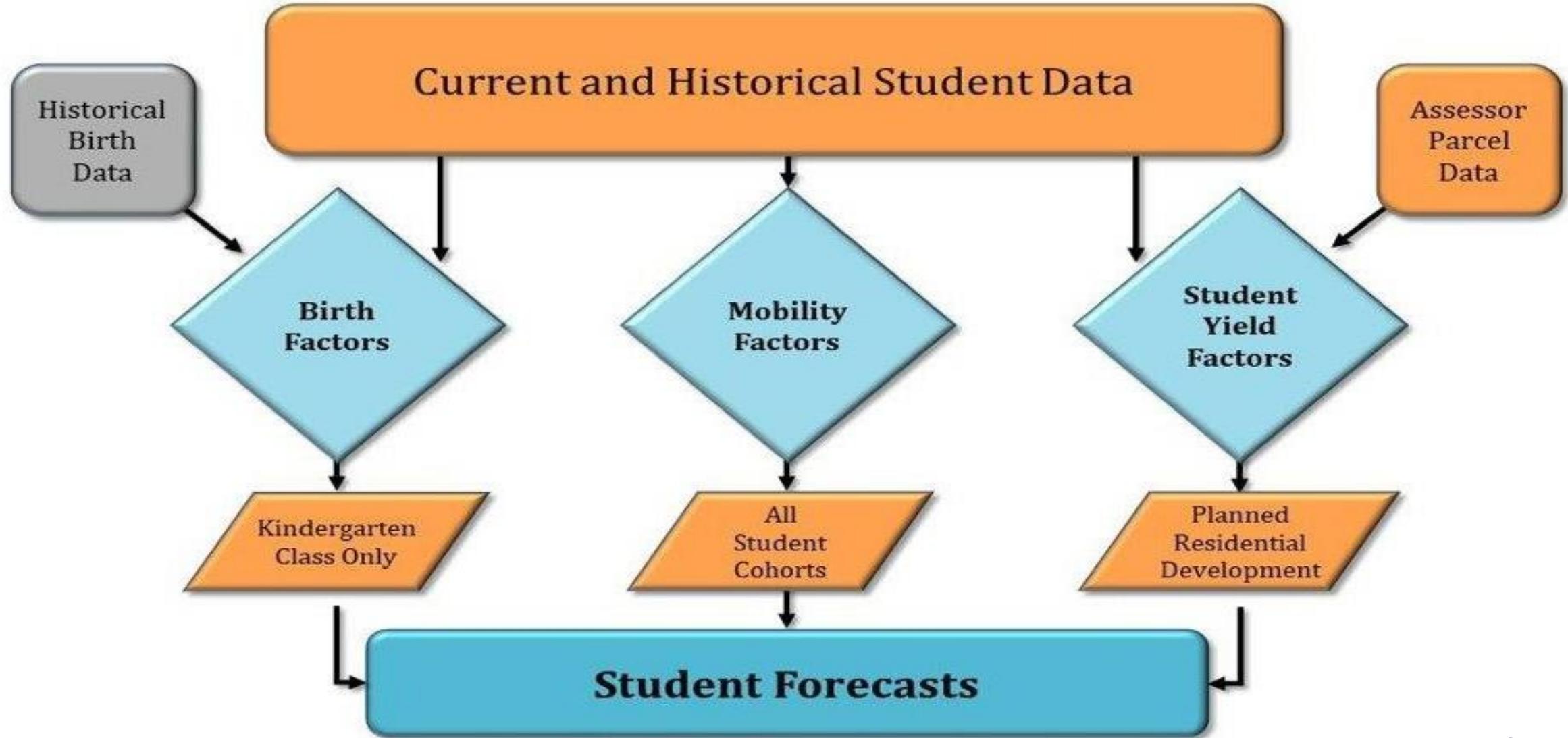
## Labor Force Trends



## Top Industries

Area	1st Largest Industry	2nd Largest Industry	3rd Largest Industry
Roanoke County, VA	Health Care and Social Assistance	Government	Retail Trade
Roanoke, VA MSA	Health Care and Social Assistance	Government	Manufacturing
Ashville, NC MSA	Health Care and Social Assistance	Retail Trade	Government
Chattanooga, TN-GA MSA	Manufacturing	Government	Health Care and Social Assistance
Danville, VA MSA	Health Care and Social Assistance	Government	Manufacturing
Lynchburg, VA MSA	Health Care and Social Assistance	Manufacturing	Educational Services
Martinsville, VA MSA	Manufacturing	Government	Health Care and Social Assistance

# Enrollment Projections Methodology



# Enrollment Projections Methodology

## Student Generation Rate

Student generation rate is defined as the number of students a school district can expect to gain from a new housing development measured as a number per housing unit. This is determined by dividing the number of students residing in a new housing development by the number of housing units within the same development. This calculation is illustrated below:



After reviewing past and current housing permits, MGT found 178 new single-family houses in multiple housing developments and 48 new units in multi-family developments. The 178 single-family houses yielded 65 students, resulting in a student generation rate of .365 students per new home. The 48 multi-family units yielded 5 students, resulting in a student generation rate of .104 per new unit.

# Enrollment Projections Methodology

Enrollment projections are an estimate of future activity.

## Average Percentage Increase Model

Calculates future school enrollment growth based on the historical average growth from year to year

## Linear Regression Model

Estimates by performing calculations on known historical values and to create future values to provide a trend line. MGT has chosen a “straight-line” model to estimate future enrollment values that finds the best fit based on the historical data.

## Cohort Survival Model

This model calculates the growth or decline in a grade level over a period of five years based on the ratio of students who attend each of the previous years, or the “survival rate.”

## Student-Age of Population Model

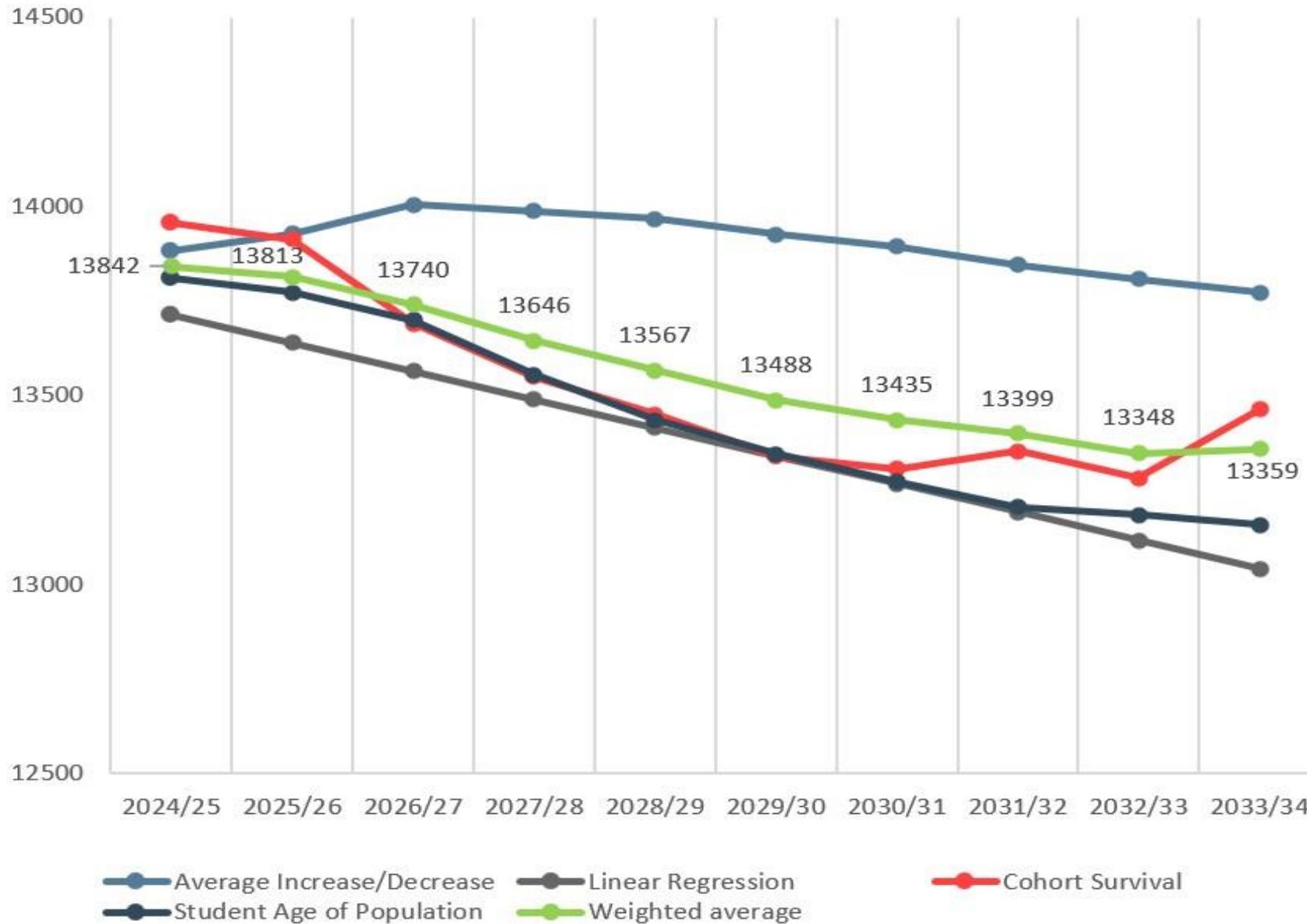
Utilizes age related population data to indicate the number of students within each school level that can be expected based upon population projections to project future enrollment.

## Weighted Average

Average of each of models to reflect the trends and the over-arching themes to maximize the strengths of each of the base models.

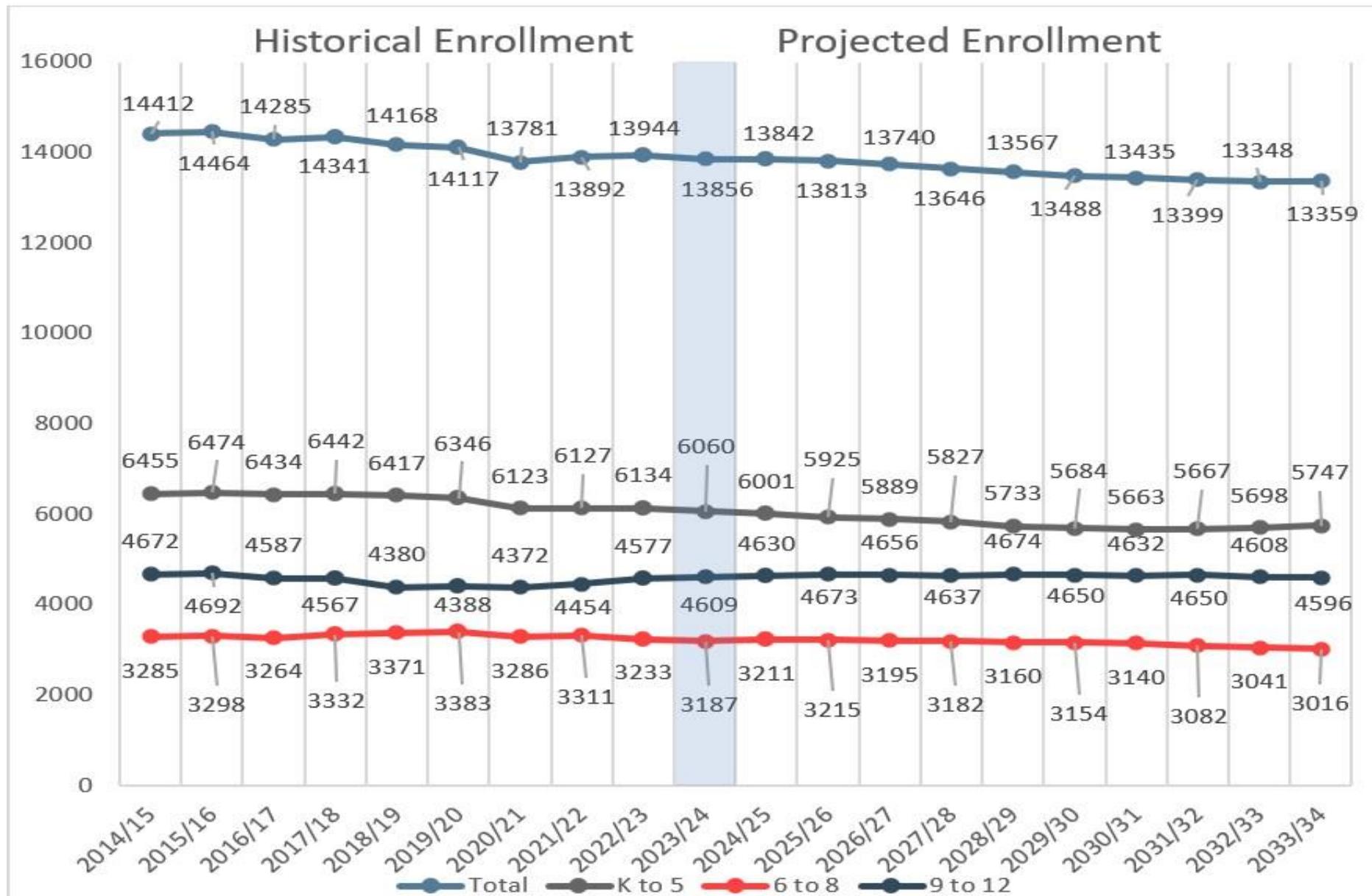


# School District Enrollment

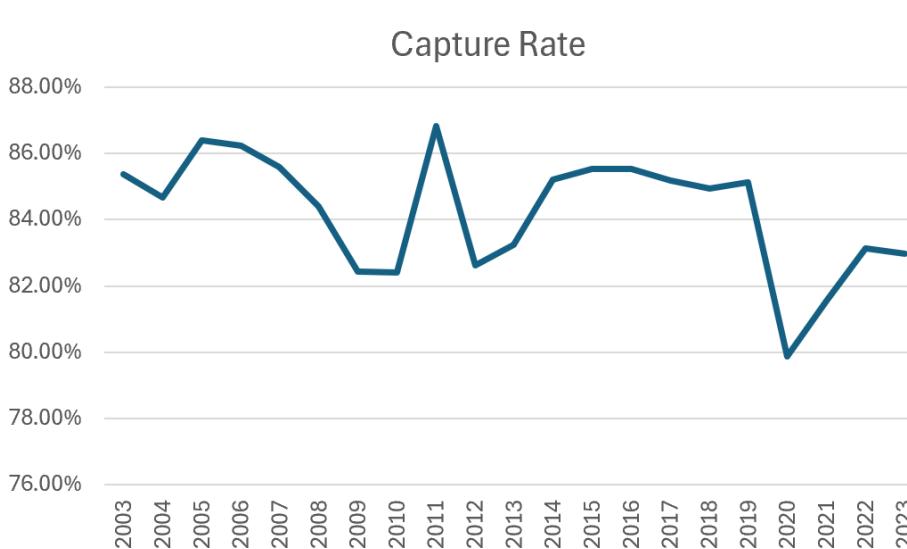
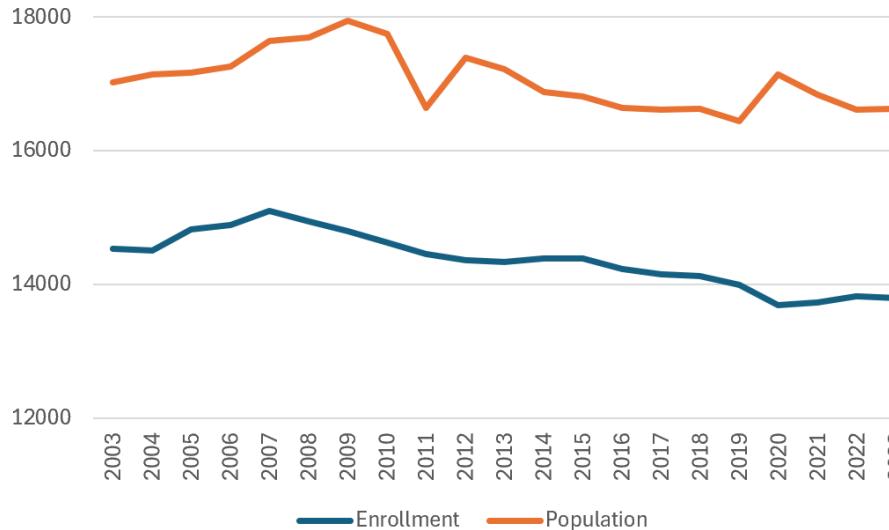


**Enrollment  
Projections  
by Model**

# Historical and Projected Enrollment by Grade Band



# Capture Rate



Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Enrollment	14537	14512	14830	14884	15105	14937	14793	14622	14454	14369	14333
Population	17029	17139	17164	17258	17647	17699	17945	17745	16647	17393	17221
Capture Rate	85.37%	84.67%	86.40%	86.24%	85.60%	84.39%	82.44%	82.40%	86.83%	82.61%	83.23%

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Enrollment	14384	14385	14235	14155	14121	13999	13692	13731	13819	13803
Population	16882	16820	16641	16618	16627	16444	17142	16838	16621	16634
Capture Rate	85.20%	85.52%	85.54%	85.18%	84.93%	85.13%	79.87%	81.55%	83.14%	82.98%

# Capacity and Utilization

EFFICIENCY RATE	DESCRIPTION
> 110	Inadequate Space
95 - 110	Approaching Inadequate Space
80 - 95	Adequate Space
70 - 80	Approaching Inefficient Use of Space
< 70	Inefficient Use of Space

# Elementary Enrollment, Capacity, and Utilization

Site Name	Current Enrollment	2033 Projected Enrollment	Gross Functional Capacity per RCPS	Gross Functional Capacity per VDOE	Current Utilization per RCPS Capacity	Current Utilization per VDOE Capacity	2033 Projected Utilization per RCPS Capacity	2033 Projected Utilization per VDOE Capacity
<b>Elementary</b>								
<u>Back Creek</u>	283	264	310	356	91.41%	79.41%	85.16%	74.16%
<u>Bonsack</u>	316	290	569	655	55.56%	48.23%	50.97%	44.27%
<u>Burlington</u>	508	488	535	616	95.02%	82.52%	91.21%	79.22%
<u>Cave Spring</u>	499	472	500	576	99.72%	86.63%	94.40%	81.94%
<u>Clearbrook</u>	307	285	310	356	99.16%	86.14%	91.94%	80.06%
<u>Fort Lewis</u>	253	241	232	266	108.96%	94.97%	103.88%	90.60%
<u>Glen Cove</u>	432	406	420	485	102.78%	89.05%	96.67%	83.71%
<u>Glenvar</u>	379	358	452	524	83.89%	72.36%	79.20%	68.32%
<u>Green Valley</u>	500	474	493	569	101.38%	87.90%	96.15%	83.30%
<u>Herman L Horn</u>	420	396	518	598	81.02%	70.28%	76.45%	66.22%
<u>Masons Cove</u>	219	204	239	274	91.48%	80.04%	85.36%	74.45%
<u>Mount Pleasant</u>	265	244	434	502	61.09%	52.77%	56.22%	48.61%
<u>Mountain View</u>	375	352	604	699	62.10%	53.63%	58.28%	50.36%
<u>Oak Grove</u>	391	364	544	626	71.93%	62.42%	66.91%	58.15%
<u>Penn Forest</u>	412	383	459	531	89.76%	77.59%	83.44%	72.13%
<u>W E Cundiff</u>	501	467	491	566	106.64%	88.50%	99.36%	82.51%
<b>Elementary School Total/Avg</b>	<b>6,060</b>	<b>5,688</b>	<b>7,109</b>	<b>8,200</b>	<b>85.49%</b>	<b>73.90%</b>	<b>80.25%</b>	<b>69.37%</b>

# Middle School Enrollment, Capacity, and Utilization

Site Name	Current Enrollment	2033 Projected Enrollment	Gross Functional Capacity per RCPS	Gross Functional Capacity per VDOE	Current Utilization per RCPS Capacity	Current Utilization per VDOE Capacity	2033 Projected Utilization per RCPS Capacity	2033 Projected Utilization per VDOE Capacity
<b>Middle</b>								
<u>Cave Spring</u>	755	722	967	1,085	78.05%	69.61%	74.66%	66.54%
<u>Glenvar</u>	429	409	661	748	64.87%	57.35%	61.88%	54.68%
<u>Hidden Valley</u>	569	540	847	948	67.21%	60.04%	63.75%	56.96%
<u>Northside</u>	616	579	908	1,021	67.86%	60.34%	63.77%	56.71%
<u>William Byrd</u>	818	783	993	1,118	82.39%	73.18%	78.85%	70.04%
<b>Middle School Total/Avg</b>	<b>3,187</b>	<b>3,033</b>	<b>4,376</b>	<b>4,919</b>	<b>72.83%</b>	<b>64.79%</b>	<b>69.31%</b>	<b>61.66%</b>

# High School Enrollment, Capacity, and Utilization

Site Name	Current Enrollment	2033 Projected Enrollment	Gross Functional Capacity per RCPS	Gross Functional Capacity per VDOE	Current Utilization per RCPS Capacity	Current Utilization per VDOE Capacity	2033 Projected Utilization per RCPS Capacity	2033 Projected Utilization per VDOE Capacity
<b>High</b>								
<u>Cave Spring</u>	1,079	1,064	995	1117	108.50%	96.62%	106.93%	95.26%
<u>Glenvar</u>	625	622	705	792	88.65%	78.91%	88.23%	78.54%
<u>Hidden Valley</u>	849	817	1079	1211	78.72%	70.14%	75.72%	67.46%
<u>Northside</u>	923	896	1131	1265	81.61%	72.95%	79.22%	70.83%
<u>William Byrd</u>	1,133	1,109	1074	1212	105.50%	93.48%	103.25%	92.11%
<b>High School Total/Avg</b>	<b>4,609</b>	<b>4,508</b>	<b>4,913</b>	<b>5,527</b>	<b>92.60%</b>	<b>82.42%</b>	<b>90.67%</b>	<b>80.84%</b>

# Capacity and Utilization

Site Name	Current Enrollment	2033 Projected Enrollment	Gross Functional Capacity per RCPS	Gross Functional Capacity per VDOE	Current Utilization per RCPS Capacity	Current Utilization per VDOE Capacity	2033 Projected Utilization per RCPS Capacity	2033 Projected Utilization per VDOE Capacity
<b>Elementary</b>								
Elementary School Total/Avg	6,060	5,688	7,109	8,200	85.49%	73.90%	80.25%	69.37%
<b>Middle</b>								
Middle School Total/Avg	3,187	3,033	4,376	4,919	72.83%	64.79%	69.31%	61.66%
<b>High</b>								
High School Total/Avg	4,609	4,508	4,913	5,527	92.60%	82.42%	90.67%	80.84%
<b>District Total</b>	<b>13,856</b>	<b>13,229</b>	<b>16,377</b>	<b>18,646</b>	<b>83.64%</b>	<b>73.70%</b>	<b>80.07%</b>	<b>70.62%</b>

# Findings and Themes

## Demographic Recommendations

Sustaining Excellence in Early Education Programs:	Addressing the Millennial Deficit Through Targeted Programs:	Supporting an Aging Population with Aging-in-Place Programs:	Strategic Planning for Workforce Development:
<ul style="list-style-type: none"><li>Maintain funding high-quality prekindergarten initiatives and providing early childhood instructors with resources.</li><li>Further promote parental engagement to build a strong foundation for academic success.</li><li>Continued collaborations with neighborhood organizations to improve early childhood education's accessibility.</li><li>Encourage the prioritization of early education in collaboration with programs such as The Virginia Preschool Initiative in order to maintain high early learning standards.</li></ul>	<ul style="list-style-type: none"><li>Continue advancing affordable housing, job training, and recreational spaces to attract millennials.</li><li>Further initiatives such as the Roanoke Outside Foundation to engage and retain young professionals within the community.</li><li>Develop the infrastructure even further to accommodate the demands of the shifting demographics within the populace.</li></ul>	<ul style="list-style-type: none"><li>Preserve and continue to support partnerships with senior service organizations such as the Local Office on Aging.</li><li>Promote the development of Roanoke County as an older-friendly community.</li><li>Sustain collaboration with local businesses and educational institutions to enhance opportunities.</li></ul>	<ul style="list-style-type: none"><li>Maintain the advancement of comprehensive workforce development through initiatives that optimize job preparedness for various age groups.</li><li>Further address skill gaps and expand opportunities for professional growth.</li><li>Continue to cooperate with local businesses, vocational institutions, and governmental organizations.</li><li>Equip the population with skills needed for the evolving job market in Roanoke County.</li></ul>

# Findings and Themes

## Economic Recommendations

### Aligning Educational Programs with Job Market Needs:

- Maintain efforts to align educational attainment and employment qualifications.
- Sustain collaboration with educational institutions, businesses, and government for targeted training.
- Encourage workforce qualifications that meet industry demands to enhance economic competitiveness.

### Diversifying Industries for Economic Stability:

- Continue encouraging growth in emerging sectors like technology, advanced manufacturing, and hospitality.
- Sustain collaboration with research institutions to attract innovative industries.
- Increase industry infrastructure by working with organizations such as the Economic Development Authority

### Strengthening Workforce Development in Growing Sectors:

- Continue focusing on training programs and apprenticeships for the manufacturing sector.
- Further develop skills in high-demand areas such as construction and health care.
- Sustain partnerships with industry leaders for specialized workforce development.
- Continue collaborating with major employers such as Carilion Clinic to refine comprehensive recruitment plans.

### Strategic Planning for Workforce Development:

- Further implement targeted marketing campaigns and competitive benefits packages.
- Sustain community engagement to attract a diverse talent pool.
- Encourage creation and maintenance of an attractive environment for skilled professionals to support regional economic growth.

# Findings and Themes

## Educational Recommendations

### Celebrate Success and Continue Support for Growth:

- Continue to share the good news of School Community.
- District ranks 11 out of 131 school systems in Virginia (2024 Niche.com rankings).
- Ranks 7th in math scores and 8th in reading scores across Virginia (2024).
- Graduation rates are very strong.
- New CTE facility can be a game changer for school community.
- Lean into the school system as a factor in attracting families to the area.
- Maintain collaborations with community organizations to enhance educational support services.
- Continue the on-going assessment and adaptation of programs to meet the changing needs of the student population and to engage school community.

### Continuing Investment in Technology Integration:

- Maintain investments in digital resources, interactive learning platforms, and classroom technology. (1-1)
- Continue to provide access to online collaborative tools such as Brainfuse HelpNow from the Learning Lab to accommodate different learning styles.
- Sustain efforts to train educators in effective technology integration to maximize benefits.
- Continue to maintain, encourage, and expand students in developing critical thinking and digital literacy skills in preparation for a technologically driven future.

### Sustaining Excellence in Graduation Rates:

- Continue maintaining high graduation rates, building on the district's strong performance in this area.
- Further support students with initiatives like the Opportunity Ready Graduate initiative.
- Sustain efforts to provide a balanced curriculum that prepares students for both college and careers.
- Encourage ongoing analysis and improvement of graduation pathways to ensure continued success.

### Sustaining Excellence in Early Education Programs:

- Continue the significant investments in K-12 education to maintain and enhance Roanoke County's top-ranking educational standing.
- Expand promotion to innovative educational initiatives such as the C-Change Framework and the Opportunity Ready Graduate initiative.
- Sustain efforts to balance strong test scores with innovative learning experiences such as those found in the RCPS Online Academy .
- Encourage ongoing collaboration with local businesses and higher education institutions to prepare students for future opportunities.



Thank You