

Population Change and Migration Analysis in the
Roanoke Valley-Alleghany Region with a focus on
Franklin County

DRAFT



April 2010

Background

This short study attempts to examine components of population change and migration within the Roanoke Valley-Alleghany Regional Commission service area. The data is further examined by educational attainment to determine patterns of population growth by education level. The project was requested by Franklin County.

Data Sources

Data for this examination comes from the 2000 Census and from the 2006-2008 American Community Survey (US Census Bureau). More reliable data should be available after the 2010 Census is complete. Furthermore, the 2006-2008 American Community Survey data was not available for some local governments in the RVARC region. As a result, many tables do not include data for some of the smaller jurisdictions.

Components of Population Change 2000-2008

Between 2000 and 2008 population increased 9.7% in the Commonwealth of Virginia. Following similar growth rates, Bedford County and Franklin County increased 10.7% and 8.9% respectively. Most of the population growth in the region can be attributed to in-migration. While Virginia had a 5.3% increase in population due to natural increase (births-deaths), most localities in the RVARC region had flat or negative natural increase. Virginia's population grew 4.5% due to migration, and this was outpaced by a 9.3% growth in Bedford County, and an 8.0% increase in Franklin County. As might be expected, most of the international migration increase occurred in the City of Roanoke and Roanoke County. Most of the in-migration in Bedford and Franklin Counties was domestic.

Using some more recent estimates from the Weldon Cooper Center for Public Service, Franklin County's population increased 13% from 2000 to 2009. Almost all of that increase (11.5%) was estimated to be from in migration.

Components of Population Change for RVARC Region: April 1, 2000 to July 1, 2008

Geographic Area	2000 Population	Total Population Change ¹	Percent Change	Natural Increase	Percent Natural	Vital Events		Net Migration			
						Births	Deaths	Total	Percent Migration	International ²	Domestic
Virginia	7,078,515	690,064	9.7%	376,015	5.3%	850,119	474,104	321,605	4.5%	162,200	159,405
Alleghany County	12,926	-1,013	-7.8%	-414	-3.2%	1,511	1,925	-522	-4.0%	21	-543
Bedford County	60,371	6,460	10.7%	1,186	2.0%	5,240	4,054	5,613	9.3%	193	5,420
Botetourt County	30,496	1,765	5.8%	228	0.7%	2,337	2,109	1,762	5.8%	12	1,750
Craig County	5,091	-4	-0.1%	-3	-0.1%	414	417	23	0.5%	5	18
Franklin County	47,286	4,200	8.9%	687	1.5%	4,521	3,834	3,773	8.0%	60	3,713
Roanoke County	85,778	5,142	6.0%	1,593	1.9%	8,852	7,259	3,920	4.6%	783	3,137
Covington city	6,303	-183	-2.9%	-241	-3.8%	476	717	85	1.3%	105	-20
Roanoke city	94,911	-1,946	-2.1%	-140	-0.1%	10,038	10,178	-1,251	-1.3%	1,316	-2,567
Salem city	24,747	702	2.8%	-558	-2.3%	1,924	2,482	1,399	5.7%	144	1,255

¹ Total population change includes a residual. This residual represents the change in population that cannot be attributed to any specific demographic component. See State and County Terms and Definitions at <http://www.census.gov/popest/topics/terms/state>

² Net international migration includes the international migration of both native and foreign-born populations. Specifically, it includes: (a) the net international migration of the foreign born, (b) the net migration between the United States and Puerto Rico. Note: The April 1, 2000 estimates base reflects changes to the Census 2000 population resulting from legal boundary updates, other geographic program changes, and Count Question Resolution actions. All geographic boundaries for the 2008 population estimate

Sources: Weldon Cooper Center for Public Service, UVA
and Population Division, U.S. Census Bureau
Release Date: March 19, 2009

Educational Attainment Percent Change 2000-2008	Bedford County	Botetourt County	Franklin County	Roanoke County	Roanoke City	Salem City	Roanoke MSA
Total: Age 25 and over	10.3%	6.1%	8.2%	3.2%	-0.1%	1.4%	5.0%
Less than high school graduate	-12.3%	-33.1%	-16.9%	-22.8%	-21.0%	-10.8%	-19.2%
High school graduate (includes equivalency)	6.5%	15.1%	23.9%	-1.5%	0.3%	0.0%	8.4%
Some college or associate's degree	16.3%	7.6%	17.7%	7.5%	10.7%	-8.1%	10.5%
Bachelor's degree	29.6%	36.7%	3.5%	17.1%	11.2%	21.4%	17.5%
Graduate or professional degree	30.6%	2.3%	7.9%	14.9%	9.7%	44.9%	14.5%

Sources: 2000 US Census
2006-2008 American Community Survey, US Census.

Educational Attainment by Place of Birth 2006-2008 (age 25 and over)

	Bedford County	Botetourt County	Franklin County	Roanoke County	Roanoke City	City of Salem	Roanoke MSA
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Total:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Less than high school graduate	15.8%	11.7%	21.4%	10.7%	19.0%	15.8%	15.8%
High school graduate (includes equivalency)	31.6%	36.8%	37.3%	26.6%	30.5%	31.7%	31.5%
Some college or associate's degree	27.9%	28.3%	27.0%	31.0%	29.8%	27.2%	29.2%
Bachelor's degree	16.1%	17.2%	9.3%	21.4%	13.5%	15.7%	15.7%
Graduate or professional degree	8.5%	6.0%	5.1%	10.4%	7.2%	9.6%	7.8%
Born in state of residence:	62.6%	66.4%	68.6%	57.0%	61.1%	60.3%	61.9%
Less than high school graduate	12.6%	9.1%	17.1%	8.1%	13.1%	11.2%	11.7%
High school graduate (includes equivalency)	23.1%	27.6%	27.8%	17.4%	20.8%	22.0%	22.1%
Some college or associate's degree	16.4%	18.5%	17.6%	17.9%	17.7%	14.4%	17.6%
Bachelor's degree	7.1%	8.5%	4.3%	10.0%	6.6%	7.6%	7.5%
Graduate or professional degree	3.3%	2.7%	1.8%	3.5%	2.8%	5.1%	3.0%
Born in other state in the United States:	34.2%	30.6%	28.3%	37.0%	32.9%	36.0%	33.2%
Less than high school graduate	2.8%	2.4%	3.4%	1.8%	4.1%	4.1%	3.2%
High school graduate (includes equivalency)	7.8%	8.4%	9.0%	7.7%	7.8%	8.2%	8.0%
Some college or associate's degree	10.8%	8.8%	9.1%	11.5%	10.6%	12.3%	10.5%
Bachelor's degree	8.3%	7.8%	4.0%	9.9%	6.4%	7.6%	7.2%
Graduate or professional degree	4.4%	3.1%	2.9%	6.0%	4.0%	3.8%	4.3%
Foreign born:	2.6%	2.2%	2.8%	5.3%	5.2%	3.0%	4.2%
Less than high school graduate	0.3%	0.2%	0.7%	0.7%	1.7%	0.0%	0.9%
High school graduate (includes equivalency)	0.6%	0.5%	0.5%	1.2%	1.6%	1.5%	1.1%
Some college or associate's degree	0.6%	0.6%	0.3%	1.3%	1.2%	0.5%	0.9%
Bachelor's degree	0.6%	0.9%	0.9%	1.2%	0.5%	0.4%	0.8%
Graduate or professional degree	0.6%	0.1%	0.3%	0.9%	0.3%	0.7%	0.5%

Source: U.S. Census Bureau, 2006-2008
American Community Survey

Educational Attainment Change 2000-2008

Since 2000, all localities in the region have shown a decrease in the number of people who are not high school graduates. Likewise, education levels have increased in all localities. As expected, more affluent urban areas had the greatest increase in educational attainment. Franklin County lagged other localities in the increase of college degree holding graduates. A rural economy historically based on agriculture is probably the best explanation for the slow increase in education levels for Franklin County. It should be pointed out that Franklin County had the largest increase (17.7%) of localities in the region in the “some college or associates degree” category.

Educational Attainment by Place of Birth 2006-2008

The American Community Survey includes data on educational attainment by place of birth for 2006-2008. The more rural localities, such as Franklin County and Botetourt County have the highest percentage of high school graduates (high school graduate with no further education). These high school graduates are plentiful as both Virginia natives and as those born in other states. Overall, Franklin County still has the highest percentage of those with less than a high school education (21.4%) and those with only a high school degree (37.3%). Franklin County also has the lowest rate of those with a Bachelors degree (9.3%), and those with a graduate or professional degree (5.1%). The City of Salem and Roanoke County attract about 10% more people born in other states than Franklin County does. Of those highly educated people born in other states, Franklin County only has 6.9% of its population (age 25 and older) in this group, while Roanoke County has 15.9% of its adults in this group. As expected, foreign-born populations are also denser in the urban areas of Roanoke County, the City of Roanoke and the City of Salem.

Educational Attainment by Age-2000

Educational Attainment by Age 2000 Census	Virginia		Botetourt County		Franklin County		Roanoke County		Roanoke MSA	
	18-64	65+	18-64	65+	18-64	65+	18-64	65+	18-64	65+
Less than 9th grade	4.2%	20.6%	3.2%	21.5%	6.1%	33.7%	2.4%	17.6%	3.4%	17.1%
9th to 12th grade, no diploma	11.3%	16.7%	11.6%	19.4%	15.5%	16.1%	7.8%	15.3%	12.4%	18.1%
High school graduate (includes equivalency)	26.4%	27.2%	34.3%	32.1%	35.4%	23.1%	26.7%	32.0%	29.7%	31.2%
Some college, no degree	23.6%	15.1%	22.5%	14.3%	23.2%	12.8%	24.3%	16.7%	23.9%	16.6%
Associate degree	5.8%	2.3%	8.1%	1.9%	6.0%	1.4%	9.5%	2.0%	7.9%	2.4%
Bachelor's degree	18.0%	10.3%	14.1%	6.1%	9.3%	8.0%	19.9%	10.9%	15.4%	9.3%
Graduate or professional degree	10.6%	7.7%	6.1%	4.7%	4.5%	5.0%	9.5%	5.5%	7.3%	5.2%

Source: US Bureau of the Census

Educational Attainment by Age (2000)

In the 2000 Census, 33.7% of Franklin County’s population over age 65 had less than a 9th grade education. This compares to 20.6% for the Commonwealth of Virginia. While the highly educated seniors (65+) was lower than the state average, the numbers were comparable to other counties in the Roanoke region. More pronounced was the lower education number among 18-64 year olds. In Franklin County 9.3% of 18-64 year olds had a bachelor’s degree, while the Roanoke MSA had 15.4% and the Commonwealth of Virginia had 18%. A similar pattern was found for graduate or professional degrees.

Geographic Mobility in the Past Year (2006-2008)

As would be expected, the urban areas of the metro area (cities of Roanoke, Salem and Roanoke County) have higher mobility. The more rural portions of the region (Bedford, Botetourt and Franklin counties) have less mobile populations. For example, Botetourt County had 92% of its population who lived in the same house a year ago. The only unusual statistic is that Franklin County had the highest percentage of people that lived abroad one year ago (.4% or 184 people).

Means of Transportation to Work by Place of Work (2006-2008)

The most relevant data about commuting in the American Community Survey data is whether people live and work in the same county. In Bedford County, only 24.3% of workers live and work in Bedford County. In the region, Franklin County has the highest percentage, at 58.1%. Likewise, 40.7% of residents worked outside of Franklin County, the lowest percentage of counties in the region (This City of Roanoke is 38%). Another interesting point is that Franklin County also has a high percentage (second in the region to the City of Salem) of people who use a taxi, motorcycle, bicycle, or walk to work, which might be unusual due to its more rural nature.

Geographic Mobility in Past Year (2006-2008 Average)

	Bedford County	Botetourt County	Franklin County	Roanoke County	City of Roanoke	City of Salem	Roanoke MSA
Residents	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Total:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Same house 1 year ago	88.1%	92.0%	86.8%	84.0%	82.7%	77.3%	84.5%
Different house in United States 1 year ago:	11.7%	7.9%	12.9%	15.5%	17.2%	22.3%	15.2%
Same Metropolitan Statistical Area:	7.7%	6.1%	8.7%	10.2%	12.7%	13.4%	10.4%
Moved from principal city	1.1%	0.5%	0.7%	3.6%	9.6%	5.0%	4.7%
Moved from remainder of Metropolitan Statistical Area	6.5%	5.6%	8.0%	6.6%	3.0%	8.4%	5.7%
Different Metropolitan Statistical Area:	3.4%	1.4%	3.2%	3.7%	3.4%	8.3%	3.6%
Moved from principal city	1.4%	0.5%	0.7%	1.6%	1.8%	2.0%	1.4%
Moved from remainder of Metropolitan Statistical Area	2.1%	0.8%	2.5%	2.2%	1.5%	6.3%	2.2%
Micropolitan Statistical Area:	0.3%	0.1%	0.5%	0.8%	0.8%	0.2%	0.6%
Moved from principal city	0.2%	0.0%	0.0%	0.1%	0.3%	0.0%	0.1%
Moved from remainder of Micropolitan Statistical Area	0.1%	0.1%	0.4%	0.7%	0.5%	0.2%	0.5%
Not in a Metropolitan or Micropolitan Statistical Area 1 year ago	0.4%	0.3%	0.5%	0.8%	0.4%	0.4%	0.5%
Abroad 1 year ago	0.2%	0.1%	0.4%	0.5%	0.1%	0.3%	0.3%

Source: U.S. Census Bureau, 2006-2008 American Community Survey

Means of Transportation to Work by Place of Work (2006-2008) Average

	Bedford County	Botetourt County	Franklin County	Roanoke County	City of Roanoke	City of Salem	Roanoke MSA
Residents	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Total:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Worked in state of residence:	99.1%	98.1%	98.8%	99.6%	99.0%	99.2%	99.1%
Worked in county of residence	24.3%	35.5%	58.1%	33.9%	60.6%	45.9%	46.5%
Worked outside county of residence	74.8%	62.7%	40.7%	65.8%	38.4%	53.2%	52.5%
Worked outside state of residence	0.9%	1.9%	1.2%	0.4%	1.0%	0.8%	0.9%
Car, truck, or van - drove alone:	84.8%	84.5%	83.2%	86.5%	81.3%	80.7%	83.6%
Worked in state of residence:	84.3%	83.2%	82.3%	86.3%	80.5%	79.8%	83.0%
Worked in county of residence	17.1%	25.9%	45.5%	26.7%	49.2%	32.3%	36.3%
Worked outside county of residence	67.2%	57.2%	36.8%	59.6%	31.4%	47.5%	46.6%
Worked outside state of residence	0.5%	1.3%	0.9%	0.2%	0.7%	0.8%	0.7%
Car, truck, or van - carpooled:	9.7%	7.8%	10.4%	7.7%	10.6%	8.2%	9.2%
Worked in state of residence:	9.6%	7.6%	10.1%	7.6%	10.5%	8.2%	9.0%
Worked in county of residence	3.0%	2.7%	6.3%	2.4%	5.3%	3.5%	4.1%
Worked outside county of residence	6.5%	4.9%	3.8%	5.2%	5.2%	4.6%	4.9%
Worked outside state of residence	0.1%	0.2%	0.3%	0.1%	0.1%	0.0%	0.2%
Public transportation (excluding taxicab):	0.3%	0.0%	0.1%	0.5%	2.9%	0.9%	1.1%
Worked in state of residence:	0.2%	0.0%	0.1%	0.5%	2.9%	0.9%	1.1%
Worked in county of residence	0.0%	0.0%	0.0%	0.1%	1.9%	0.4%	0.6%
Worked outside county of residence	0.2%	0.0%	0.1%	0.4%	1.0%	0.5%	0.5%
Worked outside state of residence	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Taxicab, motorcycle, bicycle, walked, or other means:	1.7%	2.0%	3.1%	1.6%	3.0%	4.7%	2.5%
Worked in state of residence:	1.5%	1.7%	3.1%	1.5%	2.8%	4.7%	2.4%
Worked in county of residence	0.7%	1.2%	3.0%	0.9%	1.9%	4.1%	1.9%
Worked outside county of residence	0.8%	0.5%	0.0%	0.6%	0.9%	0.6%	0.6%
Worked outside state of residence	0.2%	0.3%	0.0%	0.1%	0.2%	0.0%	0.1%
Worked at home	3.5%	5.6%	3.2%	3.8%	2.2%	5.6%	3.6%

Source: U.S. Census Bureau, 2006-2008 American Community Survey

Geographic Mobility by Educational Attainment (2006-2008)

There is little useful new information to gain from Geographic Mobility by Educational Attainment for 2006-2008. As would be expected, the urban core of Roanoke City has the highest internal geographic mobility (moved within same county/city) of all the localities in the region. As would be expected, the more rural localities of Franklin County and Botetourt County have the most stable populations (lived in same house 1 year ago). Of those moving from a different county or different state, the City of Salem had the highest attraction, followed by Roanoke County and the City of Roanoke. Following suite, Botetourt County and Franklin County seemed less likely to attract people from another county or state. Of those moving from abroad, the higher educated people tended to move to Roanoke County, Roanoke City and Salem City, while the less educated foreigners settled in Bedford, Franklin and Botetourt counties.

Geographic Mobility by Educational Attainment 2006-2008 (age 25 and over)

	Bedford County,	Botetourt County,	Franklin County	Roanoke County,	Roanoke city,	Salem city,	Roanoke MSA
Total:	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Less than high school graduate	15.8%	11.7%	21.4%	10.7%	19.0%	15.8%	15.8%
High school graduate (includes equivalency)	31.6%	36.8%	37.3%	26.6%	30.5%	31.7%	31.5%
Some college or associate's degree	27.9%	28.3%	27.0%	31.0%	29.8%	27.2%	29.2%
Bachelor's degree	16.1%	17.2%	9.3%	21.4%	13.5%	15.7%	15.7%
Graduate or professional degree	8.5%	6.0%	5.1%	10.4%	7.2%	9.6%	7.8%
Same house 1 year ago:	90.3%	94.1%	89.8%	87.9%	84.5%	81.1%	87.4%
Less than high school graduate	14.1%	10.8%	19.6%	9.4%	15.9%	12.3%	13.7%
High school graduate (includes equivalency)	28.8%	35.1%	34.0%	23.5%	25.4%	26.7%	27.7%
Some college or associate's degree	24.8%	26.1%	24.0%	26.3%	25.6%	21.3%	25.3%
Bachelor's degree	14.4%	16.1%	7.6%	19.4%	11.1%	12.3%	13.6%
Graduate or professional degree	8.2%	6.0%	4.6%	9.3%	6.5%	8.5%	7.1%
Moved within same county:	3.6%	3.1%	5.5%	3.2%	8.2%	4.2%	5.2%
Less than high school graduate	0.8%	0.4%	1.1%	0.3%	2.2%	0.9%	1.1%
High school graduate (includes equivalency)	1.5%	1.2%	1.8%	0.8%	3.0%	0.8%	1.7%
Some college or associate's degree	0.9%	1.0%	1.7%	1.4%	1.9%	1.3%	1.6%
Bachelor's degree	0.3%	0.4%	0.6%	0.4%	0.9%	1.0%	0.6%
Graduate or professional degree	0.1%	0.1%	0.3%	0.3%	0.3%	0.2%	0.2%
Moved from different county within same state:	4.4%	2.3%	3.4%	5.8%	5.4%	10.0%	5.1%
Less than high school graduate	0.6%	0.4%	0.6%	0.8%	0.7%	1.5%	0.7%
High school graduate (includes equivalency)	1.0%	0.5%	0.9%	1.5%	1.7%	3.2%	1.5%
Some college or associate's degree	1.9%	0.6%	1.1%	2.3%	1.8%	2.7%	1.8%
Bachelor's degree	0.7%	0.7%	0.6%	0.8%	0.9%	1.9%	0.9%
Graduate or professional degree	0.2%	0.0%	0.2%	0.4%	0.3%	0.7%	0.3%
Moved from different state:	1.4%	0.5%	1.2%	2.6%	1.8%	4.3%	2.0%
Less than high school graduate	0.2%	0.0%	0.1%	0.2%	0.2%	1.1%	0.2%
High school graduate (includes equivalency)	0.3%	0.0%	0.6%	0.6%	0.5%	0.8%	0.5%
Some college or associate's degree	0.3%	0.5%	0.1%	0.8%	0.4%	1.9%	0.6%
Bachelor's degree	0.5%	0.0%	0.5%	0.7%	0.5%	0.5%	0.5%
Graduate or professional degree	0.1%	0.0%	0.0%	0.3%	0.2%	0.0%	0.2%
Moved from abroad:	0.3%	0.1%	0.1%	0.4%	0.1%	0.3%	0.2%
Less than high school graduate	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
High school graduate (includes equivalency)	0.0%	0.0%	0.0%	0.2%	0.0%	0.2%	0.1%
Some college or associate's degree	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Bachelor's degree	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Graduate or professional degree	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%

Source: U.S. Census Bureau, 2006-2008 American Community Survey

2000 Census Commuter Data

The 2000 Census included detailed data on commuting patterns. Profiles for the RVARC region are available online at <http://www.rvarc.org/data/commuting.pdf>

A sample profile for Franklin County is provided on the following page. The data for Franklin County can be summarized as follows. Of workers who live in the county, 13,182 people work and live in Franklin County. About 6,320 people who live in Franklin County commute to the Roanoke metro area daily for employment. A total of 2,020 people commute from other localities to work in Franklin County.

Summary

There is still limited data from 2000-2008 to truly identify recent commuting, population and education trends in the region. As more data from the American Community Survey and the 2010 Census becomes available, a clearer picture of recent demographics should emerge. There was some speculation that development around Smith Mountain Lake may have influenced education, age and income levels within Franklin County. It is difficult to conclude that such development has had a noticeable effect on demographics within the county. The counties surrounding the urban core have seen higher population growth over the past decade, and Franklin County is no exception. Other trends also seem to be distinguished by urban and rural characteristics. The Roanoke urbanized area seems to attract more people and people with higher education levels. People tend to be more mobile in the urban area, than the rural counties. Education levels in the region have increased, but Franklin County, while also increasing, still slightly lags many of the other localities in the region.

Franklin County 2000 Commuter Data

Workers who live and work in locality **13,182**

In Commuters: From	Number	Percent of Workforce*
Roanoke Co. VA	476	3.1%
Bedford Co. VA	309	2.0%
Henry Co. VA	282	1.9%
Roanoke city VA	274	1.8%
Pittsylvania Co. VA	257	1.7%
Martinsville city VA	103	0.7%
Floyd Co. VA	47	0.3%
Patrick Co. VA	35	0.2%
Botetourt Co. VA	29	0.2%
Bedford city VA	28	0.2%
Total In Commuters:	2,020	13.3%

Out Commuters: To	Number	Percent of Residents**
Roanoke city VA	3,810	17.0%
Roanoke Co. VA	1,656	7.4%
Henry Co. VA	1,264	5.6%
Salem city VA	691	3.1%
Martinsville city VA	435	1.9%
Botetourt Co. VA	163	0.7%
Pittsylvania Co. VA	139	0.6%
Bedford Co. VA	110	0.5%
Bedford city VA	88	0.4%
Danville city VA	87	0.4%
Total Out Commuters	9,288	41.3%

Net Work Flow: **-7,268**

*Percent of people working in locality (residents and non-residents)

**Percent of locality residents who work outside the home (residents only)

Compiled by the Roanoke Valley Alleghany-Regional Commission, March 2003

Source: US Bureau of the Census, 2000 Work Flow Data.

Note: Only top ten commuting localities shown. Totals reflect other localities not listed.

