Age Composition in the Fifth District

This issue of 5th District Footprint examines age composition for the Fifth District through dependency ratios, which measure the degree to which the population may be composed of dependents. A higher dependency ratio indicates the potential for both fewer current contributors to economic activity and greater draws on public resources.

Dependency ratios are calculated by dividing the number of people in the specific dependent group (children, old-age or both) by the number of people in the working age population and multiplying by 100. A higher ratio indicates a higher degree of dependency on the working age population. Following the U.S. Census Bureau's methodology, the 2014 national child dependency and old-age dependency ratios were 37.8 percent and 23.2 percent, respectively. Put differently, for every 100 individuals aged 18 to 64 in the United States, there are approximately 37 people under the age of 18 and 23 people 65 years and over.

For the Fifth District, none of the states or the District of Columbia had a 2014 child dependency ratio higher than the United States. The ratio ranged from 24.6 percent in Washington, D.C., to 36.9 percent in North Carolina. Three states (North Carolina, South Carolina, and West Virginia) exceeded the 2014 national old-age dependency ratio. The old-age dependency ratio ranged from 15.9 percent in D.C., to 28.8 percent in West Virginia.

Locally, roughly 11 percent of the counties in the Fifth District states had a 2014 child dependency ratio higher than the national ratio. The share was even higher for the 2014 old-age dependency ratio with roughly 79 percent of counties exceeding the national ratio.

Within the Fifth District, Williamsburg City, Virginia, and Union County, North Carolina, had the lowest and highest child dependency ratios at 14.3 percent and 47.5 percent, respectively. For old-age dependency ratios, Radford City, Virginia, and Lancaster County, Virginia, had the lowest and highest ratios at 10.0 percent and 70.6 percent, respectively.

Looking more closely at the child dependency ratio map, there is a regional cluster of counties with child dependency ratios of greater than 40 percent starting south of Raleigh, North Carolina, and extending into Dillon County, South Carolina. This area’s concentration of military installations (Fort Bragg Army Base, Camp Mackall Army Base and Pope Air Force Base) as well as poultry and hog farms and processing plants may explain the clustering because the workforce of these industries tend to attract workers who are of child-bearing age or already have children.

On the old-age dependency ratio map, counties with a ratio greater than 40 percent are largely located in rural areas such as the mountains of Virginia and North Carolina or the coasts of South Carolina and Maryland. They also tend to be less populous with a 2014 median total population of 17,614 people. With their rural locations and low populations, the local economies of these areas may be at risk as the working age population grows older without the arrival of younger individuals either through birth or migration to replace them in the workforce. As the Baby Boom generation approaches retirement, the national trend for the old-age dependency ratio is expected to exceed 40 percent by 2060.

Given the large share of Fifth District counties that already exceed the national old-age dependency ratio, this aging trend may have major implications for labor force participation, workforce development, government benefits, and state management within the District.

Note: Old-age dependency ratio is calculated by dividing the “65 years and over” population by the “18-to-64” population and multiplying by 100.

Source: U.S. Census Bureau, Population Division

Note: Child dependency ratio is calculated by dividing the “under 18 years” population by the “18-to-64” population and multiplying by 100.

Source: U.S. Census Bureau, Population Division

1. Old-age refers to individuals who are 65 years and older. The definition of children and working-age population varies by source. The United Nations uses 14 years of age or younger for children, so their working-age population ranges from 15 to 64 years. The U.S. Census Bureau uses under 18 years to define children, so their working-age population ranges from 18 to 64 years.

2. The Baby Boom generation consists of individuals born from 1946 to 1964


richmondfed.org/publications/community_development