Many Virginians live with disabilities. According to the 2011 American Community Survey (ACS), more than 1.8 million Virginians, or nearly a quarter of Virginia’s total population, are either directly affected by disabilities or live with someone who is disabled.

Following a long history of marginalization, government policy in the last few decades actively began addressing the needs of the disabled. The most widely-known effort is the Americans with Disabilities Act (ADA), which acknowledged the value of integrating Americans with disabilities more fully into society. Passed in 1990, the ADA prohibited employers from discriminating against the disabled.

More recent federal policy has focused on improving socioeconomic outcomes for Americans with disabilities, with a particular focus on access to education and employment opportunities. These policies target primarily working-age adults, defined here as ages 16 to 64. While disability is more common at older ages, more than half of Virginians with disabilities are between the ages of 16 and 64.

The prevalence of disabilities among Virginians is not easily observed. Some types of disabilities are not readily apparent, while others make it more likely that affected individuals are removed from the public sphere. Further, there are significant demographic, social, and economic differences between working-age Virginians with any disability and those without. This report presents details on the size of Virginia’s non-institutionalized working-age population with disabilities; their demographic and social characteristics; education and labor force participation; and geographic distribution throughout the state.

Disability in the American Community Survey

Since 2008, the American Community Survey has asked a set of questions to capture six dimensions of disability:

- **Hearing** – deaf or serious difficulty hearing
- **Vision** – blind or serious difficulty seeing even when wearing glasses
- **Cognitive** – serious difficulty concentrating, remembering, or making decisions due to a physical, mental, or emotional condition

When will ACS data on disability in your community be available?

The current set of disability measures in the ACS was introduced in 2008. Because the sample size of the ACS is not large enough to obtain annual estimates for geographic areas with small populations, these areas must wait until the release of multi-year estimates for details on disability within their communities.

<table>
<thead>
<tr>
<th>Area Population</th>
<th>Estimates Series</th>
<th>Most Recent Available</th>
<th>Forthcoming Data Releases*</th>
</tr>
</thead>
<tbody>
<tr>
<td>65,000 or more</td>
<td>1-year estimates</td>
<td>2011</td>
<td>2012 [Sept 2013]</td>
</tr>
<tr>
<td>20,000 or more</td>
<td>3-year estimates</td>
<td>2009-2011</td>
<td>2010-2012 [Oct 2013]</td>
</tr>
<tr>
<td>Less than 20,000</td>
<td>5-year estimates</td>
<td>--</td>
<td>2008-2012 [Dec 2013]</td>
</tr>
</tbody>
</table>

*Estimated release dates based on Census release schedule of 2011, 2009-2011, and 2007-2011 data products
**Ambulatory** – serious difficulty walking or climbing stairs

**Self-Care** – difficulty dressing or bathing

**Independent Living** – difficulty doing errands alone such as shopping or going to the doctor due to a physical, mental, or emotional condition

While individuals can have more than one type of disability, they are classified as having a disability if they report any of these six conditions. The ACS does not ask details about the severity or duration of disabling conditions.

**Disability among Working-Age Virginians**

In 2011, Virginia had 5.4 million non-institutionalized citizens between the ages of 16 and 64. Nearly 470,000 working-age Virginians—9 percent—reported at least one disability in the 2011 ACS, lower than the national working-age disability rate of 10 percent.

- 210,000 working-age Virginians reported two or more disabilities.
- Fourteen percent of Virginia’s working-age households have at least one disabled working-age adult.

**Sociodemographic Characteristics**

**Table 1** presents selected characteristics of working-age Virginians by disability status. Reflecting the increased likelihood of disability at older ages, working-age Virginians with a disability are much older than those without any disability (median age of 49 vs. 39).

| TABLE 1. CHARACTERISTICS OF WORKING-AGE VIRGINIANS BY DISABILITY STATUS, 2011 ACS |
|----------------------------------|-----------------|-----------------|
| Median Age                       | 39              | 49              |
| Race                             |                 |                 |
| White                            | 73%             | 71%             |
| Black                            | 19%             | 26%             |
| Asian                            | 7%              | 2%              |
| Hispanic                         | 8%              | 4%              |
| Foreign-Born                     | 15%             | 5%              |
| Veteran                          | 9%              | 13%             |
| Marital Status                   |                 |                 |
| Married                          | 51%             | 42%             |
| Divorced/Separated               | 12%             | 21%             |
| Widowed                          | 1%              | 4%              |
| Single                           | 35%             | 33%             |
| Have Children                    | 39%             | 32%             |

There is a larger proportion of black Virginians (26%) among working-age Virginians with any disability than among those without (19%), reflecting higher disability rates among blacks. In contrast, Asians and Hispanics have lower average disability rates; this is strongly influenced by the high number of immigrants among Asian and Hispanic Virginians. Immigrants are frequently younger and healthier than the non-immigrant population. As a result, the population of working-age Virginians with any disability is less diverse than Virginia’s overall population, with significantly fewer Asians, Hispanics, and foreign-born individuals.
born Virginians among the working-age population with any disability.

Veterans have higher rates of disability than non-veterans (13 percent compared to 8 percent), and are a larger proportion of Virginia’s working-age population with any disability.

Reflecting their older ages, working-age Virginians with any disability are more likely to have experienced divorce or widowerhood than those without a disability. Consequently, they are significantly less likely to be currently married (42 percent compared to 51 percent). In addition,

- Twenty-seven percent of married individuals with disabilities have a spouse who is also disabled.
- Working-age Virginians with disabilities are much less likely to have children.

**Educational Attainment**

Working-age Virginians with disabilities have significantly lower educational attainment than the non-disabled. Analysis of the educational attainment of Virginians ages 25 to 64 (Figure 2) shows:

- Twenty-two percent of disabled Virginians have less than a high school diploma, compared to 8 percent of working-age Virginians without a disability.
- Sixteen percent of disabled Virginians have a bachelor’s degree or higher versus forty percent of non-disabled Virginians.

Low educational attainment among working-age Virginians with disabilities may reflect barriers to full participation in educational programs due to disability type and severity.

For example, among individuals reporting one disabling condition, those with a hearing difficulty have educational attainment levels much closer to those of individuals with no disability. In contrast, individuals reporting one of the more severe disabling conditions, an independent living difficulty, have lower educational attainment than individuals with other types of disability.

There are well-established structures and tools to help individuals with certain types of disabilities, while support mechanisms for other disability types are less institutionalized. For example, sign language, hearing aids, and the Virginia School for the Deaf and Blind provide ways for individuals with hearing difficulty or deafness to communicate and engage in the educational process. Certain types of disabilities, however—such as cognitive disabilities that cause serious difficulty concentrating, remembering, or making decisions—may pose significant barriers to educational attainment.

Lower educational attainment among individuals with disabilities may make it more challenging for them to find employment and stay employed, particularly in today’s highly competitive job market.
A major concern for policy makers nationwide is the low levels of employment among working-age adults with disabilities. Employment rates in Virginia are no exception (Figure 3).

Three-fifths of working-age Virginians with disabilities are out of the labor force, meaning they are neither working nor looking for work. This is triple the out-of-the-labor-force proportion of non-disabled working-age Virginians.

Among individuals in the labor force, Virginians with disabilities reported higher unemployment rates, greater part-time work, and lower employment in professional occupations.

Analysis finds that the type of disability reported significantly affects employment outcomes. The patterns suggest barriers to employment due to the disability itself. Among individuals with only one disabling condition, nearly two-thirds of those with sensory disabilities (hearing and vision difficulty) reported full-time employment. In contrast, less than one-third of individuals with cognitive, ambulatory, or independent living disabilities are employed full-time.

Reflecting these employment patterns, Table 2 shows that working-age individuals with disabilities and their families have substantially lower incomes than individuals with no disabilities.

Despite programs like Social Security Disability Insurance and Supplemental Security income aimed at helping the disabled, compared to non-disabled working-age individuals, Figure 4 shows that Virginians with disabilities are more likely to

- fall below the poverty line;
- receive food stamps;
- rely on public health insurance, such as Medicaid and Medicare, for medical care.
Geographic Distribution of Working-Age Virginians with Disabilities

Within Virginia, there are large regional differences in the distribution of population characteristics associated with disability, such as age, race, and education. There are also geographic differences in the distribution of occupations likely to cause disability, such as coal mining and agriculture in Southwest Virginia versus lower-risk, professional and managerial occupations in Northern Virginia. As a result, the proportion of working-age Virginians with disabilities varies substantially across localities and regions within Virginia.

Figure 5-A shows the distribution of working-age Virginians by public use microdata area (PUMA), the smallest geography available in the ACS for
detailed analysis of individuals. The largest numbers of working-age Virginians are, as expected, in the densely populated urban areas of Northern Virginia and Richmond. In contrast to these patterns, however, Figure 5-b shows the distribution of working-age Virginians reporting any disability. Some of the Northern Virginia PUMAs with high populations of working-age adults have very small numbers of adults with any disability.

Conversely, Figure 5-a shows that Southwest and Southside Virginia have substantially smaller numbers of working-age adults, reflecting their smaller populations. However, many of these less populous areas have high numbers of working-age adults with disabilities. Figure 5-b shows that the largest numbers of working-age Virginians with any disability are in Southwest Virginia, portions of the Valley region, and Richmond City.

As a result of these distributional differences, the proportion of working-age adults with any disability varies substantially by region, shown in Figure 5-c. Disability rates range from a low of 3% in areas Northern Virginia to a high of 25% in parts of Southwest Virginia. Having a disability is associated with lower educational attainment and employment and correspondingly worse economic outcomes. While these disability rates reflect underlying socioeconomic and demographic differences in these regions, they may also influence regional workforce and economic disparities.

Conclusions
This report featured detailed statistics about the characteristics of non-institutionalized working-age Virginians with any disability. Analysis found that working-age Virginians with any disability are

- significantly older (reflecting increasing rates of disability at older ages) and more likely to be black.
- more likely to have low levels of education, be out of the labor force, and rely on public assistance programs for economic support.
- disproportionately distributed throughout the state. The highest working-age disability rates are in parts of the Southwest, Southside, and Valley regions.

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References and Notes

1 American Community Survey data are subject to sampling and non-sampling variability. The ACS data used in this report were retrieved from the IPUMS-USA database: Ruggles, Steven, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroder, and Matthew Sobek. 2010. Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database]. Minneapolis: University of Minnesota.


4 This analysis includes individuals as young as 16 because this is typically the “working-age” population defined by the Bureau of Labor Statistics (BLS) in employment surveys. Changing the definition of “working-age” to be 18 to 64 results in different population counts or totals, but does not alter the overall pattern of findings in this report.

5 The likelihood of an individual reporting any disability increases dramatically with age. Fewer than 5 percent of Virginians under the age of 30 report any disabling condition. In comparison, nearly two out of five Virginians ages 65 and older report any disability.

6 Disability rates at all ages are significantly higher among individuals living in institutional group quarters, such as prisons and nursing homes. Forty-seven percent of institutionalized individuals (28% when limited to working-age) reported any disability in the 2011 ACS. Because these populations are unique, the analysis in this report excludes individuals living in institutions and focuses on Virginia’s non-institutionalized working-age population.

7 Questions on sensory disabilities (hearing and vision) are asked of all individuals, regardless of age. Questions on cognitive, ambulatory, and self-care disabilities are only asked of individuals 5 years and older and the question on independent living disability is only asked of individuals 15 years and older. For a detailed discussion of the rationale and testing of the ACS disability measures, please see: Brault, Matthew, Sharon Stern, and David Raglin. 2007. “Evaluation Report Covering Disability.” Washington, DC: U.S. Census Bureau.

8 These differentials are driven by variations in socioeconomic conditions that are associated with likelihood of disability, as well as earlier age of disability onset (due, in part, to differences in life expectancy).

9 The generally better health of immigrants than their American counterparts is known as the “healthy immigrant effect.” The longer an immigrant lives in the United States, however, the more the health advantage versus native-born Americans disappears. See, for example: Antecol, Heather, and Kelly Bedard. 2006. “Unhealthy Assimilation: Why Do Immigrants Converge to American Health Status Levels?” Demography, 43(2): 337-60.

10 An individual’s total number of disabilities similarly affects labor market participation rates. The proportion of working-age adults that are out of the labor force entirely increases as the number of disabilities reported increases: 47 percent of individuals with one disability are out of the labor force compared to 71 percent of those with two, 77 percent with three, and 90 percent for individuals with more than three disabling conditions.


12 Nationally, working-age adults with any disability are much more likely than adults without disabilities to experience “material hardship” such as difficulty making bill payments, food insecurity, or the inability to afford necessary medical care. For more information, see: She, Peiyun, and Gina A. Livermore. 2006. “Material hardship, Poverty, and Disability among Working-Age Adults.” Ithaca, NY: Cornell University Institute for Policy Research.

13 For additional information on Virginia’s regions, see: Tippett, Rebecca M. 2011. “Virginia’s Regions.” Charlottesville, VA: Weldon Cooper Center for Public Service.