Research Brief

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Penn State Harrisburg

The Commonwealth's Official Source for Population and Economic Statistics

December 8, 2016
2015 ACS 5–Year Estimates Released for Pennsylvania:
Exploring the Different Realities in Rural and Urban Counties

PENN STATE HARRISBURG – The U.S. Census Bureau today released its annual installment of new demographic and socio-economic data for every community in the United States – the 2011-2015 American Community Survey (ACS) 5-Year Estimates. These estimates provide data for all Pennsylvania counties, municipalities, and other geographic areas down to the census block-group level regardless of population size[1]. For the first time, the 5-year dataset includes comparison profiles which compare non-overlapping releases (i.e. the 2011-2015 and 2006-2010 ACS 5-Year Estimates) and identifies statistically significant changes.
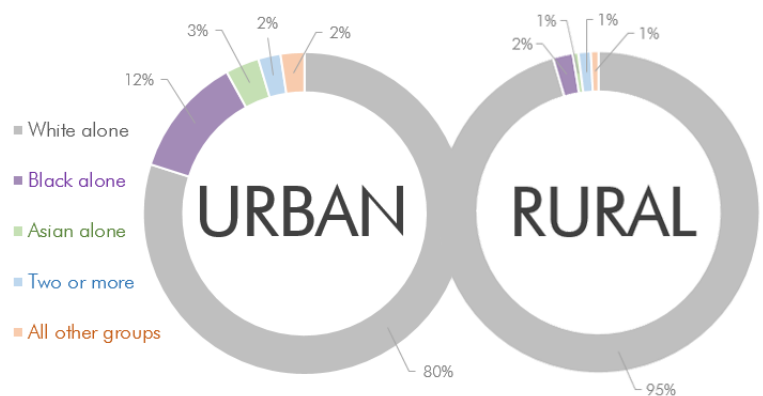
Rural and Urban Trends

With the release of the Census Bureau's County Rurality Lookup Table, counties in every state including Pennsylvania have been classified as Mostly Urban, Mostly Rural, or Completely Rural based on the county's population density and level of development (see map at the end of the brief). Having these definitions allows for the opportunity to explore the differences between the rural and urban counties of Pennsylvania in terms of race, median income, health care, and education.

Race

The largest proportion of Pennsylvania citizens is white, accounting for 81.6 percent of the total population. Rural counties on average have a significantly lower proportion of non-whites (5.1 percent) than urban counties (12.0 percent). Counties with the highest proportion of whites are Elk (98.1 percent), Jefferson (98.0 percent), and Cameron (98.0 percent) and are all rural. Counties with the lowest proportion of whites include Philadelphia (41.7 percent), Forest (66.0 percent), and Delaware (70.9 percent) and are primarily urban with the exception of Forest County which stands out among its rural counterparts due to the presence of the Forest State Correctional Institution. After Forest County, the rural county with the lowest proportion of whites is Pike County with an 89.4 percent white population.

Figure 1. Racial breakout for rural and urban PA counties.

- White alone
- Black alone
- Asian alone
- Two or more
- All other groups

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1. Data for the 2011-2015 ACS 5-Year Estimates were released in September for areas with populations of 65,000 or more.

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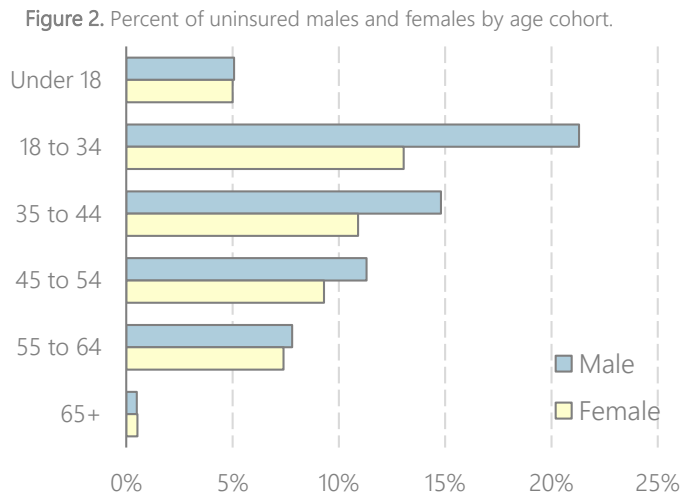Harrisburg
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Median Income

Median household income for all of Pennsylvania is $53,599. The average median household income for urban counties is $53,037 which is significantly higher than the average rural median household income ($46,960). The three counties with the highest median household income are Chester ($85,976), Montgomery ($80,675), and Bucks ($77,568) all urban counties surrounding Philadelphia. The counties with the lowest median household incomes are Forest ($35,533), Philadelphia ($38,253), and Fayette ($39,636).

Health Care

Roughly 8.8 percent (over 1.1 million) of Pennsylvanians do not have health care insurance coverage of any type. Males aged 18 to 34 had the highest rates for uninsured citizens at over 20% (Figure 2) while both men and women aged 65 and over had the lowest rates for uninsured citizens. Rates for uninsured persons were generally higher for males (10.0 percent) than females (7.6 percent).

Figure 2. Percent of uninsured males and females by age cohort.

Rural counties had significantly higher rates of persons without medical insurance than urban counties (9.8 percent and 8.5 percent, respectively). Counties with the lowest rates of uninsured residents include Montgomery (5.8 percent), Bucks (5.9 percent), and Butler (6.0 percent) and these counties are classified as mostly urban. The counties with the highest rates of those uninsured include Mifflin (15.0 percent), Snyder (14.8 percent), and Juniata (14.5 percent) and are defined as mostly rural.

Education

On average 12.6 percent of persons aged 18 to 24 years old in Pennsylvania have not completed high school, and a greater proportion of males (14.2 percent) have attained less than a high school diploma than females (10.8 percent). Rural counties typically have more individuals with less than a high school diploma (16.6 percent) than urban counties (12.4 percent). The effect is stronger for males who are five percent more likely to have less than a high school degree in rural counties versus urban counties (18.6 percent versus 13.8 percent). Counties with the highest rates of those without diplomas include Forest (34.2 percent), Sullivan (28.6 percent), and Mifflin (24.8 percent) all of which are rural counties. Those with the lowest proportions of residents with less than a diploma include Centre (3.7 percent), Union (6.9 percent), and Indiana (7.1 percent).

Bachelor's degree attainment for Pennsylvania in general is 17.4 percent. Rural counties (10.7 percent) typically have lower attainment than urban counties (15.8 percent). Counties with the lowest attainment for Bachelor's degrees include Forest (5.7 percent), Fulton (8 percent), and Juniata (8 percent) and are rural. Counties with the highest Bachelor's degree attainment are Chester (29.3 percent), Montgomery (26.3 percent), and Bucks (22.8 percent) and are urban.

New Data Tables

Several new detailed tables are included in the 2011-2015 ACS 5-Year Estimates release. One table details Living Arrangements by Age for Adults 18 years and over (B09021). Those data show that nearly half of Pennsylvanians live with a spouse (49.5 percent). Nearly a third of residents aged 18 to 34 live with their parents (36.7 percent) and those aged 65 years or older are the most likely age cohort to live alone (29.8 percent) or with a relative (14.0 percent).

New data are also released for the Median Gross Rent for Renter-Occupied Housing Units by Number of Bedrooms (B25031). The average rent in Pennsylvania is $840 ranging from $642 for a 0 bedroom apartment to just over $1,000 for 4 or more bedrooms. Apartments in urban counties are, on average, $150 more expensive than their rural counterparts. The lowest average rents by county are Forest ($541), Elk ($546) and Huntingdon ($554) while the highest average rents per county are Chester ($1,197), Montgomery ($1,158), and Bucks ($1,137).

New race tables with detailed information including tribal and nation-of-origin data are available for American Indian and Alaska Native Alone, Asian Alone, and Native Hawaiians and Other Pacific Islander Alone (B02014-B02019). These tables will replace previous years' tables on those races (B02005-B02007). Pennsylvania has over 100,000 residents of Asian Indian and Chinese decent who account for over half of the Asian population in Pennsylvania. American Indian and Alaska Native totaled 23,641 and Native Hawaiians and Other Pacific Islander totaled 4,279.

In addition to new detailed tables, the US Census has also released three new subject tables including Field of Bachelor's Degree for First Major (S1502), Private Health Insurance by Coverage Type (S2703), and Public Health Insurance by Coverage Type (S2704). The first subject table shows that Science and Engineering is the most popular field with 33.2 percent of college-educated residents, 41.9 percent for males and 25.1 percent for female. The latter tables show that just over 50 percent of Pennsylvania residents have employer based coverage while approximately 16 percent have public health insurance through Medicare or Medicaid alone.

Methodological Change to 5-Year Dollar-Based Medians & Quintile Limits

After 10 years of evaluating the American Community Survey (ACS) estimates and data user feedback, the Census Bureau determined that certain derived estimates, such as medians and quintile limits that are based on small sample sizes, can have higher margins of error than desired. Large margins of error are primarily due to small sample sizes and can be particularly challenging in areas with small populations. During this evaluation, the Census Bureau determined that dollar-based medians (e.g., income, housing value, monthly rent) are particularly problematic, especially for the 5-year datasets, which do not benefit from data quality filtering.

If the margin of error is larger than the estimate, the Census Bureau does not recommend using these estimates for decision-making and funding purposes. Even if the margin of error is smaller than the estimate, data users should continue to be mindful of margins of error. More information and a full list of tables utilizing the new methodology can be found here under the Technical Documentation – User Notes page of the ACS website.
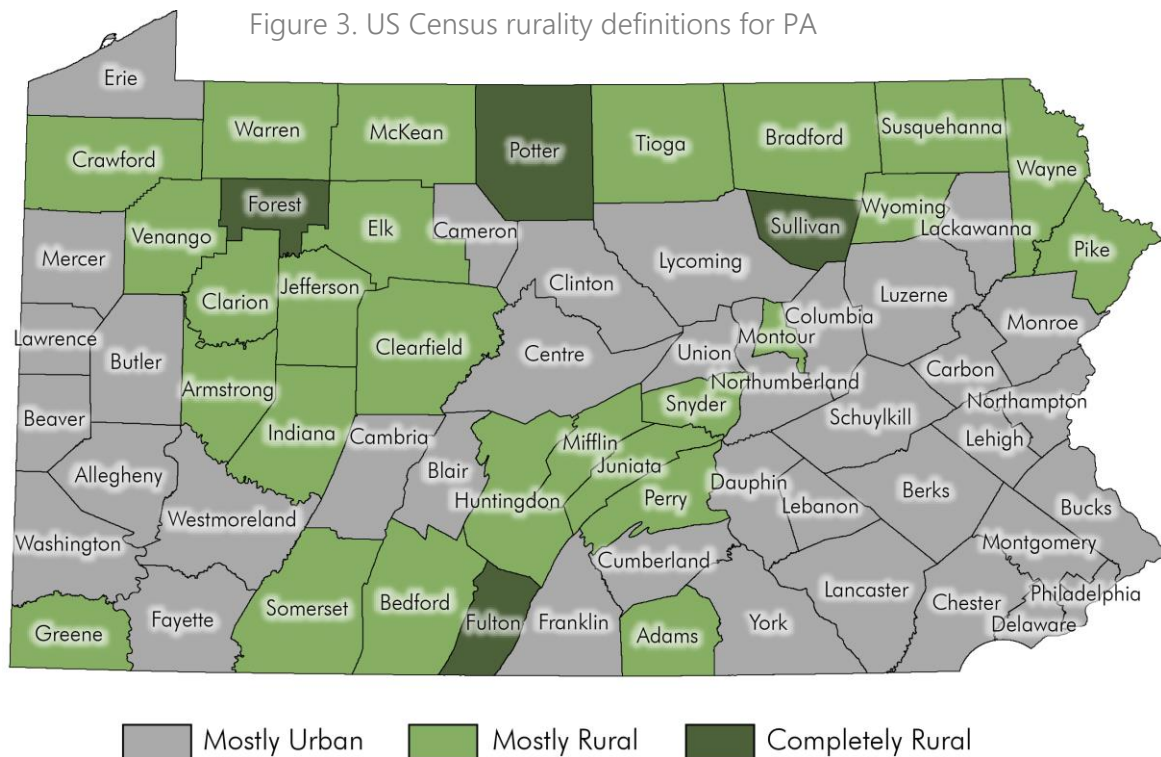
Geography Notes

Reference maps showing which geographic areas have published ACS 1-year estimates are no longer being created, but the data from which they are created can be accessed through the Reference Materials page on the American Community Survey's website under Geography & ACS - Areas Published.

More about ACS 5-Year Estimates

ACS 5-Year estimates are derived from 60 months of data collection to provide a large enough sample size to ensure the most reliable estimates for smaller geographic areas. Currently, four modes of data collection are utilized: Internet, Mailout/Mailback, Computer Assisted Telephone Interview, and Computer Assisted Personal Interview. The 2011-2015 ACS Estimates aggregate the sample responses from Pennsylvania households collected from January 1, 2011 to December 31, 2015 and represent the average estimate of a population characteristic over the entire time period.

Estimates from the 2011-2015 ACS 5-Year product are available for all geographic areas in Pennsylvania, including the geographies that are included in the one-year releases. The 2015 ACS 5-Year Estimates are different from, and should not be directly compared to the 2015 ACS 1-Year Estimates. As is the case with all surveys, statistics from sample surveys are subject to sampling and non-sampling error. Margins of error have been omitted in this Research Brief for clarity, but are available for all ACS estimates from factfinder.census.gov.

Figure 3. US Census rurality definitions for PA

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates

Release Date: December 8, 2016

The Pennsylvania State Data Center is the commonwealth's official source for population and economic statistics. It is based at Penn State Harrisburg's Institute of State and Regional Affairs. The Pennsylvania State Data Center is part of the U.S. Census Bureau's National State Data Center Program.

Editors: For additional data, contact the Pennsylvania State Data Center's State Capital Office at 717.772.2710 or for faculty comment on this topic, contact Penn State Harrisburg's Public Information Office at 717.948.6029.

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