

Researchers detail concerns about Southwest Virginia census data

Tonia Moxley
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New homes are under construction in the Walnut Creek subdivision in Montgomery County outside of Christiansburg. Montgomery County had the highest growth rate in the region according to latest census data.

MATT GENTRY, The Roanoke Times

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Virginia researchers got their first look at 2020 U.S. Census counts this week, and some are worried about what they see.

Regionally, it was good news for a handful of localities. Roanoke appears to have grown after losing population in previous counts. Montgomery County has surpassed Roanoke County in population and is closing in on Roanoke city.

For others, the news was not as good. Radford appears to have lost population, although according to the University of Virginia Weldon Cooper Center for Public Service, other data suggest its numbers should have risen.

The center's demographic research group tracks and analyzes census numbers for Virginia, as well as producing its own estimates and projections. Its staff has been sounding the alarm about potential problems since learning last year about changes to how census data is processed and presented to the public.

The recently released redistricting data — the simplest calculations for national, state and city and county populations — seem to support that concern. And that has sparked worry that more complex figures due out sometime next year on gender, age and other markers could be even more problematic.

Some examples Weldon Cooper has flagged: A largely commercial block in Virginia Beach where the census shows more than a dozen children living — but where no adults are in residence. Then there are the areas in Southwest Virginia where the percentage of some minority groups appears to have exploded.

“There are several things playing out all at the same time, and I think the Census Bureau has not done a good job clarifying things and explaining things well,” said Qian Cai, director of the Weldon Cooper demographics research group.

Cai said she worries about the long-term impacts of these changes for the bureau and the data it oversees. The decennial census has a big impact on the national, state and local levels. It determines the number of House seats states are apportioned in Congress. It guides states in redrawing electoral districts. It guides the distribution of billions of dollars in federal funding. And it helps localities plan for growth and meet the needs of residents.

Its accuracy is paramount.

Census Bureau spokeswoman Kristina Barrett wrote in an email that despite concerns, the data remains reliable. She pointed to independent, third-party reviews of all the policies and procedures used for the 2020 count. Those changes include a new system for coding the race and origin of U.S. residents and a new mathematical process meant to protect the privacy of respondents.

“There are several blogs that explain the process by which we have ensured data quality and have been transparent in our metrics and analysis,” Barrett wrote.

But Weldon Cooper’s work shows the changes may cause confusion and even skew data, according to Cai. Especially, she said, in Virginia’s smaller communities.

The novel coronavirus pandemic is a third factor. While unintended, it nevertheless has left a mark on the census, especially for college towns. Remote learning triggered by COVID-19 fears hollowed out college and university communities across the state as census workers were doing the count. That means places like Blacksburg, Radford, Charlottesville and Salem may be undercounted, said Hamilton Lombard, a Weldon Cooper demographer.

For example, Montgomery County grew by 5.6% to 99,721 people, according to the Census. But Lombard said Weldon Cooper estimates suggest that up to 2,000 people may have been missed, likely because of the pandemic.

Radford was expected to have about 17,500 residents by 2020, but the census shows its population dropping 2% over the past decade to 16,070 people — even though Radford University’s enrollment increased from 9,007 in 2010 to 10,695 in 2020, according to the State Council on Higher Education for Virginia.

Examples like this can be found in the 2020 numbers for most Virginia college communities, he said.

Another new process known as “differential privacy” injects mathematical “noise” into the data to ensure individuals cannot be identified. The Census Bureau is bound to protect privacy by federal law, but Cai said the new system introduces so much noise across so many data sets that it has likely created inaccuracies. And that may lead to misallocation of funds, substandard services and depressed economic development in some Virginia localities.

Big communities, like Roanoke, Blacksburg and Montgomery County are unlikely to suffer much from the privacy processes, Lombard said. But small communities — like many in Southwest Virginia — may suffer from undercounting. Differential privacy also appears to affect data on race significantly, and some of the resulting figures strain credibility.

“They show the population [growth] of Pacific Islanders in Wise [County] at like 400% and then Wythe County only 75%,” Lombard said. “I don’t doubt that in Southwest Virginia as a whole the population that identified as Pacific Islander went up somewhat, but the numbers just don’t look right.”

This won’t necessarily affect the overall population counts for a given neighborhood or county, Lombard said. But anyone tracking changes in minority populations can’t rely on it.

To protect people who might be easily identified in the data, a new algorithm takes them out of their home locality and mathematically places them in a new locality. Then it trades the same number of people back to the original location. This keeps the overall population numbers for each area accurate, but in some cases it appears to change the racial makeup of a community.

“What the methodology does is basically swap people around,” Lombard said. “There are a lot of counties in western Virginia where the black population is quite small. If you look in counties in Virginia where the black population is below 2% in 2010, in 2020, it has gone up 74% because they’ve moved so many black Virginians who responded in Norfolk and Southwest Virginia to Highland County.”

For 2020, the bureau also changed its racial coding system to better reflect the identities of Americans of Hispanic and other origins. In a blog post, the census’ racial statistics branch wrote that “these improvements more accurately illustrate the richness and complexity of how people identify their race and ethnicity in the 21st century.”

But this too can cause confusion, Cai said. It has particularly affected how the data renders white populations of both Hispanic and non-Hispanic backgrounds. And it makes it extremely problematic to measure change in racial demographics from 2010-20.

For the past year, the Weldon Cooper staff has been considering what they can do to help localities and others who rely on census data.

“We can inform people and ... provide some guidelines for the data user,” Cai said. “If you are in doubt, contact us.”

But that won’t correct the census data, she said. And that presents a new problem for everyone who relies on the national count.

“Not only is the data not as usable, but then also the credibility and the confidence in U.S. Census data is really damaged,” Cai said. “That’s my biggest concern.”

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