



**SLOWING  
D O W N**

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WISCONSIN'S WANING POPULATION GROWTH

DALE KNAPP, DIRECTOR



# Executive Summary

## Slowing Down: Wisconsin's Waning Population Growth

A state's demography can significantly impact its economy, its tax base, and the kinds of services state and local governments provide. The most accurate data on population characteristics comes from the decennial census. The recent 2020 census shows Wisconsin's growth slowing, driven largely by a declining youth population.

From 2010 to 2020, Wisconsin's population increased 3.6%. Not only was the state's growth rate lower than the 6.0% gain during 2000-2010 and the 9.4% increase during 1990-2000, it was the smallest 10-year increase in the state's history. While Wisconsin's 18-or-older population increased 6.1%, the under-18 population fell 4.3%. In the previous decade, the state's youth population dropped 2.1%.

A decade of declining births was the most important factor in the reduction in the number of young people and contributed to the state's waning total growth. During 2010-2020, the number of births fell in every year except one, resulting in about 44,000 fewer babies born compared to the previous decade. If not for the migration of families with children into the state, Wisconsin's youth population would have dropped about 7.5%.

While migration slowed the decline in the youth population, it also contributed to the state's overall waning growth. The state added fewer than 54,000 people due to net migration over the 10 years. Net migration was significantly less than the 80,000 added during 2000-2010 and the 228,000 added during 1990-2000.

Statewide figures showed slow population growth and declining youth numbers, but at the county level total and youth population changes were mixed. Over the decade, 21 of Wisconsin's 72 counties declined in population. These included 20 rural counties and Milwaukee County, the state's most-populous county. Nine rural northern counties (Bayfield, Burnett, Door, Florence, Iron, Oneida, Sawyer, Vilas, and Washburn) showed surprising growth, up 6.7% as a group.

Changes in the youth population also varied by county. During the past decade, 10 counties experienced double-digit losses in their youth populations. Another 28 saw declines of at least 6%. Only 11 counties increased the size of their under-18 population. Fewer young people in the state affects Wisconsin's future labor force. With the most recent decline, the state may not have enough young people to replace retiring baby boomers and GenXers over the next two decades.

A declining labor force will put pressure on the tax base that state and local governments rely on to fund services. Unless the state is able to reverse birth-rate trends, Wisconsin can expect to see deaths exceed births over the next decade, exacerbating its long-term demographic challenges.

Wisconsin's path to growth over the next ten years is through migration, which has slowed during each of the past two decades. Reversing this trend will be difficult, but needs to begin to be addressed today.



# Slowing Down

## Wisconsin's Waning Population Growth

*Dale Knapp, Director*

The phrase “demography is destiny” is commonly attributed to French philosopher and mathematician Auguste Comte. It is the idea that a state’s (or nation’s) economic, political, or societal path is largely a product of the characteristics of its population. Knowledge of the state’s current and future demographics is akin to knowledge of the future.

An expanded view holds that a state’s destiny is driven not just by knowledge but also by how it adapts to changing demography. Knowing the characteristics of the state’s population allows policymakers to develop strategies that help the state to adapt to the changing landscape and continue to move forward.

The best data available on a state’s population comes from the decennial census. In mid-August, the U.S. Census Bureau released the first batch of data from the 2020 census that included total population figures, the number of 18-or-older residents, and population by race and Hispanic origin at the state, county, and municipal levels. This gives us the first glimpse at how Wisconsin’s demographics have shifted since 2010.

### WISCONSIN IS GROWING SLOWLY

The 2020 census put Wisconsin’s population at 5,893,718, a 3.6% increase from 2010. Growth was greater than expected based on Census Bureau estimates during 2011-2019. However, the 3.6% growth rate was down 40% from 2000-2010 and more than 60% from 1990-2000.

The modest change in the number of Wisconsin residents was not a surprise. Population increases in Wisconsin have been slowing for 20 years. During the 1990s, the state’s population expand-

ed 9.6%, the largest increase since the 1960s. Growth slowed to 6.0% during the 2000s and to 3.6% during 2010-2020. The state’s gain over the past 10 years is the smallest ever, eclipsing the previous record low of 4.0% during the 1980s when Wisconsin experienced a net outflow of more than 120,000 residents.

### National Context

The U.S. population increased 7.4% over the decade, more than double Wisconsin’s change. Wisconsin ranked 34th nationally in adding residents. Two of the states with smaller increases were neighboring Michigan (2.0%) and Illinois (-0.1%). Illinois was one of only three states that lost residents; West Virginia and Mississippi were the other two. Minnesota’s population increased 7.6%, 19th fastest among the states, while Iowa grew 4.7%.

### SOURCES OF GROWTH

Knowing where the state stands in terms of its growth is important, but a critical question is: Why is Wisconsin growing slowly?

Population change has two components, natural change and net migration. Natural change is the difference between the number of births and deaths in the state. Net migration is the difference between the number of people moving into the state and the number leaving.

In the 1990s, Wisconsin’s 9.6% population increase was driven in roughly equal parts by strong natural growth (243,992) and a large net in-migration of people from elsewhere (227,954). During the 2000s, natural growth (243,130) was largely unchanged from the previous decade, but net migration (80,141) fell significantly. Both,

In Wisconsin, both net migration and natural population growth declined significantly during 2010-2020 compared to the prior decade.

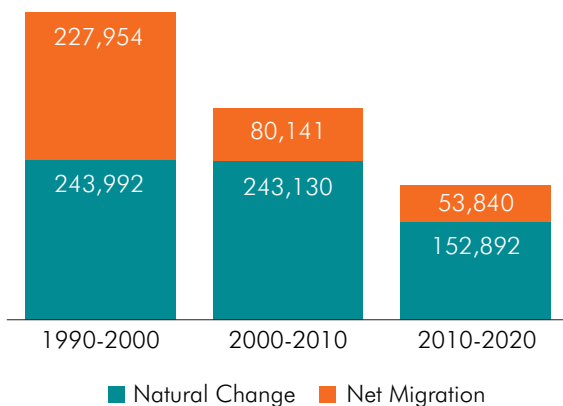
however, declined over the 10 years ending in 2020. Natural change fell 37% to an estimated 152,892 and net migration dropped 33% to 53,840 (see Figure 1).

*Natural Change*

One factor that reduced natural change during this time was falling birth rates. The number of births in Wisconsin has dropped in every year but one since 2007, resulting in about 44,000 fewer babies born over the decade compared to the previous 10 years.

At the same time, the number of deaths is rising. This is not surprising as the oldest of the baby boomers are now in their 70s. Wisconsin had about 46,000 more deaths during 2010-2020 than during 2000-2010. The increase in deaths was not pandemic related as the death numbers for 2020 include only January through March. The net re-

FIGURE 1: Population Growth Slowing  
Natural Growth and Net Migration Falling



sult of fewer births and more deaths was reduced natural growth of about 90,000.

One of Wisconsin’s challenges going forward will be little or no natural population growth. In all of 2020, deaths exceeded births for the first time ever, due largely to COVID-19 deaths in the last six months of the year. Even without the pandemic, the state was on pace to have natural growth turn negative by 2025 due to a combination of falling birth rates and the aging of the baby boomers. Without natural growth, the only way to grow or even maintain the state’s population and workforce is through migration. That is trending the wrong way as well.

*Net Migration*

The Census Bureau’s population estimates for 2019 showed a net out-migration of about 12,000 people since 2010. However, subtracting natural change from the census population shows there was a net in-migration of about 54,000 people over the decade.

While good news, the amount of net migration was less than in each of the last two decades. During 1990-2000, Wisconsin added 227,954 people from elsewhere. In the 2000s, net in-migration to the state totalled 80,141.

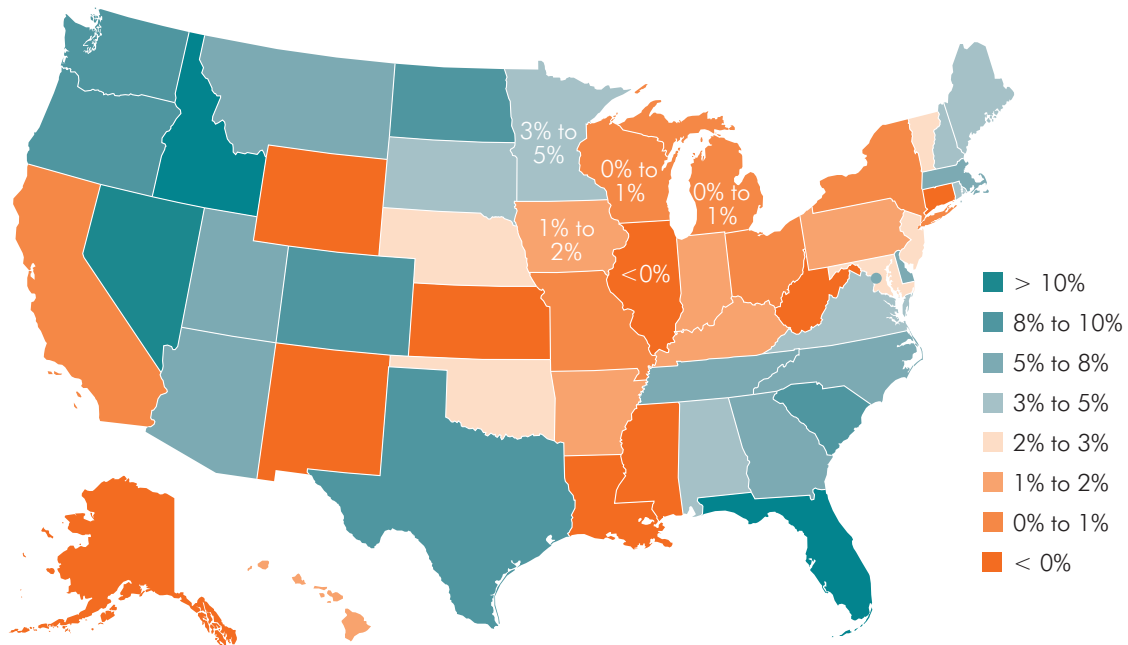
The state’s net migration rate during 2010-2020 was less than 1%, a drop of one-third from 1.5% in the previous decade. Only 14 states had net migration rates lower than Wisconsin (see Figure 2). Of those 14, nine (including Illinois) had negative rates—more people leaving the state than moving in. Illinois’ net migration rate of -3.6% was second lowest in the country behind Alaska.

Given the state’s path on natural population growth, in-migration will be critical over the next decade in ensuring Wisconsin has enough people to maintain the state’s workforce.

**FEWER YOUTH**

The census data released in August does not include detailed age information of residents. That will likely be published in 2022. However, it does split the total population into those under 18 years of age and those 18 or older. The under-18 population represents the state’s long-term future. In 20 to 30 years, they will be a large part of Wisconsin’s workforce with some serving as leaders in their local communities or at the state level.

**FIGURE 2: Net Migration Rates, 2010-2020**  
*Net Migration As a Percent of 2010 Population*



The size of Wisconsin’s under-18 population has been shrinking for 20 years and the census figures show the decline accelerated in the past decade. During 2000-2010, the size of this cohort fell 2.1%. Over the most recent 10 years, the number of young people dropped another 4.3% to 1.28 million. Wisconsin’s decline in this age cohort was the 16th largest in the nation.

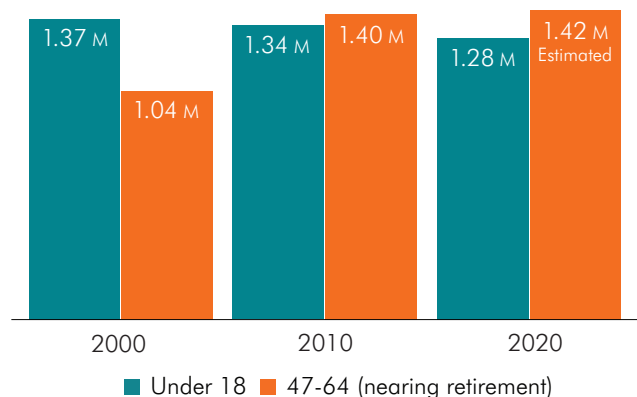
The shrinking of this age group would have been greater had it not been for migration. In 2010, Wisconsin had 761,000 young people ages eight to 17 who would turn 18 by 2020. That group was only partially replaced by the 661,000 babies born during the next 10 years. Without significant numbers of youth moving into the state, the under-18 population would have declined 7.5% rather than 4.3%.

The drop in the number of youth portend trouble for Wisconsin’s future labor force. As mentioned above, many of these young people will enter Wisconsin’s workforce over the next 18 years and replace retiring baby boomers. However, the size of the cohort that is nearing retirement is about 10% larger than Wisconsin’s youth population (see Figure 3). That is a significant shift from 2000 when the youth population was about 30% larger than the group nearing retirement.

**COUNTY CHANGES**

Just as slow growth at the state level was expected, rapid population growth in some counties was also anticipated. Dane and St. Croix counties were among the three fastest-growing counties during 2000-2010. Census Bureau estimates during 2011-2019 indicated that both were continuing that growth. The two were the only counties with double-digit growth during 2010-2020 (see Figure 4): Dane County’s population increased 15.0% and St. Croix’s climbed 10.6%.

**FIGURE 3: Youth Population Declining**  
*Under 18 vs. “Near Retirement” Populations: 2000-2020*



Several other urban counties showed relatively large gains. Brown (8.4%), Outagamie (7.9%), and Eau Claire (7.1%) counties increased their populations more than 7%.

At the same time, populations changed in surprising ways in several other counties. During 2000-2010, Wisconsin's rural northern counties shed just under 1% of their population. As of 2019, the Census Bureau estimated that these counties lost another 1.8% of their residents. However, the 2020 census shows the population in these counties increased 1.6% during 2010-2020.

As Figure 4 shows, the population increase in northern Wisconsin was driven by gains in nine counties: Sawyer (9.2%), Door (8.2%), Bayfield (8.0%), Vilas (7.5%), Burnett (6.9%), Oneida (5.1%), Washburn (4.5%), Iron (3.7%), and Florence (3.1%). While the combined population in these counties was expected to be slightly lower than in 2010, the census showed a 6.7% increase.

The limited amount of data released by the Census Bureau is insufficient to fully understand the surprising rural growth. However, it is likely the result of a combination of factors:

1. Some owners of vacation homes in these counties may have worked remotely due to COVID-19 and reported, perhaps inadvertently, these residences as their permanent residence.
2. A portion of those who were in their 50s or 60s in 2010 may have retired to their vacation homes during 2011-2020.
3. The Census Bureau's new privacy protection techniques may have inflated population numbers in these counties.

*Remote Work and Retirees*

The nine counties cited above are home to a disproportionate share of vacation homes in Wisconsin. In 2010, they accounted for 3.1% of occupied housing (permanent residences) but 22.3% of unoccupied housing. While not all unoccupied housing units in the state are vacation homes, most are located in these counties.

With the pandemic, many individuals were working remotely during much of 2020. Some were likely working, at least part of the time, from their vacation homes. While the census questionnaire asked about place of residence as of April 1, 2020, the original July 31 deadline

for returning the questionnaire was extended to October 31. Some of these remote workers may have inadvertently reported their vacation home as their permanent residence, increasing population figures in these counties.

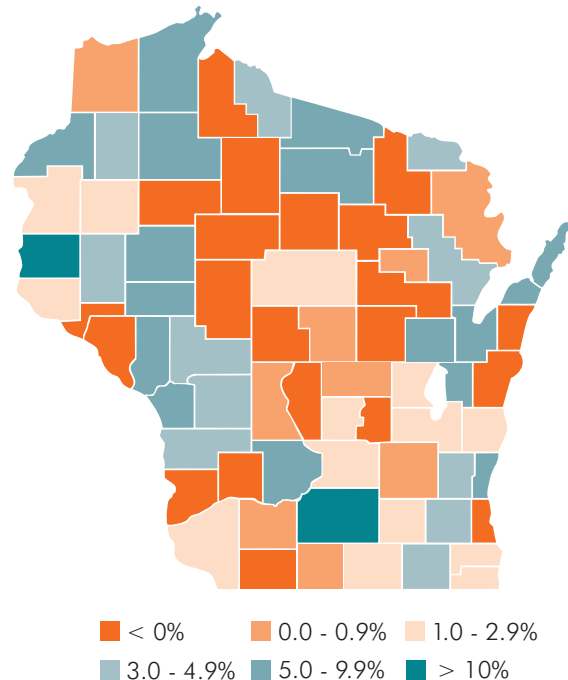
The unexpected population growth also may have been driven by retirees. In 2010, Wisconsin had nearly 700,000 residents ages 55 to 64 and nearing retirement, with some owning vacation homes in these counties. The census population numbers indicates a net in-migration of about 17,000 over the decade. In other words, it would take only a small fraction of new retirees moving north to boost populations in these counties.

Spread over nine counties and 10 years, much of this relocation would go unnoticed as it would not require the building of new homes. Indeed, housing data from the 2020 census shows total housing units in these counties largely unchanged from 2010. Yet, occupied housing increased more than 10%. In other words, some of the unoccupied vacation homes from 2010 were reported as occupied in 2020.

*Census Privacy Protections*

The Census Bureau's new technique for maintaining respondent privacy affects local popula-

FIGURE 4: County Population Growth By County, 2010-2020





tion numbers (a detailed explanation can be found page 9). The bureau injected “statistical noise” into local data, which affected its accuracy. It is possible that some of the population gain reported in these counties is due to the artificial noise.

## SOURCES OF CHANGE

As with state demography, it is important to know why a county is growing or shrinking. Is it primarily due to migration? Or is the county bucking the state and national trend and showing significant natural growth?

### *Natural Change*

While Wisconsin’s falling birth rate slowed the state’s natural growth, it affected urban and rural counties differently.

All of the state’s urban counties experienced natural gains during 2010-2020. As a group, natural increases were 3.7% of the urban population, exceeding the state average of 2.7%. Natural gains were greater than 5% in Brown, Dane, Milwaukee, and St. Croix counties. Intuitively, this only makes sense if these counties had higher populations of younger residents and relatively lower populations of older residents. Of the top 20 counties in terms of natural population growth, 16 also had the highest percentage of under 18 population, which means the counties had a greater share of families with children.

While urban counties are growing naturally, many rural counties are experiencing a natural decline. During 2000-2010, 18 rural counties had more deaths than births, a phenomenon that was quite rare in prior decades. In each of those counties, natural population loss continued during 2010-2020 with 11 additional counties joining them, bringing the total to 29 rural counties with natural population loss.

Most of these counties are in the rural northern part of the state. As a group, rural northern counties experienced nearly 10,000 more deaths than births. Natural loss was 2.2% of the 2010 population. Declines were 5% or more in Florence, Iron, Price, and Vilas counties, along with Adams County in central Wisconsin.

Not all rural counties experienced natural loss. Menominee (11.9%) and Clark (6.8%) counties had the largest natural growth in the state. Monroe, Vernon, and Trempealeau counties had natural growth of 4% or more.

During 2010-2020, all of Wisconsin’s 26 urban counties had more births than deaths. In 29 of 46 rural counties there were more deaths than births.

The previously discussed nine counties that experienced the most surprising population growth also saw some of the steepest declines in natural population. Even though these counties were among the fastest growing in the state, they still saw some of the lowest rates of natural population change. This seeming contradiction underscores the same pattern seen at the state level; an increase in birth rates, while important, is not always the most important factor for overall population growth.

### *Migration*

The amount of net migration in each county is calculated by subtracting natural population change from total population change. The natural change figures are not affected by the “noise” added by the Census Bureau to the local data. Rather, they are calculated using actual birth and death figures from the Wisconsin Department of Health Services. All of the “noise” is captured in the net migration figures. In other words, net migration figures are less reliable numbers than natural change.

Population change due to migration was geographically dispersed across the state. In 23 counties, estimated net migration was negative—more people moved out than moved in. These counties were mostly in the southern and southwestern part of the state, along with several counties in central Wisconsin. Many of these counties border faster growing urban areas. For example, Iowa, Lafayette, Green, Rock, and Jefferson counties all had net negative migration for the decade. These counties surround Dane County which had a 9.3% increase in migration over the 10 years.

Similarly, Monroe and Vernon counties border La Crosse County. Both had negative net migration, while La Crosse County saw a 3.4% net increase. This does not mean that all of the migration out of Monroe and Vernon counties was into La Crosse County. However, it seems likely that at least some of it was movement into the more urban county.

These rural-to-urban patterns appear to work in the other direction as well. Milwaukee, Racine, and Kenosha counties all had negative net migration, while the bordering counties (Ozaukee, Waukesha, and Walworth counties) all had more net in migration over the decade.

As mentioned, the nine rural counties with unexpectedly high population growth had relatively large natural population declines. As a result, their estimated net migration figures were high. As a group, their net migration rate was 10.9%, far surpassing the statewide rate of 0.9%.

#### YOUTH POPULATION

As indicated above, the state's under-18 population dropped 4.3% during 2010-2020. The decline was felt in all parts of the state with just 11 counties seeing gains. The largest increases were in Trempealeau (8.9%), Dane (6.6%), and Eau Claire

(5.0%) counties. In the other eight counties, youth population gains were 2% or less.

In 10 mostly-rural counties, the youth population fell more than 10% (see Figure 5). The under-18 population dropped the most in Lincoln (-14.3%) and Rusk (-12.9%) counties. In the southeast corner of the state, Kenosha (-12.0%) and Walworth (-10.4%) counties experienced significant drops.

The future workforce challenge created by declining youth populations in the state was discussed above. The number of future retirees exceeds the young population by about 10%. Due primarily to sharp declines in the youth population, that challenge is greater in many counties.

The youth population fell in both Adams and Florence counties. Census Bureau estimates for 2019 indicated that the near-retirement population in those counties was double the under-18 population. In another 10 mostly northern counties, the size of this older cohort was at least 50% larger than the younger cohort. Indeed, in half of Wisconsin counties, the difference in the size of the young generation and the near-retirement cohort was at least 20%.

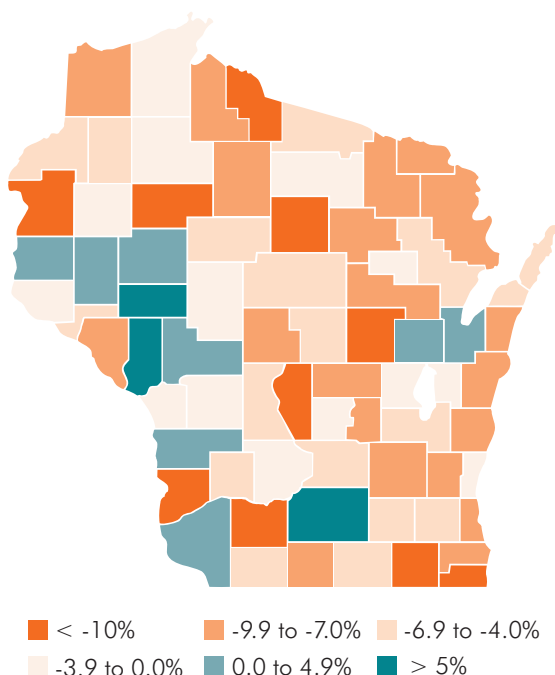
#### FINAL THOUGHTS

The initial 2020 census data released in August highlights some long-term challenges for Wisconsin. The state's population growth was historically low at just 3.6% over ten years. A large part of the slowdown was driven by declining birth rates, which reduced that state's youth population by 4.3% over the decade. The under-18 population increased in just 11 of Wisconsin's 72 counties. The size of this cohort is not large enough to replace retiring baby boomers over the next 20 years.

Thus, Wisconsin will need to rely on in-migration to solve its future workforce challenges. The state experienced a net in-migration of about 54,000 people during 2010-2020. However, that figure was 33% less than during the previous decade and 76% less than in 1990-2000. The state will need to attract significantly more people over the next ten years or risk seeing a shrinking workforce.

Additional data from the 2020 census will be released over the next two years, allowing a more detailed examination of the state's demographics and how they will affect Wisconsin's future.

FIGURE 5: Youth Population Declining  
Change in Under-18 Population, 2010-2020



## Appendix: Census Bureau Privacy Techniques, 2020

The U.S. Census Bureau is bound by federal law to protect individual privacy when publishing the survey data it collects. To meet this requirement, the bureau uses some form of Disclosure Avoidance System (DAS), which is any type of statistical manipulation that makes identifying individuals through normally anonymous data difficult, if not impossible, while still maintaining the integrity of the information. One of the DAS methods the Census Bureau has used in the past is “swapping” data between similar households in different locations. This would maintain the overall integrity of the data while still preventing bad actors from matching the anonymous data to any individual.

In recent years, expanded computing power and the prevalence of other large data sets (e.g., consumer credit reports, data leaks from credit card companies) have reduced the effectiveness of swapping for privacy protection. Consequently, the Census Bureau determined that this technique was not sufficient to fulfill the bureau’s statutory requirements to protect confidentiality. To address the increased risk of disclosure, the Census Bureau adopted a privately developed DAS method called Differential Privacy.

This method maintains accurate information for statewide data. However, published figures for all other geographic levels, from counties down to census blocks, may differ somewhat from the actual survey responses.

At first blush, this new technique appears troubling. At the county and municipal level, we do not know the accuracy of the census population numbers. The Census Bureau has stated that the noise will likely be most noticeable in some small geographies, particularly census blocks. However, as the blocks are aggregated to larger geographies, particularly counties, some of the noise will disappear. In other words, some census blocks with positive noise will cancel out some with negative noise.

In this report, the state population figures are unaffected by Differential Privacy. Additionally, the natural population growth figures at the county level are unaffected because calculations are based on 2010 census populations and births and deaths reported by the Wisconsin Department of Health Services. The county level total population and net migration figures may have some error associated with them. Unfortunately, the extent of the error is unknown.



[forward-analytics.net](http://forward-analytics.net)

22 E. Mifflin St., Suite 900

Madison, WI 53703

608.663.7188

[forward-analytics.net](http://forward-analytics.net)