

Population Estimates Methodology

Last revised October 2026

Summary

UNM-GPS produces annual population estimates for all counties in the state of New Mexico. We also estimate the population characteristics of age, sex, race and ethnicity (Hispanic/non-Hispanic) for all census tracts in the state.

Our county estimates procedure relies on a combination of methods, namely the *cohort-component method*, *ratio correlation method*, and *housing unit method*. Inputs for these methods include various data products from the US Census Bureau, as well as local administrative data and vital records. The results of three methods, with their varying inputs and competing strengths and weaknesses, are averaged to produce our final estimates. We first estimate the total state population, and county populations are then estimated and controlled to the state total.

Census tract population totals are estimated using the *share of growth method*, which distributes the growth or decline of a given county into its component census tracts. Tracts in which the population historically changed in a different direction from their parent county are estimated using *linear* or *exponential extrapolation* methods. Tract-level characteristics are then estimated using an *iterative proportional fitting* process, which utilizes detailed 2020 decennial census data alongside our own recent estimates.

County estimates are typically published on the UNM-GPS website early in the year following the estimate-year, depending on input data availability, while tract-level estimates are available in aggregated form through the New Mexico Department of Health's [IBIS portal](#).

Background

Population estimates measure the size and characteristics of a population for a current or past date. The most recent census establishes a base count of the population which is then updated using data that serve as indicators of population change. Population estimates are distinguished from population projections which describe future populations and require assumptions about how trends in fertility, mortality and migration will change.

Population estimates are important because timely data on a population is needed by governments and the private sector, but conducting a complete census is very expensive. In the United States a census is required by the Constitution every ten years. Population estimates fill the intervening years, offering a cost-effective way to track how populations are changing between complete counts.

State and local governments, researchers and private sector organizations use these estimates to allocate resources, plan for community needs and to serve as denominators for various rates. Estimates are used for calculating vital statistics and crime rates, planning transportation and

utility infrastructure, meeting legal and grant reporting requirements, and helping businesses decide where to locate stores, clinics, and other facilities. During the COVID-19 pandemic, state health departments used population estimates to calculate infection and vaccination rates and to target outreach so that resources reached the communities that needed them most.

The University of New Mexico's Geospatial and Population Studies (UNM-GPS) produces state and county population estimates each year for the state of New Mexico. Additionally, UNM-GPS produces annual tract-level population estimates, along with estimates of race, age, sex, and ethnicity, for the New Mexico Department of Health (NMDOH). This document will describe the procedures UNM-GPS uses to produce these estimates.

State-Level Estimation Methodology

Estimates of New Mexico's population are produced for July 1 of each year. There are several methodologies for producing population estimates, each with their own strengths, weaknesses and biases. In a review of small-area estimates, Wilson and colleagues¹ noted that averaging several methods or using a composite method could reduce the overall mean error more than any single method. The composite method, in which methods for each geography are selected based on the population size and direction of change, can reduce overall mean errors². UNM-GPS uses a composite of three independently calculated methods and averages them together for our published annual population estimates. Each of these methods is described below.

For a thorough review of estimates methodologies in general, please see David Sawnsen and Jeff Tayman's Subnational Population Estimates.³

Cohort Component Method

The Cohort-Component Method (CCM) estimates a population by accounting for the major components of population change - births, deaths, and migration - for each age-sex cohort. Using the most recent census as the base population, each cohort is aged forward over the estimation period, with deaths subtracted using age and sex specific survival rates and migration added or subtracted using estimates of domestic and international migration. Births are added for the youngest cohort using vital records from NMDOH if available or by applying age-specific fertility rates to women of reproductive age and then accounting for infant survival. The resulting age-sex-specific populations are summed to produce the total population estimate for the geographic area. This can be expressed with the following simplified formula:

$$\text{Pop}_{2021} = \text{Pop}_{2020} + \text{Births} - \text{Deaths} + \text{Net Migration}$$

The US Census Bureau produces annual population estimates for the nation, states, counties and incorporated places using the Cohort-Component Method^{4,5}. Rather than reproducing similar

¹ Wilson, T., Grossman, I., Alexander, M., Rees, P., and Temple, J. (2022). Methods for small area population forecasts: State-of-the-art and Research needs. *Population Research and Policy Review*, 41, 865-898.

² Rayer, S. & Smith, S.K. (2010). Factors affecting the accuracy of subcounty population forecasts, *Journal of Planning Education and Research*, 30(2), 147-161. DOI: 10.1177/0739456X10380056

³ Swanson, D.A. & Tayman, J. (2012). *Subnational Population Estimates*. New York: Springer.

⁴ <https://www.census.gov/programs-surveys/popest/technical-documentation/methodology.html>

⁵ <https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2020-2022/methods-statement-v2022.pdf>

estimates using a similar CCM, UNM GPS uses these estimates from the Census Bureau as one of its three methods.

The Census Bureau uses birth and death records that originate from state health departments, but which are aggregated and standardized by the National Center for Health Statistics. The Census Bureau then incorporates migration indicators using data from the Internal Revenue Service, Medicare enrollment, the American Community Survey, Armed Forces movements, and other sources. They first produce an estimate for the nation as a whole and then produce estimates for each county. County estimates are then proportionally adjusted to match the national total. A separate method is used to estimate the population of incorporated places, but UNM-GPS does not incorporate these estimates.

The key strength of the Census Bureau's estimates is that they use a consistent methodology across the country utilizing standardized federal data. Limiting input to federal data that is collected consistently is also a key weakness. School enrollment or driver's license data is not consistent across states and is therefore not used by the Census Bureau even though they provide a strong indication of population change. The Census Bureau also does not consider unique local conditions that influence population dynamics nor do they possess local knowledge that could be used to assess the reasonability of population estimates. Finally, the Census Bureau does not produce estimates below the county and incorporated place level e.g. tract level estimates.

Housing Unit Method

The Housing Unit Method uses a straightforward formula that is very effective because changes in the housing stock closely track changes in population, and building permit records measure changes in housing stock annually and at fine geographic detail. This method takes the number of housing units counted during the most recent census and then adds units based on building permits issued by counties and incorporated places around the state. A multiplier of 0.95 is applied to account for building permits that were issued but not completed. We assume a six-month lag between the date of issue and the completion of the housing unit. We then apply occupancy rates and average persons per household by using data from the American Community Survey. This can be described with the following formula:

$$\text{Pop}_{2021} = \text{Pop}_{2020} + (.95 \times \text{Building Permits}) \times \text{Occupancy Rate} \times \text{Persons per Household}.$$

About 2% of New Mexico's population live in group quarters rather than housing units including college dorms, nursing homes, and prisons. The number of people living in group quarters in New Mexico has remained stable for decades and for most places we assume that this trend continues. Consequently, we add the April 2020 Census group quarter population count to the household population estimate to produce a total housing unit method estimate for the state.

Ratio Correlation Method

The ratio-correlation method uses the historical relationship between census counts and annually available administrative data (known as a *symptomatic indicator*) to estimate how state

and county populations have changed since the last census. For example, there were 368,932 New Mexicans over age 65 enrolled in Medicare in April 2020. The Census Bureau counted 385,343 New Mexican residents over the age of 65 on April 1, 2020. These data points suggest that 95.7% of New Mexico's population over the age of 65 are captured in Medicare enrollment data. We assume that this ratio remains consistent over time and then track changes in Medicare enrollment to estimate changes in the 65+ population. Similarly, we use school enrollment data to track changes in the age 5-17 population and licensed drivers' data from the New Mexico Taxation and Revenue Department's Motor Vehicle Division to track the age 18-64 population.

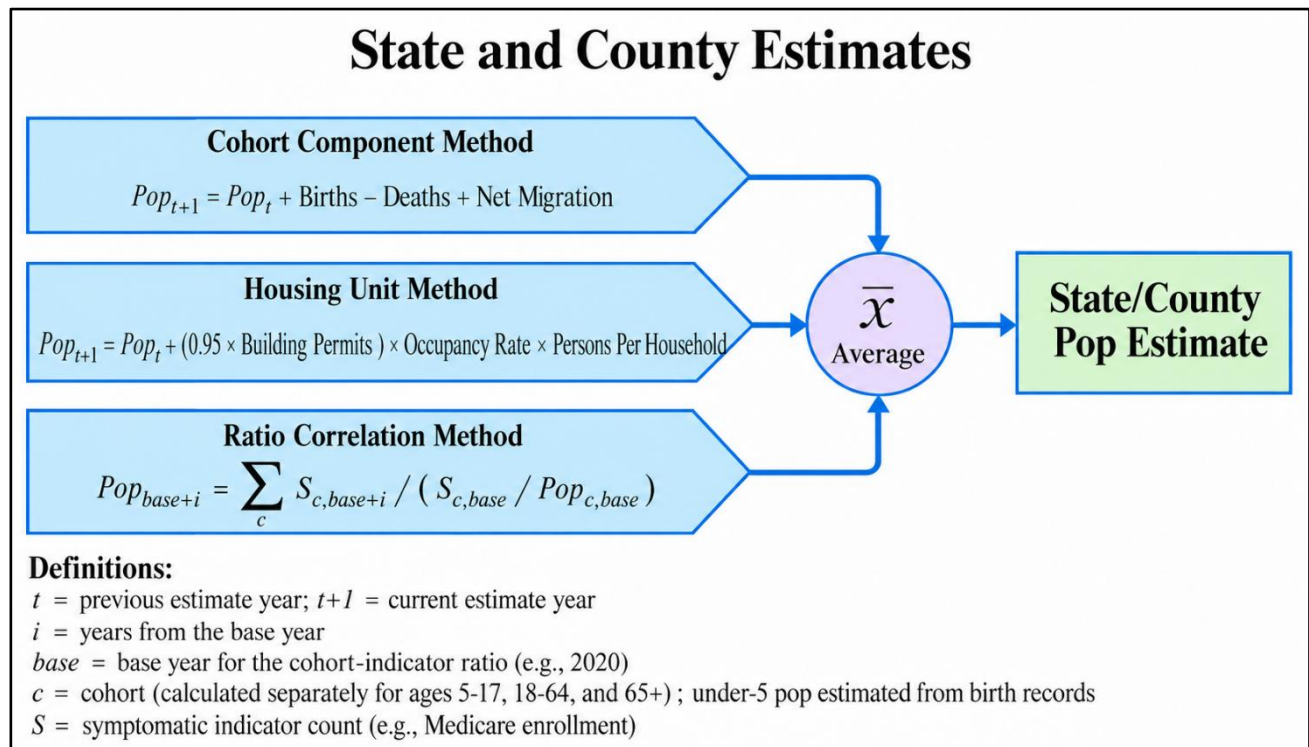


Figure 1. Methods used in state and county estimates

County-level Estimates

UNM-GPS produces population estimates for all of New Mexico's 33 counties using the same methods described above for state estimates. Some counties have limited building permit data or do not issue permits locally.⁶ In these instances, we either rely on data collected by the Census Bureau⁷ or use estimates from the American Community Survey.

Population estimates for each county are reviewed for plausibility with extra scrutiny given to small counties because they are more prone to error. Counties showing large growth or decline are more carefully investigated to ensure that data inputs are free from error and that trends

⁶ For small counties, the ACS estimates are averaged over a five-year period which can make it harder to notice change. Consequently, the housing unit method may show very small amounts of change while all other indicators suggest a large decline or growth. These differences could substantially skew the estimates if the housing unit method was retained.

⁷ The Census Bureau collects data 'permit-issuing places', which excludes many regions of NM as smaller municipalities often do not issue their own permits. <https://www.census.gov/construction/bps/methodology.html>

from the individual sources (i.e. vital records, school enrollment, licensed drivers, and Medicare enrollment) support preliminary estimates. In cases where our estimate is both lower than the Census Bureau's and difficult to justify with available data, we will replace our estimate with the Census Bureau's value for the same year⁸.

Raking

'Raking' is a process of proportionally adjusting the estimates in nested geographies (e.g., counties within a state) so that their sum matches that of the parent geography. To do this, we divide each initial county estimate by the sum of the estimate of all counties and then multiply that proportion by the estimated state total.

$$\text{County}_{\text{raked}} = (\text{County}_{\text{initial}} / \text{CountiesSum}_{\text{initial}}) * \text{StateEstimate}$$

This process ensures that 1) each county retains their relative size compared to other counties, and 2) the counties sum to the established state total.

Census Tract-level Estimates

Census tracts are aerial units that nest into counties. Intended to capture roughly 4,000 residents⁹, in practice census tracts vary considerably by area and population. The Census Bureau modifies tract boundaries in tandem with every decennial census, and as of 2020, New Mexico is comprised of 612 census tracts (12 of which are unpopulated).

Tract estimates typically have more errors than state or county estimates due to their smaller population size and because data such as vital records are not available below the county level. One approach to estimating census tract population is to distribute the growth or decline of a county proportionally to its constituent tracts. However, tracts do not always change in the same direction or magnitude as their parent county. For example, while Sandoval County is growing overall, this growth is concentrated in areas in and around the city of Rio Rancho. Other parts of Sandoval County, which fall into different tract boundaries, are declining in population.

Considering these issues, we use a composite method that selects either a *share-of-growth*, *exponential extrapolation*, or *linear extrapolation* method depending on growth patterns of each tract and the county in which it resides. For our 2020 to 2025 estimates, these methods are based on patterns of change between the 2010 and 2020 Censuses.

The *share-of-growth method* estimates the tract population by calculating each tract's share of the county's growth¹⁰ (or loss) across the prior decade and then applying this share to the estimated post-censal county population to determine the tract-level estimate. For our tract

⁸ While our estimates benefit from a diverse set of data sources, there are known issues with each source that could impact the quality of the data and thus may increase error for some counties.

⁹ While 4,000 is an optimal number, tract populations nationwide typically range from 1,200 to 8,000.

U.S. Census Bureau (2022). Glossary. <https://www.census.gov/programs-surveys/geography/about/glossary.html>

¹⁰ The county census totals for these calculations excluded the tracts that had population change in the opposite direction of county, thus the balance of the county total after removing tracts estimated with linear extrapolation was used in the share of growth calculations.

estimates, we used the share-of-growth method for tracts that changed in the same direction as its parent county from 2010 to 2020. Consequently, instead of applying the share-of-growth to all tracts in a county, we used the balance of the current county population estimates after removing the tract population for tracts that change in a different direction than the parent county. For the remaining tracts, the share-of-growth method assumes that each tract's share of the county's growth is stable across the current decade.

Share-of-growth Method

Share of growth

$$\text{Share of growth} = \frac{\text{Tract pop}_{2020} - \text{Tract pop}_{2010}}{\text{County pop}_{2020} - \text{County pop}_{2010}}$$

Estimated tract population

$$\text{Tract pop}_t = \text{Tract pop}_{2020} + \text{Share of growth} (\text{County pop}_t - \text{County pop}_{2020})$$

t = estimate year

Figure 2. Share-of-growth method

When a tract's population changes in a different direction from its parent county, estimates produced by the share-of-growth method may be unreasonable. Consequently, for tracts whose 2010–2020 population change was opposite that of the parent county, we use either linear or exponential extrapolation to produce postcensal estimates. Research suggests that linear extrapolation performs better for growing populations, whereas exponential extrapolation is preferred for declining populations. Linear extrapolation extends the average absolute population change observed during the previous decade. For example, a tract that gained an average of 200 residents per year from 2010 to 2020 would continue to gain approximately 200 residents per year. In contrast, exponential extrapolation extends the proportional rate of population change observed during the previous decade. For a declining tract, this results in a compounded rate of population loss, so the absolute number of residents lost becomes smaller as the population declines. This avoids the problem of a fixed-count linear decline eventually reducing a small population to zero or below.

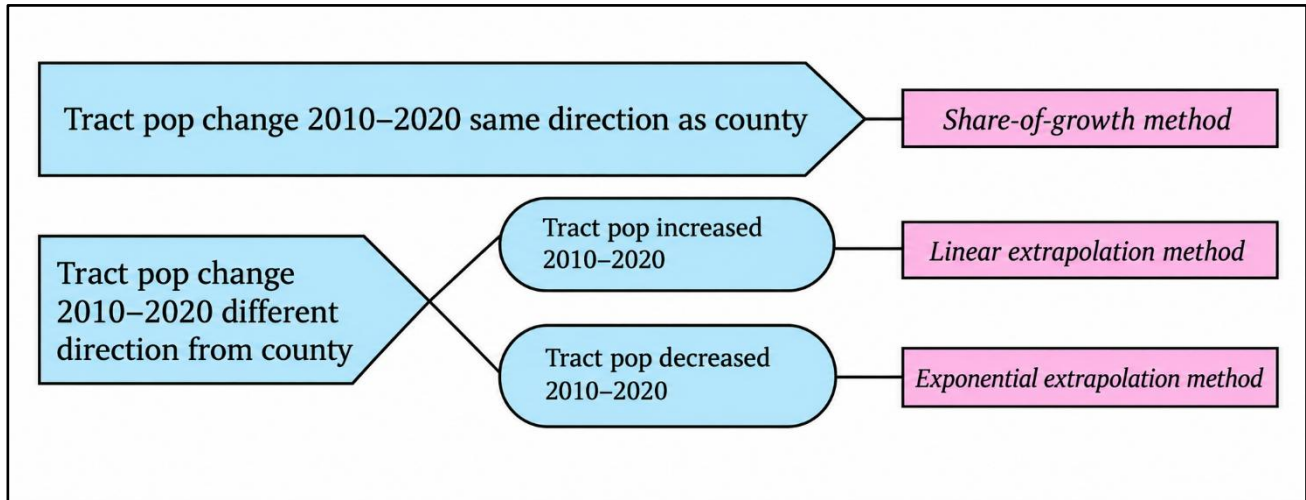


Figure 3. Selection criteria for tract population estimate method

Thus, we select the extrapolation method for each tract based on the direction of its change between the 2010 and 2020 censuses. The estimated population totals for these tracts are then removed from the county total to calculate the balance of the county population estimate for the remaining tracts (for which the share-of-growth method was used). Thus, it is the combination of these three methods, rather than their average, which constitute the tract-level estimates we produce.

Linear and Exponential Extrapolation

Linear Extrapolation:

$$P_t = P_{2020} + t \left(\frac{P_{2020} - P_{2010}}{3653} \right)$$

Used for tracts with pop growth in shrinking counties, 2010–2020

Exponential Extrapolation:

$$P_t = P_{2020} \left(\frac{P_{2020}}{P_{2010}} \right)^{t/3653}$$

Used for tracts with pop decline in growing counties, 2010–2020

Definitions:

- t = days since April 1, 2020
- P_t = tract population estimate at time t
- P_{2020} = April 1, 2020 Census tract population
- P_{2010} = April 1, 2010 Census tract population
- 3653 = days between the 2010 and 2020 Censuses

Figure 4. Linear and exponential extrapolation

Raking

The raking process for the tract estimates is similar to that for the county estimates. County estimates are used to control the summed population total of all tracts in each county using the following formula:

$$\text{Tract}_{\text{raked}} = (\text{Tract}_{\text{initial}} / \text{AllTractsSum}_{\text{initial}}) * \text{CountyEstimate}$$

This process ensures that 1) the tracts retain their relative size compared to other tracts, and 2) the tracts sum to the established county totals.

Distribution of Characteristics

Once estimates of state, county, and tract population are finalized, the demographic characteristics (race, age, sex, and Hispanic-origin) of the population are estimated. The administrative records we use to estimate total population either lack certain characteristics or do not capture them consistently. We therefore rely on characteristics from the Census Bureau's Population Estimates Program, adjusting them to match our distinct population totals using Multidimensional Iterative Proportional Fitting ('MIPF')^{11,12}.

MIPF can be thought of as a complex Sudoku puzzle, in which we use known values to fill in unknown values. The known values in this case are: 1) the distribution of characteristics across tracts at the most recent Decennial Census ('seed'), 2) the Census Bureau's population estimates' distribution of demographic characteristics for the current year at the county level¹³, and 3) our current year state, county, and tract totals. The output is the estimated population by demographic characteristics at the tract level that sum to the previously estimated state, county, and tract totals. For each census tract, the population is estimated for each of the variables listed below in Table 1.

Table 1. Variables in UNM-GPS characteristics estimates

Bridged race groups (4)	American Indian or Alaska Native, Asian or Pacific Islander, Black or African American, White
Hispanic origin (Ethnicity) (2)	Hispanic or Non-Hispanic
Age groups (35)	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+
Sex (2)	Male or Female

¹¹ For those interested, this presentation provides a nice illustration of a simple 2x2 iterative proportional fitting: <https://u.demog.berkeley.edu/~eddieh/IPFDescription/AKDOLWDIPFTWOD.pdf>

¹² The process of fitting the population characteristics is done using the ipfn package for Python.

¹³ In this annual input, we update the Census Bureau's age 0 to 1 population estimate with birth data from NMDOH.

Seed File

The foundation for population estimates characteristics is the tract-level seed file (Table 2). The Census Bureau’s annual population estimates are not published below the county level. For tract level demographic characteristics, we leverage data from the 2020 Decennial Census Demographic and Housing Characteristics file (‘2020 DHC’). This file reports the population of each tract for all combinations of race, ethnicity, sex and age (For example, White (race), Hispanic (ethnicity), females (sex), who were age 64 on April 1, 2020).

Age-specific mortality rates can then be applied to this seed file and subsequently aged forward from 2020 producing a new seed file for subsequent estimates year. The population under age 1 is added in from current county-level birth data, which is distributed across tracts in the same proportion observed in the 2020 census.

Table 2. UNM-GPS *seed file* variables and categories.

Demographic Characteristic	Variable Categories
Census Tract (612)	612 Census Tracts using 2020 Census Geographies
Sex (2)	Male, Female
Age (86)	Single-year of age 0-84, 85+
Race (5)	White, Black, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, Asian, Two or More races
Hispanic origin (Ethnicity)	Hispanic, non-Hispanic

The 2020 Decennial Census data presents a key challenge regarding demographic characteristics. While “some other race” is not a valid race categorization for the NMDOH, it is a valid response for the Decennial Census, and results in a population balance that must be redistributed to the five race groups found in our resulting estimates. Below is an explanation of how we handled this challenge when developing the seed file.

Some Other Race (“SOR”)

New Mexico has a higher proportion of people reporting “Some Other Race” than most other states¹⁴. In most cases, this is because people who are of Hispanic origin may not see White/Caucasian as their racial identity. Consequently, those who report only “some other race” and report being of Hispanic origin are given a racial categorization of white, as we expect those who are Hispanic origin and a race other than white would indicate the other race on the Census

¹⁴ In the past, the Census Bureau produced a modified-race file which included 31 race categories and recategorized people of “some other race.” This file is not currently available but may become available for use in future years. We will consider revising our estimates methodology when a revised Modified Race File becomes available. U.S. Census Bureau, Population Division. (2012 July 5). Modified Race Summary File Methodology Statement. <https://www2.census.gov/programs-surveys/popest/technical/documentation/methodology/modified-race-summary-file-method/mrsf2010.pdf>

form along with “Some other race”. The vast majority of New Mexicans who report “Some other race - alone” also report that they are Hispanic. Those who report “Some other race – alone” and are not Hispanic were distributed based on the proportion of the five race alone categories by sex and single-year age in each tract¹⁵. For those who reported SOR and a second race, we coded them as the second reported race group and distributed this population based on patterns in the Demographic and Housing Characteristics file¹⁶. For those who reported SOR and two or more additional races, we coded as Two or More Races (see below).

If Race1 + SOR, then Race = Race1.

If Race1 + Race2 + SOR, then Race = TOMR.

This step occurs as part of the generation of the 2020 seed file.

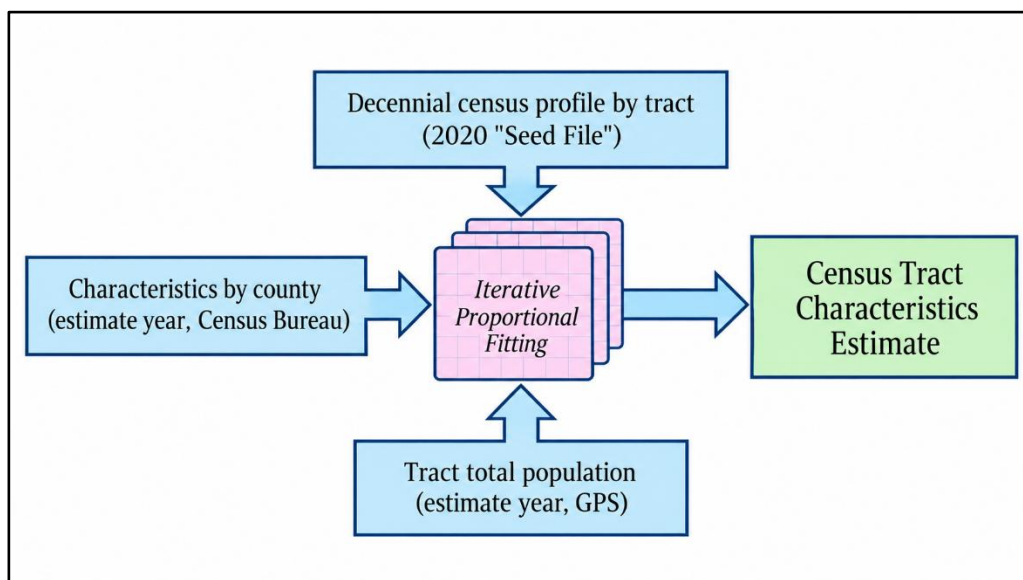


Figure 5. Components of iterative proportional fitting process

Modifications to Race and Ethnicity Categories

NMDOH uses estimates for single-race groups consistent with 1977 OMB standards while the Census Bureau reports race and ethnicity using the 1997 OMB standards. For this and other reasons describe below, UNM-GPS makes some notable modifications to race and ethnicity data.

Two or More Races

Census Bureau population estimates include a Two or More Race Category (TOMR) that combines all people reporting multiple races into one group. This TOMR category represents nearly 20% of New Mexico’s population and is not used by NMDOH. We therefore redistribute people classified as TOMR in the following manner: 1) TOMR that include American Indian and

¹⁵ If Hispanic and SOR-alone, then Race = White-alone. If non-Hispanic and SOR-alone, then Race distributed across county proportionally based on counties age-sex specific distribution of non-Hispanic race.

¹⁶ After reclassifying the population who were SOR and one of the five single race categories to their single-race category, the population was distributed across tracts based on the distributions found in the P8 and P9 tables. They were then distributed across age and sex groups in a manner consistent with the distribution for the same race group in the Demographic and Housing Characteristics file tables PCT12A through PCT12O.

Alaskan Native ('AIAN') as one of their races are classified as American Indian Alaska Native (AIAN) and 2) TOMR groups that do not include AIAN as one of their races are classified as rarest race based on NM's statewide prevalence (e.g. people who report their races as White and Asian would be classified as Asian, because Asian is the rarer racial group in New Mexico). This step is undertaken on annual population estimates from the Census Bureau before they contribute to the IPF process. See Appendix for more information on why modification was needed and how the decision was determined)¹⁷.

Asian and Native Hawaiian/Pacific-Islanders

The Asian and Native Hawaiian/Pacific-Islander population is small in most places throughout New Mexico. To increase the reliability of these data and to minimize the risk of disclosure, we combine ('bridge') the Asian and Native Hawaiian/Pacific-Islander into one category, as requested by NMDOH. This is the final step of the characteristics estimates, resulting in 4 race categories.

Evaluation and Adjustments

After preliminary estimates are produced, we carefully examine the results, investigate any areas of concern, and make informed adjustments if necessary (in the case of county estimates, before any results are averaged). For example, in 2025, children enrolled in a virtual schooling program statewide were allocated by NMPED to one of two school districts. Because this resulted solely from an administrative agreement (and did not reflect changes in local population), we prevented these enrollment changes from influencing our county estimates¹⁸.

Appendix

The Census Bureau tabulates statistics for their Population Estimates Program on the five race groups included in the 1997 OMB standards for people who report only one race ("White alone," "Black or African American alone," "American Indian or Alaska Native alone," "Asian alone," "Native Hawaiian or Other Pacific Islander alone")¹⁹. Anyone reporting more than one race is tabulated in the "Two or More Races" category. In 2020, 10.2% of people in the United States identified as TOMR compared to 19.9% of people in New Mexico²⁰. Consequently, decisions about how to distribute this group across other racial groups is more influential in New Mexico than in other states.

By reporting all multi-racial individuals into a single group, we lose the ability to interpret statistics for this population in a meaningful way. The lived experiences and incidence of disease of people who are of two or more races are varied. It would not be reasonable to expect that the health outcomes of someone who is both Black and White are more similar to someone who is Asian and Native American than one of the race-alone groups (i.e. Black or White).

¹⁷ Please see Appendix for an explanation of how this decision was made.

¹⁸ <https://investors.stridelearning.com/news/news-details/2025/Stride-Inc--Signs-Multi-District-Agreements-to-Operate-K12-Powered-Online-School-in-New-Mexico/default.aspx>

¹⁹ U.S. Census Bureau. "Measuring Racial and Ethnic Diversity for the 2020 Census." <https://www.census.gov/newsroom/blogs/randomsamplings/2021/08/measuring-racial-ethnic-diversity-2020-census.html>

²⁰ U.S. Census Bureau, "Race and Ethnicity in the United States: 2010 Census and 2020 Census." <https://www.census.gov/library/visualizations/interactive/race-and-ethnicity-in-the-united-state-2010-and-2020-census.html>

Potential solutions²¹ include assigning race using an algorithm based on rarest-race, most-popular race, or developing a bridging method using New Mexico-specific data from the Behavioral Risk Factor Surveillance System (BRFSS). BRFSS uses questions that ask about both multiple races and the person's self-identified most representative race²². When assigning a single race to a person who identifies as multiple races, the ideal scenario is to allow the individual to self-identify their primary race²³. However, UNM-GPS does not have access to that data, and it was determined that NMDOH would further explore these options.

In the Spring of 2024, NMDOH leadership, along with their Tribal Liaison and epidemiologists, determined that those reporting TOMR would be categorized using a statewide *rarest race* methodology with a special rule that ensures historically marginalized populations are not undercounted. Through this approach, people who are categorized as two-or-more races and report being White and Black, would be categorized as Black as this is the rarer race in New Mexico. The special rule would have people who report that they are Native American and another race, would be categorized as Native American even if their other race is the rarer race in New Mexico. In the future, UNM-GPS could include a TOMR category in a separate population estimates file to enable NMDOH to explore alternative approaches to distributing the TOMR category across the population.

Notes and Limitations

2023 and later estimates include revised race categories.

We do not currently have any reliable sources at the county level for undocumented residents, although some would have been counted in the decennial census and/or represented by other indicator data (e.g., MVD records or school enrollment).

Our estimates methodology accounts for the homeless population indirectly, and they are variously represented and underrepresented in segments of our input data. For example, the Census Bureau counts homeless persons as part of their Group Quarters count during the decennial census. This captures some extent of the population that rotates through shelter facilities, but most certainly results in an undercount. Our methodology incorporates 2020 Group Quarters counts, but does not account for fluctuations in these populations.

Within the Census Bureau's cohort-component method (CCM), migration data comes largely from IRS tax returns and changes in Medicare enrollment. While these migration estimates are included in the final CCM estimate by the Census Bureau, which we include as one of our three estimates, we do not separately estimate migration as a component of change in the other approaches.

²¹ Miller, J.A. (2023). Race and Ethnicity Review and Options for the NM Department of Health. Report produced for NM DOH with background and options to understand the concerns about the two-or-more-race grouping.

²² For a full list of BRFSS questions, please see <https://data.cdc.gov/Behavioral-Risk-Factors/Behavioral-Risk-Factor-Surveillance-System-BRFSS/iuq5-y9ct>.

²³ Mays, V.M., Ponce, N.A., Washington, D.L., and Cochran, S.D. (2003). Classification of race and ethnicity: implications for public health. Annual Review of Public Health, 24, 83-110. DOI: [10.1146/annurev.publhealth.24.100901.140927](https://doi.org/10.1146/annurev.publhealth.24.100901.140927)