Montana's Changing Demographics: 2024 Update

Written at the request of the MARA Committee

By Joshua Poulette, Molly DelCurto, Alice Hecht, and Sam Schaefer

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In January 2020, LFD published a report on Montana's demographic recent past, present, and near future. This report was followed by an August 2021 update on the same subject for the MARA Committee. The August 2021 demographic report did not fully incorporate the impacts of COVID-19 on Montana's demographic characteristics.

This report updates the findings of the previous reports with more recent data, including incorporating data from the 2020 decennial Census. This report also includes a new section that examines urbanization trends in Montana over the past several decades.

1. Research Questions

This update addresses two related research questions:

First, what are Montana's demographic characteristics? Phrased another way, what is Montana's demographic makeup, how did we get here, and where do we expect to be in the future?

Second, what are the implications of Montana's demographic situation for state and local finance? How can we expect the state's demography to impact public finance in the future?

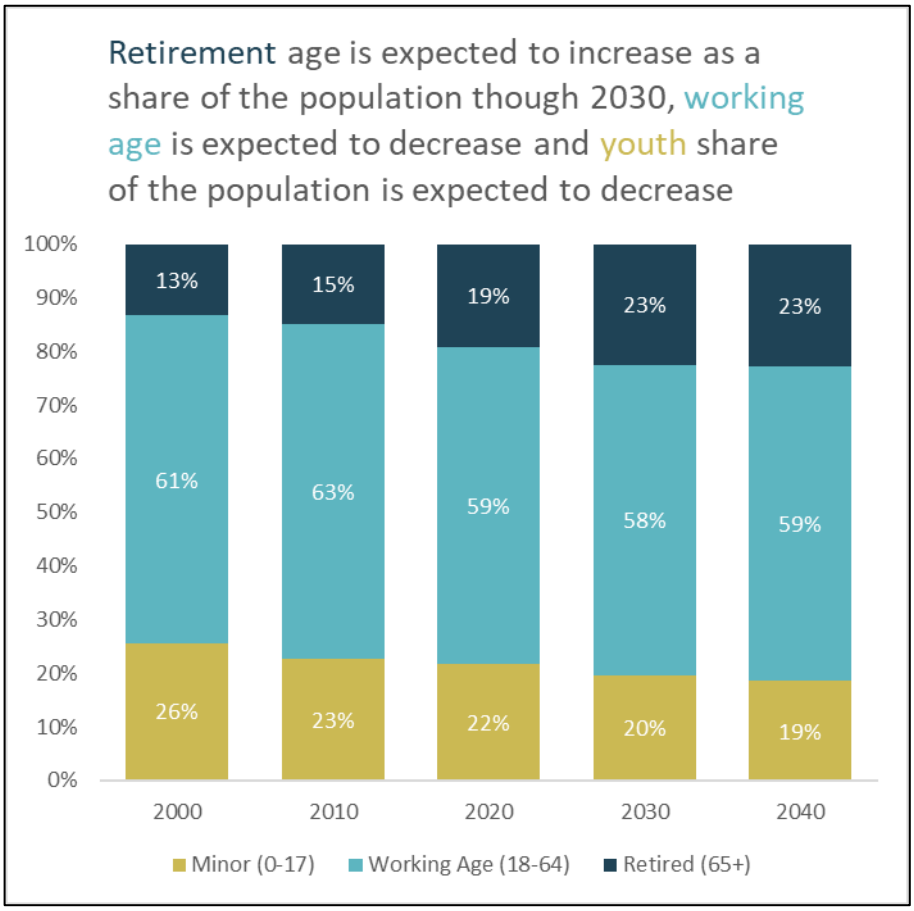
2. Data and Methodology

The primary dataset used for this report is from the U.S. Census Bureau (Census County Estimates). This dataset is created using the 2020 Census as a baseline.

This report also uses data from eREMI, which includes the years 1990-2060 (2020-2060 are projections). The eREMI data was obtained from the Montana Department of Commerce Census and Economic Information Center (CEIC.) The eREMI dataset projection was created specifically for Montana in 2023 and takes regional patterns into account.

3.1. Findings: Statewide Population Aging

What are Montana's current and projected demographic characteristics? There are several dimensions to the answer to this question but consider first the adjacent graph. This graph shows projected change in major age cohorts in Montana as a percentage of the state population (2000-2040). Data for this graphic is from eREMI.

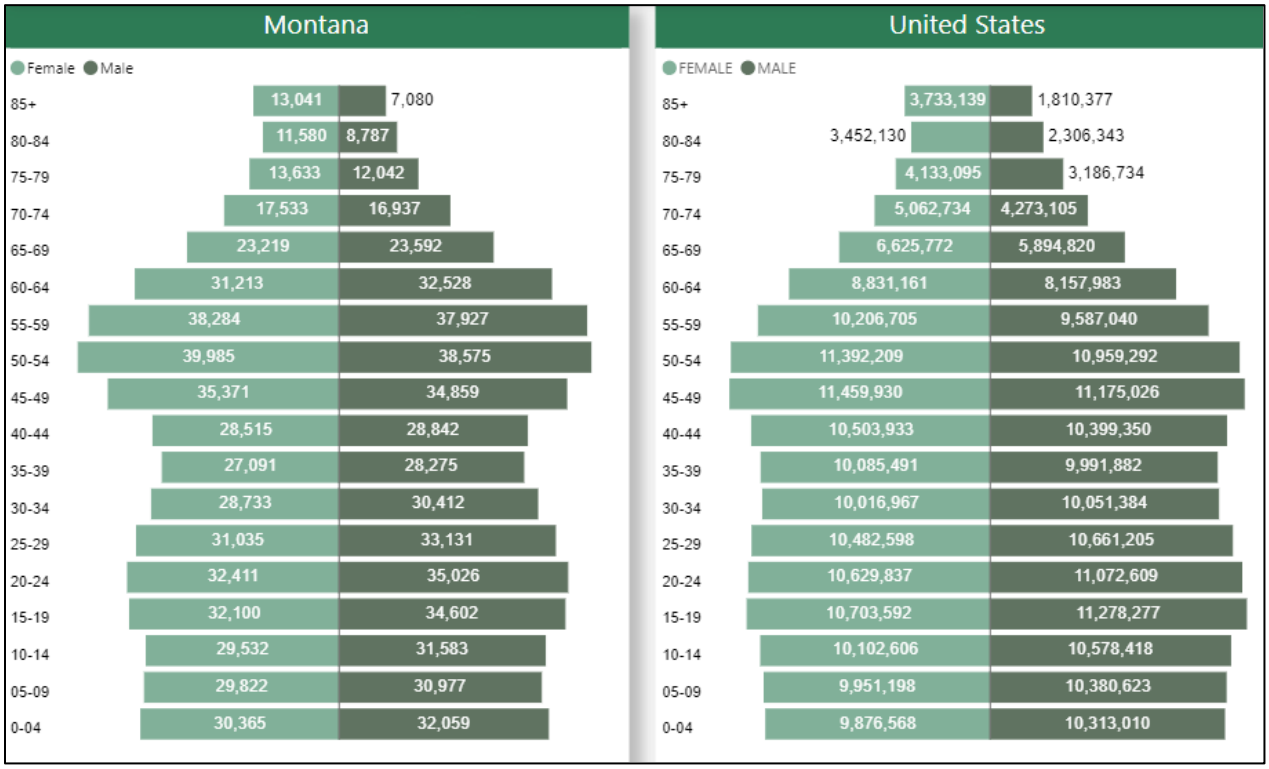


The proportion of children is projected to shrink slightly over the next 20 years while the working-age population proportion is projected to remain relatively flat. This is a change from the last version of this report (2021), in which the proportion of children was projected to remain flat while the working-age population was projected to shrink.

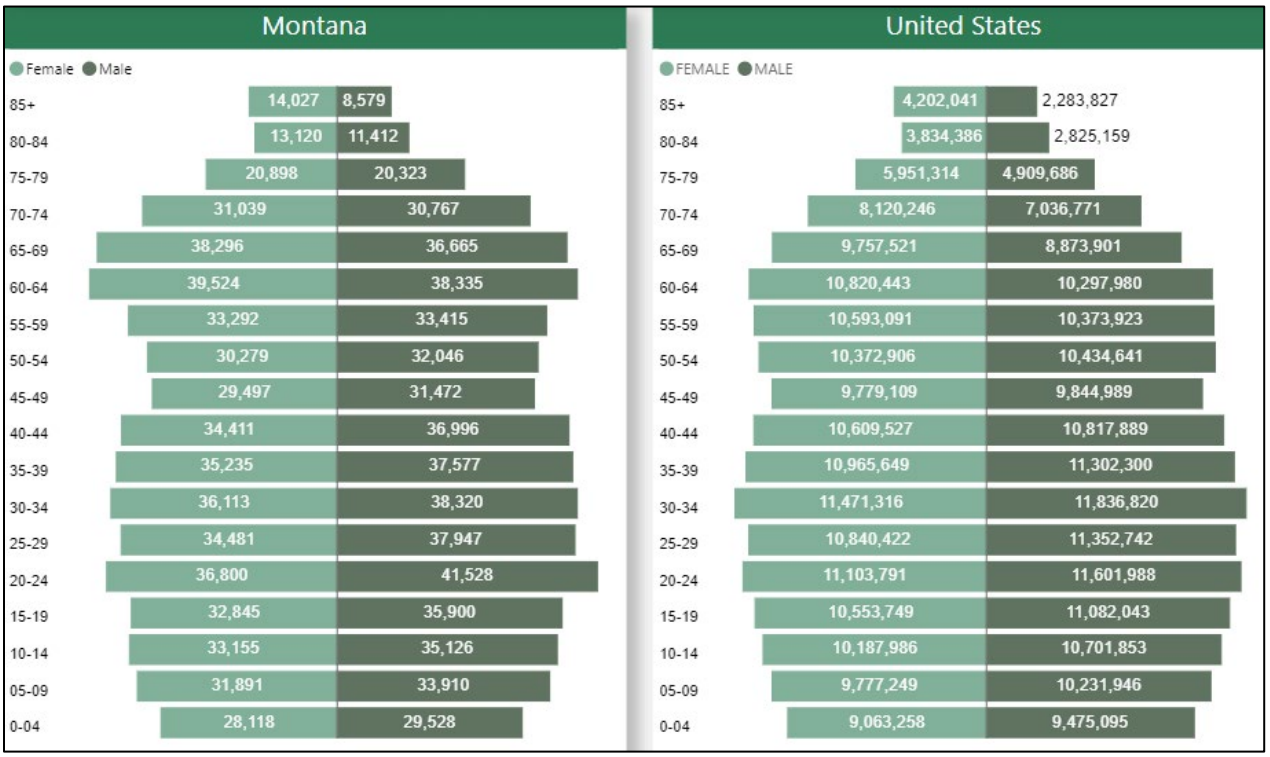
Finally, the retirement age proportion is projected to continue to grow into 2030, and then flatten out into 2040. Montana currently has the 6th highest percentage of population over age 65: about 19.7% in 2020. The oldest state by this metric is Maine at 21.8%, and none of Montana's neighboring states are over 18.0% as of 2020. The implications of statewide population aging are discussed later in this update.

The series of graphs below are population pyramids for Montana and the US for 2010 and 2022.

Montana and US, 2010 (data: US Census Bureau)



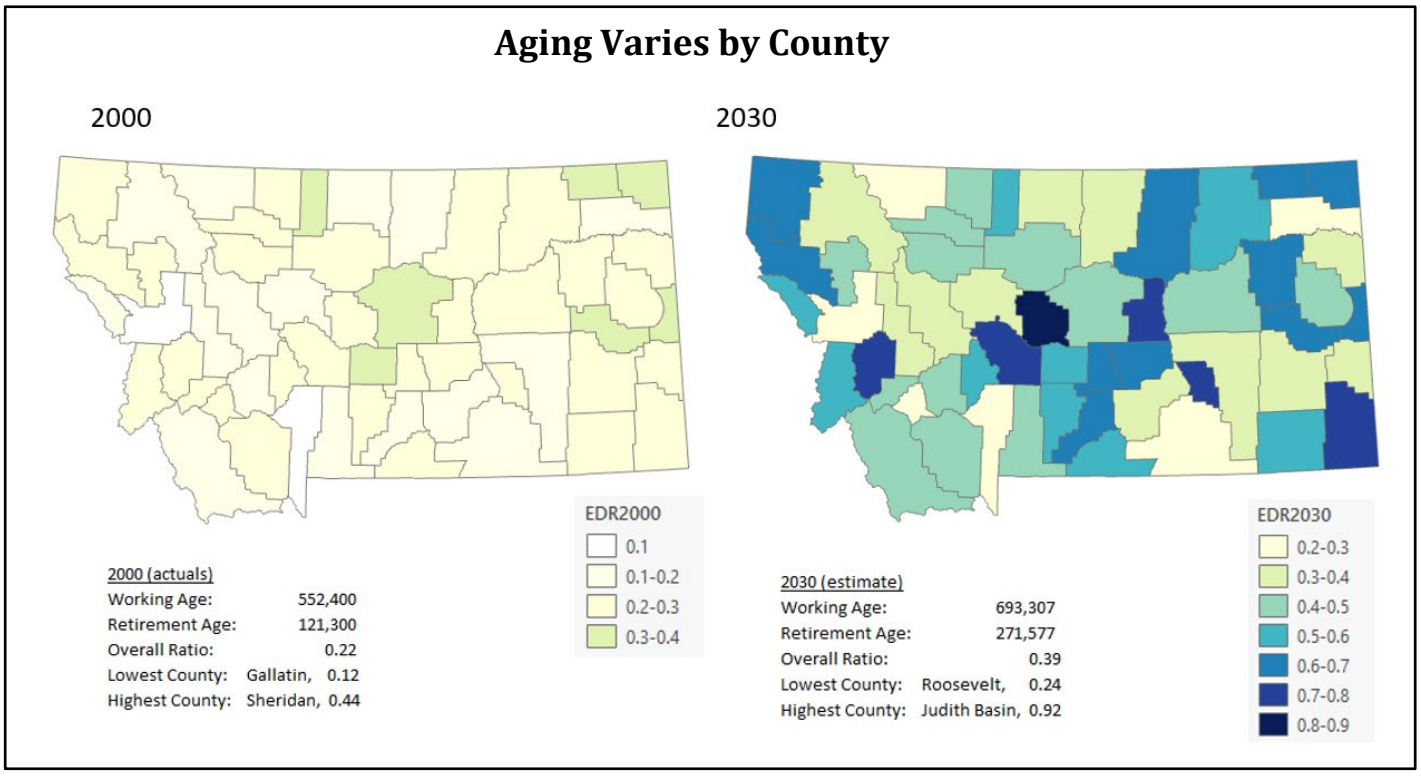
Montana and US, 2022 (data: US Census Bureau)



Several takeaways from these population pyramids are apparent. First, the "baby boom" generation is clearly pronounced in both the 2010 and 2022 graphs and can be seen shifting upwards as time proceeds. Second, Montana is clearly older than the United States as a whole in both sample years. Third, the younger working-age cohorts (those in their 20s, 30s, and 40s) make up relatively more of Montana's population in 2022 as compared to 2010. This suggests in-migration over the 2010-2022 period consisted of a significant part of younger working-age persons.

3.2. Findings: Aging by County

The maps below illustrate the retirement-age dependency ratio in Montana's counties in 2000 and 2030 (projected, data from eREMI). The retirement-age dependency ratio is the ratio of working-age persons to retirement-age persons in a given jurisdiction. A retirement-age dependency ratio of 0.3 means that for every 1 worker, there is 0.3 of a retirement-age person in the jurisdiction.

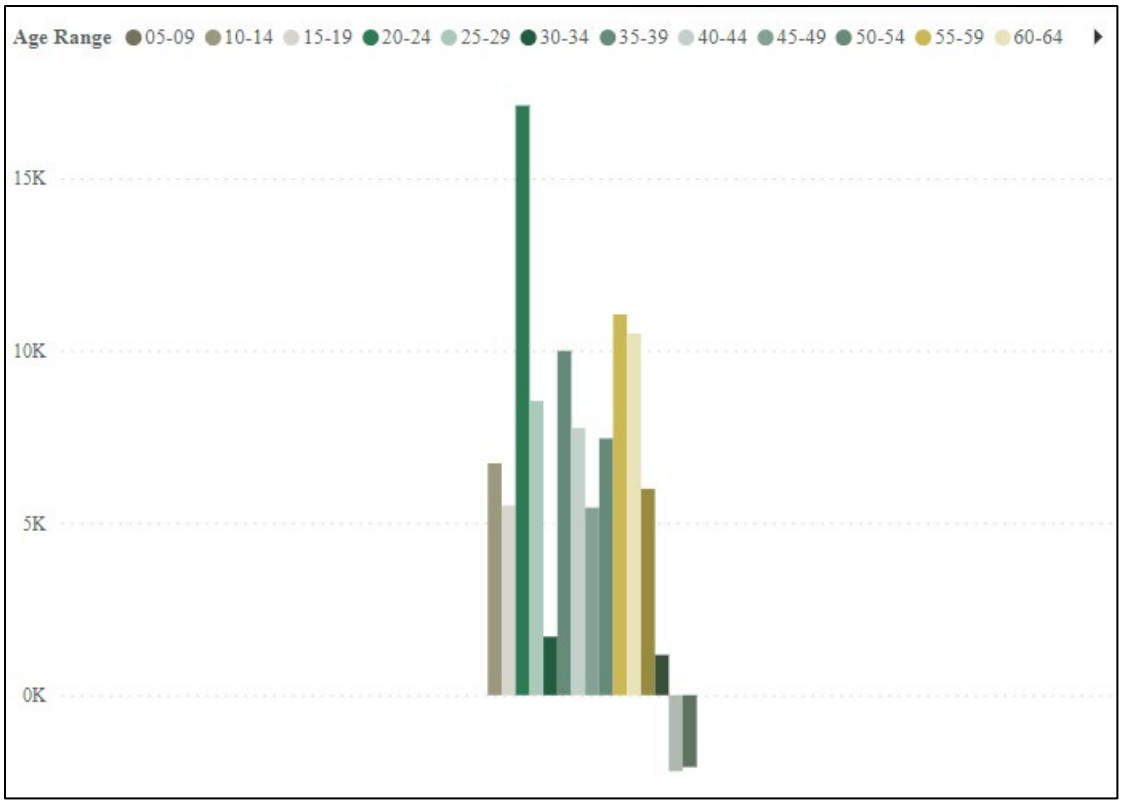


These maps illustrate two main points. First, the retirement-age dependency is projected to increase in every county in the state, and in many cases is projected to increase by a large margin. Second, this increase is not equally distributed across the state. In many cases, rural counties are expected to experience a larger increase in retirement-age dependency ratio than counties with larger cities. Note that increases in the retirement-age dependency ratio can occur because of more retirement-age persons moving to a jurisdiction, working-age persons leaving a jurisdiction, or both.

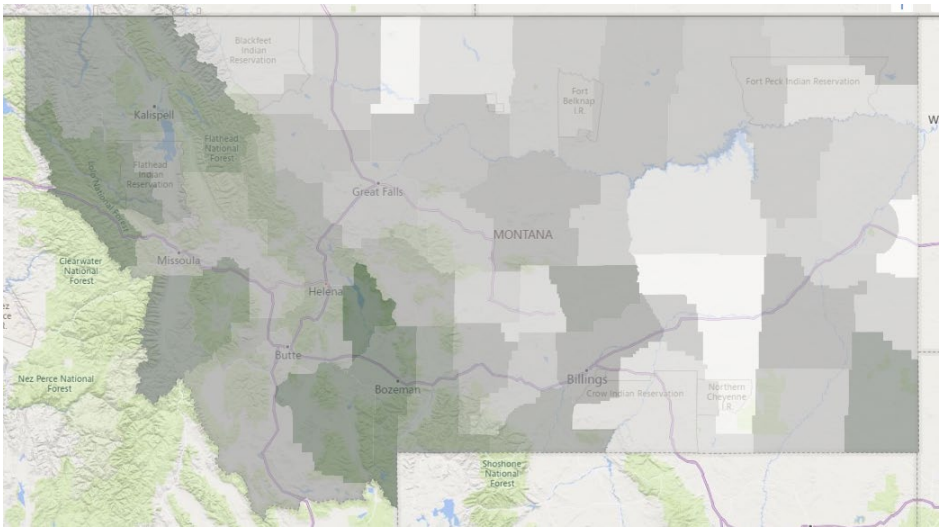
3.3. Findings: Migration Impacts

Along with aging, migration is another population process that will continue to shape Montana's demographic characteristics. The county-level maps discussed above have communicated the impact of residents being more likely to move to certain Montana counties and out of others. The graph below shows statewide net migration by age cohort from 2013 to 2022.

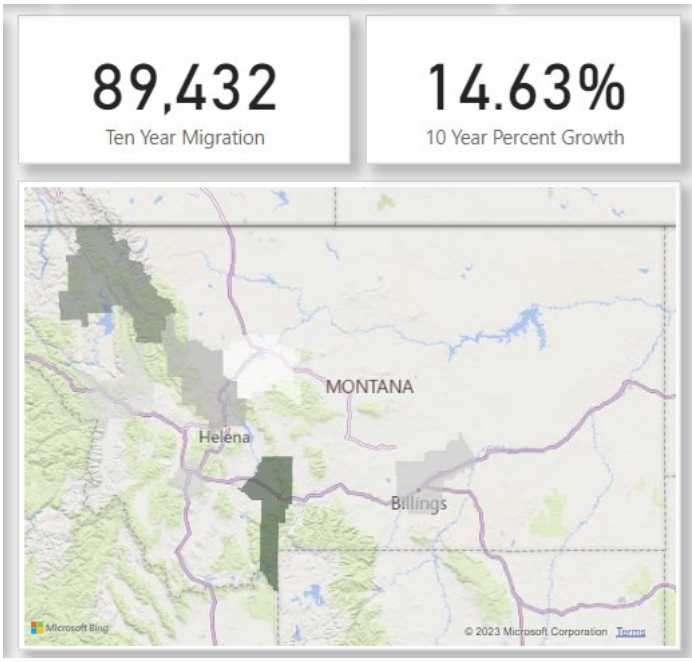
Montana 10-Year Net Migration by Age Cohort



Over the 2013-2022 period, Montana had a net in-migration of about 123,000 persons and 12.7% in all age categories. The largest amount of growth is among the college-aged cohort, many of which left the state before their 30s, partially offsetting the growth in the 30-34 cohort and reducing it well below the growth of other age cohorts. Growth among the "early retirement" cohorts (ages 55-64) is notable. Like aging, migration is not evenly distributed across Montana. Consider first the adjacent

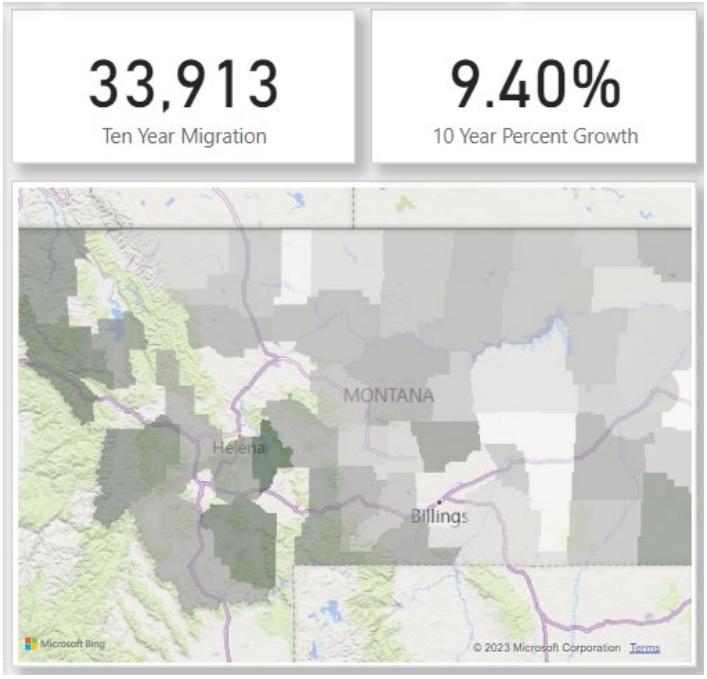


image, which shows ten-year migration patterns across all counties. Green indicates positive growth, grey indicates little or no change, and white indicates negative growth. Migration has led to population increases in western Montana and south-central Montana, but the opposite has occurred in parts of central, northern, and eastern Montana.



The image to the left shows ten-year net migration for the counties with the seven largest cities. Darker shades indicate higher levels of growth. The large majority of the state's population growth over the ten-year period is in these seven counties.

The image to the right displays the same information for Montana's rural counties. Shades of white indicate negative overall growth over the ten-year period. Net migration by age for the rural counties shows declines in the 20-29 and 75+ age cohorts and increases in all other age cohorts. Unlike the statewide totals, the 55-64 age group is the age group with the highest increase.



3.4. Findings: Urbanization

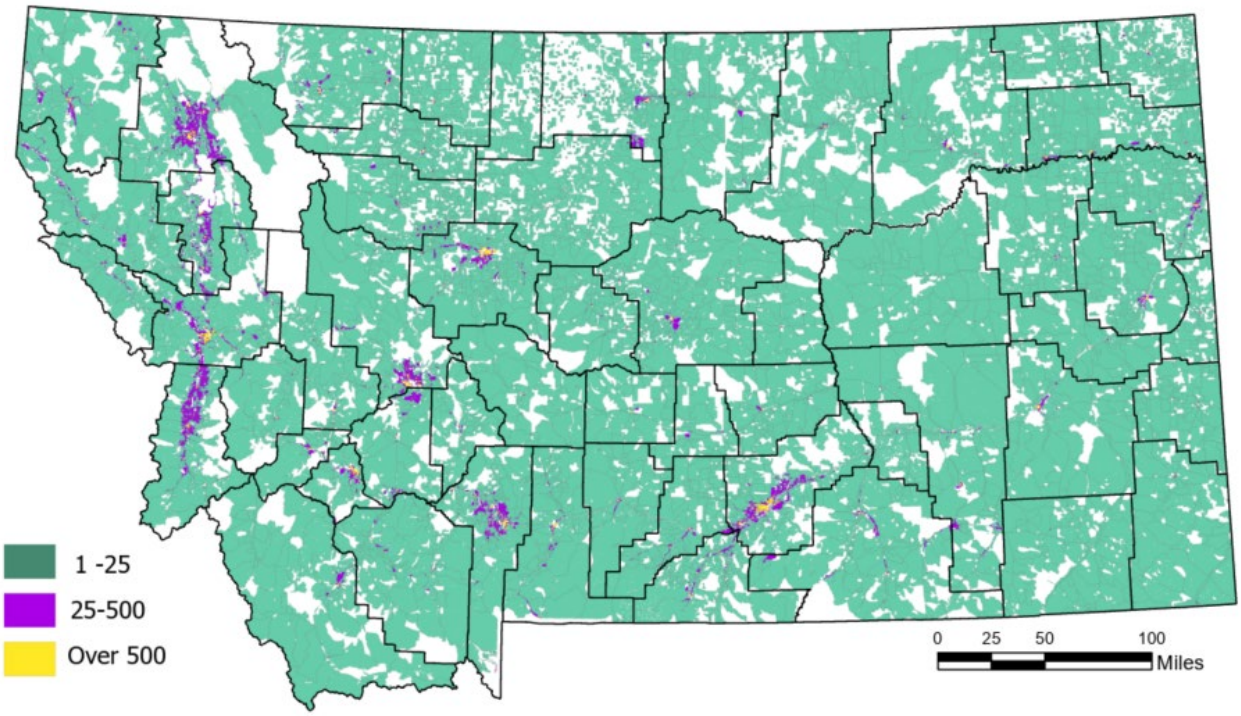
For this 2024 update, LFD staff added additional analysis on urbanization trends in Montana. Data used for this section are from:

- US Decennial Census block population data from 1990 and 2020
- The Global Human Settlement (GHS) built up surface raster at 100-meter resolution for the years 1995 and 2020

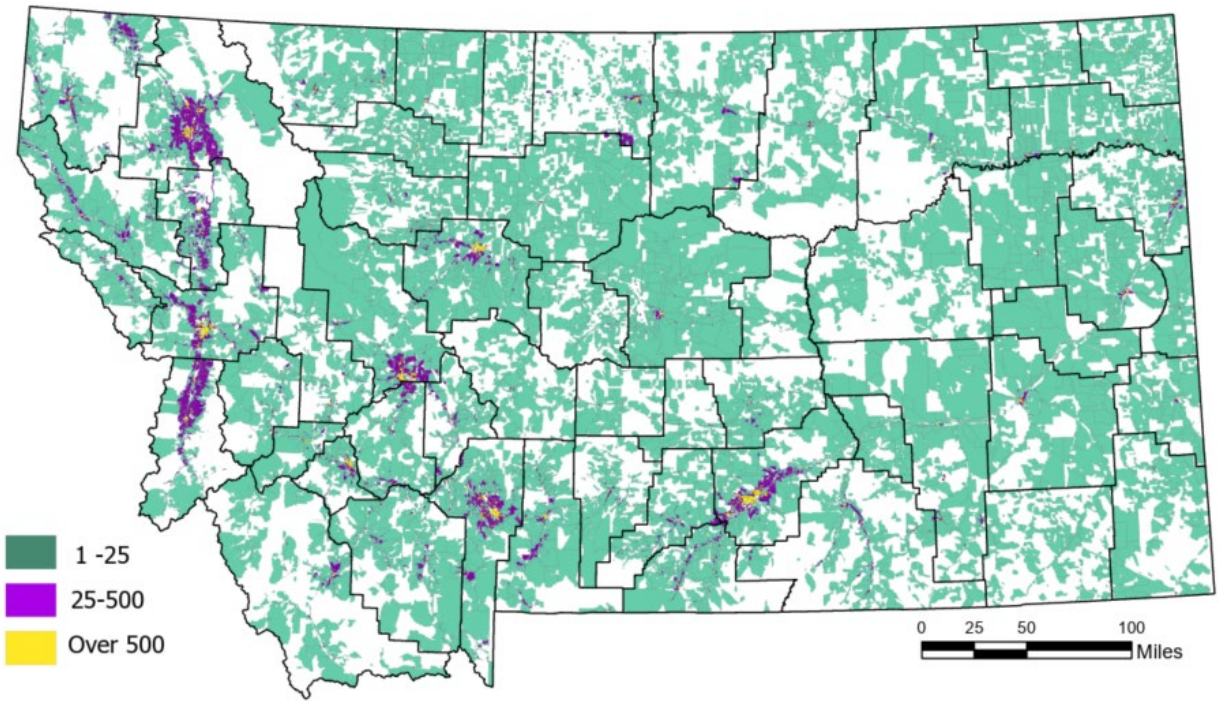
To create the maps below, the population density layer was created using the GHS-Population grid tool from the GHS-degree of urbanization toolkit (GHS-DUGURBA) in ArcGIS Pro.

The maps below show population density by square mile for US Census blocks for 1990 and 2020. Green indicates a density of between 1-25 people per square mile, purple from 25-500 people per square mile, and yellow is over 500 people per square mile. White spaces indicate no persons in the Census block.

1990 Population Density Per Square Mile



2020 Population Density Per Square Mile



These two maps show several noteworthy changes in the 1990-2020 period. First, urbanization has clearly occurred: city areas have more census blocks with higher density, and more rural census blocks have no residents in 2020 as compared to 1990. Second, most of Montana's urban areas displayed strong growth in their suburban surrounding areas in the 1990-2020 period. Finally, some rural areas have experienced higher density over this period, this is especially true in the Kalispell to Hamilton corridor and other parts of western Montana.

4.1. State Finance Implications: Revenues

The in-migration and population aging dynamics discussed in the previous sections will impact Montana's revenue collections for both state and local governments. In-migration causes property values to increase and may impact the property tax collections of both state and local governments.

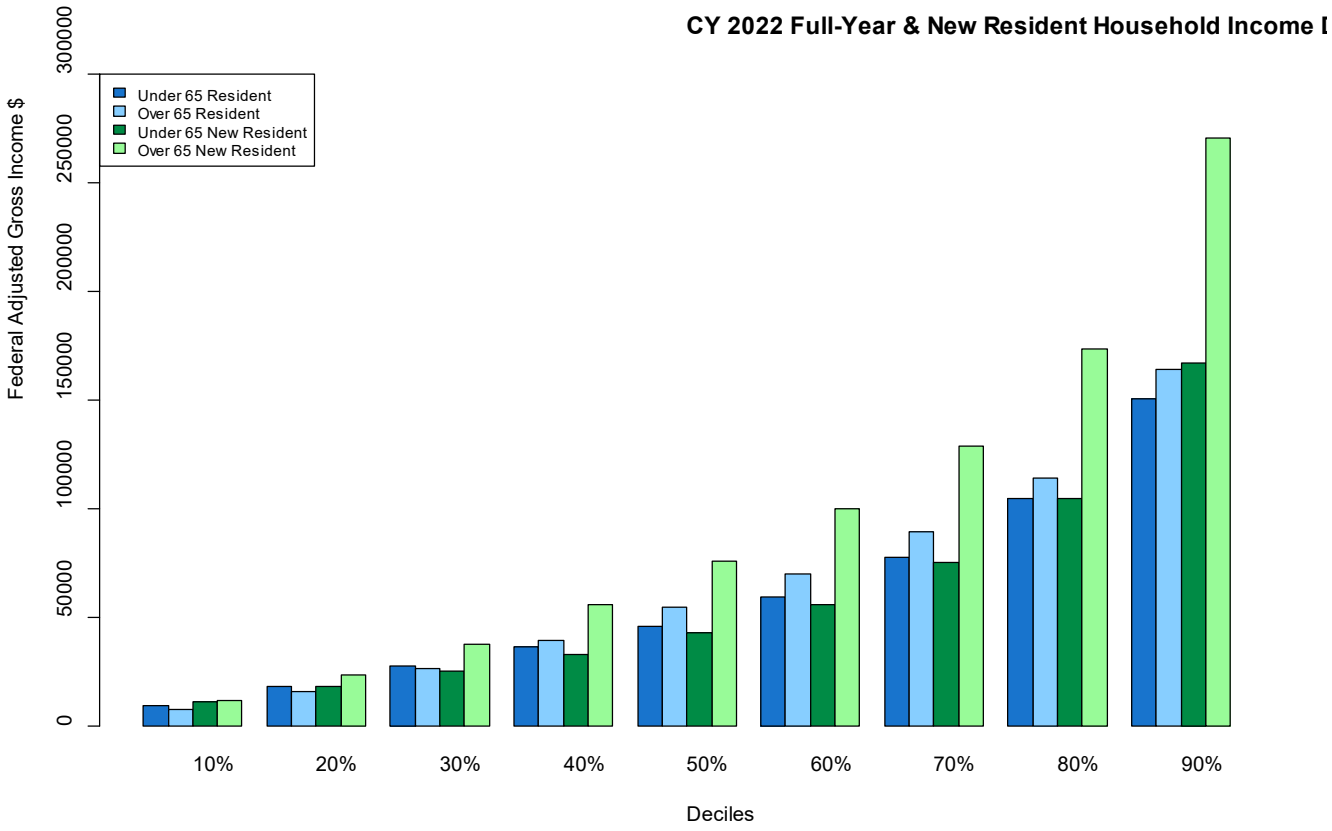
A study on individual income by age found that on average older residents have higher and more diverse incomes compared to younger residents. Furthermore, due to numerous provisions in statute, they also have a lower effective tax rate. At the time this study was conducted, the large influx of new residents to the state had only just begun, so the study was focused on the impacts of an aging population of taxpayers.

As Montana began experiencing high levels of in-migration in the summer of 2020, the series of analyses shifted towards new partial-year resident incomes. The analysis of partial-year resident income taxes began with an Individual Income Tax report in August 2021. Since then, two additional reports have been provided. The first looks at income levels of new residents who moved to Montana in CY 2020 and the second examines new residents in CY 2021 as well as how the incomes of these individuals changed after moving to Montana.

There are a few key takeaways from these studies. The first is that a younger cohort has been moving to Montana compared to the existing population. Approximately 25.0% of individual income tax returns from full-year residents are Montanans over the age of 65. However, this proportion is closer to 9.0% for those new residents moving to the state. This suggests that a younger working cohort is moving to Montana. Furthermore, this working-age cohort has a much more diverse and capital intensive portfolio than the existing workforce. For example, capital gains income within the working-age cohort of full-year residents was 13.0% of total income in CY 2021 compared to 21.0% for new residents. In addition, only 7.3% of new resident filers had $0 in Montana tax liability in CY 2021 compared to 15.6% of full-year resident filers.

If these trends continue Montana could see an increased individual income tax base, though it will become more volatile as capital gains income continues to increase in size relative to other sources of income. Furthermore, given that the retirement-age individuals moving to Montana have high levels of income, they may require fewer services than this cohort typically would.

While a full analysis of in-migration to Montana for CY 2022 has not yet been conducted, the following figure illustrates that recent migration trends continued into CY 2022. Namely, retirement-age individuals (both full-year and new) had comparatively high levels of income. In addition, excluding the uppermost decile of income earners, new working-age individuals had similar incomes to full-year resident working-age individuals. The following figures show income deciles for new and full-year residents by age cohort in both graphical and tabular format.



Income Deciles Based on Federal Adjusted Gross Income				
Decile Group	FYR Under 65	FYR Over 65	New Under 65	New Over 65
1	$9,324	$7,488	$10,983	$11,417
2	$18,146	$15,865	$18,060	$23,078
3	$27,537	$26,400	$25,095	$37,225
4	$36,281	$39,207	$32,819	$55,696
5	$45,930	$54,325	$42,456	$75,821
6	$59,009	$70,066	$55,667	$99,622
7	$77,612	$89,087	$75,428	$128,860
8	$104,627	$113,926	$104,793	$173,374
9	$150,742	$164,049	$166,960	$270,517
10	$150,741 and over	$164,050 and over	$166,961 and over	$270,518 and over

4.2. State Finance Implications: Service Demand

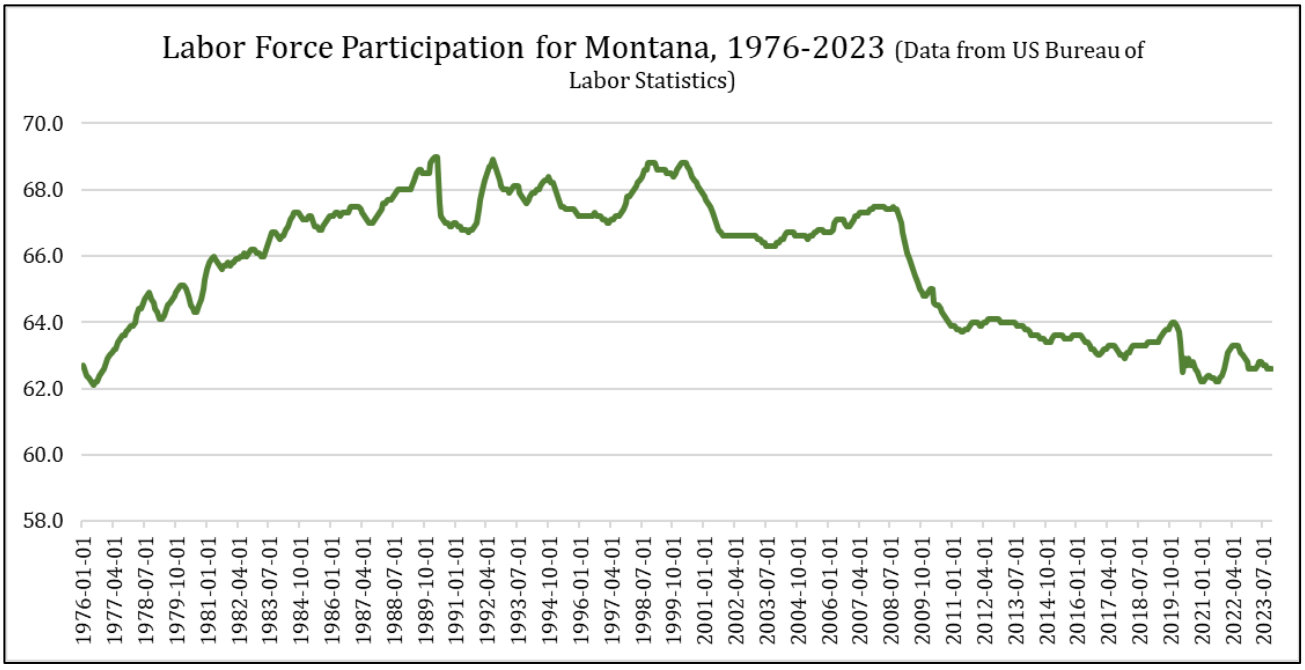
Montana's projected demographic changes may have significant implications for certain types of public services. Continued population aging could be expected to increase demand for retirement-age health services. The state's Medicaid program may see increased enrollment from age 65+ residents as there will be more retirement-age persons in the population, though available evidence suggests retirement-age migrants tend to be wealthier than average residents. Demand for other old-age health services, such as adult protective services and other programs intended to support the elderly could be expected to rise.

In some Montana counties, the population of youth has decreased over the last two decades and is expected to continue to decrease; a contributor to population aging as discussed above. This experience is especially significant in certain rural counties. A decrease in youth in a jurisdiction will lower the demand for the provision of K-12 education.

The migration patterns discussed above will likely lead to varied service demand impacts across Montana's regions and counties. Increased populations in Montana's counties with large cities and certain southern and western Montana counties may necessitate increased infrastructure provision. Increased numbers of youth in certain counties will demand the additional provision of K-12 education.

4.3. State Finance Implications: Labor Market Impacts

The graph below shows the labor force participation rate (LFPR) for Montana from 1976 to 2023. The state's LFPR has been declining since about 2001, characteristic of a population that is aging. Notably, the LFPR is very similar to the rate in the mid-1970s, when the baby boom was just entering working age and women entered the labor market in greater numbers. The COVID-19 pandemic has had a significant impact on the LFPR in a short period of time. LFPR has yet to sustain a recovery from the spike in labor disruption during the early stages of COVID-19. Labor supply is projected to remain relatively stable through 2040 or so.



5. Conclusion

This report discusses Montana's demographic characteristics and the implications of the state's demographic changes for state and local finance. Population changes are important to understand as policymakers consider various potential changes in policy. This update discusses important aspects of demographic change for each age cohort in the state, with an emphasis on the fact that demographic change manifests in different ways across the state – certain counties are projected to grow older faster than other counties.

The projected change in age cohorts presents several takeaways. First, the youth population in the state is expected to slowly decline through 2040. This has led to slow or negative growth in the demand for the provision of K-12 education relative to other services, especially in certain regions of the state. Second, the working-age population in the state has grown (and will continue to grow) in real numbers but is projected to remain relatively stable through 2040. Third, the state's retirement-age population has grown in real numbers and proportion since 2000 and is expected to continue growing, although growth is projected to be flat between 2030 and 2040. This may increase the demand for some retirement-age public services.

Migration impacts different regions of the state in very different ways. Urban counties and western and south-central Montana have seen population growth due to migration, while many central, northern, and eastern counties have seen negative growth.

This update also examined urbanization trends in the state between 1990 and 2020. Montana's population became relatively more urban over this period of time, and some rural areas saw increased density (especially around cities and in parts of western Montana) while others lost population.

Consideration of demographic trends should be included in the modeling of future cost pressures for state government, local governments, and schools. Additional research and analysis of cost trends and demographic impacts will be needed to better understand the interaction between demographic change and public finance.