

Population Aging and Economic Growth in Colorado: Why Regional Connectivity Matters for Rural Communities

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- Colorado counties are aging rapidly, with the share of residents age 60 and older rising across nearly every region of the state.
- National evidence shows that population aging can reduce local economic growth, but the effects vary significantly across space.
- In rural counties, a 10% increase in the 60+ population share is associated with a roughly 5–6% decline in GDP per capita over a decade, while the effect is much smaller or statistically insignificant in metropolitan counties.
- Counties that are economically connected to nearby labor markets through commuting flows are better able to offset aging-related economic pressures.
- For Colorado, this suggests that regional integration—transportation links, commuting networks, and cross-county labor markets—may be a key tool for helping rural communities adapt to demographic change.

Introduction

Population aging is one of the most significant demographic trends shaping regional economies across the United States. As the share of older adults rises, communities may face challenges related to labor supply, productivity, and economic growth. At the same time, aging populations can generate new economic opportunities in sectors such as healthcare, professional services, and retirement-related industries.

Understanding the economic effects of aging is particularly important for states like Colorado, where demographic change varies sharply across regions. While metropolitan areas along the Front Range continue to grow rapidly, many rural counties are experiencing both population aging and slower economic growth. Our recent research (An et al., 2026) examining U.S. counties between 2000 and 2020 finds that demographic aging has meaningful economic consequences, but those effects depend heavily on local economic geography and regional integration.

Population Aging Across Colorado

Figure 1 illustrates the change in the share of adults age 60 and older across Colorado counties between 2000 and 2020. Aging has occurred statewide, but the pace varies considerably. For instance, many mountain and rural counties show some of the largest increases in older populations. On the other hand, some counties along the Front Range urban corridor have experienced smaller increases, reflecting stronger population growth among working-age residents. Rural counties across western and southern Colorado show particularly large demographic shifts. These patterns reflect a combination of long-term demographic momentum, migration patterns, and regional economic conditions.

Why Regional Integration Matters

A key finding from the research is that regional economic connectivity can mitigate the economic effects of aging. One way to see this is how the relationship between population aging and economic

growth varies across the nine Rural-Urban Continuum Codes (RUCCs)¹, which classify counties based on their population size and proximity to metropolitan areas. Figure 2 shows the economic impact of increasing a county's 60+ population share by 1%. In large metropolitan counties (RUCC 1–2), aging has little measurable impact on economic growth. These results suggest that larger labor markets are generally able to absorb demographic change through migration, capital investment, and sectoral adjustment. In contrast, the negative effects of aging become pronounced in non-metropolitan counties. For example, the result in Figure 2 for RUCC code 7 suggests a 10 percent increase in the share of older adults is associated with roughly a 6 percent decline in GDP per capita over a decade.

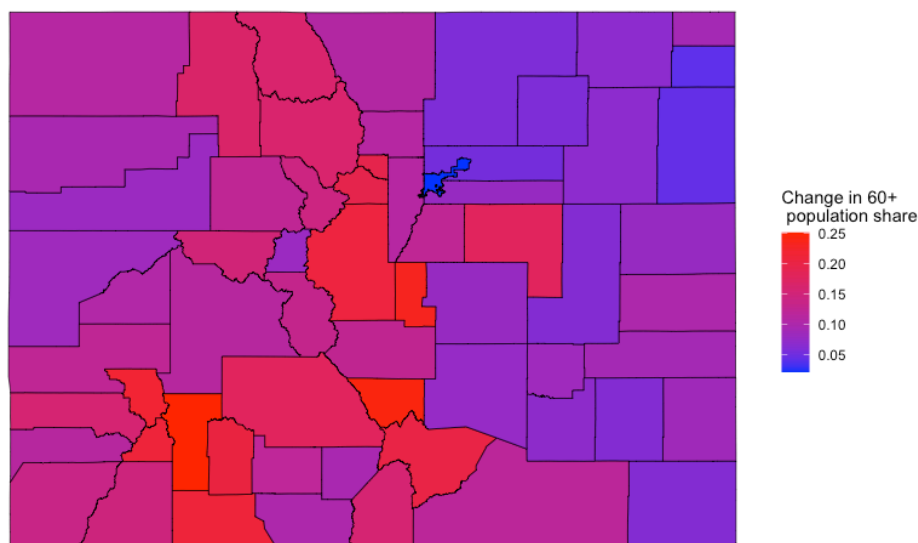


Figure 1. Change in Colorado Share of Population Age 60+, 2000–2020

Importantly, this pattern is not strictly about population size. The sharp break between RUCC 4 and 5—despite similar population profiles—highlights the potential importance of economic connectedness and spatial integration. Consider two illustrative cases for Colorado: Fremont County (RUCC 4), anchored by the city of Cañon City, lies just southwest of Colorado Springs and is closely tied to that metro area's labor market through commuting and service spillovers. In contrast, Montrose County (RUCC 5) is a similarly sized urban county on Colorado's Western Slope, geographically distant from major metro areas. Despite similar urban scale, the economic insulation of Montrose may leave it more vulnerable to the growth challenges posed by population aging. These findings suggest that economic openness and integration may be just as important as rurality itself in shaping how communities adapt to demographic change.

Several mechanisms may explain this relationship:

1. **Labor market access:** Employers can draw workers from nearby counties even if the local population is aging.
2. **Economic diversification:** Regions connected to larger labor markets may attract new industries and services.

¹ The Rural-Urban Continuum Codes (RUCC) are a county classification system developed by the U.S. Department of Agriculture's Economic Research Service. The system assigns counties a code from 1 to 9 based on metropolitan status, population size, and whether the county is adjacent to a metropolitan area. Codes 1–3 represent metropolitan counties of varying population sizes, while codes 4–9 represent non-metropolitan counties with progressively smaller populations and greater geographic isolation.

3. **Knowledge spillovers and capital flows:** Integrated regions benefit from stronger economic networks and investment.

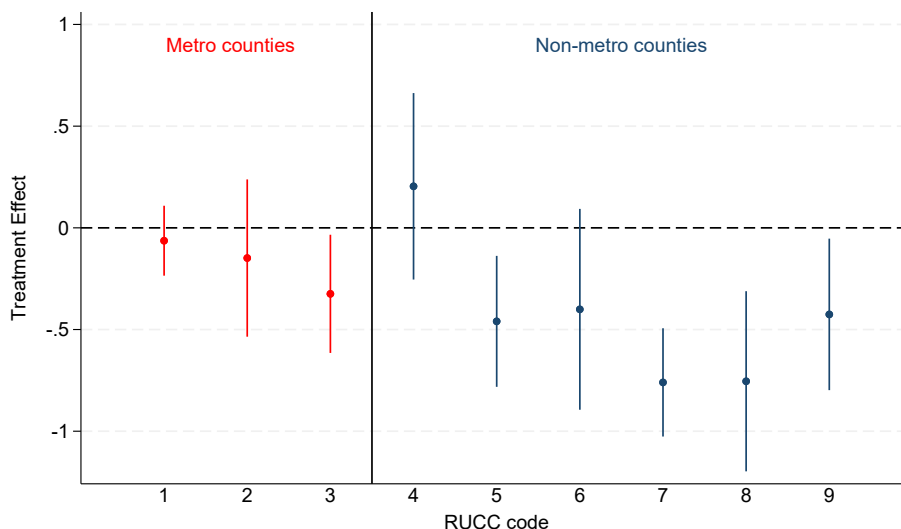


Figure 2. Percent Decline in Real GDP per capita for each Percent Increase in Share of Adults Aged 60+ (Source: An, et al., 2026)

Policy Implications for Colorado

Colorado’s diverse geography and economy mean that the effects of demographic aging will vary across communities. Several policy insights emerge from the research.

1. Regional connectivity matters: Transportation infrastructure, commuting networks, and regional labor market integration can help rural communities offset demographic decline. Examples include:

- Improved highway connectivity
- Regional workforce partnerships
- Coordinated economic development strategies across counties

2. Aging can reshape industry composition: Communities experiencing rapid aging may see increased demand for:

- Healthcare services
- Professional services
- Senior housing and retirement-related industries

Economic development strategies should account for these sectoral shifts.

3. Rural vulnerability may increase without adaptation: More isolated counties may face compounded challenges if aging reduces labor supply and slows local economic growth. Policies that strengthen regional integration—such as broadband expansion, transportation investment, and cross-county labor market coordination—may help mitigate these effects.

Citations

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