

## SECTOR IN-DEPTH

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## Cities and Counties – US

## Declining working-age population will constrain revenue and test adaptability

## Summary

Declines in working-age population will speed up in most parts of the country over the next decade, a trend that will constrain revenue growth for US cities and counties and test their ability to adapt. The declines are not new, but they are forecast to accelerate over the next decade due to declining birthrates and rising mortality rates associated with aging populations. Hundreds of localities have managed through shrinking working-age populations for at least a decade while maintaining sound finances and credit metrics. This dynamic underscores the role strong governance can have in mitigating a variety of social challenges. The local governments that will struggle to cope are those with preexisting credit challenges that are often compounded by weak population trends.

- » **Accelerating decline in working-age population will erode economic competitiveness and constrain local government revenue.** Around 77% of the nation's roughly 3,100 counties are forecast to lose working-age residents (those aged 15 to 64) over the next decade. The median change will be -5.5% between 2022-2032, up from -4.6% over the prior decade (2012-2022). The declines will not be particular to one region and they will broaden, while the number of areas gaining working-age residents will fall. As the nation ages and mortality rates begin to outpace birthrates, international migration will become increasingly important in guiding an area's population trajectory.
- » **Ability to control costs and right-size operations will be key to managing constrained revenue.** Data from nearly 1,400 cities and counties with declining populations show that localities can, and typically do, manage through these adverse trends while maintaining sound finances and affordable debt levels. Having the legal authority and political ability to control costs and thoughtfully manage capital needs will be key components of these entities' success.
- » **Local governments that are less able to adapt to declining population typically have existing fundamental credit challenges.** Those challenges include inflexible operations stemming from high or growing fixed costs associated with long-term liabilities, unfavorable legal environments that limit local autonomy over budget decisions, or a backlog of deferred capital needs.

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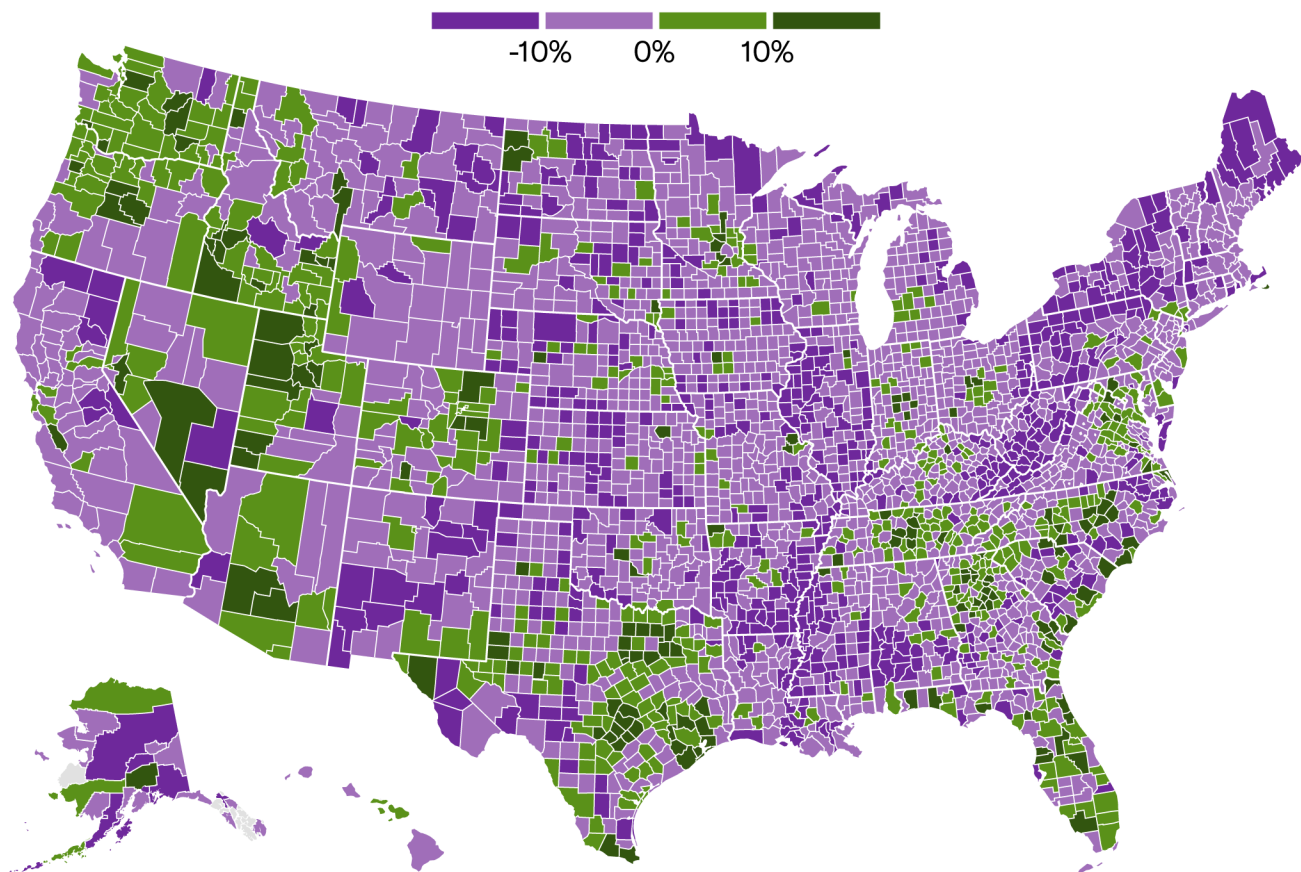
## Accelerating decline in working-age population will erode economic competitiveness and constrain local government revenue

A growing number of local governments will see accelerating declines in their working-age populations over the next decade (see Exhibit 1). The declines will be driven by several concurrent factors: declining birthrates, growing mortality rates stemming from aging populations, and domestic migration patterns that favor a select number of urban and exurban areas. The declines are widespread and not tied to one specific region, but rural areas and legacy industrial urban areas throughout the Midwest and Northeast face some of the sharpest declines. The forecast does not show a material shift in the areas with the most robust growth, which tend to be located in urban and exurban areas throughout the South, Mountain West and Pacific Northwest. But even areas with growing working-age populations are likely to see a slowdown in the pace of that growth, on average.

Exhibit 1

**Working-age population will fall in most US counties over the next decade**

### % Change in working age population, 2022-2032



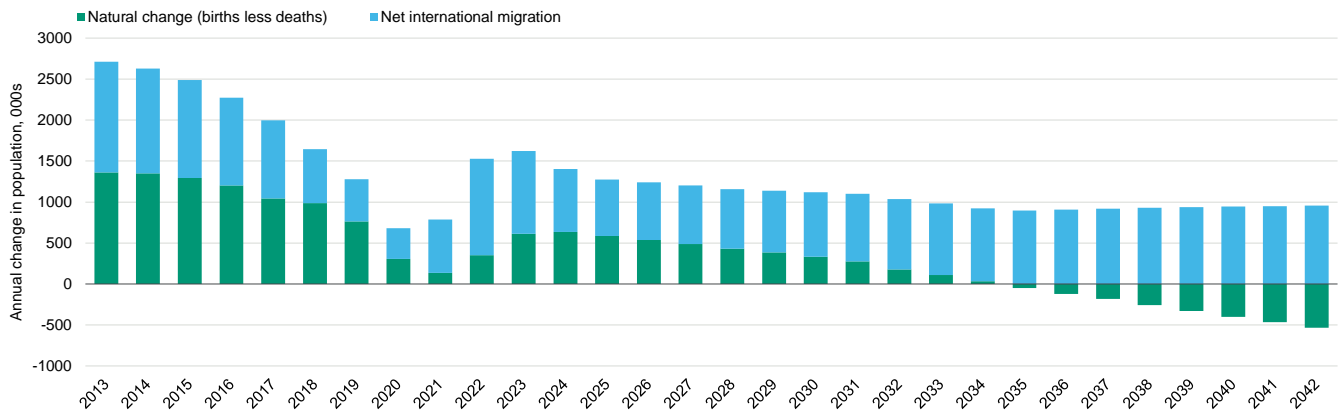
Source: Moody's

International migration will become increasingly important in an area's population trajectory, especially as the nation's population ages, mortality rates rise, and birthrates fall. The US experienced a surge in international migration in 2022 and 2023, and Moody's forecasts international migration will become an increasingly large component of the nation's population gains over the next decade (see Exhibit 2). Notably, Moody's forecast does not assume a change in US immigration policy or a change in the political environment that would materially alter long-term immigration patterns.

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Exhibit 2

**International migration will become an increasingly important driver of the nation's population**  
**Annual components of US population change**



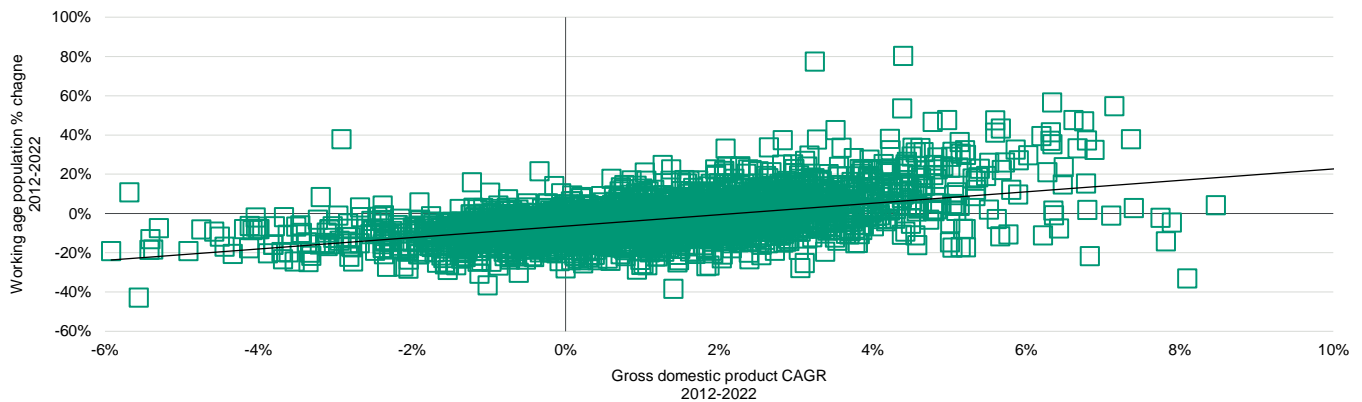
Sources: US Census Bureau and Moody's

Domestic migration patterns are also exacerbating the decline in working age populations for many parts of the country because working age US residents are increasingly moving to a relatively small number of urban and exurban areas with potentially more economic opportunity. As working age residents move away, an area's birth rate can also suffer. These trends, coupled with growing mortality rates stemming from the aging population that remains can create a compounding effect.

A shrinking and aging population is a credit challenge for local governments since it can erode a region's workforce, impede economic competitiveness, and weigh on long-term economic growth. Such dynamics – which can include lower consumption, fewer business expansions, and difficulty maintaining existing industry – are illustrated in the relatively weak real GDP trends over the last 10 years for counties with shrinking working-age populations (see Exhibit 3).

Exhibit 3

**Economic growth is highly correlated to trajectory of labor pool**  
**Real GDP growth vs. % change in working age population for all US counties**



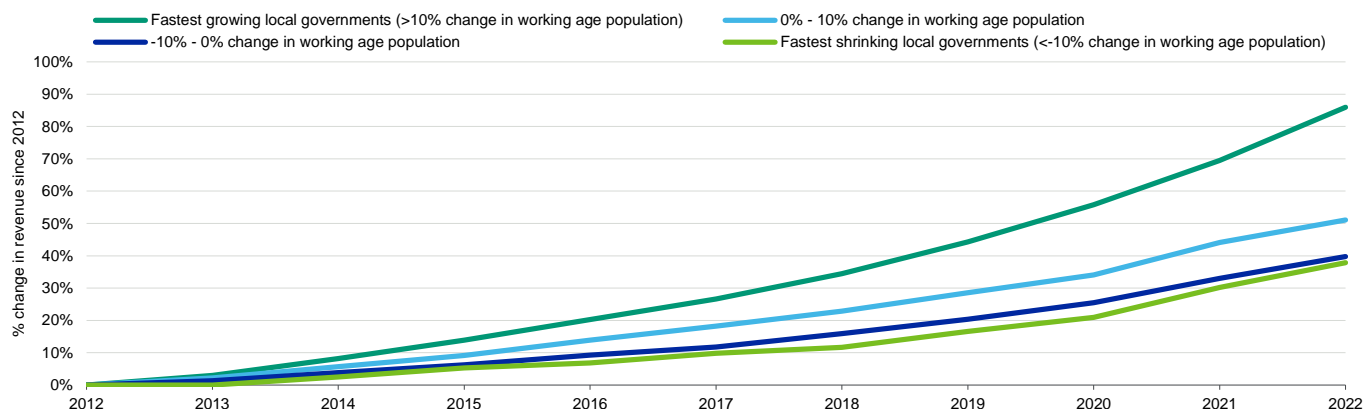
Sources: US Bureau of Economic Analysis and Moody's

These trends also constrain a host of local government operating revenues, including property, sales, and income taxes; utility revenues; permits; and fees, among others. Exhibit 4 shows how cities and counties with the fastest-growing working-age populations have, on average, seen stronger revenue growth over the last 10 years than their slower-growing or shrinking peers. While revenue growth for shrinking localities accelerated in 2021 and 2022, this was likely the result of significant federal pandemic assistance that was granted in those years.

Exhibit 4

### Cities and counties with shrinking working-age populations tend to have slower revenue growth

Median change in total revenue since 2012 by cohort



Cohorts are determined by the percentage change in working-age population between 2012 and 2022. The total sample size is approximately 2,900 cities and counties.

Sources: Moody's Ratings and US Census Bureau

### Ability to control costs and right-size operations is key to managing constrained revenue

Cities and counties with the legal and political ability to control costs, right-size their operations, and prudently manage capital programs will be the best positioned to absorb demographic headwinds. Data from nearly 1,400 cities and counties that had declining working-age populations over the last decade show that localities can, and often do, manage through these constraints, maintaining sound finances and credit metrics.

Of approximately 2,900 cities and counties for which we have complete data, about 1,400 experienced a decline in their working age populations between 2012 and 2022. As shown in Exhibit 4 above, these localities had slower revenue growth, on average, than their expanding peers. However, despite their constrained revenue, a large majority of these shrinking cities and counties have consistently added to or maintained stable fund balances (see Exhibit 5).

Exhibit 5

### Despite constrained revenue environment, most shrinking cities and counties continue to add to reserves

Median fund balance ratio by cohort and fiscal year

Working age population cohort 2012-2022	Median fund balance as a % of revenue				
	2018	2019	2020	2021	2022
Fastest shrinking (<-10%)	38%	38%	39%	40%	43%
-10% to 0%	39%	40%	43%	45%	47%
0% to 10%	40%	41%	44%	46%	50%
Fastest growing (>10%)	50%	52%	54%	58%	60%

Sources: Moody's Ratings and US Census Bureau

Local governments have achieved this by various means, but chiefly through close budget management. The revenue effects of shrinking populations tend to occur gradually, offering management teams time to budget for personnel and salaries accordingly. Employment data from the US Bureau of Labor Statistics, for example, show local government employment gradually fell (by a median rate of 5.0%) over the last 10 years in areas with shrinking working-age populations. Meanwhile, the average annual wages of local government employees have increased at a slightly slower rate in shrinking areas (2.9%) than in growing areas (3.4%) over the last 10 years.

While many local governments with shrinking working-age populations have deliberately downsized to achieve budget savings, some of the recent labor savings are due to labor shortages that are causing open positions to remain vacant for extended periods. As the US

population ages and more workers retire from a labor market with fewer new entrants, [imbalances between labor demand and supply will make hiring more difficult and create new wage pressures](#). Over time, these labor market trends will pressure local governments to increase wages to be more competitive in their recruitment efforts. Some local governments have used federal pandemic relief grants to fund one-time recruitment or retention bonuses to aid in these efforts. As federal relief runs out and labor market pressures intensify, mounting pressure to offer more attractive wages could make it more difficult for cities and counties to control costs.

Most shrinking localities have continued to reinvest in their capital assets, though at a more gradual pace than their expanding peers (see Exhibit 6 below). The median capital asset depreciation ratio (which is equal to accumulated depreciation divided by gross depreciable assets) for the fastest shrinking cities and counties with reported capital assets was 52% in 2022, up from 48% in 2018. While a 52% capital asset ratio is not particularly high, the growing trend indicates that asset depreciation is gradually outpacing investment. Shrinking localities are more commonly using an incremental, pay-as-you-go approach to funding their capital needs, which prevents them from incurring new fixed costs associated with debt issuances.

Exhibit 6

**Capital reinvestment is marginally slower for shrinking cities and counties, signaling future capital needs**  
**Median capital asset depreciation ratio by cohort and fiscal year**

Working age population cohort 2012-2022	Median capital asset depreciation ratio				
	2018	2019	2020	2021	2022
Fastest shrinking (<-10%)	48%	49%	49%	51%	52%
-10% to 0%	49%	50%	50%	51%	51%
0% to 10%	47%	48%	48%	49%	50%
Fastest growing (>10%)	44%	45%	45%	45%	45%

Sources: Moody's Ratings and US Census Bureau

Favorably, cities and counties with falling working-age populations maintain low and generally declining debt burdens, on average (see Exhibit 7). Between their healthy and growing reserves and low and declining debt burdens, these entities have capacity to address their rising capital needs on either a pay-as-you-go basis or by issuing debt without materially weakening their overall financial condition.

Exhibit 7

**Debt burden for shrinking cities and counties is lower and trending down, on average**  
**Median debt as a percentage of revenue by cohort and fiscal year**

Working age population cohort 2012-2022	Median debt as a % of revenue				
	2018	2019	2020	2021	2022
Fastest shrinking (<-10%)	74%	66%	67%	67%	65%
-10% to 0%	67%	65%	67%	64%	65%
0% to 10%	72%	71%	74%	71%	72%
Fastest growing (>10%)	100%	95%	93%	89%	86%

Sources: Moody's Ratings and US Census Bureau

## Local governments that are less able to adapt to declining population trends typically have existing fundamental credit challenges

The cities and counties that will have the most difficulty coping with adverse population trends have other fundamental credit challenges that restrict their ability to control spending. These challenges are multifaceted but can include fixed costs associated with legacy long-term liabilities, collective bargaining agreements, high demands for certain public services, or a significant backlog of deferred capital spending, among other things. Even when they have legal authority to increase revenues, such as by raising tax rates

or utility rates, localities with shrinking populations often face practical and political constraints on doing so. The more a population contracts and an economy underperforms, the more difficult it becomes to shift revenue increases on to fewer taxpayers.

Localities with relatively high unfunded pension liabilities will come under pressure to increase their pension contributions. While many local governments have made significant strides in improving their pension funding in recent years, some continue to face significant unfunded liabilities and more could do so in the event of material market declines. For a shrinking locality with constrained revenues, making higher pension contributions while maintaining municipal services and balanced budgets will be a challenge.

Different types of pension plans (i.e. single employer versus cost sharing) carry different budget risks for participating governments. Ohio, New York, Illinois and Rhode Island have among the highest number of rated cities and counties with above-average adjusted net pension liabilities and working-age population declines greater than -5.5% over the next 10 years. While localities in each of these states could come under pressure to increase pension contributions, they help illustrate how different plan types carry different budget risks.

Most Ohio and New York cities and counties participate in statewide cost-sharing pension plans, with each employer's required contribution set as a share of annual payroll. Participating governments could reduce their total required contribution by lowering head count and overall payroll (a move that mathematically transfers a portion of the liabilities associated with its employees to other governments participating in the same retirement system). However, the savings associated with such a budgetary maneuver could be partially offset by growing required contribution rates associated with remaining active employees if the retirement system's funding position worsens.

Illinois and Rhode Island local governments, on the other hand, tend to participate in single-employer or statewide multiple-employer agent pension plans. Localities participating in these types of plans cannot transfer any of their risk to other governments through head count and payroll reductions, meaning pension liabilities and costs for these localities are borne solely by the municipality itself. Increased pension contribution requirements for these local governments, absent commensurate revenue growth, would inherently divert spending away from other public services or require fund balance draws.

Another key component of a local government's capacity to adapt to weaker revenue trends is its ability to control costs and budget within its means. Some localities face barriers that limit their budget autonomy, including collective bargaining agreements that fix multiyear salary increases or require minimum staffing levels. Coincidentally, many local government employees covered by collective bargaining agreements have operated under contracts that were negotiated before inflation picked up in 2021. While inflation has since started to cool, local governments will come under pressure to provide significant wage hikes in upcoming contract negotiations to make up for higher costs of living.

Additionally, areas with rapidly aging populations and acutely weak economies could see an increase in the need for certain kinds of public services, particularly those related to health and human services and housing, among others. Such public service pressures, coupled with a constrained revenue environment, would strain resources and potentially reduce the quality of these services.

A growing backlog of deferred capital spending will also pose a challenge for some shrinking localities. There are about 100 Moody's-rated cities and counties that have a working age population forecast to decline faster than the national average over the next 10 years and have a current capital asset depreciation ratio greater than 65%. Such a high ratio is an indication that a locality will soon need to issue debt or draw down reserves in order to replace or repair capital assets. Although spread across the country, these 100 localities are not distributed evenly, with concentrations in New York, Illinois, Ohio, Pennsylvania and Rhode Island.

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