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The Past, Present, and Future of Long-Run Local Population Decline

Brian J. Asquith
W.E. Upjohn Institute for Employment Research, asquith@upjohn.org

Evan Mast
University of Notre Dame, mast@upjohn.org

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Authors
Brian J. Asquith, *W.E. Upjohn Institute for Employment Research*
Evan Mast, *University of Notre Dame*

Upjohn Author(s) ORCID Identifier
https://orcid.org/0000-0002-5783-5557

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POLICY BRIEF

The Past, Present, and Future of Long-Run Local Population Decline

Brian J. Asquith and Evan Mast

BRIEF HIGHLIGHTS

- *More than half of counties saw population declines between 2010 and 2020.*
- *These declines are not driven by out-migration, which has been falling.*
- *Falling birth rates helped tip many counties from population growth to decline in recent decades.*
- *Even under existing estimates of future birth and death rates, we simulate that half of counties will lose population between now and 2070.*
- *If birth, death, and migration rates stay at their recent levels, more than three in five counties will see population loss by 2070.*
- *Because local policymakers have few options to attract new residents, focusing on the needs of current residents may be most productive.*

For additional details, see the full working paper at https://research.upjohn.org/up_workingpapers/406/.

Local population decline is spreading across the United States (Johnson and Lichter 2019). According to the U.S. Census Bureau, more than half of counties saw population declines between 2010 and 2020 (Mackun, Comenetz, and Spell 2021). While the problem has grown more acute lately, many counties have been in sustained decline for decades: 30 percent of counties had smaller populations in 2019 than they did in 1970, even as the total U.S. population grew by nearly two-thirds over the same period.

Local population decline creates several policy challenges. First, it makes covering pension liabilities, infrastructure maintenance, and other fixed government expenditures much harder for towns, cities, and counties. Second, it raises the prospect of a "death spiral," whereby population losses force localities to raise their taxes to offset falling revenues from a shrinking tax base, which in turn prompts more people to leave, propelling the downward cycle further. Additionally, efforts to attract new investment get harder as businesses are reluctant to invest in places with a shrinking prime-age labor force. Lastly, by reducing the number of potential entrepreneurs and innovators with ties to the area (Jones 2022; Karahan, Pugsley, and Şahin 2024), population decline makes it harder for the community to renew itself.

In this policy brief, we highlight findings from our new working paper, "Birth Dearth and Local Population Decline." Our study highlights the growing extent of local population decline throughout the United States from 1970 to 2019 and investigates its drivers. We examine how changes in migration and birth rates have influenced population growth of counties and find that falling birth rates have probably played the most important role in fueling long-run decline. We simulate annual population changes under different scenarios and find that if birth rates had stayed at their 1970 levels, the median county would have had population 33 percent higher in 2019 than what was actually observed.

We also adapt population projections from the Congressional Budget Office (CBO) to make our own projections about local-level population growth from 2021 to 2070. We show that under the CBO's assumption that birth rates will recover and that there will be steady improvements in mortality rates, half of counties will nonetheless be smaller in 2070 than they were in 2019. Under assumptions that birth and mortality rates will not recover and will stay at their 2015–2019 averages, 62 percent of counties will be smaller.

Local Population Decline Is Widespread

Many counties throughout America are smaller today than they were in 1970. We define "decline" as having a population that is at least 2 percent smaller than in 1970; this avoids including counties whose population is roughly stable or slightly miscounted due to Census enumeration errors.

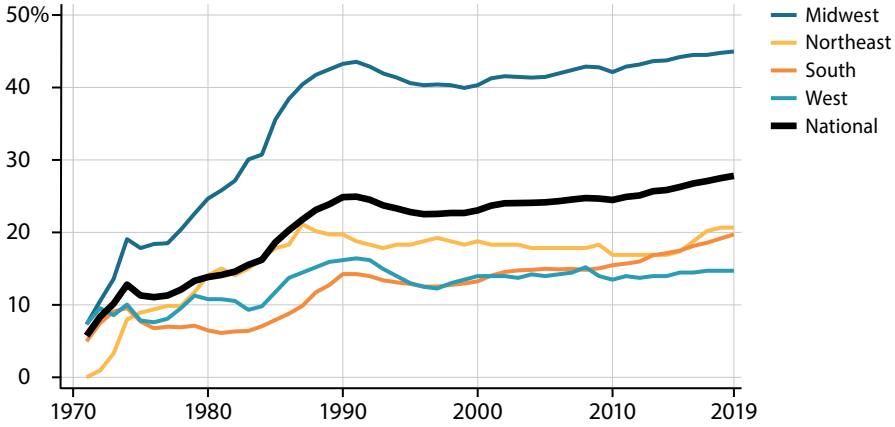
As Figure 1 shows, the share of counties that had experienced population decline since 1970 rose sharply in the 1970s and 1980s. After a slight retreat in the share of decliners around 1990, possibly due to Census enumeration errors in the 1990 Census (Suárez Serrato and Wingender 2016), the share of decliners began to rise again between 1995

Population decline during the past 50 years was most widespread among rural counties: nearly a third had smaller populations in 2019 than in 1970. But about 14 percent of core urban counties and 6 percent of suburban counties also experienced population decline.

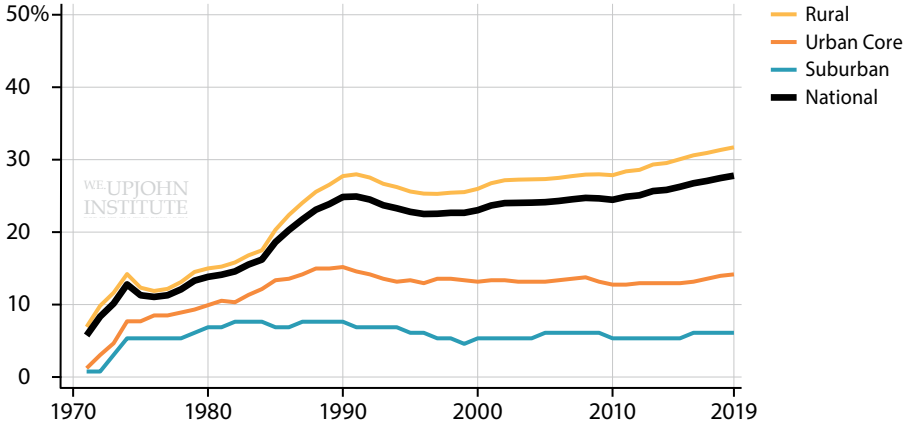
Figure 1 Trends in Local Population Decline from 1970 to 2019

Share of U.S. Counties with Populations Smaller Than in 1970

By Region



By Urbanicity



NOTE: Counties are included if their population was more than 2 percent lower than the level in 1970.
SOURCE: Authors' analysis of data from the Surveillance, Epidemiology, and End Results program of the National Cancer Institute.

and 2019. By 2019, the total share of U.S. counties that had declined in population since 1970 was 28 percent.

However, the degree of decline varies by U.S. Census Region and by urbanicity (that is, whether the county is urban core, suburban, or rural). While the Midwest had a much larger share of declining counties than the other regions, with 43 percent declining by 1990 and 45 percent by 2019, the West and the Northeast regions also saw the share of counties with falling population rise to 15–20 percent by 1990 and remain in that range until 2019. The South has seen the greatest increase in the share of decliners since 1990, rising from 14 percent to 20 percent over that time period.

Similarly, while population decline was most severe among rural counties, occurring in about a quarter of them by 1990 and nearly a third of them by 2019, about 15 percent of core urban counties and 8 percent of suburban counties experienced population decline by 1990, with only a slight recovery by 2019.

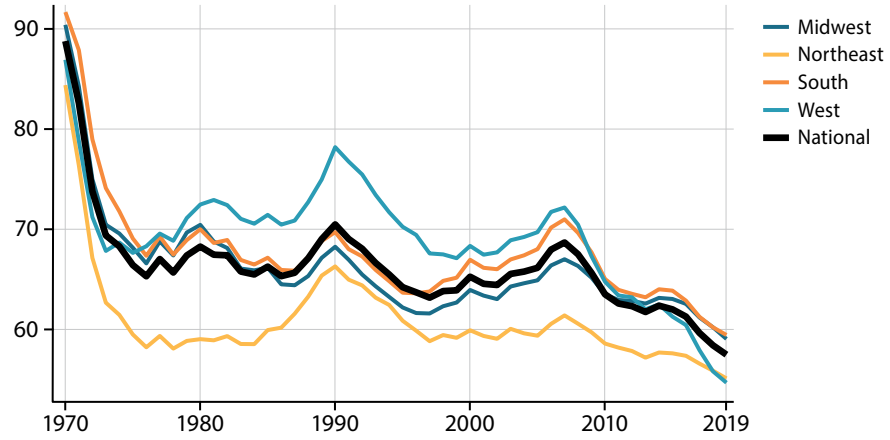
These trends have occurred against a backdrop of fertility rate declines, as Figure 2 shows. The fall was steepest in the early 1970s as birth rates returned to pre–World War

We project that if mortality and birth rates stay at their pre-COVID county averages, the median population county will shrink by about 2 percent every decade.

Figure 2 Trends in Fertility from 1970 to 2019

Births per 1,000 Women Aged 15–44

By Region



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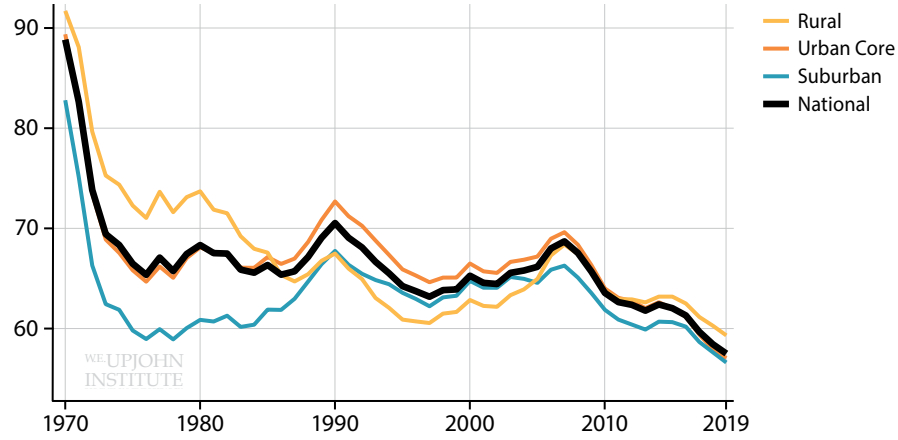


SOURCE: Authors' analysis of National Center for Health Statistics natality microdata.

II levels. A more recent decline produced birth rates that were lower in 2019 than they had been as recently as 2007 in every region of the country and every urbanicity. We also show that birth rates have converged across regions and urbanicities, meaning that the factors that are contributing to a lower birth rate are probably not easily explained by local economic conditions alone.

Out-migration Has Not Become More Common

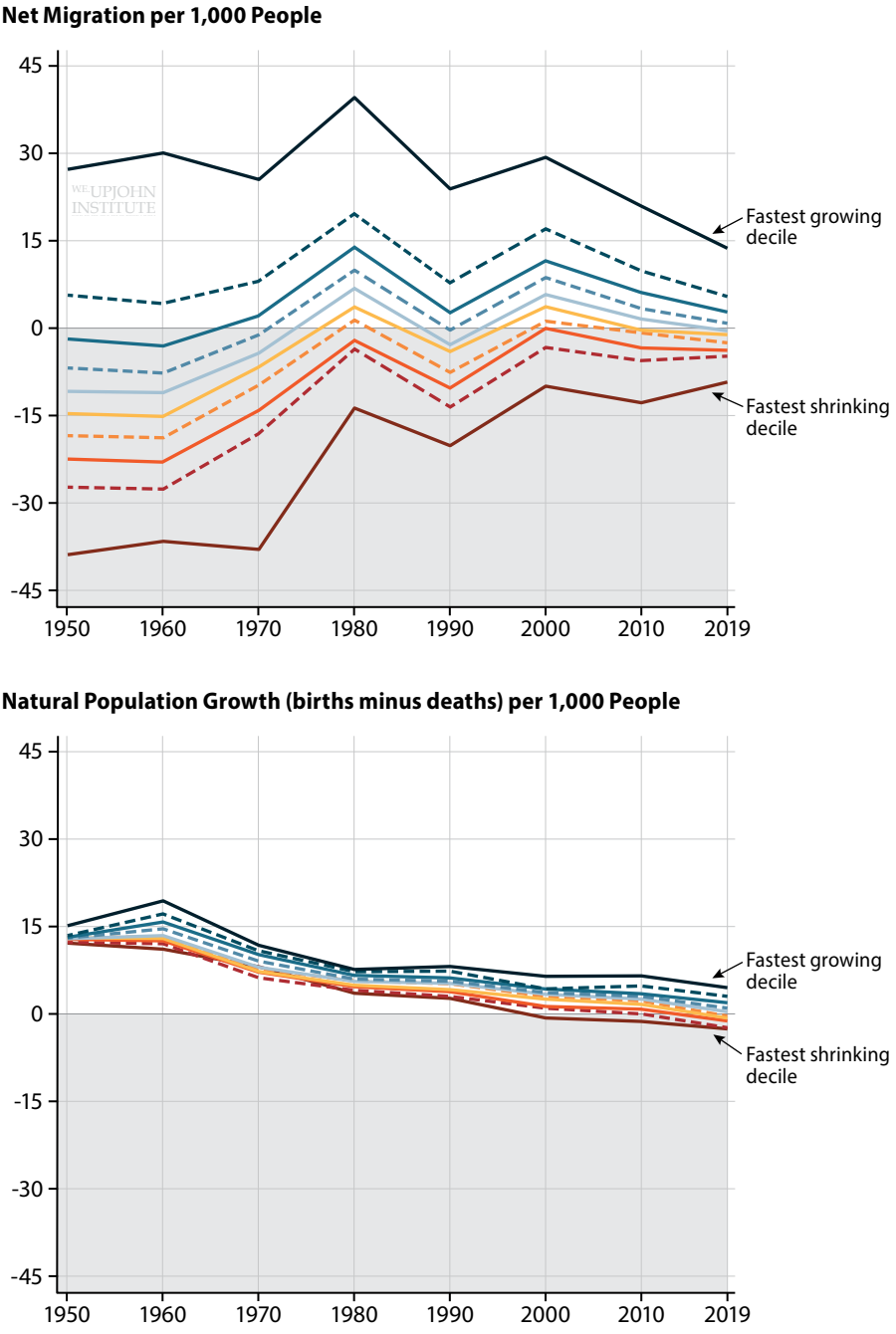
While out-migration plays an important role in driving population decline, net migration rates, calculated as in migrants minus out migrants, have generally declined over time at the county level. In other words, we no longer see the large population movements across the country that were once common. As net migration has become more uniform around the country, local birth and death rates have become relatively more important in determining which counties have declining populations.

Figure 3 shows the two moving parts of population change: net migration (in-migrants minus out-migrants) and natural population growth (births minus deaths). We show the results for groups of counties sorted into deciles of population growth. For

Local governments should prepare for having smaller populations in a fiscally and economically sustainable way.

Figure 3 County-Level Net Migration Rates Have Converged as Natural Growth Rates Have Fallen

Average Annual Rates over the Previous Decade by Population Growth Decile



SOURCE: Authors' analysis of data from the Surveillance, Epidemiology, and End Results program of the National Cancer Institute; National Center for Health Statistics natality and mortality microdata; and population data from the U.S. County-Level Natality and Mortality Data, 1915–2007 (ICPSR 36603) (Bailey et al. 2018).

example, the 10 percent of counties with fastest growing populations over the previous decade are included in the top decile. Overall average annual population growth for a given decile is simply the sum of the net migration rate and the natural growth rate.

Even relatively low rates of net out-migration can now lead to outright population decline because counties can no longer rely on natural growth to offset out-migrants.

As the top panel of Figure 3 shows, through most of the 20th century, the fastest growing counties gained substantially through migration while the fastest shrinking counties lost substantially through the same channel. Between 1950 and 2019, however, average annual net migration rates converged and both high net in-migration rates and high net out-migration rates became much less common. The bottom panel of Figure 3 shows that the natural population growth rate has fallen slowly during this period.

We can use the fastest shrinking decile of counties to illustrate how these two moving parts work together to produce population change. During the baby boom, counties in the bottom decile saw roughly 40 per 1,000 people—4 percent of their population—out-migrate each year. These counties saw overall average population declines of 21 percent between 1950 and 1970, but high rates of out-migration were somewhat offset by relatively high natural growth rates. By 2019, even as the bottom decile counties' net out-migration rate had fallen two-thirds since the baby boom era, natural growth rates had become slightly negative, thus compounding—rather than counteracting—the effects of net out-migration.

On the other side of the distribution, the fastest growing decile of counties have seen their net migration rates come down, from about 30 net in-migrants per 1,000 during the baby boom to about 15 by 2019. Thus, migration rates have become a less important driver of population decline over time.

Low Birth Rates Have Become More Important for Local Population Decline

Even relatively low rates of net out-migration can now lead to outright population decline because counties can no longer rely on natural growth to offset out-migrants. Between 1970 and 1979, only 15 percent of counties with an annual net migration rate of −2 per 1,000 people saw population decline. Between 2010 and 2019, over 40 percent of counties with that net migration rate experienced population decline. Many counties had thus lost the demographic cushion that higher birth rates used to provide. Similarly, we find that 45 percent of counties had more deaths than births between 2010 and 2019; just 9 percent did between 1970 and 1979.

Simulating Future Population Trends

Demographers generally expect the United States population to grow in the near future, thanks largely to immigration. However, this growth will not necessarily be evenly distributed geographically. Low birth rates will continue to slow local population growth for the foreseeable future. To see by how much, we simulated, under different assumptions, the major components of population growth—births, deaths, and net migration inclusive of immigration.

We find that if county-level birth rates had remained at their 1970 levels—a strong assumption but one that helps illustrate how impactful the fertility drop has been over the long run—population growth would have been much more widespread than what was actually observed: more than half of counties that lost population since 1970 would have instead seen population growth by 2019.

We also extend our simulation model to 2070, reset the start year to 2019, and project local populations based on two scenarios:

CBO Projection: The CBO projects fertility and mortality rates through 2095. The CBO assumes that fertility rates will increase from 1.61 children per woman in 2021 to 1.85 children per woman by 2029 and then stabilize thereafter. The CBO forecasts steady improvements in mortality rates, largely due to continued advances in medical technology. We use their projections for both rates, and we assume county-level fertility and mortality rates evolve in parallel with the CBO's national forecast. For example, if the CBO forecasts that mortality rates between 2024 and 2025 will decline 2 percent for men aged 45–54, we assume that all county-level mortality rates for that age group will also decline by 2 percent.

Pre-COVID Status Quo: Instead of rising birth rates and falling mortality rates, we assume that both stay at their pre-COVID (2015–2019) averages, by county, for the foreseeable future.

We average birth and death rates across their 2015–2019 values for all counties and then hold those fixed from 2019 to 2070.

In both scenarios, we assume that net migration rates remain fixed at their pre-pandemic (2015–2019) levels. While projections are inherently uncertain, they can be useful in comparing outcomes from different assumptions about future trends. We find that the majority of counties are set to experience further population loss under both sets of assumptions. In the first scenario, some counties that had been losing population do start to grow again by about the 2050s. Nonetheless, we project that about half of counties will be smaller in 2070 than they were in 2019. In the second scenario, the median population county continues to shrink by about 2 percent every decade, and 62 percent of counties will be smaller in 2070 than they were in 2019. Barring major shifts in birth rates, mortality rates, immigration from other nations, or domestic migration patterns, we project that local population decline is poised to spread.

Conclusion

While a substantial and growing share of local U.S. policymakers will be grappling with the effects of population decline in the coming decades, options to promote population growth will be limited for most. A few areas may benefit from the rise in remote work: during the COVID-19 pandemic, many rural areas with natural amenities enjoyed a burst of population growth or a cessation in decline. However, the combination of lower migration rates and low-to-negative natural growth means that competition among local areas for new residents will be increasingly zero-sum.

Instead, focusing on population retention via improved amenities and services for current residents is probably the best path forward for stabilization. Encouraging long-declining localities to merge can also help improve the fiscal outlook by consolidating services across a larger tax base. Overall, the most serious effects can probably be forestalled if local governments are encouraged to prepare for having smaller populations in a fiscally and economically sustainable way.

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Brian J. Asquith is an economist at the W.E. Upjohn Institute for Employment Research and Evan Mast is an assistant professor at the University of Notre Dame.