HOW TO MAKE-

MICHIGAN GROW

—What the Research Says—





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How to Make Michigan Grow: What the Research Says

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Introduction

Michigan Gov. Gretchen Whitmer established a group in June 2023 to study ways the state government could increase Michigan's population. Economists have studied the causes of population growth for decades, and this article presents the current research on what makes places grow. It also discusses the specific public policies economists have identified that can help create thriving, growing areas.

There are several reasons to care about population growth. First, population growth may be an indicator of the underlying desirability of a location. In other words, an area with healthy population growth is likely doing something right, or at least not doing enough wrong to discourage people from wanting to live and do business there. People are said to "vote with their feet," so cities and states that are growing faster relative to others can tell us something about the places people prefer to populate.

Second, positive population growth produces all sorts of positive externalities. More populous areas provide more opportunities for community and friendship, and also can support specialized amenities. For example, denser areas are more likely to support racquetball courts, unique ethnic restaurants, cultural amenities or other niche businesses and opportunities. There's also a positive feedback loop, whereby the more densely populated an area becomes, the more opportunities there are and the more attractive it is for even more people.

Third, more workers in an area make it more productive and innovative, improving living standards. A lack of workers limits economic output and growth. Currently, falling labor force participation in the U.S. presents a challenge — it can limit production and innovation, reducing potential economic growth. Economists with the Federal Reserve Bank of Kansas City show in a recent paper "that slower population growth and an aging population may put downward pressure on labor force growth for some time."²

In short, a growing population provides some indication of the overall health of a state. Recent population trends in Michigan are worrying. From 2010 to 2020, the state's population grew by only 0.19%, fifth worst in the nation and nearly three times slower than the national median of 0.55%.³

Why do some states grow faster than others? Economic research sheds some light on the subject. This article reviews and summarizes almost 100 publications related to this topic, primarily drawn from peer-reviewed, academic sources and government publications. For academic articles, the focus was on well-cited papers and those published in highly ranked journals. Given the nature of research to build on previous work, more recent papers were prioritized to provide the most accurate picture of the current state of knowledge on topics related to state-level population growth.

Sources of population growth

There are four basic drivers of population change: Births, deaths, domestic migration and international immigration. This article will present the general trends in each of these areas. It will summarize what the recent and relevant research suggests about what factors drive these trends. Finally, it will evaluate the policy implications of this research.

Graphic 1: U.S. and Michigan population growth trends by source, 2011-2020

	United States				Michigan				
Year	Annual population growth rate	Births per 1000	Deaths per 1000	International migration per 1000	Annual population growth rate	Births per 1000	Deaths per 1000	International immigration per 1000	Domestic migration per 1000
2011	0.73%	12.80	8.09	2.56	0.06%	11.53	9.09	2.24	-4.14
2012	0.74%	12.59	8.00	2.75	0.15%	11.43	9.00	2.48	-3.34
2013	0.70%	12.51	8.28	2.70	0.17%	11.41	9.32	2.40	-2.85
2014	0.74%	12.49	8.14	2.98	0.17%	11.54	9.25	2.39	-2.88
2015	0.74%	12.49	8.45	3.32	0.02%	11.46	9.70	2.19	-3.66
2016	0.73%	12.34	8.40	3.31	0.20%	11.42	9.53	2.84	-2.73
2017	0.63%	12.00	8.60	2.93	0.23%	11.26	9.78	2.14	-1.32
2018	0.53%	11.77	8.71	2.21	0.11%	11.12	9.87	1.40	-1.59
2019	0.46%	11.51	8.69	1.74	-0.02%	10.94	9.74	0.92	-2.39
2020	0.35%	11.40	9.34	1.45	-0.18%	10.87	10.37	0.78	-3.13

Source: Author's calculations from U.S. Census Bureau "Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, the District of Columbia, and Puerto Rico: April 1, 2010 to July 1, 2021," t.ly/R96qn.

As shown in Graphic 1, Michigan's population growth rate has significantly lagged that of the United States as a whole, even turning negative in 2019 and 2020. While Michigan's international migration is about on par with the U.S. average, its birth rate is slightly below and its death rate is slightly above the national average. The state's net domestic migration was negative every year from 2011-2020, meaning more Americans left the state than moved into it.

Difficulty identifying causation

Before delving into each source of change, it is important to discuss the limitations of our ability to understand what causes populations to grow. There are many factors that may influence each of these drivers of population growth. In studies of population growth, separating causes from effects can be challenging. When we observe that X and Y are correlated, it is possible that X causes Y, but also that Y causes X. Another possibility is that some third factor causes both X and Y. Finally, X and Y could just be coincidentally related in the data, having no causal relationship.* In short, for population growth, many factors are intertwined, and causation is difficult to isolate.

^{*} For more on these and similar issues, see: Will Koehrsen, "Lessons on How to Lie with Statistics" (Towards Data Science, July 28, 2019), https://perma.cc/ZVJ8-8HN4.

Consider places that have both well-funded government programs and high population growth rates. It may be the case that their robust government spending promotes population growth, but it also could be the case that the area's healthy economy is the source of both the population growth and government revenues. There could also be causation running in both directions, where these factors mutually reinforce each other. Sometimes, factors can move in conflicting directions. For example, higher housing prices may deter in-migration, but they can also be evidence of high demand stemming from in-migration to an attractive location.

Economist Ardeshir Anjomani describes the difficulty in decomposing these "complex interrelationships." While careful researchers can leverage statistical and econometric techniques to peel back these layers, the multitude of interrelated factors and the constantly changing economic realities and individual preferences make causal claims tenuous.

Further, past trends may not continue. A 2014 paper by Glaeser, Ponzetto and Tobio notes, "[F]ew, if any, growth relationships remain constant" when looking at regional change in the United States. S As technology, preferences and tradeoffs change over time, so do people's choices of where to live and how many children to have. Thus, relationships that have held in the past will not necessarily continue to do so.

Trends in and determinants of birth rates

In the United States, births are the main source of population growth. More people are born than die in a given year, and this creates natural annual growth. This has been the source of national population growth for decades in the United States, but by 2030, international immigration is projected to become the largest source of population growth in the United States. In 2021, Michigan's fertility rate (live births per 1,000 women of childbearing age) was 32nd in the nation. The state's crude birth rate (births per 1,000 people), has generally tracked slightly below the national trend, with both falling steadily since 1990. (See Graphic 1.)

Potential factors influencing birth rates

Rising female labor force participation tends to bring falling birth rates. In the United States, this fertility decline was tempered by reduced child care costs made possible by the availability of low-skilled immigrant labor. According to one paper, lower child care costs reduced the tradeoff between work and raising children and increased the birth rates for college graduates in the United States.¹⁰

As many researchers note, isolating the impact of government policies on birth rates is challenging. One pair of scholars note, "The relationship between fertility and social policy is very difficult to analyze."¹¹ Other researchers explain that family legislation is complex and disentangling cause from effect is a particularly murky undertaking in this area.¹²

It would seem that higher wages would increase the opportunity cost for women to have children. However, the impact of wages appears to differ for skilled versus unskilled labor. One study finds that higher minimum wages are associated with lower birth rates, especially among younger

women.¹³ Among college-educated women, however, those who have children appear to receive higher wages than childless women with similar backgrounds.¹⁴ Expansions of the earned income tax credit also did not appear to impact fertility rates, despite increasing net take-home pay for certain women.¹⁵ In sum, policies that mandate higher wages will likely have a mixed effect on fertility rates — potentially increasing them for certain groups while dampening them for others.

Paid family leave policies can be helpful to parents and other caretakers. Currently, the evidence on the impact of mandating that businesses provide paid family leave is limited and mixed. Researchers have not found large, systematic negative impacts on employers from mandated paid leave policies. ¹⁶ Researchers generally find that "firms are able to compensate for lost labor when their employees go on leave." ¹⁷ But if "firms face constraints when replacing employees, it could negatively influence their performance." ¹⁸ As discussed elsewhere in this article, however, unionization rules, occupational licensing and a general shortage of labor could constrain businesses' ability to replace workers on parental leave.

Many studies of employers' responses to mandated parental leave reveal that stricter labor laws and difficulty finding replacement workers make it harder for firms to cover the lost work of employees on leave, causing reduced profitability and survivability. ¹⁹ In labor markets with many available substitutes and no significant barriers to hiring, firms are better able to replace workers on leave. Whether the financial burden of the paid leave falls on the employer or, following the California model, is funded through state disability insurance withholdings, also influences the economic incidence of a paid leave policy. ²⁰

Family policies do not occur in isolation, and birth rates are influenced by many policy and nonpolicy factors. Reviewing global data, Australian researchers report one-time baby bonuses can just shift the timing rather than number of births. Weighing the evidence for a variety of different policies around the world, they find that "parental leave and in particular increased child care availability and affordability appeared most consistently linked to fertility gains in other countries [than Australia]."²¹ Evaluating a broader range of evidence, one pair of researchers wrote that the evidence for pro-fertility policies is "weak, and the observed effects are small."²²

The evidence is even weak for some large-scale policies, such as providing health care coverage to low-income households. Examining the impact of Medicaid expansions in the 1980s, a team of researchers "conclude that there is no robust relationship between Medicaid expansions and fertility." ²³

Researchers often note the need for broad-based changes in social norms. In a study of Japan's wide-ranging policy efforts to increase birth rates, one scholar finds no significant response to policies supporting child care and parental leave and instead identifies norms about gender roles and work expectations as the key areas requiring change. Studying France's fertility policies, another researcher similarly identifies "very positive attitudes towards two- or three-child families in France," and argues "a key aspect appears to be the favorable context created for reconciling work and family life by means of a fairly comprehensive, and continuous, support throughout the family life-course." 25

In an interesting new paper, a team of analysts suggest the previous fertility patterns no longer hold. They present evidence that in wealthy countries like the United States, women's earnings and employment are no longer negatively related to fertility, and in some cases, are now positively correlated with it. They attribute this recent change to "four factors that facilitate combining a career with a family: family policy, cooperative fathers, favorable social norms, and flexible labor markets." ²⁶

The research suggests there are significant limitations to the power of public policy to influence fertility rates. A variety of other social factors contribute to changes in these rates, and many of them are beyond the scope of government interventions. Because birth rates are currently the primary driver of population growth, this evidence implies that Michigan policymakers will be severely constrained in their ability to grow the state's population by boosting fertility rates.

Trends in and determinants of death rates

Prior to the Covid-19 pandemic, life expectancy in the United States rose until it plateaued and remained in the 78-year range from 2010-2018.²⁷ Medical knowledge and health care innovations have helped Americans live longer and enjoy higher quality of life. In recent years, however, life expectancy has not increased at its previous rate and has experienced some downticks; this trend may result from "an increase in mortality from specific causes (e.g., drug overdoses, suicides, organ system diseases) among young and middle-aged adults of all racial groups."²⁸

Increasing lifespans may now depend more on individual factors like educational attainment. Even controlling for income, more educated individuals tend to have better health care access and healthier lifestyles. Researchers suggest educated individuals may also be better advocates and managers of their health care and more likely to use preventative care and higher-quality treatment options.²⁹

In 2019, the leading causes of death in Michigan were heart disease, cancer, chronic lower respiratory diseases and accidental deaths.³⁰ Accidental deaths include causes like car accidents, some drug overdoses and accidental falls. In 2021, the causes and order remained the same, except that Covid-19 supplanted lower respiratory illnesses, which moved down to sixth that year.³¹ The table below shows the death rate in Michigan and across the United States from 1980 to 2021.

Graphic 2: Age-adjusted death rates in the United States and Michigan, 1980-2021 (per 100,000 people)

Year	United States	Michigan	Year	United States	Michigan
1980	1,039.1	1,045.4	2001	858.8	882.3
1981	1,007.1	1,043.8	2002	855.9	883.1
1982	985.0	1,028.1	2003	843.5	856.4
1983	990.0	1,029.2	2004	813.7	833.6
1984	982.5	1,012.3	2005	815.0	837.8
1985	988.1	1,027.1	2006	791.8	815.1
1986	978.6	1,035.5	2007	775.3	807.3
1987	970.0	1,012.0	2008	774.9	810.4
1988	975.7	1,003.9	2009	749.6	781.8
1989	950.5	966.8	2010	747.0	784.2
1990	938.7	954.1	2011	741.3	785.0
1991	922.3	949.2	2012	732.8	774.8
1992	905.6	920.3	2013	731.9	784.2
1993	926.1	944.7	2014	724.6	781.2
1994	913.5	935.3	2015	733.1	781.0
1995	909.8	929.2	2016	728.8	786.9
1996	894.1	915.0	2017	731.9	783.9
1997	878.1	896.5	2018	723.6	786.1
1998	870.6	903.6	2019	715.2	774.1
1999	875.6	912.3	2020	835.4	938.2
2000	869.0	900.8	2021	858.5	943.0

Source: "Age-Adjusted Death Rates by Race and Sex: Michigan, 1980- 2021 and United States Residents, 1980-2021" (Michigan Department of Health & Human Services, 2023), https://perma.cc/9XWM-2RE6.

Note: This source computes age-adjusted death rates using the direct method.

Potential factors influencing death rates

The primary drivers of death rates are lack of income and health care access, underlying disease risk, and behavioral factors.³² The complex relationships among health care, public policy and outcomes are difficult to study. Much public health research focuses on the life expectancy gaps that exist based on race, ethnicity and sex. Rather than identifying individual policy interventions, this research tends to note the need for integrated changes in public behavior, the medical community and government.³³

Researchers studying the role of government interventions report the importance of social services in addition to direct health care expenditures. They find that "states with a higher ratio of social to health spending had significantly better subsequent health outcomes for the following seven measures: adult obesity; asthma; mentally unhealthy days; days with activity limitations;

and mortality rates for lung cancer, acute myocardial infarction, and type 2 diabetes." Increasing public health funding crowds out funding for other state services that can support better health; the authors mention social programs such as housing, nutrition assistance, early childhood education, and income support. The authors report that even controlling for the total level of public health and social support, places with more spent on social services relative to health care tend to have better health outcomes.

Aside from Covid-19, a major public health concern is the national health crisis driven by drug abuse. Michigan's drug overdose death rate is near the national median, at 31.5 per 100,000 people.³⁴ Most overdose deaths are counted as an accidental cause of death; nationally, drug overdoses make up one third of accidental deaths.³⁵

In 2017, accidents were the fourth leading cause of death in Michigan.³⁶ Reducing drug overdose deaths would reduce Michigan's death rate, but unfortunately, there is no obvious easy solution to the problem.³⁷ Supply chains for opioids like fentanyl are particularly challenging for law enforcement to track and halt. Stricter sentences for offenders will not necessarily help, because increasing sentence length has little deterrence effect when the likelihood of being caught is low.³⁸

Some localities adopt "harm-reduction" policies in an attempt to address the health side of the issue, providing safe injection sites and anti-overdose drugs in a setting with a promise of no arrests. These have the potential to reduce deaths from overdoses or complications from unclean needles. Some researchers caution, however, that these measures just increase overall drug usage by making addiction safer, and thus that they do not reduce drug-related deaths on net.³⁹ Other researchers disagree and do not think there is a mortality downside to these harm-reduction policies.⁴⁰

Another source of accident-related deaths is traffic fatalities. There is some evidence that state policy can also affect deaths from auto accidents. Michigan's current blood-alcohol limit is 0.08, and researchers find that 6% of all traffic fatalities are alcohol-related but involve drivers with levels below the 0.08 threshold.[†] States with stricter blood-alcohol limits have fewer traffic fatalities.⁴¹ Speed limits matter, too. One paper reports, "A 5 mph increase in the maximum state speed limit was associated with an 8% increase in fatality rates on interstates and freeways and a 4% increase on other roads."⁴²

Trends in and determinants of domestic migration

In most years from 1970 to 2022, more people left Michigan than moved in.⁴³ The state may not be the most relevant unit of analysis, however. Its boundaries are political rather than economic. From 2010-2020, for example, Michigan townships in the southeastern portion of the state and around Grand Rapids and Traverse City showed considerable population growth, while much of the rest of the state slowly lost population.⁴⁴ It's important to consider the role of cities in

^{*} This ratio is the sum of social service and public health spending divided by the sum of Medicare and Medicaid spending. Elizabeth H. Bradley, Maureen Canavan, Erika Rogan, Kristina Talbert-Slagle, Chima Ndumele, Lauren Taylor and Leslie A. Curry, "Variation in health outcomes: the role of spending on social services, public health, and health care, 2000–09" (*Health Affairs* 35, no. 5, 2016): 760-768.

[†] The 0.08 is a measure of grams of alcohol per 100 milliliters of blood. MCL § 257.625(1)(b).

attracting in-migration. When selecting a location to live, many people compare metropolitan areas rather than states. They may look at the jobs and amenities available in a new city as they consider whether to move.

People tend to move less than they should, at least based on pure economic reasoning. "Americans are not leaving places hit by economic crises," one researcher notes, "Resulting in unemployment rates and low wages that linger in these areas for decades. And people are not moving to rich regions where the highest wages are available." He blames a wide range of legal barriers to relocating. These policies range from differential taxes and benefit standards to zoning regulations and municipal bankruptcy structures. All tend to make it harder for residents to leave low-performing areas. Other researchers have identified custody laws as constraining domestic migration. 46

This phenomenon may be hardening. Research has found a general decline in American geographic mobility. Internal migration peaked around 1980 and has since fallen. Some researchers attribute the decline to a decrease in job changing.⁴⁷

One recent dramatic shift in urban trends is the shrinking of large cities that has occurred since the Covid-19 pandemic. Cities with more than 250,000 people had positive annual growth for the first two decades of the 21st century but that growth turned negative in 2020.⁴⁸ This was largely driven by out-migration. Suburban growth rates slowed during this time as well, so it appears that this was not simply a movement from city centers to the suburbs, but rather a move to more rural areas. Because telecommuting expanded during the pandemic, there is a real question of whether cities will return to their pre-pandemic growth paths.

Potential factors influencing domestic migration

Economic growth

Economic performance is a key driver of domestic in-migration. Economists have studied the sources of economic growth for centuries, and the question remains central today. In general, economists tend to agree on the importance of good institutions and economic policies. Progrowth institutions include protection of private property rights, democratic forms of government and open trade.⁴⁹

The idea that free markets generally best promote economic growth is a central theme in development economics. Economic freedom is associated with economic growth, well-being and entrepreneurship. The Fraser Institute in Canada has studied this closely for years and publishes a ranking called Economic Freedom in North America. Michigan ranks 32nd among the states. ⁵⁰ Previous Mackinac Center research analyzing the impact of economic freedom at the city level found "positive connections between economic liberty and outcomes that many policymakers profess to want, such as low unemployment rates and population growth." ⁵¹

Greater economic freedom raises incomes and employment rates, leading to higher inmigration.⁵² Research on labor market freedom has found that "a 1 percentage point increase in the overall labor market freedom index results in a 2.8 percent increase in the gross in-migration rate." ⁵³ Michigan's labor market freedom ranking was 40th of the states in 2022, prior to the repeal of its decade-old right-to-work law in 2023. ⁵⁴

Economists have looked at sources of differential economic performance among states and regions in the United States. They find self-employment and entrepreneurship are key to a thriving economy; however, they also find that governmental efforts to increase skills and talents or attract certain types of industries are generally ineffective.⁵⁵

The types of industries in an area can also affect how quickly and consistently the area grows economically. Fostering relatively strong performance in any mix of industries appears to be more important than attracting businesses in booming industries. "[S]tate employment growth that results from having a larger share of nationally fast-growing industries leads to less net inmigration compared to growth that results from each industry in the state growing faster than its national average," one pair of researchers found. 56 This suggests policymakers should aim for policies that produce widespread and steady growth rather than targeting a few industries, markets or companies for special treatment.

This is consistent with the general caution in the literature against attempting to use development policy to copy successful cities or regions.⁵⁷ As a group of economists argue in a 2008 paper, "[E]xamples of successful clustering reveal how little government can contribute to a cluster's performance. [...] This does not leave much policy choice; in fact, facilitation and tax reduction (along with simplification of the regulatory burden for start-ups) may suffice."⁵⁸

Wages and employment

Employment opportunities and wages play an important role in domestic migration. People considering moving to a new state "are presumably responding to regional differentials in employment opportunities, real earnings, or quality of life," as one pair of economists put it.⁵⁹ People may switch to jobs that pay more, or that are a better fit for their skills, or that provide better nonmonetary benefits, such as morale, time off and flexible work schedules. In terms of pay, real earnings adjust for the cost of living in an area, restraining how far a person's income will go.

One paper finds that "a stable labor market environment clearly emerges as an important factor for localities that seek to attract migrants." ⁶⁰ When considering whether to move for a new job, people consider not just the wage and cost of living, but also the risk of losing that job in the future. Thus, the stability of employment matters as well as the wage. ⁶¹ A 2001 paper examines the role of wage and employment rate differences between two states and estimates a significant increase in percapita income is necessary to induce workers to move to a state with a higher unemployment rate. ⁶²

A main driver of higher wages is greater worker productivity. Part but not all of this productivity is determined by education levels of the workers.⁶³

As noted above, a shortage of workers is a general challenge nationally.⁶⁴ This seems to be a particular problem in the Midwest. In a paper addressing the economic troubles of the American heartland, researchers point out that a large percentage of working-age men in the Midwest are either unemployed or not looking for work. "Pro-employment policies, such as a ramped up

Earned Income Tax Credit, that are targeted towards regions [where not working has been historically high], however financed, could plausibly reduce suffering and materially improve economic performance," the authors suggest.⁶⁵

A major state-level policy that impacts the labor market is unionization law. For example, a 2016 paper finds that right-to-work states have more productive businesses and also more population growth than non-right-to-work states. 66 Researchers generally find no negative impact of right-to-work on wages. 67 One paper calculates that right-to-work laws generate higher worker satisfaction and more positive economic sentiment. 68 In a border-pair discontinuity analysis designed to isolate the causal effect of right-to-work adoption, another paper finds right-to-work increases employment and labor force participation, spurs net in-migration, and improves outcomes for those in the bottom income quartile. 69 A 2014 Congressional Research Service review identifies the employment gains in right-to-work states and notes, "In the past decade, aggregate employment in RTW states has increased modestly while employment in union security states has declined. It is unclear if this growth is attributable to RTW, other pro-business policies (which tend to be concentrated in RTW states), or other factors." 70

Occupational licensing

Occupational licensing is a potential factor affecting employment and migration, as it creates a barrier to entering certain types of jobs. One analysis notes "that the between-state migration rate for individuals in occupations with state-specific licensing exam requirements is 36 percent lower relative to members of other occupations." The authors estimate that occupational licensing requirements have significantly reduced job-related moves among workers in regulated industries. In contrast, a 2022 paper from the Bureau of Labor Statistics found that occupational licensing had no impact on net migration patterns, possibly because, in general, the time or financial barriers were insignificant. These opposing findings also highlight the difficulty of isolating and measuring the impact of one specific factor affecting net migration.

Public finances

Schools

One study evaluates the impact of public education and other factors on migration to rural areas. Better school performance, measured by student test scores in reading and math, encourages migration to these areas.⁷³ Better schools also generate higher wages and job growth. However, the authors review related literature and caution that school expenditures are not a good predictor of school quality. On net, the impact of increasing public expenditures on education is mixed, especially if the spending is not strongly linked to improving academic outcomes.⁷⁴

Welfare programs

State-level welfare programs differ in terms of both level of benefits and strictness of eligibility rules. Evaluating data from 1996-1999, a group of economists found that low-income households tended to move toward states with greater welfare benefits but that the stringency of rules had no discernible effect on migration patterns.⁷⁵

One study evaluates the effect of Medicaid expansion in Massachusetts in 2010. The authors find that Massachusetts' health insurance subsidies for low-income individuals led to significant population inflows to cities very close to the state border. The effect dissipated rapidly, however, with distance from the border, suggesting there is a hard limit to the population effect that larger welfare benefits might create. More generous state-level welfare seems to attract in-migration, but it appears that the type of program matters; general financial assistance seems to be more important than assistance for specific services like health care.

Taxes

"The idea that tax policy may affect the location decisions of individuals has a long tradition in economics," a 2000 paper observes. To test this theory, the authors examined the existing literature evaluating evidence surrounding the propensity of people to move to lower-tax locations. [T]he mobility responses documented in some of the recent literature are striking and perhaps surprisingly large," they found, but they caution that these impacts may not be universal. The authors also emphasize that amenities and public goods and services attract people, and thus the deterrent that higher taxes generate may be offset to some extent by the draw that government spending may provide.

How taxes are spent matters. As noted elsewhere in this report, using public money to fund certain business ventures, design areas to have a specific feel, use transportation infrastructure to attempt to grow certain areas, or otherwise copy successful places tend to be ineffective. Reducing crime and improving school quality seem to be more important goals for trying to grow a state's population.⁷⁹ These are not easy tasks. Policymakers have launched many attempts to reduce crime and improve schools over the last few decades and often have little to show for them.

Cost of living and housing

Restrictive zoning

Unsurprisingly, the cost of living deters in-migration, all other factors held equal.⁸⁰

One significant driver of the cost of living is housing costs. Like anything else, housing prices are driven by supply and demand. More desirable locations will have higher housing demand and thus higher prices. However, prices are also driven by supply. It is especially hard to disentangle cause and effect in the data we observe.

All else equal, higher housing prices will deter in-migration, but places where lots of people want to live will have high demand and relatively higher prices. Localities that artificially restrict housing supply through regulations will have housing prices that do not reflect the desirability of living there. As a pair of researchers note, "[I]f housing prices are above this cost in a given area, then the housing market is not functioning well—and housing is too expensive for all households in the market, not just for poorer ones." A 2013 study concurs, emphasizing the role of land-use regulations in raising the cost of living, which deters in-migration. 82

Quality of life

Placemaking

A popular policy proposal involves "placemaking" —strengthening the appeal of particular locations. Population centers can provide economic and noneconomic benefits to residents and can act as a draw to in-migration.⁸³ Places that successfully attract high-skilled workers tend to improve on non-job-related measures as well, as those new residents support amenities such as retail shopping options, reduced crime and environmental improvements.⁸⁴ These increases in amenities draw more high-skilled workers but also make those places less affordable for low-skill workers. This dynamic perpetuates the spatial sorting of low-skill and high-skill workers into separate localities.

Evaluating the effectiveness of placemaking policies, a pair of economists conclude, "Most large-scale place-oriented policies have had little discernable impact." Transportation infrastructure spending, for instance, is often directed toward places least likely to benefit from such investments. As the authors note, it is best to focus "transport spending to maximize its direct benefits, not according to its ability to enhance one place or another." 86

Further, certain targeted placemaking policies that do yield results "are expensive relative to their achievements." Instead, the biggest constraint for placemaking is "the tendency of highly productive areas to restrict their own growth through restrictions on land use."⁸⁷ As noted above, land-use restrictions significantly deter in-migration and hurt an area's growth.

It is possible that localities can be stuck in an underperforming equilibrium. These places may see new developments, but they fail to rise to the level of generating positive multiplier effects. These notions are based on the idea of agglomeration economies, where a critical mass of residents and economic activity are needed to generate self-perpetuating gains. In practice, however, it's not easy to identify which economic activity will produce a breakthrough in the underperforming equilibrium, and local efforts to attract certain sectors can become a zero-sum game. As one paper puts it, "[A]t this time, economists do not have enough information to reliably suggest strategies that can raise aggregate welfare via agglomeration forces." 88

Another paper reviews the literature on placemaking and finds mixed evidence on a variety of policies, such as enterprise zones and infrastructure spending. The authors identify unknowns in the research, especially regarding the distributional impact and the long-run self-sustainability of targeted places. ⁸⁹ Others raise equity concerns, noting that subsidizing underperforming areas may make the location more attractive, but that the existing, lower-income residents may not benefit from the economic gains. Similarly, they show that in tight housing markets with restrictions on building, landlords, rather than residents, may capture any gains of a more attractive location. ⁹⁰

The evidence in favor of "quality of place" factors is strongest at the level of large cities. One study found a relationship between some of those factors and skill levels, but these benefits were much weaker for smaller cities. A sample of Canadian localities showed a general ineffectiveness of marketing or "place branding," specifically due to "overreliance on visual identities, poor

communication ... and overemphasis on presenting quality of life and affordability."⁹² In addition, it seems that well-educated workers tend to base their location decisions more on job-related factors like salary and career fit than on place-related factors like social welfare, urban amenities or public transportation infrastructure.⁹³

Weather and natural amenities

The population growth in the Sunbelt over the past several decades has prompted researchers to assess the impact of sunniness as a desirable amenity. One paper found that population growth in southern states was driven by higher productivity and wages drawing workers and less restricted housing supply keeping down the cost of living; the weather itself was not a determining factor. Other researchers disagree. One notes a general trend of people moving to places with cooler, less humid summers, even controlling for productivity; the Midwest is listed as one of the least likely regions to experience weather-related positive net migration.

Considering the impact of natural amenities more broadly, one paper compares existing literature and finds that natural amenities do a better job predicting regional growth than job availability. Another highlights the complementary roles of economic agglomeration effects and natural amenities: "On average, across both metropolitan and non-metropolitan areas, variation in productivity dominated in terms of explaining the differences in population growth across the natural amenity spectrum." But in large cities, this study notes, natural amenities may outpace productivity as a determinant of population growth. 97

For existing residents of rural places with natural amenities, influxes of in-migration tend to raise their wages, but these higher wages are fully offset by higher costs of living resulting from the increased population.⁹⁸

Culture and other

Some studies evaluate nonmonetary factors influencing migration patterns of more educated individuals. A pair of authors find that places with initially more educated populations tend to attract even more educated individuals. Larger cities tend to draw these highly skilled college graduates. However, "Outside of poverty and the cost of living, which deter in-migration, the impact of metropolitan-level amenities in this study is relatively weak." On the other hand, one paper, comparing generational changes in migration patterns, finds Millenials more likely to move to high-density areas with more recreational, cultural, shopping and dining options. ¹⁰⁰

Another study points out, "Crime is a very salient disamenity." ¹⁰¹ Beyond addressing crime, however, localities can do little to establish amenities that might attract highly skilled individuals. Instead, more-educated individuals view well-educated neighbors as the amenity itself. The amenities like restaurants and museums, or higher public spending, do not seem to matter as much. ¹⁰²

Studies with multitudinous factors

A 2006 study evaluates a wide array of proposed determinants of in-migration to states between 2000 and 2004. The authors find that median household income and per-pupil education spending positively impacted in-migration, while higher cost of living, higher state income taxes, and disamenities, such as hazardous waste sites, deterred in-migration. A 2013 analysis of rural-to-urban migration finds that distance, unemployment and risk of unemployment as well as lack of industrial match deter individuals from moving to a new location. It observes that natural amenities drew migrants, as did higher per-capita public spending. 104

These findings once again highlight the delicate balance policymakers must confront if attempting to attract new residents. Subsidizing wages or increasing public spending might draw some residents, but the higher taxes and cost of living increase that would result from that spending will deter others.

Role of cities

As noted above, the appeal of certain cities may be an important factor in state migration patterns. A 2007 paper evaluates the differential impact of transportation and communication technology on different cities. The authors find that improved technology undermined manufacturing cities like Detroit and benefited idea-producing cities like New York. ¹⁰⁵ It's important to consider what causes certain cities to draw new residents and specifically what sets the stage for an ideas-producing economy.

One study views regional change as largely driven by movement in and out of cities. Authors state, "Education does a reasonable job explaining urban resilience in recent decades." That is, higher educational attainment of a city's residents increases entrepreneurship and causes beneficial ripple effects through the city. Otities with more highly skilled workers tend to generate innovation, entrepreneurship and economic vitality. As noted above, more educated individuals also attract and support amenities, such as restaurants, stores, and recreational opportunities, that other potential migrants find appealing.

If, as the literature suggests, educational attainment is important, the future for the rustbelt may be starting to look rosier: Evaluating the divergent tracks of sunbelt and rustbelt cities, a pair of researchers find that rustbelt cities are beginning to retain and attract more higher-skilled workers relative to sunbelt cities.¹⁰⁷

International migration

While much of international immigration is determined at the national level, localities may have some impact on whether immigrants tend to move there. Evaluating the impact of increased international immigration following the Immigration Reform and Control Act of 1986, a group of economists find that "legalization [of undocumented immigrants] has no long-run effect on state-level economic institutions, although it may temporarily cause an increase in government spending relative to personal income. Therefore, our findings assuage concerns that granting

amnesties to illegal immigrants will reduce productivity in the United States and buttress arguments that relaxed immigration barriers lead to greater global economic efficiency." ¹⁰⁸

Recommendations and conclusion

Michigan lags the rest of the country in population growth. When looking at ways to reverse that trend, it's critical to examine the evidence on what works and what does not. It makes sense to put policy efforts toward areas where the research is clear rather than mixed or negative. Certain ideas, such as raising taxes to fund higher spending on public services and place-making policies or other attempts to copy popular cities or industries, may seem appealing, but these have generally been shown to be ineffective or counterproductive. An important takeaway from the research is that there are limits on what state officials can accomplish to influence population trends.

That said, policymakers' best chance might be to impact domestic in-migration, or how many people move from other states to Michigan. The literature shows the importance of greater economic freedom for fostering local business activity and making a location a more appealing place to live.

The evidence clearly shows that economic growth and population growth are linked. A stronger economy attracts more in-migration. The more skilled workers the more productivity, entrepreneurship and innovation. Clusters of more educated individuals tend to support the types of local amenities that attract similarly well-educated people.

Unfortunately, there is no way to centrally design a growing economy. Instead, the research consistently shows that creating a free economy with stable laws is a necessary foundation for broad-based economic growth. The research suggests that top-down, "placemaking" policies are ineffective, especially when these efforts seek to copy other successful locations.

One potential area for policy to improve economic potential is in educational attainment. Education relates to productivity and business innovation, and some research suggests positive returns to investments in education programs and training, provided the high-skilled workers don't move elsewhere. However, there are limits to this approach. The research suggests that more spending on public schools, for example, does not necessarily produce improved educational attainment. There is also a tension between spending more on public education and the higher taxes this would require. These higher taxes would repel migration and business investments. This highlights the importance of efficient public spending. Efficient governments could become more attractive by producing valuable public services without having to charge growth-repelling high tax rates.

The cost of living heavily influences people's decisions about where to live. Housing prices are a big part of this. One of the most consistent findings in the research is the anti-growth effect of restrictive zoning policies. These policies artificially increase the cost of living relative to the underlying benefits of these places. The tendency of wealthier, more educated areas to adopt exclusionary land-use regulations creates a barrier to in-migration. State-level policies aimed at

limiting municipalities' ability to block new housing supply could significantly improve Michigan's ability to draw new residents.

State policy appears restricted in its ability to improve birth rates. Research suggests that mandated paid leave and other so-called pro-family policies are insufficient to increase fertility rates. Some interventions seem merely to shift when individuals have children, rather than impacting the number of children they have. In isolation, lengthened parental leave or subsidized child care seems insufficient to influence birth rates. Instead, the increasingly flexible nature of work and the changing social norms of gender roles in parenting have the potential to increase fertility rates independent of policy interventions.

The final factor in population growth is longevity. In establishing ways to reduce the death rate, researchers consistently call for a comprehensive change involving medical care spending, social work, the medical community and the public. State policy seems to have some potential to address accidental deaths through improving traffic safety, but this would likely have a small impact on population growth overall.

When considering policies to increase population growth in Michigan, legislators should evaluate the research about what works. The evidence highlights the limits of using public policy to significantly boost population levels. Some of the clear policy recommendations that emerge from the research — creating economic growth, removing needless restrictions on housing construction, reducing crime, improving school performance — are complex problems where the impact could take years to develop.

Despite these challenges, there are still lessons for policymakers. Economic freedom is clearly important. The state should aim to make a welcoming place for all types of entrepreneurs and other job creators to attract investments and create employment opportunities for workers. It should make it easier for people to qualify for work by eliminating unnecessary occupational licensing requirements. Improving government efficiency goes a long way: providing high-quality public services that enhance people's lives without charging growth-limiting tax rates can attract new populations. Regardless of the approach, policymakers should weigh costs and benefits carefully and aim for policies that have the broadest impact.

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