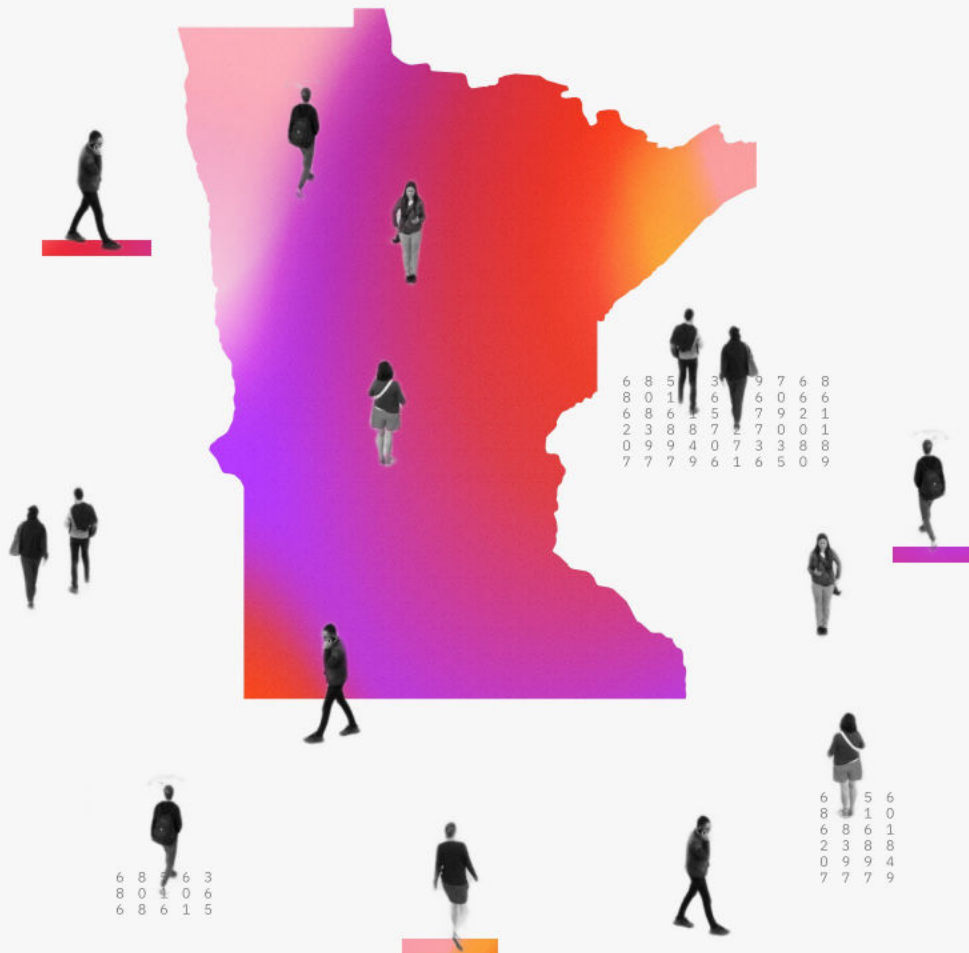


2023

MINNESOTA'S VANISHING WORKFORCE:

Understanding Minnesota's Demographic Drought and the Strategies to Mitigate it



Ask the leader of any business, regardless of industry or size, to name the biggest challenge facing their business today, and they're likely to cite difficulty finding enough workers.

Already, demographic changes have begun to reshape the workforce in Minnesota and nationally. At the height of the pandemic, these changes caused Minnesota's workforce to shrink by 3 percent compared to early 2020, and today there remains a growing gap between the number of available jobs and the number of available workers.

As the demographics change in Minnesota and nationally, so too will the composition of the state's workforce. Factors including a diverse population, an aging workforce, lower immigration, and declining birth rates will profoundly alter the composition of Minnesota's workforce in the years ahead, presenting the state with challenges and opportunities. These challenges require Minnesota to think differently about how to attract and retain workers, optimize the state's workforce, and set our state on the right path for the future.

That's why the Minnesota Business Partnership, Presbyterian Homes & Services, and SullivanCotter partnered with Lightcast on this report, which aims to identify and quantify the workforce challenges facing Minnesota, and provide recommendations to policymakers, businesses, and educators on how to effectively prepare for and respond to these changes.

In Minnesota, we want to ensure that we are putting the right foot forward and setting ourselves up for success. As the chair of the Minnesota Business Partnership, I recognize that a significant factor in the future success of our member companies will be the availability and retention of quality talent. Effectively confronting today's workforce challenges, and those we will face in the coming years, will require the active engagement of the public and private sectors as well as our schools. Working together, we can ensure a bright economic future for Minnesota.

JEFF HARMENING

CHAIR, MINNESOTA BUSINESS PARTNERSHIP

CHAIRMAN OF THE BOARD AND CEO, GENERAL MILLS

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Report Partners

PRESBYTERIAN HOMES & SERVICES

Presbyterian Homes & Services (PHS), based in St. Paul, Minnesota, is a non-profit, faith-based organization providing a broad array of high-quality housing choices, and care and service options for older adults. Over 7,500 employees serve more than 24,000 older adults through 60 PHS-affiliated senior living communities in Minnesota, Iowa and Wisconsin, and through Optage® home and community services. PHS is also co-owner of Genevive, the largest geriatric primary care practice in Minnesota, providing comprehensive care for over 15,000 older adults. Established in 1955, PHS has earned the reputation as an innovative leader dedicated to promoting independence, purposeful living, and overall well-being for those they serve. Today, PHS is one of the largest nonprofit providers of senior housing and services in the nation.

SULLIVANCOTTER

SullivanCotter partners with health care and other not-for-profit organizations to understand what drives performance and improve outcomes through the development and implementation of integrated workforce strategies. Using our time-tested methodologies and industry-leading research and information, we provide data-driven insights, expertise, and solutions to help organizations align business strategy and performance objectives – enabling our clients to deliver on their mission, vision, and values.

MINNESOTA BUSINESS PARTNERSHIP

The Minnesota Business Partnership (MBP) is a nonpartisan public policy organization comprised of more than 100 CEOs and top executives from Minnesota's largest employers, which collectively employ more than 500,000 Minnesotans. MBP members represent a broad range of business interests, political perspectives, and personal philosophies, but they are united by the Partnership's mission: Maintain a high quality of life for all Minnesotans by ensuring that the state's economy remains strong and globally competitive.

LIGHTCAST

Lightcast provides trusted global labor market data, analytics, and expert guidance that empowers communities, corporations, and learning providers to make informed decisions and navigate the increasingly complex world of work. With a database of more than one billion job postings and career profiles, our team provides best-in-class customer service with robust data, clear analysis, and expert guidance on skills, jobs, and opportunities.

Headquartered in Boston, Massachusetts, and Moscow, Idaho, Lightcast is active in more than 30 countries and has offices in the United Kingdom, Italy, New Zealand, Canada, and India. The company is backed by global private equity leader KKR. For more, visit www.lightcast.io.

Executive Summary

Across the US, populations are aging, and talent pools are shrinking. Minnesota is no exception. The state's **12,000** lakes will be no match for the impending Demographic Drought brought about by declining fertility rates, an aging population, rising retirements, and falling net migration. As a result, Minnesota's dwindling labor supply in recent years will further deteriorate into an outright labor shortage crisis.

Employers throughout the state are already feeling the impact of shifting demographics. Historically, Minnesota's labor market has been tighter than the broader US labor market, with relatively more job openings than people available to fill them. As a result, Minnesota is struggling more than nearly all other states to attract and retain workers, ranking 46th in Lightcast's **2022 Talent Attraction Scorecard**.

The single most significant driver of Minnesota's labor market tightness is the ongoing retirement of the Baby Boomers, followed by falling workforce participation among key age groups. Other factors, however, are exacerbating the problem, including falling net migration, a misalignment between available jobs and available talent, reduced work incentives for younger workers, and the opioid epidemic.

Looking ahead, Minnesota's demographic and labor market challenges will only intensify between now and 2030. By then, all Baby Boomers will be at least 65 and the share of the Minnesotan population that is of working age (16-64) will crater to an historic low. More

people exiting the workforce than entering during this period will translate into a labor crisis marked by talent shortages, lower employment gains, and potentially lower economic growth.

Limiting the economic drag from demographic headwinds hinges on *attracting and retaining the limited talent that is available and making more workers more productive*. Success will be made possible by a strategic combination of expanding and retaining talent pools, increasing immigration, upskilling the workforce, and implementing new technologies.

Such initiatives will require public-private partnerships that tightly connect industry, educators, state and local governments, and nonprofits to meet Minnesota's future skill and workforce needs. Business leaders must champion these partnerships because they are in a unique position to connect real demand in their industries to future skills and technologies needed. Policymakers are positioned to create incentives for businesses and educators to collaborate and to implement targeted labor market policies to combat labor shortages.

Presbyterian Homes & Services, SullivanCotter, and the Minnesota Business Partnership have partnered with **Lightcast**, a labor market analytics firm, to analyze the state's demographic challenges with a long-term, global view. In this report, we hope to better equip employers, educators, and public policy officials in Minnesota with information on the causes of the state's Demographic Drought and to present opportunities for working together to mitigate the people shortage problem.

MINNESOTA'S WORKFORCE HAS NOT RECOVERED

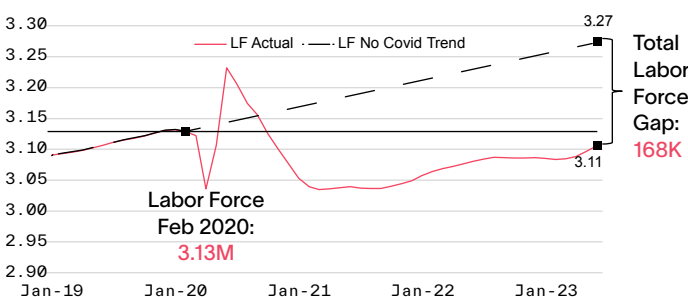
Minnesota's workforce has not yet recovered from COVID-19's economic impact. As of June 2023, the state still needs 23,000 more people in the labor force to get back to its February 2020 level. On top of that, Minnesota needs an additional 145,000 people to fully recover to where the workforce *would have been* in the absence of the pandemic. The state is facing a total labor force gap of about 168,000 people, or 5.4% of its June 2023 labor force (see below). Further, employment in Minnesota stagnated during the first half of 2023 and by June remained 11,500 jobs below pre-pandemic levels.

By contrast, the total US labor force returned to its pre-pandemic level in August 2020 and by June 2023 the workforce deficit was only 1.5% of the labor force. National employment has also more than recovered.

Minnesota has some serious catching up to do.

Minnesota needs 168,000 more people in the labor force to fully recover

Minnesota's labor force (Millions)



Source: US Bureau of Labor Statistics and calculations by Lightcast



MINNESOTA'S DEMOGRAPHIC CLIFF MAY ALREADY BE HERE

Minnesota's vanishing workforce is the result of trends years in the making:

Between 2001 and 2022, Minnesota's labor force participation rate fell 7.2 percentage points, compared to a 4.6 percentage point drop in the overall US rate during that time. The fall in the state's participation represents a decline of about 325,000 Minnesotans from the workforce, and is partly driven by youth ages 20-24 and prime working age men, ages 25-54, opting out of work.

Retiring Baby Boomers, however, are the primary force behind falling participation rates. Their share of the Minnesotan workforce declined from 46% in 2001 to 17% in 2022. Between 2020 and 2022, more than 200,000 Boomers left the workforce. There are now more Minnesotans leaving the job market than entering it.

Minnesota's fertility rate has been consistently below the replacement level of 2.1 births per woman—and falling—since 2009. The mere 2 tenths drop in Minnesota's fertility rate from 1.95 in 2011 to 1.75 in 2021 equates to a loss of about 285,000 individuals, or about 5% of the state's 2021 population.

Since 2010, Minnesota has generally seen negative net domestic migration, meaning more residents have left the state than have arrived from other states. In 2022, the state experienced a record 19,400 domestic outflows. Prior to 2020, international migration generally outweighed these losses to make total net migration positive. But since then, Minnesota has lost more people domestically than immigration can replace, resulting in **negative total net migration rates**.



The combination of declining fertility and falling net migration has led to **slower population growth** in Minnesota. Population growth lower than the national average in the 1970s and 1980s means that there is a relatively smaller pool of Gen Xers and Millennials in Minnesota to replace retiring Baby Boomers.

BUSINESSES, EDUCATORS, AND POLICY MAKERS CAN MITIGATE MINNESOTA'S DEMOGRAPHIC DROUGHT

Industry, educators, and state and local governments throughout Minnesota can more successfully compensate for a people shortage not only by attracting and retaining more students and workers, but by doubling down on efforts to make them more productive. If the limited workers that are available are highly skilled, have access to new technologies, and have the capability to innovate, Minnesota will be better situated to operate in an environment of scarce labor supply.

The bottom line is that Minnesota's business, education, and government leaders can play a key role in lessening the economic blow of a vanishing workforce. We identify five strategies local leaders can use to help offset the imminent shortage of workers:

1. Get more people into the workforce and keep them there.

Attracting—and retaining—groups that have historically had weaker attachment to the labor market will be key to mitigating the impending people shortage crisis. Public policies and recruitment tactics that help more people enter the workforce, and stay in it longer, can boost workforce participation. Raising Minnesota's labor force participation rate (68.1% in 2022) by 2 percentage points, for example, would increase the size of its workforce by about 90,000 people. A focus on retention also offers key advantages to governments and employers because they can capitalize on the knowledge, skills, and experience accumulated by an aging workforce.

2. Increase domestic and international migration

Since 2010, most of Minnesota's labor force growth has been due to international migrants. Returning to 2015 levels of immigration would attract about 20,000 additional working age individuals through 2030 and further boost the labor force, especially in key occupations. Large shares of immigrants are employed in jobs that are projected to grow the fastest, including healthcare, computer, and food services occupations. State policies that improve access to affordable housing or public transit can also attract residents domestically and keep labor supplies within Minnesota's borders.

3. Increase the skills of the workforce

In an era of rapidly changing technology, reskilling and upskilling workers into greater value-added tasks will be key to driving productivity and growth. Employers can embrace competency-based hiring and intensify on-the-job training and other upskilling programs to fill knowledge gaps. The growing emphasis on skills rather than degrees also provides incentives for educators and policy makers to develop a system of **state-approved stackable credentials**.

4. Improve alignment between job requirements and available talent

A growing mismatch between skills sought and taught has contributed to growing shares of employers having **difficulty finding qualified workers**. Employers and educators must work together to design curricula and training for in-demand skills. Public policies that encourage **work-based learning** as early as high school or increase access to state sponsored internships or apprenticeships can also improve job market alignment.

5. Embrace technology and innovation

Long-term investments in new technologies and business models can spur the innovation needed to drive growth. In addition to innovating, employers that diffuse those innovations widely in day-to-day business practices can increase productivity. A skilled and innovative workforce, strengthened by public policies that support innovative research and enable greater technological diffusion, will be better situated to compensate for diminishing labor supply.



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S E C T I O N








How We Got Here



Minnesota's Demographic Drought is something that we have known was coming for years: the Baby Boomer generation has been aging out of the workforce, Americans are having fewer children, and immigration as a source of workers is becoming less reliable for both political and practical reasons.

So, how did we get here?

- 1  **Declining workforce participation** especially of prime-age men, older workers, and youth
- 2  **The rapid aging of the population** and the exodus of the Baby Boomers from the workforce
- 3  **Declining fertility rates**
- 4  **Low net migration**
- 5  **Slow population growth**

YOU CAN'T REALLY KNOW WHERE YOU ARE GOING UNTIL YOU KNOW WHERE YOU HAVE BEEN.

- MAYA ANGELOU

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Declining Workforce Participation

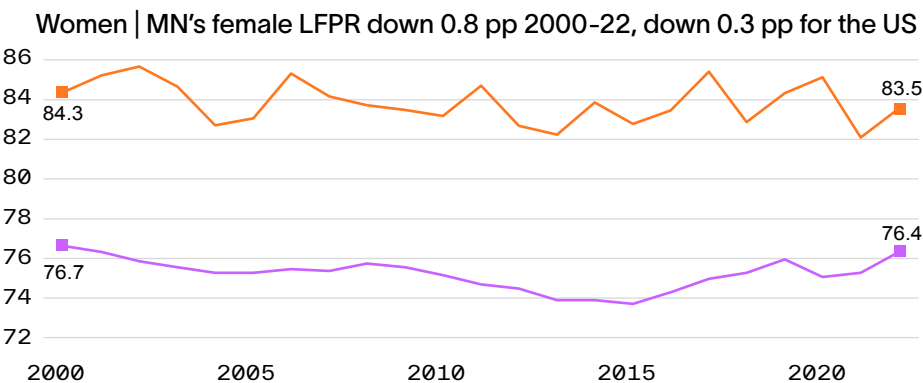
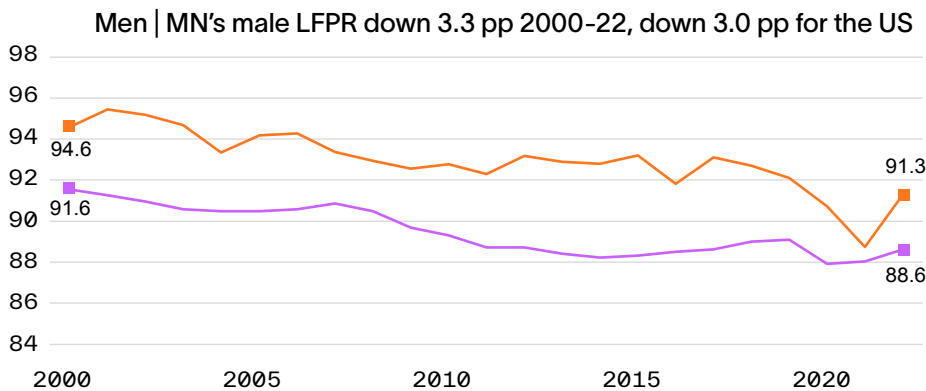
The Baby Boomer generation has shaped the Minnesota and US labor force for decades. The Boomers are a population of workers who are money focused. During the height of their working lives, women started contributing to increase household income and their labor force participation rates soared. Today, we are in the midst of Boomer retirements and their numbers in the labor force are rapidly declining. At the same time, Millennials and Gen Z are entering the workforce, but there are not enough of either generation individually to fully replace retiring Boomers.

Minnesota's male prime age participation has plummeted, while female participation remains significantly higher than the national average

Second, Minnesota's prime-age male labor force participation rate has been falling since 2000.

Labor force participation rates, 25-54 years

MN US



Source: US Bureau of Labor Statistics



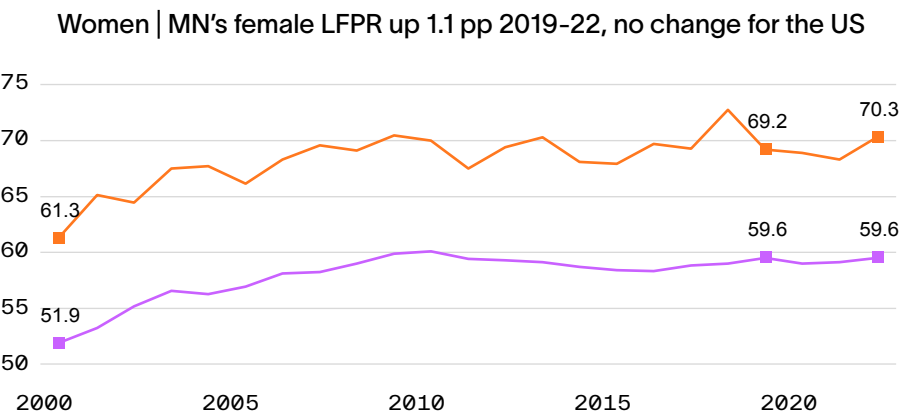
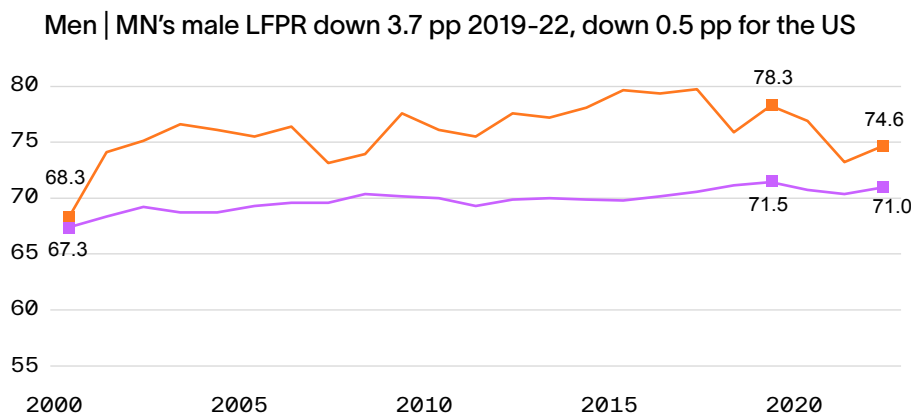
Workers between the ages of 25 and 54 are in the prime of their working lives and their engagement in the workforce is critical to a healthy labor market. What is most concerning is the magnitude of change seen since 2000: prime-age male participation in Minnesota has fallen 3.3 percentage points, which is more than the corresponding fall in the national average. While 3.3 percentage points may seem small, it represents more than 36,000 Minnesotan men staying out of the labor force in their prime working years.

Conversely, prime-age women are working in Minnesota at rates far exceeding the national average, and this group has experienced a drop in labor force participation much smaller than their male counterparts.

The decline in older worker participation since the pandemic is driven by men 55-64 leaving the labor force

Labor force participation rates, 55-64 years

MN US



Third, men aged 55 to 64 in Minnesota are leaving the workforce.

The labor force participation rate for this group is down 3.7 percentage points from where it was in 2019, a trend that does not match that of the national average. Since the pandemic, this group of workers has been a significant loss for Minnesota's labor market. Older women in this age group, however, are experiencing increased labor force participation rates in recent years, with a 9.0 percentage point increase since 2000, outpacing the national average.

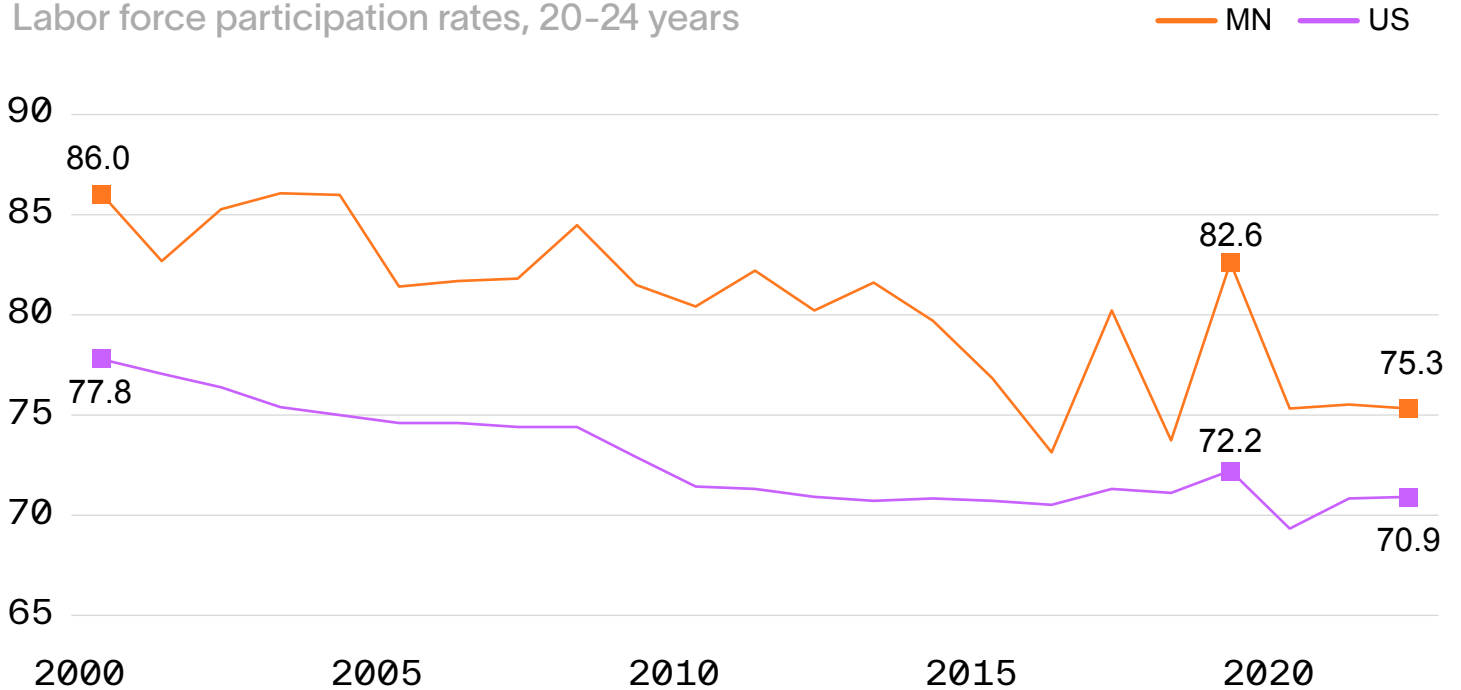
Overall, the labor force participation rate of older women in Minnesota is significantly above the US average—echoing the theme set by prime-age women.

Source: US Bureau of Labor Statistics



Minnesota's youth ages 20-24 have increasingly left the workforce

Labor force participation rates, 20-24 years



Source: US Bureau of Labor Statistics

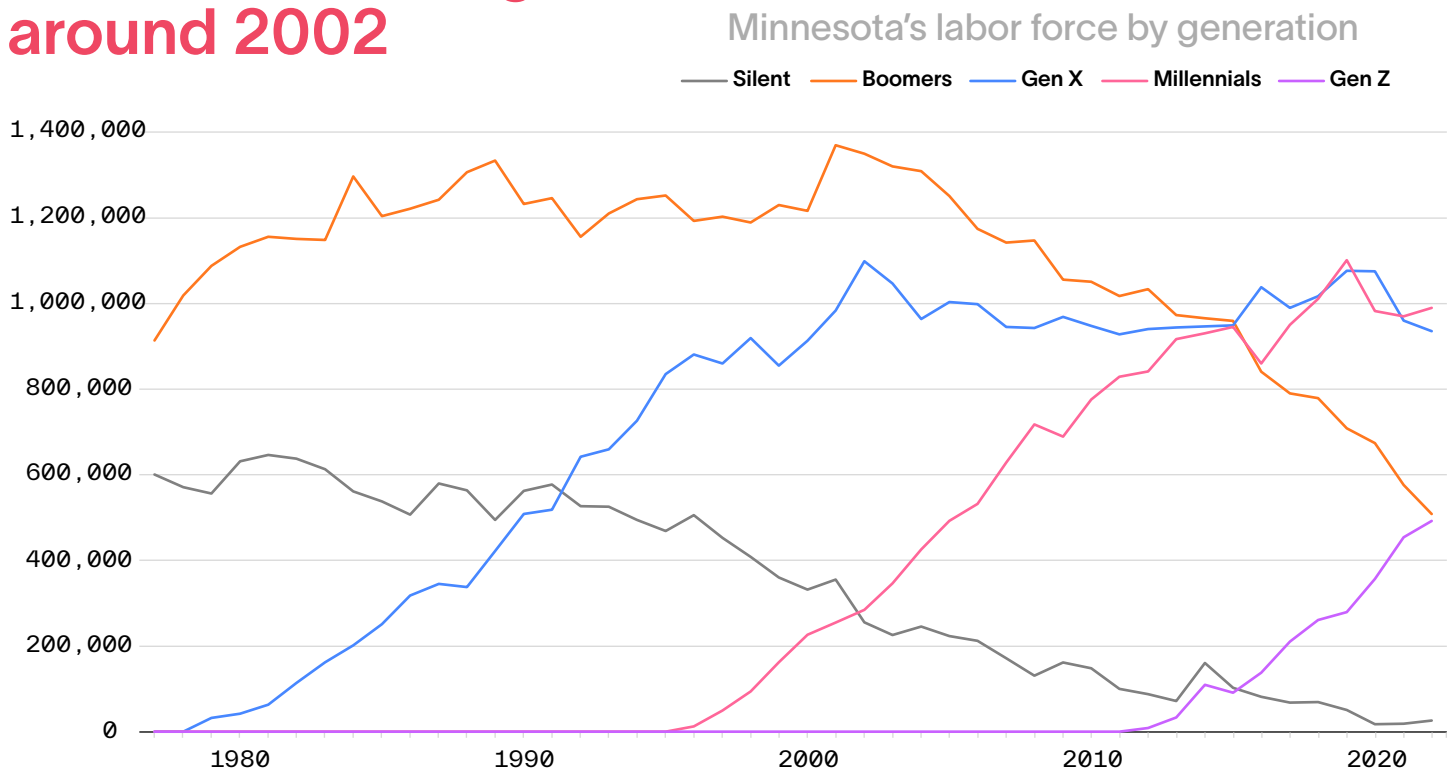
Fourth, the labor force participation rate of young workers in Minnesota between the ages of 20 and 24 has been declining since 2000.

That rate of decline in Minnesota has been more pronounced than the decline of the labor force participation of America's early-career workers overall. Younger workers are more likely to fill lower-paid, entry-level roles that are often on the front lines, and these positions are the ones that our economy increasingly relies on.



Rapid Aging of the Population

Boomers exploded into retirement ages around 2002



Note: The labor force includes those ages 16 and older who are working or looking for work.

Source: IPUMS Current Population Survey

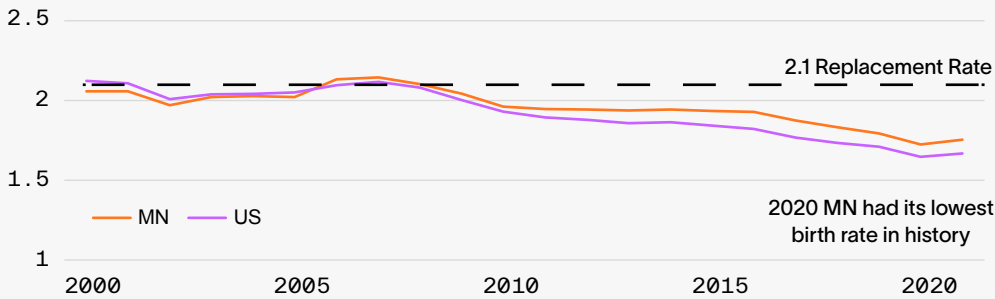
The Baby Boomer generation was the dominant group of workers in both the US and Minnesotan labor force for decades. This was a group of individuals who were financially focused, and because Boomer women started working en masse, the size of the labor force swelled. Baby Boomers exploded into retirement ages starting around 2002 and have been leaving the working ranks at a steady clip ever since. During the COVID-19 pandemic, many Boomers between the ages of 55 and 64 decided to retire early, resulting in excess early retirements.

As the Boomers retired in droves, Millennials and Gen Xers became the dominant groups in Minnesota's labor market. By 2015, there were more Millennials and Gen Xers in the Minnesotan workforce than Baby Boomers. Looking ahead, the challenge is that the size of the Gen X, Millennial, and Gen Z cohorts in the years to come will pale in comparison to the size of the Boomers.

Declining Fertility Rates

Minnesota is living below the 2.1 fertility replacement rate

Total fertility rates (births per woman)



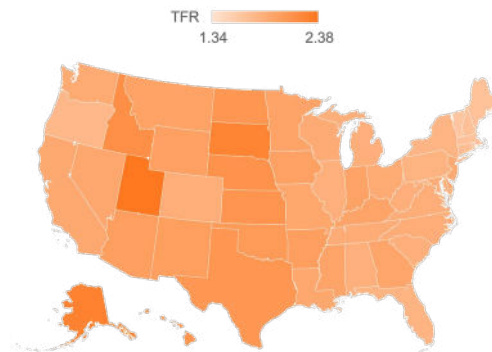
Source: Centers for Disease Control and Prevention, National Vital Statistics Reports 2000-2021



In Minnesota, like the US, the total fertility rate—the number of births per female—is now at its lowest point in history. It is also far below the 2.1 births per female replacement rate considered necessary to maintain population levels. The downward trajectory has been rapid since 2009 and shows little sign of reversal. Fewer births today mean fewer working age individuals in the future, and that means even tighter labor markets.

From 2011 to 2021, birth rates plunged in Minnesota and across the US

2011
TFR for MN: 1.95

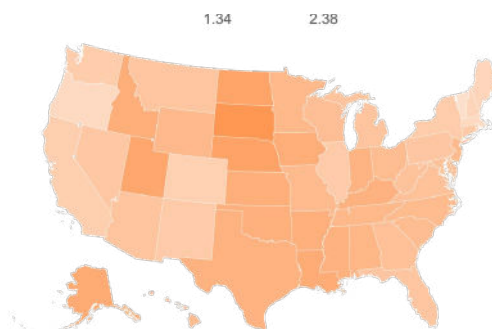


Comparing state fertility rates in 2011 and 2021, Minnesota consistently ranked 18th in the nation. However, the state's fertility rate dropped from 1.95 to 1.75 in just ten years' time. This is equivalent to a loss of about 285,000 individuals, or 5% of the state's population in 2021. What may seem like a small change in a fertility rate will result in a significant change in a state's population and therefore its labor force.

Total fertility rates by state

Even a modest decline in fertility results in thousands of fewer people.

2021
TFR for MN: 1.75



Declining fertility rates are not just a Minnesotan or even a US problem: Most countries around the world have seen steadily declining fertility rates, and many are living below the replacement rate.

Source: Centers for Disease Control and Prevention, National Vital Statistics Reports 2000-2021

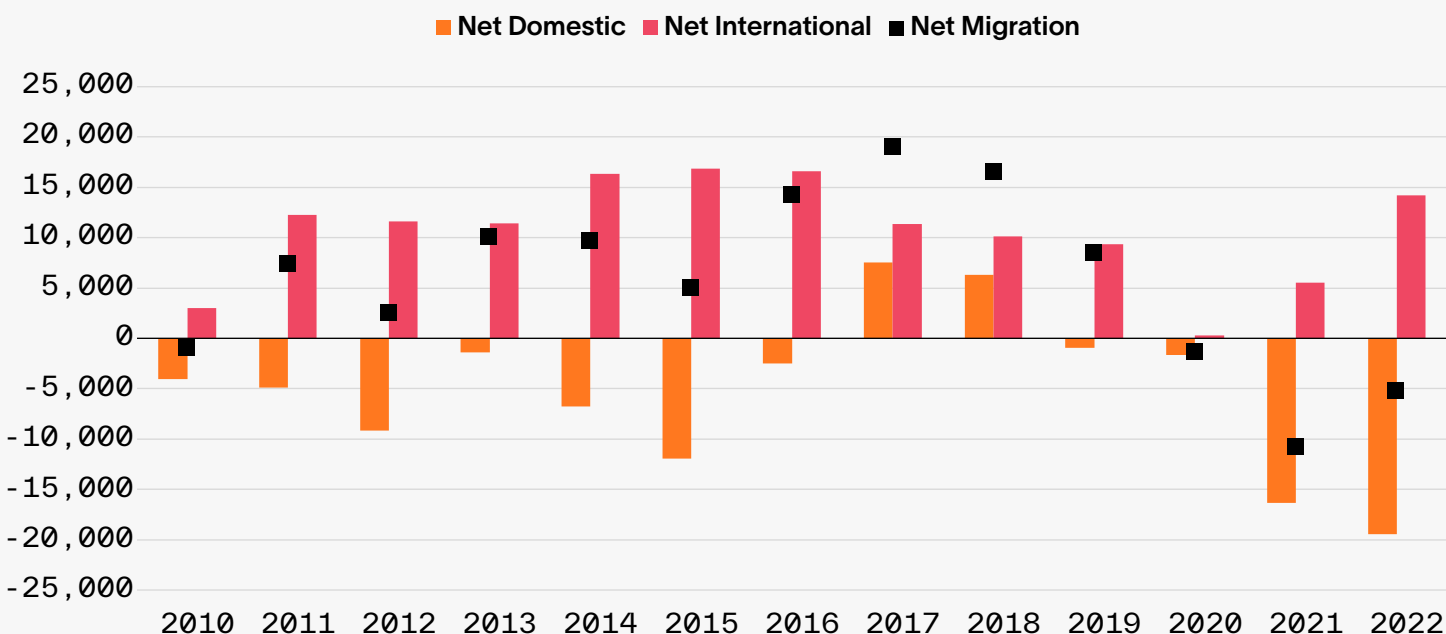


Low Net Migration

If workers can't come from the native-born population, local economies must look outside to immigrant populations. However, only 8.5% of Minnesota's population are international migrants, compared to 13.6% of the total US population.

Minnesota has seen negative net domestic migration in 11 of the last 13 years

Net Domestic and International Migration, Minnesota



There is a break in series in 2020 due to methodological changes in how the Census Bureau estimates migration: 2020-2022 are not strictly comparable to previous years

Source: US Census Bureau, State Population Totals and Components of Change, Vintage 2020 (2010-19) and Vintage 2022 (2020-22)

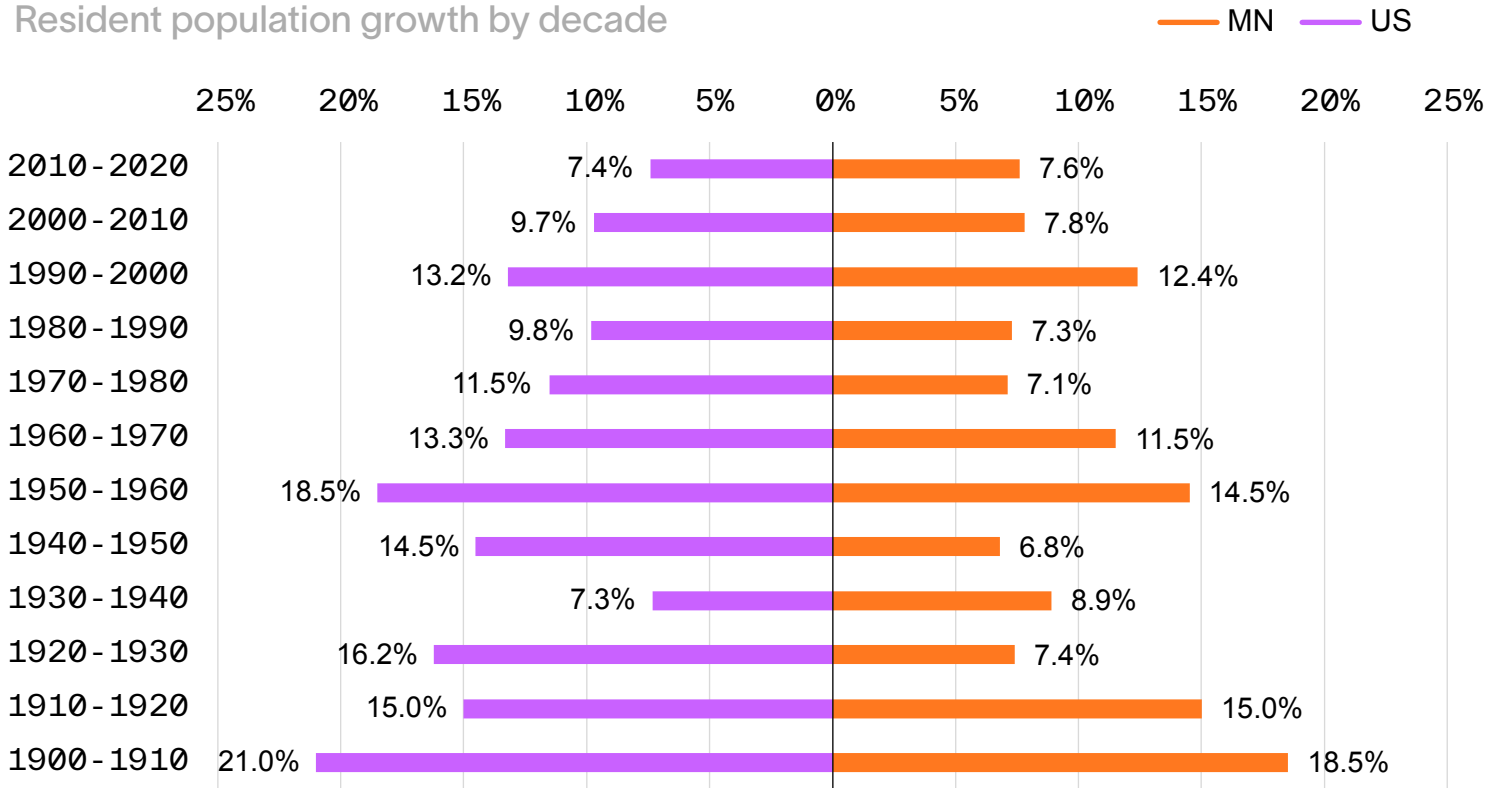


Minnesota has seen significant negative domestic migration, meaning workers are leaving Minnesota for other parts of the US at a rate far outpacing those moving into Minnesota from other states. Net international immigration has been positive for the past 13 years, but at relatively small numbers.

Slow Population Growth

In 7 of the last 8 decades, population growth in Minnesota has been slower than the US average

Resident population growth by decade



Source: US Census Bureau

When compared to the national average, Minnesota has experienced slower population growth in 7 of the last 8 decades. As a result, Minnesota does not have enough young workers to replace retiring Boomers. In the 2010s specifically, Minnesota experienced even smaller population growth than during the hangover from the Great Depression in the 1930s.

At the county level, most counties in Minnesota saw their populations shrink over the past two decades. In the last 10 years, the counties around the Twin Cities saw some modest population growth, but the majority

of the remaining counties saw moderate to significant population decline.

Together, these five factors—declining workforce participation, rising retirements, falling fertility rates, low net migration, and slower population growth—have created a pattern of increasing stress on Minnesota’s labor market, and this stress has been percolating for decades. With the impact of COVID-19 accelerating many of the trends that were already underway, it was as if someone stepped on the gas, tightening the labor market even more.

SECTION



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Where are we now?



In Minnesota, dwindling labor supply and misalignment between labor supply and demand has led to the state's current labor crisis:

ACUTE LABOR SHORTAGES

There are more job openings than people available to fill them.

EMPLOYMENT IN MINNESOTA IS STILL BELOW PRE-PANDEMIC LEVELS

Job creation and recovery are lagging the national pace.

KEY SECTORS ARE FEELING THE PAIN MORE THAN OTHERS

Employment in private education, financial activities, leisure and hospitality, retail trade, and government is still below pre-pandemic levels.

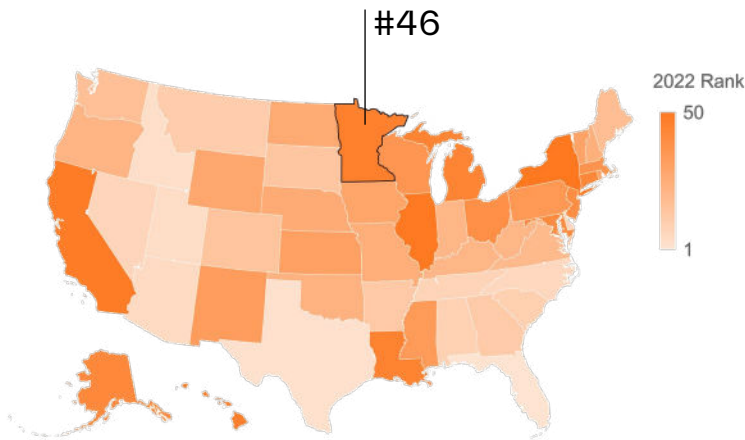


Attracting and Retaining Minnesota's Talent

Relative to other states, Minnesota is struggling to attract and retain workers



Talent Attraction State Rankings, 2022



TOP 10

1. Florida
2. Texas
3. Idaho
4. Utah
5. Arizona
6. North Carolina
7. Nevada
8. Tennessee
9. Alabama
10. South Carolina

BOTTOM 10

41. Maryland
42. Alaska
43. Connecticut
44. Michigan
45. Louisiana
46. Minnesota
47. Hawaii
48. California
49. Illinois
50. New York

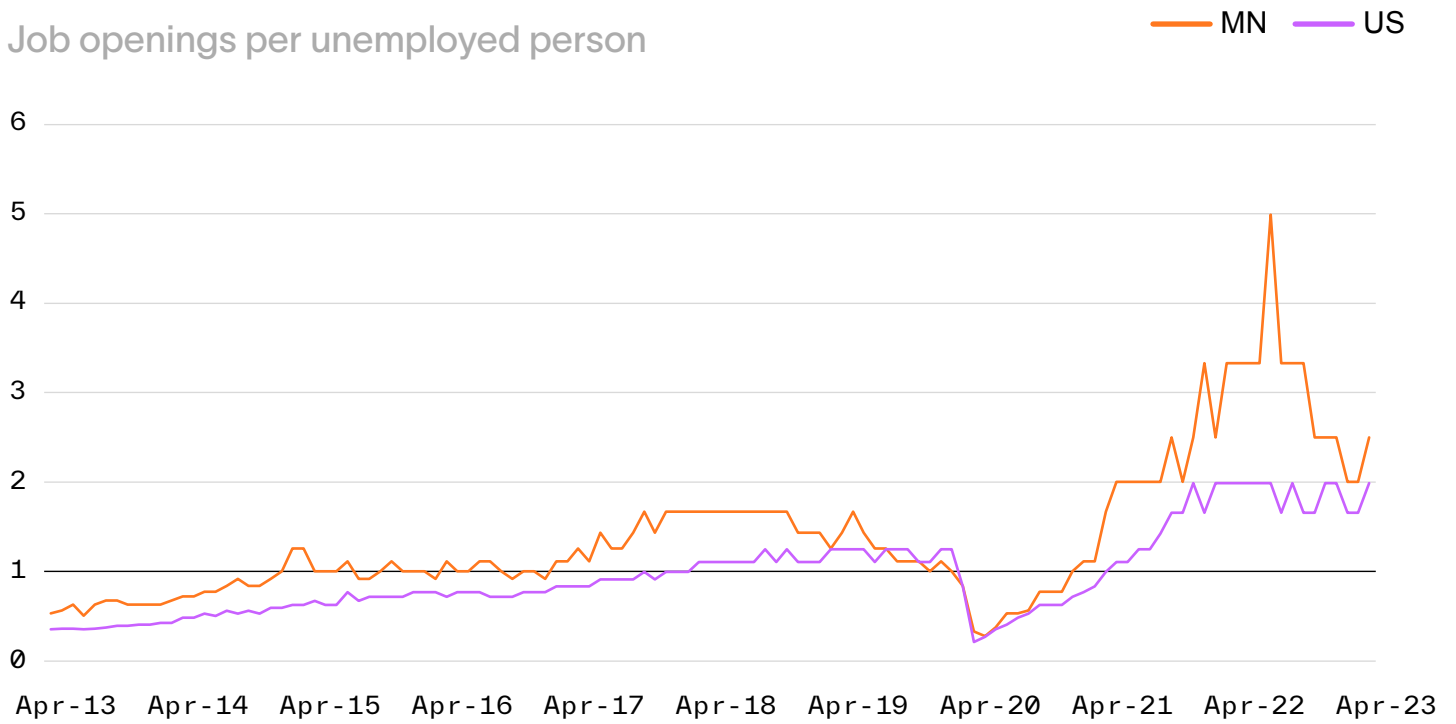
Minnesota is struggling to compete for workers. According to Lightcast's 2022 **Talent Attraction Scorecard**, Minnesota ranks 46th in attracting and retaining talent. This scorecard considers six factors: net migration, overall job growth, skilled job growth, educational attainment, regional competitiveness, and annual job openings per capita. Minnesota's near bottom ranking indicates that it is performing relatively poorly across all of these metrics when compared to other states.

Minnesota's current labor force crisis is being exacerbated by too many workers moving out of the state and not enough workers moving in. Improving talent attraction is very important for both abating current labor market tightness and heading off future tightness.

Source: Lightcast, Talent Attraction Scorecard 2022



The Minnesota labor market has been historically tighter than the broader US labor market



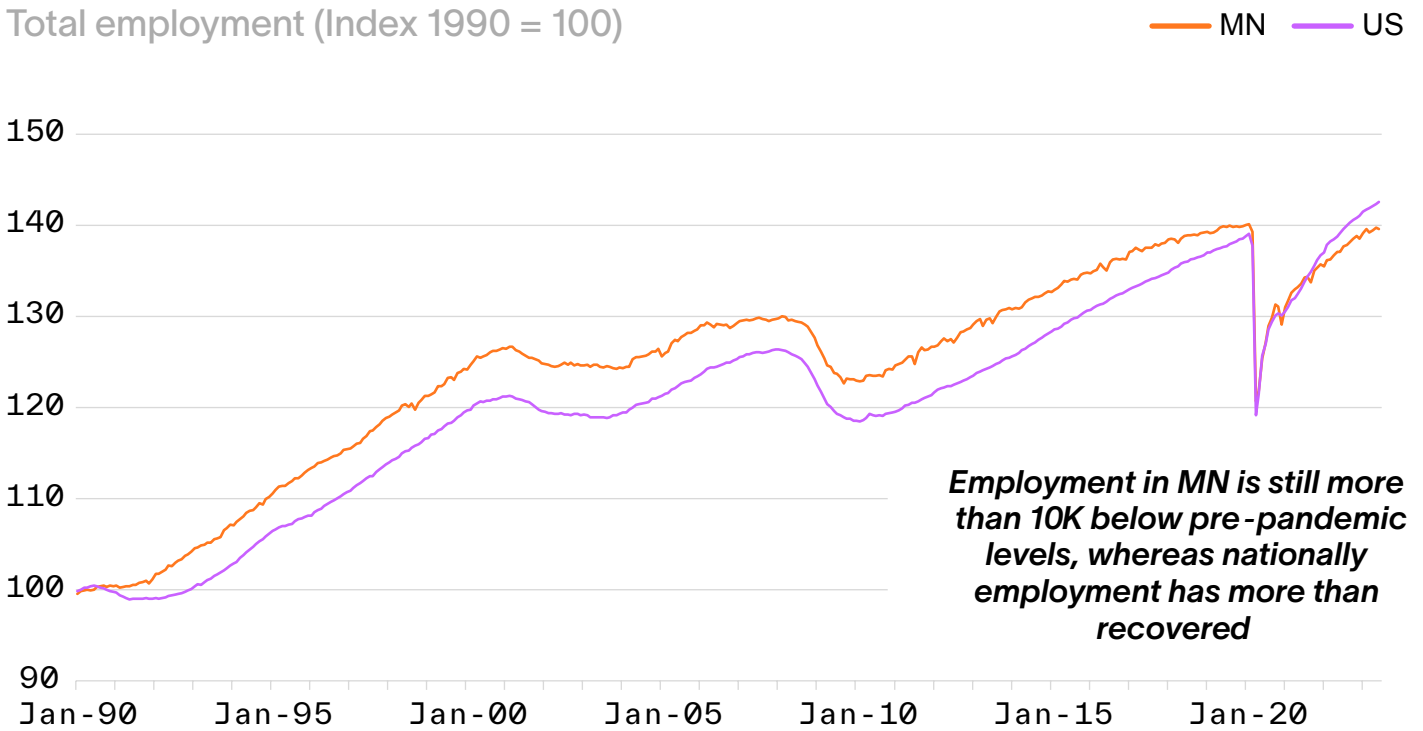
Source: US Bureau of Labor Statistics



Since 2013, the Minnesota labor market has been hotter than the broader US market for all but a few months in 2019 and 2020. Based on the trend in the number of job openings per unemployed person in Minnesota, the labor market has been tightening steadily for at least the past decade, with the only reprieve coming for a short time at the onset of COVID-19 due to lockdowns rather than a weakening labor market.

Since February 2021, the Minnesota labor market has had more than one job opening per unemployed person, indicating that employers are likely experiencing moderate to severe difficulty hiring for most open positions. In July 2022, there were 5 openings per unemployed person in Minnesota, compared to 2 openings per unemployed person nationally. This stark difference highlights just how hard it is to hire in the state.

Employment in Minnesota is not recovering as fast as total US employment post-COVID



Source: US Bureau of Labor Statistics



In terms of total employment, Minnesota is not recovering as fast as the country as a whole after the COVID-19 pandemic. In June 2023, Minnesota was still 11,500 jobs below its pre-pandemic level, but nationally employment had already more than recovered. In fact, the relative employment gap between Minnesota and the US is widening, suggesting that the state is struggling to create jobs. On top of that, Minnesota’s working age population (ages 16-64) has grown by 67,000 since February 2020. Accounting for this population increase, Minnesota’s job growth is even farther behind where it needs to be.

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Case Study: Labor shortages in healthcare are driven by lower immigration rates than the national average

Healthcare in Minnesota relies heavily on immigration:

1 out of every 3 nursing assistants

1 out of every 4 personal care aides

1 out of every 7 physicians & surgeons

Immigrant Share of Employment in Select Healthcare Occupations, 2021

Occupation	Minnesota	United States
Nursing Assistants	33.1%	21.4%
Personal Care Aides	24.1%	28.1%
Physicians and Surgeons	15.8%	26.5%
Home Health Aides	11.1%	39.8%
Registered Nurses	10.3%	16.0%

Immigrant Share of Healthcare Workers in Select States, 2021

State	Percent
New York #1	36.7%
California #2	35.2%
New Jersey #3	31.6%
Florida #4	30.4%
Maryland #5	26.4%
Minnesota #21	13.8%
Arkansas #47	3.8%
Montana #48	3.1%
Alabama #49	3.0%
West Virginia #50	2.5%
Mississippi #51	1.9%

Source:
Migration Policy Institute analysis of the U.S. Census Bureau's American Community Survey 2021



As Minnesota struggles with an exceedingly tight labor market, the importance of attracting and retaining talent from all sources is critical. Many industries rely heavily on foreign born workers to fill out their workforce.

Healthcare in Minnesota is a prime example: 13.8% of all healthcare workers in the state are immigrants. The industry sources workers at all levels from immigrant populations, from home health aides to physicians and surgeons. In certain roles, such as nursing assistants and personal care aides, that share of immigrants is significantly higher than the industry average.

With an aging population, the needs of the healthcare workforce are likely to increase. Proactive and creative workforce solutions are critical for ensuring that Minnesota has the healthcare workers that it needs. With lower immigration rates, Minnesota is likely to continue to experience labor shortages, especially in the ever-critical healthcare sector.

Factors Contributing to Minnesota's Current Labor Crisis

-  **1** Massive retirements
-  **2** Low net migration
-  **3** Misalignment between job requirements and available talent
-  **4** Accumulated wealth
-  **5** Opioids and overdoses

MASSIVE RETIREMENTS ARE THE ROOT CAUSE OF LABOR MARKET TIGHTNESS

Since 2020, Minnesota's already declining labor force participation rate has dropped off more drastically than the national rate. This steep decline, underway before the onset of COVID-19, was driven largely by retirements. In turn, the labor force participation rate of older workers 55 years and over in Minnesota plummeted, dropping 2.8 percentage points between 2019 and 2022. This decline was far greater than the US average of a 1.4 percentage point drop in the labor force participation rate of older workers.

All told, this amounts to a significant number of retirees leaving the workforce in Minnesota. These retirees are likely to stay out of the workforce as the Boomer generation holds significant wealth and can afford to leave the labor force permanently without financial hardship. Increasing wages will likely not entice this group to return to work, so employers and policymakers should consider other strategies and motivators to help slow this decline in workforce participation.

LOW NET MIGRATION SHRINKS MINNESOTA'S PRIME-AGE WORKFORCE

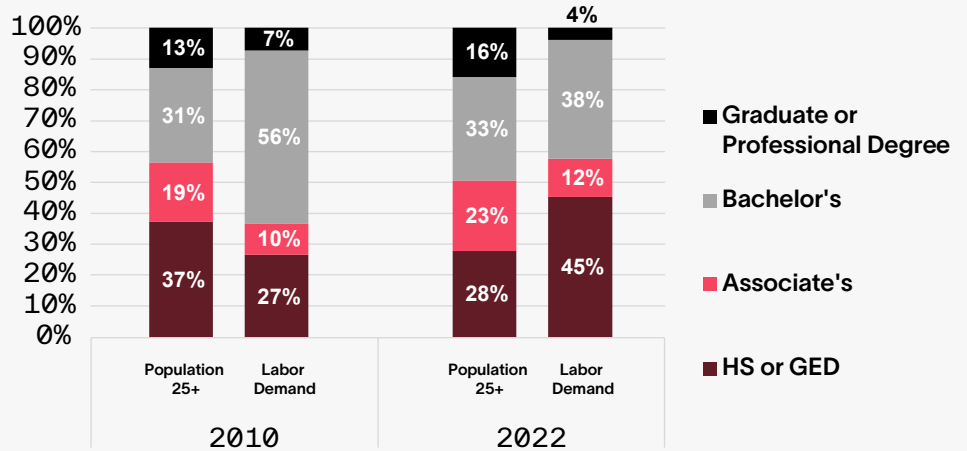
Minnesota has experienced negative net migration in recent years. With total net migration of -17,365 between 2020 and 2022, Minnesota is in the top 10 states with the highest domestic outflows in the US. Without positive net migration, either from other parts of the US or from abroad, Minnesota finds itself with a shortage of workers.

International migration, while historically low, is a source of prime-aged workers for Minnesota. The age distribution of immigrant workers in the state skews far younger than native born workers. As Minnesota's workforce ages, migration of all types will be important for sustaining and growing the pool of workers.

Retention of current residents plays strongly into this scenario. Minnesotans are being drawn away to other states, often for reasons like cost of living, employment opportunities, warmer weather, or other driving factors. If Minnesota can keep more workers in the state, rather than losing them to other states and countries, this would reduce the problem of a vanishing workforce.

In Minnesota, there is now more demand for lower-skilled roles than potential persons able to fill them

Population 25+ and Labor Demand in Minnesota, by education level



Source: IPUMS Current Population Survey and calculations by Lightcast

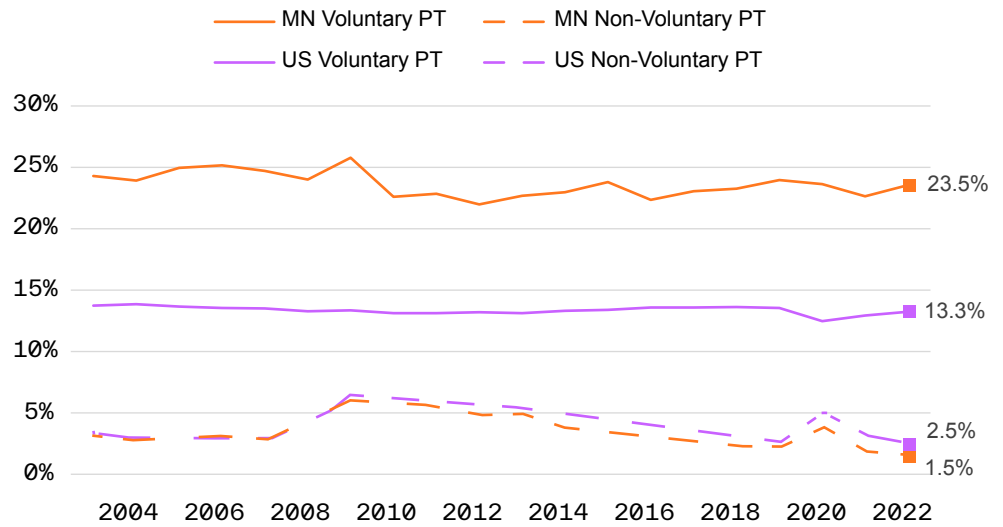


Minnesota has a highly educated workforce: 49% of Minnesotans 25 years and older had a Bachelor’s degree or above in 2022. Society has pushed the importance of higher education for decades, however, there are still many job openings in Minnesota’s labor market that do not require a college degree. In 2022, 45% of open jobs in Minnesota required a high school diploma or equivalent. At the same time, only 28% of adults 25 and over were in that educational category. Ideally, we would want to strike a balance between labor supply and labor demand when it comes to educational attainment, but that is currently not the case.

This misalignment of labor supply and labor demand with respect to education has emerged in the last decade. In 2010, the story was flipped: Minnesota had more adults holding only high school diplomas than jobs requiring that level of education. To re-balance the scales, Minnesota’s employers, educators, and policymakers can help by crafting positive messaging for younger generations about possible career paths in occupations that do not require a college degree. Not changing current narratives around education risks exacerbating this misalignment problem even further.

Over a fifth of workers in Minnesota are choosing to work part-time

Part-time workers as a share of total employment



Source: IPUMS Current Population Survey



PART TIME WORK AS A POSSIBLE SOLUTION

Part time work typically falls into two categories: voluntary part time and involuntary part time. Voluntary part time workers are those who prefer to have only part time hours, such as youth, seniors, and others whose life circumstances may make part time work a good option. Involuntary part time workers are those who are working part time hours, but desire full time work. Often, involuntary part time work increases when there is an economic downturn and companies cut back on worker hours to weather the hard times.

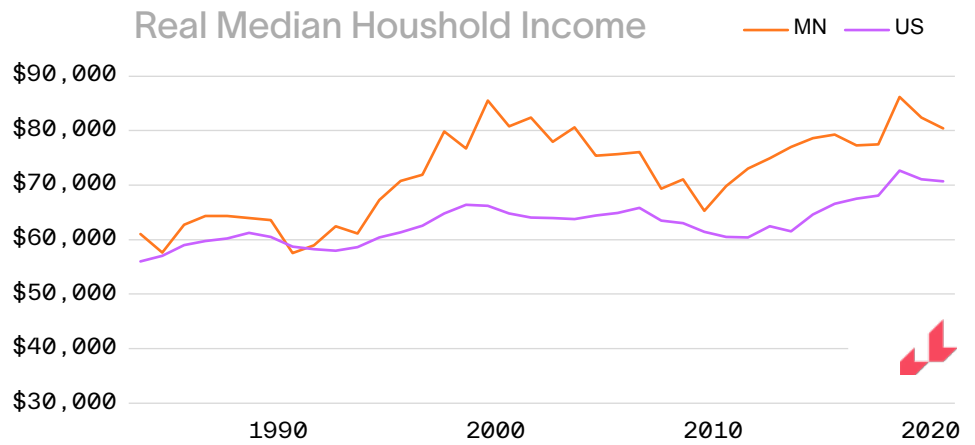
In Minnesota, as in the rest of the US, involuntary part time work is exceedingly rare, and has held steady at low rates of 1.5-3% of workers since the recovery from the Great Recession. There was a very modest spike in early 2020 when many employers augmented schedules to accommodate safety protocols during the COVID-19 pandemic.

As significant numbers of Boomers enter retirement, might they be interested in working part time? Voluntary part time work is what we would expect to see rising if older workers were willing to stay in the labor market at some reduced capacity rather than retiring and dropping out completely. There has been little change in voluntary part time work, however, with over 20% of those employed in Minnesota falling in this category.

Employers that offer part time opportunities could more effectively attract older workers from the sidelines and increase the probability that they will extend their working life. Phased retirement programs, for example, allow older workers to scale back to a part time schedule. Such tactics would ease some of the labor market strain, as the economy needs more older workers to remain attached to the labor market in at least a part time capacity to stem the labor market tightness that is gripping Minnesota.

Real median income is high in Minnesota, surpassing the national average

Source: US Census Bureau

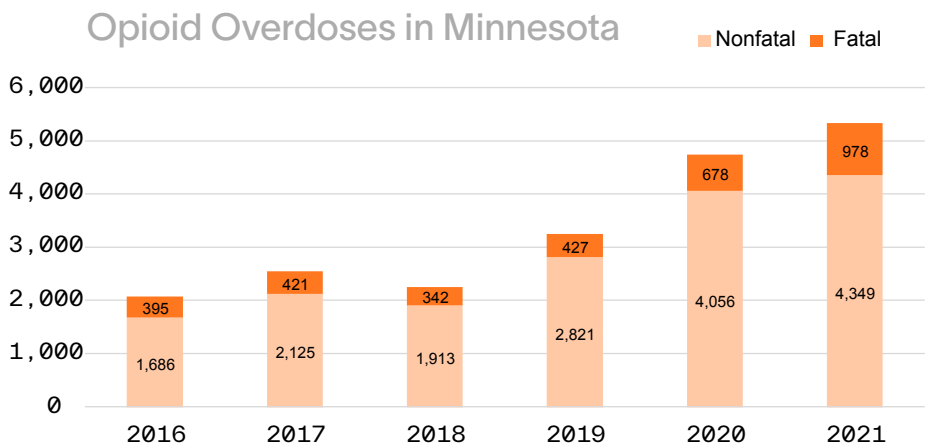


ACCUMULATED WEALTH DISINCENTIVIZES WORK

In Minnesota, real median household income stands at about \$80,000 per year, 14% higher than the national average. The Boomer generation was money focused and drove huge gains in income and wealth, reducing work incentives for future generations. As Boomers age into retirement and beyond, it is estimated that they will pass on \$68 billion in accumulated wealth to their children and grandchildren. This huge transfer of funds will induce recipients to work less, or to leave the workforce entirely, contributing even further to the declining labor force participation rate both now and in decades to come.

Opioid overdoses in Minnesota have increased at an alarming rate since 2018

Source: Minnesota Department of Health Drug Overdose Dashboard



THE OPIOID CRISIS REDUCES ELIGIBLE WORKERS

Overall, Minnesota’s opioid related overdose rates rank among the lowest in the nation. However, that is not to say that opioids have not had a notable impact on labor force participation in the state. Opioid related deaths in Minnesota have increased at an alarming rate since 2018. In 2021, an estimated 5,100 working age persons were out of the Minnesota labor force due to fatal and nonfatal opioid overdoses, and the fatality rate of all drug overdoses continued to climb between 2020 and 2021. The opioid crisis has had a devastating effect on people’s lives. Its second order impact on the labor force just gives another reason to do everything possible to stop and reverse it.

SECTION



Where are we headed?



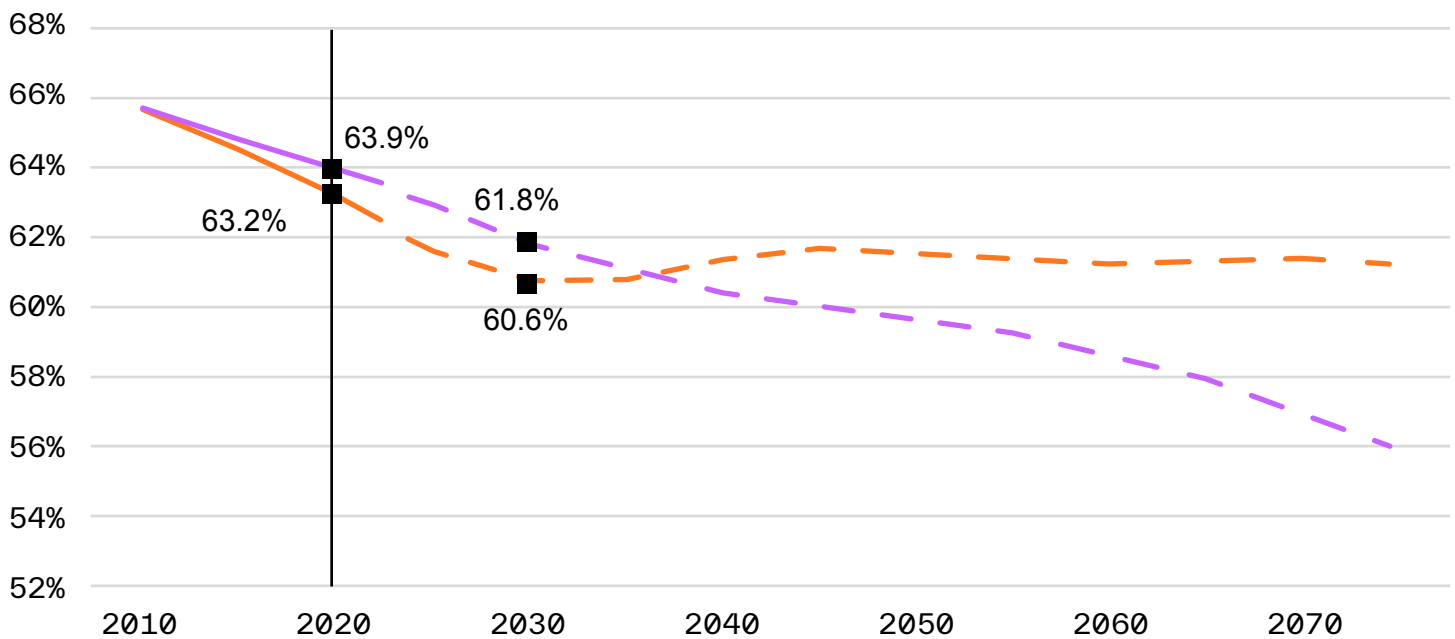
Shifting demographics, declining net migration, and falling workforce participation contributing to Minnesota's current labor crisis are also shaping the state's economic future. The implications—slower population growth, declining college enrollments, lower employment gains, and lower economic growth—are grim.

MINNESOTA WILL CONTINUE AGING MORE RAPIDLY THAN THE NATION AS A WHOLE

Over the last decade, the working age share of the population (ages 16–64) has been declining more rapidly in Minnesota than the US average. By 2030, only 61% of Minnesota's total population will be within working age, down from 66% in 2010 (see below). Indeed, more Minnesotans will age out of working age during 2020–2030 than during any other period, making it the most challenging time for employers to recruit and retain workers.

Between 2020 and 2030, Minnesotans will age more rapidly than during any other period

Working age population (16–64) as a share of the total population — MN — US



Source: Minnesota State Demographic Center, US Census, UN World Population Prospects 2022, and calculations by Lightcast

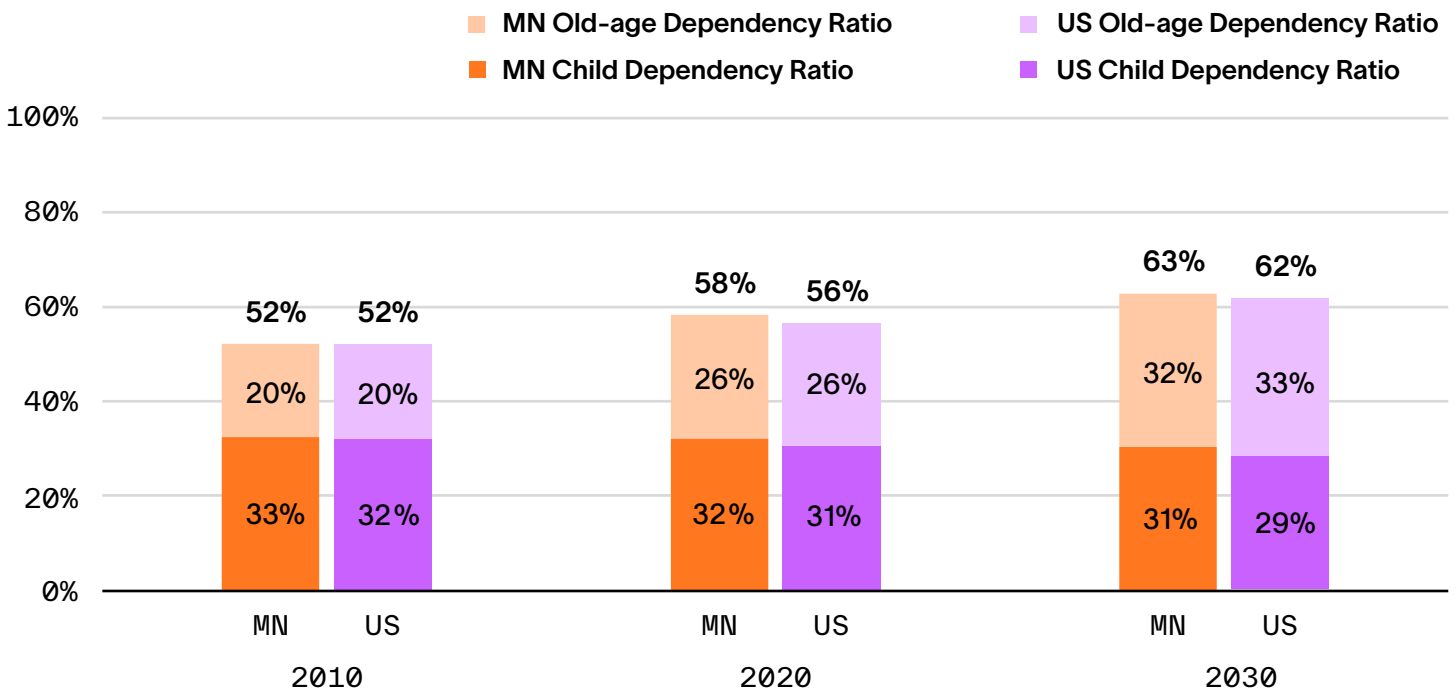


...AND WILL HAVE FEWER PEOPLE AVAILABLE TO WORK TO SUPPORT DEPENDENT POPULATIONS

A smaller working age population puts more pressure on those who are working to support dependent populations and can lead to economic slowdown. By 2030, Minnesota will have a total dependency ratio of 63%, which measures the proportion of children (0-15) and older adults (65+) to the working age population (see below). Retirement age adults 65 and older will increase from a fifth of Minnesota's working age population in 2010 to nearly a third in 2030. And by 2030, Minnesota will have only 1.6 working age individuals per dependent, down from nearly a 2:1 ratio in 2010. Critically, through the end of the decade, the state will face a greater economic burden to provide the social services needed by children and older persons.

As Minnesota's population grows older, increases in old-age dependency ratios indicate added pressures on social services

Total Dependency Ratio and its Components (children 0–15 and older adults 65+ as a share of the working age population 16–64)



Source: Minnesota State Demographic Center, US Census, UN World Population Prospects 2022, and calculations by Lightcast



Fewer people means fewer college enrollments

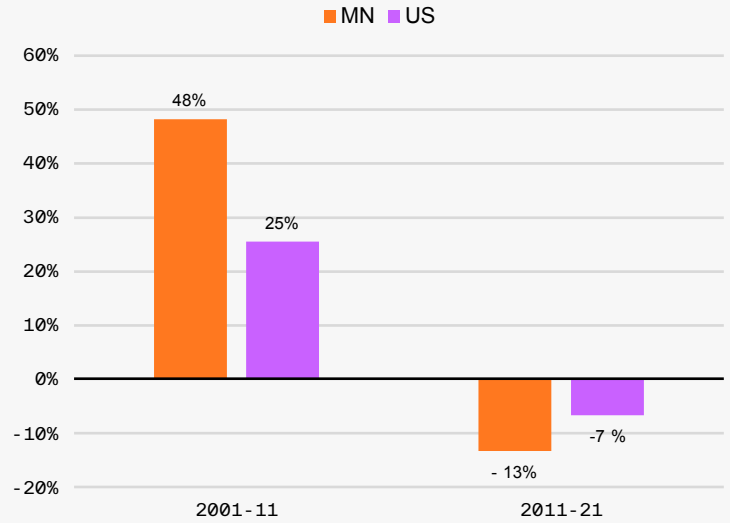
Percent change in fall college enrollments, by type of institution

Source:
National Center for Education Statistics

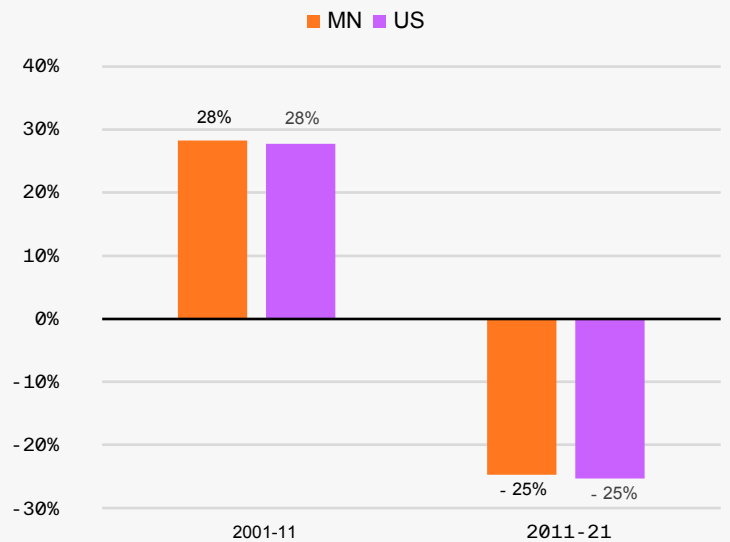
FEWER PEOPLE MEANS FEWER COLLEGE ENROLLMENTS AND A WORKFORCE WITH FEWER SKILLS

In the last ten years, college enrollments in Minnesota have declined more sharply than total US enrollments (see right). According to the [National Student Clearinghouse Research Center](#), there were over 28,000 fewer Minnesotan college students in Fall 2022 than there were in 2019. That's a 10% decline in the state compared to a US average drop of 6%. And in the 2021 academic year, there were 2.9% more "stopped out" students—those who left Minnesota colleges with some credits but no degree—than the previous year. Shifting demographics are behind enrollment declines: As a result of living below the 2.1 total fertility replacement rate, there are simply fewer and fewer college age adults. On top of that, a tight labor market offering attractive wages has steered many students away from school to work.

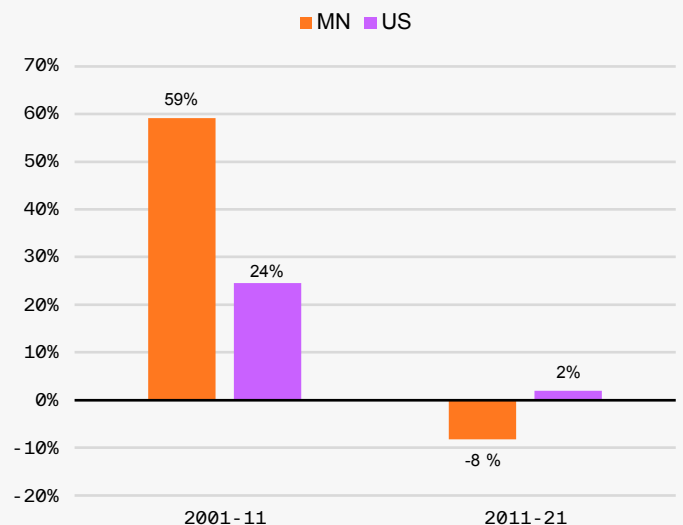
All Institutions



2yr Institutions



4yr Institutions



Four-year college enrollments in Minnesota have fallen 8% over the past decade, but what is most alarming is Minnesota's 25% drop in enrollment at 2-year community colleges and technical schools during that same time. These schools provide critical vocational training and skills needed for the growing share of jobs that require less than a bachelor's degree. They also **tend to service** more low-income and minority students, students raising children, and people who are working.

Looking ahead, more stop outs and lower college enrollment overall means that we will potentially see a generation that will enter Minnesota's workforce with lower education, fewer skills, less employability, and depressed productivity and earnings.



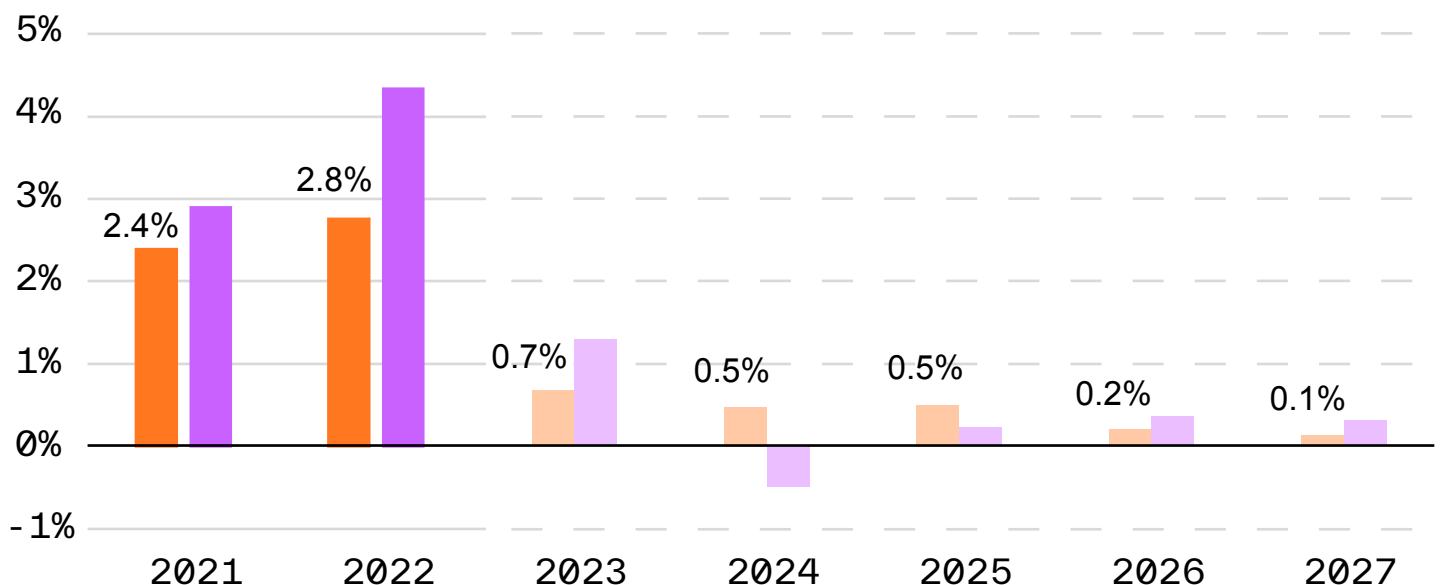
EMPLOYMENT GAINS WILL SLOW

Slower growth in Minnesota's working age population (16-64), lower immigration rates, lack of adequate skills, and continued advances in AI and other technologies will translate into lower future employment gains. Indeed, annual job growth in Minnesota is projected to decline through 2027 (see below).

Slower growth in Minnesota's working age population implies slower employment growth

Annual Percent Change in Employment

■ MN ■ US

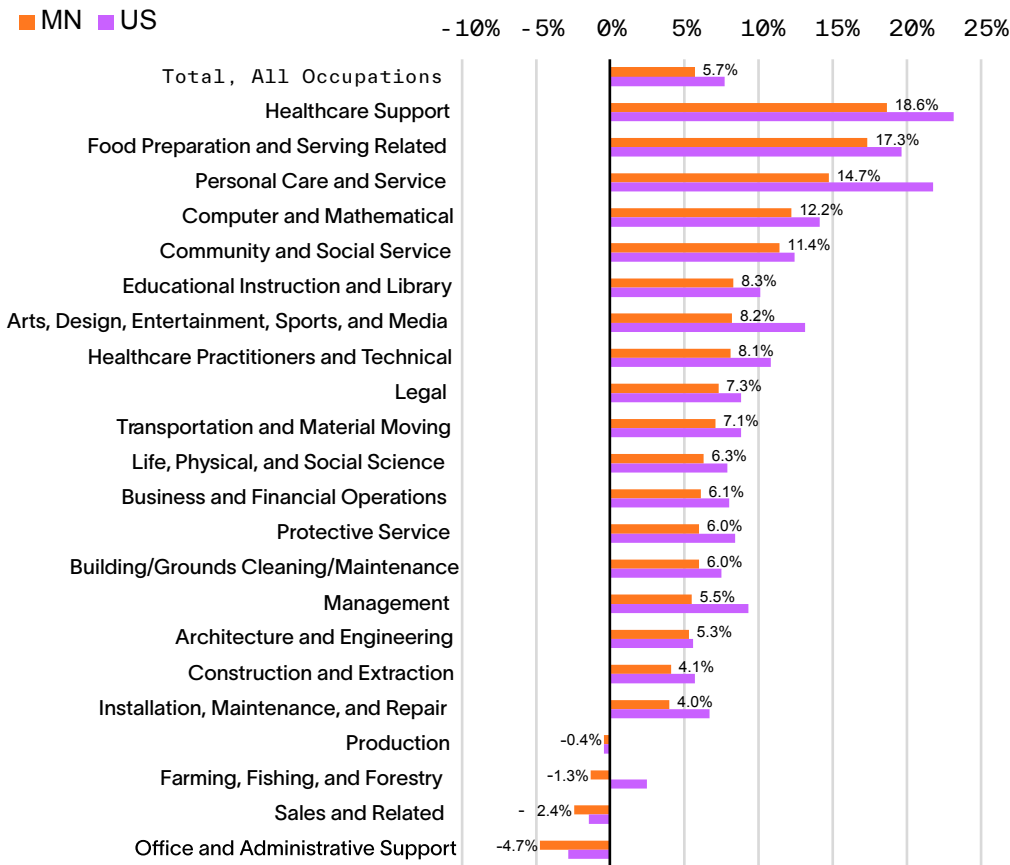


Source: Minnesota Management and Budget, February 2023 Budget and Economic Forecast



Between 2020 and 2030, job growth in Minnesota will be most robust in healthcare support, food service, personal care, and computer and mathematical occupations

Projected percent change in employment, 2020-2030



Through the end of the decade, overall employment growth in Minnesota (5.7%) is projected to be 2 full percentage points (pp) lower than US average job growth (7.7%). The largest growth deficits compared to the US average will be in personal care and service occupations (-7.0 pp); arts, design, entertainment, sports, and media occupations (-4.9 pp); healthcare support occupations (-4.5 pp); management occupations (-3.8 pp); and farming, fishing, and forestry occupations (-3.8 pp) (see left).

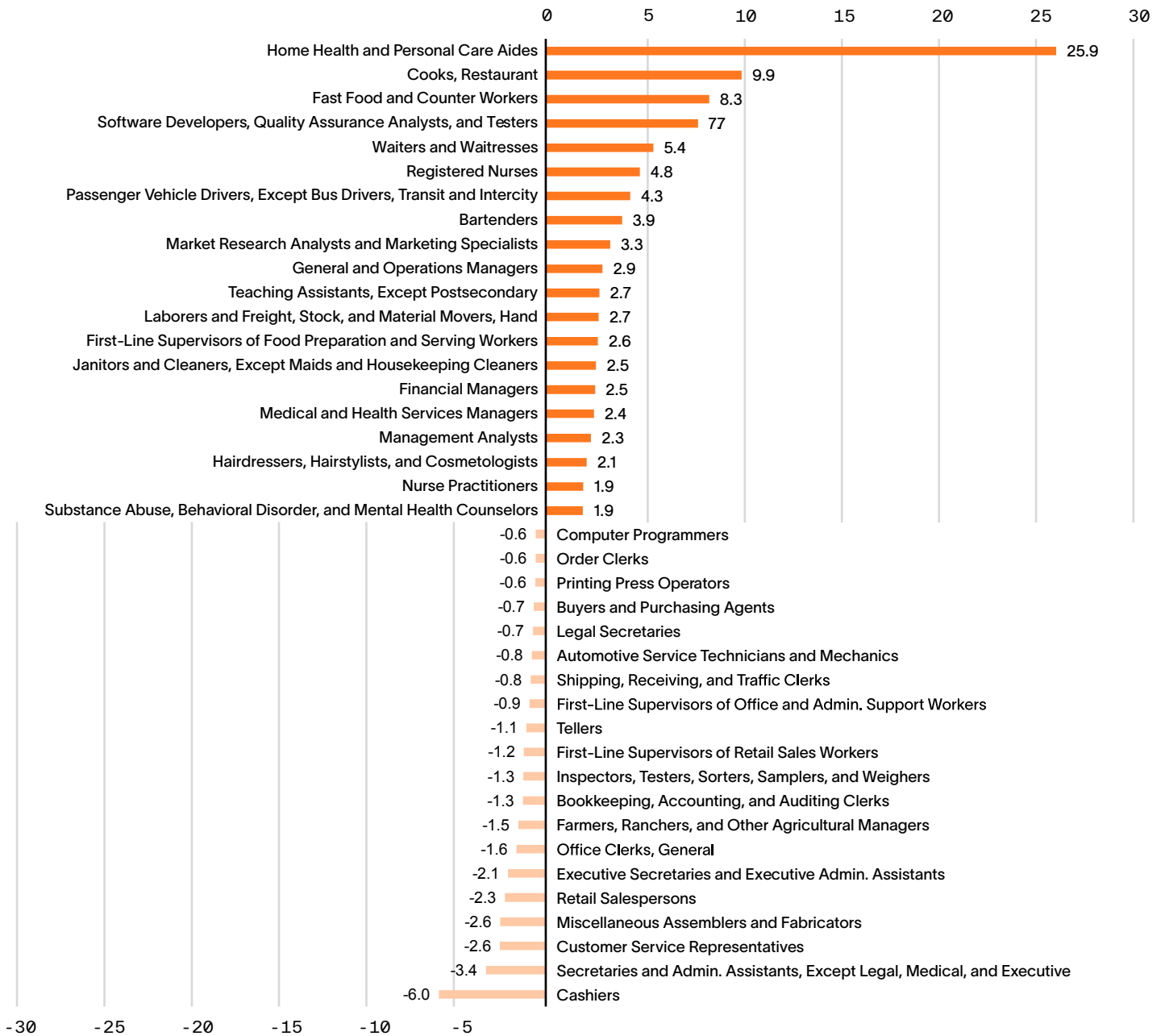
Source: Minnesota Department of Employment and Economic Development Employment Outlook and US Bureau of Labor Statistics



Despite relatively lower job growth, the sheer number of Minnesotans that will be needed to fill in-demand roles is astounding: Through 2030, an estimated 214,000 new jobs will be created, compared to “only” 45,000 jobs lost. Job increases in Minnesota will be most robust in healthcare support, food service, personal care, and computer and mathematical occupations. By 2030, for example, the state will need 25,900 more home health and personal care aids, 9,900 more cooks, 7,700 more software developers and testers, and 4,800 more registered nurses (see next page). Many top roles are professional, service, and support-related jobs that employ a significant share of immigrants.

In-demand roles will require an astounding number of Minnesotans

Projected change in employment, in thousands, 2020-2030



Source: Minnesota Department of Employment and Economic Development Employment Outlook



In contrast, sales, administrative, and clerical jobs that are easily automated will see the largest job losses. Workers in these roles will require upskilling and reskilling to keep pace with the tech-driven demands of an ever-changing digital economy.

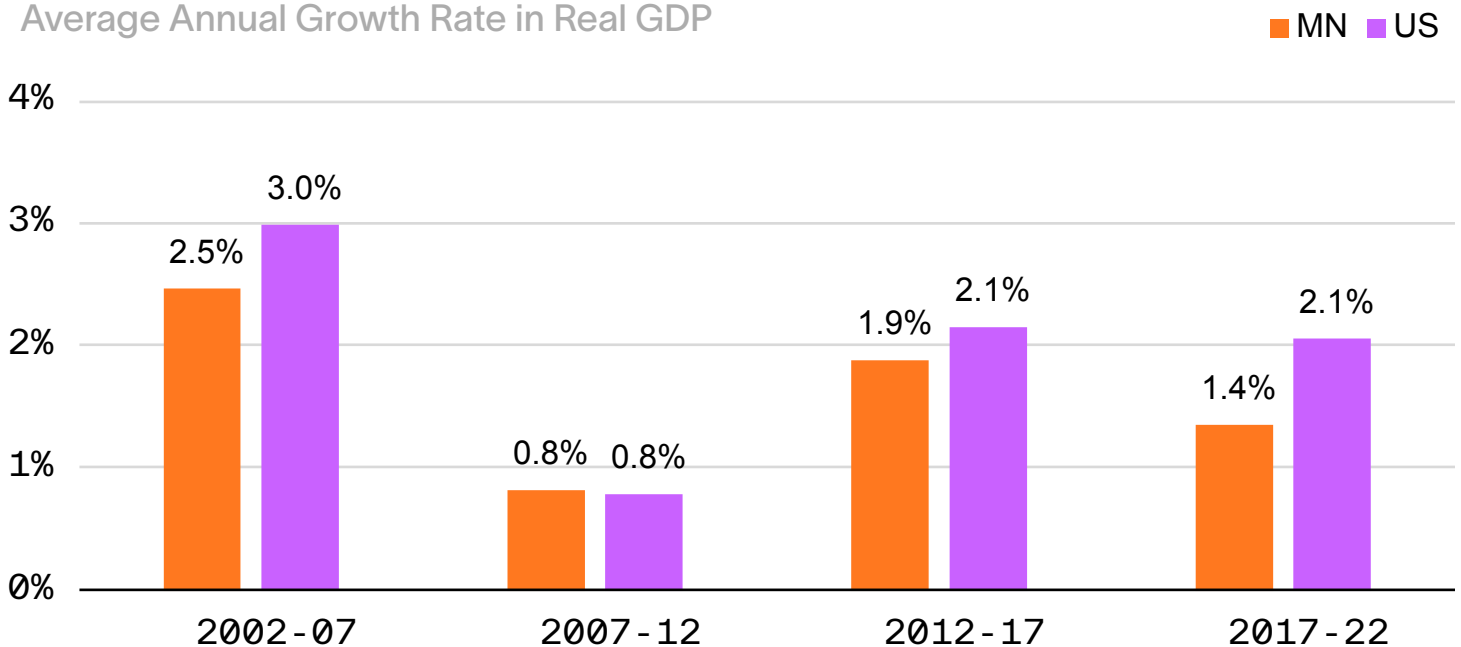
SUSTAINING THE PACE OF ECONOMIC GROWTH WILL BE MORE DIFFICULT

By constraining employment, demographic shifts pose risks to Minnesota's future economic growth. Over the last 20 years, the state's rate of economic growth has typically lagged the nation's. And over the last decade, the gap between Minnesota and overall US economic growth has widened (see below).

The economic rebound since the pandemic, in particular, could be hampered not only by a lack of people, but also by the lack of adequate skills. The acceleration in automation and AI has in turn accelerated the shift in skills demanded by employers. Ensuring that the Minnesotan workforce is ready for the speed of change that technology will bring will be imperative to the state's future standard of living.

Economic growth in Minnesota has typically lagged the nation's

Average Annual Growth Rate in Real GDP



Source: US Bureau of Economic Analysis



SECTION



3	4	9	7	6	8
6	6	0	6	6	6
2	7	9	2	1	1
2	7	0	0	1	1
3	3	8	8	8	8
4	4	5	0	0	0

6	8	5	6	3	4	9	7	6	8
8	0	1	0	6	6	6	0	6	6
6	8	6	1	5	2	7	9	2	1
2	3	8	8	7	2	7	0	0	1
0	9	9	4	0	7	3	3	8	8
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8	8	8	8	8	8	
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How to move forward?



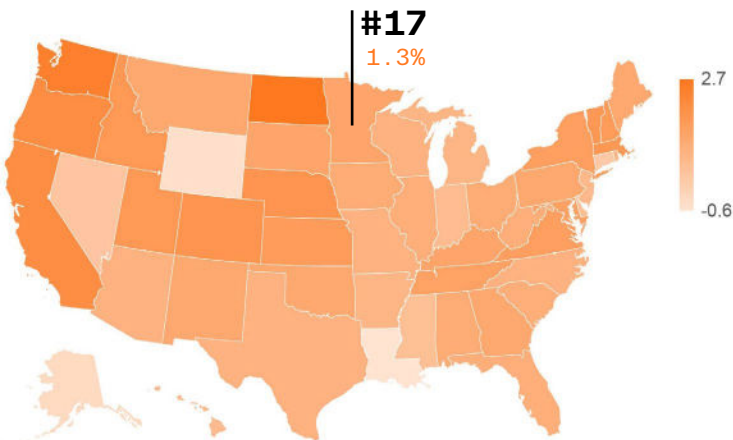
Mitigating the economic impact of Minnesota’s Demographic Drought will require partnerships between government, businesses, and educators that *attract and retain the limited talent that is available and make more workers more productive*. If Minnesota’s private and public leaders can successfully tap into—and hold onto—a broader swath of workers, increase net migration, and engineer additional productivity gains through skill building and innovation, the state can lessen the expected economic blow of having fewer eligible workers.

Increasing productivity will be key to future economic growth

Over the last 15 years, labor productivity in Minnesota has increased 1.3% per year, ranking #17 nationally (see below left). What is notable is that annual productivity growth surged a full percentage point in Minnesota from 1.1% in 2007-2019 to 2.1% during the COVID-19 pandemic in 2019-2022 (see below right). By contrast, overall US productivity growth accelerated only marginally (.3 percentage points) during the pandemic years, and in fact fell (-1.6%) in 2022. For Minnesota, sustaining the robust productivity rates of the last three years associated with innovative business models, digitization, and automation will be key to mitigating looming labor shortages and sustaining growth.

Labor productivity in Minnesota has grown only modestly over the last 15 years, well below the nation’s 2.1% historical average

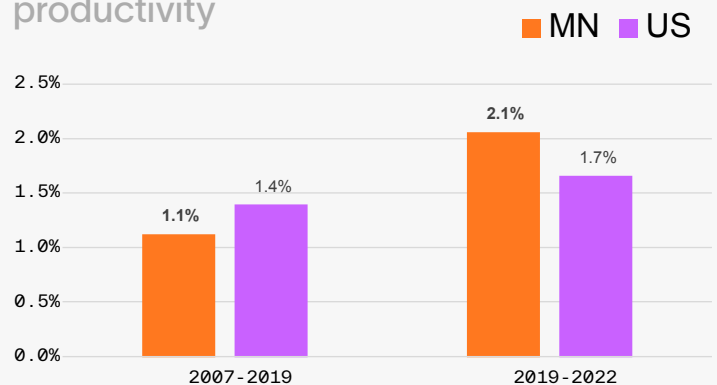
Average annual percent change in labor productivity, 2007-2022



Source: US Bureau of Labor Statistics

Maintaining Minnesota’s robust productivity rates of the last 3 years will be key to mitigating labor shortages

Average annual percent change in productivity



Source: US Bureau of Labor Statistics

Strategies for drawing in more workers and making them more productive

In its simplest form, economic growth can be achieved by either adding more workers to produce more, or by increasing production per worker (i.e., labor productivity). Both are levers that Minnesotan leaders will have to pull on relentlessly to minimize the economic burden of demographic shifts. However, slower population growth necessarily limits the first option: if there are fewer people working, then each individual needs to be more productive to maintain—and improve—living standards. Lasting productivity gains will come from investments in equipment and technology, and from investments in people by raising their skills and competencies.

Here are five key workforce strategies for both widening talent pools and making workers more productive:

1. GET MORE PEOPLE INTO THE WORKFORCE, AND KEEP THEM THERE

Easier said than done, but business leaders must recruit beyond traditional demographics to reach “missing workers” and other overlooked populations who are sitting at the margins of the labor force, including youth, immigrants, persons with disabilities, and older workers. Adjusting hiring requirements to focus on skills rather than degrees, adopting flexible work arrangements, and making special accommodations for physical, language, or other barriers to employment can open additional talent pools. Formalizing career pathways and developing tailored support programs for vulnerable employees can also go a long way toward retaining hard won workers.

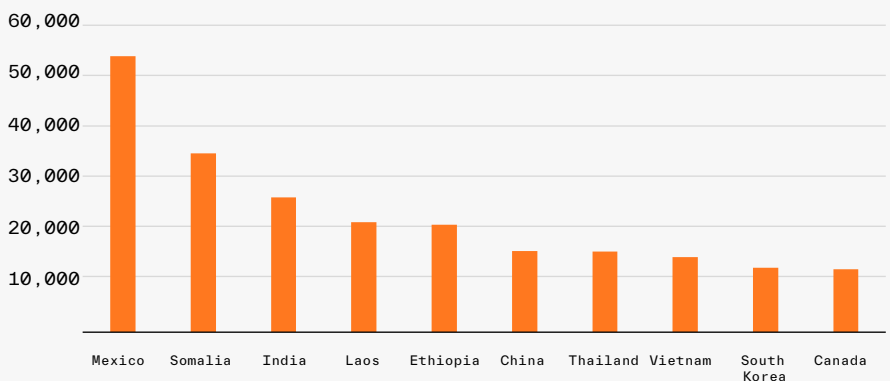
Educators can boost both student enrollment and workforce participation by partnering with businesses to ease school-to-work transitions and diversify talent pipelines. Delayed entry into the job market and a growing disconnect between education outcomes and labor market demand has contributed to growing shares of employers reporting difficulty finding qualified workers. Educators that engage with employers to develop apprenticeship and internship programs—including for adult learners and overlooked talent pools—can help transition more people into employment.

Governments can bolster the labor force by implementing targeted labor market policies that help marginal groups enter the workforce, stay in it longer, and increase workforce participation. Developing tailored on-ramping programs, for example, can help vulnerable populations connect education and career opportunities.

Yet even relatively simple tactics by governments, educators, and employers, such as investing in English-as-a-second language training, can expand talent pools. In Minnesota, 41% of immigrants in 2021 reported speaking English less than “very well.” Due to the large proportion of immigrants that hail from Somalia (see below), Somali and other Cushitic languages from Africa are the most common languages spoken in the state behind English and Spanish. Offering English classes, either through a public program or as a recruitment tactic, can attract non-English speaking immigrants to the labor force. Improved English proficiency in the longer-term can also contribute to further career progression among immigrants.

Recruitment strategies should be tailored to specific local populations, such as offering English-as-a-second language training for immigrants

Immigrant populations of working age (16-64 years) in Minnesota, 2021



Source: US Census, American Community Survey



Combined, all of these efforts can have tangible results. For example, increasing the labor force participation rate of Minnesota’s prime-age workers (ages 25-54) by 2 percentage points—closer to levels seen in the early 2000s—would increase the size of the prime-age workforce by 43,000 workers. Similarly, raising participation rates of older (55-64) and younger (20-24) workers by 2 percentage points would add 14,200 and 7,000 eligible workers in these age ranges, respectively. Taking all age groups (16+) together, a 2-point bump in Minnesota’s overall labor force participation rate would augment the labor force by more than 90,000 Minnesotans.

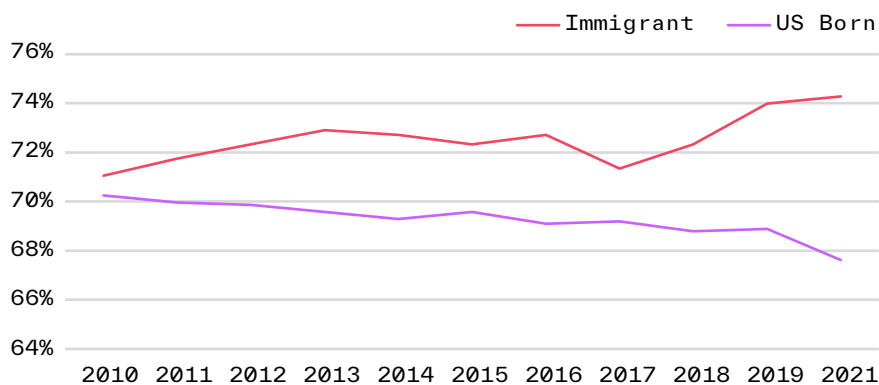
2. INCREASE NET DOMESTIC AND INTERNATIONAL MIGRATION

Ebbing domestic migration out of the state and increasing immigration from abroad can help combat Minnesota's labor shortage. According to the US Census Bureau, between 2010 and 2021, immigrants accounted for over half of Minnesota's labor force growth, compared to only 28% of total US labor force growth. While immigration has rebounded since the height pandemic, the state's net international migration rate in 2022 (2.5%) was still well below its 2015 peak (3.1%). Returning to 2015 levels of immigration would attract about 20,000 additional working age individuals through 2030.

Data suggest that policies aimed at increasing immigration would effectively boost the Minnesotan workforce, especially in key occupations. About 60% of the immigrant population in the state was of prime working age (25-54) in 2021, compared to only 36% of the state's native born population. Immigrants in Minnesota have also had much higher labor force participation rates than natives over the last decade, and that gap has only widened (see below). Further, immigrants in Minnesota make up over a fifth of employment in healthcare support occupations, 18% in computer and mathematical occupations, and 14% in food service occupations—all jobs that are projected to need thousands of additional Minnesotans through the end of the decade (see next page).

Immigrants in Minnesota have much higher workforce participation rates than native born workers

Labor force participation rates, Minnesota



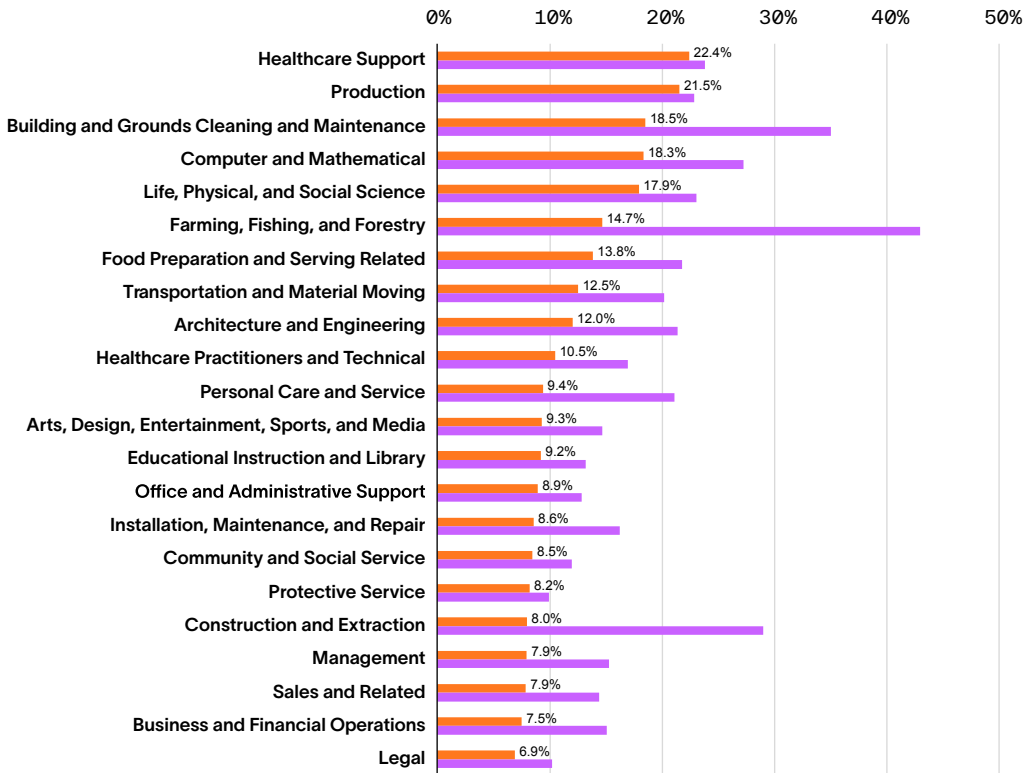
Note: 2020 data for immigrants is not available and is imputed. ACS estimates were not published in 2020 due to significant challenges collecting data during the COVID-19 pandemic.

Source: US Census Bureau, American Community Survey



Immigrant share of employment, by occupation, 2021

■ MN ■ US



Source: US Census Bureau, American Community Survey

Immigrant's share of employment in Minnesota is among the highest in occupations that are projected to grow the most, including healthcare, computer, and food services occupations



Yet without appropriate action by American policymakers, severe labor shortages will persist. The **United Nations** projects that the overall net immigration rate in the US will decline by more than a percentage point by 2040. Other developed economies with shrinking populations will also face a significant slowdown in immigration, but many have enacted policies that facilitate or encourage it. (See box "Policies in Germany, Canada, and Japan aim to increase immigrants to offset low birthrates and boost the labor force.") Taking lessons learned from innovative policies abroad could prevent the most severe labor shortages, especially in high-demand occupations.

State policies that improve access to affordable housing or public transit can also attract residents domestically, and keep labor supplies within Minnesota's borders. Research finds that the recent **labor and housing crises are linked**: affordable housing can increase job growth while low housing affordability can stymie it.



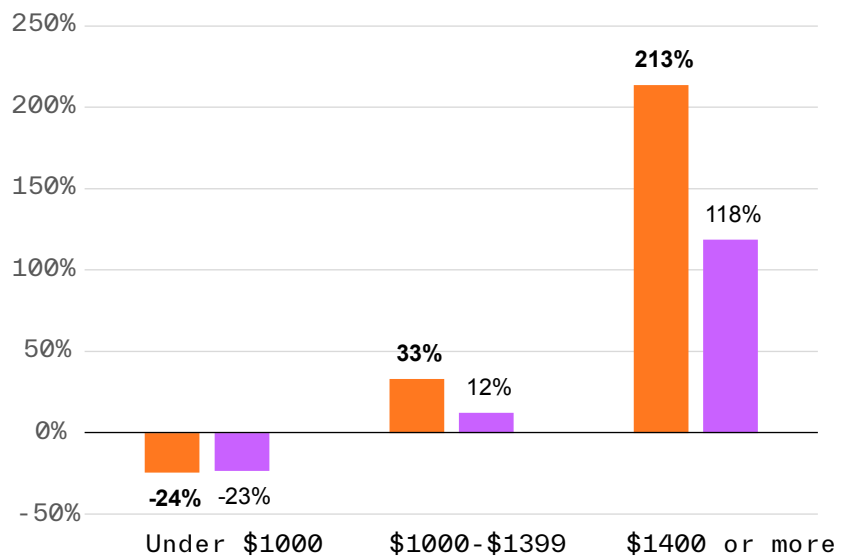
This implies that the decline in affordable housing in Minnesota over the last decade has likely deterred both domestic and international migration. Single-family home prices in Minnesota grew 4.8% annually between 2012 and 2019. Annual price increases then surged to 9.3% between 2019 and 2022 during the pandemic. Most critically, the supply of lower cost rental units below \$1,000 per month plummeted 24% over the last decade while the number of higher-end rentals skyrocketed (see below). Increasing the supply of lower-cost housing would alleviate some of the labor shortage problem.

The decline in affordable rental units in Minnesota over the last decade has likely deterred domestic and international migration

Percent change in supply of rental units, by real monthly rent, 2011-2021

■ MN ■ US

Source: Harvard Joint Center for Housing Studies tabulations of US Census Bureau, American Community Survey 1-Year Estimates



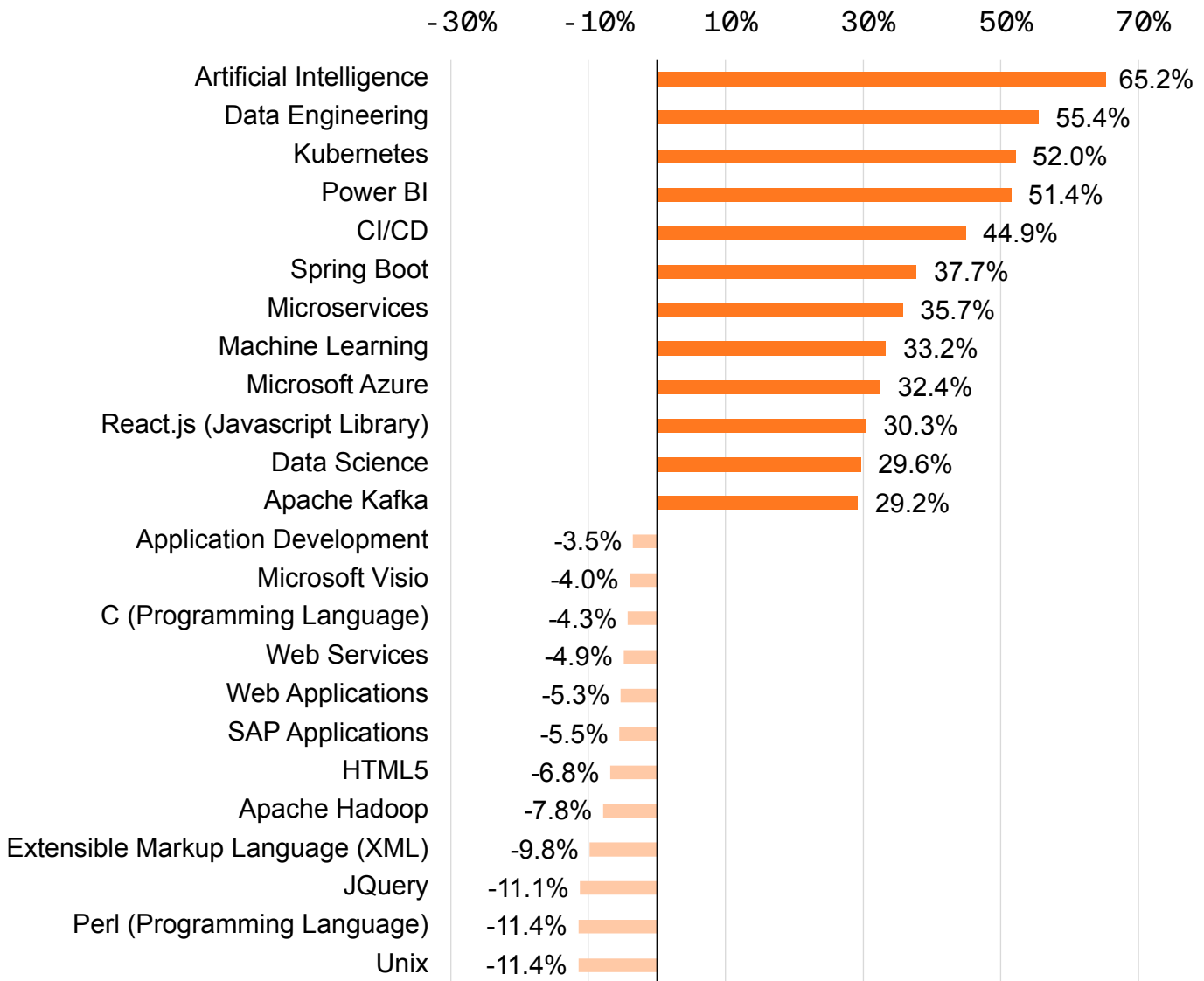
3. INCREASE THE SKILLS OF THE WORKFORCE

Reskilling and upskilling employees into greater value-added tasks will further drive productivity and growth. More than ever before, employers must be committed to growing their own talent by assessing future skill and technology needs and building talent pipelines.

Over the last five years in Minnesota, job posting data from Lightcast show that employer demand for skills related to automation, AI, and cloud storage/computing grew the fastest among computer and mathematical occupations (see next page). In contrast, skills related to mainstream or older technologies declined.

In Minnesota, skills related to AI, automation, and cloud storage/computing grew the fastest among computer and mathematical occupations

Hot and cold skills, computer and mathematical occupations, Minnesota
(average annual percent change, 2017-22)



Source: Lightcast

Note: Average annual percent change of skill mentions in job postings for computer and mathematical occupations



These trends, however, are not confined to tech-related roles. During the fast-paced digital transformation of the last several years, skills such as AI, data engineering, Kubernetes, and PowerBI were also among the top ten fastest growing skills across *all* occupations in Minnesota. Lightcast data also show that the prominence of tech-related skills has led to growing employer demand for complementary “human” or “soft” skills that cannot be automated.

Employers can start by developing more robust reskilling, upskilling, and on-the-job training programs. Often, expanding talent pools means reducing education or experience requirements and instead hiring for foundational skills, all while increasing training to fill knowledge gaps.

Institutions, especially community colleges and trade schools, can help fill these gaps by offering short-term stackable training opportunities well-suited for working students. The growing emphasis on skills rather than degrees in job markets also provides incentives for state governments to develop a system of **state-approved non-degree credentials** that encourage reskilling and workforce participation.

4. IMPROVE ALIGNMENT BETWEEN JOB REQUIREMENTS AND AVAILABLE TALENT

For employers, a growing mismatch between skills sought and taught has made finding qualified workers more and more difficult. Companies can cultivate connections with local high schools, trade schools, and universities to improve the content of training programs and offer internships and apprenticeships.

Educators and other training providers must partner with employers to design curricula and training for in demand skills. Public policies, in turn, can provide incentives for universities and businesses to jointly develop and deliver work-based learning that fosters workplace skills. State governments can also improve job market alignment by increasing access to state sponsored internships and apprenticeships, and requiring **work-based learning** as early as K-12 for innovative, labor-market informed approaches to early student career preparation.

5. EMBRACE TECHNOLOGY AND INNOVATION

Learners and workers that have access to the latest technologies and have the skills to innovate with them can lead to groundbreaking research, technologies, and business models that can mitigate some of the economic drag from worker shortages.

But this isn't just about inventing new things. On that front, Minnesota is home to companies like 3M and General Mills and research centers like the Mayo Clinic that are at the forefront of technology and discovery. Compared to other states, Minnesota ranked #15 in StatsAmerica's 2021 **Innovation Index**, and #6 specifically in "human capital and knowledge creation."

In addition to innovation, the ability to diffuse those innovations widely in day-to-day business practices can lead to increases in productivity. For example, recent advancements in AI, and generative AI specifically, may take years to become widely incorporated into routine operating processes. A 2023 **JPMorgan Chase survey** of business leaders found that nearly half (46%) of respondents neither use nor plan to use AI tools, compared to 38% that are already using them.

Lightcast data show that AI job postings in Minnesota grew about 16.2% per year between 2017 and 2022, down from 19.4% annual growth during the previous 5-year period (see below). In contrast, growth in AI job postings nationwide has only accelerated. Slower demand growth for AI roles in Minnesota could suggest companies are starting to face constraints in further adopting and integrating AI across business functions. Overcoming hurdles in diffusing technologies with higher investments in human capital could reignite workforce productivity.

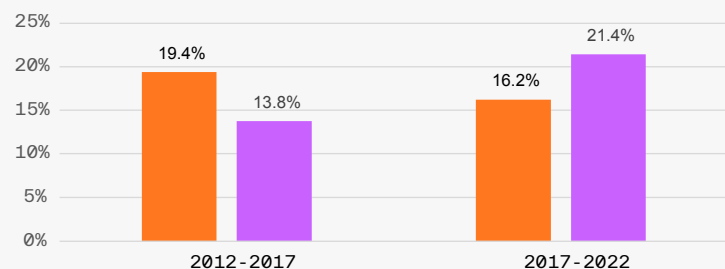
In Minnesota, slowing growth in the demand for AI roles may indicate slowing diffusion of AI technologies into regular business processes

Average annual percent change in AI job postings, all occupations

Note: AI job postings refer to job advertisements for AI job titles or requesting specific AI skills

Source: Lightcast

■ MN ■ US



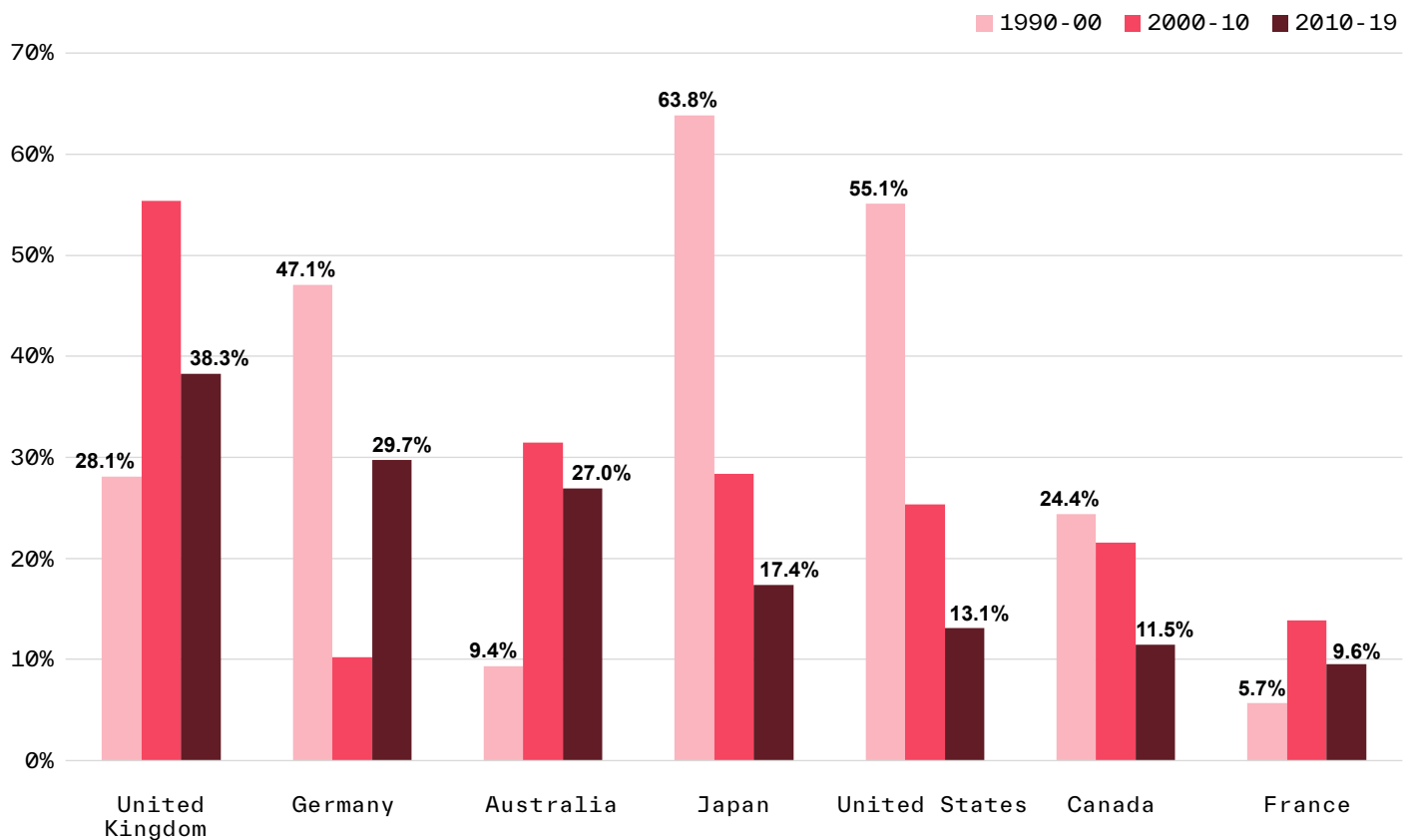
More generally, public investments in student access to digital devices and in wider, faster, and more reliable internet connectivity throughout the state can increase the productivity of a dwindling workforce. Public policies that support innovative research can also increase the pipeline of skilled talent with the ideas, curiosity, and entrepreneurial spirit needed to effectively solve business challenges. Governments that partner with industry and universities on research and development efforts can develop solutions that compensate for a dearth of people and workers.

POLICIES IN GERMANY, CANADA, AND JAPAN AIM TO INCREASE IMMIGRANTS TO OFFSET LOW BIRTH RATES AND BOOST THE LABOR FORCE

The labor crisis extends beyond the borders of the United States, as developed nations worldwide grapple with diminishing workforces and the need to find effective solutions. As populations stagnate, finding viable solutions becomes an economic imperative. While the United States attracts the **most international migrants** of any country in the world, growth in its working age immigrant population has slowed dramatically over the past three decades from 55% in the 1990s to 13% in the 2010s (see below).

Over the past three decades in the US, growth in the number of working age immigrants has slowed

Percent change in the working age immigrant population, 15-64 years



Source: UN International Migrant Stock 2019 and calculations by Lightcast



Analyzing effective strategies employed by other nations in addressing the labor crisis can serve as inspiration for the actions America could adopt. Canada, Germany, and Japan are three countries that are working actively to increase their working age population through international migration:

In Canada, immigration accounts for almost **100%** of labor force growth. And the country has set a goal of welcoming an additional **1.5 million** immigrants by 2025. Approximately **23%** of Canada's population consists of immigrants, with a significant portion being **economic immigrants** selected based on their skills. Immigrants contribute significantly to various sectors: **36% of physicians, 33% of business owners with paid staff, and 41% of engineers** in Canada are immigrants. To evaluate applicants, Canada employs a point system that prioritizes young workers possessing extensive experience and education, as well as language proficiency in English or French. This approach allows Canada to attract individuals who can make substantial contributions to its economy and society.

Germany's **Skilled Immigration Act** simplifies the process for skilled foreign workers to migrate to the country. They can apply for residency for work or training purposes, even without a job offer. In addition, Germany has introduced the **opportunity card**—their version of a green card—which utilizes a point system. Migrants applying for the opportunity card must have a university degree or professional qualification, three years of professional experience, language skills or past residence in Germany, and be younger than 35. Foreigners can come to Germany without a job offer if they meet three out of four criteria. Certain residence permits also require foreigners to take **integration courses**, facilitating their smooth adjustment to Germany's culture and customs.

While Japan may not be an emerging leader in international migration, it has made notable progress. Japan, historically reserved towards immigration, has recognized the need to increase its working age population to address labor shortages. Although its share of working age immigrants remains relatively low, it experienced an **11.4%** increase in foreign residents in 2022. To attract foreign workers, Japan expanded its **policy allowing blue-collar workers** to stay indefinitely and bring their families with them. This shift in immigration policy demonstrates Japan's commitment to strengthening its labor market and overcoming its previous reluctance towards foreigners.

The experiences of Canada, Germany, and Japan highlight several valuable insights for the United States. Adopting proactive approaches to attract immigrants, such as systems that prioritize needed skills, may streamline the immigration process and broaden the pool of potential migrants. Recognizing the importance of cultural integration and providing support, by offering integration courses, can facilitate the smooth transition and assimilation of immigrants into the host country. By studying and implementing effective strategies, the United States can take meaningful steps to address its labor challenges and foster a thriving workforce.

Conclusion

Minnesota has historically faced a tighter labor market than other parts of the country. But what was once primarily a shortage of skills has gravely turned into a shortage of both skills and people.

LABOR SHORTAGES ARE A BIG PROBLEM...

The perfect storm of falling fertility rates, an aging population, declining labor force participation, and low net migration will weigh on the future development of Minnesota's labor force. Other factors are adding to these demographic pressures, including a growing mismatch between skills sought and taught, rising rates of drug use, and mounting wealth that has reduced work incentives on both sides of the age spectrum.

The economic consequences for Minnesota cannot be underestimated. Fewer people translates into declining college enrollments, a less skilled workforce, lower rates of job creation, and slower economic growth. Fewer workers available to support dependent populations will also strain the public and private services needed to sustain them, from childcare to elder care.

THAT REQUIRE BIG, COORDINATED SOLUTIONS

The good news is that moderating the economic impact of Minnesota's Demographic Drought is possible through the coordinated efforts of the state's business, education, and government leaders to attract and retain the available talent, and to make all workers more productive.

We estimate that increasing Minnesota's labor force participation rate by 2 percentage points—back to 2017 levels—would increase the size of Minnesota's labor force by about 90,000. Raising international migration rates back to 2015 levels would further lead to an influx of 20,000 new working age residents through the end of the decade.

This suggests that business and public policies that expand talent pools through recruitment and immigration alone could potentially fill nearly two-thirds of Minnesota's 168,000-person labor force gap.

Investing in productivity-enhancing skills and technologies could get Minnesota the rest of the way there. Public-private partnerships that advance skill building, improve alignment between labor supply and demand, and accelerate the pace of technological adoption and diffusion can help sustain the state's high pandemic-era productivity rates. Indeed, amid a demographic drought, boosting productivity is the only sustainable way to drive growth.

Through 2030, Minnesota will face the height of its people scarcity. The state can more successfully compensate for a dearth of workers if those that are available within its borders are highly skilled, have access to new technologies, and can operate in dynamic, innovative environments. Ultimately, the combination of valuing workers and helping them grow and become more impactful in their roles will be the key to successfully competing for talent not only nationwide, but across the globe.

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MINNESOTA'S VANISHING WORKFORCE