MINNESOTA CHAMBER FOUNDATION
GROWING MINNESOTA

Minnesota Entrepreneurship

A turning point

MAY 2022

Minnesota Entrepreneurship
A turning point

Report investors

Other Minnesota Chamber Foundation supporters

Magnetic Resonance Elastography (MRE) is a revolutionary imaging tool. Resoundant was founded by Mayo Clinic to share this medical advance with the world.

Table of contents

Introduction

The Minnesota Chamber Foundation made its mark as a thought leader on the Minnesota economy with the release of *Minnesota 2030: A framework for economic growth* last year. The in-depth analysis of the state's economy examined its past performance and set forth a series of recommendations to build on our strengths and address hurdles that may inhibit Minnesota's growth.

Minnesota Entrepreneurship: A turning point provides a long-overdue narrative on entrepreneurship in our state. The report examines past performance, compares Minnesota to other states, highlights trends in venture capital and provides a brief analysis by sector as well as geographic and demographic groups.

Minnesota is indeed at a turning point. New business applications and venture capital investment have rapidly accelerated during the past two years. Can Minnesota sustain this momentum? What can we do to ensure that startups statewide have access to resources and capital? And how can Minnesota leverage its diverse industry base and exceptional sector strengths to emerge as a leading region for entrepreneurs nationally?

The report research was complemented by interviews and focus groups with startup support organizations, venture capital leaders, entrepreneurs and academic leaders. We are grateful for the support of the Minnesota Chamber Foundation's Board of Directors and Economic Advisory Council, who helped guide this work. We look forward to working with partners in the startup ecosystem, business leaders and policymakers to implement the report recommendations.

Jon Campbell
Board Chair

Owner, Cedar Glen Advisory Services, LLC

Jennifer Byers
Executive Director

Defining terms

What is a startup? Who is an entrepreneur?

What is a startup?

This report uses the basic definition of a startup as a new business firm with a single ownership. This is in contrast to new "establishments," which may include both new firms and new locations/expansions of existing firms. Yet, within this basic definition there are different ways to measure new businesses, as well as some limitations in data availability.

- **New employer firms:** Employer firms in their first year (i.e., firms age = 0) are often used as a baseline unit of measurement of startups. While only one in five businesses in the U.S. are employer firms, they account for 97% of total annual business receipts, making them more meaningful contributors to overall economic activity. The U.S. Census Business Dynamics Statistics disaggregates economic activity by firm age, making it possible to measure new firm entry and exits as well as job creation and destruction by firm age.

- **Nonemployer businesses:** Measuring activity among new employer firms is useful, but it leaves out a large swath of businesses in the economy. To compensate for this deficit, this report also includes measurements of nonemployer businesses (i.e., establishments with no paid employees other than the owner). The U.S. Census Nonemployer Statistics series does not disaggregate these data by business age, however, preventing this report from measuring "new" nonemployer businesses.

- **New business applications:** The U.S. Census Business Formation Statistics dataset offers a timelier look at entrepreneurial activity by reporting on new business applications on a monthly basis. New business applications are a leading indicator of business formation and include both likely employer and nonemployer businesses in the dataset.

- **High growth-potential startups:** A relatively small subset of all new businesses deliver outsized shares of new jobs, innovation and output. Data on venture capital investment offers a way to glimpse activity among firms that are more likely to experience high growth. This includes firms beyond their first year of operation. However, venture-backed companies tend to be young and thus relevant to the research on entrepreneurship.

Who is an entrepreneur?

This report uses businesses as the primary unit of analysis. However, we also include some measures of entrepreneurs themselves. By "entrepreneur," we are referring to either founders of new business firms or owners of firms at any age. This can be measured in multiple ways, either by assessing the self-employment rate (i.e., share of the population that reports as self-employed in the U.S. Census Current Population Survey), or through other national surveys and administrative data, such as the U.S. Census' Nonemployer Statistics and Survey of Business Owners.

Overview and key findings

K.C. Kye, Owner,
K-Mama Sauce, Columbia Heights

Entrepreneurship is at a turning point in Minnesota. After several decades of declining business formation rates, the COVID-19 pandemic created a surprising surge in entrepreneurial interest in the U.S. and Minnesota alike. New business applications – a leading indicator of new business starts – rose by 26% in 2020 and 2021. This surge has only gained momentum throughout the pandemic.

It is not just small-scale businesses that are gaining traction. The rise in new business applications has been coupled with significant growth in venture capital investment. Minnesota startups raised a record $1.5 billion in 2020 and completed a record 175 venture capital deals in 2021. This is important because research shows that a relatively small subset of all new businesses disproportionately drives innovation, job creation and output.

Minnesota's newest wave of innovative companies reflects the state's diverse economy, with venture capital deal flow ranking high in verticals such as ag-tech, edtech, advanced manufacturing, fintech, 3D printing, wearables and supply chain tech. Leading the way is the next generation of health care startups, ranging from digital health and biotechnology to medical devices and insurance. This shows Minnesota's ability to align its historical industry strengths with emerging technologies and verticals.

Yet, it is not enough to just produce innovative new companies – those companies must also survive and grow past their critical early years in order to contribute to the state's economy.

Most new businesses in the U.S. fail to make it past their fifth year. The inverse is true in Minnesota, however, with over half of all businesses clearing this threshold. Remarkably, this held true even during the immense challenges of the pandemic. A nation-leading 56% of Minnesota businesses survived past their fifth year in 2020, helping to create stability in the state's economy during the pandemic-induced downturn.

All of this has occurred alongside a host of new startup support resources to provide funding, networking, mentoring and technical assistance to new businesses in Minnesota. This strengthening of the state's startup ecosystem provides an essential infrastructure to support further entrepreneurship gains in coming years.

But while entrepreneurship is at a turning point, it is not clear what lies around the corner. Notable challenges must be addressed to propel this recent momentum.

Slowing population and labor force growth were key contributors to declining business formation prior to the pandemic. Minnesota's mediocre population growth – along with persistently tight labor markets and business climate concerns – present potential headwinds for new business growth. Indeed, Minnesota consistently lags the U.S. in the number of new employer businesses per capita, ranking 31st across all states in 2019. Sustaining the rise in new businesses beyond the pandemic will require addressing the underlying conditions that make it difficult for startups to invest, find talent and scale.

Early-stage funding also remains a barrier for even the most innovative new startups. This may be particularly true for founders who lack access to the referral networks that can help them get the attention and trust of investors. Increasing the number of local startup investors and widening access to startup capital will be critical to fuel entrepreneurial growth that is both robust and inclusive.

Finally, while Minnesota's startup ecosystem is gaining steam, it faces challenges related to sustaining awareness and support amidst the multitude of priorities that vie for our collective attention as a state. Entrepreneurs are often unaware of the resources that exist to support them. Individuals may have the ability and interest to invest in local startups but lack the knowledge of how to do so. Business support organizations may struggle to keep up with rising demand amidst their own resource constraints. Minnesota will need to broadly promote and strengthen the existing tools to support new companies going forward.

All of these issues require strategic action from business leaders, economic developers, chambers of commerce, financial institutions, policymakers and anyone else with a stake in Minnesota's economic future.

In this report, we unpack some of the key trends shaping entrepreneurship outcomes in Minnesota, including how these outcomes vary across sectors, regions of the state and demographic groups. We then sketch out three broad objectives and nine strategic areas to help clarify the priorities that should guide future action. While the potential actions are as wide-ranging and diverse as the startup community itself, they all point to a future where the next generation of homegrown companies can start, invest and grow here in Minnesota.

Key findings

1. Prior to the pandemic, formation of new employer businesses had been slowing over time, with startup rates declining slightly faster in Minnesota than the U.S. this century.
2. States in the Sun Belt and Western regions have seen the largest relative startup gains, while states in the Midwest and Northeast have seen the largest declines.
3. Entrepreneurship is increasingly shifting to nonemployer firms over time.
4. Startups in Minnesota get off the ground faster and survive longer than peers in other states.
5. High growth startups are a Minnesota strength, and there is positive momentum on this front.
6. New business applications spiked during the pandemic both nationally and in Minnesota.
7. Minnesota startups are nationally competitive across a range of verticals; health care and medical innovation remain a core strength.
8. Startups are forming in areas with greater population density. However, changes during the pandemic may offer new opportunities for rural communities in Minnesota.
9. BIPOC businesses remain underrepresented in Minnesota's economy. But they are growing at a fast rate and outperforming BIPOC businesses in the U.S.

Why entrepreneurship is important

16
of Minnesota's Fortune 500 companies started here.

Minnesota is a homegrown economy.

Minnesota has long-been a homegrown economy. Sixteen of Minnesota's 18 Fortune 500 companies started here, with the other two originating in Wisconsin and moving their headquarters to Minnesota decades ago. Key industry clusters – from food and agriculture to health care and medical technology – emerged from rich entrepreneurial ecosystems that fostered their early development and nurtured their success over time.

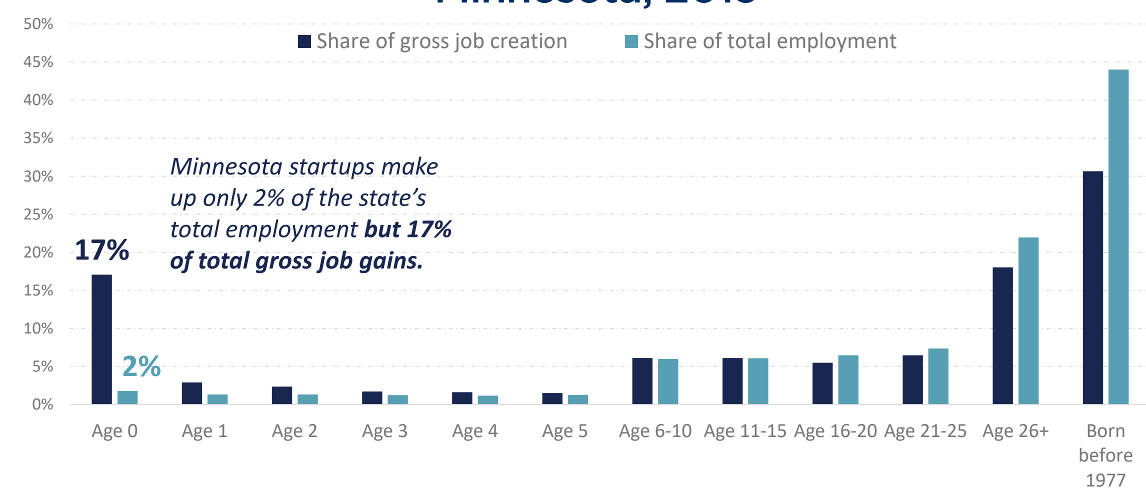
The past is not always prologue, however. No ironclad law of nature guarantees this pattern to continue in the future. Research from Innosight suggests that about half of the S&P 500 will be replaced by other firms over a ten-year period.[1] Natural churn in the economy means that regional and state economies must always be replenishing their stock of businesses, breathing new life and innovation into an ever-changing market economy.

Startups disproportionately drive job growth and innovation.

Economic research on entrepreneurship shows that young firms contribute significantly to job creation and overall economic dynamism in the U.S. economy.[2]

This is evident in Minnesota's economy. In 2019, new employer firms in their first year made up just 2% of total employment but created 17% of total gross job gains in the state. Firms in their first five years made up over 27% of all new jobs. Spurring new businesses and supporting their success is a critical component of Minnesota's overall economic performance.

Share of gross job gains and total employment by firm age: Minnesota, 2019



Source: Minnesota Chamber Foundation analysis of U.S. Census, Business Dynamics Statistics

How entrepreneurship is changing over time

1. Prior to the pandemic, formation of new employer businesses had been in a long-term slowdown, with startup rates declining slightly faster in Minnesota than the U.S.

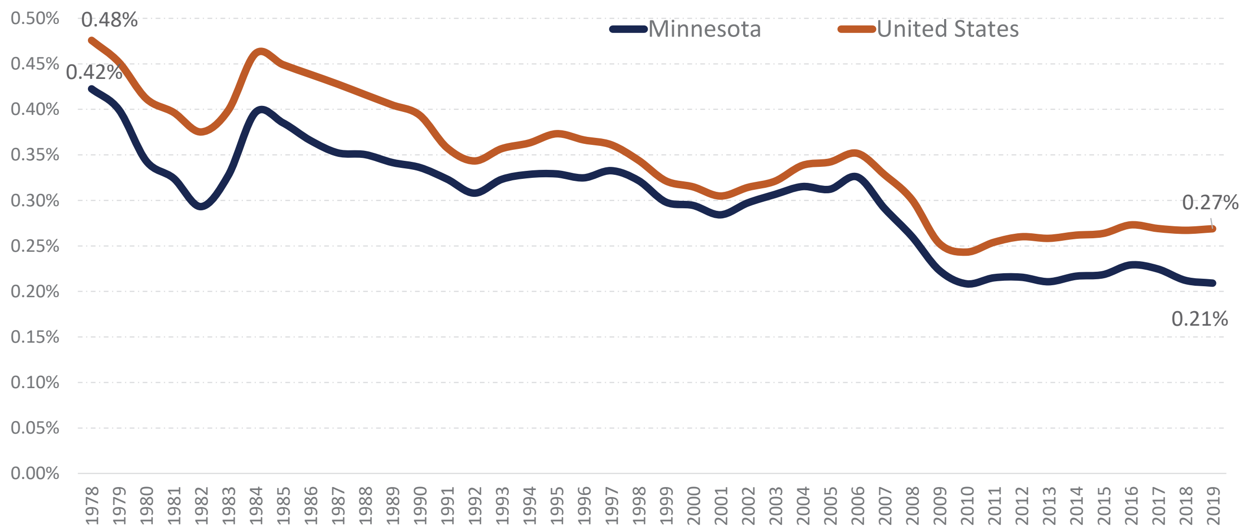
Minnesotans are creating fewer new employer businesses than in past decades. The state's falling business formation has largely mirrored the national trend line, though the decline is somewhat steeper in Minnesota than the U.S. as-a-whole**.**

Minnesota's firm entry rate (i.e. new employer firms as a share of the total labor force) fell by half from 1978 to 2019. This decline worsened after the 2008 Great Recession and business formation has recovered only slowly since then, widening the gap between Minnesota and the rest of the nation. From 2008 to 2019, Minnesota averaged 6,585 new employer firms a year, down from an average of 8,214 annually over the prior three decades. This amounts to roughly 1,600 fewer new employer companies forming in Minnesota each year compared to the long-term average.

Startup job creation also fell alongside the overall drop in new business formation. Minnesota startups created 48,000 jobs a year on average in the three decades from 1978 to 2008. Since 2008, however, startup job creation fell to an average of 38,000 new jobs per year. This reduction in startup job creation appears to be caused by fewer new businesses forming rather than fewer jobs created per startup. Indeed, the number of jobs created per startup remained relatively stable in recent decades.

Minnesota's firm entry rate declined by half since 1978

Firm entry rate (new employer firms as a share of total labor force)
Minnesota and United States 1978-2019



Source: Minnesota Chamber Foundation Analysis of U.S. Census, Business Dynamics Statistics

In 2019, Minnesota even reached a 42 year high with startups creating an average of 7.4 new jobs per firm.

The bottom line: heading into the 2020s, Minnesota had been producing fewer new companies than in past years, creating a drag on the state's overall economic performance.

The decline in new employer business formation over time is a well-documented phenomenon. But what is causing this decline in the first place?

Factors influencing declining business formation:

Economic research on firm formation suggests that population growth is an underlying condition of entrepreneurship, creating both supply and demand-side incentives for new businesses. The long-term decline in business formation in the U.S. has been linked to slowing population growth in recent decades. As economists Ian Hathaway and Robert Litan state:

> *"The relationship between regional population growth and firm formation rates is remarkably strong, even after controlling for other factors – including unobserved time and regional effects (such as industrial and labor market composition, culture and potentially, public policies)."*[3]

The same is evident in regional and state variations in entrepreneurship, with startup activity increasing in states with the fastest population growth.

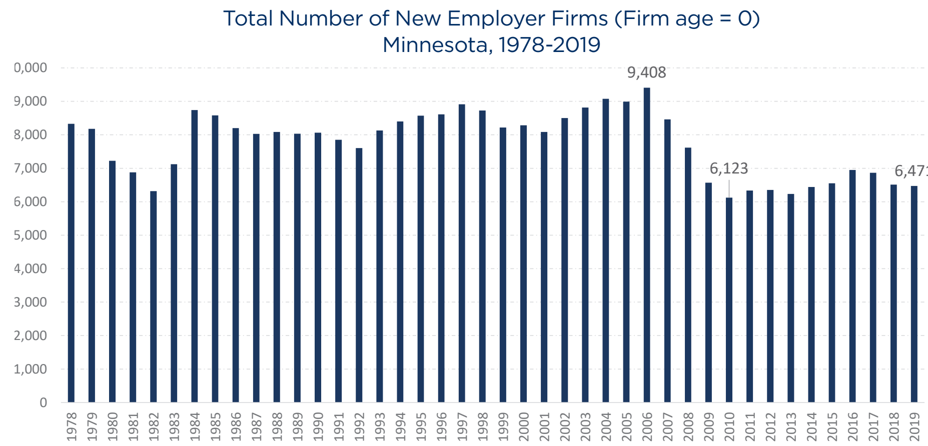
Closely related, new businesses require available workers who can help them grow and scale their operations. Research from the Federal Reserve Bank of San Francisco showed that a 1% increase in the number of workers was associated with a 1% increase in the number of new businesses at the state level, with labor availability accounting for 90% of variation in new business starts over time and across states.[4] This is a concern, as workforce availability challenges have only increased in recent years. As one founder relayed in a focus group, "the talent piece is even more difficult than the funding piece."

Additionally, local and state policies may play a role in incentivizing or discouraging startup activity. Economists find that young firms are particularly sensitive to changes in state corporate tax rates and less able than larger firms to absorb high fixed costs.[5] Corporate tax rates are negatively correlated with startup job creation and act as a drag on new business growth.[6]

As argued elsewhere, Minnesota has among the highest tax rates across multiple categories, creating concerns for the state's long-term competitiveness.

Addressing these structural factors are the necessary precursors to fostering long-term growth in new business formation.

Total number of startups in Minnesota declined sharply in the Great Recession, recovering slowly since



Source: Minnesota Chamber Foundation Analysis of U.S. Census, Business Dynamics Statistics

2. States in the Sun Belt and Western regions have seen the largest relative startup gains, while states in the Midwest and Northeast have seen the largest declines.

One of the major shifts in American life over the past half century has been the steady migration of people to Western and Sun Belt states. Since 1970, population grew by 126% in the West and 101% in the South compared to just 22% in the Midwest and 17% in the Northeast.[7] While growth rates are slowing in all regions of the U.S., western and Sun Belt states continue to experience a higher relative share of economic and population gains. Not surprisingly, these same trends have shaped regional variation in startup activity.

Since 2000, only 14 states (and Washington, D.C.) experienced an increase in their total number of employer startups. The remaining 37 states experienced overall declines in new employer firms. Of the 14 states with an increase in new startups, four of them are the nation's largest states: California, Florida, New York and Texas. These four states alone make up one-third of the U.S. population and accounted for 40% of all U.S. startups and 40% of startup job creation from 2013 to 2018. Other states with increasing startup levels include those with above-average population growth and overall economic growth – again, predominantly (though not exclusively) in Western and Sun Belt regions.

Minnesota ranked 40th among all states in the change in new employer firms from 2000 to 2019, with the state producing 22% fewer new companies in 2019 than in 2000. States with the steepest declines in startups were concentrated in the Midwest, Northeast and interior South.

Largest gains in new employer firms by state, 2000-2019

State	2019 (total number of startups)	Change in number of startups 2000-2019	Recent trend: Change in number of startups 2014-2019	Startup rank 2000-2019	Population growth rank 2000-2019
Utah	5,853	30.4%	23%	1	2
Idaho	3,490	25.4%	37%	2	5
Florida	41,363	22.9%	13%	3	6
Texas	38,883	22.5%	14%	4	4
District of Columbia	1,150	17.7%	10%	5	13
North Dakota	1,062	11.3%	-26%	6	17
California	62,841	11.2%	12%	7	23
Wyoming	1,248	10.2%	23%	8	20
Nevada	4,913	10.1%	10%	9	1
Colorado	11,284	5.2%	16%	10	7
Oregon	6,882	3.0%	14%	11	14
New York	31,585	1.6%	-5%	12	46
Washington	11,558	0.4%	13%	13	10
Arizona	8,767	0.1%	14%	14	3

Source: Minnesota Chamber Foundation Analysis of U.S. Census, Business Dynamics Statistics

3. Entrepreneurship is shifting from employer to nonemployer firms over time.

Fewer people are starting new businesses with paid employees than in past decades. This does not, however, necessarily mean that the population has become less entrepreneurial overall. The U.S. self-employment rate (i.e., the share of the population whose primary income comes from their own business) has remained relatively stable in recent years. The same is true in Minnesota. In 2019, nine out of every 100 Minnesotans were self-employed, down by just one percent from 2010. So, if roughly the same share of the population is self-employed, how is it that business formation is in decline?

The answer lies in part by the types of ventures that entrepreneurs are forming. As economist Lyman Stone states:

> *"Fewer new businesses are forming. This is not because Americans are no longer coming up with ideas or because they have no entrepreneurial spirit. Americans are filing business income, starting nonemployer businesses, and identifying as freelancers, as much as they ever have. They just cannot seem to turn these ideas into thriving businesses that employ people."* [8]

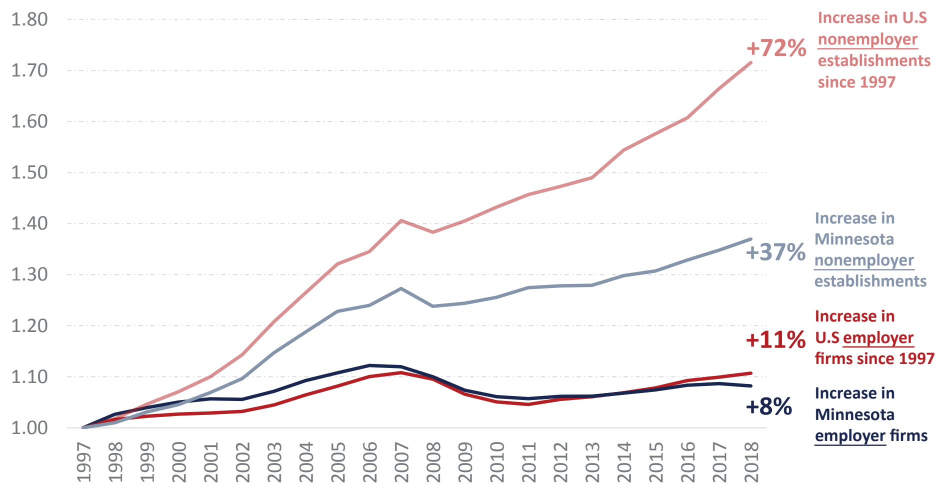
This shift is evident by looking at the change in the total number of employer and nonemployer businesses in operation over time. Since 1997, the total number of nonemployer businesses increased by 72% in the U.S., compared to an increase of only 11% for employer firms. Minnesota experienced the same basic pattern, but with the number of nonemployer businesses increasing at roughly half the rate of the U.S. Thus, while Minnesota lags the U.S. just slightly in new employer firms, the gap in the formation of nonemployer businesses is much starker.

This presents a set of trade-offs for Minnesota's economy.

First, while nonemployer businesses make up roughly 80% of all firms in the United States, they generate just 3% of total annual business receipts.[9] They are also much

Nonemployer businesses are increasing steadily, while employer firms remain relatively flat

Change in total number of employer and nonemployer businesses (Index 1997 = 1.00): Minnesota and United States, 1997-2018



Source: Minnesota Chamber Foundation Analysis of U.S. Census, Nonemployer Statistics

more likely to be self-financed, and many do not seek to scale and grow in a substantial way, being motivated instead by lifestyle factors or necessity.

This is not true of every nonemployer business, of course. Many high growth startups begin as small nonemployer ventures before taking the next step of raising capital, scaling operations and adding employees. But on the whole, only a small subset of nonemployer firms fit this description.

The risk for Minnesota, however, is that fewer nonemployer businesses means a smaller pool of entrepreneurs who can potentially succeed and take their business to the next level. As stated in a Small Business Administration (SBA) report, "Nonemployers are important in creating the stock of businesses from which employers arise; in providing learning opportunities for future businesses or expansions; and in generating flexible work options, economic cushion, and empowerment."[10]

Indeed, states with a higher number of nonemployer businesses per capita tend to also have more employer startups per capita.

In short, the growing prevalence of nonemployer businesses creates both opportunities and risks for Minnesota's economy. Supporting measures to encourage more broad-based entrepreneurship may help create a larger pool of businesses with the ability to scale and offer economic opportunities to entrepreneurial-minded individuals. Yet, to maximize the economic impact of such efforts, entrepreneurs will require the resources, technologies, and, whenever appropriate, the personnel needed to grow their business to its full potential.

4. Startups in Minnesota get off the ground faster and survive longer than peers in other states.

Each year, the Kauffman Foundation releases two companion reports assessing eight key indicators of entrepreneurship for each state in the U.S. As these reports reveal, Minnesota consistently ranks below-average in the rate of new business formation, as measured by both the share of the population that starts a business of any kind (rate of entrepreneurship indicator) and the number of new employer businesses per 100 people (rate of new employer businesses indicator).

However, these reports also reveal that despite the state's lower volume of startup creation, Minnesota entrepreneurs are more likely to turn their ideas into businesses that employ others, and they make that transition faster than entrepreneurs in most other states. Minnesota ranks 16th in the time that it takes for a new business application to become an employer firm and ranks 17th in the share of new business applications that become employer businesses within eight quarters.[11] In other words, once an entrepreneur files a new business application with the federal government to receive an Employer Identification Number (EIN), it takes them less time to get their business off the ground and make payroll. This is important because the economic impact of startups relates largely to whether they turn into more established businesses that innovate, add jobs and scale beyond their initial stage.

Data from the Bureau of Labor Statistics also show that Minnesota has among the highest business survival rates in the nation. Minnesota ranked 7th among all states in one-year startup survival and had the highest five-year business survival rate in the U.S. in 2020. The state's high business survival rates have been stable over time, proving this to be a durable attribute of entrepreneurship in Minnesota. This was true even in 2020 and 2021, as the COVID-19 pandemic brought about unprecedented challenges and disruptions for businesses of all types.

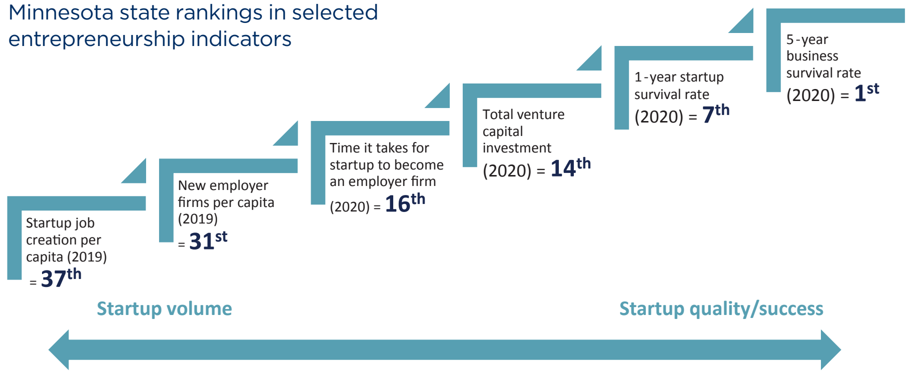
With fewer businesses failing in their first five years, Minnesota should theoretically have higher firm concentration and employment levels relative to other states for firms in their fifth year compared to the population of firms in their first year. This indeed appears to be the case.

Minnesota ranked 31st in new employer startups (i.e. firms age = 0) per capita in 2019, but had the 25th highest concentration of firms aged five. Similarly, Minnesota ranked 37th nationally in jobs per capita for startups in their first year but ranked 28th for jobs per capita for firms in their fifth year. Minnesota's national standing moves from the bottom third of states to the middle of the pack over a five-year period, demonstrating the impact of its higher survival rates.

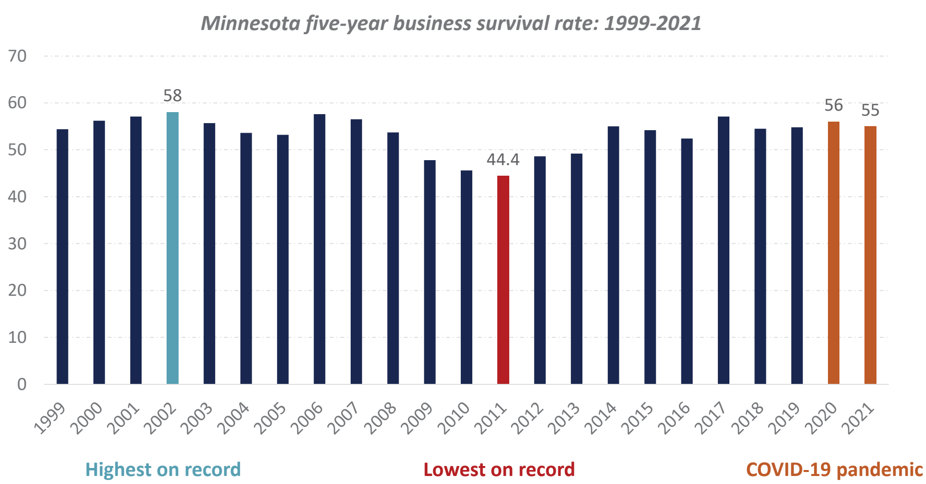
Despite these strengths, however, a note of caution is warranted. It is not the case that states must settle between either high startup rates or high business survival rates. These two attributes are not mutually exclusive. States like California, Montana, Oregon, Idaho and Utah combine above average five-year business survival rates alongside above average rates of employer startup formation. At the other end of the spectrum, states like West Virginia and Connecticut rank particularly low in both indicators. Minnesota could seek to accelerate the number of new startups without necessarily reducing the quality and longevity of these new ventures.

In short, Minnesota's

Minnesota trails in startup volume and job creation indicators, but ranks high in measures of startup value and survival

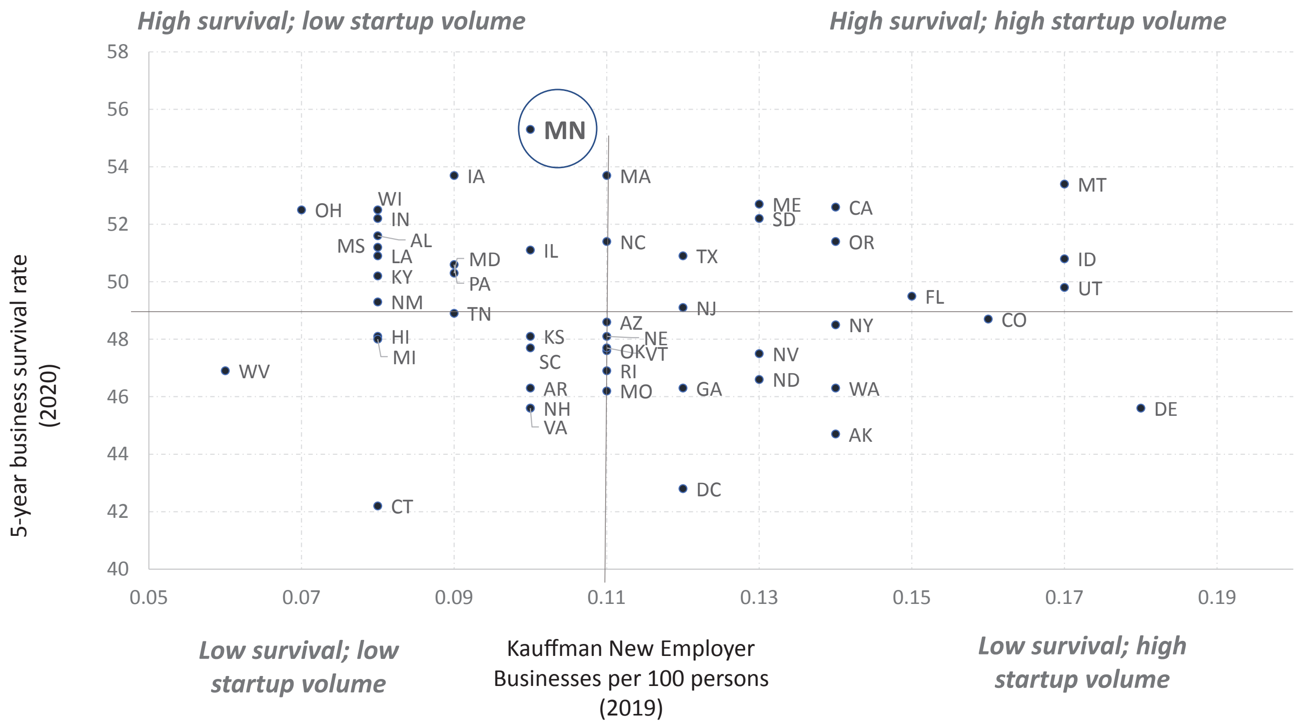


Minnesota business survival rates remained stable in first two years of pandemic



Source: Minnesota Chamber Foundation Analysis of Bureau of Labor Statistics

Startup volume and business survival rates are not mutually exclusive



startup formation rates lag slightly behind the national average, but the companies that do start here are more likely to become employer firms and survive longer than startups in other states. This produces a modest catch-up effect, as fewer firms fail and continue to yield economic benefits over time. At the same time, Minnesota has an opportunity to accelerate new startups without necessarily losing its advantages in actualization and survival.

5. High growth startups are a Minnesota strength, and there is positive momentum on this front.

New businesses are vital to the economy. They are also volatile, however, with nearly half of all new firms failing in their first five years. Even among those who survive, most businesses remain small and grow at a moderate pace over the course of their life span.[12]

The research literature on entrepreneurship shows an "up or out" phenomenon where a small sub-set of all new businesses contribute a disproportionate share of job creation, output and productivity growth."[13]

These "high-growth" firms are an important component of Minnesota's entrepreneurial landscape and future economic growth.

Fostering businesses with high-growth capacity has long-been a strength in Minnesota. This is demonstrated by the presence of home-grown industry clusters and notable headquartered companies that began as startups in Minnesota and sustained their growth here over time. The question is, who are the next wave of innovative new companies with the capacity to scale and shape Minnesota's economic future?

History shows that successful companies can emerge across a wide range of industries and take various pathways along their growth journey. There is no one-size-fits-all model.

Yet venture capital activity provides one way to assess the subset of Minnesota startups that intend to scale and are raising growth capital to do so. Venture capital-backed firms are more likely to succeed and contribute disproportionate gains to the overall economy,[14] making them a good proxy for high growth-potential businesses. There is good news for Minnesota on this front.

Venture capital investment is on the rise in Minnesota:

Data from Pitchbook – a leading database tracking investments in private capital markets – show that venture capital investment surged in Minnesota over the past five years, following broader national trends.

The COVID-19 pandemic only accelerated this trend. Minnesota startups raised a record $1.5 billion in venture capital in 2020 and reached a record 175 deals in 2021. This demonstrates both the rising value of startup investments as well as a broadening base of startups that are receiving venture capital.

Minnesota ranks relatively high among states in total venture capital investment. Despite having the 22nd largest population, Minnesota typically ranks in the top 15-18 states for total venture capital raised. Further, Minnesota experienced the 7th fastest growth in total VC raised from 2015-2020 among states with at least $1 billion in total deal value. So while the state's overall business formation rates may lag the U.S. average, the opposite is true when narrowing the focus to startups with high growth potential.

Minnesota continued to broaden its base of companies raising venture capital in 2021 but did not experience the same wave of deal value that flooded the U.S. market last year. Venture capital roughly doubled in the U.S. in 2021, with some states experiencing 3x or higher growth. However, interviews with local venture capital leaders suggest that the longer term trend line may be a more meaningful indicator of the state's performance, as year-to-year changes can fluctuate largely based on the timing of investment rounds of just a handful of companies. Additionally, Minnesota's broadening base of startups raising capital may be just as important, or more so, than deal value alone.

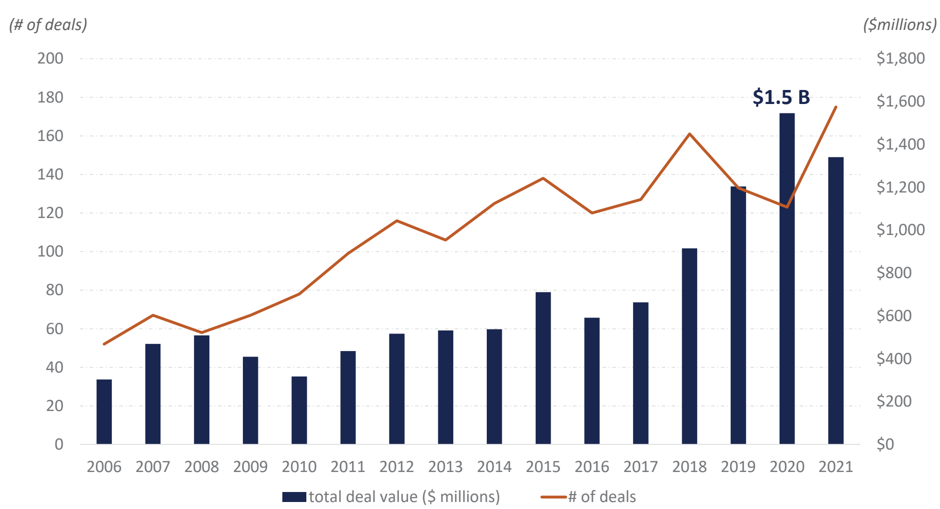
In short, investors are putting more dollars behind more Minnesota startups to innovate and scale in the near-term.

6. New business applications spiked during the pandemic both nationally and in Minnesota, presenting opportunities for the near term.

One of the most surprising outcomes of the COVID-19 pandemic has been the sudden and dramatic surge of entrepreneurial interest. The U.S. Census tracks month-to-month changes in new business applications through its Business Formation Statistics data series. These data show that new business applications rose by a staggering 39% in the U.S. in the first two years of the pandemic (2020 and 2021) compared to the prior two years of 2018 and 2019. New business applications have remained elevated throughout the pandemic, suggesting that the change reflects more than a one-time aberration.

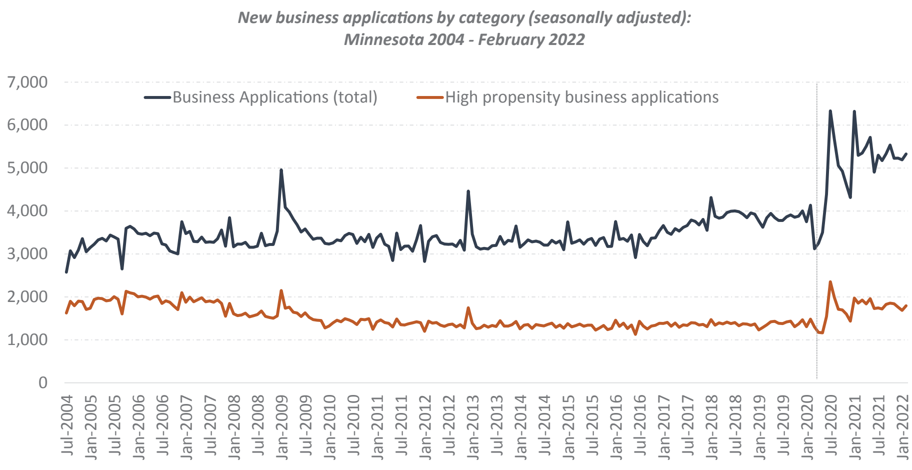
This same shift is taking place in Minnesota as well. Minnesota business applications rose by 26% in 2020 and 2021 compared to the prior two-year baseline. Encouragingly, this rate of increase was also high for the subset of applications that the U.S.

Venture capital investment is growing in Minnesota



Source: Minnesota Chamber Foundation analysis of Pitchbook data

New business applications surged during the pandemic



Source: Minnesota Chamber Foundation analysis of U.S. Census, Business Formation Statistics

Temporary blip in the radar or start of a longer-term shift?

New business applications are only a leading indicator of potential new business starts – they represent the intent to form a business rather than the actualization of a new business. It remains to be seen whether this spike in entrepreneurial interest will translate to an actual rise in new business starts. It is possible that factors unique to the pandemic will prevent these potential startups from coming to fruition.

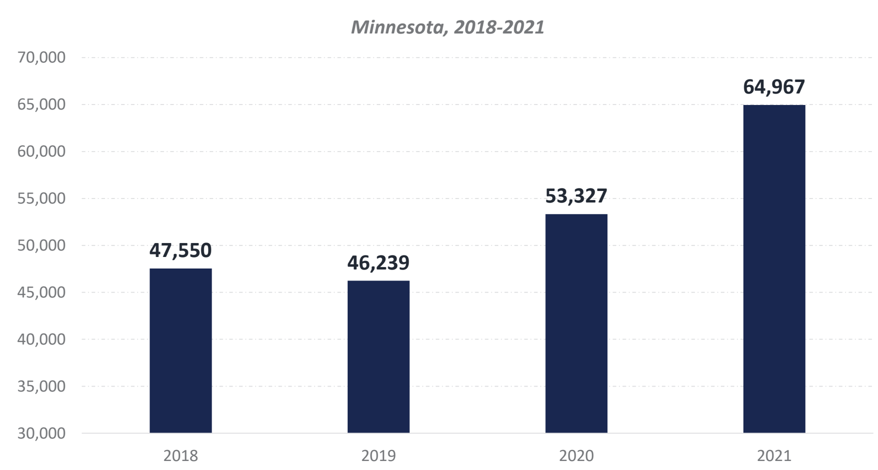
Census designates as "high-propensity," meaning that they are likely to become employer businesses based on one or more criteria in their application. High propensity applications increased by 22% in the first two years of the pandemic in Minnesota, compared to 24% nationally. Thus, while Minnesota lagged the U.S. average for total business applications by a larger margin, the state roughly mirrored the national rate of increase for likely-employer firms. This is an encouraging sign for the near term.

However, research shows that new business applications are a reliable predictor of new business formation.[15] This suggests that – barring some reversal in the relationship between new applications and new businesses – Minnesota and the U.S. are poised to experience at least some level of increased startup activity in the near term.

Whether this current surge sustains beyond the short-term remains an open question. Structural factors like slowing population and labor force growth may return business formation levels to their pre-pandemic sluggishness in the years to come. However, countervailing forces such as technological changes and shifting attitudes around work could potentially mark the beginning of a sustained resurgence in entrepreneurship.

Data on new firm formation for 2020 will not be released by the U.S. Census until late 2022. But these lags in the data do not preclude communities everywhere to begin responding to this opportunity by broadening their efforts to support and fuel entrepreneurial growth.

Business applications (total, seasonally-adjusted):



Source: Minnesota Chamber Foundation analysis of U.S. Census, Business Formation Statistics

Looking beneath the aggregate data

Minnesota entrepreneurship by sector, region, demographics

Mille Lacs Tribal Economy cohort supported by the Initiative Foundation's Enterprise Academy

Statewide data provide a high-level view of entrepreneurship in Minnesota, but they do not fully account for the variations in entrepreneurial activity that occur across Minnesota's diverse regions, industries and demographic groups. This section reviews some key highlights of differences and similarities in Minnesota's entrepreneurial landscape as we look beneath the aggregate data.

Sector analysis: Minnesota's industry structure is geared toward lower volume, higher value firm creation.

Startup activity varies significantly by sector. Understanding these differences can provide critical insights regarding the underlying dynamics that influence entrepreneurship trends in Minnesota.

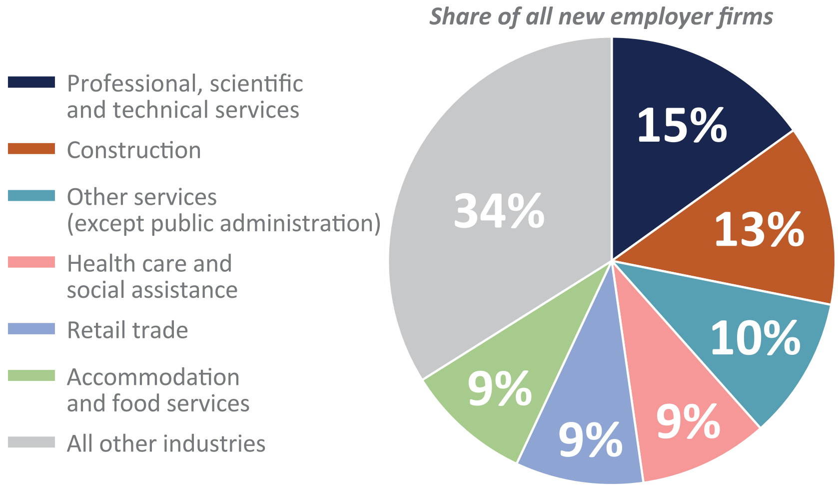
Minnesota's economy is underrepresented in the industries with the highest startup rates. That may not be a bad thing.

Numerous factors influence state-to-state variation in business formation, including population growth, firm concentration, and education levels, among others. Breaking down employer startup levels by sector suggests that economic structure (i.e. the distribution of jobs and firms across sectors) may also play a role and help explain why states like Minnesota consistently trail in overall startup rates.

New employer startups are concentrated in just a handful of industries. Six industries account for two-thirds of all new startups, and just three of those account for nearly half of all startup job creation. Not surprisingly, these industries are generally less capital-intensive and face comparatively lower barriers to entry. These industries are also heavily comprised of small businesses.

Minnesota has a below-average concentration of jobs relative to the U.S. economy in five of the six industries that drive startup formation each year. **Minnesota's economy simply is less concentrated in industries like restaurants, professional services, construction, and retail – all of which are responsible for a high share of new business formation.** Health care and social

New employer firms are concentrated in select industries



Source: Minnesota Chamber Foundation Analysis of U.S. Census, Business Dynamics Statistics

assistance is the only industry with both high startup rates and above-average job concentration levels in Minnesota relative to the U.S. economy.

This tells only half the story, however. Small business-intensive industries are not necessarily the ones most likely to drive innovation and growth, though their prevalence makes them still-strong contributors to the economy.[16] Rather, high growth-potential startups may be more likely to occur in technology, financial, medical and industrial sectors. These dynamics play to Minnesota's existing industry strengths.

Minnesota has high concentrations of activity in sectors such as finance and insurance, health care and medical technology, manufacturing (including high-tech subsectors like electronic instruments and machinery), food and agriculture and wholesale trade, as well as in corporate services subsectors such as marketing and advertising – all of which produce lower numbers of new companies but have high potential value creation.

Minnesota also has the highest concentration of management of companies and enterprises (i.e. corporate headquarters) jobs in the U.S., which – though not responsible for many new startups directly – plays an important role for high growth-potential startups in a variety of ways, including through involvement in accelerator programs, mentoring for founders, procurement programs, and direct investment through corporate VC funds. Minnesota's large enterprises also contribute to the state's overall talent pool and can generate new startups through employees who leave their job to start their own venture or through corporate spin-off activities. Many innovative businesses in Minnesota today originated from other existing firms, playing a role in the development of several notable industry clusters.

Minnesota 2030: A framework for economic growth – a report released by the Minnesota Chamber Foundation in 2021 – argued that these historical strengths give Minnesota a competitive advantage in emerging sectors where new technologies and innovations are being applied to mature industries.

A review of recent venture capital activity suggests that his opportunity may be becoming reality.

Minnesota startups are nationally competitive across a range of verticals; health care and medical innovation remain core strengths.

Minnesota startups raised venture capital across a wide range of industries over the past five years. Venture capital deals in Minnesota spanned 23 industries and 45 verticals since 2019, according to data from Pitchbook. Further, Minnesota ranked among the top half of states for VC deal flow in 30 different verticals from 2016-2021.

Deal flow for Minnesota startups ranks among the top half of states in wide-ranging activities such as agtech, advanced manufacturing, 3D printing, B2B payments, edtech, IoT, wearables, supply chain tech, artificial intelligence and machine learning, and marketing tech, among others.

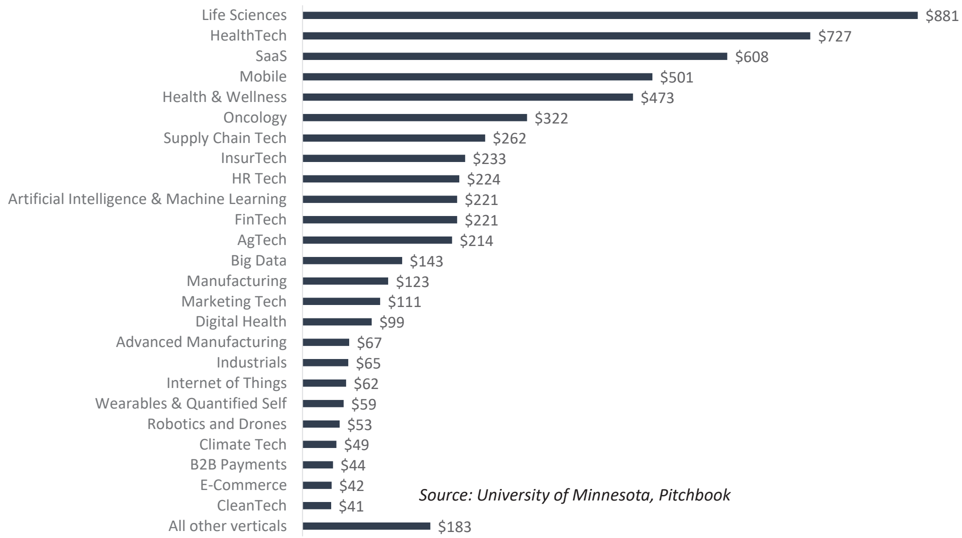
Importantly, Minnesota ranks in the middle of the pack or better in some of the verticals driving venture capital investment nationally, including software-as-a-service (SaaS), fintech and mobile. Insights from local venture capital fund leaders reflect this perception as well: Minnesota can build successful companies across the board, not just in one or two industries.

At the same time, health-and medical-related fields continue to be key drivers for high-growth startup activity in Minnesota. Minnesota's venture capital deals are concentrated in a range of health verticals, from health tech and life sciences to digital health, oncology, and health and wellness. The state ranks in the top 15 across these verticals, demonstrating its outsized influence on medical innovation in the U.S. Together, Minnesota's health and medical startups have raised $1.1 billion in venture capital since 2019.

Health care startups are also finding investment outside of private capital markets. As Medical Alley notes, the sector is diversifying its sources of capital through public markets and government grant funding. Federal investment vehicles like the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs provide early-stage funding for products that may take years to get to market. Minnesota health companies are increasingly leveraging this source to fund early-stage activities. Additionally, some young companies are even raising growth capital directly through public offerings, a strategy usually reserved for startup exits.

VC investment is concentrated in health and tech verticals

Total deal value (millions): 2016-2021



Source: University of Minnesota, Pitchbook

Minnesota ranks high in VC deals across a range of verticals

Pitchbook: 2016-2021 *Source: University of Minnesota, Pitchbook*

Ranked in Top 15

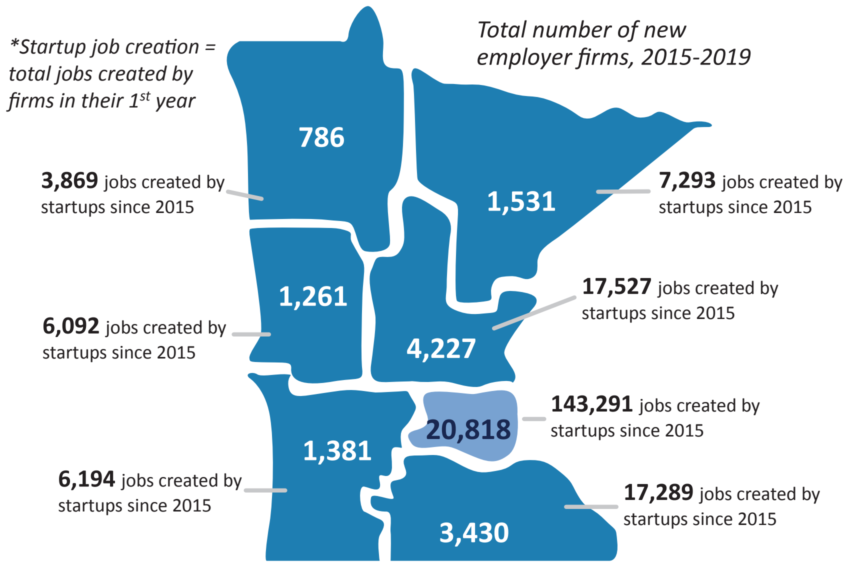
	National Rank	# of deals
Pet technology	3	14
Wearables and quantified self	9	25
Impact investing	10	5
Oncology	10	42
B2B payments	11	5
HealthTech	11	127
Life sciences	12	110
Health and wellness	12	74
AgTech	13	33
InsurTech	13	10
3D printing	14	6
Digital health	14	33
Advanced manufacturing	15	9
Supply chain tech	15	39

Ranked 15th to 25th

	National Rank	# of deals
Autonomous cars	17	1
EdTech	17	23
MarketingTech	18	22
Mobile	19	73
LegalTech	20	2
Internet of Things	21	13
Artificial intelligence and machine learning	22	60
ClimateTech	22	6
Cryptocurrency/Blockchain	22	9
Restaurant technology	22	16
SaaS	23	103
eSports	24	2
Industrials	24	22
FoodTech	25	7
Robotics and drones	25	6

In short, evidence suggests that Minnesota's economic diversity is playing a role in the next wave of high growth-potential startups, with health and medical innovation firms leading the way. At the same time, Minnesota faces steep competition nationally and globally in these fields. Continuing to support startups broadly while addressing specific needs of individual sectors will remain important going forward.

Employer startups by region



Source: Minnesota Chamber Foundation analysis of U.S. Census, Business Dynamics Statistics
These economic regions are defined using Minnesota Initiative Fund territories

Regional analysis: Startups are forming in areas with greater population density. However, changes during the pandemic may offer new opportunities for rural communities in Minnesota.

Minnesota has a legacy of starting and sustaining leading companies in communities across the state. Yet changing demographics, technological shifts and a global pandemic are reshaping the contours of the state's economy, presenting both challenges and opportunities to build on regional entrepreneurship strengths in the years to come.

Startup activity is concentrated in the Twin Cities and denser regions of the state.

New businesses play an important role across the state. However, startup activity is uneven across regions, with the state's denser, urban areas making up an outsized share of new employer businesses and startup job creation. The Twin Cities seven-county metro makes up 55% of the state's population but produces 62% of all Minnesota new employer startups. The Twin Cities was also the only region to see relatively consistent gains in startup job creation levels between 2010 and 2019.

Outside of the Twin Cities metro, more densely populated regions such as Central and Southeast Minnesota saw modest gains in new employer firms from 2010 to 2016, before leveling off in the following years. Overall, just more than half of all counties in Minnesota saw gains in the total number of employer startups since 2010, while 42 counties experienced an absolute decline.

Similar regional changes are evident in nonemployer businesses over time. The total number of businesses without paid employees increased by 11% in the Twin Cities metro from 2012 to 2018, while increasing by just 2% in Greater Minnesota. Yet, nonemployer business revenue is relatively even across many regions, with five of seven regions averaging between $47,000 and $49,000 per nonemployer business annually. In other words, growth in the number of nonemployer businesses is lagging in Greater Minnesota, but solo entrepreneurs perform similarly across most regions of the state.

Recent indicators of growing entrepreneurship in Greater Minnesota:

New business applications surged in 2020 and 2021, signaling new opportunities to support startup growth in the state. This spike in entrepreneurial interest occurred widely across Minnesota's regions.

Fifty-nine of Minnesota's 87 counties saw an increase in business applications from 2019 to 2020. And while the increase was largest in the Twin Cities metro, counties in Greater Minnesota such as Renville, Steele, Goodhue and Mille Lacs had among the highest growth rates in new business applications statewide. In fact, the top five counties with the largest percent increases in new business applications all occurred outside the seven-county metro in 2020.

While this represents only a small fraction of total statewide business applications, the widespread surge in planned business starts is notable given recent disparities between denser and more rural areas of the state.

Additionally, new initiatives are forming around the state to better support and fund entrepreneurs in Greater Minnesota. Many of these efforts are still in their early stages, but the proliferation of entrepreneurial support services provides an underlying infrastructure to catalyze new business growth outside of major metro areas.

Demographic analysis: BIPOC-owned businesses remain underrepresented in Minnesota's economy. But they are growing at a fast rate and outperforming peer businesses of color in the U.S.

Entrepreneurship presents an important pathway to economic mobility and flourishing for Minnesota's BIPOC communities. As *Minnesota 2030: A framework for economic growth* argues, making inclusion a strength in Minnesota is both a moral and economic imperative. Communities of color are driving population growth in the state and will continue to do so in coming decades. Yet, disparities remain across a range of social and economic indicators. It is critical to understand how the demographic makeup of Minnesota's business community is changing, and what can be done to accelerate inclusive entrepreneurship in the state.

Data from the U.S. Census reveal several important insights.

First, BIPOC entrepreneurs remain underrepresented in Minnesota's economy. People of color make up 23.7% of Minnesota's population but just 13.5% of all nonemployer business owners and 6.7% of employer firm owners. As noted in the Minnesota Chamber Foundation's 2021 report, *The Economic Contributions of Immigrants in Minnesota*, this may be due in part to the state's lagging entrepreneurship rates for immigrants. Immigrants in the U.S. are more likely to be self-employed than native-born individuals, but the opposite is true in Minnesota. Only 3.7% of foreign-born Minnesotans are self-employed compared to 5.4% for the state's native-born population.

Despite their continued underrepresentation, however, BIPOC-owned businesses are growing at a fast rate and make up a larger share of all Minnesota businesses over time. In 2012, Minnesota had 47,565 minority-owned businesses, making up 9.7% of all firms in the state. But by 2018, Minnesota had added a net 15,522 minority-owned businesses, reaching a total of 63,097 firms and making up 12.3% of all Minnesota businesses. This growth occurred among both employer and nonemployer businesses, with minority-owned employer firms increasing by 25.4% and minority-owned nonemployers increasing by 33.6% in that time.

Second, total employment and revenue among BIPOC-owned businesses grew in recent years. In 2018, BIPOC-owned businesses employed over 87,000 people and generated $2.3 billion in payroll, up from 63,360 employees and $1.7 billion total payroll in 2012. Similarly, revenue for nonemployer businesses of color grew from $23,000 per business in 2012 to $39,000 per business in 2018. While this remains below the average revenues for white-owned nonemployer businesses, minority-owned businesses closed this gap by over $15,000 per business since 2012.

Rachel Hartland and Nicole Anthony, COYABLU co-founders

Minnesota's BIPOC owned businesses are underrepresented but outperforming their U.S. peers

Minority-owned businesses (MBEs): Minnesota and United States, 2018

	Population of color as % share of total population	Total # of MBE non employer businesses	% share of total non employers	MBE employer firms	% share of total employer firms
Minnesota	23.7%	56,000	13.5%	7,087	6.7%
United States	42.2%	8,700,000	37.4%	1,048,323	22.7%

	MBE non-employer businesses ($ revenue per business)	MBE employer firms (# of employees per firm)	MBE employer firms (annual $ payroll per firm)
Minnesota	$38,787	12.2	$327,000
United States	$35,184	9.4	$323,000

Source: US Census, Nonemployer Statistics

Third, Minnesota's entrepreneurs of color are outperforming minority-owned businesses in the U.S. In 2018, Minnesota's minority-owned employer businesses had three more employees per firm and paid out an average of $4,000 more in annual payroll than MBE employers in the U.S. as a whole. Further, Minnesota's nonemployer businesses of color generated $39,000 per business compared to just $35,000 nationally.

So, while racial disparities remain among Minnesota's entrepreneurs, the state's BIPOC-owned businesses are becoming more numerous and outperforming peer businesses on the national stage.

This momentum appears to have continued since 2020. Leaders from business support organizations revealed that inquiries and demand for services from BIPOC entrepreneurs accelerated during the pandemic. This has occurred alongside a growing number of programs and resources to support BIPOC-owned businesses. Both the data and anecdotal evidence underscore the importance of taking further measures to build on recent momentum and unlock the economic potential of Minnesota's diverse entrepreneurial community.

Similar dynamics exist for women-owned enterprises (WBEs) in Minnesota. In 2018, women-owned businesses accounted for 35% of all Minnesota firms (employer and nonemployer), with another 5% being part-owned by a female owner. Women are much less likely to own a business with paid employees than their male counterparts. WBEs made up just 18% of all employer firms in the state compared to 40% of all nonemployer businesses. Nonemployer firms are smaller and generate far less revenue than employer firms on average. This is especially true for women. Women nonemployer businesses averaged just $26,626 in annual sales in 2018 compared to $56,965 for male nonemployers.

Minnesota trails the U.S. slightly in women-owned business representation. However, WBEs in Minnesota are larger on average than their U.S. counterparts, with Minnesota women-owned businesses averaging nearly three more employees per firm and over $62,000 more in annual payroll. Research from the Women's Foundation of Minnesota also shows that Minnesota was ranked first in the U.S. in employment vitality, an indicator that measures the "employment growth rate of women-owned businesses (2007 to 2018) and the average number of employees per women-owned business."[17]

Like minority-owned businesses in Minnesota, women entrepreneurs continue to be underrepresented but perform well compared to WBEs in the U.S. economy.

Recommendations

The executive team of Arctic Wolf. In October 2020, Arctic Wolf officially relocated its global headquarters from California to Eden Prairie.

Minnesota has an opportunity to build on recent momentum and accelerate startup formation, investment and growth in the coming years. Doing so will require a clear focus on what objectives should be prioritized and how the state's various entrepreneurship initiatives can play a role in achieving these goals. Below are three primary objectives that should guide future action, along with nine strategies to illustrate how Minnesota can make progress in these critical areas.

Objective: Sustain increased business formation rates beyond the pandemic.
Strategies:

1. Foster sustained population and workforce growth and a healthy business climate to create the underlying conditions for entrepreneurship.
2. Capitalize on the surge of new business applications during the pandemic by focusing direct outreach and resource promotion to the newest wave of entrepreneurs interested in starting a business.
3. Create more pathways for people, from students to mid-career professionals to retired business leaders, to explore entrepreneurship and gain the skills and networks to test their ideas in the market.

Objective: Build on recent improvements in startup capital; make capital more inclusive.
Strategies

4. Build on efforts to activate more angel investors and expand access to early-stage funding.
5. Attract and build more venture capital funds.
6. Help founders navigate alternative sources of funding, from small-scale crowdfunding to public offerings.

Objective: Help high-growth startups stay and expand in Minnesota.
Strategies

7. Leverage business retention and expansion programs to help high-growth startups stay and expand in Minnesota.
8. Create more spaces (virtual and physical) to facilitate connections and knowledge spill-over across firms.
9. Support high growth-potential startups across industries, while also targeting sector-specific solutions to build Minnesota's next innovative industry clusters.

Objective:

Sustain increased business formation rates beyond the pandemic.

Minnesota is full of people with innovative skills, ideas and ambitions. More of them are needed to test the waters of entrepreneurship.

The data are clear. Minnesota has among the highest success rates for entrepreneurs in the country. While fewer than half of all new businesses in the U.S. make it past the five-year mark, the inverse is true in Minnesota. In 2020, Minnesota led the nation with 56% of businesses surviving past their 5th year. The state perennially ranks among the top five in this measure.

Minnesota also ranks high in total venture capital investment raised by startups. This is a positive indicator that Minnesota is fostering the type of startups that have the capacity to drive innovation and economic growth.

Yet, the state has seen declining business formation overall in recent decades and consistently ranks in the back third of states for new business starts. Minnesota ranked 31st overall for the number of new employer startups per capita in 2019 and trails the U.S. in growth of nonemployer businesses over time.

Minnesota's entrepreneurial performance can be compared to a basketball team that has among the best shooting percentages in the league but trails in total points per game. The team simply needs to take more shots from the field.

This is important for two reasons.

First, more new businesses mean a larger pool of entrepreneurs who can potentially succeed and take their business to the next level. While many startups fail or remain small-scale ventures, others gain traction and grow over time. Minnesota's history shows that star businesses can come in all shapes and initial sizes. Not all take the same path – many have started in humble origins only to grow over time and become household names.

Second, even businesses that start small and remain small offer sizable benefits to individuals, communities and local economies. Entrepreneurship can provide meaningful opportunities to those with barriers to employment or who seek greater flexibility and autonomy in their work. Small businesses offer needed local goods and services, add vibrancy to main streets, create jobs and wealth, and contribute social capital to their communities.

Accelerating the number of new businesses in Minnesota would thus promote both economic growth and community vitality.

There is no magic formula to increase the rate at which people form new businesses. But three things can help.

Strategies:

1. Minnesota must foster sustained population and workforce growth and a healthy business climate to create the underlying conditions for entrepreneurship.

Growing Minnesota's population and workforce and creating a competitive business climate are the essential ingredients required for long-term gains in startup activity. Achieving these aims is not easy, however. The Minnesota Chamber Foundation's *Minnesota 2030: A framework for economic growth* outlined the basic building blocks of growing Minnesota's population and workforce over time. These include:

- Improve net migration with neighboring states and leverage the state's relative affordability to compete with high-cost population hubs in coastal regions.
- Improve retention of Minnesotans aged 18 to 24, a key demographic responsible for up to two-thirds of overall net migration losses.
- Coordinate statewide immigration advocacy efforts and help local communities attract and integrate international talent.
- Accelerate housing supply by addressing regulatory and market cost-drivers.
- Develop both supply and demand-side solutions to improve child care availability.
- Double-down on efforts to provide digital connectivity throughout the state, using traditional and alternative solutions to deliver high speed internet to residents and businesses.

While these efforts may seem secondary to entrepreneurship, the research literature reveals a direct link between overall population and labor force growth and the rate of new firm formation.

Minnesota's tax and regulatory policies should also be addressed to create a more favorable environment for startup investment and growth. Evidence suggests that local and state policies play a role in startup activity, impacting job creation levels of young firms,[18] migration patterns of star inventors[19] and capital investment decisions from sole proprietors.[20] And while research is still evolving,[21] state tax policy appears to play a role in inter-state migration patterns more broadly,[22, 23] influencing states' ability to attract the talent needed for startups to scale and grow.

Finally, greater efforts should be made to help entrepreneurs navigate the array of regulations that can inhibit startup investments and job creation. For example, one focus group participant noted that complex regulatory issues – such as various local labor mandates like sick and safe time ordinances – can increase the difficulty and perceived risk for entrepreneurs to hire employees. Some entrepreneurs may choose to avoid such compliance risks altogether by using contractors or doing more tasks themselves instead of hiring staff. Lowering this barrier may involve hands-on assistance programs to consult new businesses on relevant regulatory issues, as well as efforts to provide greater simplicity and consistency in Minnesota's overall regulatory regime.

Addressing these structural conditions can help foster more new businesses and startup investment over time.

2. Minnesota can capitalize on the surge of new business applications during the pandemic by focusing on direct outreach and resource promotion to the newest wave of entrepreneurs interested in starting a business. The COVID-19 pandemic created a surprising spike in new business applications across the state, signaling a rising level of entrepreneurial interest. New business applications rose by a staggering 26% during the pandemic, with 59 of 87 counties seeing overall increases.

Minnesota should use this window of opportunity to promote resources and direct outreach to the Minnesotans who are seeking to start a new business. Comments from focus groups and interviews with entrepreneurial support organizations revealed that new business owners are often unaware of the programs that exist to help them or become overwhelmed by trying to navigate the web of resources on their own.

Efforts are already underway to address this. Launch Minnesota has facilitated regional collaboration hubs throughout the state that help entrepreneurs navigate resources in their area. Forge North's Resource Compass helps users build custom searches to find targeted resources. The Secretary of State's Office is partnering with the University of Minnesota to inform entrepreneurs about the MN Cup startup competition when they submit their new business filing. These are a good start.

However, more should be done to promote and scale such efforts, using social media and other digital platforms to reach entrepreneurs where they are and providing hands-on assistance whenever possible to help founders navigate the dozens of organizations and programs that exist to support their success in Minnesota.

3. Minnesota should create more pathways for people, from students to mid-career professionals to retired business leaders, to explore entrepreneurship and gain the skills and networks to test their ideas in the market. Minnesota possesses a vast infrastructure of institutions and programs that equip individuals to navigate careers as paid employees in the workforce. Far

Elias Baker, Mackenzie Andrews, and Allisa Song of Nanodropper, 2021 MN Cup Grand Prize winner

fewer mechanisms exist, however, to help individuals consider entrepreneurial pathways, whether for students, mid-career professionals, or adults later in their careers. This is an area for further exploration and innovation. For example:

- High schools and postsecondary institutions could devote greater attention to both in-school curriculum and community partnerships that provide students with entrepreneurial awareness, skills, and networks. Such efforts could expand beyond helping students experiment with traditional youth-oriented businesses and introduce them to startups that are driving innovation in their communities. Local programs such as ILT Academy and Kandiyohi CEO are already advancing this work in Minnesota. Such models could be further explored and scaled in schools around the state.

- Private businesses and partnering organizations should consider how they can create opportunities for existing employees to engage in entrepreneurial-related activities, enabling them to test new ideas and explore the commercialization of new products. This can take the form of corporate spin-offs, which have a long history in Minnesota. Mayo Clinic is one of the most prominent examples of how existing organizations have begun to institutionalize this model to spur new startups. Accelerating corporate spin-offs could generate a high economic impact, as research suggests that former employees of existing firms outperform other new ventures due in part to their deep industry knowledge and experience.[24]

  Alternatively, businesses can encourage employees to act as entrepreneurs from within the business itself – creating dedicated mechanisms for employees to test new business ideas that can be adopted and commercialized within the existing firm. This can spur innovation within existing businesses while giving employees entrepreneurial skills and experiences that can be utilized to start their own business later in their career.

- Finally, counter to common perception, entrepreneurship is not exclusive to individuals in their early or even mid-careers. Economists find that the success rate of new ventures improves with age. As Miranda et al. state: "Conditional on starting a firm, a 50-year-old founder is 1.8 times more likely to achieve upper-tail growth than a 30-year-old founder."[25]

  With Minnesota's baby boomer population exiting the workforce in large numbers, entrepreneurial programs and resources should target this potentially untapped source of new business ventures. For some, retirement may just be a new chapter for starting their own venture, bringing their experience, networks and financial resources with them.

Objective:

Build on recent improvements in startup capital; make capital more inclusive.

Startup capital is increasing in Minnesota. But early-stage seed funding remains a key challenge, and greater access to startup capital is needed for BIPOC and rural entrepreneurs.

Minnesota startups raised more venture capital from 2016 to 2021 than it did in the preceding decade. Venture capital investment accelerated particularly fast during the pandemic, with Minnesota startups raising a record $1.5 billion in 2020 and completing a record 175 venture capital deals in 2021.

This increase in venture capital activity is occurring on both the supply and the demand side of the equation. The number of new venture capital firms in Minnesota has proliferated in recent years, many of which are targeting strategic segments of the entrepreneurial population. Take, for example, the following Minnesota-based venture funds founded just in the past five years:

- Brown Venture Group was founded in 2018 with the objective of unlocking the door to startup capital for Black, Latino and Indigenous founders in emerging technologies.

- Bread & Butter Ventures was founded in 2017 and focuses venture capital funding to startups in sectors aligning with Minnesota's core sector strengths, such as food and ag, health tech and enterprise technologies.

- Great North Ventures, also founded in 2017, invests in tech startups across the Midwest and has developed efforts to generate startup activity

Jose Rodriguez, of West Oakland Auto, Austin started his business with support of the Southern Minnesota Initiative Foundation.

in Greater Minnesota communities, helping spur additional programs like the gBeta Greater Minnesota – St. Cloud accelerator program.

This increase in venture capital activity has occurred alongside other efforts to improve capital access for early-stage companies. Such initiatives include:

- Groove Capital began in 2020 to build a network of angel investors in Minnesota and early-stage institutional capital for startups.

- The Department of Employment and Economic Development created Launch Minnesota in 2019 to build regional collaborative networks of entrepreneurial support partners and provide grant funding to innovative early-stage companies.

- The Southern Minnesota Initiative Foundation developed two separate equity funds to provide early-stage capital for entrepreneurs in the region.

- In early 2022, Greater MSP's Forge North program published the Forge North Enterprise Playbook to help the region's existing large enterprises identify ways that they can support and invest in local startups.

This list goes on. Taken together, these efforts are shifting the landscape for startup capital in Minnesota and creating an opportunity to accelerate entrepreneurship in coming years.

However, insights from focus groups and interviews with founders, funders and business support organizations make clear that gaps in startup funding remain.

Access to early-stage seed funding continues to be a core challenge for startups in Minnesota. Founders describe a chicken-and-egg dilemma, whereby investors require prototypes, feasibility plans and proofs-of-concept before investing in new businesses; yet, founders need the capital to clear these important milestones in the first place. Bridging this gap is a barrier for even highly innovative and promising startups.

Seed-funding may be particularly challenging for founders who lack access to the investor community. Startups outside the Twin Cities metro and BIPOC founders often start at a disadvantage, lacking the personal networks that can provide trusted referrals to angel investors and venture fund leaders.

The good news is progress in this area can be cumulative. As more startups form, raise capital, hire employees and spin off new companies, the networks and relationships that are activated in the process begin to strengthen, widening the community of stakeholders that can provide referrals to other founders in the future.

So, what can be done to build on recent gains and continue filling in gaps for startup funding in Minnesota?

Strategies:

4. Build on efforts to activate more angel investors and expand access to early-stage funding. Interviews with founders and leaders within the startup ecosystem revealed that: early-stage capital is absolutely critical to getting innovative new businesses to the starting line; angel investment is perceived to be harder to access in Minnesota than other startup hubs on the coasts, particularly for founders without existing connections to the investor community; and there is increasing awareness of this issue and steps being taken to increase seed funding in the state.

Minnesota should build on this recent momentum to recruit individuals who want to invest in new companies and open more doors for startups seeking funding. This could involve numerous components, including:

- Leveraging Minnesota's existing demographics to reinvest wealth into new firms. As noted, Minnesota's aging demographics present an opportunity to connect retirement-aged individuals into the entrepreneurial ecosystem, whether as investors or founders of new companies. Many individuals are simply unaware of the opportunity to invest in new companies and wouldn't know how to get started if they wanted to. Continuing to build awareness and create pathways for individual investors should be a priority going forward.

- Better connect regional angel investment efforts. Efforts are taking shape across the state to recruit more angel investors. Better connecting these disparate local and regional initiatives could build a broader statewide awareness of angel investment as well as de-risk investments by bringing more investors into individual deals.

- Create greater stability in the Angel Investment Tax Credit. Minnesota's Angel Investment Tax Credit is an important incentive for early-stage investment. However, the program faces perennial funding shortfalls, creating uncertainty for investors and limiting the potential impact of the tool itself. Making the tax credit permanent – and assessing other reforms to increase the usability of the credit – could produce positive returns for the state's economy.

5. Attract and build more venture capital funds. Venture capital is reaching a critical threshold in Minnesota. The recent emergence of new VC funds and the widening pipeline of companies seeking investment present an opportunity going forward. As one venture leader described, there is room for more VC funds to stake out niche segments and reach underserved founders. Venture capital leaders described ample deal-flow and volume of viable businesses to invest in. The opportunity is to build more capacity on the supply side.

Increasing venture capital is largely a private sector imperative. However, some states have leveraged public sector resources to increase venture funding for local startups. Fund-to-fund programs like the Illinois Growth and Innovation Fund use state investment dollars from the Treasurer's Office to invest in local companies. Such models could be further studied and assessed in Minnesota.

Regardless of the mechanisms, Minnesota's startup support stakeholders should continue the effort to recruit and build more VC funds in the state in coming years. Doing so could help propel Minnesota past a critical threshold and position the state as a Midwest alternative to crowded startup hubs in large U.S. metros.

6. Help founders navigate alternative sources of funding, from small-scale crowdfunding to public offerings. Despite the important role of angel investment and venture capital, these are by no means the only sources of funding for new businesses. Startup support organizations can help new businesses diversify their funding by looking to alternative vehicles. For some, this may mean pursuing crowdfunding platforms. For others, particularly those in high-tech sectors, government grant funding such as the Small Business Innovation Research (SBIR) program may be a viable path. And counter to common perception, public markets may also offer a way to raise growth capital for young firms. Programs to help new business leaders navigate these various funding channels can leverage capital from outside the state and maximize total investment in Minnesota companies.

Objective:

Help high-growth startups stay and expand in Minnesota.

Minnesota's economic formula has long been to retain and grow its high performing companies over time. To sustain this into the future, Minnesota must focus resources on helping high-growth firms navigate challenges and expand in the state.

Helping new businesses get started and access funding is rightly a priority of entrepreneurship development efforts. But what happens after a company launches and raises capital may have an even greater impact on overall economic activity.

The economic research literature reveals an "up or out" phenomenon where a small subset of all new firms generates a disproportionate share of new jobs, innovation and output.

This is where Minnesota has traditionally thrived, as demonstrated both by its high business survival rates and its venerable list of homegrown companies that started here and steadily grew over time.

A brief story illustrates the point.

In 1978, Minnesota had 14,700 startups in their first or second year of business, ranking 21st highest among all states and 29th highest per capita. Like today, Minnesota was in the middle of the pack for pure startup volume.

Yet, of those 14,700 early-stage businesses, one of them was a new health insurance company, UnitedHealthcare, that emerged amidst a growing cadre of innovators in medical research, health care delivery, and medical technologies. The sustained retention and growth of these relatively small number of firms helped build what would become one of the leading health innovation hubs in the U.S. and continues to shape Minnesota's economy today.

This story represents a broader pattern of entrepreneurship that has defined Minnesota's economic past. Such examples can be found across various industries and regions of the state; from the far reaches of Warroad in northern Minnesota to Winona in the state's southeastern Mississippi River bluffs.

Minnesota's newest wave of innovative startups presents an opportunity to capitalize on emerging technologies and activities that align with the state's historical industry strengths.

Sustaining this model into the future is not inevitable, however. Minnesota must take strategic steps to ensure that innovative companies not only start here but stay and grow here as they cross important stages in their business life cycle.

Strategies:

7. Leverage business retention and expansion programs to help high-growth startups stay and expand in Minnesota. Programs like Grow Minnesota! – a partnership between the Minnesota Chamber of Commerce and dozens of local chambers and economic development organizations around the state – can be leveraged to identify common challenges among innovative young firms and provide hands-on assistance to help them stay and grow in the state. This may be particularly important as companies approach transition points in their business life cycle. For example, firms may be more likely to relocate their headquarters or operations in conjunction with a merger, acquisition, or initial public offering. Collecting insights from these firms and connecting them to the networks of resources, talent pipelines and peer businesses may help improve their retention and growth as they cross these critical milestones.

8. Create more spaces (virtual and physical) to facilitate connections and knowledge spill-over across firms. Startups face many of the same basic business challenges as their more established counterparts. Yet founders and their often-small workforces have limited time and resources to navigate the wide range of issues they face. Business support organizations can support the performance of young firms by creating more spaces for dialogue and knowledge spill-over across firms. For example, these efforts could seek to:

- **Connect startups to professionals in functional roles within more established businesses.** Small firms typically lack dedicated staff to perform the various functions of the business. When they do, it is often limited to just one or two employees who are responsible for the entirety of activities within their respective area, whether in finance, marketing, IT, sales, etc. Startups could benefit from opportunities to learn from experienced professionals in these functions at existing companies. This could help young companies troubleshoot commonly-shared problems, as well as connect mature firms to innovative startups who may have novel solutions that could be applied in their own business.

- **Create shared back-end services for startups that lack the resources needed to gain the services they need.** Peer-learning opportunities are valuable, but some tasks require dedicated expertise from professional service firms and other vendors. Affording these vital services is challenging for many early-stage firms, however. Programs to create pro bono or pooled services in areas such as accounting, legal and logistics could yield significant benefits to young companies. While programs like LegalCORPS

offer pro bono services to very early-stage entrepreneurs, similar programs aimed at post-revenue firms could provide a positive impact to startups while also helping participating vendors build a pipeline of future customers.

- **Better connect startups across regions of the state.** There has been significant progress in recent years to foster collaborative networks of startups and entrepreneurial support organizations within regional economies in Minnesota. Similar efforts to connect businesses and organizations across regions are beginning to form as well. For example, Launch Minnesota recently collaborated with MN Cup – a prominent startup competition held by the University of Minnesota each year – to establish feeder events in each region of the state and increase participation by Greater Minnesota startups. Such efforts can leverage the unique strengths of Minnesota's regional economies while better integrating Greater Minnesota entrepreneurs into the dense startup ecosystem of the Twin Cities metro. Multiplying these types of cross-regional efforts could help alleviate disparities in regional economies and improve startup activity statewide.

9. Support high growth-potential startups across industries while also targeting sector-specific solutions to build Minnesota's next innovative industry clusters. Minnesota is producing innovative startups across a wide range of sectors. The state's diverse industry base continues to replenish and reinvent itself through successive waves of new companies who benefit from its existing strengths in areas like food and ag, health care, financial services, manufacturing and corporate headquarters. Venture capital data from Pitchbook show that Minnesota ranks high nationally in areas where new technologies and products are applied toward these more mature industries.

Minnesota ranked in the top 20 states for total number of venture capital deals between 2016 and 2021 in verticals such as ag tech, edtech, advanced manufacturing, 3D printing, wearables and supply chain tech. Most notably, Minnesota's strength in health care is generating significant investment in new startups, ranging from digital health and biotechnology to medical devices and insurance.

Capitalizing on these opportunities involves greater promotion and awareness of Minnesota's advantages in these verticals, as well as sector-specific solutions to unlock the development of emerging industry clusters.

For example, Minnesota's growing biotechnology sector may have unique needs relative to specialized skillsets and facility offerings (i.e., lab space) to support further growth. Similarly, food and ag startups often require access to co-packing facilities, regulatory assistance, and specialized transportation and storage services. FinTech startups may face barriers related to regulatory risks that inhibit their speed-to-market and thus create greater challenges gaining early-stage capital.

Such illustrations merely scratch the surface. Minnesota must find ways to identify these types of industry challenges and tailor solutions to address them.

New industry initiatives have formed in recent years to meet these needs. Programs like Medical Alley Starts, Mayo Clinic Ventures, Grow North and MBOLD offer services to help startups in health, food and agriculture-related sectors. Accelerator programs like Farm to Fork, OnRamp Insurance Accelerator, and gBeta Medtech offer additional opportunities for startups in these sectors.

Building on these efforts while expanding new offerings to other emerging sectors can help Minnesota foster the industry clusters that will shape the state's economy in coming years.

Back to basics:

Accelerating population growth, attracting talent and improving the business climate are vital to helping successful businesses not only start here but grow in Minnesota over the long run.

Minnesota's slowing population growth, persistent hiring challenges and business climate concerns are inhibitors to sustained growth in new businesses. Early-stage businesses' ability to find talent is an especially critical factor that must be addressed to help promising young companies scale and grow to their full potential. Failure to foster available talent could result in lower firm-level growth and loss of investment in new expansions over time. Similarly, tax and regulatory barriers could choke off growth from young firms, impacting Minnesota's ability to sustain its homegrown economy over time. It is critical to address these core underlying factors in the coming years.

Conclusion

Minnesota has faced unprecedented challenges over the past couple of years, but what remains true to our state, and our culture is the tenacity and innovation to move forward and emerge stronger. The state's entrepreneurial spirit and success is rooted in Minnesota's history and a key to our economic future. We must work to ensure that more individuals from all walks of life have access to resources and capital to turn their ideas into thriving businesses, and some of those businesses will be the corporate headquarters of tomorrow. Every business, whether a sole proprietor or the next Fortune 500 company plays an important role in Minnesota's economy. We look forward to leading Minnesota toward a more prosperous future.

Sources

1. Anthony et al. (2016). *Corporate Longevity: Turbulence Ahead for Large Organizations*, Innosight. Retrieved from

https://www.innosight.com/wp-content/uploads/2016/08/Corporate-Longevity-2016-Final.pdf

2. Decker et al. (2014). *The Role of Entrepreneurship in US Job Creation and Economic Dynamism*, Journal of Economic Perspectives, 28 (3): 3-24. Retrieved from: https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.28.3.3

3. Hathaway, I. and Litan, R. (2014, November). *What's Driving the Decline in the Firm Formation Rate? A Partial Explanation*, The Brookings Institution. Retrieved from: https://www.brookings.edu/wp-content/uploads/2016/06/driving_decline_firm_formation_rate_hathaway_litan.pdf

4. Kiernan, P. and Huiyu, L. (2017, July). *What's Holding Back Business Formation?* Federal Reserve Bank of San Francisco. Retrieved from https://www.frbsf.org/economic-research/wp-content/uploads/sites/4/el2017-20.pdf

5. Curtis, E. and Decker, R. (2018). *Entrepreneurship and State Taxation*, Finance and Economics Discussion Series 2018-003. Washington: Board of Governors of the Federal Reserve System. Retrieved from https://www.federalreserve.gov/econres/feds/entrepreneurship-and-state-taxation.htm

6. Ibid.

7. U.S. Census, Historical Population Change (1910-2020) (n.d.). Retrieved from https://www.census.gov/data/tables/time-series/dec/popchange-data-text.html

8. Stone, L. (2020, February). Being their own boss: *A review of American demography and entrepreneurship,* American Enterprise Institute. Retrieved from https://www.aei.org/research-products/report/being-their-own-boss-a-review-of-american-demography-and-entrepreneurship/

9. U.S. Small Business Administration, Office of Advocacy (2018, August). *A Look at Nonemployer Businesses.* Retrieved from https://www.sba.gov/sites/default/files/advocacy/Nonemployer-Fact-Sheet.pdf

10. Acs et al. (2008). *Nonemployer Start-up Puzzle*, U.S. Small Business Administration. Retrieved from https://www.sba.gov/sites/default/files/Nonemployer%20Start-up%20Puzzle.pdf

11. Ewing Marion Kauffman Foundation, Kauffman Indicators of Entrepreneurship (n.d.). Retrieved from https://indicators.kauffman.org/

12. Akcigit et al. (2019, September). *Synergising ventures: The impact of venture capital-backed firms on the aggregate economy*, VoxEU – Centre for Economic Policy Research. Retrieved from https://voxeu.org/article/impact-venture-capital-backed-firms-aggregate-economy

13. Haltiwanger et al. (2017, September). *High Growth Young Firms: Contribution to Job, Output, and Productivity Growth*, National Bureau of Economic Research. Retrieved from https://www.nber.org/books-and-chapters/measuring-entrepreneurial-businesses-current-knowledge-and-challenges/high-growth-young-firms-contribution-job-output-and-productivity-growth

14. Akcigit et al. (2019, September). *Synergising ventures: The impact of venture capital-backed firms on the aggregate economy*, VoxEU – Centre for Economic Policy Research. Retrieved from https://voxeu.org/article/impact-venture-capital-backed-firms-aggregate-economy

15. Asturias et al. (2021, May). *Business Applications as Economic Indicators*, U.S. Census Bureau, Center for Economic Studies. Retrieved from: https://www2.census.gov/ces/wp/2021/CES-WP-21-09.pdf

16. Haltiwanger et al. (2017, September). *High Growth Young Firms: Contribution to Job, Output, and Productivity Growth*, National Bureau of Economic Research. Retrieved from https://www.nber.org/books-and-chapters/measuring-entrepreneurial-businesses-current-knowledge-and-challenges/high-growth-young-firms-contribution-job-output-and-productivity-growth

17. Women's Foundation of Minnesota and the Center on Women, Gender, and Public Policy of the Humphrey School of Public Affairs (2020). *2020 Status of Women & Girls in Minnesota*. Retrieved from https://www.wfmn.org/research/status-of-women-and-girls-in-minnesota/

18. Curtis, E. and Decker, R. (2018). *Entrepreneurship and State Taxation*, Finance and Economics Discussion Series 2018-003. Washington: Board of Governors of the Federal Reserve System. Retrieved from https://www.federalreserve.gov/econres/feds/entrepreneurship-and-state-taxation.htm

19. Moretti, E. and Wilson, D. (2017, March). *The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists,* American Economic Review, 107 (7): 1858-1903. Retrieved from https://www.aeaweb.org/articles?id=10.1257/aer.20150508

20. Carroll et al. (2000). *Personal Income Taxes and the Growth of Small Firms*, Center for Policy Research. Retrieved from https://surface.syr.edu/cpr/170/

21. Moretti, E. and Wilson, D. (2017, March). *The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists,* American Economic Review, 107 (7): 1858-1903. Retrieved from https://www.aeaweb.org/articles?id=10.1257/aer.20150508

22. Walczak, J. (2022, January). *Americans Moved to Low-Tax States in 2021,* Tax Foundation. Retrieved from https://taxfoundation.org/state-population-change-2021/

23. Cebula, R. and Clark, J. (2010). *Migration, Economic Freedom, and Personal Freedom: An Empirical Analysis*, The Journal of Private Enterprise. Retrieved from https://mpra.ub.uni-muenchen.de/50957/

24. Azoulay et al. (2018, April). *Age and High-growth Entrepreneurship*, National Bureau of Economic Research. Retrieved from https://www.nber.org/papers/w24489

25. Ibid.

MINNESOTA CHAMBER FOUNDATION

GROWING MINNESOTA

380 St. Peter St., Suite 1050, St. Paul, MN 55102

mnchamber.com/foundation