17TH ANNUAL

2021 MICHIGAN ENTREPRENEURSHIP SCORE CARD

MICHIGAN CELEBRATES SMALL BUS

"While Michigan's economy is recovering overall from the pandemic, the recovery is uneven and many industries dominated by smaller businesses are still struggling."









ACKNOWLEDGMENTS

Prepared in partnership with GrowthEconomics, Inc., and ROI – Research on Investment, Canada

The 2021 – Seventeenth Edition was authored by an SBAM in-house team of Brian Calley supported in research and analysis by Dr. Graham Toft, President of GrowthEconomics Inc. and Dr. Nadine Jeserich, VP of Analytics of Research on Investment.

The Michigan Entrepreneurship Score Card analytics and methodology were developed by: DR. GRAHAM TOFT, President, GrowthEcomonics Inc.

The 2021 – Seventeenth Annual Edition Entrepreneurship Score Card was authored by: DR. GRAHAM TOFT, President, GrowthEconomics, Inc.; and DR. NADINE JESERICH, ROI – Return on Investment

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Michigan Celebrates Small Business is grateful for the generous sponsors and supporters who help underwrite the production and distribution of the Michigan Entrepreneurship Score Card each year.

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The Michigan Association of State Universities serves as the coordinating board for Michigan's 15 public universities, providing advocacy and fostering policy to maximize the collective value these institutions provide in serving the public interest and the State of Michigan. Each year, Michigan's public universities serve nearly 290,000 students, providing excellent undergraduate and graduate education, internationally renowned research, and services to Michigan's employers, government leaders, non-profit organizations and citizens. Learn more at www.masu.org.

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Small Business Association of Michigan

The Small Business Association of Michigan is the only statewide and state-based association that focuses solely on serving the needs of Michigan's small business community. We have been successfully serving small businesses like yours in all 83 counties of Michigan since 1969. We're located in Lansing, just one block from the Capitol.

Our mission is the success of Michigan's small businesses. We do this through:

- Advocating for small business
- Bringing business owners together to share knowledge
- Creating collaboration and partnerships
- Delivering group buying power

Our 28,000+ members are as diverse as Michigan's economy. From accountants to appliance stores, manufacturers to medical, and restaurants to retailers, what unites the SBAM membership is the spirit of entrepreneurship... a spirit that drove you to start and continue to operate your own business because you believe you can do something better than anyone else is doing it!.

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BOLSTERING BUSINESSES

The DTE Energy Foundation

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EXECUTIVE SUMMARY

This is the 17th Entrepreneurship Score Card Report, but it is unique in its focus and scope, which reflects the challenges of assessing the condition of the entrepreneurial economy in such a dynamic and unpredictable environment. This report also seeks to identify what helped and what hindered our economic rehabilitation in addition to what our prospects are for a full and robust recovery.

How is Michigan doing?

This is a complex question to answer, but there are clear indications of improvement. Starting in mid 2020, the Comerica Economic Activity Index improved 7 months in a row into 2021. Michigan's unemployment rate and Labor Force Participation Rate are both slowly improving but generally lag the national averages. Personal income and consumer spending were bolstered by federal stimulus payments and significant supplemental unemployment support, but those forces are not sustainable long-term. Earlier improvements in job growth appear to be losing steam into 2021 as we struggle with workforce shortages amidst robust increases in demand tied to loosening of government restrictions.

The topline economic statistics do not tell the whole story.

While Michigan's economy is recovering overall from the pandemic, the recovery is uneven and many industries dominated by smaller businesses are still struggling. Also, even as we headed into the pandemic Michigan's Entrepreneurial Climate, Change and Vitality indexes all showed deterioration.

The nature of this pandemic and the government restrictions implemented as a result of the pandemic had a much larger impact on smaller businesses as compared to industries dominated by larger businesses. Changing consumer habits drove more customers to giant online retailers, long-term closures of offices decimated small retail and restaurants in downtown business districts, and many sit-down restaurants, entertainment related businesses and convention/reception venues closed for good under the weight of government restrictions.

TrackTheRecovery.org shows Michigan lagging the nation in both the number of small businesses open and the loss in small business revenue. Additionally, while personal consumption expenditures on goods have fully recovered above pre-pandemic levels, personal consumption expenditures on services remain far below pre-pandemic levels. The service industry is dominated by small businesses.

Federal spending made a huge difference in the recovery, but also poses real, long-term challenges.

In the earliest days of the pandemic, we saw employment and all economic activities plunge to unprecedented levels nearly overnight. Still, personal incomes, consumer spending and employment all gained back significant ground by summer. The federal response came in many forms, but direct stimulus payments to citizens (\$8.6 billion), the first draw of the Paycheck Protection Program (\$16 billion) and dramatically increased unemployment payments (\$30 billion) played an important role in that early rebound in the year following the onset of the pandemic.

But now, as the economy continues to reopen, employers are reporting significant hardships in staffing their businesses to fully reopen and often cite the continued supplemental unemployment payments as a significant contributing factor. Additionally, price inflation has started to make its way into several areas of the economy, posing new challenges to small businesses seeking to recover.

Even in early stages of recovery there are objective reasons to be optimistic.

The introduction of this report examines the last two recessions to better understand how the Michigan entrepreneurial economy performs in the immediate time periods following the recessions.

The number of small business and employment tend to fall through recession and for approximately 12 months beyond the recession end. If the previous recessions are any indication, we can then expect an

abrupt turnaround, driven by a combination of the ramp-up of existing businesses, the revitalization of businesses laid dormant by the recession, and new start-ups. This fast growth typically occurs for about 2 years.

The 5-year survival rate of new businesses typically decline through recessions and often a year beyond before it picks up. For Michigan, this survival rate turned up strongly about 1½ years after the end of the Great Recession, coinciding with strong state performance in this Score Card's three Entrepreneurial Indices through 2016. This is great news considering the unexpected explosion of new business filings we have seen during this pandemic.



INTRODUCTION

Score Card History

When the Score Card was first conceived 17 years ago, Michigan was in the midst of a long-term economic slowdown. The Small Business Association of Michigan set an ambitious goal to start the long and difficult climb of becoming a "Top Ten" state for entrepreneurs. But to get there, we had to understand how Michigan performed against other states in a variety of areas.

At the time SBAM had no ready reference with which to know how well its entrepreneurial economy was doing - no comprehensive data reference to determine progress. So, we set about to design and publish annual progress. The resultant Score Card is now recognized nationally as one of the most complete assessments of a state's 'state of small business and entrepreneurship'.

Small Business Outlook in a Post-COVID Recovery

SBAM has become familiar with many ups and downs of the Michigan economy but none quite so disruptive as the one we now find ourselves in. We realized we must come up with a variant Score Card for 2021. But to do so we needed to better understand what might lie ahead. To do this we have taken two approaches: First, what are economic forecasters and business strategists saying about the US economy in 2021 and 2022? And second, what we can learn from past major economic recoveries?

For most economists, the following five factors will contribute to accelerated growth to varying degrees:

- Pent-up demand from households putting their savings to work—savings accumulated over the prior 'stay-at-home' 12 months. The U.S. savings rate clocked 20% in January, a rare occurrence.
- Accelerated spending boosted by stimulus from federal spending.
- A pandemic showing significant signs of waning and coupled with rising vaccination rates.
- A friendly/accommodative Federal Reserve, keeping interest rates low through 2024.
- Breakthroughs in technology and work organization along with new work-from-home arrangements discovered during the recession.

While some forecasts sound too good to be true, Michigan leaders, policymakers and small business owners would do well to be ready for what could be a highly charged growth economy over the remainder of 2021, into 2022.

Over the years SBAM has performed in-depth exploration of the Michigan entrepreneurial economy, and much has been learned about how Michigan small businesses respond to a variety of factors.

The recession recoveries of 2001 and 2007-09 show similar stories. The causes and circumstances of these two recessions were quite different, yet the path Michigan small business tracked during and after each recession was similar. Is a similar COVID recession path likely? We don't know yet, but based on past recession recoveries, the 2021-2022 COVID recession recovery poses promising growth rates for Michigan small business and entrepreneurial dynamism.

Small Business Outlook in a Post-COVID Recovery

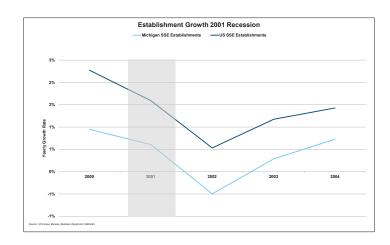
With years of annual Score Card experience SBAM has become familiar with the peaks and valleys of the Michigan economy, but none have been quite so disruptive as the valley we now find ourselves in. To best understand this impact, it was decided to produce a variant Score Card for 2021. But to do so we needed to better understand what might lie ahead for the second stage companies as well as what we can learn from past major economic recoveries. For the purposes of this discussion "second stage" companies refer to businesses that are beyond the start-up phase, but still small by employment and revenue standards.

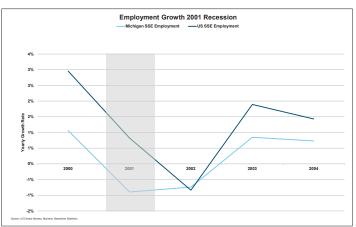
Key Findings:

The 2001 and 2007-09 recessions paint similar pathways:

Establishment and Employment trends, 2000-04

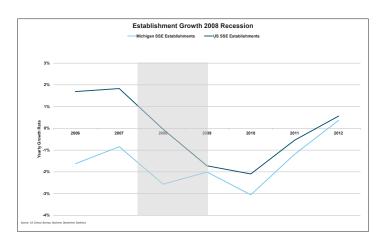
(recession = shaded area)

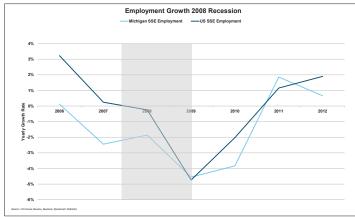




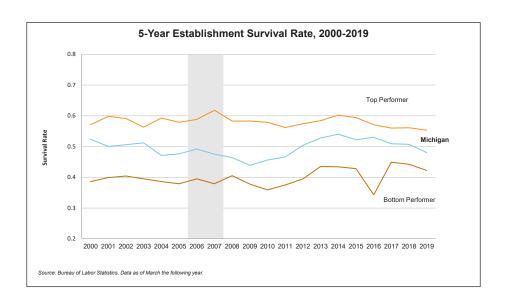
Establishment and employment trends, 2006-12

(recession = shaded area)





Five-Year Establishment Survival Rates



- Second stage small business establishment counts and employment kept falling through the recession and, on occasion, approximately 12 months beyond the recession end.
- Then an abrupt turnaround occurs, driven by a combination of the ramp-up of existing businesses, the revitalization of businesses laid dormant by the recession, and new start-ups.
- Post –recession, fast growth occurs in both the number of SSEs and their employment for at least 2 years.
- Fast growth ensues in both the number of SSEs and their employment for at least 2 years post-recession.
- The 5-year establishment survival rate declines through recessions and often a year beyond before it picks up. For Michigan, this survival rate turned up strongly about 1½ years after the end of the Great Recession, coinciding with strong state performance in this Score Card's three Entrepreneurial Indices through 2016.

Conclusions:

- If the last 2 recessions are a guide, the worst of small business losses may be over for Michigan in 2021. The COVID recession that began in February 2020 is expected by many economists to officially end by early summer 2021. Based on previous trends, Michigan would do well to prepare itself for another small business take-off.
- Over these previous recessions Michigan has moved up and down at about the same pace as the U.S. The challenge for state leaders and policy makers is to spur early SSE business growth at minimum to keep pace with the U.S. They should be on the ready with appropriate growth-focused policies and programs.
- An implication for longer term small business survival rates is that survival rates in these early two
 years of recovery is critical for overall state business growth. A widely-held rule of thumb is that
 within five years more than half of new businesses fail. Increasing survival success is particularly
 critical under tough or fast-changing economic conditions. The challenge for state leaders and
 policymakers is to implement programs and policies that increase the likelihood of survival in
 these two years.

A Caveat!

We do not know for sure that this path will replicate under all recession conditions. And remember, the COVID recession is no 'garden variety' recession. Therefore, we cannot say the post-COVID recovery will play out the same in 2021-2022 as in the previous two recessions, but we can say this path deserves careful watch supported by more regular data collection. Consequently, Score Card data will be updated twice per year with two Score Card reports released – another version will follow this in October 2021.



CHAPTER 1: RECENT SNAPSHOT OF THE MICHIGAN BUSINESS ECONOMY

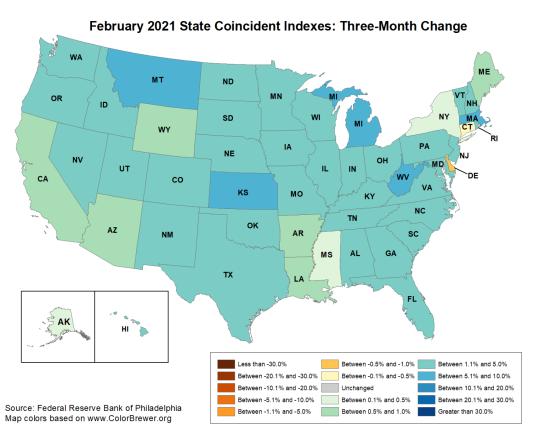
After an extraordinarily difficult spring, Michigan's economy has gained back significant ground. Relatively quick recoveries in certain industries, such as Manufacturing and Construction, has resulted in stronger topline economic performances in many categories. However, Michigan's recovery has not been even. Several industries still face extraordinary challenges that will likely continue until the pandemic recedes.

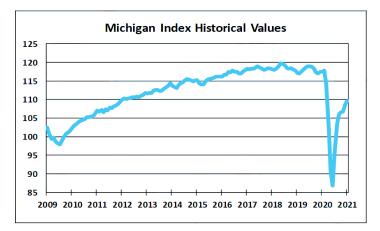
We pay close attention to the overall condition of the Michigan economy because in general, small business growth does better when the Michigan economy is growing as a whole. In the early part of 2021, the Michigan economy is looking up relative to the depths of the recession, though growth has slowed since the recovery began in mid-2020.

Still, we know that the actions of state and federal governments have had a significant impact on the direction of the economy as a whole and on specific industries and regions to substantially different degrees. This report will access the state of economic recovery and identify the challenges and risks that lie ahead.

1. Overall Recovery

- Coincident Index, February 2021, a widely recognized measure of near-term state economic growth from the Federal Reserve Bank of Philadelphia.
- Coincident Index Change Nov. '20 Feb. '21: 8% (US 1%)
- Continuous uptake since April 2020 with the pace of growth stagnating in September 2020. Acceleration again in January and February 2021.
- Comerica Economic Activity Index, January 2021:
- Index increased for the seventh consecutive month in January, up by 0.8%
- Looking for improving conditions in Michigan this spring as vaccine distribution ramps up, and massive fiscal stimulus hits the economy along with very low interest rates.
- Comerica February 2021 Michigan Outlook, Feb 2021: Set for Acceleration





INDEX CATEGORIES

Positive	Negative				
House prices	Nonfarm payrolls				
Light Vehicle Prodution	Industrial Electricity De- mand				
Housing Starts	Hotel Occupancy				
UI claims	State Sales Tax Revenue				
	Total State Trade				

- Expect demand for automobiles and other durable goods to surge.
- Results of the 2020 census expected to confirm negative net-migration (net population outflow) for Michigan over the past few years.
- Looking for improving manufacturing conditions in the state through the remainder of this year.
 However, the adoption of new vehicle technology will likely result in reduced labor demand among vehicle manufacturers.

2. State Based Operational Restrictions and other changes caused or accelerated the pandemic

While the economy has seen substantial improvement since the low point of the pandemic, that recovery has been very uneven between industries and regions within our state. The purpose of this section is to define those industries still facing significant challenges in spite of the overall improving economy. It is not to assess the necessity or appropriateness of governmental restrictions.

In spring 2020, like in other states, Michigan required most business activities to cease. Very little was known about the threat that the virus posed to our citizens. Additionally, the healthcare system in certain regions of the state was severely strained in the response to the spread of COVID-19. As the initial wave of infections, hospitalizations and deaths reduced through late spring and into summer, many industries, including some of Michigan's largest, were permitted to resume operations with certain restrictions and extensive employee safety measures. Employment in sectors such as manufacturing and construction rebounded quickly.

Still the pandemic, and subsequent government orders, had lasting and severe impacts on several industries.

Long-Term Operational Restrictions

While many industries were well suited to transition to remote work and others were allowed to resume operations relatively quickly, many industries struggled greatly under long-term state ordered restrictions. Most notably impacted have been restaurants and the hospitality industry, fitness centers, movie theaters, entertainment related businesses, bowling centers, conference centers, banquet facilities and other businesses related to gatherings of people. These industries were limited to severe capacity restrictions that literally required long-term closures and often did not make sustainable business operations possible. Job losses and business failures among these industries have been substantial and persistent even as the state's economy grew during the second half of 2020.

Pandemic Trends Created Both Opportunities and Ruin

Practically overnight, many businesses learned to function with a remote workforce. Early indications suggest that many businesses are considering retaining some of these remote work practices, potentially saving costs, and expanding the pool of potential employees. Expanded remote work practices also created more opportunities for some services providers, such as Information Technology companies.

But what presented an opportunity for professional and office-related businesses resulted in a major disruption for a whole host of businesses whose model exists to serve traditional offices. Commercial landlords will likely see occupancy and rental rates decline. Parking ramps, dry cleaners, janitorial service

providers, office furniture manufacturing, sales and service, and childcare providers all face a potentially permanent long-term decline in demand for their products and services.

Changing Consumer Habits

Sticking with the remote work trend example, there are certain businesses who face challenges because their previous customers have changed how and where they consume goods and services. This is especially apparent in downtown business districts that are normally filled with office workers each day. Restaurants and small retailers will continue to struggle if a large portion of their regular customers are literally working in a different zip code.

The pandemic emergency orders and consumer preferences have also pushed more retail activities online where existing large online retailers were well positioned to gain market share with such an abrupt change in consumer behavior. While this trend toward online purchases undoubtedly existed before the pandemic, it was substantially accelerated in 2020. And it would be a mistake to assume this trend will only impact retail product sales. Consumer habits from banking and financial transactions to entertainment consumption could potentially permanently impact the demand for many kinds of services currently delivered through location specific infrastructure.

Uneven Recovery

While the extensive difference between recovery rates of different industries is well known and understood, there are also vastly different recovery experiences within industries too. For example, the food and packaging at fast food restaurants is literally designed for takeout and delivery. Many restaurants of this kind experienced record sales in 2020. Meanwhile, restaurants and bars whose real product is service and atmosphere, have struggled to survive under in-person dining restrictions.

Likewise, many hospitality businesses related to summer tourism ended the 2020 season in a relatively strong position. But similar hospitality related businesses in cities that mainly exist to serve conference attendees have regained only a small fraction of their previous business.

While the economic recovery of the state is well underway, albeit at a slowing pace, it is important not to lose sight that the topline economic performance of Michigan does not reflect a complete picture of the challenges still facing many industries that have been most negatively impacted by the pandemic. This section seeks to draw attention to industries whose recovery has not yet started in earnest.

3. Small Business Trends and Recovery

The extended closures and restrictions described in Section 2 have impacted small businesses much more substantially than larger businesses. The makeup of the most restricted business sectors (restaurants, entertainment, bars, movie theaters, bowling centers, banquet facilities, etc.) are largely comprised of small businesses.

State specific data from TrackTheRecovery.org shows Michigan "small businesses open" lagging far behind pre-pandemic levels. While this is generally true nationwide, the disparity is more acute here in Michigan (-39.3%) as compared to the US (-33.0%) as of April 28, 2021. Furthermore, trends show that this index has worsened over the fall and winter as restrictions persisted.

Furthermore, as of April 28, 2021, TrackTheRecovery.org shows "small business revenue" down 31.3%, which is further evidence of the uneven nature of the U.S. recov-

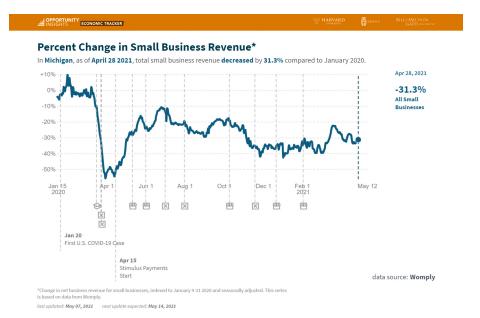


ery. Much like the "small businesses open" index, the small business revenue index is more acute in the state of Michigan (-31.3%) as compared to the US (-29.5%) as of April 28, 2021.

4. Federal Spending

The federal government's economic response to the pandemic has been substantial. For purposes of this report, we will focus on three major programs that brought nearly \$60 billion in additional spending and financial support to people and businesses in Michigan since the pandemic began.

Paycheck Protection Program (PPP)



The Federal Government designed, passed, built, and implemented a new program meant to support businesses in maintaining their payroll during the pandemic. While the program had its challenges, it did save and/or strengthen many businesses forced to reduce operations. And due to the design of the program, the main beneficiaries were the employees.

The program was implemented through banks and other financial institutions, which allowed financial support to reach businesses and their employees much faster than if it had been processed through a government agency. The PPP also provided the added benefit of providing interest expense support, helping businesses to maintain good standing with their lenders at a time when many were experiencing a major decline in sales.

In 2020, 128,159 Michigan small businesses received over \$16 billion in funding through the Paycheck Protection Program. In late 2020, Congress passed, and the President signed, legislation that expanded the eligibility of the Paycheck Protection Program and allowed certain businesses to receive a second draw of financial support. As of February 28, 2021, an additional \$5 billion had been distributed to 57,017 Michigan small businesses.

This table shows the total Paycheck Protection Program support to small businesses in all states and territories during the year 2020.

States and Territories

State	Loan Count	Net Dollars				
AK	12,087	\$1,311,919,096				
AL	70,331	\$6,245,496,446				
AR	43,669	\$3,333,413,929				
AS	296	\$12,233,986				
AZ	85,771	\$8,683,213,943				
CA	623,360	\$68,644,418,670				
СО	109,170	\$10,402,528,373				
СТ	64,629	\$6,718,327,006				
DC	13,510	\$2,145,594,401				
DE	13,202	\$1,520,789,172				
FL	432,893	\$32,251,422,436				
GA	174,429	\$14,688,047,519				
GU	2,208	\$192,074,123				
HI	25,097	\$2,478,864,703				
IA	61,418	\$5,124,660,961				
ID	31,056	\$2,593,497,832				
IL	225,409	\$22,849,324,883				
IN	83,246	\$9,558,833,007				
KS	53,755	\$5,031,013,626				
KY	50,655	\$5,282,244,302				

State	Loan Count	Net Dollars
LA	78,866	\$7,461,129,155
MA	118,392	\$14,315,290,705
MD	87,007	\$10,054,456,506
ME	28,309	\$2,266,870,258
MI	128,159	\$16,040,039,297
MN	102,352	\$11,269,172,424
MO	95,599	\$9,194,916,076
MP	482	\$38,700,116
MS	48,545	\$3,209,532,093
MT	23,908	\$1,780,415,878
NC	129,289	\$12,288,152,674
ND	20,510	\$1,775,524,393
NE	44,074	\$3,442,626,881
NH	24,741	\$2,563,295,034
NJ	157,405	\$17,360,085,952
NM	23,033	\$2,268,802,500
NV	45,771	\$4,215,380,081
NY	348,870	\$38,699,947,686
ОН	149,144	\$18,532,840,346
ОК	66,210	\$5,460,267,982

State	Loan Count	Net Dollars			
OR	66,344	\$7,057,574,349			
PA	173,552	\$20,742,750,517			
PR	39,544	\$1,821,671,163			
RI	17,942	\$1,905,859,786			
SC	67,176	\$5,791,085,572			
SD	23,494	\$1,682,896,085			
TN	99,579	\$8,970,935,809			
TX	417,276	\$41,326,454,268			
UT	52,275	\$5,257,258,177			
VA	114,570	\$12,588,096,276			
VI	2,057	\$126,446,683			
VT	12,401	\$1,201,175,929			
WA	107,659	\$12,464,918,993			
WI	89,615	\$9,908,335,442			
wv	18,062	\$1,802,521,277			
WY	13,586	\$1,052,798,882			
To be confirmed	139	\$6,057,463			

Unemployment Insurance Benefits

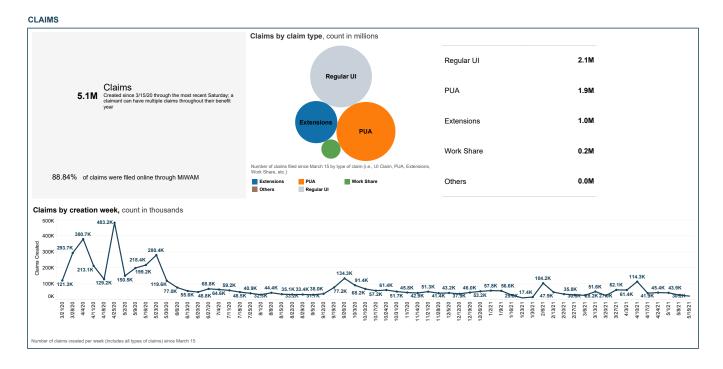
The federal government significantly enhanced the unemployment insurance benefit to unemployed workers, while also expanding eligibility to self-employed individuals.

States offer various financial levels and benefit durations of unemployment support. The federal benefit was treated as a uniform add-on of \$600 per week, which is over two times the regular state unemployment benefit. The unemployment system set records in virtually every way in 2020.

Total unemployment insurance payments from March 15, 2020 through March 1, 2021 totaled a staggering \$30.2 billion dollars.

PAYMENTS		
	State Unemployment	\$5.5B
	Pandemic Unemployment Compensation (PUC)	\$19.2B
	Pandemic Unemployment Assistance (PUA)	\$5.4B
	Pandemic Emergency Unemployment Compensation (PEUC)	\$2B
\$34.5B Shops 3/1520. May not align exactly with audited financials at the end of the year	Extended Benefits (EB)	\$0.4B
	Lost Wages Assistance (LWA)	\$1.6B
	Work Share	\$0.1B
	Other	\$0.2B
	MEUC	\$<0.1B

The number of unemployment claims exceeded previous records by many multiples at over 4.6 million between March 15, 2020 and March 1, 2021.



Federal Stimulus Payments

The massive CARES Act, which established the Paycheck Protection Program and the enhanced unemployment benefit previously discussed, also sent direct stimulus payments to Michiganders earning up to \$75,000 (phasing out through \$100,000) or \$150,000 for joint filers (phasing out through \$200,000).

The payments totaled \$1,200 per qualifying adult (\$2,400 per couple) plus \$500 per qualifying child. In total, more than five million people received over \$8.6 billion in stimulus payments.

5. Personal Income and Consumer Spending

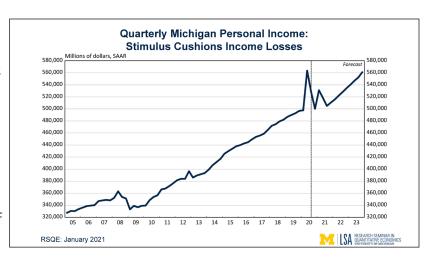
Extensive federal stimulus spending appears to have had a significant impact on Consumer Spending and Personal Income even though employment has not yet recovered.

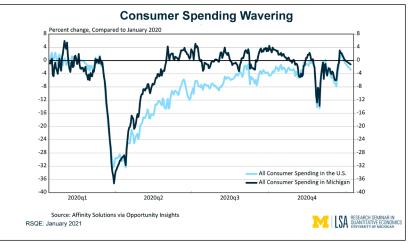
Federal unemployment benefits stacked on top of regular and extended state unemployment benefits, in additional to direct stimulus payments, provided substantial personal income support even in the face of major interruptions in employment.

Michigan's Consumer Spending recovered more quickly than the rest of the nation, but appears to have softened in the 4th quarter of 2020.

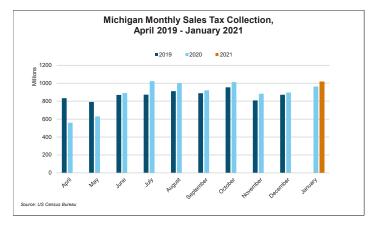
6. Sales Tax Revenue

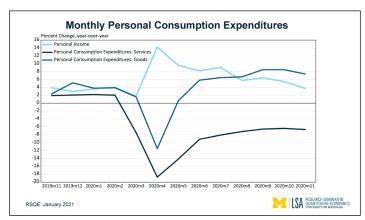
Rising personal incomes appears to have bolstered sales tax collections, which in Michigan are applied mostly tangible consumer products and not services. Michigan's sales tax collections have not only kept pace with 2019, but have exceeded Q3 and Q4 collections year over year. January 2021 numbers compared to the previous year look promising as well.





While Sales Tax collections are up, those collections mask lagging personal spending on services, which are not generally subject to Sales Taxes. This is not particularly surprising given the fact that most service-related businesses are small businesses that have been much more negatively impacted by government orders (section 2 of this chapter) and the economic fallout of the pandemic (section 3 of this chapter).



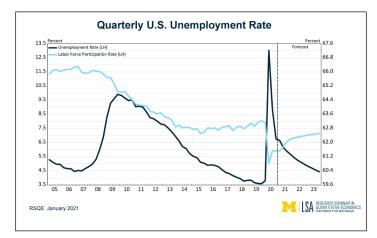


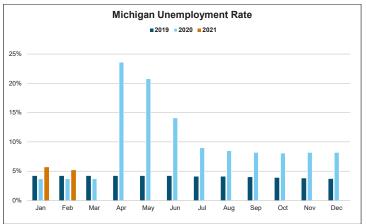
7. Unemployment and Labor Force Participation

Nationally, the Labor Force Participation Rate is slowly recovering from the extraordinary reduction in the Spring of 2020. Similarly, the unemployment rate has clearly improved but that rate somewhat overstates the true recover when you consider how many people exited the labor force and have not returned.

- Unemployment Rate 5.2% Feb. 2021 (seas.adj.)
- WARN notices YTD = 5 (Employers of 100 workers or more covered by Unemployment Insurance)

- giving advance notice of plant closings or mass layoffs)
- Entering into 2021 Michigan's unemployment rate remained high compared to the US and pre-pandemic levels.



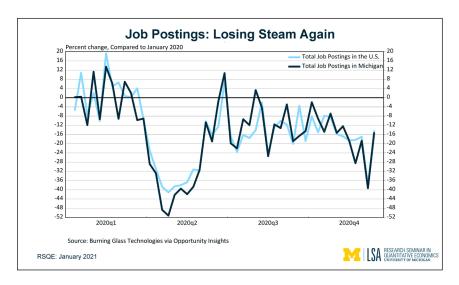


8. Job Postings

Job Postings rebounded quickly in late spring and early summer but have faltered since July. We saw an uptick in December, but Job Postings significantly lag pre-pandemic levels both nationally and in Michigan.

9. Small Business Applications

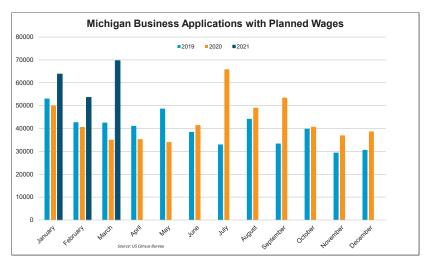
One surprising and hopeful statistic is the substantial increase in business startups indicated by the number of new business filings during the pandemic and into the beginning of 2021. This trend has occurred in Michigan



and nationally but has been particularly strong in Michigan.

Employer Identification Number filings can represent anything from a real estate holding company with no employees to a new business with planned wages.

There are many conceivable reasons for the surge in new business startups during this time. During difficult economic times, the relative risk of an individual starting a new business may be lower because other employment opportunities may have evaporated. As the pandemic disrupts business and so many aspects of life, it would not be a surprise to see entrepreneurs meet those disruptions with innovations advanced through new businesses. More remote work may be leading to an increase in independent contractors. It is also possible that people might be starting side businesses because a more flexible remote work schedule makes it feasible.



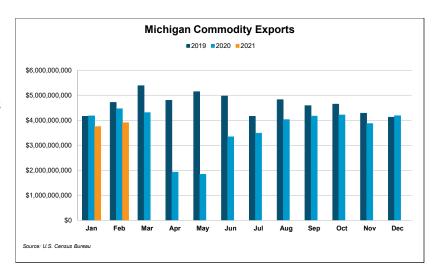
It will take some time to understand the drivers and long-term sustainability of these new enterprises,

but it is clear that a significant increase in entrepreneurship is occurring during this pandemic.

10. Exports

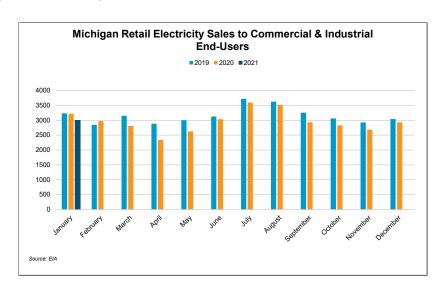
- Beginning in February 2020, exports were lower than 2019 each month until December where they were a tad above 2019.
- Exports are looking weaker going into 2021.
- While exports have long been an important part of Michigan's economy (given global manufacturing supply chains) the lack of a clear recovery of exports is an indication

that pandemic-related trade interruptions are not yet overcome.



11. Commercial and Industry Electricity Use

Beginning March 2020, business electricity use went down every month compared with 2019. This is not surprising given how many business sectors remained closed or substantially reduced through the beginning of 2021.





CHAPTER 2: ANNUAL DATA CHECK - HOW MICHIGAN STACKS UP AGAINST ALL STATES

Each year this Score Card seeks to document how well Michigan's entrepreneurial economy has been performing within Michigan's broader regional and national economic context. After a very good run mid-decade, these latest full year comparisons (for 2019) point to late decade disappointing performance, raising the stakes for Michigan to do better in 2021-22 post-COVID.

Michigan's score on all three drivers slipped from 2018 to 2019. The state no longer leads the Midwest on any of the three entrepreneurial drivers – it is in the mid-range of other Midwest states but at the bottom on Entrepreneurial Vitality.

2.1 Michigan's Entrepreneurial Climate, Change & Vitality: 2009-2019

This year's Score Card is released with the backdrop of nearly 11 years of gradual, solid U.S. economic recovery that began when the Great Recession ended in 2009 and ended with the 2020 COVID recession year. Michigan's labor force had an unemployment rate of 5.7% as of January 2021, a significant drop from 8.2% in December 2020 but that was due largely to the labor force falling by 120,000 because of unemployed permanently leaving the labor force.



Broadly, how has Michigan's "Entrepreneurial Economy" been doing? The short answer is "much better" than 10 to 15 years ago, but with more cautionary signs continuing to emerge. When the 2004-2005 Michigan Entrepreneurship Score Card was first released, Michigan's entrepreneurial conditions were already challenging relative to other states, and then worsened significantly during the Great Recession.

Beginning mid-2009, Michigan's entrepreneurial economy began a robust rebound, driven by a number of factors including:

- Recovery of the overall national economy
- The introduction in 2011-12 of more favorable business tax policies
- A broad shift in the state's economic development priorities from "attraction" to "economic gardening," an approach that prioritizes augmenting the success of Michigan businesses

Not surprisingly, the core indices reported in the Score Card improved markedly over 10 years. Indeed, as shown later in this chapter, Michigan's Entrepreneurial Climate, Change and Vitality indices bottomed out in 2007-08 and then grew rapidly and reach peaks in 2011-12. Since 2012, however, each index has moderated or declined, suggesting that while Michigan is still growing, its entrepreneurial economy has been and continues to slowly lose ground relative to other states. While some positive trends remain strong, overall risks to Michigan's future entrepreneurial economy continue to rise.

Michigan's entrepreneurial economy is being ac-

tively shaped by many transformative factors at work in today's fast-paced economy. Some of these transformative factors especially impact Michigan's manufacturing sector, including:

- Rapidly changing manufacturing organization and production as companies increasingly turn to robotics and AI (artificial Intelligence). This is in turn necessitating new and different education and skills and fewer, higher productivity workers.
- Rapidly changing vehicle technology platforms leading to more electric and autonomous vehicles that overall require less manufacturing due to fewer moving parts.
- Changing management–labor relations as reflected in a recent round of negotiations concerning the GM/UAW strike, resulting in higher labor costs.
- International trade disputes that have constrained and disrupted Michigan's export activities.
- A markedly changing political economy wherein both worker and resident partisan views across the political spectrum have polarized, making it harder to find common ground on the basic drivers necessary for free enterprise and democratic harmony. Controversies surrounding such issues as health insurance, environmental quality, road funding and education/training complicate the business environment for small businesses and entrepreneurs.

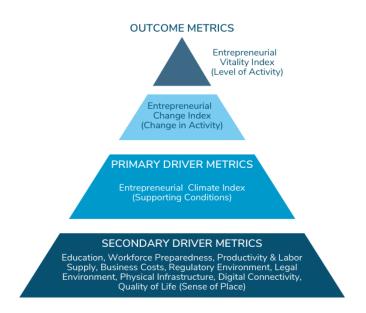
Michigan's Entrepreneurial Climate, Change and Vitality Indices

Michigan's entrepreneurial economy is complex, with many nuances and dimensions. As such, Michigan's entrepreneurial economy cannot be effectively understood through a single measure or metric. This challenge is compounded further when, as we do with the Score Card, we wish to understand how Michigan's entrepreneurial economy is positioned relative to the entrepreneurial economies of other states.

To better address this complexity, the Score Card team developed and has used, tested and refined three distinct indices of **Entrepreneurial 'Climate,' Entrepreneurial 'Change,'** and **Entrepreneurial 'Vitality.'** Together, these three indices have continued to do a remarkably comprehensive and effective job capturing the 'health' of Michigan's entrepreneurial economy relative to other states.

While Entrepreneurial Climate, Change and Vitality

are each described more fully later in this chapter, it's helpful to understand first how these indices relate to one another. As shown in this pyramid, the Entrepreneurial Vitality and Change indices are 'outcome' metrics influenced by the set of "Primary Driver" metrics that make up the Entrepreneurial Climate Index. Entrepreneurial Climate is in turn affected by a very wide range of more than a hundred supportive, yet background, "Secondary Driver" metrics that are also presented in the Score Card.



The Entrepreneurial Vitality, Change and Climate indices track specific dynamics of Michigan's entrepreneurial economy that have different degrees of focus on Michigan's entrepreneurial economy each year. The separation of these indices is intentional, and a unique feature of the Score Card methodology.

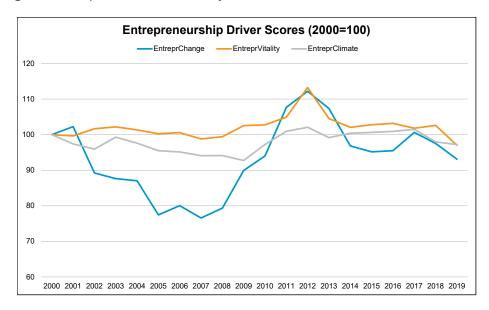
Viewed over time, it becomes easier to see the relationships between Michigan's Entrepreneurial Climate, Change and Vitality scores. As shown below, Michigan's Entrepreneurial Climate and Change drivers have moved broadly in tandem since 2008. As Entrepreneurial Climate (which measures the health of underlying business conditions) improves, so follows the level of Entrepreneurial Change (which measures the relative direction of a state's entrepreneurial economy). It is not surprising that an Entrepreneurial Change response happens almost contemporaneously with changes in Entrepreneurial Climate given a free market environment.

Entrepreneurial Vitality is different. It is a measure of how large the entrepreneurial economy is relative to the entire economy. States like Michigan that have high economic concentrations of large

21

corporate companies typically have lower levels of Entrepreneurial Vitality than states that have relatively smaller concentrations of large corporations. Indications are that Michigan's Entrepreneurial Vitality follows Climate with a one to two-year lag, but in a much more subdued fashion, and can be out of sync in any given year.

Scanning Michigan's Entrepreneurial Climate, Change and Vitality rankings over the past 10 years gives a sense of the "arc" of the early weakness, the gathering strength, and the current moderation of Michigan's entrepreneurial economy.



Michigan Entrepreneurial Climate, Change and Vitality Rankings Relative to Other States (1 is Highest Rank, 50 is Lowest Rank), 2009-2019

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Entrepreneurial Climate	39	32	22	18	25	22	23	21	20	29	29
Entrepreneurial Change	42	33	10	6	13	29	34	31	22	28	44
Entrepreneurial Vitality	31	36	29	11	28	33	29	34	34	34	46

Note: The lighter Green shading indicates "Top 10" ranking and darker Red shading indicates "Bottom 10" ranking. Also, annual rankings are revised as additional data becomes available, and thus may change from year to year.

Michigan's Entrepreneurial Climate - Rank 29 (2019)

Michigan's Entrepreneurial Climate is a Primary Driver index made up of metrics that together give a composite indication of the underlying supporting conditions for the entrepreneurial economy relative to other states. As such, a high Entrepreneurial Climate rank for a state implies a favorable "pro-entrepreneurship climate" that fundamentally makes it more conducive for entrepreneurs to establish and grow their businesses in that state relative to other states.

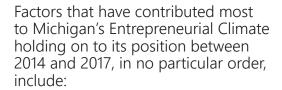
The Entrepreneurial Climate Index is comprised of three sub-indices related to innovation, capital access, and general business conditions. The Research and Innovation sub-index seeks to measure investment in and returns from a variety of innovation-focused activities. The Financial and Institutional Capital sub-index takes the pulse of actual cash flow as well as institutional support for small firms and startups. The General Business Growth sub-index captures the vitality and health of the underlying business economy that supports entrepreneurial dynamism.

Entrepreneurial Climate is also influenced by Secondary Driver metrics that include measurements of education, workforce and labor productivity, business costs, and infrastructure. And of course, Entrepreneurial Climate is affected by broader national and international economies as well.

Michigan has meaningfully improved its Entrepreneurial Climate since 2009. After being flat and then declining for most of the 2000s, Michigan's Entrepreneurial Climate experienced notable gains in 2010 through 2012, when Michigan outperformed its Midwest competitors average and its Entrepreneurial

Climate rank rose to in be in the "Top 20" of states nationally.

Since 2012 however, Michigan has experienced a slow degradation of Entrepreneurial Climate momentum relative to other states, falling from a rank 18 position in 2012 to a rank 25 in 2013 due in part to several business financing indicators slumping. However, there have been small continuous improvements, driven mostly by pickups in Research & Innovation and General Business Growth. In 2018, Michigan's Entrepreneurial Climate saw a slip from rank 20 in 2017 down to a rank of 29. This put Michigan in the middle of the Midwest group, and remained at rank 29

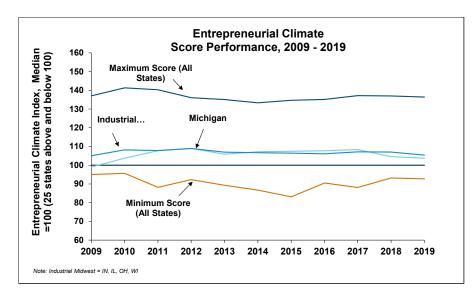


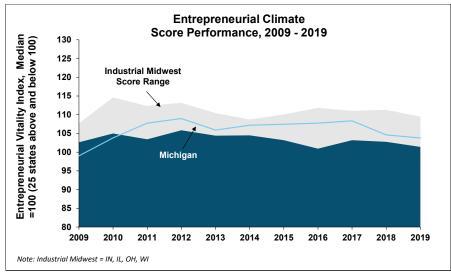
Patents and R&D

in 2019.

- Business Profit Growth
- Some good years in FDI Employment
- University Royalty Income

However, 2019 data saw a sharp drop in gross domestic product and export growth. Michigan also continues its historic vulnerability compared to other states in terms of lower-than-average capital access for





its entrepreneurs, especially in commercial and industrial lending and private small business lending.

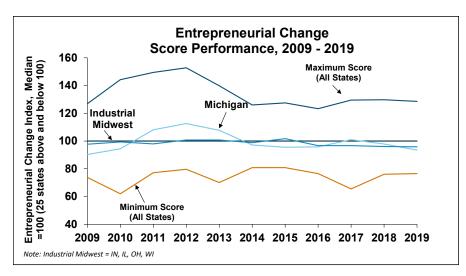
Michigan's Entrepreneurial Change - Rank 44 (2019)

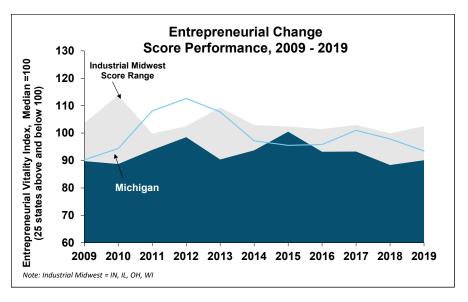
Entrepreneurial Change is a "movement" index that shows the general current direction a state's entrepreneurial economy is going relative to other states. Entrepreneurial Change speaks to the level of success entrepreneurs in Michigan are experiencing relative to other states. An improvement in a state's Entrepreneurial Change rank suggests that entrepreneurs in that state are generating more new firms, more new jobs and more new wealth at higher incremental rates compared to entrepreneurs in other lower rankings states.

Entrepreneurial Change is comprised of running three-year averages of variables that broadly indicate the direction of entrepreneurial economy growth or decline. The Entrepreneurial Change index includes incremental rates of change data for commercial enterprises including rates of change in business growth, start-ups, fast-growth/high tech businesses, payroll, and proprietor income.

As Michigan's Entrepreneurial Climate began to improve quickly from the depths of the Great Recession, Michigan's Entrepreneurial Change index also improved. Beginning in 2009, the Entrepreneurial Change Index picked up dramatically, suggesting that even as the recession dragged on, Michigan's entrepreneurs began to become more active. Then their rising rate of activity – and success – began to compound. Indeed, by 2011 and 2012, Michigan's Entrepreneurship Change rank had rocketed to "Top 10" ranks of 10th and 6th in the nation respectively, up from a "Bottom 10" rank of 47th in 2008 just a couple of years before.

However, as Michigan's Entrepreneurship Climate cooled after 2012, so too did Michigan's Entrepreneurship Change ranking relative to other states. The relative decline was swift, losing steam in 2014 and falling to a national rank of 34 in 2015. Though other Industrial Midwest states saw their own slowdowns, Michigan lost growth momentum faster than others. Fortunately, it stabilized in 2016 and showed signs of improvement in 2017 to a rank of 23. But Michigan as well as its Midwest competitors saw a drop of scores in 2018 and





2019. Michigan currently ranks 44, but still above Illinois and Ohio. Michigan's late 2019 drop in the graph below is primarily attributed to a sudden fall in the rate of increase of net new establishments from early 2020 data brought on by the pandemic.

Michigan's Entrepreneurial Vitality – Rank 46 (2019)

The direction of Entrepreneurial Change in turn influences a state's relative level of overall entrepreneurial activity – its Entrepreneurial Vitality. Entrepreneurial Vitality variables together present a broad measure of the level of a state's entrepreneurial activity relative to the entire economy.

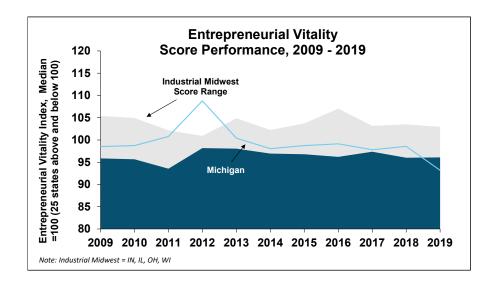
When compared to measures of Entrepreneurial Vitality in other states, Michigan's Entrepreneurial Vitality ranking has remained in the "30's" range for most of decade except for 2012, but with a notable worsening in 2019.

Michigan's 2019 Entrepreneurial Score is notably below the median dashed line of 100 (where it is bunched tightly with many lower scoring states). The top performer state for Entrepreneurial Vitality is Massachusetts. Indeed, The Entrepreneurial Vitality Index is a slow-to-change structurally driven outcome index that captures the size of the entrepreneurial economy, relative to the state's overall economy. Since Michigan's economy is comprised of a high portion of large corporations, it realistically may take a decade or more of steady and consistent entrepreneurial economy growth for Michigan's Entrepreneurial Vitality rankings to reach even a Top 20 status.

Metrics that contribute to a state's Entrepreneurial Vitality include:

- Self-employment
- Net business churn, or turnover
- Net new businesses
- Fast growing companies
- Investment awards
- 5-year survival rates
- University spinoffs

A key metric that has sustained Michigan's Entrepreneurial Vitality score for many years is its 5-year establishment survival rates metric, a Top 15 states performer from 2012 to 2016, and Michigan's number of SBIR and STTR awards consistently ranked above average. Michigan's



relative underperformance in other metrics such as establishment turnover rates, self-employment rates and university spinout businesses have consistently put downward pressure on Michigan's Entrepreneurial Vitality scores.

Michigan's strides in Entrepreneurial Vitality from 2010 to 2012 suggests that a more rapid rise in Vitality transformation is possible, though the subsequent drop in the state's performance since 2013 is evidence of how difficult it is to improve the relative ranking in this Index over the long term. After all, other states are improving their Entrepreneurial Vitality positions too.

While comparisons with Top 10 Entrepreneurial Vitality states like Massachusetts, Virginia or California may not be realistic in the near term, comparisons with other top Entrepreneurial Vitality states like Florida, Utah and Colorado may be.

One key to increasing Michigan's Entrepreneurial Vitality over the long term is steady and consistent progress in improving Michigan's Entrepreneurial Change index. In the fall edition of the 2021 Score Card report, we begin to take an exploratory look at six states that are Top 15 Entrepreneurial Change states that have dramatically improved their Entrepreneurial Change rankings within the past decade. These states are Colorado, Georgia, Maryland, North Carolina, Utah and Washington.

2.2 Post-COVID Critical Success Factors and select Key Metrics to Watch

This edition of the Score Card is intentionally more forward-looking than in the past. As covered in Chapter 1 we expect a major uptick in the U. S. economy to occur, possibly by mid-2021. This will mark the likely beginning of a post-COVID recovery. While the exact shape and direction of the Post–COVID economy is yet unfolding several key determinants have become widely acknowledged as critical success factors (CSF) at state and local levels.

The bottom line from Chapters 1 and 2.1 is that Michigan small businesses have been losing steam in recent years and were badly hurt in 2020. However, new business startups provide an encouraging indication that entrepreneurs are 'gearing up'. What general economic conditions are favorable for Michigan's small business revitalization? What is it about Michigan that sets the stage for a strong take off as indicated by the Comerica report (Part 1)?

This Part 2.2 is an early exploration of prospects for Michigan going forward in the second half of 2021 and 2022. It is not a forecast but an attempt to tease out prospects for Michigan growth since overall economic growth accompanies small business growth -- to identify attributes that could be promising for Michigan's post-COVID success. Our logic is as follows:

1. We don't know what the post-COVID economy is going to look like or what it will take to be a leader among the states. But increasingly business leaders, strategists and planners are acknowledging that it's not 'back to the old normal'. Changes that were in the woks before COVID are being accelerated -- digitization, remote working, cloud-based systems, robotics, artificial intelli-

- gence, etc.
- 2. For now, all we have to go by are hunches and mounting consensus across experts that certain state and local Critical Success Factors such as high-speed broadband, electric power reliability, worker technology skills, etc. will likely make even more difference to individual business productivity and market penetration than in the past.
- 3. We don't yet know the precise causation but do find from the metrics below that Michigan does possess several competitive strengths likely to play into a favorable post-COVID uptake.
- 4. These findings serve as a teaser that call for a much deeper assessment of Michigan's prospects and challenges going forward.

These CSF's listed below along with a Key Metric to Watch in each case, show how Michigan stacks up relative to other states.

- Private Sector Innovation/Industrial Research
- Technology Workforce
- Digitization /Broadband
- Electrification (High Reliability)
- Advanced Producer Services
- Internationalization / Foreign Direct Investment

First, a Note on Michigan's Business Climate Backdrop as it enters the Post-COVID Economy

Michigan's business climate, which corresponds to the level and nature of costs that businesses incur related to their operations in Michigan, remains a work in progress. While sorely challenged a decade ago, it dramatically improved relative to other states due to tax reforms in 2011. There have been additional improvements over the last five years on several fronts while some impediments remain. Recent SBAM Score Cards have reported Michigan's general Business Climate solidly mid-range. Several recent 'best states for business' rankings affirm Michigan's improved business climate situation with four recent reports placing Michigan close to the Top 15 states:

- The "Small Business Tax Index" 2019 by the Small Business and Entrepreneurship Council placed Michigan at #14
- The CNBC "Top States for Business", 2020 placed Michigan at #16
- The Tax Foundation's 2021 "State Business Tax Climate Index" placed Michigan at rank #14, with a 'Corporate Tax' rank at 20.
- The Chief Executive magazine's 2020 annual survey of senior executives ranked Michigan at 13 on "Best and Worst States for Business," up 19 spots from the year before. Chief Executive reports this as "one of the largest jumps in the Best & Worst States for Business ranking history and reflected a broad surge of confidence by CEOs even as the auto industry has leveled off".

Key factors that continue to hold Michigan back include an uncompetitive unemployment insurance tax structure, and high malpractice costs combined with a "moderate" legal climate that together mean that opportunities for legal actions against businesses related to malpractice and tort are relatively more likely to occur than in many other states. In addition, Michigan's ranking for small business health care premium costs dropped noticeably in 2016 and stayed below average in 2017, suggesting that small business Health Care premiums have been worsening for Michigan's businesses relative to other states. However, performance turned around in 2018 with a drop in premiums for small businesses, while 2019 saw a continued improvement to a current rank of 14th, with other states less able to contain cost rises. Energy Costs have seen a decline in ranking as well. Despite these drawbacks, a closer examination of the six CSF's below indicate Michigan would do well to capitalize on favorable competitive advantages for a post-COVID take-off.

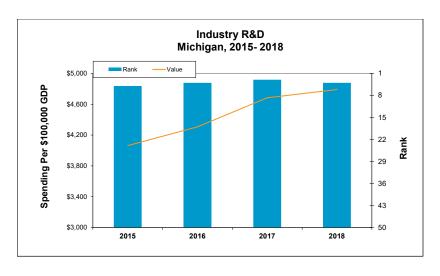
Eight Post–COVID Key Metrics to Watch

(Note: for several charts below complete 2019 data for all states is not available as of April 2021, some due to changes in methodology for 2019 data)

1. Private Sector Innovation: Metric - Industrial Research and Development

Michigan has historically had a strong technology R&D and talent base. Previous Score Cards have shown how the state continues to rank in the Top 10 in numerous R&D and high-tech workforce metrics. This is a critical economic competitive advantage for Michigan's entrepreneurs in a post COVID economy.

Michigan's strong position here is in part because Michigan's public and private sectors invest heavily relative to most other states in several key areas that are critical to future technology-led entrepreneurial growth, including:



- R&D (both university-based and industry-based)
- Innovation (measured in patents per worker)
- STEM educated workers pre- and post-BS
- STEM and related 'knowledge' credentialing programs
- Excellence in graduate programs
- High tech employment (both mfg. and services high-tech)

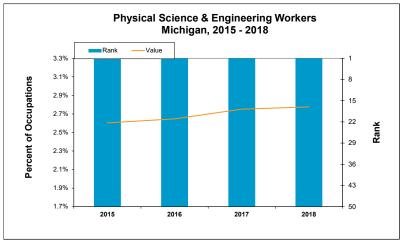
The graph below shows how industrial R&D spending has increased over the past four years and how Michigan has maintained a top five ranking.

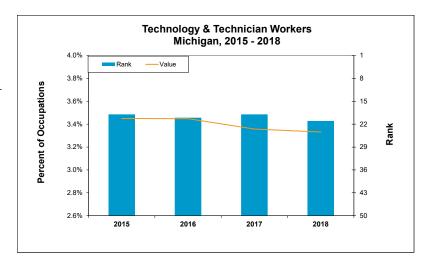
2. Technology Workforce: Metrics - Physical Science and Engineering Workers; Technology and Technician Workers

Information, knowledge, and ideas are critical assets for success in the innovation economy. Having a strong technology-oriented human capital base will be a necessity in the post-COVID economy. The graphs below demonstrate that Michigan can capitalize on respective strong human capital assets as means to economic progress.

As shown in the graph below over the last four years Michigan's Physical Science and Engineering workers as a percent of all workers has been gradually increasing with the state maintaining a #1 ranking.

Many mistakenly focus exclusively on bachelor's degree attainment as a measure of a state's human capital quality. In fact, some of the most critical occupations for industry success lie in the often fast-growing mid-level categories like highly-skilled tradesmen, technicians, and technologists. While still strong, Michigan has experienced some slippage in Technology and Technician workers since 2016. Any weakening of this talent pool raises future talent supply risks for Michigan's many tech and non-tech growth companies.

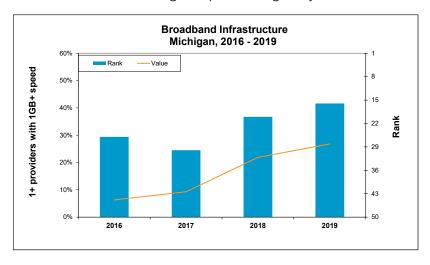




3. Digitization /Broadband: Metric - Population with 1+ GB internet Speed

Earlier Score Cards have reported that, relative to other states, Michigan's poorer highways, broadband,

and air access, are all creating constricting drags on both Michigan's entrepreneurial and broader business sectors. Indeed, one could argue that the impacts on the entrepreneurial economy of Michigan's deteriorating infrastructure should be increasingly prominent in policy discussions, especially those discussions related to digital infrastructure, energy, and the finance of road repairs and international crossings. Important building blocks of the innovation economy and technology-based economic development are not only traditional/public works infrastructure but "virtual" infrastructure, information highways, and IT services. The ability to connect and communicate



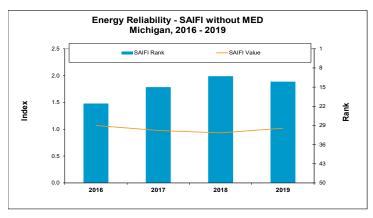
directly relates to the innovative and entrepreneurial capacity of a state. The metric below, percentage of population that has access to 1gb internet speed providers with at least 1 provider, is a shorthand measure to show Michigan's situation is improving.

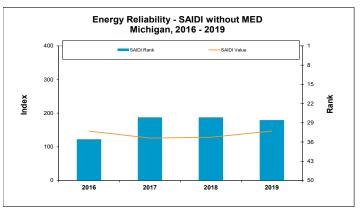
A good geographic coverage of broadband makes sure that all parts of the state have the opportunity to be part of digital and mobile technology transformations. At the same time, the access has to be at a reasonable cost and service, and some extent of competition (more than one provider) is more likely to assure such an outcome.

4. Electrification (High Reliability): Metrics - System Average Interruption Frequency and System Average Interruption Duration

In an information technology world, reliable power distribution has become an increasingly important consideration in business attraction and retention. With the expansion of artificial intelligence, advanced logistics and remote work the driver is not only supply but reliability. Electrical reliability is measured with two charts. First, the System Average Interruption Frequency (SAIFI) Index across all utility providers which represents the average number of interruptions per customer, including major event days. The second is SAIDI, System Average Interruption Duration Index, commonly measured as the total time duration of interruptions for the average customer across the state electric system during a predefined period of time. Both measures are used widely in the industry.

As shown below Michigan's Interruption Frequency metric ranks well while Interruption Duration deserves improvement. (Note re MED: MED is an abbreviation for 'excluding major event days'. These are low frequency high impact events like major storms.)

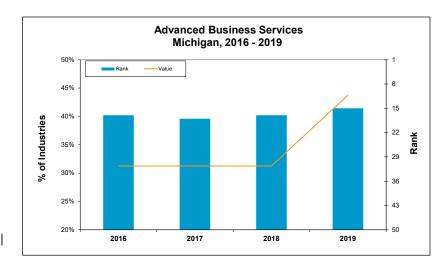




Source: US Energy Information Administration

Advanced Business Services: Metric – Percent of Advanced Business Services

Advanced economies are characterized by the degree to which specialty small/mid-size businesses provide specialized 'producer services' to support complex production processes. Their lines of businesses range from specialized tech-intensive financial services (fintech) to frontier research labs to computer and cloud support. These businesses meet the needs of local/in-state larger business clients as well as those out of state.



A Key Metric to Watch in this regard is the concentration and diversity of Advanced Business Services. This is measured as the percent of 16 different advanced business service categories that show a location quotient above 1, i.e., with a higher job concentration in Michigan than what is typical for the nation. As shown below, this number is increasing in Michigan, along with the state's rank improving, indicating Michigan is growing a more diversified, robust mix of businesses for its next leg up.

6. Internationalization: Metric - Workforce Share from Foreign Direct Investment

International business is a catalyst for growth. As the world's economy becomes increasingly interdependent, the impact is not just increased trade. Large multinational firms locate production facilities

across the globe including foreign direct investment (FDI) in Michigan. Foreign investment can be an important source of well-paying jobs. The table below gives a measurement of the growth in employment in foreign-owned firms as a percentage of total employment. The chart shows year-to-year growth upwards in the percentage of workers in Michigan who work for bank and non-bank, foreign-majority-owned companies. Michigan now ranks in the top 5 U.S. states.

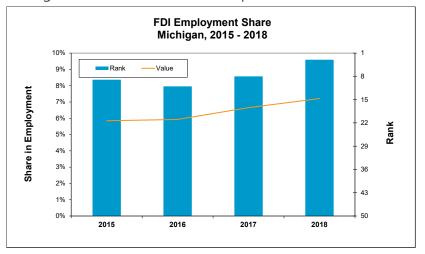


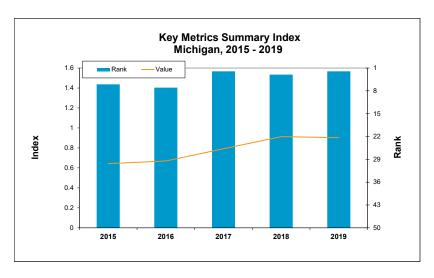
Composite of all Metrics to Watch

The scores of all eight Metrics to Watch are normalized using the z-score method, then added to produce a composite 'Summary Index' as shown to the right.

While more strategic analysis is warranted this preliminary scan of Critical Factors for Success suggest Michigan possesses sound building blocks for post-COVID economic growth provided policy and program action is taken over the next 2/3 quarters.

Special Note: Quality of Life that continues to support and attract entrepreneurs.





Previous Score Cards have noted that Michigan's Quality of Life attributes have been and continue to be impressive for an industrial state. Several PlaceMaking/'Pure Michigan' strengths conducive to tech/entrepreneurial growth are closely tied to community economic vitality. Michigan's PlaceMaking is based on the principle that entrepreneurs and the talent they need choose to settle in places that offer the amenities, social and professional networks, resources and opportunities that support thriving lifestyles. In short, growth businesses prosper in vibrant communities where entrepreneurs prefer to live.

Score Card metrics point to a number of Michigan "Quality of Life" attributes that have held up well even

through recessions, such as parkland and golf courses consistently scoring in the Top 15 states over the past 10 years. Also, Michigan residents enjoy relatively high homeownership rates and improving crime rates and urban cost of living. However, declines in water systems and clean air deserve watching. One sees the results of successful PlaceMaking most readily in the urban centers like Detroit and Grand Rapids where young, skilled workers are now returning to find job opportunities and to live.

Michigan has moved up in rank to 21 in 2018 from a low rank of 40 in 2013 for the metric Generational Creative Class—indi-

Generational Creative Class
Michigan, 2015 - 2018

22%
Rank Value

18%
15
22
29
29
14%
10%
2015
2016
2017
2018

cating that efforts in PlaceMaking are paying off. Generational Creative Class is the percent of the labor force 16-34 and 55 years plus with bachelor's degree or higher. This metric gets at the breadth of talent of a state by combining educational attainment at both ends of the age spectrum.

Source: US Census Bureau, Current Population Survey



CHAPTER 3: NEAR TERM SMALL BUSINESS TREND WATCH

Near-Term Trend Watch Indicators

The Michigan Entrepreneurship Score Card (Part 2.1) has proven to be a valuable tool for understanding structural changes to Michigan's entrepreneurial economy over time. However, because it relies on data that takes up to two years for its providers to gather and process, we also assemble more recent quantitative evidence for analysis and decision-making.

As in last year's Score Card, we report a number of specific data points to help readers and policy makers become "more current" with the evolving state of Michigan's entrepreneurial economy. In this section, we describe our quarterly "Trend Watch Indicators".

What do these Trend Watch Indicators suggest? While any initial prognosis is preliminary and should be treated with caution, our broad compilation of these 6 Trend Watch Indicators show how severely Michigan business and related job creation was hit by the 2020 COVID recession. But all the while Michigan's existing businesses continue to be resilient and new business formations have kept pace with the US rate, down and now trending up.

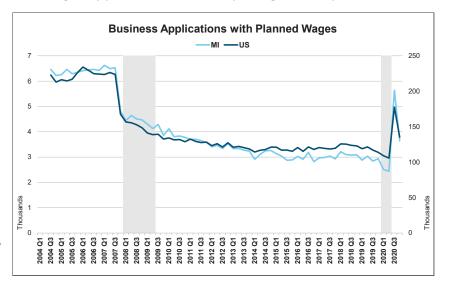
As reported last year, by the end of 2019 there were signs of a slowing entrepreneurial economy after 10 years of Great Recession recovery. Any subtle indications of expansionary potential were stopped in their tracks when the COVID recession hit in February 2020. Jobs created from business expansions less those lost from contractions were badly hit (Trend Watch Indicator #3). Nevertheless, the new business formation rate has continued on an upswing since late 2018 and new business applications were higher in 2020 than in 2019. Further, an expansion/later stage venture capital upturn (Trend Watch Indicator #6) noted in last year's report has continued. These data suggest that going forward in 2021-22 Michigan should continue with its focus on policies and programs that support existing small/mid-size businesses while paying special attention to new and young business entrants at this stage of a new business cycle.

Trend Watch Indicator # 1 Business Formations (quarterly)

In Part 1 a relatively new Census source of data (https://www.census.gov/programs-surveys/bfs.html) is used to observe overall trends in new business filings /applications. One surprising and hopeful statistic

is the substantial increase in new businesses indicated by the number of new business filings during the pandemic and into the beginning of 2021. This trend has occurred in both Michigan and nationally.

A closer look at new filings is possible with the category 'Business Applications with Planned Wages' graphed below. They indicate intent to do business, open up and create new wages. From Feb 20-Feb 21 they numbered 1,386 in Michigan, a near 50% increase from the 2019 count for the same time period. They represented a 48.7% (U.S. 32.0%) increase over the COVID year, indicating Michigan businesses forming aggressively after the COVID recession of Mar-May 2020.

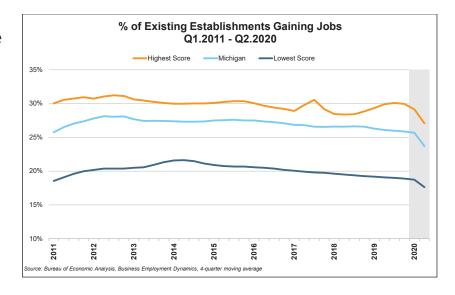


Trend Watch Indicator #2: Breadth of Job Creation (quarterly)

The percent of businesses (large and small) creating jobs in any quarter is a good measure of the job-creating dynamism of a state's economy. In good times, one usually sees at least 25% of existing

businesses creating new net jobs in any quarter. This graph shows the percentage of establishments creating jobs by quarter, with Michigan bounded by the highest and lowest-performing states. These data have a three-quarter lag, so the graph below is up through Q2 2020.

After a rapid improvement starting in 2010, the Michigan job-creating engine plateaued in late 2012. Along with the highest and lowest performers, Michigan presents a slight but noticeable downward trend since mid-2015. While this was not unexpected during the maturing years of the last business cycle, the dip in 2020 due to COVID recession is now fully

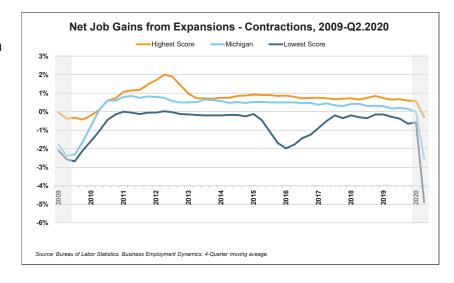


evident. Now Michigan scores just above the desired 25% target.

Trend Watch Indicator #3: Net Job Gains from Business Expansions Minus Contractions (quarterly)

This metric shows the net jobs created from expansions minus contractions relative to the total number of jobs. It is a good aggregate indicator of the degree to which 'businesses in place' are taking on risks and embracing the challenge of success and failure. In general, a higher rate implies a stronger entrepreneurial economy.

With the share of existing Michigan businesses creating jobs slowing down, the net job contribution rate of Michigan's businesses has been falling slightly 2012 thought 2019. Yet, Michigan's performance is and has been close to the highest scoring state. A more noticeable

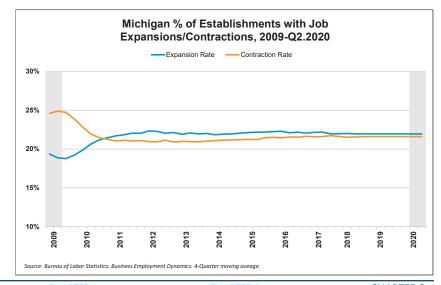


drop-off can be observed due to the COVID recession. This graph depicts the job loss challenge the state now faces in 2021.

Trend Watch Indicator #4: Business Expansion & Contraction Rates (quarterly)

One of the most conspicuous signs of a dynamic and strong business economy is a business expansion rate outperforming the contraction rate. Expansion and contraction rates below are measured in terms of net jobs.

Michigan's expansion rate of existing business turned above the contraction rate in Q3 2010 and has not looked back throughout the last-recession recovery. Yet, the gap between expansion and con-

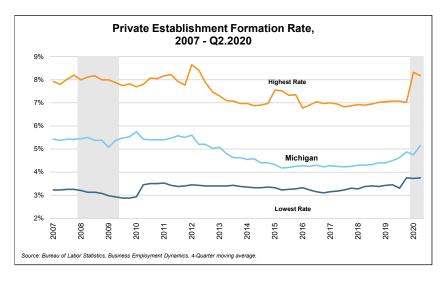


traction rates has continued to narrow to almost equal levels. Even through Q2 2020 expansion job rate still exceeded the contraction rate.

Trend Watch Indicator #5: Michigan's Private Establishment Formulation Rate (quarterly)

Michigan's Private Establishment Formation Rate shows the quarterly rate of new business creation as a percentage of all businesses. Michigan, in line with top performing states, has shown a significant trend decline since 2010, with stabilization since 2015, then upturn beginning mid-2018.

The formation of new businesses is part of the "life blood" of any state's entrepreneurial economy. There is cause for concern given that Michigan's current establishment formation rates are considerably lower than before the 2007-09 Great recession. But the uptrend in this graph since Q4 2018 along with very re-



cent business applications statistics (Trend Watch Indicator 1) pose a more hopeful outlook.

Trend Watch Indicator #6: Expansion/Later Stage Venture Capital (quarterly)

Only approximately 10,000 U.S. businesses per year receive venture capital, and funding focuses largely on two sectors: information technology and health care. Consequently, tracking seed and startup finance to judge a state's business dynamism can be debatable. However, local access to later stage funding rounds often makes it much easier for promising Stage 1 and 2 companies to raise and deploy additional

investment capital to significantly accelerate their growth rates -- and turn them into solid job creators.

Michigan has not been highly successful in attracting expansion/later stage venture capital, placing notably below the 50-state average. However, it has performed usually near the middle or better among its Midwest peers, especially since 2013. The only neighboring state performing consistently better than Michigan has been Illinois/Chicago. Funding as a percentage of GDP has accelerated since late 2017, a crucial input to the growth of technology-focused innovative companies.

