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MemMeasures

VOLUME II

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GMERG GREATER MEMPHIS ECONOMIC
RESEARCH GROUP

 GREATER MEMPHIS CHAMBER

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About This Report

Guided by the Greater Memphis Chamber, **MemMeasures** is a testament to the Chamber's commitment to strategic thinking and intentional action for the economy of Greater Memphis. The initiative emerged as a direct outcome of engagement with the 2020 Brookings Institution Inclusive Economic Indicators Lab and collaborative efforts of the Greater Memphis Economic Research Group (GMERG), previously known as the Center for Economic Competitiveness, along with Innovate Memphis and BLDG Memphis. Its overarching goal was to create a shared set of regional metrics, establish a framework for evaluating and prioritizing projects, and connect community and economic development strategies, all aimed at driving a prosperous and inclusive recovery of the economy in Greater Memphis.

MemMeasures Volume II marks the continuation of the journey, building upon the foundation laid by the original exploration of Greater Memphis's economy in **MemMeasures Volume I**. This continuation serves the Chamber's ongoing dedication to fostering an environment conducive to economic growth and community engagement in the Greater Memphis area.



The intent of **MemMeasures** lies in its strategic utilization of the “People Powered Prosperity Dashboard”, a tool central to the initiative's mission of scrutinizing and benchmarking vital economic metrics. This dashboard is instrumental in deploying regional benchmarks, identifying and implementing actionable steps that fortify the pathways toward economic prosperity. The insights gained from this dashboard are not just analytical data points but serve as crucial catalysts in the **MemMeasures** report, enabling the identification of specific actions and strategies. These insights are fundamental to laying the groundwork to create sustainable and robust economic pathways within our community, ensuring a future built on informed and strategic decision-making.



Through rigorous research and detailed analysis, this report reflects a deep commitment to the welfare of the Greater Memphis community. It functions more than just an analytical tool; it is a comprehensive guide that breaks down the complexities of our economic environment.

As a comprehensive guide, **MemMeasures** sets the stage for strategic, long-term planning and development in the Greater Memphis area. This initiative serves as the foundation for **Prosper Memphis 2030**, the Greater Memphis Chamber's strategic plan. The goals outlined in **Prosper Memphis 2030** are actionable targets grounded in the insights provided by **MemMeasures**. This alignment of strategic vision with data-driven analysis forms a powerful force, empowering stakeholders to adopt innovative strategies that are responsive to current economic conditions while also preparing for future challenges.

Prosper Memphis 2030, lays out objectives focused on delivering innovative services to support the thriving and expansion of Memphis industries, alongside attracting new businesses and capital into the region. These objectives include attracting 700 new advanced industry companies, creating 50,000 quality net new jobs, and sustaining 2.0% or more annual growth in regional Gross Domestic Product (GDP). Additionally, **Prosper Memphis 2030** aims to foster a diverse labor force, ensuring that all regional workers can compete in Memphis's global labor market. This includes specific goals such as awarding 20,000 STEM certificates annually by 2030, becoming the top metro in the country for the highest average

income for black workers, and reducing race gaps in employment rates to 2.5% by 2030.

In this endeavor, **MemMeasures** plays a crucial role, offering a comprehensive framework to assess and prioritize economic and community development efforts. By establishing a shared set of regional metrics, it aligns closely with **Prosper Memphis 2030's** focus on attracting advanced industry companies and creating high-quality employment opportunities. The insights gathered by **MemMeasures**, particularly in areas such as STEM graduate growth, economic presence, and industry diversity, provide invaluable data for informed decision-making.

This intricate collaboration between Prosper Memphis 2030 and MemMeasures is pivotal in enhancing the strategic planning process, ensuring that initiatives are coordinated, impactful, and aligned with the broader objective of fostering a prosperous and forward-thinking Greater Memphis.

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Since its inception in 1986, Turner Construction Company has played a pivotal role in the development of Memphis, contributing to the city's skyline and infrastructure. In 2016, Turner further demonstrated its commitment to the region by opening a local office, which has since grown to encompass more than 95 dedicated colleagues across various departments, including operations, preconstruction, safety, procurement, accounting, marketing, and business development.

With deep roots in Memphis, Turner is uniquely positioned to offer customized solutions that address the specific needs of the community. The company's local expertise, combined with its extensive resources, ensures the delivery of superior results for every project. Turner's team in the Mid-South is adept at managing complex projects with precision and efficiency, offering clients the benefits of a locally-focused team backed by the strength of the nation's largest construction management firm.

With a proven track record across major market segments such as K-12 and higher

education, federal, commercial, healthcare, aviation, pharmaceutical, sports, retail, and green building, Turner is at the forefront of innovation, embracing emerging technologies and committing to making a meaningful difference for our clients, employees, and communities.

Founded in 1902, Turner has built a reputation for providing exceptional building services to clients who value diligence, resourcefulness, and creativity. With 47 offices throughout the U.S. and a team of more than 11,000 skilled professionals, Turner manages more than 1,500 projects nationwide each year. In Memphis alone, the company's completed construction volume exceeds \$2 billion.

Turner is dedicated to upholding the highest standards of service, quality, and integrity—values that have been central to the company's operations since Henry C. Turner established it. With this solid foundation, Turner continues to pursue excellence in all its endeavors, delivering outstanding results for clients and making a positive impact in the communities it serves.



For more information about Turner Construction Company and its services in Memphis and beyond, please visit www.turnerconstruction.com

This report is brought to you by Turner Construction Company, a proud supporter of MemMeasures 2.0 and the Greater Memphis Chamber's Greater Memphis Economic Research Group (GMERG).

Table of Contents



I. Introduction	06
II. The Three Pillar Approach	07
2.1 Economic Foundation	
2.2 Economic Enablers	
2.3 Economic Outcomes	
III. Economic Foundation	09
3.1 Economic Stability	
3.2 Job Access	
IV. Economic Enablers	14
4.1 Economic Presence and Industry Diversity	
4.2 Innovation	
4.3 Talent	
V. Economic Outcomes	21
5.1 Shared Prosperity	
5.2 Inclusive Economic Growth	
VI. Conclusion	26
6.1 Summary of Findings	
6.2 The Path Forward for Greater Memphis	
VII. Appendix	27



Introduction



GREATER MEMPHIS CHAMBER

To fully understand and improve the economic vitality of the Memphis, TN MSA, **MemMeasures** supports **Prosper Memphis 2030**, a regional initiative aimed to enhance economic competitiveness, eliminate disparities in economic growth, and improve quality of life. This initiative is dedicated to empowering residents and revitalizing neighborhoods, with ambitious goals set for achievement by the year 2030:

- The addition of 700 advanced industry companies,
- The creation of 50,000 high-quality jobs, with at least 50% held by minorities,
- The awarding of 20,000 STEM degrees and credentials annually.

MemMeasures Volume II, an update of **MemMeasures Volume I**, provides a detailed view of Memphis's economic environment, analyzing the impacts of the COVID-19 pandemic on economic stability and job access. This volume serves as a driving force for collaborative effort to pursue inclusive prosperity by fostering an economy that supports the poor and delivers quality job growth.

Importantly, this analysis includes metric comparisons with peer metropolitan areas, benchmarking our performance to help guide strategic investment and policymaking. Despite improvements in raw data, Memphis sometimes lags behind its peers, highlighting the need for targeted interventions to improve our regional trajectory.

It took nearly a decade for Memphis to rebound from the Great Recession of 2008/2009, a recovery pace slower than the national average. We did not return to pre-recession employment levels until 2018, as documented in

MemMeasures Volume I, which also identified key areas for potential growth and development.

Drawing on data from 2019 to 2021, this descriptive study provides a comprehensive overview of Greater Memphis's economic landscape. By examining recent trends, this report offers insights into the ongoing impacts of global events like the COVID-19 pandemic on our economic stability, job access, and other critical factors. This analysis serves as a valuable tool for stakeholders, policymakers, and community leaders, equipping them with the knowledge to address the evolving economic challenges and opportunities within our region.





Achieving Economic Prosperity in Greater Memphis: A Three-Pillar Approach



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To build a thriving economy in Greater Memphis, we focus on three key areas: the foundations of our economy, the factors that enable growth, and the outcomes we strive to achieve a robust and inclusive economic environment.

1 Economic Foundation: The Bedrock of Regional Prosperity

The **economic foundation** is essential for stabilizing socio-economic uncertainties and unlocking new growth opportunities. It consists of two components:

- **Economic Stability:** Assesses how well the economy absorbs and maintains growth, which is important for a secure economic environment.
- **Job Access:** Evaluates the ease with which residents can find employment opportunities close to home, reducing commute times and enhancing quality of life.

2 Economic Enablers: Drivers of Growth and Diversity

Economic enablers are critical drivers of equitable economic growth, facilitating the development of a diverse and dynamic market. This pillar includes:

- **Economic Presence and Industry Diversity:** Focuses on cultivating a broad range of industries, which is vital for reducing economic vulnerability and fostering resilience.
- **Innovation:** Encourages the adoption of new technologies and practices, which are essential for staying competitive in a fast-evolving economic landscape.
- **Workforce and Occupational Quality:** Concerns the development of a skilled workforce that can meet the demands of a diverse economic base.
- **Talent Development:** Involves nurturing and retaining skilled individuals to ensure a steady supply of talent to fuel economic growth.



3 Economic Outcomes: Measuring Success and Prosperity

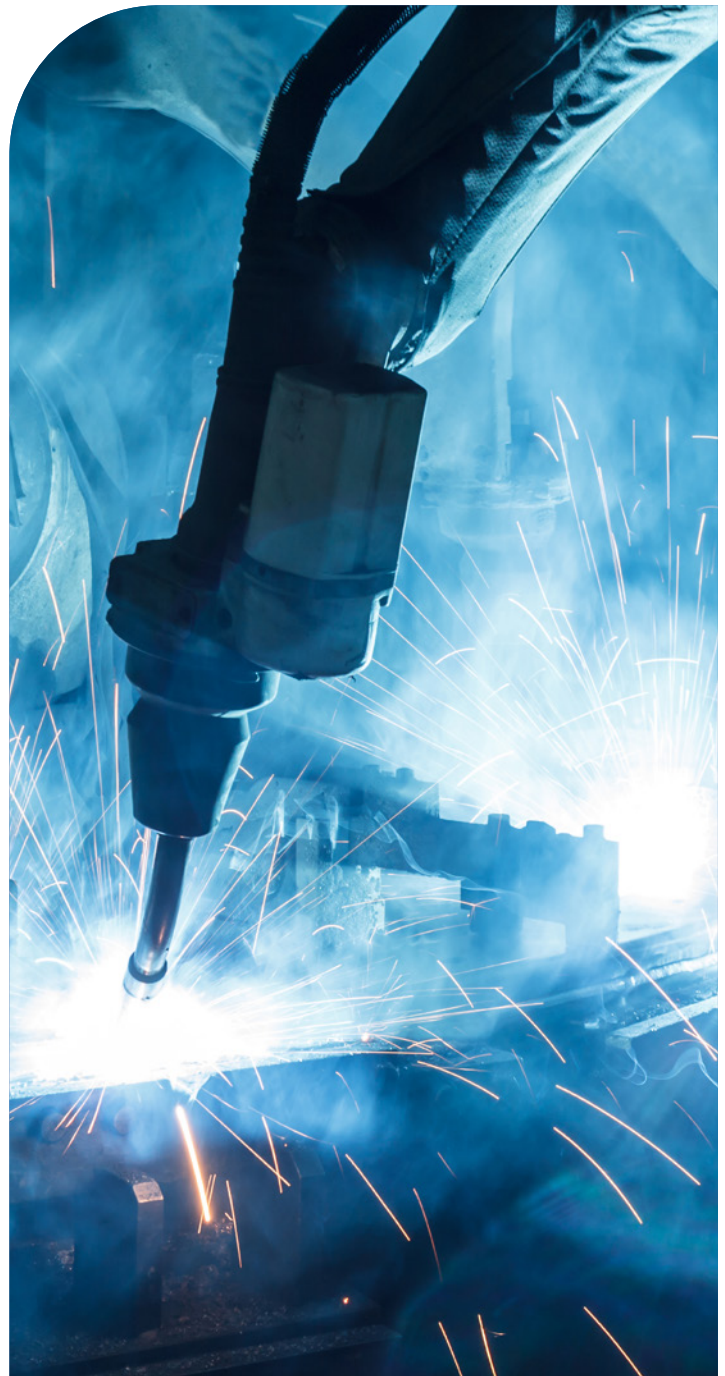
The **outcomes** of our economic strategies reflect the effectiveness of our initiatives and the overall health of the regional economy. They include:

- **Inclusive Economic Growth:** Measures the extent to which economic advancements are shared across all societal segments.
- **Shared Prosperity:** Assesses how benefits of economic growth are distributed, aiming for a reduction in income and opportunity disparities.

Interdependence of the Economic Pillars

Understanding the interdependence of these components is essential. The foundational elements provide the necessary groundwork for economic stability and access to jobs. Enablers such as industry diversity and innovation propel the economy forward. Finally, the outcomes help us measure our success in creating a more equitable and prosperous region.

In the following sections, we dive deeper into each pillar, evaluating our community's economic state of well-being and pinpointing areas requiring targeted interventions to foster sustainable economic growth. This comprehensive approach ensures that we not only understand the current economic landscape but also implement effective strategies to address identified challenges.



Economic Foundation



GREATER MEMPHIS CHAMBER

Overview

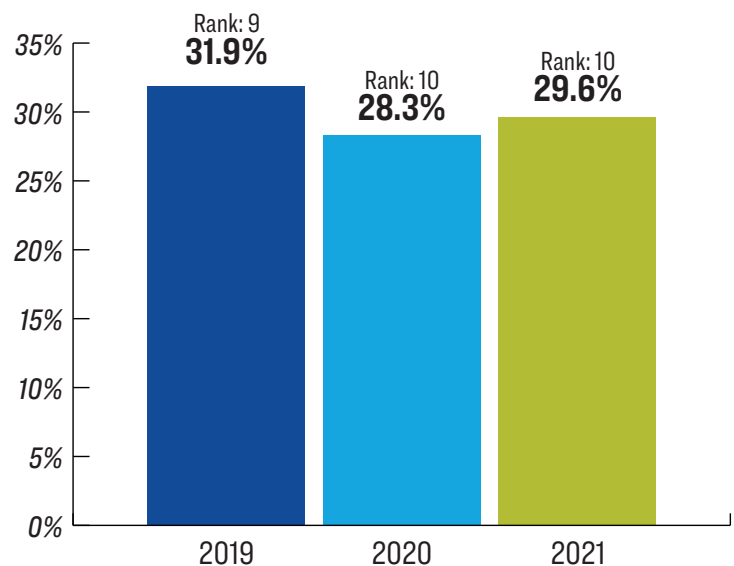
Establishing **Economic Stability** is essential for the health of Greater Memphis. It involves maintaining consistent growth and low unemployment, creating a predictable environment that builds confidence among businesses and investors.

Homeownership Costs

One key indicator of economic stability is the burden of homeownership costs, including rent, mortgage payments, and utilities. Specifically, we look at the percentage of the population spending more than 30% of their income on housing. This *Cost Burdened Households* metric helps us understand the financial pressures residents face and influences overall economic stability. From 2019 to 2021, there were significant changes in this area:

- Between 2019 and 2021, the Memphis, TN Metropolitan Statistical Area (MSA) experienced notable fluctuations in the proportion of cost-burdened households, those allocating more than 30% of their income towards housing expenses.
- In 2019, 32% of Memphis's population fell into this category, placing the city 9th in comparison with its peer metropolitan areas in terms of housing affordability.
- By 2020, there was slight improvement, with the percentage of cost-burdened households decreasing to 28.3%. Despite this progress, improvements in other metropolitan areas outpaced Memphis, resulting in the city's decline to a 10th-place rank.
- In 2021, Memphis, TN MSA had the highest amount of population with housing burden (29.6%) compared to its peer metropolitan areas, ranking 10/10 behind New Orleans, LA (29.5%) and Nashville, TN (27.3%). Over 29% of the Memphis, TN MSA population spent more than 30% of their income on housing.

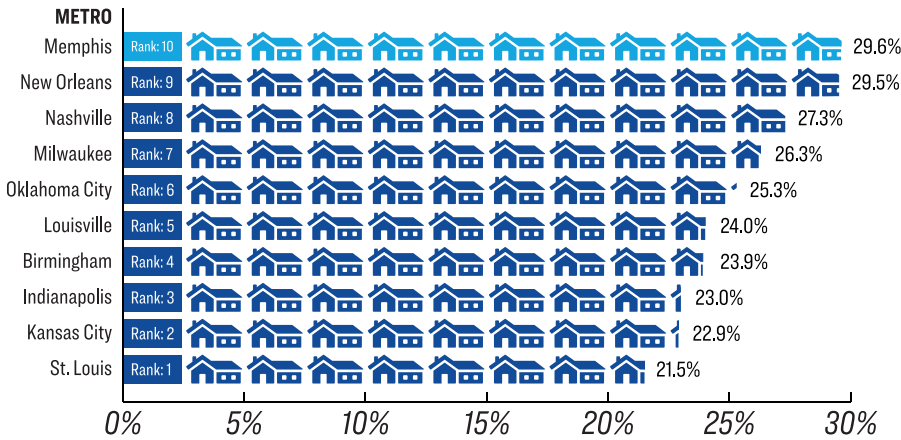
Cost Burdened Households (Housing Burden)
Memphis, TN MSA



Key Finding: Reduction in Housing Cost Burden

The percentage of households spending more than 30% of their income on housing decreased from 32% in 2019 to 28.3% in 2020.

Cost Burdened Households (Housing Burden) by Peer Metropolitan Statistical Area (2021)



Key Finding: Increase in Housing Cost Burden by 2021

Despite improvements, the housing cost burden rose to 29.6% in 2021, making Memphis rank 10th among peer metros.

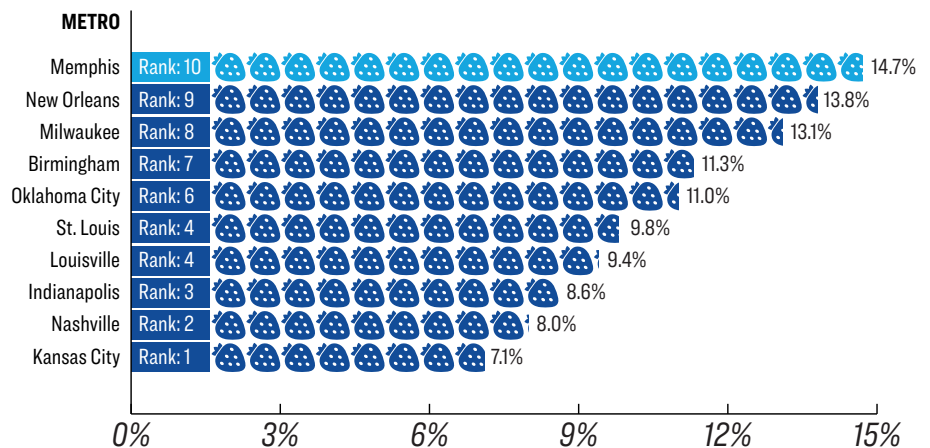
Food Insecurity

According to the USDA, *food insecurity* is a household-level economic and social condition of limited or uncertain access to adequate food.¹ The amount of security surrounding food identifies the percentage of population experiencing challenges in accessing a consistent and nutritious food supply. This metric is vital for understanding the prevalence of food-related hardships within a community, providing valuable insights into the well-being and basic needs of the population. Key factors that impact food insecurity include unaffordable housing, unemployment, and low stagnant wages.²

Key Finding: Food Insecurity Escalation During the Pandemic

Food insecurity in the Memphis MSA increased from 14.2% in 2019 to 15.1% in 2020.

Food Insecurity by Peer Metropolitan Statistical Area (2021)



Key Finding: Stability in Food Insecurity Rates

The food insecurity rate decreased to 14.7% in 2021, however Memphis remained in 10th in comparison among peers.

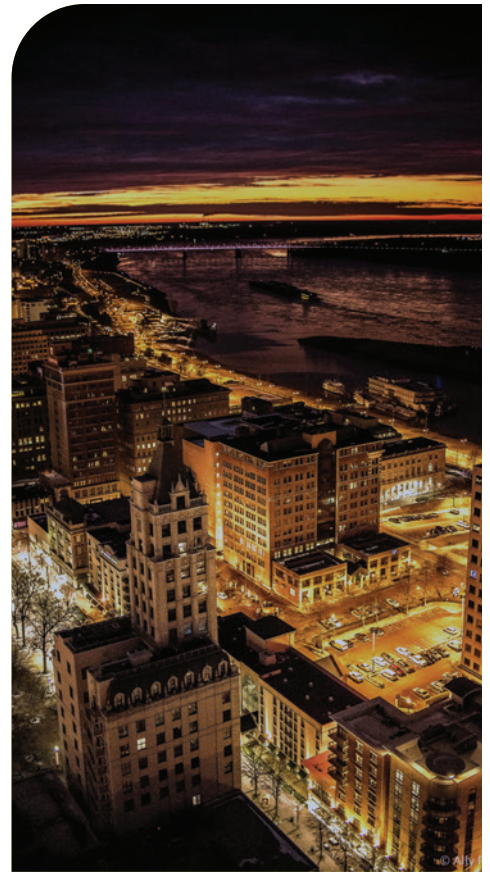
Inflation and the rising food costs have proven to continue to have an impact on the Greater Memphis community.:

- In 2019, 14.2% of the Memphis MSA population struggled with food insecurity, according to the American Community Survey by the U.S. Census.
- The food insecurity rate increased to 15.1% in 2020, indicating that the challenges worsened, coinciding with the COVID-19 pandemic.
- In 2021, the rate slightly decreased to 14.7%, but Memphis still remained at the bottom of the list, ranking 10th among its peer metro areas.

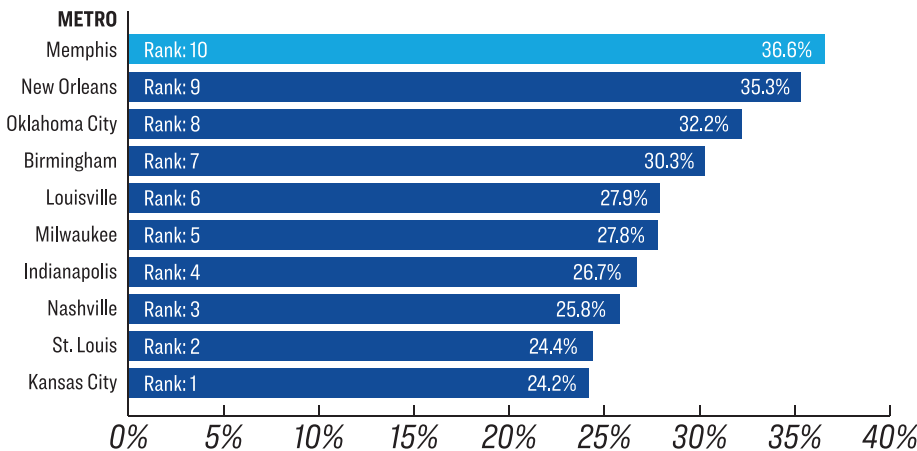
The Working Poor

The *working poor*, as defined by the National Equity Atlas, measures the percentage of the population living below 200% of the poverty level (PolicyLink & the USC Equity Research Institute, 2021).³ This indicator is important for understanding the proportion of individuals in Memphis, TN MSA who face economic challenges despite being employed, highlighting the importance of income adequacy for a comprehensive economic well-being analysis.

- From 2019 to 2021, the Memphis, TN MSA consistently ranked 10th among its peer metro's, with over 36% of the population considered working poor. This figure underscores the barriers to achieving economic security and prosperity faced by a large group of the Memphis community.



Working Poor (Individuals Below 200% Poverty Threshold)
by Peer Metropolitan Statistical Area (2021)



³ PolicyLink and USC Equity Research Institute - National Equity Atlas. Retrieved from: https://nationalequityatlas.org/indicators/Working_poor.

Job Access

Job Access is a critical aspect for Greater Memphis, it encompasses multiple dimensions, including Job Proximity, Congestion Level, and Broadband Connectivity. These dimensions provide essential insights into the accessibility of job opportunities within the region.

Job Proximity measures the percentage of the population with a commute time under 20 minutes to their job:

- In 2019, 38.6% of the population in Greater Memphis had employment opportunities nearby from where they lived.
- In 2020, there was a slight decrease, 37.7% of the population had convenient access to jobs.
- The percentage slightly increased to 38.0% in 2021, indicating a worsening trend among peer cities in ranking Memphis 9th.

Congestion Level measures the traffic congestion faced by commuters:

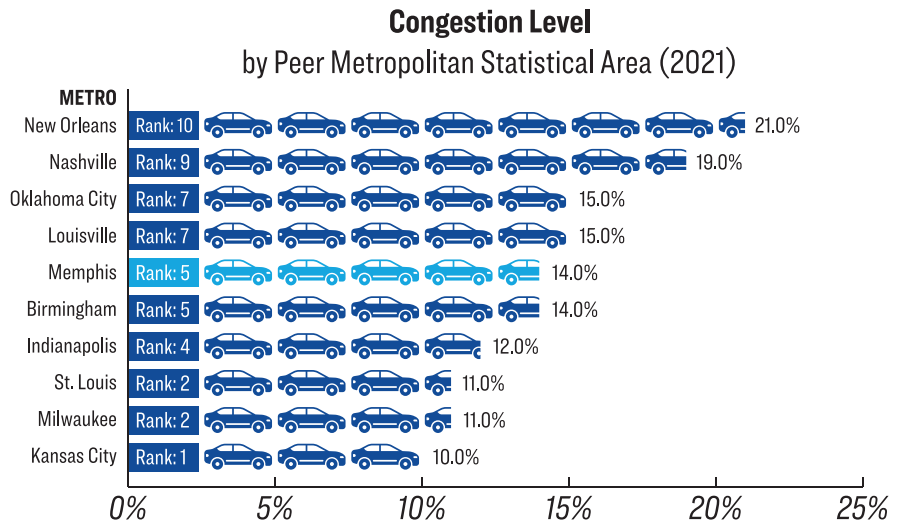
- In 2019, the Memphis, TN MSA had a congestion level of 15.0%, ranking the region 7th according to TomTom’s Traffic Index.
- The congestion level improved in 2020, dropping to 11.0%, with Memphis’s rank rising to 6th among peer metros.
- In 2021, the congestion level rose to 14.0%, but Memphis’s rank improved to 5th, tied with Birmingham, AL.

Key Finding: Job Proximity Slight Increase

The percentage of the population with a commute time under 20 minutes slightly increased from 37.7% in 2020 to 38.0% in 2021.

Key Finding: Traffic Congestion Fluctuations

Memphis saw a decrease in traffic congestion from 15.0% in 2019 to 11.0% in 2020, but it rose again to 14.0% in 2021.



These trends show the need to monitor congestion trends and its impact on job accessibility, not only does a shorter commute time increase the attractiveness of a large metropolitan area, but it also allows citizens to get to work on time.

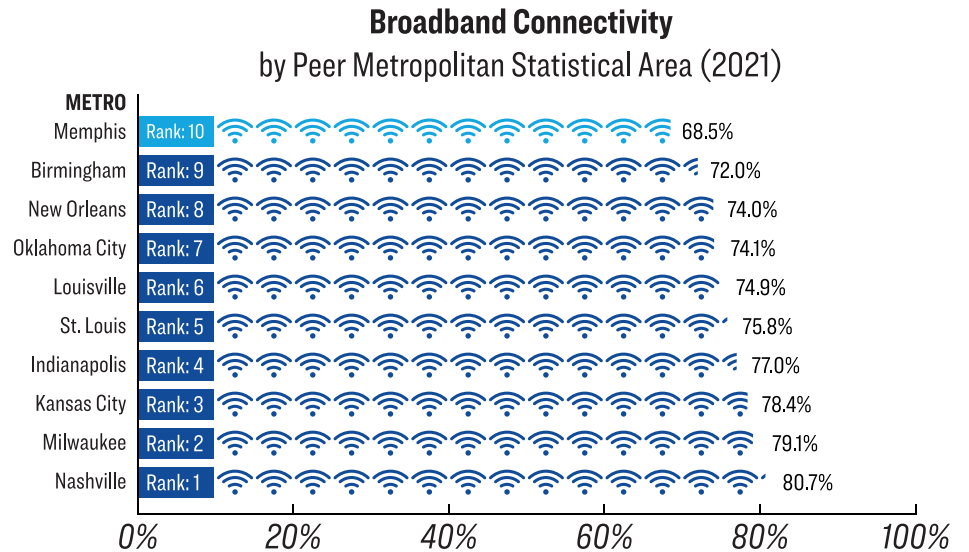
Broadband Connectivity, a measure of high-speed internet access availability, plays a crucial role in modern job access, especially in the increasingly digital world:

- In 2019, 60.8% of the Memphis MSA population had access to digital connectivity, necessary for remote work and job searches.
- The digital infrastructure was sustained in 2020, with 61.6% of residents having access, and further improved in 2021, reaching 68.5%. However, there have been slight increases of the population gaining access to Broadband on a year-to-year basis, other peer cities continue to thrive in getting their citizens access to Broadband. In 2021, the Memphis MSA ranked 10th in comparison to Nashville-Davidson MSA ranking 1st.

While the economic foundation sets the stage for stability, the economic enablers that we will explore next are crucial for propelling Memphis towards innovative growth.

**Key Finding:
Broadband
Connectivity Growth**

The percentage of residents with access to broadband grew from 60.8% in 2019 to 68.5% in 2021.



Economic Enablers



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Overview

Building on a stable economic foundation, Memphis must now leverage its diverse industries, innovative capacity, and talent development to fuel future growth. These elements not only generate a wide range of job opportunities, but also foster the creation of new ideas and technologies. By focusing on these areas, Memphis can expand economically and maintain a dynamic and forward-looking economic environment.

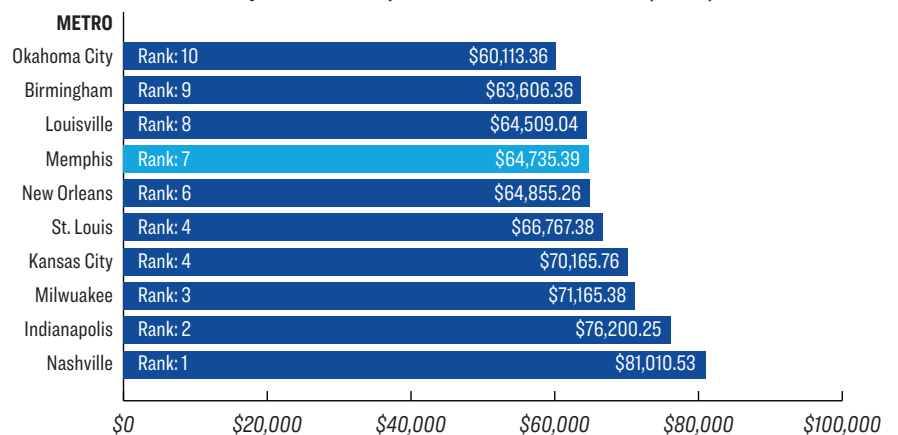
Economic Presence and Industry Diversity

In the Memphis Metropolitan Statistical Area (MSA), the variety and strength of different industries showcase the region's competitive advantage and potential for long-term economic growth. This section reviews the wide scale and depth of industries in Memphis, highlighting the variety of industries that exists in the economic landscape. Having a wide range of industries helps stabilize Memphis's economy against downturns in any one sector and encourages innovation through collaboration across different fields. It's important to recognize that Memphis's economy is dynamic and adaptable, successfully navigating through various challenges.

Key Finding: Significant Growth in GRP Per Capita

Memphis's Gross Regional Product per capita increased substantially, with a rise from \$58,174.96 in 2020 to a notable growth rate of 11.3% between 2020 and 2021.

Per Capita Gross Regional Product (GRP) - Nominal
by Peer Metropolitan Statistical Area (2021)



As of 2019, the Memphis MSA ranked 9th among its peer cities in terms of nominal *Gross Regional Product (GRP) per capita*, which reflects the total economic output per resident over a year. GRP measures all goods and services produced in a region, providing a snapshot of its economic activity, and indicating the overall economic health and growth.

Real Gross Regional Product (GRP)

by Peer Metropolitan Statistical Area (2019, 2020, 2021)

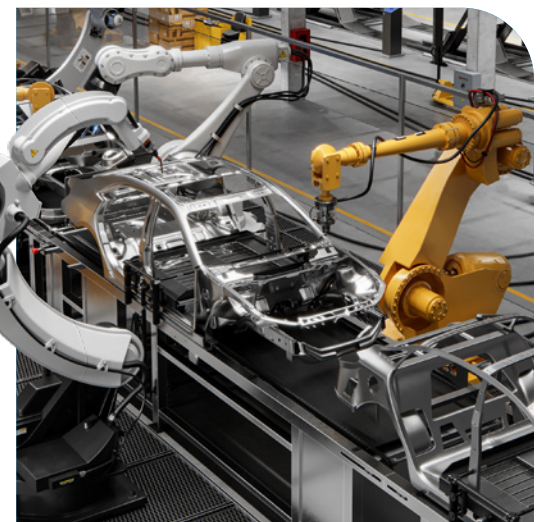
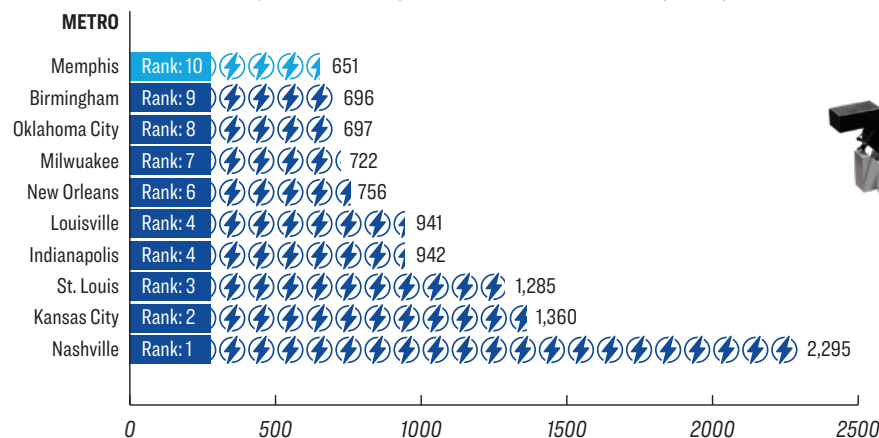
METRO	GRP by Year			Rank by Year		
	2019	2020	2021	2019	2020	2021
St. Louis	\$169,262,441,000	\$165,804,478,000	\$175,042,138,000	1	1	1
Nashville	\$139,494,691,000	\$138,392,978,000	\$153,009,022,000	4	3	2
Indianapolis	\$144,383,679,000	\$142,339,466,000	\$151,510,429,000	2	2	3
Kansas City	\$139,724,576,000	\$137,218,306,000	\$141,666,330,000	3	4	4
Milwaukee	\$102,444,804,000	\$98,378,280,000	\$102,631,128,000	5	5	5
Memphis	\$76,608,304,000	\$75,770,941,000	\$79,423,586,000	8	7	6
Oklahoma City	\$78,352,643,000	\$75,889,236,000	\$76,593,029,000	7	6	7
Louisville	\$74,328,652,000	\$72,916,159,000	\$76,188,675,000	9	8	8
New Orleans	\$79,367,490,000	\$72,861,022,000	\$75,211,932,000	6	9	9
Birmingham	\$62,865,011,000	\$62,129,272,000	\$65,260,617,000	10	10	10

- Despite facing significant hurdles to economic growth due to national and regional impacts of the pandemic in 2020, Memphis experienced a notable rise, ascending to 7th in rank with a GRP per capita at \$64,735 in 2021.
- Memphis’s GRP grew by 11.3% from 2020 to 2021, the highest among its peer metros, despite a 0.8% population decline—the most significant drop among its peers. This net GRP growth rate of 10.5% positions Memphis as a leader in economic growth, though the ongoing population loss is a concern that needs continuous monitoring.

Businesses in Advanced Industries are characterized by their reliance on highly skilled and specialized personnel who apply scientific and technical expertise to innovate and enhance their sectors. Advanced industries predominantly engage STEM (Science, Engineering, Technology, and Math) professionals at various levels.

- In 2019, the Memphis MSA was home to 470 advanced industry businesses.
- By 2021, the number of advanced industry businesses had grown by 181, reaching a total of 651. This growth represents a 38.5% increase from 2019.

Businesses in Advanced Industries by Peer Metropolitan Statistical Area (2021)



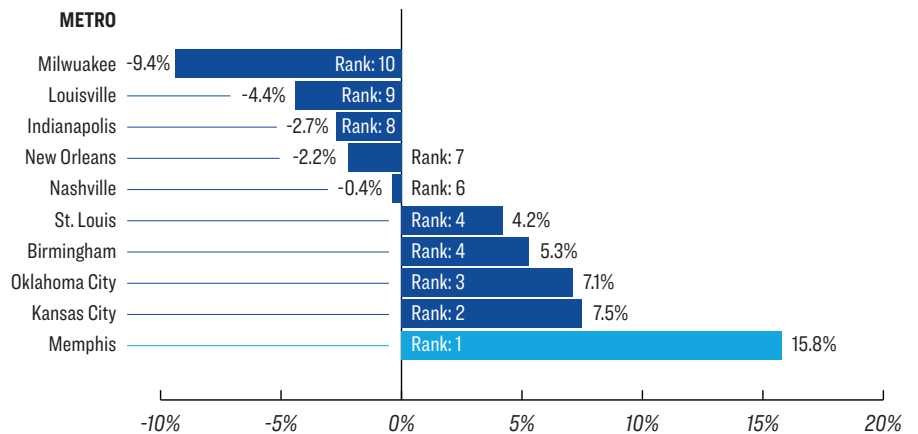
Greater Memphis was ranked 10th among its peers in 2019 for *Job Growth in Advanced Industries*. However, by 2021, the region has catapulted to the forefront, ranking 1st among the ten peer metros.

- This achievement is attributable to strategic regional expansion and the seizing of new industrial opportunities, culminating in Greater Memphis boasting the highest long-term growth rate in Advanced Industry jobs—15.8% from 2017 through 2021, as reported by Lightcast 2021.

Key Finding: Advanced Industry Job Growth

From 2019 to 2021, Memphis leaped from ranking 10th to 1st among peer metros in job growth in advanced industries, demonstrating a high long-term growth rate of 15.8% from 2017 through 2021.

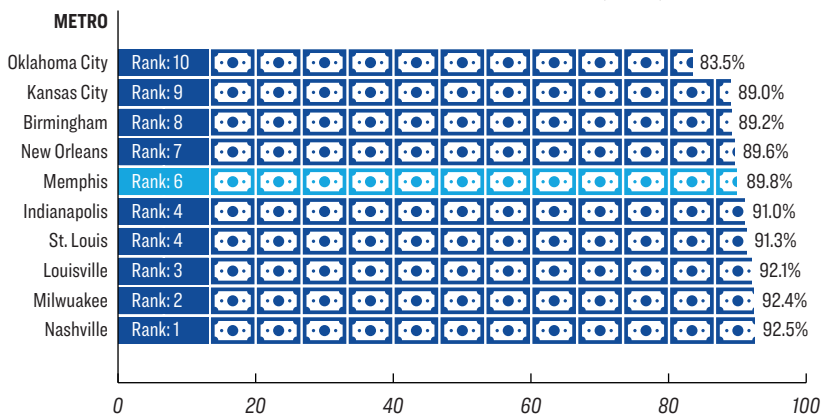
Job Growth – Advanced Industries (5-YR)
by Peer Metropolitan Statistical Area (2021)



The *Strength of Private Industry* in Memphis reflects the significant role that private businesses play in driving the economy. It measures the economic activity generated by the private sector and highlights how essential these businesses are to the overall economic health and growth of the region.

- In 2021 Memphis ranked 6th among peer metropolitans, with a private industry strength of 89.8%, indicating that Memphis has a somewhat strong private sector that contributes significantly to the metropolitan area’s overall economy.

Strength of Private Industry
by Peer Metropolitan Statistical Area (2021)



While Memphis is in the upper half of the chart, it is important to note that it sits in the middle among its peers, with five metropolitan areas showing a higher percentage of economic activity attributed to private industry.

- Nashville leads the pack with the highest strength of 92.5%, followed by Milwaukee and Louisville. Memphis surpasses other peer cities such as New Orleans, Birmingham, Kansas City, and Oklahoma City, the latter of which ranks 10th with an 83.5% strength in private industry.

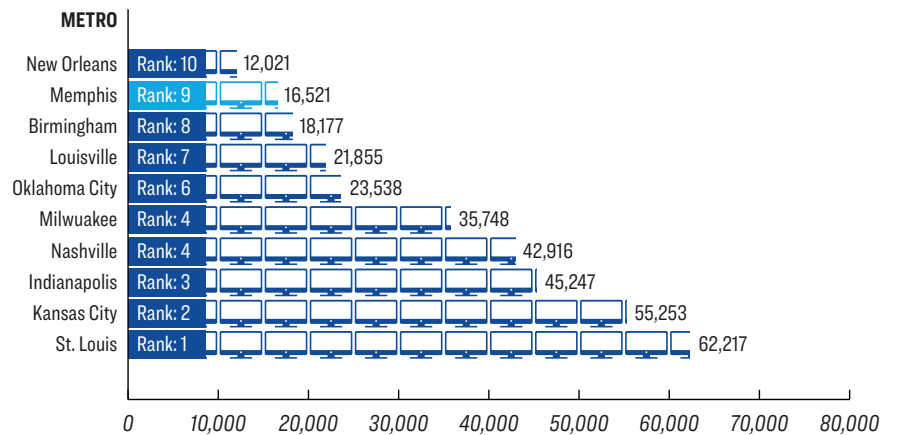
Memphis’s 6th suggests that there’s room for growth in Memphis’s private sector. Encouraging private industry development could lead to increased job opportunities, greater economic diversification, and enhanced resilience against economic fluctuations. Stakeholders and policymakers may see this as an opportunity to support policies that incentivize private investment and innovation, bolstering Memphis’s rank in private industry strength in future years.

Innovation

Innovation is crucial for economic growth, driving the development of new ideas, products, and services. In the competitive landscape of today’s global economy, continuous innovation is necessary to stay ahead. *Information Technology Roles:* Memphis ranks 9th in the number of Information Technology (IT) roles. Although these roles are growing 2.2% per year regionally, Greater Memphis remains significantly behind other metropolitans for computer and IT employees.



Information Technology Job Presence
by Peer Metropolitan Statistical Area (2021)



- **Diversity in IT:** Memphis MSA is home to the highest concentration of diverse computer and IT talent among its peer cities. The Memphis MSA also leads in the concentration of both black and female computer and IT talent compared to all other major metro areas with populations exceeding one million residents. At the time of the first publication of this report, these concentrations were the highest and remain consistent in current data sets. Across peer cities, the average industry diversity is 25%, with the national averages for Black and female computer and IT employment at 8% and 34%, respectively.

IM – Share of IT Jobs held by POC

by Peer Metropolitan Statistical Area (2019, 2020, 2021)

METRO	% of Population			Rank by Year		
	2019	2020	2021	2019	2020	2021
Memphis	37.0%	38.0%	38.0%	1	1	1
New Orleans	31.0%	32.0%	33.0%	2	2	2
Oklahoma City	28.0%	29.0%	28.0%	3	3	3
Birmingham	25.0%	26.0%	27.0%	4	4	4
Nashville	23.0%	24.0%	24.0%	5	5	5
St. Louis	22.0%	23.0%	23.0%	7	6	6
Kansas City	23.0%	23.0%	23.0%	5	6	6
Indianapolis	22.0%	22.0%	23.0%	7	8	6
Milwaukee	21.0%	22.0%	22.0%	9	8	9
Louisville	20.0%	20.0%	21.0%	10	10	10

Talent

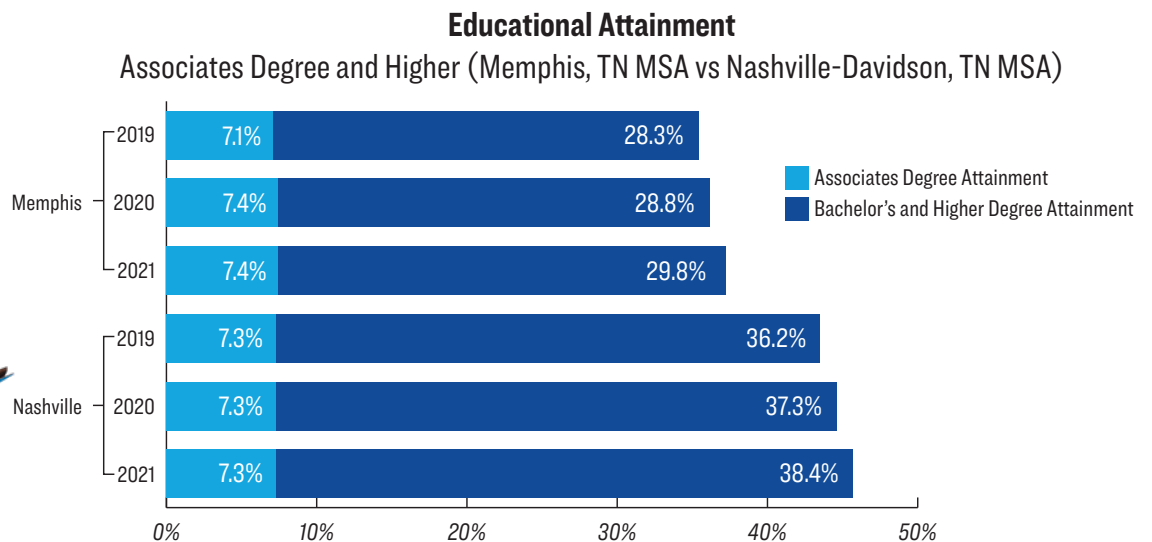
Talent development in Memphis faces significant challenges, especially in educational attainment when compared to other metropolitan areas. The lag in educational performance is not just a reflection of current academic struggles but also a significant barrier to long-term economic sustainability and workforce competitiveness in the region.

- In 2021, 7.4% of the population had attained an associate degree, positioning Memphis 9th among its peers.
- The percentage of individuals who achieved a bachelor’s degree or higher was 29.8%, which placed Memphis at the bottom of the list, ranking 10th among the metropolitan peers.
- In sharp contrast, Nashville shows a higher rate of educational attainment, with 38.4% of its population achieving a bachelor’s degree or higher. This stark difference shows the urgent need for educational improvements in Memphis.

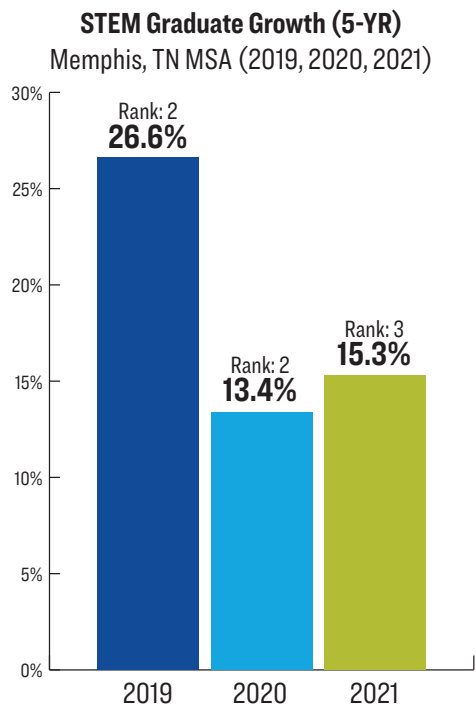
Bachelor’s and Higher Degree Attainment

by Peer Metropolitan Statistical Area (2019, 2020, 2021)

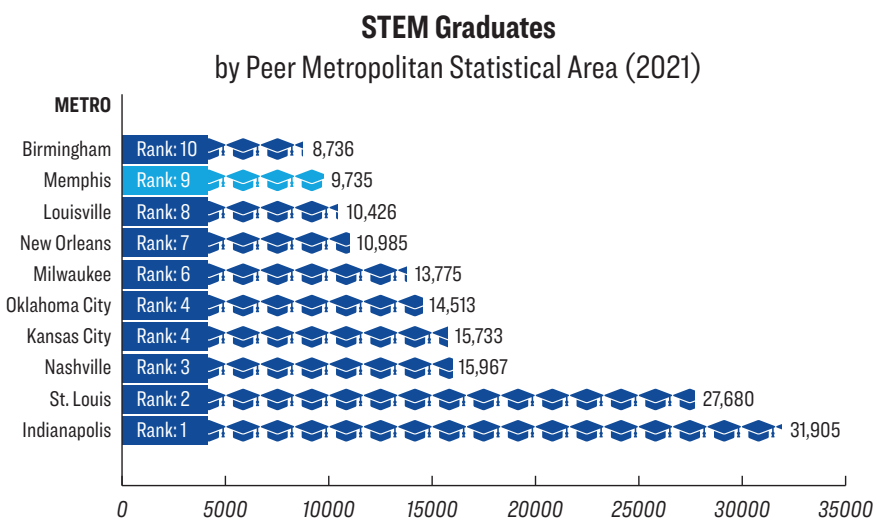
METRO	% of Population			Rank by Year		
	2019	2020	2021	2019	2020	2021
Nashville	36.2%	37.3%	38.4%	2	2	1
Kansas City	37.1%	37.5%	38.0%	1	1	2
Milwaukee	35.6%	36.1%	37.4%	3	3	3
Indianapolis	34.7%	35.6%	36.3%	4	4	4
St. Louis	34.4%	35.4%	36.2%	5	5	5
Birmingham	31.4%	32.3%	32.9%	6	6	6
Oklahoma City	30.5%	31.5%	32.4%	7	7	7
New Orleans	30.3%	31.1%	32.2%	8	8	8
Louisville	29.6%	30.1%	31.1%	9	9	9
Memphis	28.3%	28.8%	29.8%	10	10	10



The *dynamic growth of Science, Technology, Engineering and Mathematic (STEM) graduates* in the Greater Memphis area serves as a critical dichotomy in measuring the region’s future economic vitality and innovative capacity.



- In 2019, the region saw a 26.6% increase in STEM graduates, demonstrating a robust foundation for technological advancement. However, the COVID-19 pandemic in 2020 caused a sharp decline to 13.4% in STEM graduate growth, reflecting the impact of global educational disruptions. This underscores the need for adaptable and resilient education strategies to handle such challenges.
- By 2021, a modest recovery to 15.3% in STEM graduate growth indicated early signs of resilience with the educational sector, pointing towards a gradual return to pre-pandemic growth trajectories.
- With only 9,735 STEM graduates, Memphis trails behind cities like Indianapolis and St. Louis, which have 31,905 and 27,680 STEM graduates, respectively. This gap highlights a critical area for development, emphasizing the need to enhance STEM education initiatives.



To address the challenges in STEM education, Memphis needs targeted strategies that include:

- Partnerships with local educational institutions to enhance STEM curricula and invest in teacher training.
- Creation of more STEM opportunities for students, such as internships and co-op programs with local businesses, to provide practical experience and make STEM fields more accessible and appealing.
- Community outreach and awareness programs targeting younger students to boost interest in STEM, laying the groundwork for future educational and career decisions.

By addressing the disparities in STEM graduation rates, these efforts can help Memphis develop a diverse and skilled talent pool, driving innovation and economic growth.

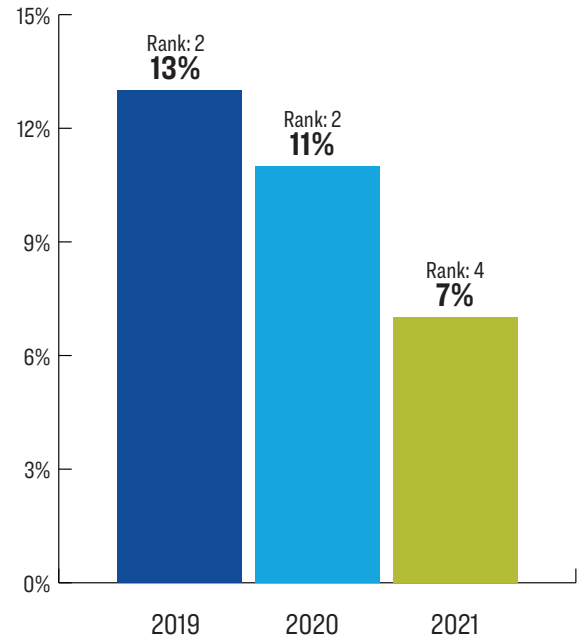
Workforce & Occupational Quality

To effectively position Memphis for a thriving future within an increasingly competitive economic landscape, a focused and strategic approach to workforce development is essential. As the critical pathways toward economic resilience and growth are considered, the necessity of investing in education, particularly in science, technology, engineering, and mathematics (STEM), cannot be overstated. In aligning with the ambitious goals of Prosper 2030, the strategic enhancement of STEM education is imperative.

- In 2019, 13% of the Memphis, TN MSA population was employed in STEM occupations, ranking 2nd compared to peer regions.
- There was a slight decline in 2020 with 11% of the population in STEM occupations, however Memphis still held onto ranking 2nd.
- By 2021, the percentage of those in STEM occupations fell to 7%, and Memphis's rank dropped to 4th among its peers.

Boosting the number of STEM graduates is essential for Greater Memphis to attract advanced industries, create high-quality jobs, and lead in the new economy. A skilled, diverse STEM workforce will position Memphis ahead of its competitors in innovation and sustainable growth. This development is key to the next discussion on Economic Outcomes, which will assess the impact of these strategies on regional prosperity and economic equity.

Growth in STEM Occupations
Memphis, TN MSA (2019, 2020, 2021)



Economic Outcomes



GREATER MEMPHIS CHAMBER

Overview

This section examines the results of economic strategies, focusing on Shared Prosperity and Inclusive Economic Growth. These outcomes reflect how well the economy is doing at becoming more equitable and providing opportunities for all.

Shared Prosperity

Shared Prosperity means making sure that the benefits of economic growth are enjoyed by everyone, not just a few. This concept helps everyone have a better chance at a good life and makes our community stronger and more stable.

One way we measure whether prosperity is being shared is by using the *GINI coefficient*. This is a scale from 0 to 1 that looks at income distribution within a community:

- A score of 0 means everyone earns the same amount—perfect equality.
- A score of 1 means one person or household has all the wealth—extreme inequality.

A higher GINI coefficient suggests greater disparity between the wealthy and the poor. This gap can lead to problems like social unrest, less community togetherness, and limited access to essential things like good jobs and healthcare for those earning less. Such inequality can hurt the economy by reducing how much people buy, affecting businesses, and making the economic situation unstable.

GINI Coefficient

by Peer Metropolitan Statistical Area (2019, 2020, 2021)

METRO	% of Population			Rank by Year		
	2019	2020	2021	2019	2020	2021
Kansas City	0.4543	0.4516	0.45	1	1	1
Louisville	0.4627	0.4596	0.46	2	2	2
Oklahoma City	0.4671	0.4644	0.4631	5	5	3
Indianapolis	0.4708	0.4659	0.4645	6	6	4
St. Louis	0.4662	0.4639	0.4646	4	4	5
Nashville	0.4635	0.4628	0.4656	3	3	6
Milwaukee	0.4762	0.4767	0.4694	7	7	7
Birmingham	0.4828	0.4848	0.4832	8	8	8
Memphis	0.4918	0.4934	0.4937	9	9	9
New Orleans	0.5003	0.4986	0.5023	10	10	10

- Over the past three years (2019 – 2021), the GINI coefficient for Memphis has gradually increased from 0.4918 in 2019 to 0.4937 in 2021.
- This slight upward trend indicates a growing level of income inequality within the area during this period.

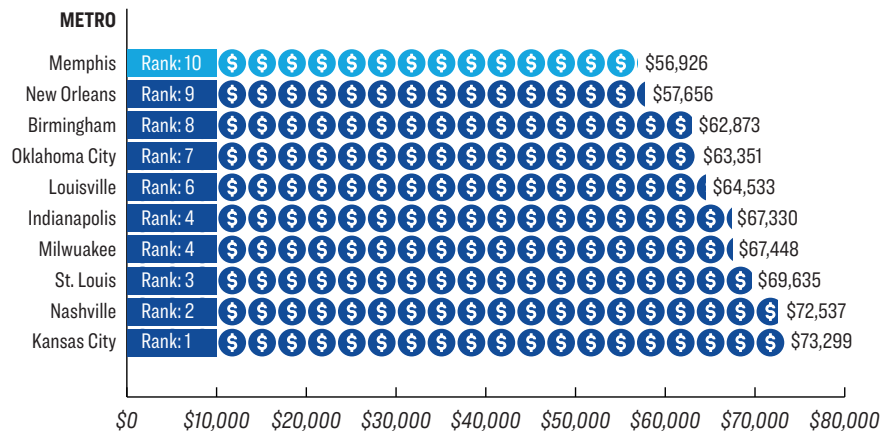
Key Finding: Increase in GINI Coefficient

The GINI coefficient, indicating income inequality, rose from 0.4918 in 2019 to 0.4937 in 2021, suggesting growing disparities.

Key Finding: Median Household Income Growth

Despite rising income inequality, the median household income in Memphis increased from \$53,209 in 2019 to \$56,926 in 2021.

Median Household Income
Memphis, TN MSA (2021)



Simultaneously, the *median household income* has also seen a steady increase, climbing from \$53,209 in 2019 to \$56,926 in 2021:

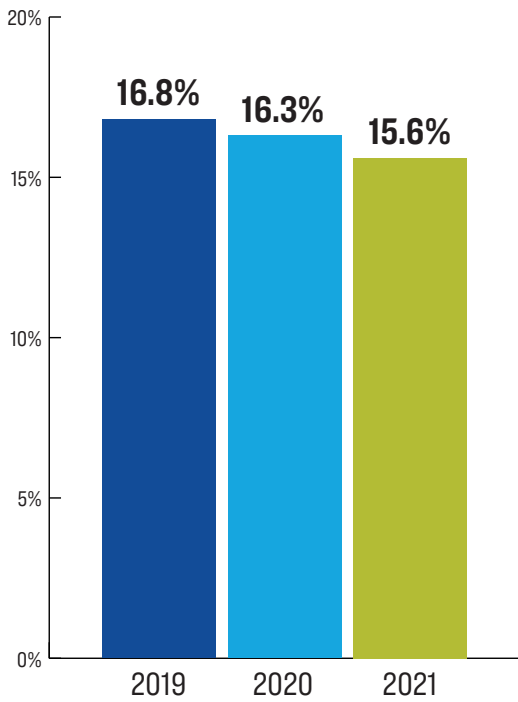
- While the rise in median household income might suggest overall economic growth, the simultaneous increase in the GINI coefficient points towards a widening gap in income distribution among residents.
- This data suggests that although the median household income is rising, the benefits may not be equally distributed across the population, potentially deepening disparities and challenges associated with income inequality within the Memphis area.

Inclusive Economic Growth

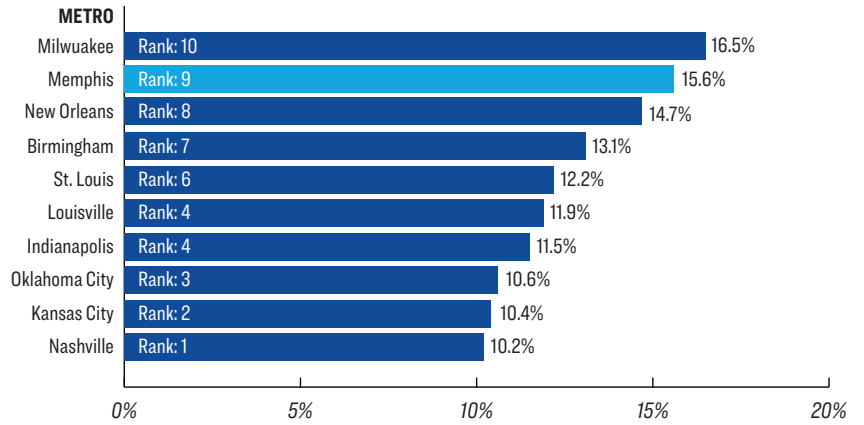
Inclusive Economic Growth is focused on ensuring that economic expansion benefits all segments of the population fairly. It involves providing access to high-quality jobs and education to equip everyone for success. One key metric used in our analysis to assess economic inclusivity is the Poverty Rate Gap, which measures the economic disparities between racial groups based on U.S. Census data.

- In 2021, Memphis showed progress in addressing racial economic disparities, ranking 9th among peer cities with a 15.6% poverty rate gap between white and non-white residents.
- The 1.2% decrease from 2019 indicates a gradual narrowing of the economic divide, highlighting ongoing efforts to enhance inclusivity in the region.

IM – Poverty Rate Gap
by Peer Metropolitan Statistical Area (2019 to 2021)



IM – Poverty Rate Gap
by Peer Metropolitan Statistical Area (2021)



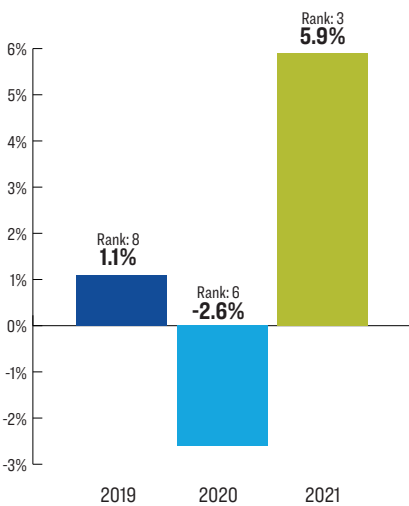
Key Finding: Improvement in Poverty Rate Gap

Memphis saw a reduction in the poverty rate gap between white and non-white residents, decreasing by 1.2% from 2019 to 2021.

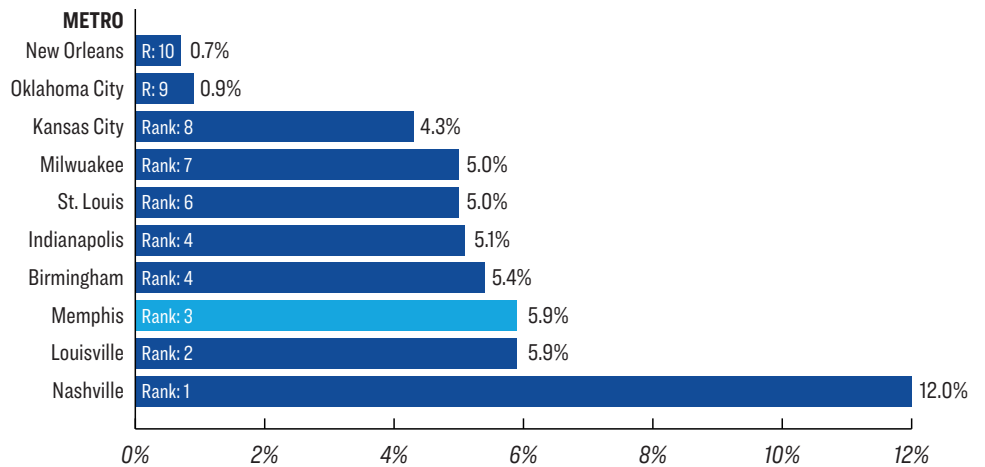
As the local economy expands, ensuring that all residents benefit from inbound investment, jobs, and opportunities is essential. Focused efforts on high-quality jobs and accessible education are crucial for building an equitable and dynamic environment in Greater Memphis.

In 2019, the initial MemMeasures report ranked Memphis 8th among its peers for *inflation-adjusted Gross Regional Product (GRP) growth*. By 2021, after navigating a challenging recovery from the pandemic, Memphis improved to 3rd place. This improvement highlights a resilient business climate that supports a rising employment rate across various demographic groups.

Inflation Adjusted GDP Growth (1-year % Change)
Memphis, TN MSA (2019, 2020, 2021)



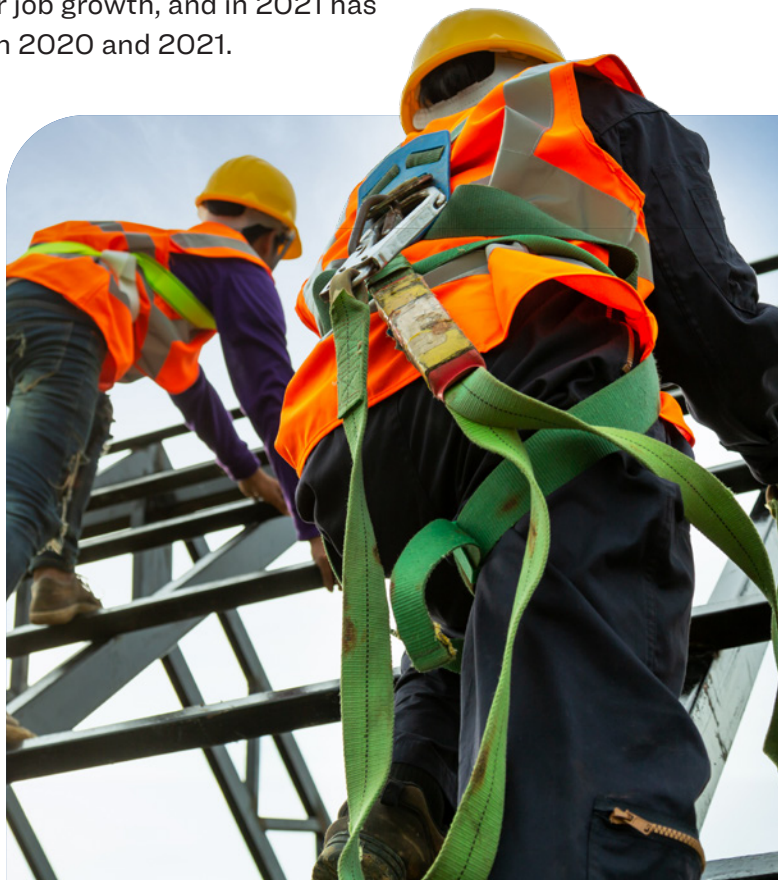
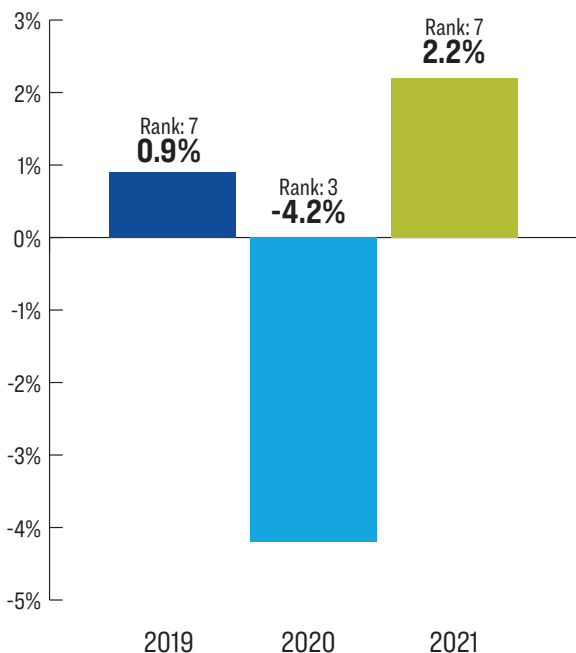
Inflation Adjusted GDP Growth (1-year % Change)
Memphis, TN MSA (2021)



Although Greater Memphis weathered the pandemic better than most peers, job growth has not kept pace with inflation-adjusted GRP growth.

- In 2019, Greater Memphis ranked 7th for 1-year job growth, and in 2021 has retained the same rank growing 2.22% between 2020 and 2021.

Job Growth (1-year % Change)
Memphis, TN MSA (2019, 2020, 2021)



Moreover, the *Median Household Income Gap* provides insight into how equitably economic gains are distributed among different racial and ethnic groups in Memphis.⁴

IM – Median Household Income Gap

by Peer Metropolitan Statistical Area (2019, 2020, 2021)

METRO	% of Population			Rank by Year		
	2019	2020	2021	2019	2020	2021
Kansas City	32.7%	27.2%	-0.1%	9	6	1
Oklahoma City	27.3%	22.6%	11.0%	6	3	2
Birmingham	28.3%	25.9%	13.8%	7	4	3
Indianapolis	20.8%	29.1%	15.4%	4	8	4
St. Louis	9.3%	26.4%	18.9%	1	5	5
New Orleans	27.1%	30.6%	21.0%	5	9	6
Nashville	17.0%	16.8%	21.3%	3	2	7
Milwaukee	29.7%	33.3%	23.1%	8	10	8
Memphis	35.2%	28.8%	26.8%	10	7	9
Louisville	14.0%	16.4%	30.1%	2	1	10

⁴ U.S. Census Bureau. (n.d.). ACS Demographic and Housing Estimates DP05. U.S. Department of Commerce. Retrieved September 29, 2023, from <https://data.census.gov/>

- Greater Memphis’s regional median household income is around \$57,000—\$12,000 below the national average—and not evenly distributed among families of color, ranking 9th for median household income gap in 2021.
- The Median Household Income Gap fluctuated, increasing by 1.83% in 2019, indicating growing disparities, decreasing by 1.68% in 2020, showing improvement, and rising again in 2021 by 2.03%.

Such variations indicate that while some progress is being made, income inequality remains a dynamic challenge that requires sustained attention and strategic intervention.

The *Median Household Income Gap*, as estimated over a five-year span, serves as an indicator of economic disparity within Memphis, particularly when analyzed through the lens of inclusive growth.

Median Household Income Gap (5 Yr Estimate)

by Peer Metropolitan Statistical Area (2019, 2020, 2021)

METRO	% of Population			Rank by Year		
	2019	2020	2021	2019	2020	2021
Nashville	18.9%	16.8%	17.1%	2	2	1
Oklahoma City	23.8%	22.6%	22.3%	3	3	2
St. Louis	24.3%	26.4%	22.7%	5	5	3
Louisville	18.2%	16.4%	23.5%	1	1	4
Indianapolis	28.0%	29.1%	26.3%	6	8	5
Kansas City	29.0%	27.2%	26.4%	7	6	6
Birmingham	24.2%	25.9%	27.7%	4	4	7
New Orleans	32.2%	30.6%	28.1%	9	9	8
Memphis	30.5%	28.8%	30.9%	8	7	9
Milwaukee	34.0%	33.3%	32.5%	10	10	10

- In 2019, Memphis’s Median Household Income Gap was 30.5%, ranking it 8th among peers, higher than Indianapolis (28.0%), Nashville (18.9%), and New Orleans (32.2%).
- By 2020, the gap slightly improved to 28.8%, but remained high compared to substantial reductions in Louisville (16.4%) and Nashville (16.8%).
- In 2021, the gap worsened to 30.9%, making Memphis one of the cities with the highest gaps, ranking 9th, just below Milwaukee (32.5%) and Birmingham (27.7%), and contrasting with Nashville’s further reduction to 17.1%.

This data underscores the growing income inequality in Memphis and the need for urgent, targeted interventions to improve income equity and reduce disparities between racial and ethnic groups. Implementing targeted economic policies and programs is essential to boosting household incomes and fostering a more inclusive economic environment. Shared Prosperity and Inclusive Economic Growth are not only moral imperatives but also crucial for economic sustainability. By enhancing these areas, Memphis can create a positive feedback loop, benefiting community education, health, business expansion, and government revenue, ultimately improving the overall community well-being.



Conclusion



GREATER MEMPHIS CHAMBER

The **MemMeasures** initiative offers a detailed look at the economic landscape of Greater Memphis. This analysis, covering everything from job access to educational attainment and industry diversity, provides valuable insights. It showcases both progress made and ongoing challenges in creating an equitable, dynamic, and prosperous community.

Our findings reveal that while Memphis is resilient and adaptable, significant challenges remain, especially in education and economic inclusivity. The gap between the strength of private industry and the slower growth in STEM graduates, compared to national averages, suggests that Memphis is at a critical point. Efforts to reduce the poverty rate gap and increase median household income show progress toward shared prosperity, but also highlight the need for focused and sustained efforts.

Educational attainment is a key area for transformative change. A comparison with Nashville shows a clear disparity in bachelor's degree attainment, emphasizing the need for Memphis to enhance its educational programs. Improving education is not just an academic goal but a strategic economic necessity essential for developing a skilled workforce capable of driving innovation and attracting high-tech industries.

As we introduce **MemMeasures Volume II**, it becomes a crucial tool for ongoing discussions among all stakeholders. This report not only continues the dialogue started by **MemMeasures Volume I** but also deepens it, offering a nuanced, data-driven look at Memphis's economic journey. It encourages policymakers, community leaders, and stakeholders to use this data to guide strategic decisions toward a more equitable and prosperous future.

In line with the goals of **Prosper Memphis 2030**, let us use the insights from **MemMeasures Volume II** to build a community that values innovation, inclusivity, and shared prosperity. Through collaborative efforts and informed strategies, Greater Memphis can exceed its economic aspirations, ensuring a thriving future for all its residents.



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Appendix

People Powered Prosperity Dashboard Economic Indicators

Economic Indicator	Value (2019)	GM Rank (2019)	GM Trend (2019)	Value (2020)	GM Rank (2020)	GM Trend (2020)	Value (2021)	GM Rank (2021)	GM Trend (2021)
Food Insecurity	15.9%	10	Sustaining	15.1%	10	Improving	14.7%	10	Improving
Cost Burdened Households (Housing Burden)	31.9%	9	Sustaining	28.3%	10	Improving	29.6%	10	Worsening
Working Poor (Individuals working 200% Below Poverty Threshold)	36.8%	10	Worsening	36.7%	10	Improving	36.6%	10	Improving
Job Proximity (% of population)	38.6%	6	Improving	37.7%	7	Worsening	38.0%	9	Improving
Congestion Level	15.0%	6	Worsening	11.0%	5	Improving	14.0%	5	Worsening
Broadband Connectivity	60.8%	10	Sustaining	61.6%	10	Improving	68.5%	10	Improving
Real Gross Domestic Product	\$76.6B	8	Sustaining	\$75.8B	7	Worsening	\$79.42B	6	Improving
Per Capita GDP (Nominal)	\$58,180	9	Sustaining	\$58,174	8	Sustaining	\$64,735	7	Improving
Strength of Private Industry	89.3%	6	Sustaining	89.1%	6	Sustaining	89.8%	6	Sustaining
Businesses in Advanced Industries	470	10	Sustaining	535	10	Improving	651	10	Improving
Job Growth in Advanced Industries	5.2%	3	Sustaining	12.9%	1	Improving	15.8%	1	Improving
Per Capita NIH Funding	\$115.10	4	Sustaining	\$128.13	4	Improving	\$128.41	4	Sustaining
Information Technology Job Presence	15,797	9	Sustaining	16,187	9	Improving	16,521	9	Improving
Growth in IT Jobs (5 Year Estimate)	16.6%	2	Improving	13.3%	2	Worsening	11.1%	3	Worsening
IM- Share of IT Jobs held by POC	37.0%	1	Sustaining	38.0%	1	Worsening	38.0%	1	Sustaining
Civilian Labor Force Growth 5-year Memphis TN-MS-AR MSA (2017-2022)	-.54%	9	Sustaining	-.97%	9	Worsening	-.98%	9	Sustaining
Growth in STEM Occupations	13.0%	2	Improving	11.0%	2	Sustaining	7.0%	4	Worsening
IM- Unemployment Rate Gap	4.9%	9	Worsening	5.2%	10	Worsening	5.8%	10	Worsening
STEM Graduates	9,196	9	Worsening	9,055	9	Worsening	9,735	9	Improving
STEM Graduate Growth	26.6%	2	Improving	13.4%	2	Worsening	15.3%	3	Improving
Associate degree Attainment	7.1%	9	Sustaining	7.4%	8	Improving	7.4%	8	Sustaining
Bachelor's and Higher Degree Attainment	28.3%	10	Worsening	28.8%	10	Improving	29.8%	10	Improving
Median Household Income	\$53,209	9	Sustaining	\$53,896	10	Improving	\$56,926	10	Improving
GINI Coefficient	0.4918	9	Sustaining	0.4934	9	Worsening	0.4937	9	Worsening
IM- Poverty Rate Gap	16.7%	9	Worsening	16.3%	9	Improving	15.6%	9	Improving
IM- Poverty Rate Gap 1 year change	-3.6%	1	Improving	-0.6%	7	Worsening	1.3%	9	Worsening
Inflation Adjusted GDP Growth (1 Year, 2018-19)	1.1%	8	Sustaining	-2.6%	6	Improving	5.9%	3	Improving
Job Growth (1 Year, 2018-19)	0.9%	7	Sustaining	-4.2%	2	Worsening	2.2%	7	Improving
IM - Median Household Income Gap	35.2%	8	Worsening	28.2%	7	Improving	26.8%	9	Improving
Median Household Income Gap 1 Year Change	1.8%	10	Worsening	-1.7%	4	Improving	2.0%	9	Worsening
Median Household Income Gap (5 Year Estimate)	30.5%	8	Improving	28.8%	7	Improving	30.9%	9	Worsening