



# Top 8 US Manufacturing Markets

How and Where to Meet the Experts You Need to Succeed



# The Game has Changed



If your success depends on engineering innovation and teamwork in the manufacturing industry, you and your peers share many options for working together. But when it comes to close collaboration and team meetings, the options are limited.

The post-pandemic era has challenged industry professionals who seek meaningful interactions with peers, industry thought leaders, and others who can help solve technical problems or brainstorm new opportunities. While the US manufacturing economy has rebounded, the game has changed. **Remote and virtual meetings offer great conveniences, but there's no substitute for meeting people face to face.**

Fortunately, as manufacturing has rebounded, trade shows have experienced a resurgence. These events present an ideal, cost-effective way to find, meet, and engage large groups of

## US Manufacturing Shows Swift Recovery and Continued Growth

Gross output in billions of dollars, seasonally adjusted.



Source US Bureau of Economic Analysis

experts all in one place. In the following pages, you'll find a list of major US markets that feature [industry expos](#) that will make your participation well worth the effort.

Specifically, we chose eight US metropolitan statistical areas (MSAs) for their large concentration of skilled engineers, designers, and others working across several advanced manufacturing sectors. These include automotive/e-mobility, medical devices, automation/robotics, aerospace & defense, packaging, processing, material science, and more. All who participate in these events are constantly pursuing solutions to today's challenges and pressures.

### You may be wondering: Will your investment in time and travel pay off?

The answer is yes. Manufacturing is historically robust and remains so. While 2020 was an "asterisk" year like no other, this "industry of industries" exemplifies great agility – and economic recovery – from the effects of global pandemic, unpredictable geopolitics, and supply chain interruptions. (See chart on this page.)

By reviewing the data and commentary on each of these metro areas, you'll gain insight on the best locations for meeting the people you need to help you succeed.

# Boston-Cambridge-Newton, MA-NH



## IN 2020, AREA MANUFACTURERS...

- 
 Employed about **161,600** or 6.2% of the workforce
- 
 Operated **4,152** manufacturing facilities
- 
 Produced **\$43.4** billion in Gross GDP or 9.9% of all private industries
- 
 Exported 23.2 billion in goods, which rose to **32.1** billion in 2021

This highly populated area is bristling with high-tech, research, engineering, and manufacturing activity. The region's strong educational foundation, from Harvard to MIT and well beyond, bring a rich talent pool. The area hosts 146 institutions that are classified as "R1: Doctoral Universities - Very high research activity" in the [Carnegie Classification of Institutions of Higher Education](#) as of 2021. This, in turn, supports healthy innovations in biotechnology, engineering, and financial investments driving the manufacturing economy.

Manufacturing sectors that are strong in the area include computers/electronics, chemicals, metal fabrication, food/beverage, machinery, and aerospace. High-tech sectors account for 14.8% of overall employment vs. 9.5% nationwide, according to a 2022 [area report](#). Scientific research and development services experienced 59.7% job growth from 2015 to 2020.



Medtech is among the strongest manufacturing sectors with upwards of 2,000 firms in the life sciences and medical fields. Firms include Bristol-Myers Squibb, Boston Scientific, Thermo Fisher Scientific, Hologic Inc., Waters Corp., and Karl Storz Endoscopy-America. Those in other sectors include audio and entertainment brand Bose, Polar Beverages, L.S. Starrett (precision tools), Chase Corp. (coatings and protective materials), and Saint-Gobain (abrasives, industrial ceramics, and plastics).

This metro market has one of the [fastest-growing tech sectors](#) in the country. Technology manufacturers include \$27-billion aerospace and defense firm Raytheon Technologies; Dell Technologies' \$41.2 billion (2021) EMC unit advancing digital transformation technologies; and IPG Photonics (industrial laser systems). The area boasts approximately 120 industrial robotics

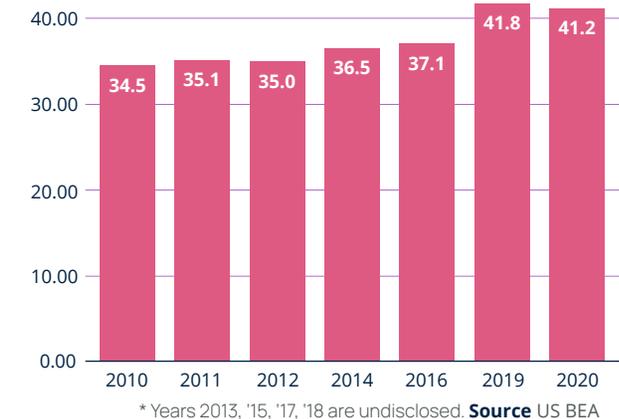
firms (Brooks Automation, Boston Dynamics, Symbotic, QinetiQ North America, Hydroid).

Since COVID-19, the local manufacturing picture has been looking bright. Among our list of top manufacturing markets, Boston was among the nation's 12 largest nonfarm employment gainers (No.9) alongside top markets New York, Los Angeles, and Chicago, according to the [Bureau of Labor Statistics](#). Private-industry manufacturing firms brought in 7,000 new jobs, in part fueled by the area's largest economic supersector, education and health services, which gained 17,000 jobs; and professional and business services, which added 32,700 jobs.

## Boston Metro

### Manufacturing Real GDP 2010-2020

In billions of inflation-adjusted (chained 2012) dollars



# Charlotte-Concord-Gastonia, NC-SC



## IN 2020, AREA MANUFACTURERS...



Employed about **100,300** or 8.6% of the workforce



Operated **2,300** manufacturing facilities



Produced **\$16.9** billion in Gross GDP or 10% of all private industries



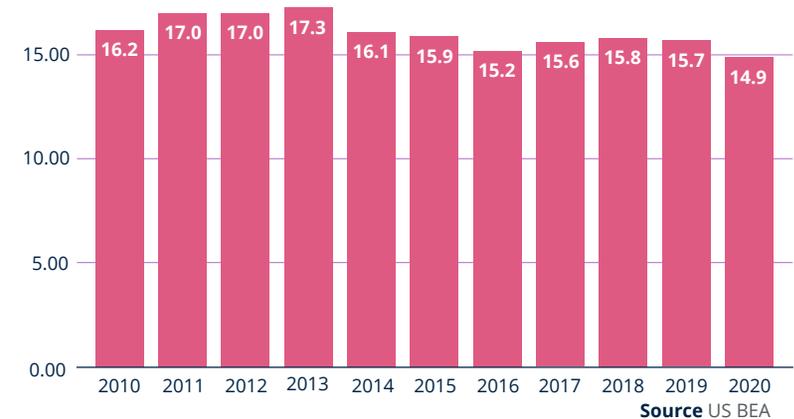
Exported 8.2 billion in goods, which rose to **10.6** billion in 2021



## Charlotte Metro

### Manufacturing Real GDP 2010-2020

In billions of inflation-adjusted (chained 2012) dollars



Charlotte is the nation's second financial center behind New York, and the Charlotte metro area is a major transportation hub, with half of all foreign direct investment attributable to manufacturing, according to a 2021 [report](#) from the Charlotte Regional Business Alliance. Top sectors are banking, financial services, energy, automotive, health, technology, retail, and manufacturing.

Manufacturing, the second largest contributor to area GDP with a disproportionate share of well-paying jobs and skilled, degreed graduates, prepares decision-makers and technical workers to drive automotive, advanced materials, machinery, and energy related manufacturing.

In automotive, Daimler is the leading OEM, employing thousands to produce heavy duty

trucks. Two-thirds of automotive manufacturing jobs come from suppliers of parts, components, and subassemblies, and include: Continental and Yokohama (tires); Timken and Schaffler (bearings); Performance Friction and Meritor (brakes); and Crawford Composites and Continental Structural Plastics. The region's large lithium deposits, a key ingredient for electric vehicle batteries, also supports companies in the electric vehicle supply chain including Celgard, Livent, and Albemarle.

Roughly 190 suppliers of advanced materials manufacturers have driven 44% growth in this area since 2020. Besides automotive, manufacturers include firms in textiles (Tenowo, Oxco, FMS); composites and carbon fiber (Rochling, Saertex, Metyx); plastics (Sealed Air,

Custom Plastic Forming, Genpack); and materials/resins (Celanese4, ShaynoNayo, Tosaf, Lubrizol).

A strong base of machinery manufacturers serves packaging, material handling, automotive, aerospace, energy, and health sectors. They include automation and control firms (Bosch Rexroth, Siemens, Parker Hannifin); precision machining (CR Onsrud, Haas Multigrind); and packaging/material handling suppliers (Hamer-Fischein, Forbo, Daumar, Mantissa).

The region's energy industry includes providers such as Duke Energy, supported by suppliers in areas including turbines (Siemens, Powerhouse); motors and generators (Abemarle, Celgard); batteries and alternative fuels (Celgard, Agility Fuel Systems, Arrival); and lithium, as mentioned above.

# Chicago-Naperville-Elgin, IL-IN-WI



## IN 2020, AREA MANUFACTURERS...



Employed about **386,100** or 9.1% of the workforce



Operated **9,625** manufacturing facilities



Produced **\$80.7** billion in Gross GDP or 12.7% of all private industries



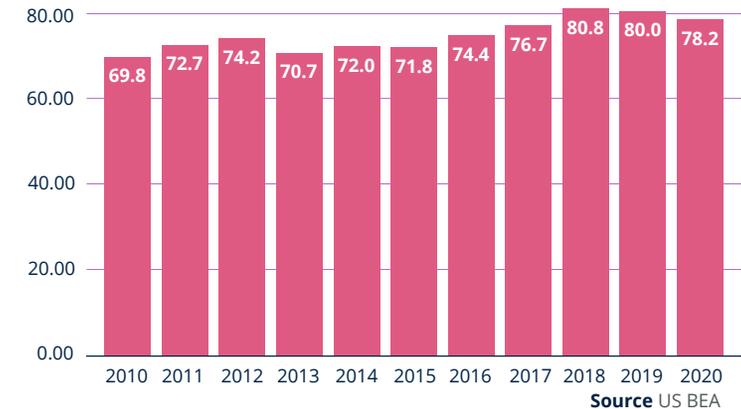
Exported 40.9 billion in goods, which rose to **54.7** billion in 2021



## Chicago Metro

### Manufacturing Real GDP 2010-2020

In billions of inflation-adjusted (chained 2012) dollars



The Chicago metro market has the third largest Real GDP in the nation and is home to a large manufacturing base with a highly skilled workforce. Higher education institutions graduated more than 143,000 in 2020, and top engineering schools include the University of Illinois, Northwestern University and other technical schools.

Key sectors in this Midwest hub are advanced manufacturing, agribusiness and food processing, transportation, distribution and logistics, life sciences, biotechnology and medical technology, and energy. Manufacturing GDP in the region is a close second behind the area's financial and insurance sector according to [EMSI/Economic Modeling Specialists International](#), and the area is perennially in the top strata of GDP contributors to the nation's economy.

Advanced R&D, engineering and manufacturing is strong for this market's producers of advanced materials producers, machine and metal parts fabricators, health/medtech products, and food and agricultural firms. Heavy equipment manufacturers serving this and other industries include Caterpillar, John Deere and Navistar. The area's historic strength in metal fabrication and equipment recently led the [Chicago Metropolitan Agency for Planning](#) to call this market "one of the few major U.S. metropolitan areas with an entire supply network of specialized metal clusters."

High-tech industries are strong here, in part owing from a history of chemistry and physics breakthroughs occurring in the shadow of two federal laboratories, Fermi and Argonne. Technology development fuels innovation in many industries. The region is bristling with firms



producing materials and systems for alternative fuels, wind energy, environmental products, advanced battery technology and storage, solar energy, and aerospace, and biotech and life sciences, including medical devices and products from Abbot Laboratories, Baxter Healthcare, Astellas, and GE Healthcare.

Food and agricultural employers include ADM, ConAgra, Cadbury Adams, General Mills, Heinz Kraft, and Sara Lee. This sector and others drive more business for manufacturers such as ITW/Illinois Tool Works, whose multiple units include business units for manufacturing equipment and test & measurement equipment.

# Detroit-Warren-Dearborn, MI



## IN 2020, AREA MANUFACTURERS...

- 
 Employed about **235,100** or 12.9% of the workforce
- 
 Operated **5,108** manufacturing facilities
- 

 Produced **\$41.2** billion in Gross GDP or 17.5% of all private industries
- 
 Exported 31.5 billion in goods, which rose to **35.7** billion in 2021



After health care and social assistance, manufacturing leads employment in the Detroit Metro workforce, led by automotive and mobility, machinery, transportation-related products, electronics, pharmaceutical, and plastics/rubber production.

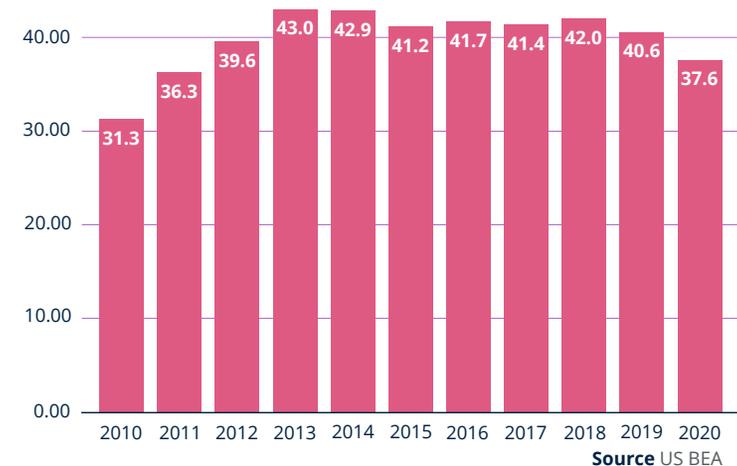
- The area's restructured automotive sector is home to numerous factories owned by 26 vehicle OEMs including Ford and GM, and 96 of the top 100 suppliers. According to the



## Detroit Metro

### Manufacturing Real GDP 2010-2020

In billions of inflation-adjusted (chained 2012) dollars



nonprofit economic development group, [Detroit Regional Partnership](#), the area is...

- Home to 20 Fortune 1,000 firms with combined revenues of \$443 billion (2019)
- Host to a workforce with the nation's 2nd largest concentration of engineering talent and the most industrial and commercial designers
- The No. 1 metro market in the US for assembler talent and quality with the greatest concentration of manufacturing talent

More than a century of automotive innovation has come from Detroit, which has become a US leader in robotics and automation – much of which originated here. Many interrelated fields are strong here as well, including information systems ushering in the age of digital transformation and advanced material research and engineering.

In fact, Lightweight Innovations for Tomorrow/[LIFT](#), a Detroit-based and Department of Defense-backed public-private partnership, continues developing new materials and training a workforce to use them across manufacturing sectors. Also catering to the automotive sector and beyond, the area's logistics sector ranks fourth in the country and is home to many leaders in multi-modal transport.

Engineering and manufacturing machinery and fabricated metal products are also among the area's strong manufacturing segments. Michigan is also home to medtech giant Stryker, and the state is increasingly prominent in its focus on medical devices, biotech, pharmaceuticals, and life sciences, spurred on by a large healthcare and educational infrastructure.

# Los Angeles-Long Beach-Anaheim, CA



## IN 2020, AREA MANUFACTURERS...

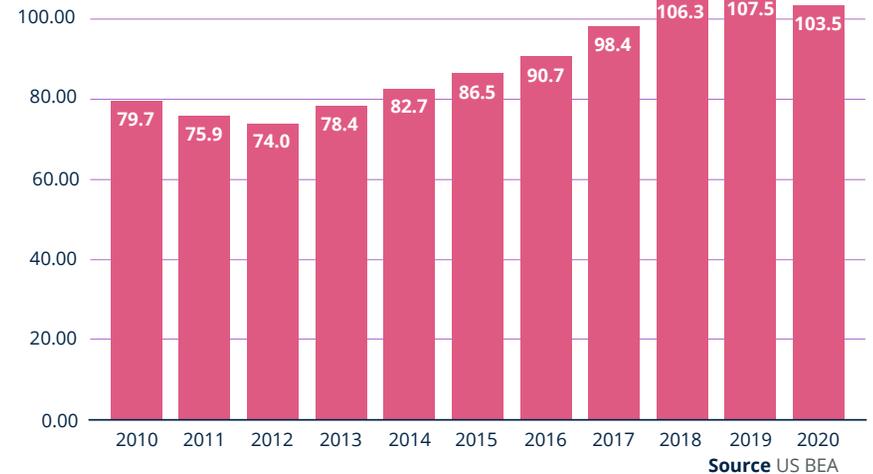
- 
Employed about **455,500** or 8.3% of the workforce
- 
Operated **15,193** manufacturing facilities
- 
Produced **\$104** billion in Gross GDP or 11.5% of all private industries
- 
Exported 50.1 billion in goods, which rose to **58.5** billion in 2021



## Los Angeles Metro

### Manufacturing Real GDP 2010-2020

In billions of inflation-adjusted (chained 2012) dollars



The Los Angeles metro market has one of the nation's largest manufacturing workforces and the nation's second largest Real GDP after New York. The largest employment sectors are related to health care and hotels and restaurants but the manufacturing workforce, almost tied by the professional, scientific, and technical services sector, supports an economy in which the two commingle.

This top region for engineering colleges includes the University of Southern California, California State Polytechnic University, and the University of California, which bodes well for filling the need for skilled leaders in advanced manufacturing.

Medtech is big here. Area manufacturers include medical device leaders Edwards Lifesciences

and Freudenberg Medical, Abbott Laboratories, Boston Scientific, and Medtronic. Biotech leader Amgen and national hospital operator Prime Healthcare are also based here. In fact, "all of Southern California from the coast to the Arizona state line is a life sciences hub," according to a [Qmed/Variant report](#), with many established firms and lots of new [startups](#).

In 2020, the state reported a major initiative by biotech and pharma companies to develop diagnostics, therapeutics, and vaccines to fight the SARS-COV-2 virus behind COVID-19. While job growth slowed 7.4% in 2020 and affected some medical device and pharma firms, life sciences jobs nonetheless grew 0.5% according to a state impact report. The initiative gives the area's life sciences industry a major boost in an area that

was already home to approximately 700 medical device companies.

The area is also a leading national manufacturing market for aerospace and defense, from supplying most of the world's fasteners for aerospace to companies that build NASA's Mars rovers, operated from Pasadena and the Jet Propulsion Laboratory. Automotive and food processing are also significant here.

Last but not least, plastic: From medical plastics to all points beyond, the state is ranked Number One in plastic manufacturing employment nationwide according to the [Plastics Industry Association](#). The association reports that the local industry directly employs more than 79,000 people statewide.

# Minneapolis-St. Paul-Bloomington, MN-WI



## IN 2020, AREA MANUFACTURERS...



Employed about **196,200** or 10.6% of the workforce



Operated **5,108** manufacturing facilities



Produced **\$33.7** billion in Gross GDP or 13.7% of all private industries



Exported 31.5 billion in goods, which rose to **35.7** billion in 2021



## Minneapolis Metro

### Manufacturing Real GDP 2010-2020

In billions of inflation-adjusted (chained 2012) dollars



Manufacturing is the second most common employment sector in this market after health care/social assistance. And here in Minneapolis-St. Paul – the Twin Cities – the two are inseparable. For example, [MnDrive](#), a partnership between academia and industry, has for years targeted applied research in four areas:

- Robotics, sensors, and advanced manufacturing
- Global food ventures
- Industrial environmental conservation
- Discoveries and treatments for brain conditions
- Clinical trials of cancer treatments

It's no surprise that life sciences and medtech manufacturing are intertwined in the home of the Mayo Clinic and St. Jude Medical. In fact, there's a region called Medical Alley on the eastern edge of the state that hosts employers including Abbott, Boston Scientific, Coloplast, Medtronic, Protolabs, and many more life science and, all told, 470 medtech firms, according to the [Medical Alley Association](#).

Other advanced manufacturing industries represent a wide swath of sectors including food processing (General Mills, Land O'Lakes, Cargill); industrial technology and components (Ecolab, Donaldson); paints, coatings, and sealants



(Valspar, H.B. Fuller); fluid controls manufacturer Pentair; chemical processor Mosaic; landscape equipment builder Toro; motorcycle and off-road vehicle manufacturer Polaris; office supplies maker Smead and 3M, whose reach extends into multiple industrial, commercial, and consumer products...and includes a healthcare division.

# New York-Newark-Jersey City, NY-NJ-PA



## IN 2020, AREA MANUFACTURERS...

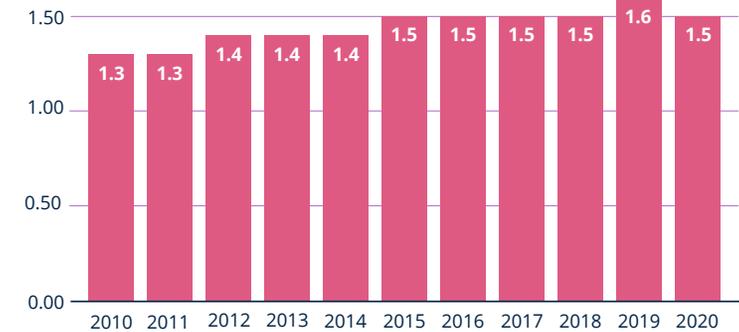
- 
 Employed about **321,000** or 3.7% of the workforce
- 
 Operated **13.8** thousand manufacturing facilities
- 
 Contributed to total area private sector Gross GDP of **\$1.64** trillion (manufacturing undisclosed)
- 
 Exported 75.8 billion in goods, which rose to **103.6** billion in 2021



## New York Metro

### Real GDP 2010-2020, All Industries\*

In trillions of inflation-adjusted (chained 2012) dollars



\*MSA-level manufacturing data are undisclosed for this market. **Source** US BEA

The New York metro market's got everything, and lots of it. It has the highest Real GDP in the nation and the second-largest economy in the world (behind Tokyo), and serves as the nation's leading financial and banking hub. The largest industries are health care related, educational services, professional, scientific, and technical services. Other strong sectors include international trade, biotechnology, and manufacturing.

Manufacturers and especially advanced manufacturers in and around the Big Apple metro and are found in many sectors including computers/electronics (Siemens, IBM Data Systems, Konica Minolta, Universal Display);

fabricated metal (MarinoWare, Custom Alloy); Machinery (Sandvik, Imperiai, Schindler, Atlas Copco); chemicals (BASF, PBF, Akcros, and roughly 100 more); and aerospace and defense (Lockheed Martin, L3Harris Technologies).

Medtech and biopharma manufacturing here are huge, with employers including Merck, Johnson & Johnson, Zoetis, Bristol Myers Squibb, Becton Dickinson, Sterling Medical Devices, and Stryker. In June 2022, the area's economic development office issued a news release declaring that this Metro area "[now tops all other regions in US for life sciences jobs and funding](#)," beating out San Francisco and Boston. It's a competitive Big Apple brag to be sure but the region has fulfilled its

2016 promise to make commercial life sciences its [next big industry](#) at a time when it already boasts 10 percent of the nation's biochemists and biophysicists, and 12 percent of chemists.

New Jersey, which this metro market largely encompasses, is home to more than 4,200+ advanced manufacturing firms, supported by \$7.8 billion in R&D expenditures, 25 doctoral universities and three of the Top 10 universities in the nation.

While manufacturing is low as a percentage of all industry employment at 3.7%, it's among the top nationwide in many manufacturing categories due to its sheer size.

# San Jose-Sunnyvale-Santa Clara, CA (aka Silicon Valley)



## IN 2020, AREA MANUFACTURERS...



Employed about **90,000** or 7.9% of the workforce



Operated **2,127** manufacturing facilities



Produced **\$78.8** billion in Gross GDP or 22.8% of all private industries



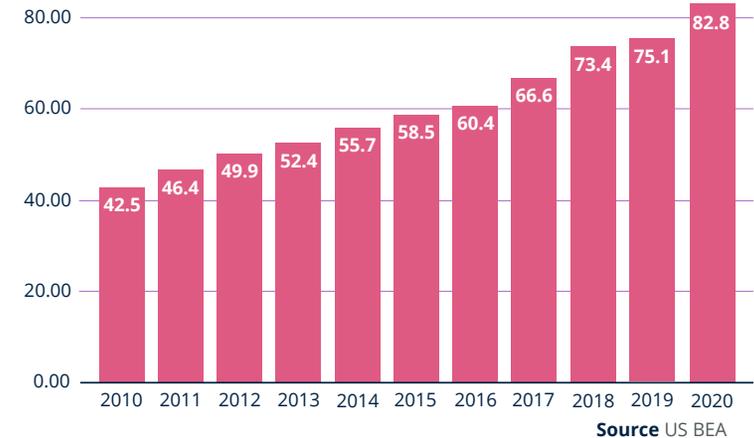
Exported \$19.9 billion in goods, which rose to **\$22.3** billion in 2021



## San Jose Metro

### Manufacturing Real GDP 2010-2020

In billions of inflation-adjusted (chained 2012) dollars



Something remarkable happened here: While other markets' manufacturing economies declined through 2020 and remain on the mend, this metro market gained 10.7% in Gross GDP, from \$71.2 billion in 2019 to \$78.8. Even more remarkable is the decade of growth in inflation-adjusted Real GDP. Much of this growth came from the need to meet the pandemic head on. The area, like Los Angeles metro (as discussed above), mobilized to fight the SARS-COV-2 virus. Corporate residents Apple and Google allied to deploy contact tracing technology, and other big names including IBM and HP joined the fray.

But there's a more sustained growth story being told here. Google's 2015 startup Verily Life Sciences, a "data-driven virtual care" firm continues (now under Google Alphabet) and

many more life sciences and medtech employers – also with revenues in the billions – are thriving. They include Gilead Sciences (biopharmaceuticals), Agilent Technologies (chemicals, diagnostic instruments, software), Intuitive Surgical (minimally invasive care; robotic-assisted surgery), Varian Medical Systems (radiotherapy systems; X-ray tubes); CooperSurgical (reproductive technology, genomics); and Align Technology (dental; Invisalign brand owner).

The bigger picture beyond medtech is looking healthy, as well. The area's long been a hub for advanced manufacturing, especially in computers, electronics, and aerospace and defense. But through the 1990s amid industry offshoring, a paucity of affordable housing, and a need to diversify, the economy suffered losses.

And again, something remarkable has happened: Over the past several years, with help from the local [Urban Manufacturing Alliance](#), this manufacturing market has seen a renaissance that led a local official to comment: "It's not old-school dirty manufacturing; it's high-tech skill with room for advancement."

The numbers show this to be the case. In a late 2021 research report on [Top Cities where Manufacturing is Thriving](#), San Jose took first place among large cities (pop. 500K+) based on research weighting four factors: growth rate of manufacturing output; manufacturing output per capita; location quotient for manufacturing workers; and the growth rate in manufacturing jobs.

# Conclusion | No Time Like the Present



After reviewing the manufacturing markets in this report and considering where the people are with whom you seek to connect, two simple truths remain: There's always a way, and there's no time like the present to seize new opportunities.

**Informa Markets Engineering (IME)**, which brings this report to you, is a trusted industry resource for engineers across the industrial economy. The company offers a range of **in-person trade shows, educational conferences, virtual events, and digital extras** for engineering professionals to discover solutions, network with peers, and source new products and partnerships.

Live events, held in the top US markets discussed in this report as well as events worldwide, include:

- **MD&M and BIOMEDevice** (medical device manufacturing)
- **ATX** (automation technology)
- **D&M** (design & manufacturing)
- **Plastec, PLA-STEX** (plastics)
- **Pack, PACKEX, and CannPack** (packaging & cannabis packaging)
- **International Powder & Bulk Solids Conference and Exhibition**
- **The Battery Show and Electric & Hybrid Vehicle Technology Expo shows**
- **DesignCon** (electronic systems design)
- ...many more.



By participating, you'll have the opportunity to gain hands-on knowledge and network with engineering experts, peers and suppliers on a massive scale. Once again and always: **There's no time like the present to seize new opportunities.**

## How can you learn about upcoming events in your area and industry?

- Visit the [Informa Markets Events page](#) to view participants, live floorplans, and agendas.
- Email [registration.ime@informa.com](mailto:registration.ime@informa.com) or call 310.445.4273 for information on attending an upcoming event.
- Email [clientservices.ime@informa.com](mailto:clientservices.ime@informa.com) to learn about exhibiting at one or more events.
- [Download the 2023-2024 Events Calendar](#) to find an event near you.

### SOURCES

Data presented in this report are based on multiple series releases from the following sources: US Bureau of Economic Analysis: Data on GDP, Real GDP, output; County Business Patterns (2020): data employment by manufacturing sector, US Census Bureau, County Business Patterns (2020): Data on employment and establishments, US Census Bureau, US Exports by Metropolitan Area (2019 and 2020).

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