

**BioForward  
Economic Impact  
Report 2022:**  
Policymakers Kit

Data provided by:  
**TEconomy Partners**  
2022 Wisconsin Biohealth  
Economic Impact Report

# Wisconsin's Biohealth Industry: **Success** and **Stability** Fueling the State's Economy

**Wisconsin's biohealth industry** impacts economic growth, supply chains, employment trends, and talent pools that grow the state's economy and tax base. The robust industry generates \$32 billion in total economic impact across every corner of the state, contributing to the payrolls of 129,000 people working in manufacturing, research and development, and transportation and distribution.

The localized biohealth supply chain is a case study in successful, efficient movement and distribution of equipment and material. Wisconsin supplied more than \$6 billion in products and services to the state's biohealth industry, which alone accounted for nearly 34,000 jobs.

Outside of manufacturing and logistics, the state is also aggressive and successful in its research and development at world-class universities. These universities are critical to the biohealth industry and make the state attractive for investment because of their innovation, relationships, and talent pipeline created within.

**Wisconsin is advancing across all sectors of the industry, recruiting jobs and talent, promoting research and development, and growing Wisconsin's reputation globally as a leader in biohealth.**

**129K**

Jobs

**\$32B**

In Economic Impact

**\$6B**

In Products & Services

# As a **Policymaker** In the State of Wisconsin

**You are a part of something big.** Your influence can support an industry that is leading the state out of the economic challenges of the pandemic years and outpacing other major state industries with strong, double-digit, and high-wage job growth that is generating more jobs for your constituents and increasing your tax base. The data is in, we have the proof, and you have the ability to use this information to actively influence others to make an even greater impact on the future of integrated health.

Wisconsin is matching the overall

## **GROWTH RATES**

in the national biohealth industry

Wisconsin's biohealth industry is a

## **CASE STUDY IN EXCELLENCE**

for manufacturing and logistics

Wisconsin's universities are

## **WORLD CLASS**

and fuel innovation and feed talent pipelines





# Supply Chain Strength

## Fuels Biomanufacturing in Wisconsin

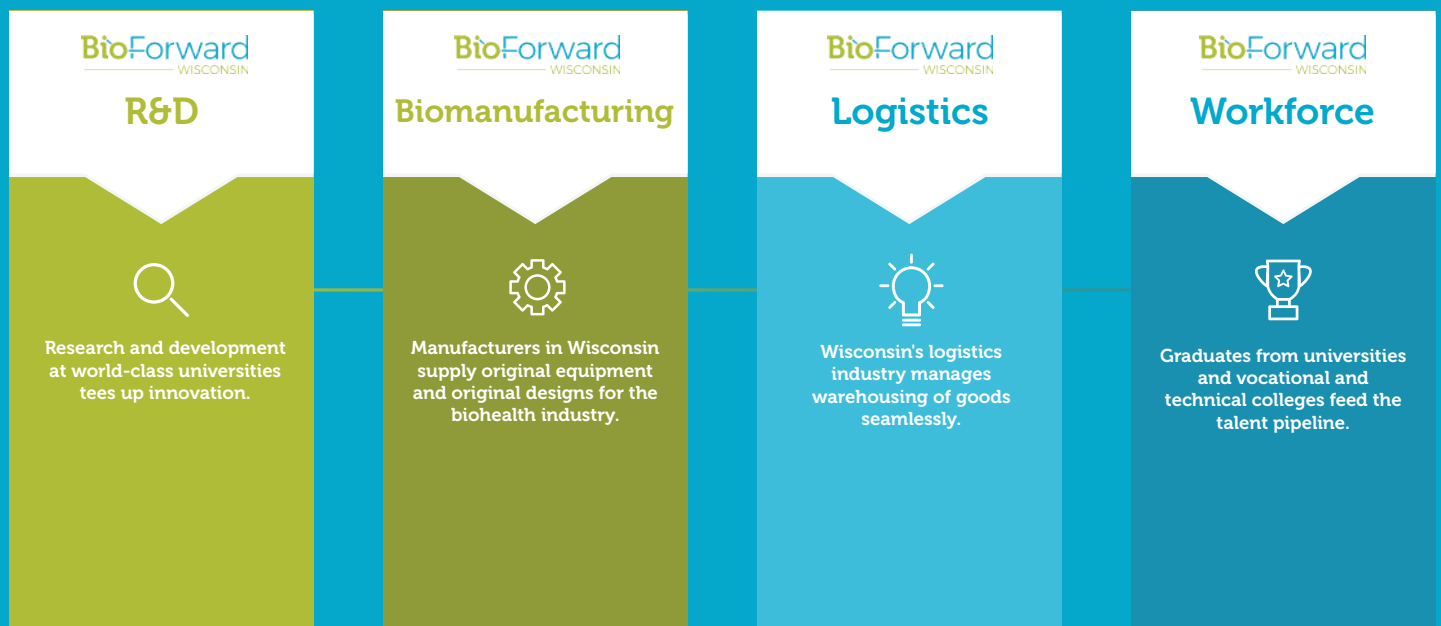
**While other states and markets** are still struggling with supply chain challenges created by the pandemic, Wisconsin supplied more than \$6 billion in products and services to the state's biohealth industry, which accounted for nearly 34,000 jobs. This makes Wisconsin a powerful force, not only in the state, but throughout the nation, and across the globe.

Wisconsin's biohealth supply chain operations and biomanufacturing are symbiotic: Research and development and the exchange of ideas tees off the industry to manufacturers that supply original equipment and original designs for the industry. Wisconsin's logistics industry manages warehousing and movement of goods seamlessly. Meanwhile, the men and women supporting biohealth's supply chain live in every corner of the state and contribute to the greater good of biohealth.

With a high concentration of in-state and FDA registered suppliers, the state has everything it needs to provide stability, cost benefits, and quick and easy access to materials.

**The men and women supporting biohealth's supply chain live in every corner of the state and contribute to the greater good of biohealth.**

## A Secure Supply Chain



# Made in WI: A Manufacturing Powerhouse

**Wisconsin is a powerhouse** in medical device manufacturing and drug and pharmaceutical biomanufacturing. The state's medical device and equipment manufacturing supports 12,000 jobs and is 34% more concentrated in our state relative to national averages. The drug and pharmaceutical subsector known as "biomanufacturing" grew by 22% since 2018, well outpacing the strong national growth of 14%.

## Detailed Industry Strengths

Large and highly specialized concentration in medical device—nearly 12K jobs, 34% greater concentration than US average (LQ is 1.34)

Irradiation Apparatus Mfg. (LQ is 13.87) –representing intensive focus on medical imaging, emerging focus in radiotherapies/nuclear medicine

Biologics Manufacturing (LQ is 3.30) – includes cell and tissue engineering, mfg.

Active Pharmaceutical Ingredients

Research Tools & Instrumentation

Contract Research Organizations, Contract Development Manufacturing Organizations

Medicinal & Botanical Mfg. (LQ is 1.16)

## Innovation Ecosystem Highlights

Leading focus area in patent awards

Associated with leading areas of highly concentrated University R&D in biological & biomedical sciences (LQ is 1.17), and in health sciences (LQ is 1.12)

Leading area in recent VC, Angel Investments

Forward BIO Institute and Forward BIOLABS investment into Biohealth ecosystem: R&D to commercialization, developing talent and supporting entrepreneurs



**12K**

Jobs

**34%**

Greater concentration than US average

**22%**

Growth since 2018



GE HealthCare

BioForward  
WISCONSIN

# GE HealthCare

## Thrives in Wisconsin

The biomanufacturing giant thrives off of innovation from Wisconsin's universities, taps into talent pipelines statewide, and takes advantage of a robust, localized supply chain.

**"When you fuel innovation, you fuel the strength of the entire biohealth network. Wisconsin's investments in its university system deliver groundbreaking research and development and robust talent pipelines, major drivers for GE HealthCare's continued growth here."**

-Eric Ruedinger  
Global GM for Anesthesia and Respiratory Care  
GE HealthCare

In Wisconsin specifically, GE HealthCare generates around \$8 billion in direct and indirect annual economic impact, exports around \$1.5 billion in goods from the state and has more than 1,000 suppliers in Wisconsin, according to the company.

GE HealthCare generates

**\$8B**

in direct and indirect  
annual economic impact

GE HealthCare exports

**\$1.5B**

in goods from the state

GE HealthCare uses

**1,000**

suppliers in Wisconsin

# Investing, Expanding & Innovating in Wisconsin

**Wisconsin's robust biohealth ecosystem makes it the place for companies to invest and expand** with economic opportunities for the state abound. The state has seen a host of both expansions and investments in facilities and capabilities as well as several mergers and acquisitions affecting Wisconsin-based companies.

In turn, these activities have fueled job growth and access to supplies. For example, the drug and pharmaceutical subsector has seen a 22% increase in jobs since 2018 and has been propelled by numerous manufacturing facility expansions as well as new lab buildouts, investments in office space, and enhanced R&D facilities and capabilities.



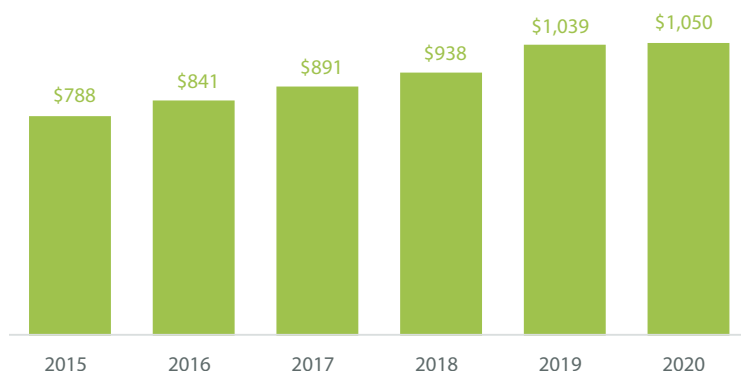
# World-Class University Systems

Wisconsin's internationally renowned universities and research institutions are critical to the success of the biohealth industry. **Partnerships with these world-class institutions lead to innovative discoveries, development of product lines impacting sales and jobs, and a talent pipeline that is vital to ongoing growth of the Wisconsin biohealth industry.**

## Biohealth Research and Development

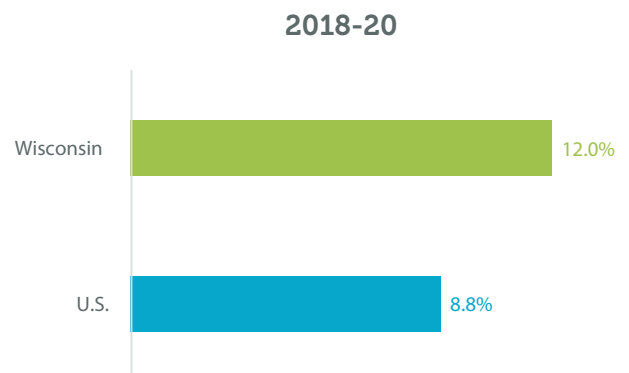
Wisconsin benefits by having an especially large and leading university R&D engine fueling discovery and innovation, which in 2019 and 2020 surpassed \$1 billion in annual expenditures and has outpaced the growth in U.S R&D investments by 12% since 2018. With institutions like University of Wisconsin Madison and Medical College of Wisconsin leading the pack, Wisconsin is poised to support companies looking for innovative scientific discoveries, industry academia partnerships, and strong talent right in their backyard.

## University Biohealth R&D Expenditures in Wisconsin, Levels and Growth Trends (\$ in Millions)



**"Innovation is Wisconsin's hallmark, and the state's investment in its university system fuels the entire biohealth ecosystem from research, manufacturing, logistics, and talent."**

-Nicolas Paris, CEO of Gilson





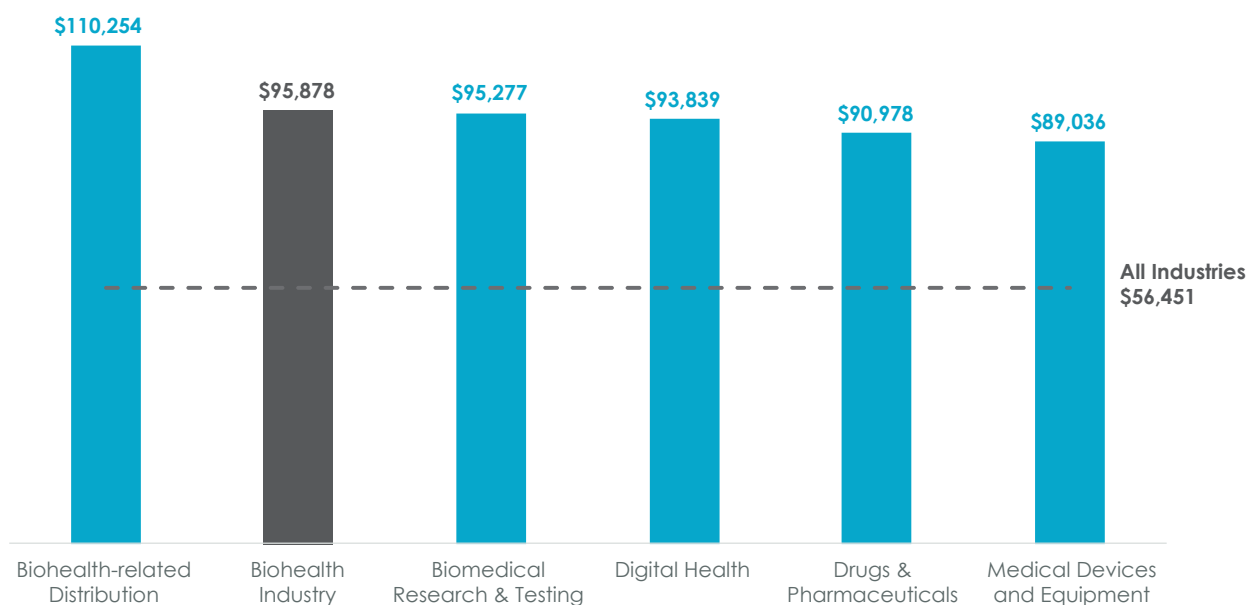
# Biohealth Workforce

## Reaches Across the State

**The state's high wages** reflect the industry's position as one of the most innovative and advanced in the nation. Workers in the biohealth industry earned an average of nearly \$96,000 in 2021, which is more than \$39,000 or 70% greater than the state's private-sector average of just over \$56,000. The biohealth industry supports nearly 129,000 jobs throughout the state.



**While primarily concentrated in Madison and Milwaukee,** Wisconsin's biohealth industry touches its every corner, growing workforces throughout the state, **contributing to high-paying jobs and a stable tax base, and investing in different regions.**

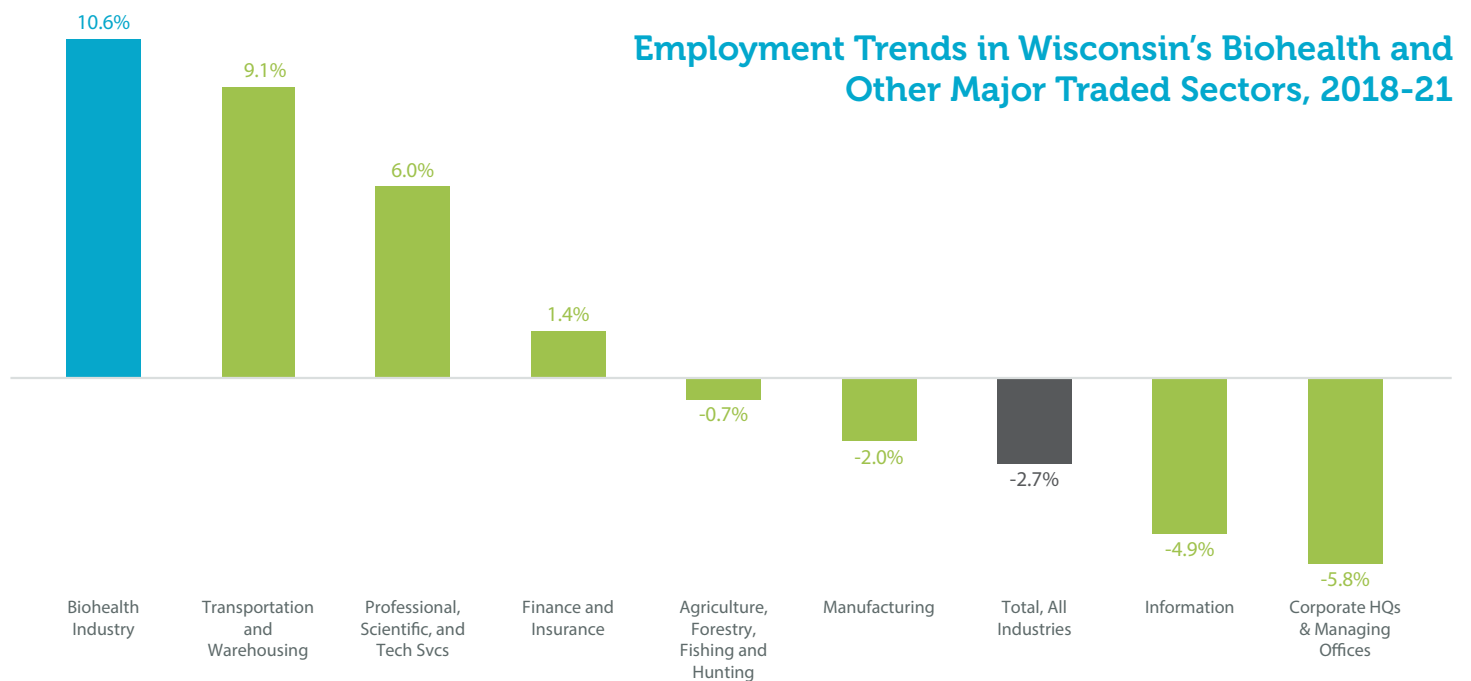


**Average Annual Wages for Wisconsin's Biohealth Industry and Major Subsectors, 2021**

# High Wages

## Solid Job Growth

**The state deploys an especially high concentration** of highly skilled STEM workforce as well as critically skilled technician and operator workforce in highly regulated advanced production environments.



**In 2021 Wisconsin's biohealth industry is estimated to have generated more than \$19 billion in direct economic output and nearly \$32 billion in total economic impact.**








# A Call to Action

We need your support to keep Wisconsin's biohealth network thriving!

**Considering the entirety** of the biohealth industry and its ecosystem, Wisconsin is advancing with progress across every measure and seeing strong levels of activity.

Success stories abound, biohealth is the industry that carried Wisconsin workers through the core pandemic years, will drive success in the future, and is contributing to global health initiatives beyond the state and the country.

## Total Impact

Employment	<b>129K</b>	
Wages & Benefits	<b>\$9.7B</b>	
Economic Output	<b>\$31.8B</b>	
State & Local Taxes	<b>\$1.2B</b>	
Federal Taxes	<b>\$2.1B</b>	

# What You Can Do

## 1. Fund Wisconsin Universities and Technical Colleges:

Wisconsin universities and technical colleges are the catalyst to our success.

## 2. Support R&D Tax Credit Refundability Increase, Full Repeal of Personal Property Tax, Lab Facility Grant Program, and All Copays Count Legislation:

Attract and retain growing Wisconsin companies, support emerging growth companies across key Wisconsin industries and lower out-of-pocket costs for patients.

## 3. Grow Jobs & Wisconsin's Tax Base:

Biohealth touches every corner of the state, and constituents in every district are working on behalf of the industry, whether that be in research and development, manufacturing, or logistics. By supporting biohealth, you keep jobs in Wisconsin and support the livelihoods of hard-working men & women here.



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View the  
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