



**GLOBAL BUSINESS
OPPORTUNITIES ABOUND IN
WISCONSIN**

WISCONSIN AEROSPACE





Astronautics

Technical Capability



Founded in 1959
Milwaukee, Wisconsin

Astronautics is a world leader in the design, development, and manufacture of military and commercial electronics for air, land, sea and space applications.



Displays



Servers/Computers



Integrated Systems

More than 150,000 aircraft use Astronautics flight instruments, displays, computers, and components



F-16

A400M

PC-9

B787

F-15

A320

A109

UH-60

WISCONSIN: STRATEGICALLY LOCATED IN THE HEARTLAND OF THE U.S.



IDEAL LOCATION



KEY TO INFRASTRUCTURE IN WISCONSIN

- 09 **HIGHWAY SYSTEMS**
 Covering more than 11,800 miles (18,990 km)
- 13 **RAILROAD LINES**
 Moving more than \$122 billion in freight each year
- 08 **COMMERCIAL AIRPORTS**
 Served by all major carriers and linking Wisconsin to every point in the nation within one business day
- 29 **COMMERCIAL PORTS**
 That ships 39 million tons of product each year
- 03 **FOREIGN TRADE ZONES (FTZ)**
 In Green Bay, Milwaukee and Madison

40 percent of U.S. and Canadian manufacturers are reachable within a day's drive

TALENTED WORKFORCE

2ND

HIGHEST MANUFACTURING
CONCENTRATION OF ANY
STATE IN THE NATION.

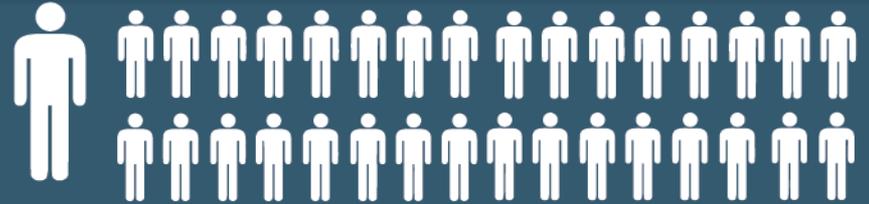


Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, June 2014 Private Employment

87%

ABOVE NATIONAL AVERAGE

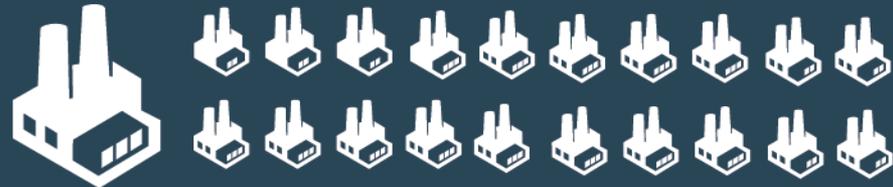
466,083 JOBS



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, June 2014 Private Employment

7.4%

GROWTH IN MANUFACTURING
EMPLOYMENT FROM 2009 TO 2014
COMPARED TO NATION'S 5.9%



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, June 2014 Private Employment

\$150 MILLION DEDICATED TO WORKER TRAINING

EDUCATIONAL EXCELLENCE

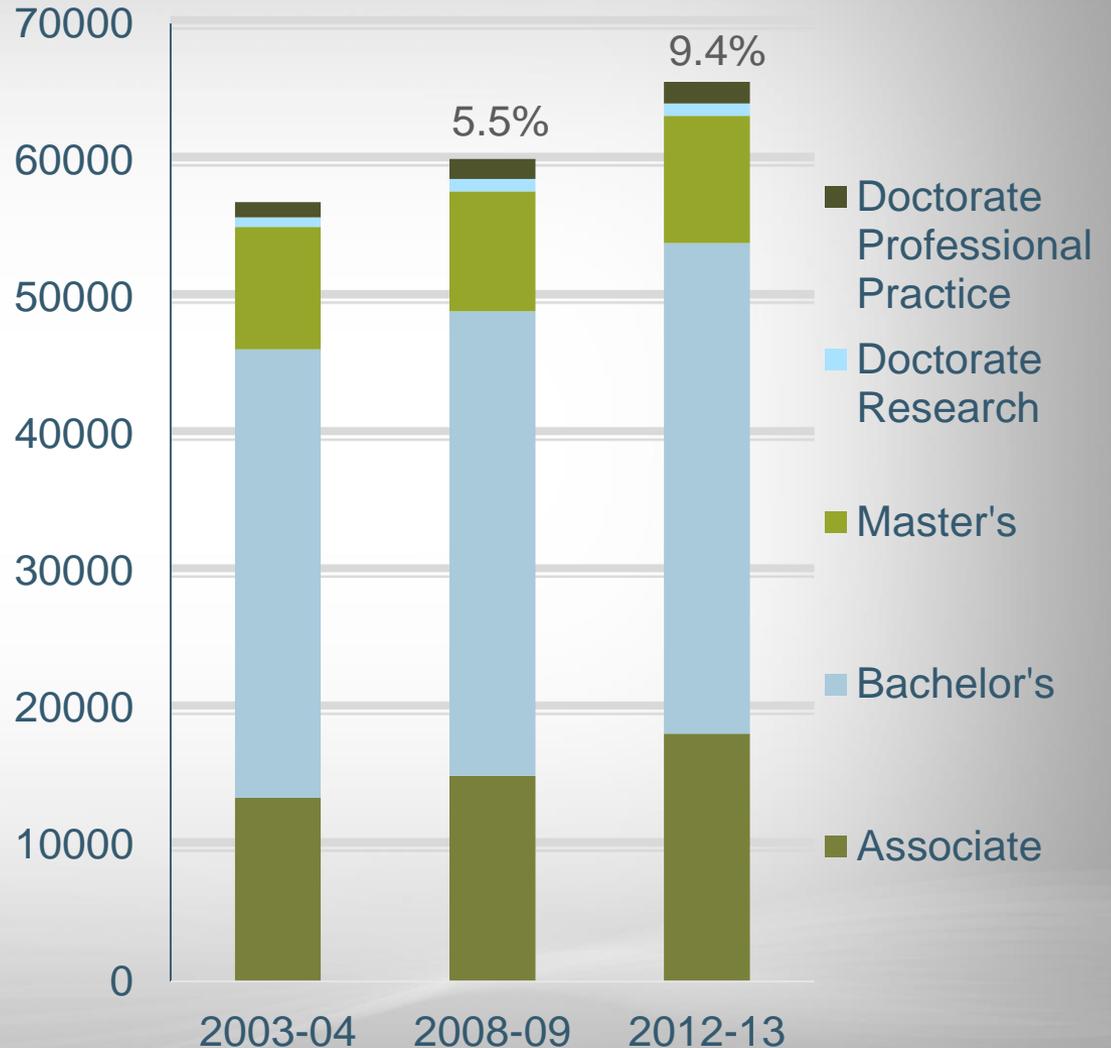
Degrees conferred by
Wisconsin's public and
private technical schools,
colleges and universities

TOTAL DEGREES:

2003-04 – **56,948**

2008-09 – **60,099**

2012-13 – **65,738**



RESEARCH AND DEVELOPMENT

A photograph of a medical MRI scan in progress. A patient is lying on a table inside the large circular gantry of the MRI machine. A technician in a white lab coat stands to the right, operating the machine's controls. The room is dimly lit, with the machine's lights providing the primary illumination. The background shows typical hospital room fixtures like cabinets and a counter.

\$1.1 BILLION
2012 RESEARCH INVESTMENT

ACCELERATING COMMERCE WITH
\$6 BILLION
IN INFRASTRUCTURE IMPROVEMENT.



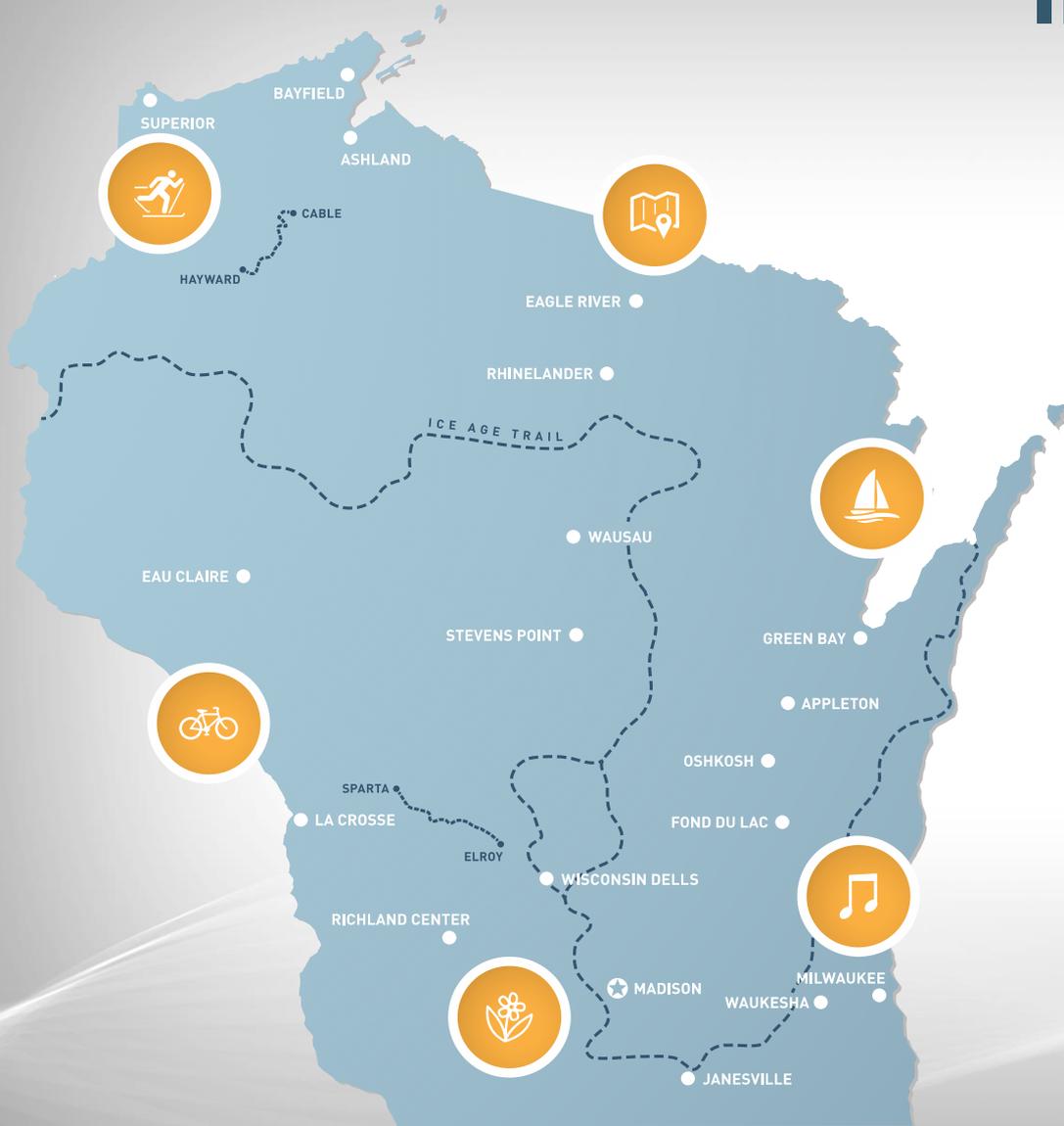
STRONG BUSINESS IS BUILT ON
CONFIDENCE.



BUSINESS-FRIENDLY
TAX POLICY

FULLY FUNDED
PENSION SYSTEM

LIVE, WORK AND PLAY IN WISCONSIN.®



MADISON, WISCONSIN
BEST #1
 PLACE TO LIVE OUT OF 100

A CAPITOL CITY AND HIP COLLEGE TOWN, MADISON PROVIDES RESIDENTS WITH AFFORDABLE HOUSING, GREAT SCHOOLS, EXCELLENT HEALTH CARE AND A WIDE RANGE OF RECREATIONAL ACTIVITIES AND ENTERTAINMENT OPTIONS. Source: livability.com

2ND  

WISCONSIN RANKS SECOND HIGHEST IN THE NATION FOR OVERALL HEALTH CARE QUALITY PERFORMANCE. Source: Wisconsin Hospital Association, Inc. June 22, 2012

15,000 

LAKEs, INCLUDING TWO GREAT LAKES AND THE MISSISSIPPI RIVER.

TOP 10 

WISCONSIN RANKS IN THE TOP 10 OF THE SAFEST, SMARTEST AND MOST LIVABLE STATES. Source: morgan Quinto Press



WISCONSIN
AEROSPACE
PARTNERS

Meridith Jaeger





THE SPIRIT OF AVIATION



GLOBALLY RECOGNIZED



550,000+ Visitors **10,000+** Aircraft **80+** Nations Represented



AeroInnovate

Where great ideas take flight

www.aeroinnovate.org

EDUCATE

ALIGN

EXPOSE

CONNECT

ENDURALOCK

PERMANENT, REVERSIBLE, REUSABLE: THE FUTURE OF FASTENERS

RADIAL LOCK FASTENER



- Highly Vibration Resistant
- Reversible and Reusable
- Blind Approach for Reapplication
- Accurate Preload
- Standard Socket Compatible

3 STEP APPLICATION:

Socket attached with nut free-spinning **1**

Preload applied **2**

Socket removed with nut now locked **3**



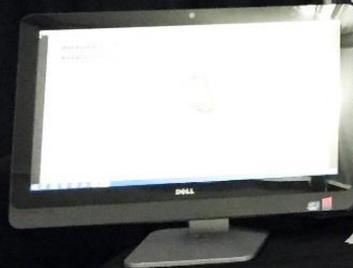
ENDURALOCK

Enduralock Solution

- Positive locking permanence
- Fully reversible
- Accurate preload
- Blind/blind approach for reapplication

Enduralock Benefits

- High vibration resistance
- Time savings
- Cost savings
- Reduced maintenance
- Heat resistant



ENDURALOCK





WISCONSIN
AEROSPACE
PARTNERS

BUSINESS DEVELOPMENT
ADVOCACY
EDUCATION
WORKFORCE
MARKETING & BRANDING
INNOVATION



WISCONSIN
AEROSPACE
PARTNERS

LEADERSHIP AND COLLABORATION



Space Science Engineering
Center – UW Madison



AIM-Advanced Industrial
Materials Consortium–
UW Madison

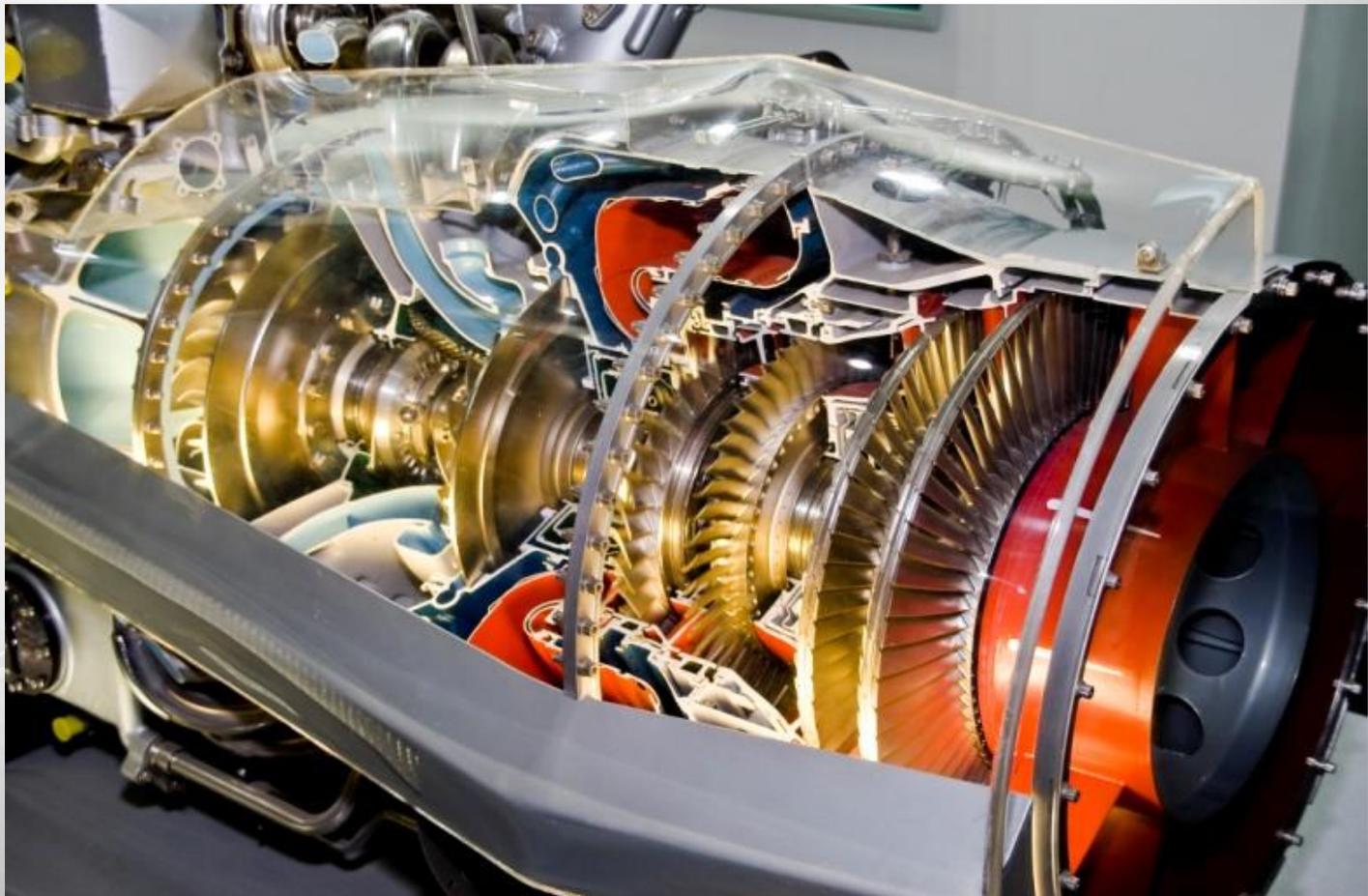


**MILWAUKEE
INSTITUTE**





WISCONSIN
AEROSPACE
PARTNERS



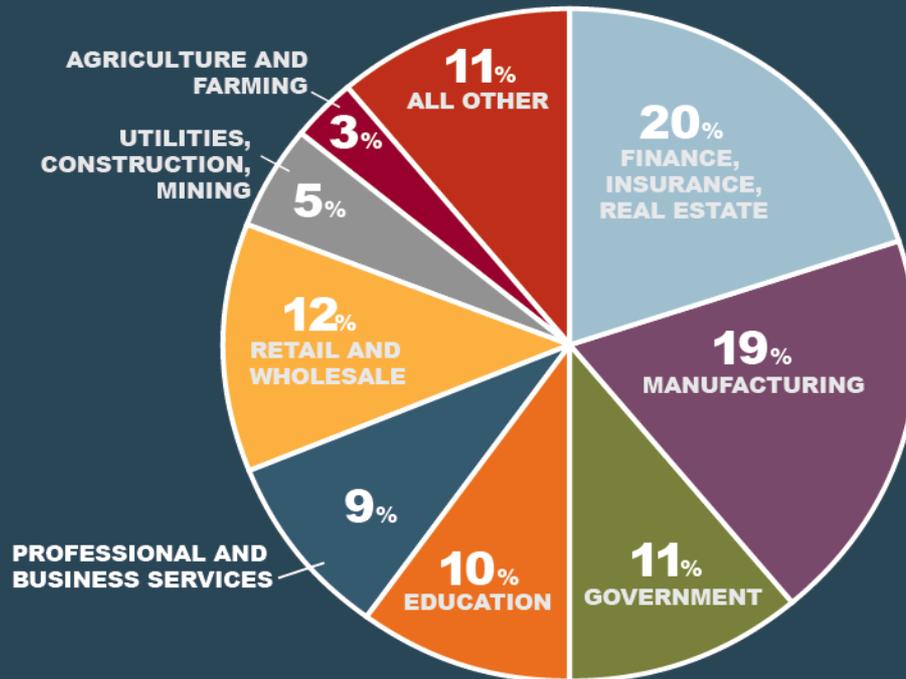


AEROSPACE FDI IN WISCONSIN[®]



WISCONSIN GDP 2013

WISCONSIN GDP 2013
\$283 BILLION





AEROSPACE

BY THE NUMBERS >

NEARLY 200 COMPANIES HAVE TIES TO THE STATE'S AEROSPACE SECTOR. MORE THAN 14,000 PEOPLE ARE EMPLOYED BY COMPANIES THAT SUPPORT THE AEROSPACE MANUFACTURING SECTOR.

NEARLY **200**  COMPANIES

Source: Bureau of Labor Statistics, ANNUAL QCEW 2013 PRIVATE EMPLOYMENT

14,000  EMPLOYED

Source: EZ Select

WISCONSIN RANKS ABOVE THE NATIONAL AVERAGE FOR EMPLOYMENT CONCENTRATION IN

- INDUSTRIAL ENGINEERS
- MACHINISTS
- MAINTENANCE AND REPAIR WORKERS (GENERAL)
- TOOL AND DIE MAKERS
- ELECTRICAL AND ELECTRONIC EQUIPMENT ASSEMBLERS
- COMPUTER-CONTROLLED MACHINE TOOL OPERATORS (METAL AND PLASTIC)
- COMPUTER NUMERICALLY CONTROLLED PROGRAMMERS (METAL AND PLASTIC)
- LATHE AND TURNING MACHINE TOOL SETTERS (METAL AND PLASTIC)
- GRINDING/LAPPING/POLISHING/BUFFING SETTERS (METAL AND PLASTIC)

WISCONSIN RANKS NATIONALLY IN EMPLOYMENT CONCENTRATION IN FOUR KEY FIELDS THAT CONTRIBUTE TO AEROSPACE MANUFACTURING:

#1 FABRICATED METAL PRODUCTS
ELECTRICAL EQUIPMENT

#2 MACHINERY
PLASTICS AND RUBBER PRODUCTS

Source: U.S. Bureau of Labor Statistics, ANNUAL QCEW 2013 PRIVATE EMPLOYMENT

IN 2013 WISCONSIN'S COLLEGES AND UNIVERSITIES AWARDED



MORE THAN

3,600

ACADEMIC DEGREES

IN ENGINEERING AND ENGINEERING TECHNOLOGY FIELDS, INCLUDING CERTIFICATES, ASSOCIATE DEGREES, BACHELOR'S DEGREES AND ADVANCED DEGREES



Source: National IPEDS database published by the U.S. Department of Education's National Center for Education Statistics



MANUFACTURING BY THE NUMBERS >

466,083 JOBS **87%** GREATER EMPLOYMENT CONCENTRATION THAN THE NATIONAL AVERAGE



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, June 2014 Private Employment

7.4%

GROWTH IN MANUFACTURING EMPLOYMENT FROM 2009 TO 2014 COMPARED TO NATION'S 5.9%



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, June 2014 Private Employment

2ND

HIGHEST MANUFACTURING CONCENTRATION OF ANY STATE IN THE NATION.



Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, June 2014 Private Employment

\$50 BILLION

WISCONSIN MANUFACTURERS PRODUCED NEARLY \$50 BILLION WORTH OF OUTPUT IN 2013, ACCOUNTING FOR OVER 19% OF THE STATE'S GROSS DOMESTIC PRODUCT.



Source: QCEW Employees - EMSI 2014.3 Class of Worker



ENERGY POWER AND CONTROL

BY THE NUMBERS >

209,023 JOBS

43%

GREATER EMPLOYMENT CONCENTRATION THAN THE NATIONAL AVERAGE

7.7% INCREASE IN EMPLOYMENT

vs. 6.7% NATIONALLY (2010-2013)



Source: QCEW Employees - EMSI 2014.3 Class of Worker

344 ELECTRICAL ENGINEERS

219 ELECTROMECHANICAL ENGINEERING TECHNOLOGISTS



GRADUATED IN WISCONSIN IN 2014



Source: Battelle/BIO State Bioscience Jobs, Investments and Innovation 2014

MORE THAN 900 COMPANIES IN WISCONSIN'S GROWING ENERGY, POWER AND CONTROL SECTOR EMPLOY OVER 100,000 PEOPLE AND GENERATE \$38 BILLION IN ANNUAL SALES

900 COMPANIES



100,000 EMPLOYED



\$38 BILLION ANNUAL SALES



Source: Midwest Energy Research Consortium.

164

SOLAR SUPPLY CHAIN COMPANIES IN WISCONSIN EMPLOYING 1,800 PEOPLE



Source: Solar Energy Industries Association, State Solar Policy



BIOSCIENCE

BY THE NUMBERS >

33,305 JOBS

3.3% INCREASE IN EMPLOYMENT vs. 3.0% NATIONALLY (2010-2013)



Source: QCEW Employees - EMSI 2014.3 Class of Worker

50%

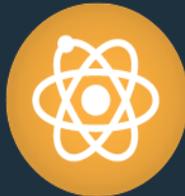


GREATER EMPLOYMENT CONCENTRATION IN MEDICAL DEVICE MANUFACTURING THAN THE NATIONAL AVERAGE



Source: Battelle/BIO State Bioscience Jobs, Investments and Innovation 2014

\$934 MILLION



BIOSCIENCE ACADEMIC RESEARCH AND DEVELOPMENT 70% OF TOTAL OF R&D SPENDING, COMPARED WITH 61% NATIONAL AVERAGE



Source: Battelle/BIO State Bioscience Jobs, Investments and Innovation 2014

MADISON, WISCONSIN

HAS SPECIALIZED EMPLOYMENT CONCENTRATION IN 4 OUT OF 5 BIOSCIENCE SUBSECTORS. THIS PLACES IT AMONG THE TOP 9 U.S. METRO AREAS ON THIS MEASURE.

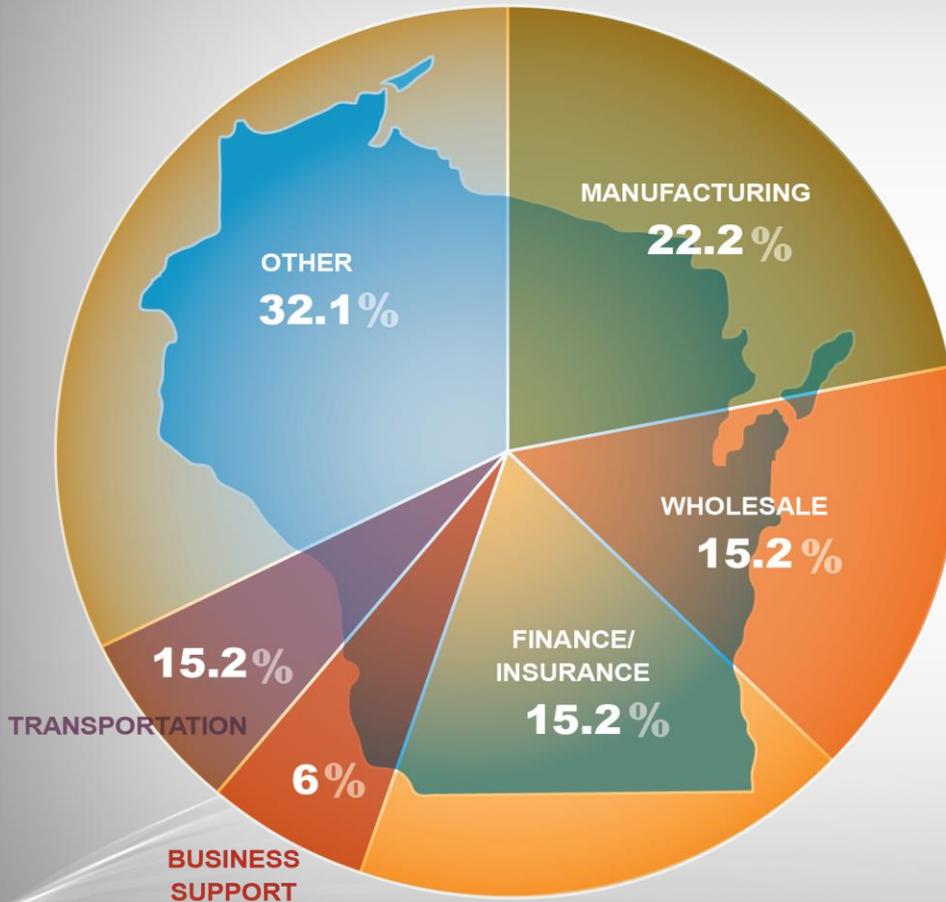


SUBSECTORS INCLUDE:

1. BIOSCIENCE-RELATED DISTRIBUTION
2. DRUGS AND PHARMACEUTICALS
3. MEDICAL DEVICES AND EQUIPMENT
4. RESEARCH, TESTING AND MEDICAL LABORATORIES
5. AGRICULTURAL FEED STOCK AND CHEMICALS

Source: Battelle/BIO State Bioscience jobs, Investments and Innovation 2014

WISCONSIN FDI PROFILE



INDUSTRY DISTRIBUTION

NUMBER OF FOREIGN OWNED ESTABLISHMENTS:

1,537

JOBS IN FOREIGN-OWNED ESTABLISHMENTS

86,440

WISCONSIN AEROSPACE FDI



GKN SINTER METALS

UK
High Precision
Powder Metal
Components



SAFRAN

Messier-Bugatti-Dowty

FRANCE
Landing Gear
and Break MRO

ZODIAC
AEROSPACE



FRANCE
Component
Repair MRO

WISCONSIN AEROSPACE FDI



fives ultimate machines
ultimate factory

“... Innovation, a skilled work force and reliable support are core values of any company hoping to be a supplier to this demanding industry. These are the qualities Fives saw in Giddings & Lewis, and they are the core values held by our Wisconsin workforce that have made Fives Giddings & Lewis a leading builder of high-precision machine tools for more than a century.

Fives has exciting plans for G&L and the aerospace industry will take us well into the next century.

Kevin Lichtenberg, Vice President and General Manager US Operations.

WISCONSIN AEROSPACE FDI

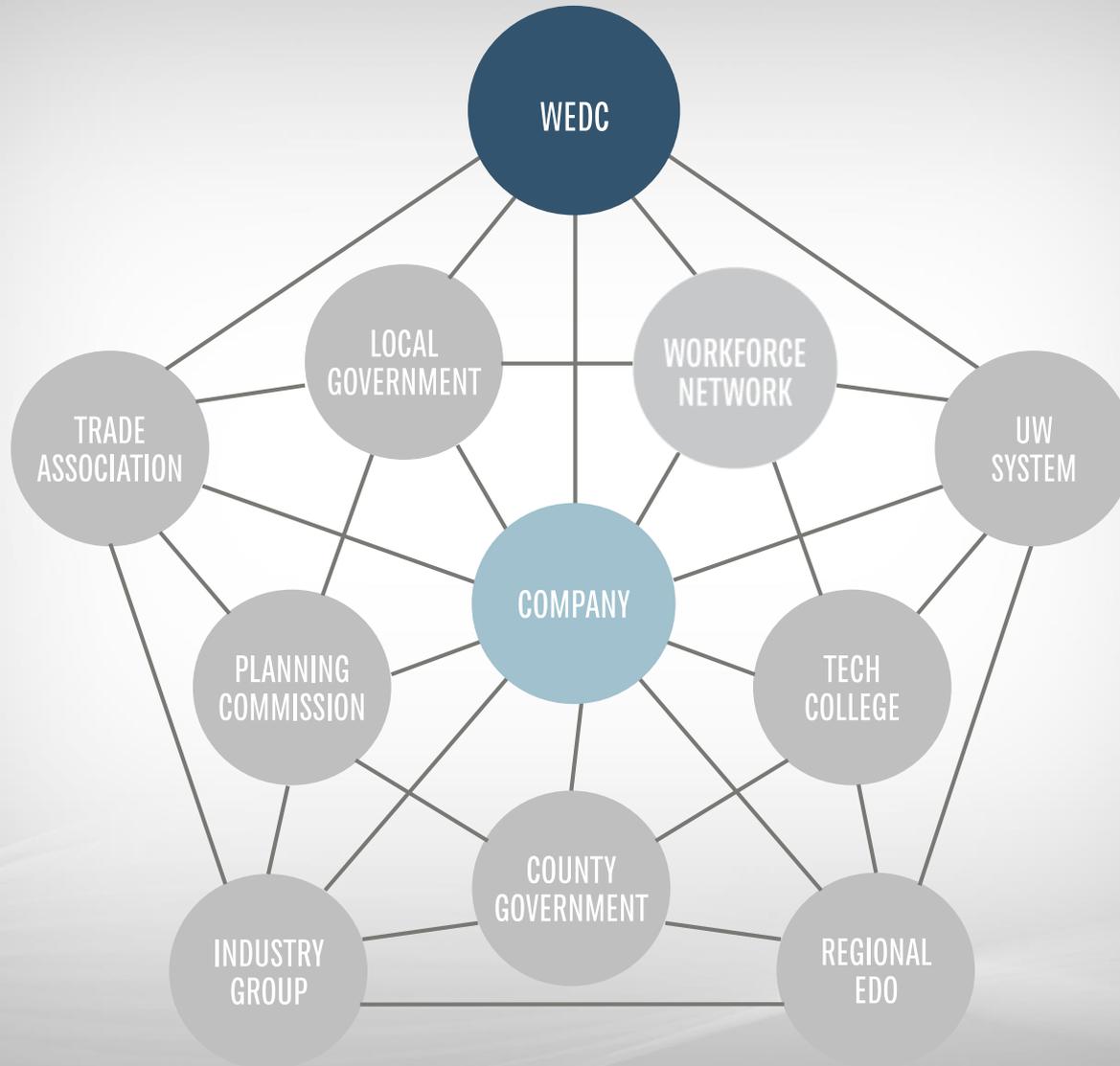


“If you’ve taken off or landed on a commercial flight in the past few years it is a good bet the landing gear was machined on Giddings & Lewis tooling.”

Kevin Lichtenberg Vice President & General Manager US Operations. Fives – Giddings & Lewis

SEAMLESS RESOURCE NETWORK

WISCONSIN ECONOMIC DEVELOPMENT CORPORATION





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