

Massachusetts

Advanced industries employ

405,397

full-time workers. (2015)

These direct jobs supports an additional

324,320

indirect jobs in other industries in the region.

Advanced industries produce

\$92.6

billion dollars in output in the region. (2015, 2009 Chained)

Advanced industries pay, on average

\$122,583

dollars per year (2015).

Advanced industries directly account for

11.5%

of all jobs in the region.

This employment share is

#4

among all states.

This accounts for

21.6%

of all output in the region (2015).

This compares to average pay of

\$66,080

for all industries (2015).

Advanced industry annual average growth, 2013-2015

OUTPUT

JOBS

5.38% RANK: #3

2.70%

RANK: #22

2.46%

2.37%

Massachusetts

U.S.

Massachusetts

U.S.

What are Advanced Industries?

The Metropolitan Policy Program at Brookings defines advanced industries as those that: 1) Spend at least \$450 per worker per year on R&D and 2) employ at least 20 percent of their workforce in STEM-intensive occupations. The definition identifies 50 4-digit NAICS industries across the manufacturing, energy, and services sectors that together constitute the advanced industries super-sector.

Why do Advanced Industries Matter?

Advanced industries encompass the nation's "tech" sector at its broadest and most consequential. They represent a sizable economic anchor for the U.S. economy and have led the post-recession employment recovery. Their competitiveness and growth are prerequisites for any future broadly shared prosperity. As such, the sector encompasses the country's best shot at supporting innovative, inclusive, and sustainable growth. Advanced industries are present in nearly every U.S. region, but the sector's geography is uneven.

For More Information

VIEW THE FULL REPORT

www.brookings.edu/advancedindustries

SEE THE INTERACTIVE

www.brookings.edu/advancedindustries

FOLLOW US ON TWITTER

@BrookingsMetro | @MarkMuro1 | #AdvIndustries

DATA NOTES

All figures reflect Brookings analysis of data from Moody's Analytics.

Massachusetts

Twenty-Five Largest Advanced Industries (2015)

There are 9 advanced industries in Massachusetts with LQs over 1.5. LQs over 1.5 indicate specialization †

| Industry 4-Digit NAICS Code | Industry Title | Industry Employment (2015) | Industry Location Quotient (LQ) † 2015 | Industry Share of Total Advanced Industries Employment (2015) | Industry Employment Annual Growth | | Industry Share of Total Advanced Industries Output (2015) | Industry Output Annual Growth | |
|-----------------------------|--|----------------------------|--|---|-----------------------------------|-------------|---|-------------------------------|-------------|
| | | | | | 2010-2013 | 2013-2015 | | 2010-2013 | 2013-2015 |
| 5415 | Computer Systems Design | 75,940 | 1.66 | 18.7% | 7.4% | 5.1% | 14.5% | 6.4% | 6.6% |
| 5417 | R&D Services | 53,110 | 3.35 | 13.1% | 2.3% | 2.4% | 12.7% | 4.4% | 4.9% |
| 5416 | Management Consulting | 43,920 | 1.43 | 10.8% | 3.3% | 4.1% | 7.7% | 1.5% | 5.1% |
| 5413 | Engineering | 37,260 | 1.10 | 9.2% | 0.1% | 2.1% | 6.2% | -0.1% | 2.4% |
| 5112 | Software Products | 28,730 | 3.60 | 7.1% | 4.4% | 4.2% | 12.4% | 2.2% | 7.6% |
| 3345 | Precision Instruments | 24,740 | 2.58 | 6.1% | -0.7% | -0.2% | 7.2% | 2.5% | 3.3% |
| 3344 | Semiconductors | 14,290 | 1.62 | 3.5% | -4.7% | -2.5% | 4.3% | -0.1% | 2.8% |
| 3341 | Computer Equipment | 11,930 | 3.07 | 2.9% | 1.8% | -1.9% | 5.9% | 5.8% | 4.1% |
| 3391 | Medical Equipment & Supplies | 11,000 | 1.49 | 2.7% | 0.4% | 0.2% | 2.7% | -1.3% | 6.1% |
| 3254 | Pharmaceuticals | 10,690 | 1.60 | 2.6% | 1.5% | 6.2% | 6.0% | -1.7% | 14.4% |
| 3364 | Aircraft Products & Parts | 10,560 | 0.90 | 2.6% | -1.4% | -3.4% | 1.5% | -5.4% | 1.4% |
| 5191 | Web Search Portals and Internet Publishing | 10,200 | 1.75 | 2.5% | 7.7% | 5.7% | 2.4% | 3.4% | 18.1% |
| 3399 | Misc. Manufacturing | 8,630 | 1.28 | 2.1% | -1.1% | 0.1% | 1.6% | -2.2% | 4.6% |
| 5182 | Data Processing & Hosting | 7,490 | 1.05 | 1.8% | 1.7% | 4.1% | 1.6% | -0.7% | 9.4% |
| 2211 | Power Generation & Supply | 6,990 | 0.74 | 1.7% | 1.4% | 3.4% | 3.5% | 2.9% | -4.7% |
| 6215 | Medical and Diagnostic Laboratories | 5,620 | 0.90 | 1.4% | 2.6% | 2.7% | 0.6% | 2.9% | 0.1% |
| 3359 | Misc. Electrical Equipment | 4,140 | 1.33 | 1.0% | -0.2% | 0.3% | 0.6% | -3.1% | -0.3% |
| 3339 | General Purpose Machinery | 4,070 | 0.63 | 1.0% | 1.1% | 0.0% | 0.5% | -3.0% | 1.3% |
| 3332 | Industrial Machinery | 4,000 | 1.48 | 1.0% | 1.9% | -2.9% | 0.6% | -2.6% | 0.3% |
| 5172 | Wireless Telecom Carriers | 3,160 | 0.98 | 0.8% | -0.9% | 4.2% | 1.0% | 3.1% | 14.4% |
| 5179 | Other telecommunications | 2,900 | 1.48 | 0.7% | 13.6% | 6.5% | 0.9% | 14.5% | 10.8% |
| 3333 | Commercial & Service Machinery | 2,780 | 1.30 | 0.7% | -3.5% | -1.0% | 0.4% | -8.5% | 0.5% |
| 3343 | Audio & Video Equipment | 2,520 | 5.24 | 0.6% | 1.5% | 3.8% | 0.7% | 5.2% | 10.6% |
| 3342 | Communications Equipment | 2,490 | 1.17 | 0.6% | -4.8% | -3.1% | 0.8% | 0.4% | 0.5% |
| 3353 | Electrical Equipment | 2,360 | 0.69 | 0.6% | -2.2% | -1.1% | 0.4% | -4.1% | -2.1% |
| IFG | Advanced industries manufacturing | 128,860 | 0.96 | 31.8% | -0.9% | -0.5% | 36.1% | -0.1% | 5.0% |
| | Advanced industries energy | 7,000 | 0.46 | 1.7% | 1.4% | 3.4% | 3.5% | 2.9% | -4.7% |
| | Advanced industries services | 269,540 | 1.68 | 66.5% | 3.9% | 3.8% | 60.4% | 3.4% | 6.3% |
| | ADVANCED INDUSTRIES TOTAL | 405,400 | 1.31 | 100.0% | 2.1% | 2.4% | 100.0% | 2.1% | 5.4% |

† Location quotients are a measure of specialization for an industry using employment. A LQ of over 1 indicates that an industry employs more workers, as a share of total employment, than the nation as a whole.