

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

JOB

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

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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.