

## Massachusetts

Advanced industries employ

**386,070**

full-time workers. (2013)

These direct jobs supports an additional

**308,860**

indirect jobs in other industries in the region.

Advanced industries produce

**\$87.4**

billion dollars in output in the region.  
(2013, 2005 Chained)

Advanced industries pay, on average

**\$113,170**

dollars per year (2013).

Advanced industries directly account for

**11.4%**

of all jobs in the region.

This employment share is

**#4**

among all states.

This accounts for

**20.8%**

of all output in the region (2013).

This compares to average pay of

**\$61,770**

for all industries (2013).

Advanced industry annual average growth, 2010-2013

**JOBS**

2.1%

2.7%

**OUTPUT**

2.8%

3.8%

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

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### DATA NOTES

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

# Massachusetts

## Twenty-Five Largest Advanced Industries (2013)

There are 10 advanced industries in Massachusetts with LQs over 1.5. LQs over 1.5 indicate specialization †

Industry 4-Digit NAICS Code	Industry Title	Industry Employment (2013)	Industry Location Quotient (LQ) † 2013	Industry Share of Total Advanced Industries Employment (2013)	Industry Employment Annual Growth 2010-2013	Industry Share of Total Advanced Industries Output (2013)	Industry Output Annual Growth 2010-2013
5415	Computer Systems Design	68,870	1.69	17.8%	7.5%	15.8%	8.8%
5417	R&D Services	50,520	3.33	13.1%	2.2%	12.9%	5.0%
5416	Management Consulting	40,150	1.42	10.4%	3.0%	7.8%	2.2%
5413	Architecture & Engineering	35,740	1.11	9.3%	0.0%	6.7%	0.6%
5112	Software Products	26,210	3.67	6.8%	4.0%	11.5%	2.7%
3345	Precision Instruments	24,770	2.63	6.4%	-0.8%	6.7%	0.6%
3344	Semiconductors	15,020	1.68	3.9%	-4.7%	4.1%	-2.0%
3341	Computer Equipment	12,390	3.28	3.2%	1.8%	5.3%	3.2%
3364	Aircraft Products & Parts	11,270	0.95	2.9%	-1.5%	2.0%	-3.1%
3391	Medical Equipment & Supplies	10,890	1.49	2.8%	0.2%	2.7%	-0.3%
3254	Pharmaceuticals	9,450	1.43	2.4%	1.4%	5.1%	0.3%
5191	Web Search Portals and Internet Publishing	9,240	1.97	2.4%	8.2%	1.9%	4.3%
3399	Misc. Manufacturing	8,610	1.31	2.2%	-1.1%	1.6%	-0.7%
5182	Data Processing & Hosting	6,990	1.09	1.8%	2.1%	1.5%	0.7%
2211	Power Generation & Supply	6,490	0.69	1.7%	1.1%	4.5%	5.3%
6215	Medical and Diagnostic Laboratories	5,320	0.90	1.4%	2.5%	0.6%	3.9%
3332	Industrial Machinery	4,220	1.66	1.1%	1.7%	0.8%	4.9%
3359	Misc. Electrical Equipment	4,120	1.37	1.1%	-0.2%	0.6%	-5.9%
3339	General Purpose Machinery	4,040	0.66	1.0%	0.9%	0.6%	4.8%
5172	Wireless Telecom Carriers	2,910	0.79	0.8%	-0.9%	0.7%	3.7%
3333	Commercial & Service Machinery	2,820	1.35	0.7%	-3.7%	0.5%	-1.5%
3342	Communications Equipment	2,690	1.12	0.7%	-4.3%	0.8%	-1.6%
5179	Other telecommunications	2,550	1.26	0.7%	13.6%	0.7%	15.3%
3353	Electrical Equipment	2,410	0.70	0.6%	-2.2%	0.4%	-7.3%
3252	Resins & Synthetic Rubbers	2,370	1.07	0.6%	-1.7%	0.9%	-3.8%
Advanced industries manufacturing		130,000	0.99	33.7%	-0.9%	35.0%	-0.1%
Advanced industries energy		6,500	0.43	1.7%	1.1%	4.5%	5.4%
Advanced industries services		249,570	1.68	64.6%	3.8%	60.5%	4.5%
<b>ADVANCED INDUSTRIES TOTAL</b>		<b>386,070</b>	<b>1.31</b>	<b>100.0%</b>	<b>2.1%</b>	<b>100.0%</b>	<b>2.8%</b>

† 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.