

Pennsylvania

Advanced industries employ

477,490

full-time workers. (2013)

These direct jobs supports an additional

381,990

indirect jobs in other industries in
the region.

Advanced industries produce

\$85.9

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

Advanced industries pay, on average

\$80,510

dollars per year (2013).

Advanced industries directly
account for

8.1%

of all jobs in the region.

This employment share is

#23

among all states.

This accounts for

14.2%

of all output in the region (2013).

This compares to average pay of

\$48,700

for all industries (2013).

Advanced industry annual average growth, 2010-2013

JOBS

1.5%

2.7%

Pennsylvania

U.S.

OUTPUT

1.5%

3.8%

Pennsylvania

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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www.brookings.edu/advancedindustries

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DATA NOTES

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

Pennsylvania

Twenty-Five Largest Advanced Industries (2013)

There are 7 advanced industries in Pennsylvania 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	61,710	0.88	12.9%	5.5%	11.7%	5.9%
5413	Architecture & Engineering	56,740	1.02	11.9%	1.9%	8.8%	1.8%
5416	Management Consulting	47,380	0.97	9.9%	4.8%	7.6%	3.2%
5417	R&D Services	29,000	1.11	6.1%	-1.4%	6.1%	0.5%
3254	Pharmaceuticals	17,980	1.57	3.8%	-5.5%	8.6%	-7.8%
3359	Misc. Electrical Equipment	15,780	3.03	3.3%	2.0%	2.0%	-1.2%
2211	Power Generation & Supply	15,460	0.95	3.2%	-0.6%	10.1%	-1.5%
3345	Precision Instruments	13,970	0.86	2.9%	1.8%	2.3%	2.8%
3391	Medical Equipment & Supplies	13,830	1.10	2.9%	-2.6%	2.5%	-1.2%
3311	Iron & Steel Products	13,480	3.57	2.8%	2.2%	2.8%	12.3%
3399	Misc. Manufacturing	11,980	1.06	2.5%	1.9%	1.6%	4.1%
3364	Aircraft Products & Parts	11,720	0.57	2.5%	1.2%	2.6%	4.2%
3339	General Purpose Machinery	11,330	1.07	2.4%	3.7%	1.5%	6.8%
6215	Medical and Diagnostic Laboratories	11,180	1.10	2.3%	-2.5%	1.1%	-1.5%
3344	Semiconductors	10,980	0.71	2.3%	-0.9%	1.8%	1.4%
3331	Agri., Constr., Mining Machinery	9,790	0.95	2.1%	4.3%	1.4%	6.9%
3315	Foundries	9,560	1.85	2.0%	5.9%	1.3%	13.9%
5182	Data Processing & Hosting	9,200	0.83	1.9%	0.3%	1.5%	-1.9%
3363	Motor Vehicle Parts	7,910	0.38	1.7%	-2.8%	1.0%	8.1%
5191	Web Search Portals and Internet Publishing	7,630	0.94	1.6%	6.2%	0.8%	10.6%
3365	Railroad Rolling Stock Manufacturing	7,570	7.58	1.6%	8.9%	1.2%	12.4%
3353	Electrical Equipment	7,480	1.26	1.6%	1.7%	1.0%	-0.9%
2111	Oil & Gas Extraction	5,980	0.73	1.3%	16.4%	3.7%	41.8%
3251	Basic Chemicals	5,900	0.99	1.2%	1.8%	2.3%	-1.2%
3241	Petroleum & Coal Products	5,860	1.26	1.2%	-2.1%	0.8%	-18.8%
Advanced industries manufacturing		223,250	0.99	46.8%	0.4%	42.8%	-0.2%
Advanced industries energy		21,480	0.82	4.5%	3.1%	13.8%	5.1%
Advanced industries services		232,760	0.91	48.7%	2.5%	43.4%	2.3%
ADVANCED INDUSTRIES TOTAL		477,490	0.94	100.0%	1.5%	100.0%	1.5%

† 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.