

Virginia

Advanced industries employ

442,930

full-time workers. (2013)

These direct jobs supports an additional

354,340

indirect jobs in other industries in
the region.

Advanced industries produce

\$74.7

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

Advanced industries pay, on average

\$96,740

dollars per year (2013).

Advanced industries directly
account for

11.2%

of all jobs in the region.

This employment share is

#5

among all states.

This accounts for

17.5%

of all output in the region (2013).

This compares to average pay of

\$53,030

for all industries (2013).

Advanced industry annual average growth, 2010-2013

JOBS

2.7%

0.7%

OUTPUT

3.8%

0.9%

Virginia

U.S.

Virginia

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.

Virginia

Twenty-Five Largest Advanced Industries (2013)

There are 7 advanced industries in Virginia 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	147,160	3.09	33.2%	1.7%	32.8%	2.7%
5416	Management Consulting	72,870	2.20	16.5%	2.7%	13.8%	1.6%
5413	Architecture & Engineering	54,680	1.45	12.3%	-3.0%	10.0%	-2.7%
3366	Ships & Boats	25,960	7.24	5.9%	5.0%	4.2%	9.9%
5417	R&D Services	25,340	1.43	5.7%	-2.5%	6.3%	-0.1%
5182	Data Processing & Hosting	10,410	1.39	2.4%	-0.4%	2.3%	-1.3%
2211	Power Generation & Supply	8,580	0.78	1.9%	-1.7%	7.3%	-2.3%
6215	Medical and Diagnostic Laboratories	7,850	1.14	1.8%	4.1%	0.9%	4.5%
3353	Electrical Equipment	6,040	1.51	1.4%	0.0%	1.1%	0.3%
3363	Motor Vehicle Parts	5,320	0.37	1.2%	5.9%	0.7%	19.5%
3339	General Purpose Machinery	5,300	0.74	1.2%	1.5%	1.0%	-1.6%
3252	Resins & Synthetic Rubbers	5,130	1.98	1.2%	-1.1%	1.9%	-0.8%
5112	Software Products	4,840	0.58	1.1%	-0.4%	2.5%	2.5%
3344	Semiconductors	4,270	0.41	1.0%	1.1%	0.9%	-0.7%
3361	Motor Vehicles	4,200	0.80	0.9%	6.6%	0.8%	21.6%
3399	Misc. Manufacturing	4,090	0.53	0.9%	1.4%	0.5%	4.6%
3345	Precision Instruments	3,930	0.36	0.9%	-5.9%	0.8%	-8.9%
5179	Other telecommunications	3,860	1.63	0.9%	-3.3%	1.4%	-1.8%
5191	Web Search Portals and Internet Publishing	3,690	0.67	0.8%	7.1%	0.9%	3.3%
3259	Misc. Chemicals	3,690	1.58	0.8%	-0.2%	1.1%	-0.2%
3254	Pharmaceuticals	2,990	0.39	0.7%	-4.5%	1.6%	-3.1%
5172	Wireless Telecom Carriers	2,930	0.68	0.7%	-2.3%	1.0%	2.3%
3342	Communications Equipment	2,870	1.03	0.6%	-2.6%	0.6%	-4.4%
3391	Medical Equipment & Supplies	2,650	0.31	0.6%	-5.0%	0.4%	-2.7%
5152	Cable and Other Subscription Programming	2,420	1.21	0.5%	-1.6%	0.7%	3.7%
Advanced industries manufacturing		97,560	0.64	22.0%	1.3%	19.9%	1.1%
Advanced industries energy		8,970	0.50	2.0%	-1.8%	7.4%	-2.6%
Advanced industries services		336,400	1.94	75.9%	0.6%	72.7%	1.2%
ADVANCED INDUSTRIES TOTAL		442,930	1.29	100.0%	0.7%	100.0%	0.9%

† 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.