

Virginia

Advanced industries employ

443,908

full-time workers. (2015)

These direct jobs supports an additional

355,130

indirect jobs in other industries in
the region.

Advanced industries produce

\$71.9

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

Advanced industries pay, on average

\$101,314

dollars per year (2015).

Advanced industries directly
account for

10.9%

of all jobs in the region.

This employment share is

#5

among all states.

This accounts for

16.6%

of all output in the region (2015).

This compares to average pay of

\$55,245

for all industries (2015).

Advanced industry annual average growth, 2013-2015

OUTPUT

RANK:
#45

2.70%

JOB

RANK:
#46

2.46%

0.01%

0.59%

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

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.

Virginia

Twenty-Five Largest Advanced Industries (2015)

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 (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	151,850	2.89	34.2%	1.8%	1.4%	31.6%	2.9%	3.0%
5416	Management Consulting	71,420	2.03	16.1%	2.7%	-1.0%	13.6%	-1.3%	-1.5%
5413	Engineering	53,100	1.37	12.0%	-2.9%	-1.5%	9.7%	-5.2%	-2.6%
3366	Ships & Boats	25,860	6.98	5.8%	5.0%	-0.2%	4.5%	10.4%	2.0%
5417	R&D Services	23,120	1.27	5.2%	-2.5%	-4.5%	5.9%	-2.6%	-3.9%
5182	Data Processing & Hosting	12,260	1.49	2.8%	-0.1%	8.1%	3.1%	-3.3%	14.8%
2211	Power Generation & Supply	8,600	0.79	1.9%	-1.8%	0.3%	6.2%	-3.6%	-6.7%
6215	Medical and Diagnostic Laboratories	7,740	1.08	1.7%	4.1%	-0.8%	0.9%	3.6%	-1.1%
3353	Electrical Equipment	5,990	1.52	1.4%	0.0%	-0.4%	0.9%	-5.6%	-1.0%
3363	Motor Vehicle Parts	5,690	0.37	1.3%	5.9%	3.4%	0.9%	9.3%	3.4%
3339	General Purpose Machinery	5,360	0.73	1.2%	1.5%	0.6%	0.9%	-7.5%	-1.6%
3252	Resins & Synthetic Rubbers	4,960	1.91	1.1%	-1.1%	-1.7%	2.1%	0.5%	-0.1%
5112	Software Products	4,870	0.53	1.1%	-0.1%	-0.1%	2.6%	-0.2%	3.5%
3399	Misc. Manufacturing	4,410	0.57	1.0%	1.4%	3.9%	0.5%	0.8%	2.4%
3361	Motor Vehicles	4,360	0.77	1.0%	6.6%	1.8%	1.0%	10.6%	0.9%
3344	Semiconductors	4,020	0.40	0.9%	1.5%	-2.5%	0.9%	0.1%	2.8%
3345	Precision Instruments	3,990	0.36	0.9%	-5.6%	1.2%	0.9%	-8.2%	4.1%
5191	Web Search Portals and Internet Publishing	3,950	0.59	0.9%	7.4%	2.9%	1.1%	4.0%	7.2%
3259	Misc. Chemicals	3,700	1.64	0.8%	-0.2%	0.1%	1.2%	0.6%	-0.3%
5179	Other telecommunications	3,670	1.63	0.8%	-3.0%	-2.9%	2.0%	-2.7%	6.4%
5172	Wireless Telecom Carriers	2,970	0.80	0.7%	-2.1%	0.3%	1.7%	1.4%	16.1%
3391	Medical Equipment & Supplies	2,890	0.34	0.7%	-5.0%	4.5%	0.4%	-6.2%	4.8%
3362	Motor Vehicle Body & Trailers	2,810	0.68	0.6%	18.8%	10.0%	0.4%	19.6%	12.0%
3342	Communications Equipment	2,610	1.07	0.6%	-2.3%	-4.1%	0.7%	-3.2%	-0.8%
3254	Pharmaceuticals	2,520	0.33	0.6%	-4.5%	-8.3%	1.5%	-1.7%	-5.8%
IFG	Advanced industries manufacturing	97,320	0.63	21.9%	1.4%	-0.2%	20.3%	0.3%	0.2%
	Advanced industries energy	8,960	0.52	2.0%	-1.9%	0.1%	6.4%	-3.8%	-6.6%
	Advanced industries services	337,630	1.84	76.1%	0.7%	0.1%	73.3%	-0.2%	1.4%
	ADVANCED INDUSTRIES TOTAL	443,910	1.25	100.0%	0.8%	0.0%	100.0%	-0.4%	0.6%

† 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.