

## Richmond, VA

Advanced industries employ

**38,415**

full-time workers. (2015)

These direct jobs supports an additional

**30,730**

indirect jobs in other industries in the region.

Advanced industries produce

**\$7.2**

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

Advanced industries pay, on average

**\$103,468**

dollars per year (2015).

Advanced industries directly account for

**5.7%**

of all jobs in the region.

This employment share is

**#83**

among all large metros.

This accounts for

**10.4%**

of all output in the region (2015).

This compares to average pay of

**\$51,527**

for all industries (2015).

Advanced industry annual average growth, 2013-2015

**OUTPUT**

RANK: **#84**  
2.70%

**JOBS**

RANK: **#82**  
2.46%

0.38%

0.28%

Richmond, VA

U.S.

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### 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](http://www.brookings.edu/advancedindustries)

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#### DATA NOTES

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

# Richmond, VA

## Twenty-Five Largest Advanced Industries (2015)

There are 4 advanced industries in Richmond, VA 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	7,740	0.89	20.2%	2.4%	0.7%	19.3%	3.7%	7.7%
5413	Engineering	6,180	0.97	16.1%	0.3%	6.5%	11.4%	-3.0%	4.4%
5416	Management Consulting	5,150	0.89	13.4%	8.7%	-2.1%	10.7%	5.1%	-1.4%
3252	Resins & Synthetic Rubbers	2,970	6.93	7.7%	0.0%	-2.4%	12.0%	-0.2%	-2.4%
5417	R&D Services	2,350	0.78	6.1%	6.1%	-2.2%	5.8%	4.7%	-2.1%
6215	Medical and Diagnostic Laboratories	2,220	1.88	5.8%	6.3%	0.8%	2.4%	7.8%	1.2%
2211	Power Generation & Supply	1,720	0.95	4.5%	3.0%	-0.6%	11.5%	-0.7%	-10.1%
3399	Misc. Manufacturing	970	0.75	2.5%	-2.2%	-0.4%	1.1%	-2.3%	-1.3%
5172	Wireless Telecom Carriers	940	1.54	2.4%	-12.0%	2.5%	5.7%	-2.4%	30.6%
3251	Basic Chemicals	920	1.36	2.4%	-1.6%	6.7%	2.6%	-3.3%	5.9%
3339	General Purpose Machinery	760	0.62	2.0%	0.1%	5.4%	0.9%	-6.8%	0.4%
3254	Pharmaceuticals	710	0.56	1.9%	-4.6%	-16.9%	4.1%	-4.7%	-12.3%
3353	Electrical Equipment	670	1.03	1.7%	11.5%	7.8%	0.8%	4.2%	5.8%
3332	Industrial Machinery	610	1.18	1.6%	-1.4%	1.0%	1.4%	-10.3%	0.0%
5182	Data Processing & Hosting	560	0.41	1.5%	-11.9%	-10.7%	1.5%	-14.0%	-6.2%
3313	Aluminum Products	420	1.54	1.1%	0.7%	3.3%	0.3%	5.1%	-8.0%
3259	Misc. Chemicals	360	0.96	0.9%	-0.7%	0.1%	0.5%	-2.6%	-3.1%
3315	Foundries	350	0.62	0.9%	1.3%	-1.1%	0.2%	5.9%	-19.3%
5191	Web Search Portals and Internet Publishing	350	0.31	0.9%	3.6%	-14.0%	0.9%	-0.5%	-12.3%
5179	Other telecommunications	310	0.82	0.8%	3.3%	-3.0%	1.7%	0.9%	3.8%
3311	Iron & Steel Products	290	0.72	0.8%	2.4%	-0.7%	0.3%	6.9%	-11.4%
3391	Medical Equipment & Supplies	280	0.20	0.7%	-3.7%	3.0%	0.4%	-8.2%	2.8%
3279	Stone & Mineral Products	280	0.82	0.7%	2.5%	-0.2%	0.4%	9.4%	-5.6%
3241	Petroleum & Coal Products	190	0.38	0.5%	0.2%	-2.0%	0.5%	-20.2%	10.9%
5112	Software Products	160	0.11	0.4%	1.9%	-2.4%	0.9%	15.4%	-2.7%
IFG	Advanced industries manufacturing	10,590	0.42	27.6%	-0.2%	-0.3%	27.4%	-2.6%	-2.8%
	Advanced industries energy	1,730	0.60	4.5%	3.0%	-0.6%	11.5%	-0.8%	-10.1%
	Advanced industries services	26,100	0.86	67.9%	2.5%	0.6%	61.1%	1.7%	4.4%
	<b>ADVANCED INDUSTRIES TOTAL</b>	<b>38,420</b>	<b>0.66</b>	<b>100.0%</b>	<b>1.7%</b>	<b>0.3%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.4%</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.