

Tulsa, OK

Advanced industries employ

43,360

full-time workers. (2013)

These direct jobs supports an additional

34,690

indirect jobs in other industries in the region.

Advanced industries produce

\$8.5

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

Advanced industries pay, on average

\$78,520

dollars per year (2013).

Advanced industries directly account for

9.7%

of all jobs in the region.

This employment share is

#27

among all large metros.

This accounts for

19.9%

of all output in the region (2013).

This compares to average pay of

\$46,110

for all industries (2013).

Advanced industry annual average growth, 2010-2013

JOBS

3.6%

2.7%

Tulsa, OK

U.S.

OUTPUT

3.9%

3.8%

Tulsa, OK

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.

Tulsa, OK

Twenty-Five Largest Advanced Industries (2013)

There are 13 advanced industries in Tulsa, OK 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
3339	General Purpose Machinery	5,750	7.16	13.3%	8.3%	7.9%	14.2%
5413	Architecture & Engineering	4,700	1.11	10.8%	5.6%	5.9%	6.6%
3364	Aircraft Products & Parts	4,620	2.96	10.7%	6.1%	5.2%	7.1%
2111	Oil & Gas Extraction	4,370	7.05	10.1%	2.2%	28.4%	-1.6%
3331	Agri., Constr., Mining Machinery	3,560	4.55	8.2%	15.8%	6.5%	20.5%
5416	Management Consulting	2,410	0.65	5.6%	7.4%	3.2%	3.4%
5415	Computer Systems Design	1,560	0.29	3.6%	1.8%	2.4%	3.4%
5172	Wireless Telecom Carriers	1,550	3.20	3.6%	-5.5%	5.1%	-2.0%
2211	Power Generation & Supply	1,340	1.08	3.1%	-1.1%	6.8%	4.9%
3345	Precision Instruments	1,300	1.05	3.0%	3.5%	2.5%	4.9%
3333	Commercial & Service Machinery	1,170	4.27	2.7%	4.6%	1.8%	7.1%
3241	Petroleum & Coal Products	900	2.54	2.1%	-1.5%	6.8%	4.3%
3311	Iron & Steel Products	860	3.00	2.0%	-6.8%	0.7%	10.9%
3352	Household Appliances	820	4.52	1.9%	-7.8%	0.8%	-11.6%
5152	Cable and Other Subscription Programming	820	3.63	1.9%	-3.7%	2.1%	-0.1%
3399	Misc. Manufacturing	790	0.91	1.8%	-1.9%	0.6%	-3.1%
3363	Motor Vehicle Parts	710	0.45	1.6%	10.3%	1.2%	17.9%
3361	Motor Vehicles	620	1.06	1.4%	-0.4%	0.9%	-3.3%
3353	Electrical Equipment	510	1.13	1.2%	-7.3%	0.7%	-6.5%
3253	Pesticides & Fertilizers	470	3.99	1.1%	18.5%	1.6%	24.1%
5179	Other telecommunications	470	1.76	1.1%	24.6%	1.7%	9.6%
3391	Medical Equipment & Supplies	430	0.45	1.0%	2.1%	0.6%	-1.0%
6215	Medical and Diagnostic Laboratories	380	0.49	0.9%	-4.4%	0.4%	-3.8%
3271	Clay Product and Refractory Manufacturing	340	2.80	0.8%	-15.1%	0.4%	-14.2%
3251	Basic Chemicals	330	0.73	0.8%	62.1%	1.7%	61.8%
Advanced industries manufacturing		24,940	1.45	57.5%	4.8%	42.5%	9.2%
Advanced industries energy		5,710	2.86	13.2%	1.4%	35.1%	-0.5%
Advanced industries services		12,710	0.65	29.3%	2.5%	22.3%	2.5%
ADVANCED INDUSTRIES TOTAL		43,360	1.12	100.0%	3.6%	100.0%	3.9%

† 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.