

## Duluth, MN-WI

Advanced industries employ

**10,698**

full-time workers. (2015)

These direct jobs supports an additional

**8,560**

indirect jobs in other industries in the region.

Advanced industries produce

**\$2.5**

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

Advanced industries pay, on average

**\$67,228**

dollars per year (2015).

Advanced industries directly account for

**7.8%**

of all jobs in the region.

This employment share is

**#84**

among all small metros.

This accounts for

**19.6%**

of all output in the region (2015).

This compares to average pay of

**\$42,254**

for all industries (2015).

Advanced industry annual average growth, 2013-2015

**OUTPUT**

RANK:  
#203

2.70%

**JOBS**

RANK:  
#106

2.46%

2.42%

0.01%

Duluth, MN-WI

U.S.

Duluth, MN-WI

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

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#### DATA NOTES

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

# Duluth, MN-WI

## Twenty-Five Largest Advanced Industries (2015)

There are 9 advanced industries in Duluth, MN-WI 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
2122	Metal Ore Mining	3,030	79.99	28.4%	5.5%	-3.2%	39.8%	4.0%	-3.8%
5413	Engineering	1,460	1.11	13.6%	11.9%	8.0%	7.1%	9.5%	6.9%
2211	Power Generation & Supply	1,270	3.44	11.9%	1.6%	1.8%	19.8%	5.8%	-2.7%
5415	Computer Systems Design	610	0.34	5.7%	-7.3%	20.0%	3.2%	-8.0%	22.2%
5182	Data Processing & Hosting	590	2.12	5.5%	20.3%	91.9%	4.1%	10.1%	126.3%
3364	Aircraft Products & Parts	420	0.93	4.0%	-1.4%	11.2%	4.6%	8.1%	13.6%
5417	R&D Services	330	0.53	3.1%	6.8%	10.6%	1.5%	31.6%	-5.7%
3331	Agri., Constr., Mining Machinery	310	1.40	2.9%	-0.4%	-0.5%	1.7%	0.5%	0.1%
3259	Misc. Chemicals	290	3.74	2.7%	-0.7%	0.0%	1.9%	-6.4%	-2.1%
3339	General Purpose Machinery	250	1.00	2.3%	13.4%	9.7%	0.9%	14.0%	3.5%
3315	Foundries	240	2.07	2.2%	14.9%	-12.3%	0.6%	26.5%	-20.0%
5416	Management Consulting	200	0.17	1.9%	4.7%	-11.7%	1.3%	0.1%	-2.5%
3279	Stone & Mineral Products	190	2.78	1.8%	-1.9%	-3.0%	0.8%	-2.2%	-6.9%
3399	Misc. Manufacturing	180	0.67	1.6%	65.3%	5.2%	0.7%	45.8%	3.7%
3345	Precision Instruments	170	0.46	1.6%	23.9%	-5.4%	1.2%	31.2%	-3.3%
3241	Petroleum & Coal Products	160	1.60	1.5%	2.3%	0.0%	2.4%	-8.0%	4.9%
3344	Semiconductors	90	0.27	0.9%	-8.1%	0.0%	0.6%	0.7%	3.5%
3332	Industrial Machinery	90	0.84	0.8%	11.4%	3.0%	0.4%	11.9%	0.7%
3369	Misc. Transportation Equipment	80	2.62	0.8%	1.5%	8.2%	0.2%	8.1%	1.9%
3342	Communications Equipment	70	0.86	0.7%	32.1%	-7.5%	0.5%	37.2%	-11.3%
3313	Aluminum Products	60	1.12	0.6%	29.3%	-12.0%	0.2%	33.6%	-11.8%
5152	Cable and Other Subscription Programming	50	0.92	0.5%	7.4%	-20.1%	1.0%	15.3%	-18.3%
3391	Medical Equipment & Supplies	50	0.17	0.5%	13.8%	-5.5%	0.8%	41.2%	4.9%
3254	Pharmaceuticals	50	0.18	0.4%	2.1%	-1.0%	0.6%	-13.1%	-1.1%
3366	Ships & Boats	50	0.38	0.4%	0.0%	8.2%	0.2%	20.2%	6.3%
IFG	Advanced industries manufacturing	3,040	0.59	28.5%	6.7%	0.2%	20.0%	4.9%	1.5%
	Advanced industries energy	4,300	7.33	40.2%	4.4%	-1.8%	59.6%	4.6%	-3.4%
	Advanced industries services	3,350	0.54	31.3%	4.2%	11.4%	20.3%	4.1%	10.7%
	<b>ADVANCED INDUSTRIES TOTAL</b>	<b>10,700</b>	<b>0.89</b>	<b>100.0%</b>	<b>5.0%</b>	<b>2.4%</b>	<b>100.0%</b>	<b>4.6%</b>	<b>0.0%</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.