

Boulder, CO

Advanced industries employ

37,270

full-time workers. (2013)

These direct jobs supports an additional

29,820

indirect jobs in other industries in
the region.

Advanced industries produce

\$7.6

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

Advanced industries pay, on average

\$101,720

dollars per year (2013).

Advanced industries directly
account for

21.3%

of all jobs in the region.

This employment share is

#5

among all small metros.

This accounts for

37.9%

of all output in the region (2013).

This compares to average pay of

\$58,730

for all industries (2013).

Advanced industry annual average growth, 2010-2013

JOBS

3.5%

2.7%

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U.S.

OUTPUT

4.5%

3.8%

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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.

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Twenty-Five Largest Advanced Industries (2013)

| 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 | 7,260 | 3.47 | 19.5% | 7.9% | 14.7% | 8.2% |
| 3345 | Precision Instruments | 5,500 | 11.36 | 14.7% | 5.4% | 14.5% | 6.2% |
| 5417 | R&D Services | 5,360 | 6.88 | 14.4% | 1.3% | 11.5% | 2.1% |
| 5112 | Software Products | 4,080 | 11.13 | 11.0% | -7.1% | 17.9% | 0.5% |
| 5413 | Architecture & Engineering | 4,020 | 2.43 | 10.8% | 5.2% | 6.4% | 5.0% |
| 5416 | Management Consulting | 2,420 | 1.66 | 6.5% | 10.3% | 4.0% | 8.8% |
| 3254 | Pharmaceuticals | 1,300 | 3.83 | 3.5% | -5.9% | 8.4% | -1.9% |
| 3344 | Semiconductors | 1,080 | 2.34 | 2.9% | 10.7% | 3.4% | 13.8% |
| 5182 | Data Processing & Hosting | 910 | 2.76 | 2.4% | 7.3% | 1.9% | 7.2% |
| 3341 | Computer Equipment | 760 | 3.91 | 2.0% | 2.9% | 4.0% | 5.4% |
| 3399 | Misc. Manufacturing | 580 | 1.72 | 1.6% | 14.8% | 1.3% | 14.5% |
| 3342 | Communications Equipment | 550 | 4.50 | 1.5% | 4.1% | 1.4% | 5.9% |
| 3333 | Commercial & Service Machinery | 450 | 4.15 | 1.2% | -1.8% | 0.8% | 9.4% |
| 5191 | Web Search Portals and Internet Publishing | 360 | 1.50 | 1.0% | 11.1% | 0.7% | 8.0% |
| 3391 | Medical Equipment & Supplies | 360 | 0.95 | 1.0% | -5.8% | 1.0% | -6.2% |
| 3359 | Misc. Electrical Equipment | 290 | 1.85 | 0.8% | 22.1% | 0.6% | 21.2% |
| 3353 | Electrical Equipment | 280 | 1.61 | 0.8% | 39.8% | 0.7% | 39.2% |
| 5172 | Wireless Telecom Carriers | 200 | 1.06 | 0.5% | 22.8% | 1.0% | 27.9% |
| 2211 | Power Generation & Supply | 170 | 0.34 | 0.4% | -6.5% | 1.2% | -3.8% |
| 3336 | Engine & Power Equipment | 150 | 1.20 | 0.4% | 1.8% | 0.4% | -2.9% |
| 5179 | Other telecommunications | 140 | 1.38 | 0.4% | 0.2% | 1.4% | 4.0% |
| 3346 | Magnetic & Optical Media | 130 | 5.51 | 0.3% | -17.6% | 0.4% | -6.5% |
| 5152 | Cable and Other Subscription Programming | 120 | 1.35 | 0.3% | -1.9% | 0.4% | 2.3% |
| 3364 | Aircraft Products & Parts | 100 | 0.16 | 0.3% | 8.6% | 0.2% | 0.9% |
| 3332 | Industrial Machinery | 90 | 0.71 | 0.2% | 8.4% | 0.1% | 2.6% |
| Advanced industries manufacturing | | 12,100 | 1.80 | 32.5% | 4.2% | 38.3% | 4.7% |
| Advanced industries energy | | 200 | 0.26 | 0.5% | -1.4% | 1.7% | 6.2% |
| Advanced industries services | | 24,970 | 3.28 | 67.0% | 3.2% | 60.0% | 4.3% |
| ADVANCED INDUSTRIES TOTAL | | 37,270 | 2.46 | 100.0% | 3.5% | 100.0% | 4.5% |

† 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.