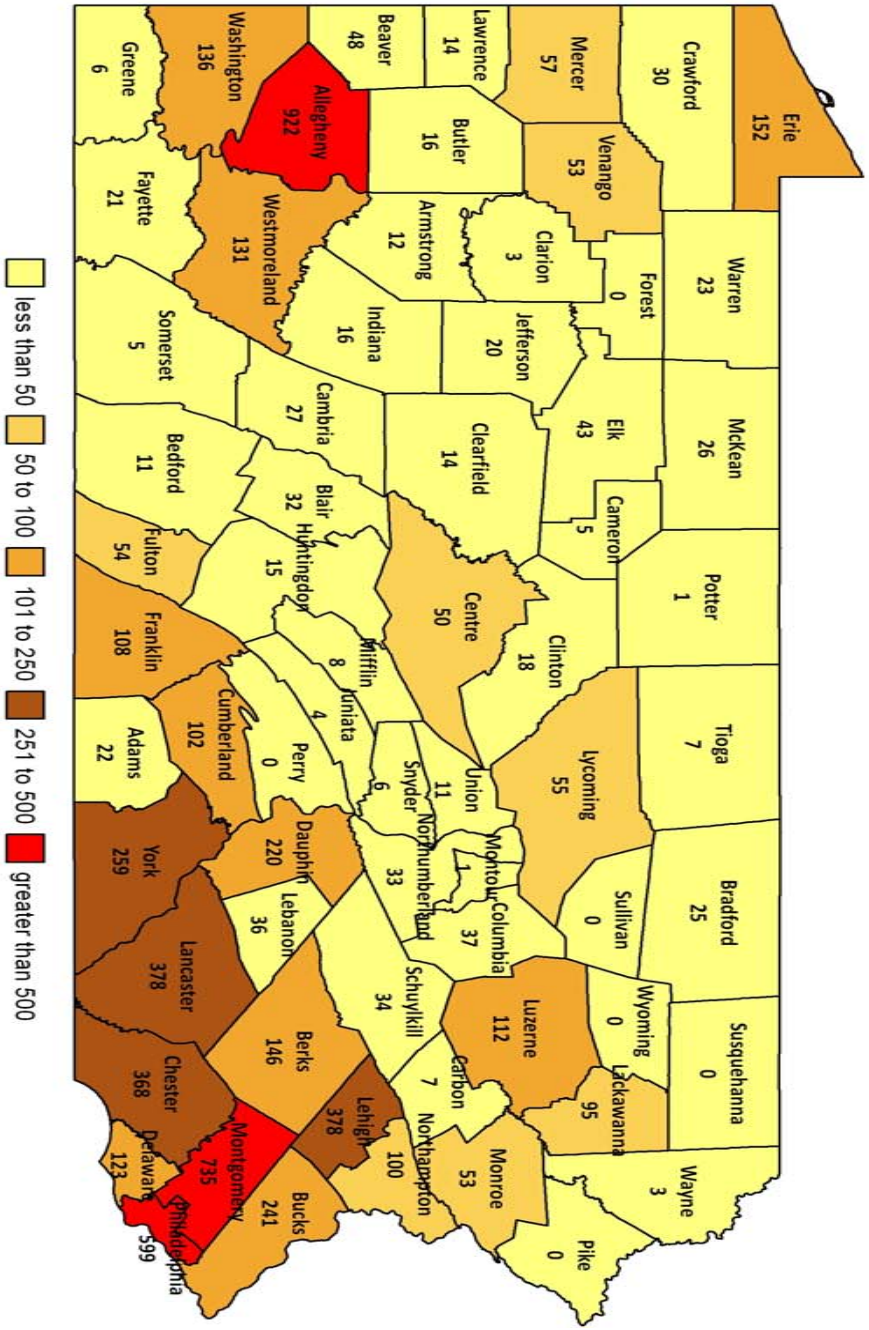
MFG JOB POSTINGS BY COUNTY – DECEMBER 2012



Source: Help Wanted Online; The Conference Board

MANUFACTURING FAST FACTS

4TH QUARTER 2012 EDITION *

Each of the following sections is a quick snapshot of labor market information for Pennsylvania's Manufacturing sector.

Section	Page
PA Economic Background	2
PA & US Manufacturing Jobs	3
PA Manufacturing Jobs Detail	4
MSA Manufacturing Jobs	5
PA Manufacturing New Hires	6
PA Mfg. Employment Detail	7
Location Quotient Detail	8
Location Quotient County Map	9
Manufacturing Demographics	10

Section	Page
Mfg. Industries of Interest	11
Mfg. Help Wanted Online	12-15
Mfg. Long-Term Projections	16
Mfg. IMPLAN Multipliers	17
Mfg. High Priority Occupations	18
County Unemployment Rate Map	19
Definitions	20-23
Mfg. Job Postings County Map	24

*Note: For each data set included in this document, the most current data available at the time of publication are included. Data is identified as "seasonally adjusted" or "not seasonally adjusted" when applicable.

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DEPARTMENT OF LABOR & INDUSTRY

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CWIA-MFG

PA Economic Background

- **Pennsylvania's seasonally adjusted unemployment rate for December 2012 was 7.9%.**
  - This was up 0.1 percentage points from November 2012.
  - The December 2012 rate was up 0.2 from December 2011.

- **Pennsylvania's seasonally adjusted total nonfarm jobs for December 2012 were at 5,751,500.**
  - This was a decrease of 4,800 from November 2012.
  - December 2012 jobs were 38,700 higher than December 2011.

- **Pennsylvania's new hire activity increased.**
  - There were 619,100 new hires reported across all industries in the 3rd quarter of 2012.
  - This was an increase of 39,700 over 3rd quarter 2011 (7 percent increase).

- **Employer demand increased in Pennsylvania.**
  - 168,100 job ads were posted online in December 2012.
  - This was an increase of 9,200 from December 2011 (5.8 percent increase).

- **In Pennsylvania there were 2.7 unemployed persons for every online job posting (December 2012).**
  - The Pennsylvania rate was higher than the U.S. rate, which stood at 2.5.
  - The Pennsylvania rate was down from a peak of 4.8 unemployed per online job posting in late 2009.

Definitions:

Educational Attainment - The Bureau of Labor Statistics (BLS) provides information about entry-level education, related work experience, and typical on-the-job training requirements for each of several hundreds of occupations.

Educational Attainment Level Abbreviations -

- Short-term or Moderate-term OJT – basic tasks and skills are learned through a period of on-the-job training lasting up to one year. A high school diploma may be required.
- Long-term training – a high school diploma and at least one year of on-the-job training or an apprenticeship.
- HS diploma plus experience – a high school diploma and training gained through hands-on work in a similar occupation.
- Postsecondary training – training is gained through a postsecondary training program. Some period of related work experience may be required.
- Associate degree – degree completed after two years of full-time schooling beyond high school. Some period of related work experience may be required.
- Bachelor's degree – degree completed after four years of full-time schooling beyond high school. Some period of related work experience may be required.
- Master's Degree – degree completed after two years of full-time schooling beyond a bachelor's degree. Some period of related work experience may be required.
- Doctoral, or Professional degree – degree programs requiring 3-6 years of education at the college or university level beyond a four-year bachelor's degree.

Quarterly Workforce Indicators

Source: U.S. Census Bureau, Local Employment Dynamics

The Quarterly Workforce Indicators (QWI) are a set of economic indicators that can be queried by different levels of geography as well as by industry, gender, and age of workers. The QWI are built upon wage records in the Unemployment Insurance (UI) system and information from state Quarterly Census of Employment and Wages (QCEW) data.

Definitions:

Jobs

Source: Pennsylvania Department of Labor & Industry, Current Employment Statistics (CES)

Each month the CES program surveys about 140,000 national businesses and government agencies in order to provide detailed industry data on employment, hours, and earnings of workers on non-farm payrolls. This is a collaborative effort between BLS and the states. CES produces a count of jobs, not of people.

Nonfarm Jobs: The total number of persons on establishment payrolls employed full or part time who received pay for any part of the pay period that includes the 12th day of the month. Temporary and intermittent employees are included, as are any employees who are on paid sick leave, on paid holiday, or who work during only part of the specified pay period. A striking employee who only works a small portion of the survey period, and is paid, would be included as employed under the CES definitions. Persons on the payroll of more than one establishment are counted in each establishment. Data exclude proprietors, self-employed, unpaid family or volunteer workers, farm workers, and domestic workers. Persons on layoff , strike, or leave without pay for the entire pay period, or who have not yet reported for work are not counted as employed. Government employment covers only civilian employees.

Help Wanted Online Ads

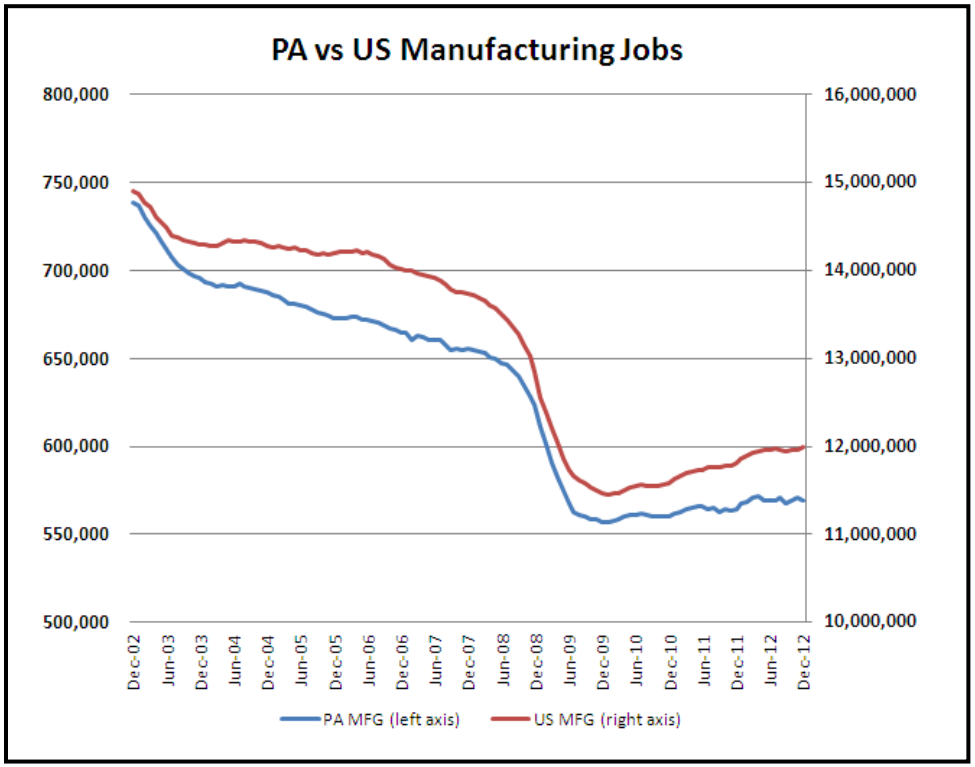
Source: The Conference Board Help Wanted OnLine™ (HWOL) data set

The Conference Board HWOL data set provides real-time insight into the employment marketplace through the world's largest database of online job ads. Jobs ads can be classified by industry, occupation, employer, and geographic area. Data are analyzed for employment trends and to forecast economic conditions. The underlying data for The Conference Board HWOL are provided by Wanted Technologies Corporation.

Long-Term Industry Employment Projections - Estimates of current and projected employment levels by 4-digit industry code for various geographical areas (statewide, Metropolitan Statistical Areas and Workforce Investment Areas). Data supporting the industry projections were derived from a monthly survey of employers (Current Employment Statistics Program) and a quarterly tax report from employers (QCEW program).

PA & US Manufacturing Jobs

Seasonally Adjusted



- **PA Manufacturing Employment December 2012: 569,600.**
  - Decrease of 1,100 over the month (-0.2%).
  - Increase of 5,500 over the year (1.0%).
  - Down 169,000 manufacturing jobs from 10 years ago (-22.9%).

- **US Manufacturing Employment December 2012: 11,988,000.**
  - Increase of 25,000 over the month (0.2%).
  - Increase of 180,000 over the year (1.5%).
  - Down 2,920,000 manufacturing jobs from 10 years ago (-19.6%).

PA Manufacturing Jobs Detail

Seasonally Adjusted

PA Manufacturing Jobs December 2012 (in thousands)

	Dec. 2012	Nov. 2012	Dec. 2011	Change from Nov. 2012		Change from Dec. 2011	
				Vol.	Pct.	Vol.	Pct.
Manufacturing	569,600	570,700	564,100	-1,100	-0.2%	5,500	1.0%
Durable Goods	348,900	349,200	344,400	-300	-0.1%	4,500	1.3%
Nondurable Goods	220,700	221,500	219,700	-800	-0.4%	1,000	0.5%

Source: Current Employment Statistics

- Manufacturing jobs were down 1,100 in December, with declines in both durable and nondurable goods. The December drop followed two months of increases and was the fourth drop in 2012.
- Over the year, manufacturing jobs were up 5,500. Manufacturers have shown over-the-year increases since September 2010. This is the longest streak of over-the-year growth on record (data set back to 1990).
- Both durable and nondurable goods were up from last December.
- Nondurable goods showed 12-month increases for the past three months, matching the longest streak of year-over-year growth on record (data set back to 1990).
- Looking at the *not seasonally adjusted* industries within manufacturing, the largest over-the-year gains were within fabricated metal product manufacturing (+2,200, +2.6%) and transportation equipment manufacturing (+1,200, +3.2%).

Definitions:

Labor Force Statistics

Source: Pennsylvania Local Area Unemployment Statistics (LAUS)

The labor force and unemployment data are based on the same concepts and definitions as those used for the official national estimates obtained from the Current Population Survey (CPS). The LAUS program measures employment and unemployment on a place-of-residence basis and produces estimates using equations based on regression techniques. This method utilizes data from several sources, including the CPS, the Current Employment Statistics (CES) program, and state unemployment insurance (UI) programs. The LAUS program does not produce estimates for any demographic groups.

Unemployment Rate: The number of unemployed as a percent of the labor force.

Unemployment: All persons aged 16 years and older who had no employment during the reference week (contains the 12th day of the month), were available for work (except for temporary illness), and had made specific efforts to find employment sometime during the four-week period ending with the reference week. Persons who were waiting to be recalled to jobs from which they had been laid off need not to have been looking for work to be classified as unemployed.

Employment: All persons who, during the week which includes the 12th day of the month, (a) did any work as paid employees, worked in their own businesses or professions or on their own farm, or worked 15 hours or more as unpaid workers in enterprises operated by members of their families, or (b) were not working but who had jobs from which they were temporarily absent. Each employed person is counted only once, even if the person holds more than one job. Included are the self-employed, unpaid family workers, agricultural workers, and private household workers, who are excluded by the CES survey.

Labor Force: All persons either working or looking for work or classified as employed or unemployed.

Seasonally Adjusted Data - Seasonal adjustment removes the change in employment that is due to normal seasonal hiring or layoffs (holidays, weather, etc.), thus leaving an over-the-month change that reflects only employment changes due to trend and irregular movements.

High Priority Occupations - Occupations identified as in demand by employers, have higher skills needs, and are most likely to provide family sustaining wages, as determined by the Pennsylvania Department of Labor & Industry processes and analyses.

Definitions:

Quarterly Census of Employment and Wages

Source: The Pennsylvania Department of Labor & Industry,

Employment: Employment data include all employment covered under the Pennsylvania Unemployment Compensation program for each of the three months in the quarter. The employment count represents the number of full-time and part-time employees who worked during or received pay for the payroll period including the 12th of the month. The employment totals for each month are averaged for the quarter employment count. Included are persons on paid vacations or on paid sick leave. Workers temporarily earning no wages due to labor-management disputes, layoffs or other reasons are not reported as employed. Persons on the payroll of more than one employer during the same reference week are reported more than once.

Establishment: The location of a certain economic activity, such as a factory, store, office, or mine, that produces goods or services. It is typically at a single physical location and engaged in one, or predominantly one, type of economic activity. An employer may have one or more establishments.

Wages: Total wages include total compensation paid during a calendar quarter (including bonuses). Average wages are calculated by dividing total wages for a quarter by average employment in that quarter.

Location Quotient (LQ)

Source: Quarterly Census of Employment & Wages

A Location Quotient is calculated to measure the concentration of employment within an industry in one geographic region to another; in this case comparing Pennsylvania counties to the US average. A county LQ greater than 1.0 indicates a higher concentration of employment in that industry than the national average. A county LQ lower than 1.0 indicates a smaller concentration of employment in that industry than the national average.

New hires

Source: The Pennsylvania Department of Labor & Industry

New Hire Reporting is a process by which employers report information on all employees hired on or after January 1, 1998 to locate non-custodial parents, establish child support orders, or enforce existing orders. Company and individual data are confidential and cannot be reported on. However, the data can be aggregated to show where and in what industries hiring is taking place as an indication of what sectors of the economy are experiencing growth or decline. Approximately sixty percent of all new hires are captured. New hire counts by industry are an indication of trend only.

PA Manufacturing Jobs by MSA[1]

Not Seasonally Adjusted

	Dec. 2012	Nov. 2012	Dec. 2011	Change from Nov. 2012		Change from Dec. 2011	
				Vol.	Pct.	Vol.	Pct.
Allentown-Bethlehem-Easton	37,100	37,100	35,700	0	0.0%	1,400	3.9%
Altoona	7,500	7,500	7,500	0	0.0%	0	0.0%
Erie	22,000	22,000	21,700	0	0.0%	300	1.4%
Harrisburg-Carlisle	19,500	19,700	20,000	-200	-1.0%	-500	-2.5%
Johnstown	4,300	4,300	4,300	0	0.0%	0	0.0%
Lancaster	35,100	34,700	34,900	400	1.2%	200	0.6%
Lebanon	9,100	9,100	9,000	0	0.0%	100	1.1%
Philadelphia Metro	131,600	131,300	131,900	300	0.2%	-300	-0.2%
Pittsburgh	88,300	88,700	88,100	-400	-0.5%	200	0.2%
Reading	28,300	28,600	28,500	-300	-1.0%	-200	-0.7%
Scranton-Wilkes-Barre	27,600	27,800	26,900	-200	-0.7%	700	2.6%
State College	4,100	4,100	4,100	0	0.0%	0	0.0%
Williamsport	9,400	9,400	9,300	0	0.0%	100	1.1%
York-Hanover	31,900	32,100	31,800	-200	-0.6%	100	0.3%

Source: Current Employment Statistics

- Eight of Pennsylvania's MSAs gained manufacturing jobs over the year, with three MSAs losing manufacturing jobs, and three MSAs remaining unchanged.
- The MSAs with the largest over-the-year job gains in manufacturing were Allentown-Bethlehem-Easton (+3.9%), Scranton-Wilkes-Barre (+2.6%), and Erie (+1.4%).
- The largest over-the-year manufacturing jobs decrease was in the Harrisburg-Carlisle MSA (-2.5%), followed by Reading (-0.7%).

[1]MSA: Metropolitan Statistical Area, as defined by the US Census Bureau.

PA New Hires by Manufacturing Sector

Not Seasonally Adjusted

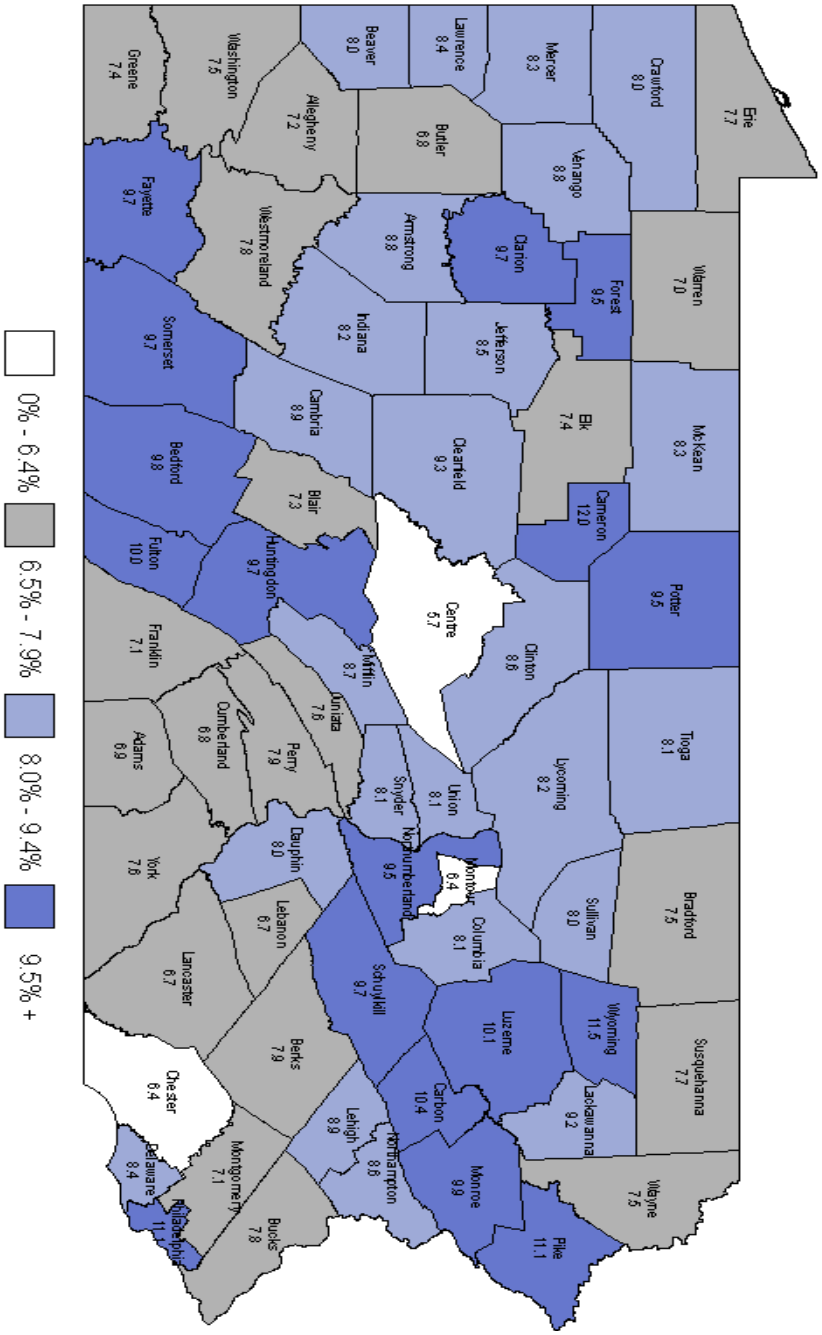
NAICS	Industry Title	2011 Q3 New Hires	2012 Q3 New Hires	Pct. Change
311	Food Mfg.	8,552	7,327	-14.3%
312	Beverage & Tobacco Product Mfg.	294	423	43.9%
313	Textile Mills	113	136	20.4%
314	Textile Product Mills	258	366	41.9%
315	Apparel Mfg.	388	340	-12.4%
316	Leather & Allied Product Mfg.	17	13	-23.5%
321	Wood Product Mfg.	953	1,188	24.7%
322	Paper Mfg.	746	846	13.4%
323	Printing & Related Support Activities	941	772	-18.0%
324	Petroleum & Coal Products Mfg.	86	77	-10.5%
325	Chemical Mfg.	1,081	1,212	12.1%
326	Plastics & Rubber Products Mfg.	1,802	2,044	13.4%
327	Nonmetallic Mineral Product Mfg.	1,349	1,320	-2.1%
331	Primary Metal Manufacturing	1,634	1,340	-18.0%
332	Fabricated Metal Product Mfg.	4,947	3,844	-22.3%
333	Machinery Mfg.	2,431	1,995	-17.9%
334	Computer & Electronic Product Mfg.	1,365	1,162	-14.9%
335	Elec. Equip., App., and Component Mfg.	860	955	11.0%
336	Transportation Equip. Mfg.	1,681	1,306	-22.3%
337	Furniture & Related Product Mfg.	813	788	-3.1%
339	Miscellaneous Mfg.	1,033	1,110	7.5%
Manufacturing Total		**31,344**	**28,564**	**-8.9%**

Source: Pennsylvania New Hire Program

From 3rd Quarter 2011 to 3rd Quarter 2012 in Pennsylvania:

- Total Manufacturing New Hires decreased by 8.9% (all industries +6.9%).
- 9 of the 21 Manufacturing subsectors experienced over-the-year growth in New Hire activity, while 12 experienced an over-the-year decrease.
- The largest over-the-year increases in New Hire activity among Manufacturing subsectors were in Beverage & Tobacco Product Manufacturing (+43.9%), Textile Product Mills (+41.9%), Wood Product Manufacturing (+24.7%), and Textile Mills (+20.4%).
- The largest over-the-year decreases were in Leather & Allied Products Manufacturing (-23.5%), Fabricated Metal Product Manufacturing (-22.3%), Transportation Equipment Manufacturing (-22.3%), and Primary Metal Manufacturing (-18.0%).

Pennsylvania Unemployment Rates by County December 2012



2012 PA High Priority Occupations in Advanced Materials & Diversified Manufacturing

Highlighted occupations are new additions in 2012

SOC Code	Occupation	Educational Attainment	Industry Cluster Wage, 2011
11-1021	General & Operations Managers	AD+	$117,213
11-3051	Industrial Production Managers	BD+	$95,149
13-1023	Purchasing Agents	LT OJT	$57,750
17-2112	Industrial Engineers	BD	$75,667
17-2141	Mechanical Engineers	BD	$74,353
17-3013	Mechanical Drafters	AD	$48,791
17-3026	Industrial Engineering Technicians	AD	$52,446
41-4012	Sales Representatives	MT OJT	$67,543
43-4051	Customer Service Representatives	ST OJT	$39,352
43-5061	Production, Planning & Expediting Clerks	MT OJT	$48,173
43-5071	Shipping, Receiving & Traffic Clerks	ST OJT	$33,848
49-9041	Industrial Machinery Mechanics	LT OJT	$46,340
49-9043	Maintenance Workers, Machinery	MT OJT	$37,622
49-9071	Maintenance & Repair Workers, General	MT OJT	$41,621
51-1011	Supervisors - Production & Operating Workers	PS	$57,257
51-4011	Computer-Controlled Machine Tool Operators, Metal & Plastic	MT OJT	$37,191
51-4012	Numerical Tool & Process Control Programmers	MT OJT	$45,268
51-4021	Extruding & Drawing Machine Setters, Oprs & Tenders, Metal & Plastic	MT OJT	$37,761
51-4041	Machinists	LT OJT	$39,894
51-4081	Multiple Machine Tool Setters, Operators & Tenders, Metal & Plastic	MT OJT	$35,339
51-4121	Welders, Cutters, Solderers & Brazers	MT OJT	$37,297
51-4191	Heat Treating Equipment Setters, Operators & Tenders, Metal & Plastic	MT OJT	$36,882
51-9061	Inspectors, Testers, Sorters, Samplers & Weighers	MT OJT	$38,100

Source: Center for Workforce Information & Analysis

[1]*For educational attainment acronyms, please refer to the definitions section.*

PA Employment by Industry Subsector

Not Seasonally Adjusted[1]

NAICS	Industry Title	Jun. 2011 Emp.	Jun. 2012 Emp.	Pct. Change
311	Food Mfg.	66,559	67,059	0.8%
312	Beverage & Tobacco Product Mfg.	6,684	6,953	4.0%
313	Textile Mills	3,665	3,579	-2.3%
314	Textile Product Mills	4,059	4,242	4.5%
315	Apparel Mfg.	6,086	5,768	-5.2%
316	Leather & Allied Product Mfg.	997	999	0.2%
321	Wood Product Mfg.	19,067	18,514	-2.9%
322	Paper Mfg.	24,573	24,066	-2.1%
323	Printing & Related Support Activities	27,145	25,612	-5.6%
324	Petroleum & Coal Products Mfg.	6,519	5,968	-8.5%
325	Chemical Mfg.	42,601	41,475	-2.6%
326	Plastics & Rubber Products Mfg.	35,544	35,697	0.4%
327	Nonmetallic Mineral Product Mfg.	21,505	20,654	-4.0%
331	Primary Metal Manufacturing	38,625	39,851	3.2%
332	Fabricated Metal Product Mfg.	80,799	82,770	2.4%
333	Machinery Mfg.	47,322	49,503	4.6%
334	Computer & Electronic Product Mfg.	32,176	32,063	-0.4%
335	Elec. Equip., App., and Component Mfg.	26,072	26,122	0.2%
336	Transportation Equip. Mfg.	37,732	39,569	4.9%
337	Furniture & Related Product Mfg.	15,111	15,463	2.3%
339	Miscellaneous Mfg.	26,673	27,159	1.8%
Manufacturing Total		**569,514**	**573,083**	**0.6%**

Source: Quarterly Census of Employment & Wages

From June 2011 to June 2012 in Pennsylvania:

- Total manufacturing employment increased by approximately 3,600 (0.6%).
- The largest employment gains were in Transportation Equipment Manufacturing (+4.9%), Machinery Manufacturing (+4.6%), and Textile Product Manufacturing (+4.5%).
- The largest employment decreases were in Petroleum & Coal Products Manufacturing (-8.5%), Printing & Related Support Activities (-5.6%), and Apparel Manufacturing (-5.2%).

[1]Although QCEW data are not seasonally adjusted, comparing the same month in different years eliminates seasonal patterns in the data.

Location Quotients[1] by Industry Subsector

PA vs. US

NAICS	Industry Title	March 2012 Location Quotient: PA vs. US
311	Food Mfg.	1.10
312	Beverage & Tobacco Product Mfg.	0.81
313	Textile Mills	0.71
314	Textile Product Mills	0.80
315	Apparel Mfg.	0.92
316	Leather & Allied Product Mfg.	0.78
321	Wood Product Mfg.	1.26
322	Paper Mfg.	1.48
323	Printing & Related Support Activities	1.31
324	Petroleum & Coal Products Mfg.	1.30
325	Chemical Mfg.	1.24
326	Plastics & Rubber Products Mfg.	1.29
327	Nonmetallic Mineral Product Mfg.	1.31
331	Primary Metal Manufacturing	2.32
332	Fabricated Metal Product Mfg.	1.38
333	Machinery Mfg.	1.05
334	Computer & Electronic Product Mfg.	0.68
335	Elec. Equip., App., and Component Mfg.	1.65
336	Transportation Equip. Mfg.	0.62
337	Furniture & Related Product Mfg.	1.02
339	Miscellaneous Mfg.	1.09
Manufacturing Total		**1.12**

Source: Quarterly Census of Employment & Wages

In March 2012:

- Pennsylvania had a location quotient greater than 1, indicating that a larger share of Pennsylvania's workers are employed in Manufacturing industries than the national average.
- Pennsylvania's location quotient compared to the nation was highest in Primary Metal Manufacturing (2.32), Electrical Equipment, Appliance, & Component Manufacturing (1.65), and Paper Manufacturing (1.48).
- Pennsylvania's location quotient compared to the nation was lowest in Transportation Equipment Manufacturing (0.62), Computer & Electronic Product Manufacturing (0.68), and Textiles Mills (0.71).

[1]For a detailed explanation of location quotients, please refer to the definitions section of this document.

IMPLAN Multipliers for Manufacturing Industry Subsectors

NAICS	Industry Title	IMPLAN Multiplier
311	Food Mfg.	3.77
312	Beverage & Tobacco Product Mfg.	4.19
313	Textile Mills	1.85
314	Textile Product Mills	2.05
315	Apparel Mfg.	N/A
316	Leather & Allied Product Mfg.	2.04
321	Wood Product Mfg.	2.06
322	Paper Mfg.	3.66
323	Printing & Related Support Activities	1.99
324	Petroleum & Coal Products Mfg.	11.14
325	Chemical Mfg.	6.62
326	Plastics & Rubber Products Mfg.	2.13
327	Nonmetallic Mineral Product Mfg.	2.74
331	Primary Metal Manufacturing	5.28
332	Fabricated Metal Product Mfg.	2.27
333	Machinery Mfg.	2.71
334	Computer & Electronic Product Mfg.	2.86
335	Elec. Equip., App., and Component Mfg.	2.76
336	Transportation Equip. Mfg.	2.74
337	Furniture & Related Product Mfg.	2.07
339	Miscellaneous Mfg.	2.25

Source: Minnesota IMPLAN Group (MIG)

Whenever a job is added in any industry, it causes additional jobs, both indirect and induced, to be generated in other industries. Direct, indirect, and induced jobs are defined as follows:

Direct: Jobs added into the industry itself.
Indirect: Jobs added to industries that are suppliers to, or customers of, the direct industry.
Induced: Jobs added to industries such as retail trade and healthcare that are affected due to increased spending from workers in direct and indirect industries.

The **multiplier effect** is the sum of the total number of new jobs that can be expected for each job added into a direct industry. For example, for each job added in Food Manufacturing, an additional 2.77 jobs are expected to be added into indirect and induced industries, for a resulting multiplier of 3.77.

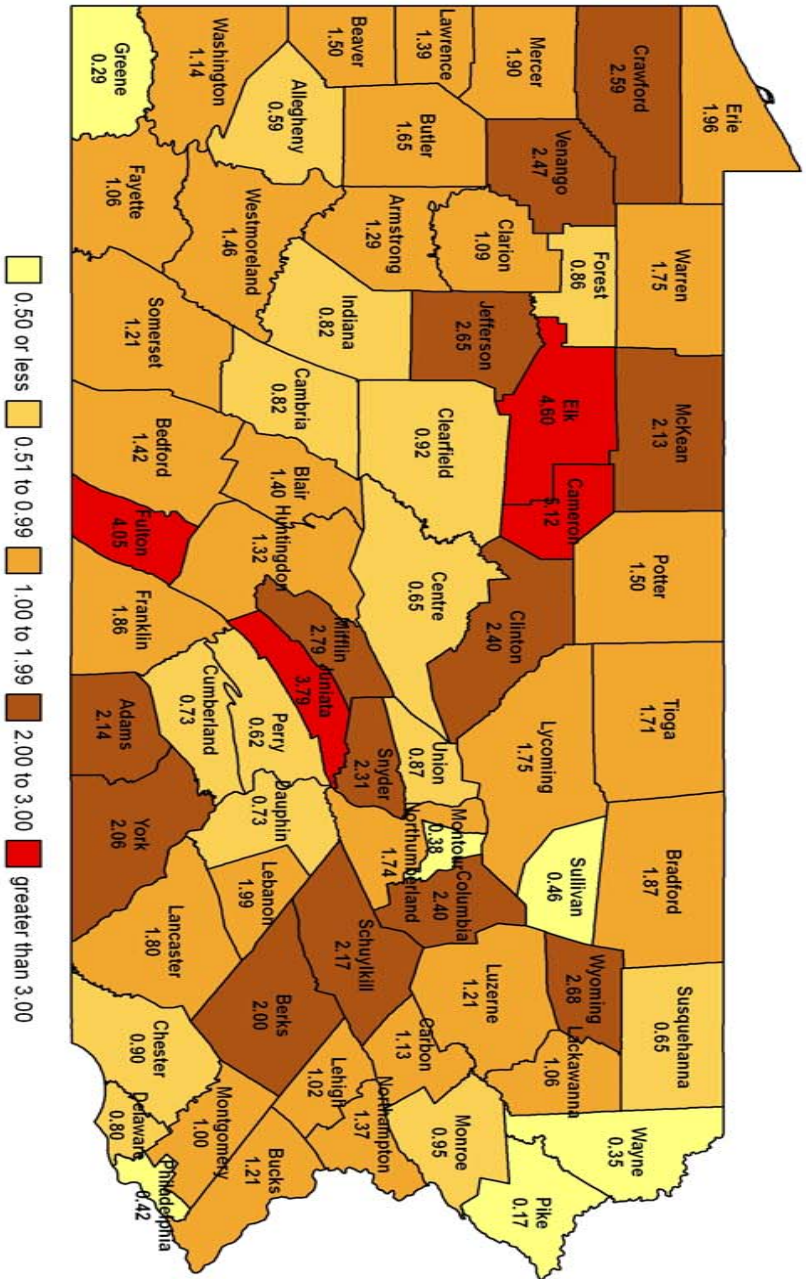
Pennsylvania Manufacturing Industry Employment 2010-2020 Long-Term Projections

		Employment		Change		Avg. Annual
NAICS	**Industry Title**	**2010**	**2020**	**Level**	**Percent**	**Change**
31-33	***Manufacturing***	***560,440***	***557,760***	***-2,680***	***-0.5%***	***-268***
311	Food Mfg.	66,440	65,140	-1,300	-2.0%	-130
312	Beverage & Tobacco Product Mfg.	6,740	6,650	-90	-1.3%	-9
313	Textile Mills	3,780	2,610	-1,170	-31.0%	-117
314	Textile Product Mills	4,010	2,550	-1,460	-36.4%	-146
315	Apparel Mfg.	6,740	3,470	-3,270	-48.5%	-327
316	Leather & Allied Product Mfg.	820	510	-310	-37.8%	-31
321	Wood Product Mfg.	19,410	18,200	-1,210	-6.2%	-121
322	Paper Mfg.	24,820	22,700	-2,120	-8.5%	-212
323	Printing & Related Support Activities	28,260	26,390	-1,870	-6.6%	-187
324	Petroleum & Coal Products Mfg.	6,320	5,940	-380	-6.0%	-38
325	Chemical Mfg.	42,970	42,610	-360	-0.8%	-36
326	Plastics & Rubber Products Mfg.	35,160	36,470	1,310	3.7%	131
327	Nonmetallic Mineral Product Mfg.	21,380	21,660	280	1.3%	28
331	Primary Metal Manufacturing	36,000	37,210	1,210	3.4%	121
332	Fabricated Metal Product Mfg.	77,800	83,830	6,030	7.8%	603
333	Machinery Mfg.	45,300	47,830	2,530	5.6%	253
334	Computer & Electronic Product Mfg.	31,970	29,560	-2,410	-7.5%	-241
335	Elec. Equip., App., and Component Mfg.	24,680	28,090	3,410	13.8%	341
336	Transportation Equip. Mfg.	36,790	38,930	2,140	5.8%	214
337	Furniture & Related Product Mfg.	14,820	13,950	-870	-5.9%	-87
339	Miscellaneous Mfg.	26,230	23,460	-2,770	-10.6%	-277

Source: The Center for Workforce Information & Analysis

Manufacturing Location Quotient County Map[1]

County vs. US



[1]*Based on 2012 March QCEW Employment.*

PA Manufacturing Quarterly Workforce Indicators - Demographics by Education Level[1]

NAICS	Industry Title	< HS	HS	Post. Second. or Assoc.	Bach. or Higher
311	Food Mfg.	15.1%	38.3%	30.2%	16.4%
312	Beverage & Tobacco Product Mfg.	11.0%	38.1%	32.8%	18.1%
313	Textile Mills	13.4%	39.9%	29.2%	17.5%
314	Textile Product Mills	14.8%	41.5%	28.8%	15.0%
315	Apparel Mfg.	18.1%	36.7%	27.7%	17.5%
316	Leather & Allied Product Mfg.	15.1%	41.2%	28.0%	15.7%
321	Wood Product Mfg.	15.1%	43.4%	28.7%	12.9%
322	Paper Mfg.	10.7%	40.1%	31.9%	17.4%
323	Printing & Related Support Activities	9.8%	38.2%	32.5%	19.4%
324	Petroleum & Coal Products Mfg.	7.8%	33.7%	31.3%	27.2%
325	Chemical Mfg.	7.9%	27.1%	30.3%	34.6%
326	Plastics & Rubber Products Mfg.	12.9%	39.6%	31.1%	16.5%
327	Nonmetallic Mineral Product Mfg.	11.6%	40.3%	30.2%	17.9%
331	Primary Metal Manufacturing	10.0%	39.9%	31.9%	18.2%
332	Fabricated Metal Product Mfg.	11.2%	40.7%	31.5%	16.6%
333	Machinery Mfg.	9.5%	38.9%	32.0%	19.6%
334	Computer & Electronic Product Mfg.	8.3%	33.2%	32.2%	26.2%
335	Elec. Equip., App., and Component Mfg.	10.6%	37.2%	32.0%	20.3%
336	Transportation Equip. Mfg.	10.4%	35.7%	31.3%	22.6%
337	Furniture & Related Product Mfg.	13.0%	41.1%	30.2%	15.7%
339	Miscellaneous Mfg.	10.3%	35.6%	32.2%	21.9%
Manufacturing Total		**11.1%**	**37.7%**	**31.2%**	**20.0%**

Source: US Census Bureau; Local Employment Dynamics

For 2011 Quarter 4:

- Chemical Manufacturing had the highest percentage of workers with at least a bachelor's degree (34.6%), followed by Petroleum & Coal Products Manufacturing (27.2%), and Computer & Electronic Products Manufacturing (26.2%).
- Apparel Manufacturing had the highest percentage of workers with less than a high school diploma (18.1%), followed by Food Manufacturing, Leather & Allied Product Manufacturing, and Wood Product Manufacturing (all with 15.1%).
- Overall, approximately 89% of individuals working in manufacturing in Pennsylvania have at least a high school diploma, and more than half have completed education beyond high school.

[1] *Please note these education levels apply only to Local Employment Dynamics Data, and do not correspond to the educational attainments in the definition section of this document.*

Help Wanted Online Ads by Manufacturing Employer in PA – Top 30

Company	Dec. 2012 Postings
Johnson Controls	262
ANN INC.	189
ALCOA	174
Air Products and Chemicals, Inc.	107
Tyco Electronics	95
Lockheed Martin	93
Teva Phamraceutical Inc.	89
System One	85
United Technologies Corporation	83
Merck	80
CNH America	72
Bimbo Bakeries USA	69
THE HERSHEY COMPANY	68
Creative Circle	65
The Scotts Miracle-Gro Company	58
Mylan Inc	56
Superior Lamp	56
Lord Corporation	52
Motorola Mobility	52
The Boeing Company	50
Victaulic	50
Shire Pharmaceutical, Inc.	50
Carpenter Technology Corporation	49
Bayer	48
Lutron Electronics	46
United States Steel Corporation	43
Fmc Corporation	43
Northwood	42
Oshkosh Corporation	40
Arkema Inc.	40

Source: Help Wanted Online; The Conference Board.

Help Wanted Online Ads by Manufacturing Occupation in PA – Top 25

SOC	Occupation Title	Dec. 2011	Dec. 2012	Pct. Change
17-2112	Industrial Engineers	500	456	-8.8%
51-1011	First-Line Supervisors/Managers of Production and Operating Workers	337	321	-4.7%
11-2021	Marketing Managers	165	193	17.0%
15-1051	Computer Systems Analysts	156	190	21.8%
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	110	188	70.9%
17-2141	Mechanical Engineers	186	171	-8.1%
11-2022	Sales Managers	113	159	40.7%
13-2011	Accountants	121	139	14.9%
41-2031	Retail Salespersons	58	130	124.1%
11-1021	General and Operations Managers	76	130	71.1%
41-4041	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	86	116	34.9%
15-1031	Computer Software Engineers, Applications	127	108	-15.0%
17-2071	Electrical Engineers	101	103	2.0%
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	29	97	234.5%
49-9042	Maintenance and Repair Workers, General	107	96	-10.3%
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	68	96	41.2%
15-1051	Computer Support Specialists	121	95	-21.5%
43-4051	Customer Service Representatives	115	91	-20.9%
49-1011	First-Line Supervisors/Managers of Mechanics, Installers, and Repairers	77	85	10.4%
11-3061	Purchasing Managers	50	82	64.0%
19-3021	Market Research Analysts	66	81	22.7%
51-4041	Machinists	123	80	-35.0%
11-3040	Human Resources Managers	72	78	8.3%
19-1042	Medical Scientists, Except Epidemiologists	56	77	37.5%
49-9041	Industrial Machinery Mechanics	88	75	-14.8%

Source: Help Wanted Online; The Conference Board

From December 2011 to December 2012:

- The largest over-the-year gains in job posting activity by occupation were for First-Line Supervisors/Managers of Retail Sales Workers (+234.5%), Retail Sales Persons (+124.1%), and General & Operations Managers (+71.1%).
- The largest over-the-year decreases were for Machinists (-35.0%), Computer Support Specialists (-21.5%), and Customer Service Representatives (-20.9%).

PA Manufacturing Industries of Interest

Industries of Interest (IOIs) are identified as either Hi-Growth or Growth.

Hi-Growth: Industries that have had four consecutive quarters of employment growth totaling at least ten percent over-the-year, with an employment gain of at least 25.

Growth: Industries that have had over-the-year employment growth of at least 10 percent, with an employment gain of at least 25.

Industry Code	Industry Description	Emp. 2012Q2	Emp. Gain from 2011Q2	Pct. Gain from 2011Q2	Type of Change
333120	Construction Machinery Manufacturing	4,822	634	15%	Hi-Growth
336211	Motor Vehicle Body Manufacturing	3,808	535	16%	Hi-Growth
333131	Mining Machinery and Equipment Manufacturing	3,645	379	12%	Hi-Growth
326160	Plastics Bottle Manufacturing	2,614	329	14%	Growth
339999	All Other Miscellaneous Manufacturing	2,764	279	11%	Growth
332996	Fabricated Pipe and Pipe Fitting Manufacturing	2,056	262	15%	Growth
323113	Commercial Screen Printing	2,569	253	11%	Growth
333111	Farm Machinery and Equipment Manufacturing	1,234	235	24%	Growth
331513	Steel Foundries (except Investment)	1,468	193	15%	Hi-Growth
333912	Air and Gas Compressor Manufacturing	1,632	157	11%	Hi-Growth
312120	Breweries	1,296	150	13%	Growth
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	1,490	137	10%	Hi-Growth
312112	Bottled Water Manufacturing	1,308	131	11%	Growth
326291	Rubber Product Manufacturing for Mechanical Use	913	125	16%	Growth
333613	Mechanical Power Transmission Equipment Manufacturing	1,041	111	12%	Growth
333132	Oil and Gas Field Machinery and Equipment Manufacturing	445	88	25%	Hi-Growth
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	755	78	12%	Growth
314120	Curtain and Linen Mills	747	76	11%	Growth
325212	Synthetic Rubber Manufacturing	248	74	43%	Hi-Growth
325411	Medicinal and Botanical Manufacturing	245	63	35%	Hi-Growth
327420	Gypsum Product Manufacturing	395	37	10%	Growth
334517	Irradiation Apparatus Manufacturing	235	29	14%	Hi-Growth

Source: Quarterly Census of Employment & Wages (QCEW) and the Center for Workforce Information & Analysis

Note: Not all changes in industry employment counts are necessarily due to employment growth; non-economic codes changes may impact the identification of IOIs.

Help Wanted Online Ads Manufacturing Industry Subsectors in PA

NAICS	Industry Title	Dec. 2011	Dec. 2012	Pct. Change
311	Food Mfg.	582	653	12.2%
312	Beverage & Tobacco Product Mfg.	95	60	-36.8%
313	Textile Mills	14	10	-28.6%
314	Textile Product Mills	16	13	-18.8%
315	Apparel Mfg.	28	23	-17.9%
316	Leather & Allied Product Mfg.	87	4	-95.4%
321	Wood Product Mfg.	60	86	43.3%
322	Paper Mfg.	126	141	11.9%
323	Printing & Related Support Activities	149	143	-4.0%
324	Petroleum & Coal Products Mfg.	36	24	-33.3%
325	Chemical Mfg.	966	1,014	5.0%
326	Plastics & Rubber Products Mfg.	347	265	-23.6%
327	Nonmetallic Mineral Product Mfg.	136	123	-9.6%
331	Primary Metal Manufacturing	361	397	10.0%
332	Fabricated Metal Product Mfg.	521	452	-13.2%
333	Machinery Mfg.	759	752	-0.9%
334	Computer & Electronic Product Mfg.	786	832	5.9%
335	Elec. Equip., App., and Component Mfg.	255	387	51.8%
336	Transportation Equip. Mfg.	504	370	-26.6%
337	Furniture & Related Product Mfg.	72	78	8.3%
339	Miscellaneous Mfg.	307	529	72.3%
Total Manufacturing Postings by Subsector		**6,207**	**6,356**	**2.4%**

Source: Help Wanted Online; The Conference Board

From December 2011 to December 2012:

- Nine industry subsectors showed over-the-year increases in job posting activity. The largest increase was seen in Miscellaneous Manufacturing (+72.3%), Electrical Equipment, Appliance, & Component Manufacturing (+51.8%), and Wood Product Manufacturing (+43.3%).
- The largest over-the-year decreases by percentage were in Leather & Allied Product Manufacturing (-95.4%), Beverage & Tobacco Product Manufacturing (-36.8%), and Petroleum & Coal Products Manufacturing (-33.3%).
- Overall, Manufacturing job postings were up 2.4% over-the-year.

Help Wanted Online Ads by Manufacturing Industry in PA– Top 25

NAICS	Industry Title	Dec. 2011	Dec. 2012	Pct. Change
325412	Pharmaceutical Preparation Manufacturing	403	433	7.4%
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	105	201	91.4%
339932	Game, Toy, and Children's Vehicle Manufacturing	4	189	4625.0%
326199	All Other Plastics Product Manufacturing	162	164	1.2%
325120	Industrial Gas Manufacturing	209	146	-30.1%
331111	Iron and Steel Mills	163	124	-23.9%
335314	Relay and Industrial Control Manufacturing	44	121	175.0%
333298	All Other Industrial Machinery Manufacturing	122	96	-21.3%
311421	Fruit and Vegetable Canning	67	96	43.3%
333120	Construction Machinery Manufacturing	67	94	40.3%
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	43	91	111.6%
325414	Biological Product (except Diagnostic) Manufacturing	74	91	23.0%
336411	Aircraft Manufacturing	70	90	28.6%
333111	Farm Machinery and Equipment Manufacturing	90	88	-2.2%
325181	Alkalies and Chlorine Manufacturing	52	87	67.3%
339999	All Other Miscellaneous Manufacturing	59	85	44.1%
339112	Surgical and Medical Instrument Manufacturing	97	84	-13.4%
334516	Analytical Laboratory Instrument Manufacturing	39	78	100.0%
334417	Electronic Connector Manufacturing	81	76	-6.2%
311320	Chocolate and Confectionery Manufacturing from Cacao Beans	90	73	-18.9%
331315	Aluminum Sheet, Plate, and Foil Manufacturing	28	71	153.6%
332919	Other Metal Valve and Pipe Fitting Manufacturing	32	70	118.8%
311119	Other Animal Food Manufacturing	31	70	125.8%
336412	Aircraft Engine and Engine Parts Manufacturing	42	66	57.1%
311830	Tortilla Manufacturing	38	65	71.1%

Source: Help Wanted Online; The Conference Board

From December 2011 to December 2012:

- The largest over-the-year gains in job posting activity by industry were Game, Toy, & Children's Vehicle Manufacturing (+4625.0%), Relay & Industrial Control Manufacturing (+175.0%), and Aluminum Sheet, Plate, & Foil Manufacturing (+153.6%).
- The largest over-the-year decreases by industry were in Industrial Gas Manufacturing (-30.1%), Iron & Steel Mills (-23.9%), and All Other Industrial Machinery Manufacturing (-21.3%).