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Center for Economic Development and Business Research

Kansas Manufacturing

Computer and Electronic Product Manufacturing

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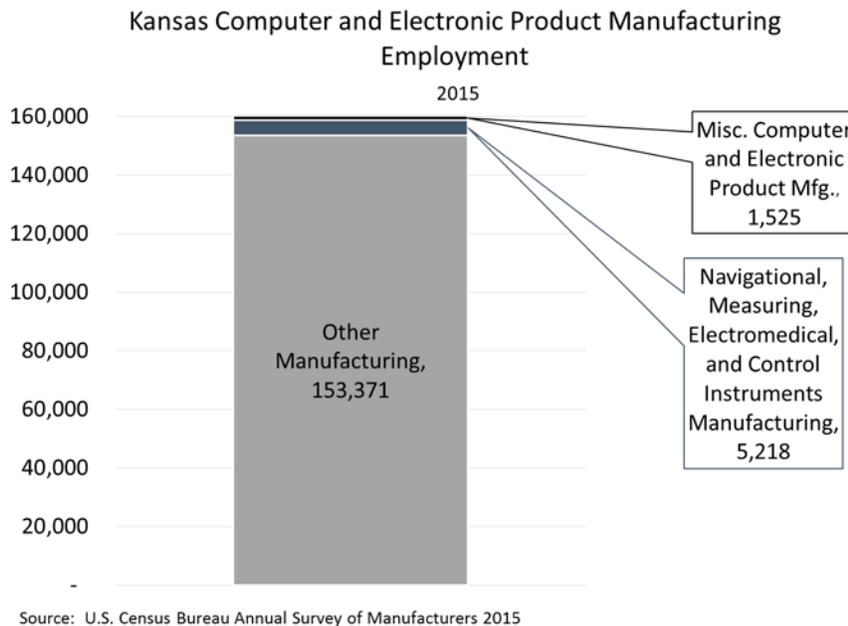
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Computer and Electronic Product Manufacturing

Industries in the computer and electronic product manufacturing subsector include establishments that manufacture computers, computer peripherals, communications equipment, and similar electronic products and establishments that manufacture components for such products. The design and use of integrated circuits and the application of highly specialized miniaturization technologies are common elements in the production process in this subsector.

There are three components of computer and electronic product manufacturing in Kansas, totaling 4.2 percent of total state manufacturing employment. Navigational, measuring, electromedical, and control instrument manufacturing is the largest industry in this subsector in Kansas, employing 3.3 percent of the state's manufacturing workers. Semiconductor and communications equipment manufacturing each account for less than one percent of state manufacturing employment.¹



In Kansas, computer and electronic product manufacturing is generally a high-wage industry, with the exception of semiconductor and other electronic component manufacturing. There are 73 establishments in the state in this industry, the majority have fewer than 20 employees. However, the majority of workers are employed at larger establishments.² Over the past decade employment in this industry has averaged around 7,200 workers, with employment declining an average of 2.9 percent a year.³

¹ Unless otherwise referenced, all data in this report is from the U.S. Census Bureau Annual Survey of Manufactures 2015

² U.S. Census Bureau – County Business Patterns 2015

³ Bureau of Labor Statistics – Quarterly Census of Employment and Wages

Navigational, Measuring, Electromedical, and Control Instruments Manufacturing (NMEC)

This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls, laboratory analytical instruments, navigation and guidance systems, and physical properties testing equipment.

There is a low concentration of NMEC manufacturing in Kansas, relative to the United States as a whole. There are two percent fewer workers in this industry in Kansas than the national average. This industry accounts for 3.3 percent of Kansas manufacturing employment. There are approximately 30 establishments in Kansas in this industry, the majority of which have fewer than 20 employees. However, the majority of workers are employed at larger establishments.⁴ The largest employers in Kansas in this industry are Garmin International, Inc. and Ruskin Manufacturing Company.⁵

Over the next five years, this industry is expected to benefit from an increase in research and development funding, which will strengthen the already solid demand from downstream industries. However, completion from imports is also expected to increase.⁶

Employment

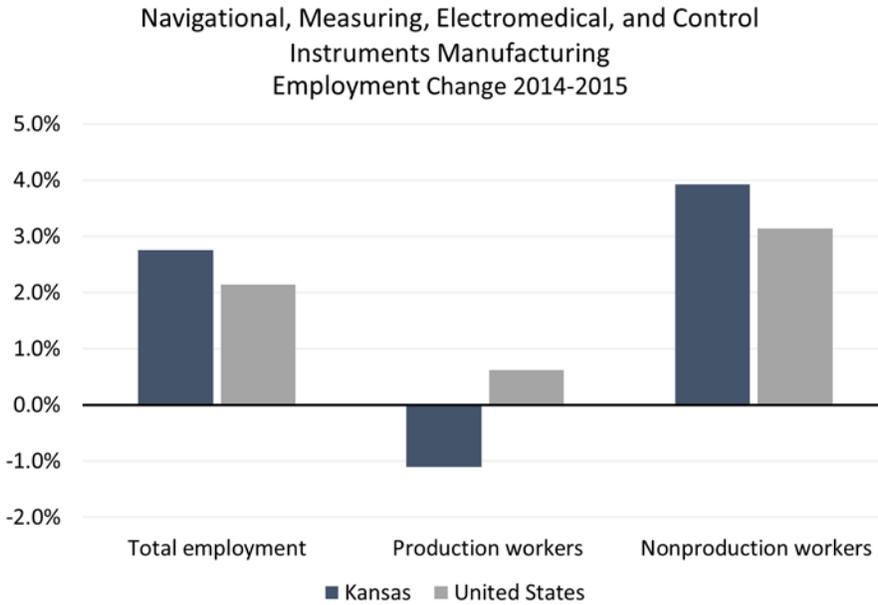
Of the 5,218 NMEC manufacturing employees in Kansas in 2015, 22 percent were production workers, and 78 percent were nonproduction workers. There were 3.49 nonproduction workers for each production worker in the state, well above the national average for this industry of 1.55.

Between 2014 and 2015, NMEC manufacturing employment increased in Kansas and the United States. Kansas experienced relatively larger increases, 2.8 percent compared to 2.1 percent. There was a total increase in Kansas of 140 workers; production workers decreased by 13 and nonproduction workers increased by 153.

⁴ U.S. Census Bureau – County Business Patterns 2015

⁵ Infogroup, Inc.

⁶ IBIS World Navigational Instrument Manufacturing in the U.S. – May 2017



Source: U.S. Census Bureau Annual Survey of Manufacturers 2015

Wages

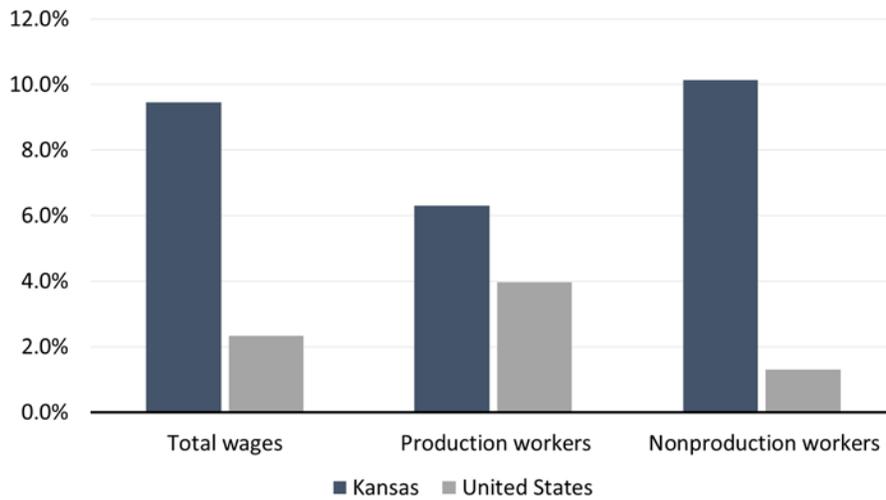
NMEC manufacturing is a high-wage industry. The average salary in 2015 for employees in this industry in Kansas was \$81,171, 45.5 percent higher than the average salary for manufacturing in the state. At \$72,310 annually, production workers in this industry earned 52 percent more than the average for production workers in Kansas. At \$83,710 a year, nonproduction workers earned 9.4 percent more than the average for nonproduction workers in manufacturing in Kansas.

| Navigational, Measuring, Electromedical, and Control Instruments Manufacturing Annual Wage per Worker 2015 | |
|---|----------|
| Total employment | \$81,171 |
| Production workers | \$72,310 |
| Nonproduction workers | \$83,710 |

Source: U.S. Census Bureau Annual Survey of Manufacturers

Between 2014 and 2015, total wages in this industry increased in Kansas and in the United States. The relative change in Kansas was much larger. The total increase in wages can be attributed to a relatively modest increase for production workers and a larger increase in wages for nonproduction workers.

**Navigational, Measuring, Electromedical, and Control
Instruments Manufacturing
Change in Wages 2014-2015**



Source: U.S. Census Bureau Annual Survey of Manufacturers 2015 - Inflation adjusted growth rate.

In Kansas, there has been an increase in employment and wages for nonproduction workers in NMEC manufacturing, indicating an increase in demand for these workers. There has been a decrease in employment and increase in wages for production workers, indicating a decrease in the number of available workers with these skills.

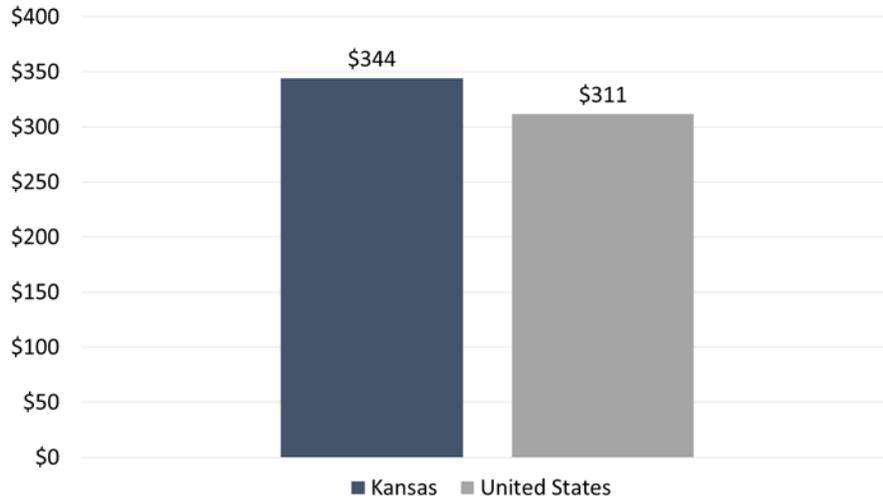
Productivity

In 2015, NMEC manufacturing workers in Kansas worked an average of 36.71 hours a week, down 10.8 percent from 2014 and less than the national average for this industry of 37.82 hours, which decreased 0.3 percent from 2014. It is also less than the average for manufacturing in Kansas of 39.06 hours a week.

In the United States, the average value added per production worker hour in manufacturing, in general, was \$152 in 2015.⁷ In 2015, the average value added per production worker hour for NMEC manufacturing was \$311. The Kansas average was \$344. This difference in productivity may be attributed to the difference in the specific type of manufacturing done in Kansas, the amount of capital investment by local companies, the skill and experience of local production workers, or other factors.

⁷Productivity is an average measure of the efficiency of production. It can be measured as the ratio of inputs to outputs. In measuring the efficiency of manufacturing industries, it is common to measure productivity as the ratio of the production hours to the value added from the manufacturing activity. The value added from the manufacturing activity is determined by subtracting the cost of materials and supplies from the value of shipments.

Navigational, Measuring, Electromedical, and Control
Instruments Manufacturing
Value Added per Production Worker Hour 2015



Source: U.S. Census Bureau Annual Survey of Manufacturers 2015