



New Manufacturing Sector for the Humboldt Economic Index: Description and Preliminary Findings

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April 11, 2013

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Introduction

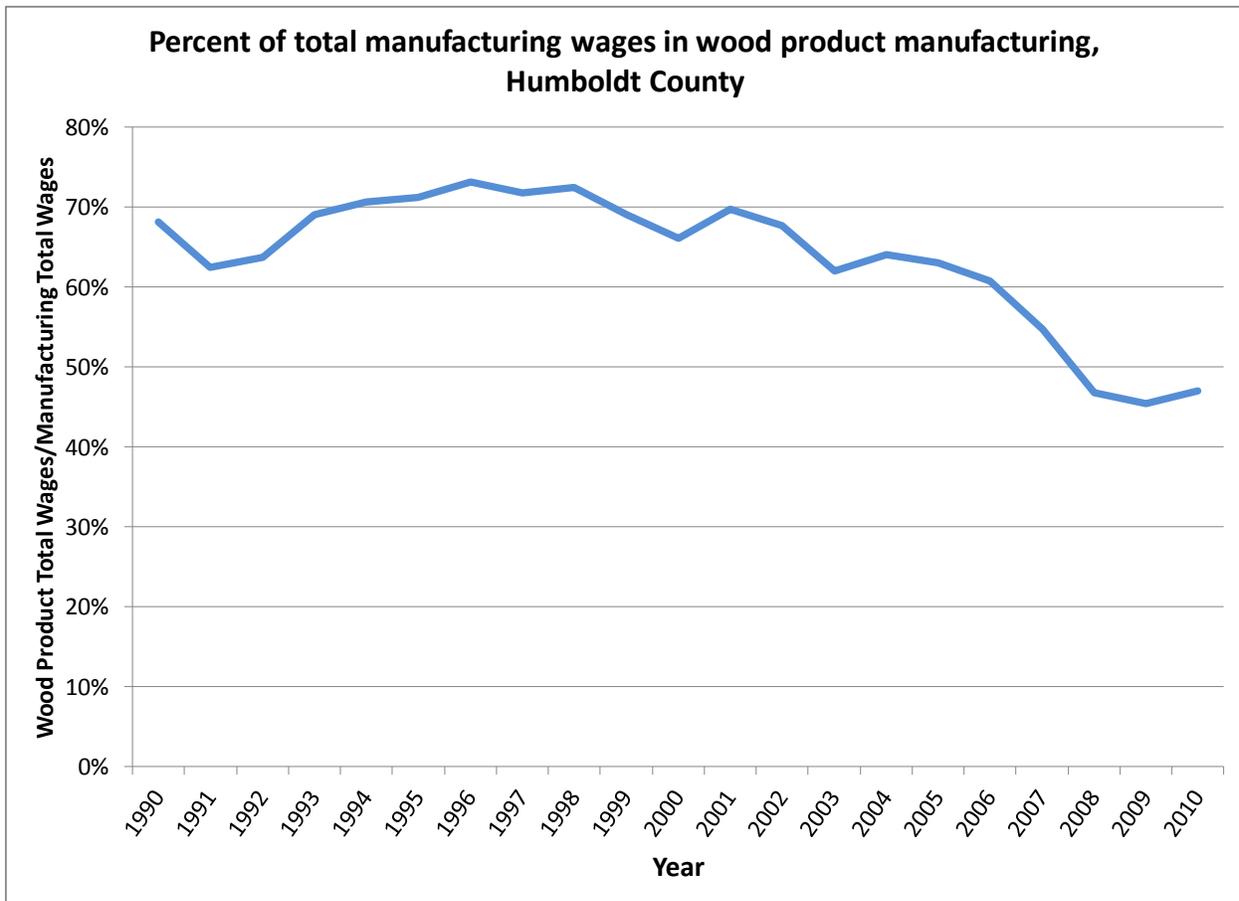
The Humboldt Economic Index (HEI) will soon track a new manufacturing sector for Humboldt County. This new sector broadens and replaces the current lumber-based manufacturing sector by adding niche manufacturing from a variety of industries. The current sector is based on a combination of payroll employment and board feet of lumber production at major county lumber companies. The new sector will add employment and production from other types of manufacturers.

There will also be a new productions orders index added to the existing three leading indicators. This new productions orders index replaces the discontinued manufacturing orders index which used to track orders for board feet of lumber from our major county lumber companies.

Background

The Humboldt Economic Index has been produced by the Economics Department at Humboldt State University since 1996. It measures changes in the local economy using data from local businesses and organizations. The data are compiled into a seasonally adjusted Composite Index that shows changes relative to the base month (January 1994). The Composite Index is a weighted combination of six individual sectors of the local economy. Those sectors are Home Sales, Total County Employment, Hospitality, Retail Sales, Electricity Consumption, and Lumber-based Manufacturing.

Local economic development professionals and business people asked about the state of non-lumber based manufacturing in the county. This included people at Redwood Region Economic Development Commission, Humboldt County Workforce Investment Board, the Prosperity! Network, and Rotary Club meetings. They knew that lumber was declining in relative and absolute importance in Humboldt County. Data from the California Employment Development Department's California Regional Economies Employment Series shows the decline in lumber manufacturing using the North American Industry Classification System (NAICS). In Humboldt County from 1990 to 2010, the percent of manufacturing establishments that are wood product manufacturers fell from 21.3% to 11.5%. Over the same time span, wood product employment as a percent of manufacturing employment fell from 61.8% to 39.2%. The graph below shows that total wages in wood product manufacturing as a percent of total manufacturing wages fell from 68.2% to 47.1%. Thus, while lumber-based manufacturing is still significant within the county, the rise of other types of manufacturing is unquestionable.



Starting in spring of 2009, the Humboldt Economic Index Director and student assistants began creating the new manufacturing based sector. Students included Eloy Sosa, Kevin Davis, Rattnak Sokom, and Nathan Freney. The strategy was to find existing manufacturing surveys or surveys of purchasing managers and follow established methods. Helpful papers included The Institute for Supply Management’s Report On Business, The Federal Reserve Bank of New York’s Empire State Manufacturing Survey, Schnorbus and Israilivich 1987, Israilivich, Schnorbus and Schneider 1989, and Deitz and Steindel 2005. Many of the best known regional manufacturing indices collect data on production quantities, input use such as payroll and energy use, and shipments. They also collected information about future business conditions in order to provide a forecast for manufacturing.

We needed to keep our survey simple so that it wouldn’t be a burden for people to report their company’s data. We decided to collect three pieces of information each month: 1) quantity of production, 2) headcount of employees, and 3) unfilled production orders.

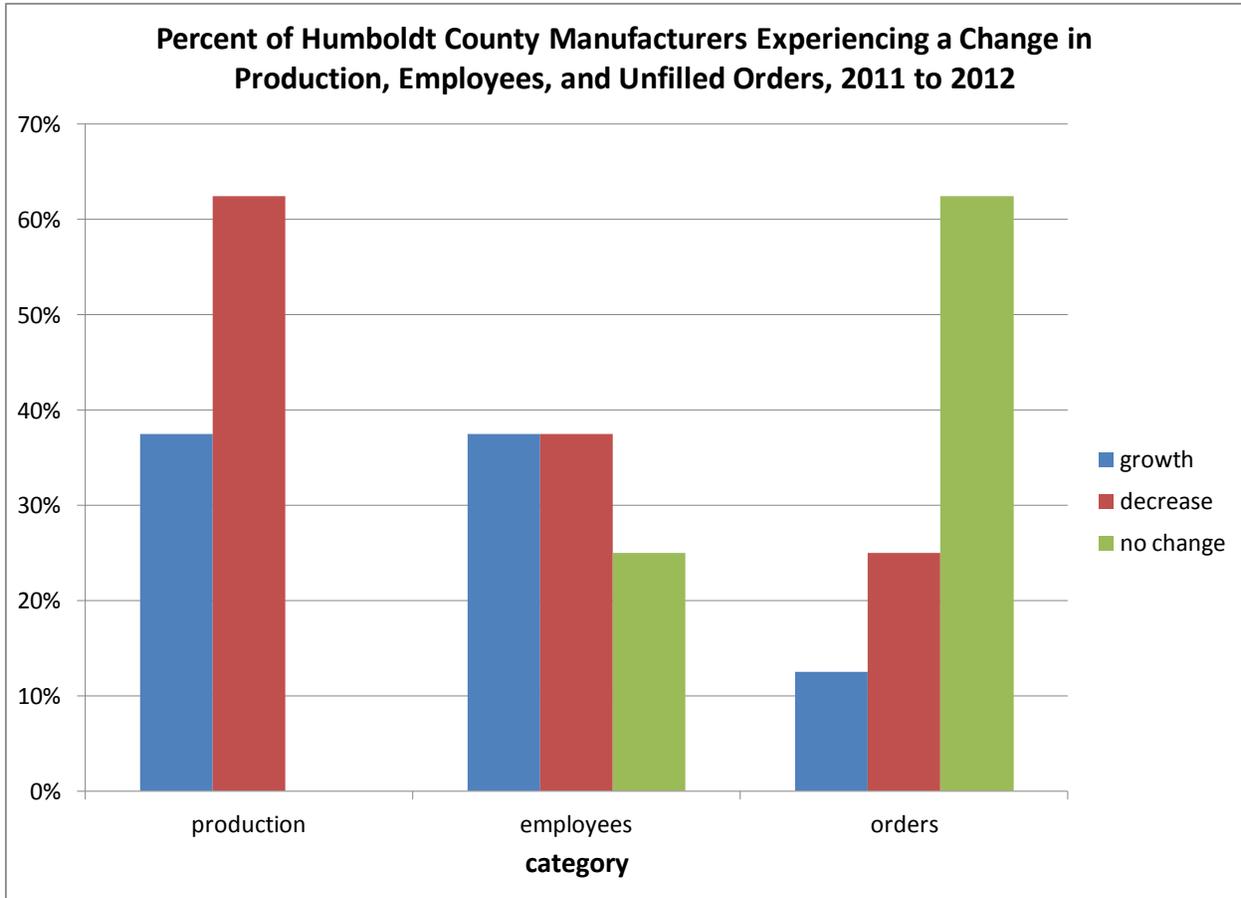
Efforts in contacting data providers began in fall 2010 and are continuing. Many local businesses have been very eager to share their data with us, in part because we promise to never release data that can be identified as belonging to a particular business. We only release the overall index value, which averages the data from all the individual data providers.

The challenge with manufacturing is that once you leave a specific industry, such as wood products manufacturing, then aggregating production quantities and orders becomes a challenge. For example, how do you add barrels of wine to the number of cabinets produced in order to get an overall amount? There is no simple solution to this question, so we made reasonable decisions in order for us to form our manufacturing index. There are also challenges when folding in a new sector to the overall Composite Index which must be addressed to preserve continuity.

Preliminary Results

Some firms began sending monthly data in 2011 and others began in 2012 or 2013. Additionally, some firms provided back data for earlier years. Our sample size is too small to present comprehensive results at this time, but we give some preliminary findings about the change in activity at county manufacturers below. We compare changes in production, the number of employees, and unfilled production orders for firms where we have at least some data in both 2011 and 2012. We only compare comparable months, so for example, if a firm supplied us with data starting August 2011, we compare August-December 2012 with August-December of 2011. This is in order to remove any seasonal effects.

For firms where data exist in both 2011 and 2012, 62.5% decreased production in 2012 compared to 2011 and 37.5% increased production. In terms of employees, 37.5% increased the number of employees and 37.5% decreased the number of employees while 25% did not change the number of employees. Finally, 62.5% of firms saw no change in unfilled orders, while 25% saw a decrease in orders and 12.5% reported an increase.



For our small sample of manufacturers production growth ranged from -86% to 37% from 2011 to 2012, with an average growth rate in production of -11%. The range for employee growth is -25% to 27% with an average growth rate in employees of 1%. Finally, the range for unfilled order growth is -16% to 12%, with an average growth rate of -1%.

Overall, these findings point to a somewhat reduced level of manufacturing from 2011 to 2012, based on changes in production and employees. Unfilled orders are largely unchanged, which points to a 2013 being very much like 2012.

We expect to have enough data to begin regularly reporting on the manufacturing sector in Humboldt County later this year.

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