

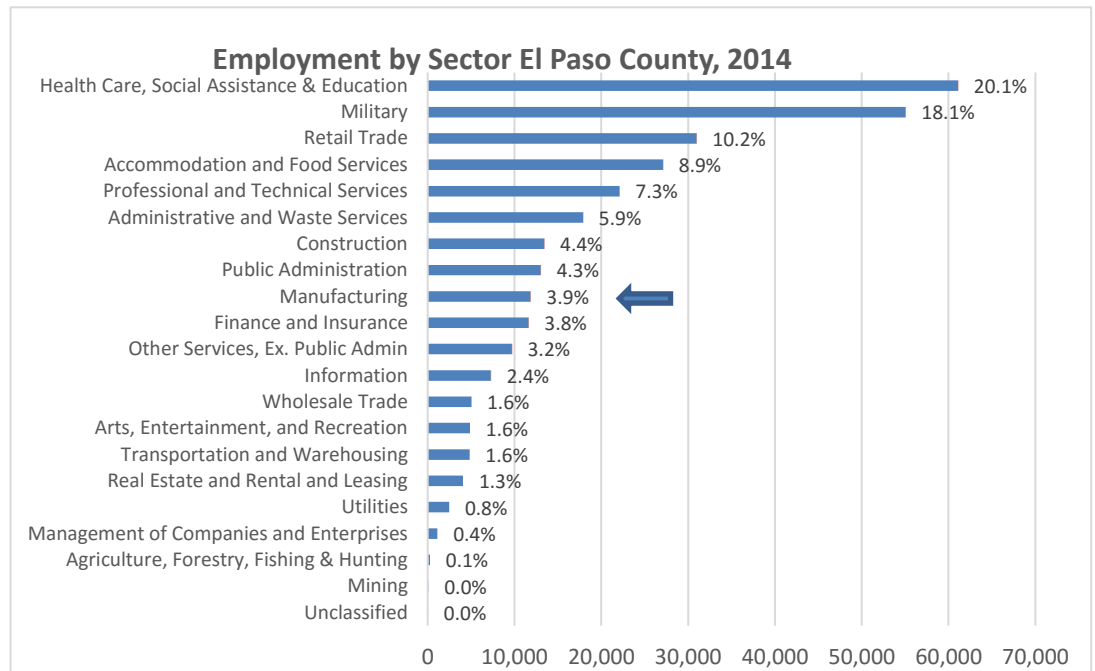
The Impact of Manufacturing

by Tatiana Bailey

Many perceive manufacturing to be a dinosaur that played an important part during industrialization in the ascendance of the U.S. as a world power but that now, the industry has a greatly diminished role in the economic milieu. This argument states that the U.S. has moved from a product-based economy to a more service-based economy. While this is the typical trajectory for a developed country, it is really not that simple. Global trade is the new normal in the 21st century, and approximately 80% of trade is in tangible goods, not services (Roosevelt Institute). The truth is that U.S. manufacturing today is still relevant with \$1.4 trillion in exports in 2014, representing a four-fold increase during the past 25 years. However, the industry is very different than it was even 50 years ago, and this calls for both a better understanding of the (modern) industry itself as well as a more dynamic approach to growing the industry.

Looking at our local manufacturing sector, employment went from 18,327 employees in 2005 to 11,623 in 2015, a 37% decline. Locally manufacturing ranks 9th in terms of total employment as the first graph illustrates. This

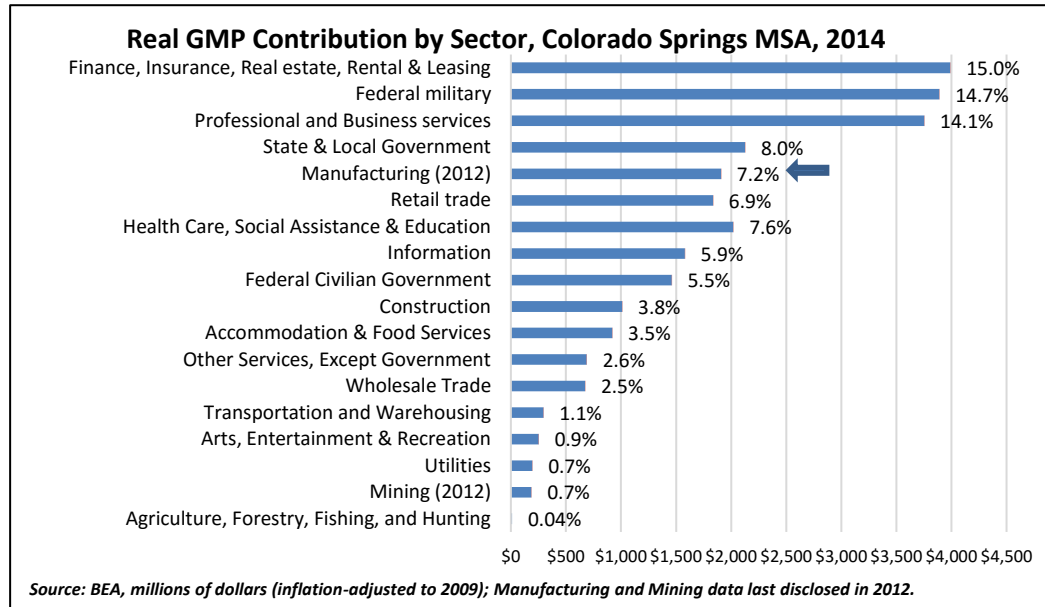
(employment) ranking as well as the precipitous decline in the past 10 years would seem to add credence to the argument that manufacturing is truly less relevant. However, if we look at the contribution of manufacturing to gross metropolitan product, we see it



is ranked much higher at 5th (graph 2). Manufacturing contributed almost \$2 billion to total GMP in 2012 (the most recent year the data is available) roughly equal to health care, social assistance and education, which had the number one spot in terms of employment. This may seem contradictory; however, the reality is that manufacturing is not nearly as labor intensive as it used to be due to automation and robotics. Hence, although manufacturing may not employ as many people as it used to, it is still a solid player in terms of economic impact. This is not only beneficial from a trade balance perspective, it is also beneficial in terms of higher paying jobs. The average salary in El Paso County in 2015 was \$45,553, while it was \$59,139 in manufacturing (BLS). Furthermore, manufactured goods are typically sold to non-local buyers, which results in external dollars being introduced into our regional economy.

Manufacturing also has a high economic multiplier because manufactured goods are often intermediate goods, and there are not only the direct jobs in the production of each widget, there are additional jobs in the production of a final product.

Armed with the facts about the importance of manufacturing, many localities have targeted this industry in their economic development initiatives. Locally, the Colorado Advanced Manufacturing



Alliance (CAMA), in partnership with Catalyst Campus, provides participating manufacturers support, technical assistance and a collaborative environment. The CAMA-Catalyst partnership has also enabled local Department of Defense-related (DOD) companies to obtain financial assistance from the federal Office of Economic Adjustment. Over the past year, CAMA’s Defense Assistance Program (DAP) has provided eleven local DOD companies with \$15,000 vouchers, which companies can use to help them diversify. For example, TMC Design Corporation is using the DAP funds to commercialize a product originally manufactured for the military. Omitron and Braxton are using the DAP funds to broaden their market base to include foreign agencies in conjunction with U.S. governmental goals. On the flip side, Catalyst is engaging the Air Force, Army and other defense-oriented agencies to have local manufacturers fulfill military needs. This is capitalizing on the strong presence of the military alongside the (local) presence of manufacturers.

Smart communities are pursuing such tactics. They recognize that manufacturing is a large contributor to a diverse and robust economy, that defense diversification is insurance (against further cutbacks), and for us specifically, that our military presence offers great potential for technology commercialization.

Published by the Colorado Springs Business Journal on January 13, 2017; www.csbj.com.