

CommonWealth

In medtech, Massachusetts needs to play catch-up

Expansion of Learn and Earn should be high priority

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THE MEDICAL DEVICE manufacturing sector in Massachusetts, by any measure, is doing well. From employment rates and wage growth to innovation and venture opportunities, medical device manufacturing is moving forward.

Looking nationally, in their most active regions, medical manufacturing clusters are among the leading economic forces for their states. The most robust clusters are found in California, Minnesota, Texas, and Massachusetts, and the rapidly emerging clusters are in Ohio, Indiana, Michigan, and Georgia. Among the factors that foster growth and profitability of device manufacturing are government incentives for research and development investment; geographical advantages for global exports; potential for market capitalization; and access to an educated, skilled workforce.

While Massachusetts is a notable contributor to the national manufacturing economy, our medical device sector's contribution has come from IPO proceeds and premarket approval, rather than employment growth. In this

area, Massachusetts has fallen behind other states, experiencing negative growth over a number of recent years.

The Center for Business and Economic Research recently graded states across a number of elements in their manufacturing industries and Massachusetts received “D” grades in logistics and sector diversification and an overall grade of “C-” for the manufacturing industry.

Although Massachusetts ranks among the top states for public and private higher-level education, the skills needed for the medical manufacturing industry are highly specialized and specific programs are required in order to create qualified job candidates. Other states have made important strides in educational funding and programs that provide the skills needed to increase job creation. With the advanced manufacturing industry seeing an increase in retirement rates, recent figures have reported a 60 percent increase in job listings. At the same time, we have seen devastatingly low rates of qualified applicants to fill these positions.

As the leaders in medical device employment growth, Minnesota- and California-based companies have utilized various programs to achieve the fastest growth rates in the country. These programs include everything from housing for workers to special training.

Minnesota is home to two of the largest medical firms, Medtronic and Boston Scientific (as a result of the acquisition of Guidant.) In 2010 alone, Medtronic invested \$1.9 billion in leadership training, management, and field-related skills. They also offer degrees and certification through their

own Medtronic University. As a result, the state ranks second in absolute employment figures.

California tops nearly all the rankings of medical device hubs around the country, including profits, IPOs, and labor pools. Furthermore, California was one of only two states to see positive employment growth through the 2008-2012 economic recession. These figures are a direct result of investments made in the workforce through the continuous funding and grants for STEM education and the investment in successful biomedical candidates at California's top research institutions.

In other emerging states with medical device clusters, common strategies are shared for employment growth and workforce training. In the South, the Midwest, and the Southwest, many growing medtech companies are employing recruitment programs such as paid internships, partnerships with community colleges and other local institutions, and programs for employee continuing education. All these methods have proven to be profitable models in both established and growing clusters.

One positive step made by a Waltham-based company has been the founding of the Learn and Earn program. Learn and Earn is a paid internship program for students attending Bunker Hill Community College, providing an opportunity to earn a degree while simultaneously getting beneficial experience and skills in a number of industries. These programs could be the key to successfully escalating the employment of skilled medical device workers.

While this program has grown significantly over the years, there are 14 other schools and nearly 200,000 students in community colleges across the state that could make a huge impact in the manufacturing sector with the expansion of these kinds of work-study programs. This expansion is exactly what Bill Swanson, the founder of the Learn and Earn program, hopes to inspire at other schools.

Additionally, groups such as the Massachusetts Manufacturing Extension Partnership exist to assist businesses in their employment growth and training of recent graduates and students. Their cost-saving strategies have profited many clients through workforce training and recruitment. Another, MassDevelopment, offers grants and financing solutions to expand their operations and employment.

While these programs and companies benefit their own individual manufacturers, the Massachusetts medical device industry could prosper more from cooperation and coordination among the many stakeholders. Companies in California have achieved success by weaving together the growing manufacturing cluster through partnerships with the economic development organizations, community colleges, and business consulting groups.

Massachusetts is regarded as one of the best hubs for medtech success in innovation and productivity. We are among the top states for medical device exports in the country, and we export more medical devices than any other product. Recent figures, however, are pointing to falling job growth. While the Bay State maintains a healthy business environment through its infrastructure and corporate tax policies, Massachusetts should consider the

employment growth models of other comparable clusters if we want to compete for the medical device jobs of the future.

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