

Biosciences Hold Hope for State, Study Shows

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MORGANTOWN — West Virginia has the potential to attract and create more good bioscience jobs, according to a study released Feb. 13 by West Virginia University's Bureau of Business and Economic Research.

"This is an industry that has strong growth prospects nationally," said BBER Director and study co-author Tom Witt. "It has wages above the average private sector wages and, with the proper nurturing and support, can be one of the engines for future economic development in West Virginia."

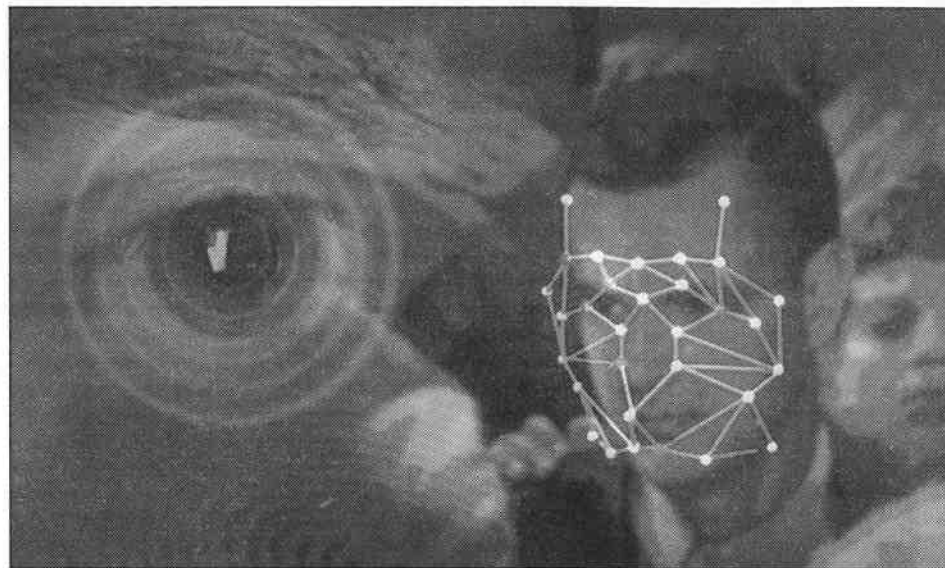
The study, "An Economic Profile of the Bioscience Industry in West Virginia," was commissioned by **Pharmaceutical Research and Manufacturers of America**.

Although West Virginians may not think of bioscience as a major local industry, Witt said, "It actually has a sizable and significant economic impact on the state."

Biosciences encompass four major areas: agricultural feedstock and chemicals, drugs and pharmaceuticals, medical devices and equipment and research, testing and medical laboratories.

Compared with the nation, the Charleston area has a relatively high concentration of agriculture feedstock and chemicals employment, the study noted, while the Morgantown area has a high concentration of employment in drugs and pharmaceuticals.

Cabell and Tyler counties also had employment of more than 500 in the biosciences in 2006.



Taking both private-sector and university research activity into account, bioscience activity contributes about \$2 billion to the state's economy, the study said — almost four percent of state Gross Domestic Product.

Witt said the numbers were a surprise.

"It was not until I started looking at the data and combining the various sectors into a definition of bioscience that I began to realize that this is a fairly significant enterprise," he said.

Bioscience employment of about 7,800 is not as high as some of the state's major industries, he said. Another 15,700 jobs are indirectly supported by the industry.

But the contribution to GDP and the

high level of compensation—average earnings in 2006 of \$55,220, compared with statewide average earnings of \$37,894—make biosciences an important area to consider for West Virginia's future, he said.

"This report shows that West Virginia has made great strides in establishing a bioscience presence in the state," said Gov. **Joe Manchin**. "These are high-paying jobs that provide our citizens with a wonderful quality of life. Our goal is to keep this momentum going and to do so we must aggressively seek out private financial investment and funding for research."

Witt agreed, saying West Virginia has a lot of the structures in place to support biosciences, but it needs funding — "the

dedicated funding for university-based research in the biosciences that can potentially lead to commercialization of research and the establishment of bioscience firms in West Virginia."

He pointed to **Protea Biosciences** and **EyeMarker Systems** as two successful Morgantown businesses that came out of research at WVU.

More may follow based on the new West Virginia Research Trust Fund, part of the state's Bucks for Jobs initiative. The fund will provide \$50 million to support research programs and the recruitment of scholars and scientists, along with associated research staff and infrastructure.

Witt listed some avenues for private investment.

"Universities, for example, that have been successful in other parts of the country oftentimes are able to entice supporters to endow chairs to attract eminent scholars who are nationally and internationally competitive in their research programs," he said, as one example.

Also important, Witt said, is the development of "angel investment networks, venture capital funding, mentoring, a whole range of entrepreneurial support activities for this very sophisticated type of scientific product that's being put out."

And needed to connect those two, he said, is an interface that allows entrepreneurs to see what products researchers are developing that might have commercial viability. Important in that respect is clinical drug trials, he said, an area where WVU is becoming more active.