The Bioscience Industry in Douglas County: An Analysis of Economic Impacts Opportunities and Challenges

Purpose

This study, commissioned by the Lawrence Chamber of Commerce, analyzes the current economic and fiscal impacts of the bioscience industry in Douglas County, evaluates the economic impacts of several potential growth scenarios for the industry over the next decade, and provides an analysis of both regional strengths and weaknesses that are likely to influence the industry's growth in the county.

Executive Summary

Size and Economic Impact of the Bioscience Industry in Douglas County

- Currently there are approximately 2,200 jobs in bioscience research and manufacturing in Douglas County. Bioscience employment accounts for an annual payroll of about $68 million.
- The indirect or multiplier effects of these jobs create another 1,300 jobs in the county and another $38 million of annual income.
- The University of Kansas (KU) dominates local bioscience employment, employing about 2,030 in this area.
- KU bioscience employment increased by 20.5 % between October 2000 and October 2003; from 1,897 to 2,285.
- Over the next 5 years KU anticipates adding nearly 60 new bioscience faculty positions; with 40 percent of these being highly productive senior faculty. Each additional faculty position is expected to contribute between 4 and 5 additional non-faculty bioscience employees.
- KU bioscience funded research project expenditures have increased from $16.6 million to $53.3 million between 1999 and 2004 (an increase of 321%).
- In the past year the attraction of two core bioscience firms-Deciphera and Serologicals-to Lawrence has been associated with an expansion of the average number of core bioscience firms from 6.8 in 2003 to 8 in 2004.
- In 2003 ES-202 data show that private sector core bioscience firms employed approximately 100 persons in Douglas County. Based on interviews with area bioscience firms we estimate that employment has grown to about 170 in 2004.
- Because of the small number of private sector bioscience firms fluctuations in the fortunes of one or two firms have contributed to significant instability in private sector employment over the last decade.

The Local Climate for Bioscience in Douglas County

- The business climate for bioscience firms in Douglas County has strengths and weaknesses.
- In general, firms report that the county's high-quality workforce and basic amenities such as education and transportation aid in bioscience development.
- On the other hand, firms have concerns about local government relations, KU relations, and lack of critical mass for the industry.
- Firms' expectations for their relationships with KU relationships differ from the reality they encounter. Firms cite bureaucracy, lack of centralized information, and assignment of intellectual property rights as problems in working with KU.

Projected Economic Impacts of Bioscience Industry Growth, 2004-2014

- We examined the impacts on Douglas County that would result from four different bioscience growth rate scenarios. These scenarios assumed that growth in bioscience jobs ranged from a compounded annual average rate of 1.0% per year to 8.5% per year and assumed rates of wage growth ranging from 1.8% per year to 2.5% per year.
- After ten years, bioscience growth would generate between 500 and 6,000 new jobs, including multiplier effects. It would also create between $30 million and $230 million in new annual income.

Policy Research Institute
University of Kansas
Steven Maynard-Moody, Director