



Bioscience

Industry Data

Labor Market Information for Colorado



The Science of Improving Lives

Bioscience has been identified as an important component of Colorado's economy. The state has aggressively developed programs and grants to attract and retain companies. In 2006, the Colorado legislature created the Bioscience Discovery Evaluation Grant Program. Research from that program has led to new developments in treatments for HIV, cancer, and lung disease, among other advancements in diagnostic tools and medical devices.

In 2007 the program was re-vamped, providing \$2.5 million in funding to improve and expand the evaluation of new bioscience discoveries. A 2008 bill will expand the program to fund \$26.5 million in grants over the next 5 years. The state also offers tax refunds for purchases used in the research and development of biotechnology.

The Fitzsimons Bioscience Campus in Aurora will be one of the most advanced bioscientific hubs in the world as it undergoes a \$4.3 billion transformation. At one square mile,

it is the largest medical, bio-related redevelopment in the country and will be the center of the region's bioscience research. The Fitzsimons BioBusiness Incubator (FBBi) further promotes growth of bioscience in Colorado by offering business planning, strategy assessment, intellectual property protection and access to capital for potential companies.

Bioscience encompasses any of the branches of natural science dealing with the structure and behavior of living organisms. Colorado bioscience firms use these sciences to research, develop and produce products that improve health. It includes two industry groups, Pharmaceuticals & Biotechnology and Medical Devices & Instruments. Pharmaceutical companies are commercial businesses licensed to research, develop, market and/or sell drugs. Biotechnology companies apply biological techniques to product research and development, many of which focus on healthcare. Medical device and instrument companies research, engineer and manufacture medical equipment.

There are more than 300 biotech drug products and vaccines currently in clinical trials. They target more than 200 diseases, including various cancers, Alzheimer's disease and AIDS.

Source: Biotechnology Industry Organization U.S. Data

Pharmaceuticals & Biotechnology

NAICS Code	NAICS Description
325411	Medicinal and Botanical Manufacturing
325412	Pharmaceutical Preparation Manufacturing
325413	In-Vitro Diagnostic Substance Manufacturing
325414	Biological Product (except Diagnostic) Manufacturing
541711*	Research and Development in Biotechnology
541712*	Research and Development in the Physical, Engineering, & Life Sciences (except Biotechnology)
621511	Medical Laboratories

Medical Devices & Instruments

NAICS Code	NAICS Description
333298	All Other Industrial Machinery Manufacturing
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
339112	Surgical and Medical Instrument Manufacturing
339113	Surgical Appliance and Supplies Manufacturing
339114	Dental Equipment and Supplies Manufacturing

* NAICS 541711 and 541712 are new detailed industries first incorporated into data collection in 2007.

Source: Colorado BioScience Association and MetroDenver Economic Development Corporation.



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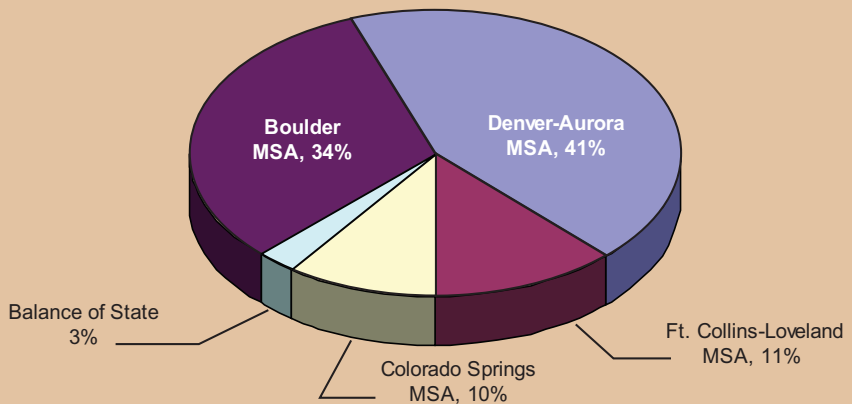


Colorado's existing base of biomedical companies, along with continued development of the University of Colorado Health Sciences Center Fitzsimons campus, creates an exceptional opportunity for growth.

- Governor Bill Ritter Jr.

In 2007 there were 17,699 bioscience employees working for 660 firms. Although this is less than 1% of total Colorado employment, the industry contributes an estimated \$415 million to state revenues each year, and the jobs tend to be high-paying. Of these workers, 8,157 were employed in Medical Devices & Instruments, and 9,137 worked for Pharmaceuticals & Biotechnology. Surgical & Medical Instrument Manufacturing employed the most workers.

Bioscience Employment by Region



Source: CDLE, Quarterly Census of Employment and Wages, 2007

A much higher concentration of bioscience employment is found along the front range, as compared to total employment. For all industries, 23% of employment is located outside of the Denver-Aurora, Ft. Collins-Loveland, Colorado Springs and Boulder Metropolitan Statistical Areas. Boulder is not nearly as big of a hub for total employment as it is for bioscience, making up just 7% of all employment.

Projected Growth of Occupations Associated with Bioscience

	2006	2016	Change	Annual Average % Change	Annual Average Wage
Biological Technicians	2,217	2,843	626	2.5%	\$42,760
Medical and Clinical Laboratory Technicians	2,171	2,664	493	2.1%	\$32,580
Biomedical Engineers	244	345	101	3.5%	\$83,370
Chemists	1,741	2,075	334	1.8%	\$73,650
Medical and Clinical Laboratory Technologists	2,689	3,317	628	2.1%	\$51,600
Biochemists and Biophysicists	505	610	105	1.9%	\$82,210
All Occupations	2,482,548	3,046,586	564,038	2.1%	\$43,102

Source: CDLE, Long-Term Occupational Projections 2008 & Occupational Employment Statistics 2007, statewide all industries

Because of its high-quality jobs, bioscience has been targeted as an economic driver of the Colorado economy. Many of the occupations associated with bioscience require higher education levels and are therefore more lucrative than the overall average for All Occupations in Colorado.

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