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Life Sciences Industry

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2019 OVERVIEW

The life sciences industry supports health care quality in Utah and represents a highly productive, fast-growing cross-section of the state's economy. Life sciences companies develop, manufacture, and distribute medical devices, pharmaceuticals, and related products. The industry includes biotechnology firms, medical laboratories, diagnostics companies, professional services providers, and other establishments in 1,161 office locations around the state, as of 2018.[1] Utah's life sciences industry interfaces locally and globally with medical providers, pharmacies, and other customers.

The life sciences industry provided 45,354 full-time and part-time jobs in Utah during 2018, a 5.9% increase from the 42,831 jobs in 2017.[2] Employees held 84.7% of these jobs, spread across 21 of Utah's 29 counties. Self-employed workers filled the remaining 15.3%. Their combined earnings during 2018 were $3.7 billion, up from $3.3 billion the previous year.

Industry Composition

Utah's life sciences industry includes four components. The largest in 2018 was "research, testing, and medical laboratories" in the service sector. They provided more than one-third of all life sciences jobs and worker earnings.

The "medical devices and equipment" component was a close second in terms of economic activity. This type of advanced manufacturing supplied just over one-third of industry employment and paid nearly one-third of earnings.

Rounding out the state's life sciences ecosystem are "drugs and pharmaceuticals" manufacturing and wholesalers in "biosciences-related distribution." Together, these two components accounted for the remaining 28.7% of jobs and 33.2% of earnings at Utah's life sciences establishments.

Worker Earnings

Life sciences companies provide well-compensated career opportunities in Utah. While the industry supplies 2.2% of jobs in the state, its earnings footprint is disproportionately large at 3.5% of all worker earnings in Utah.

Average employee earnings in 2018 were more than 50% above the average for Utah jobs in other industries, whether we look at life sciences wages alone ($72,700) or total compensation ($92,400).

Self-employed workers in the state's life sciences industry earned an average of $26,100 per year, a modest 12.9% above the average for other industries. Workers report self-employment income for part-time second jobs, early-stage startups, and a variety of other situations.

1 We define Utah's life sciences industry as all companies in 15 industries and 111 individually selected establishments spread across 25 other industries. Based on their codes in the North American Industry Classification System, the 15 complete industries are NAICS 325411, 325412, 325413, 325414, 334510, 334516, 334517, 339112, 339113, 339114, 339115, 339116, 423450, 423460, and 621511. For more methodology details, see "Economic Impacts of Utah's Life Sciences Industry" by the Kem C. Gardner Policy Institute, University of Utah, August 2018. That study is the basis for this chapter, which updates many of its findings.

2 The release of detailed economic data for 2019 is scheduled for April of 2020.

2020 OUTLOOK

Growth Trends

Utah's life sciences sector is on a path of consistent expansion. For 15 of the 17 years from 2002 to 2018, annual growth in the number of Utah employees in the life sciences industry exceeded employee job growth in other industries. The average annual growth rate during that period was 3.5% among life sciences companies, compared to 2.0% for all other companies in Utah. Job growth in the life sciences industry remained positive throughout two economic recessions.

From 2012 to 2017, life sciences employment in Utah increased by 5.0% per year, on average.[3] This five-year growth rate was the highest of any top 20 state in terms of total life sciences employment. During this period, Utah moved from the 17th to the 14th largest life sciences sector in the country. These rankings are noteworthy from a state with the 31st largest population, employed workforce, and GDP in the U.S. in 2017.

Industry Strengths

We attribute the long-running productivity of life sciences companies to Utah's innovative STEM workforce, its business management and entrepreneurial depth, advances in biotech, university research supported by federal grants, and partnerships involving major health care systems. Advantages like these helped Utah life sciences companies attract $4.1 billion in investment from 2013 to 2017, including venture capital, subsequent rounds of funding, mergers and acquisitions, and public stock offerings.[4]

Global Factors

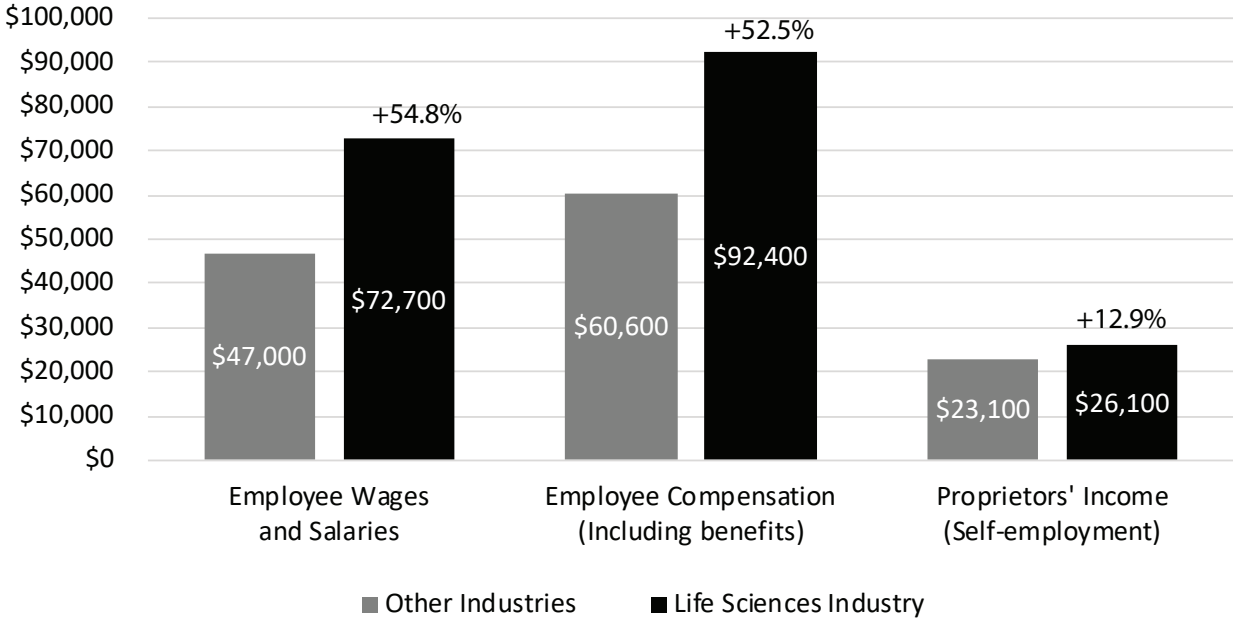
The life sciences industry is susceptible to national and international economic developments. Nearly 60% of pharmaceuticals, medical devices, and other products from Utah are sold outside the state, tying it to business cycle and global trade developments. We expect demand for cost-saving innovations and vital medical supplies and therapies to be less volatile than many other categories of demand.

Summary

During 2020, the life sciences industry is likely to grow faster than the rest of Utah's economy. Through the past two downturns, annual employment growth in the life sciences industry did not fall below about 1.5%. Even if economic conditions deteriorate, the life sciences industry is likely to adapt well and continue expanding. Population health, investor returns, tax revenue, and the livelihoods of a growing number of people in life sciences jobs in Utah all stand to benefit from continued progress.

3 Similarly, from 2013 to 2018, the annualized growth rate in the life sciences industry was 4.9% per year, well above the 3.3% average for all other industries in Utah.
4 "Utah Health Care Innovation Landscape Report" by Cambia Grove, January 2019, p. 21

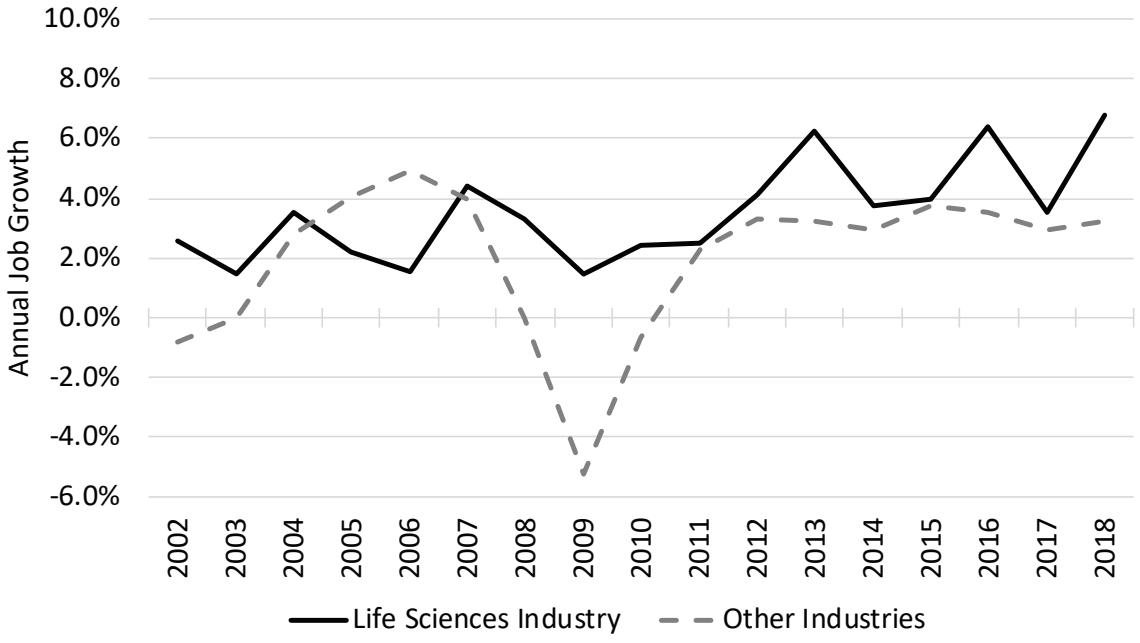
Figure 22.1: Average Annual Earnings per Job in Utah's Life Sciences Industry, 2018



Note: Percentage labels for the life sciences industry indicate the percent difference compared to industries besides life sciences. In the life sciences industry, wages and compensation are for its 38,435 employee jobs, and proprietors' income is for its 6,919 self-employed workers.

Source: Utah Department of Workforce Services and U.S. Bureau of Economic Analysis

Figure 22.2: Annual Employment Growth in Utah's Life Sciences Industry, 2002-2018

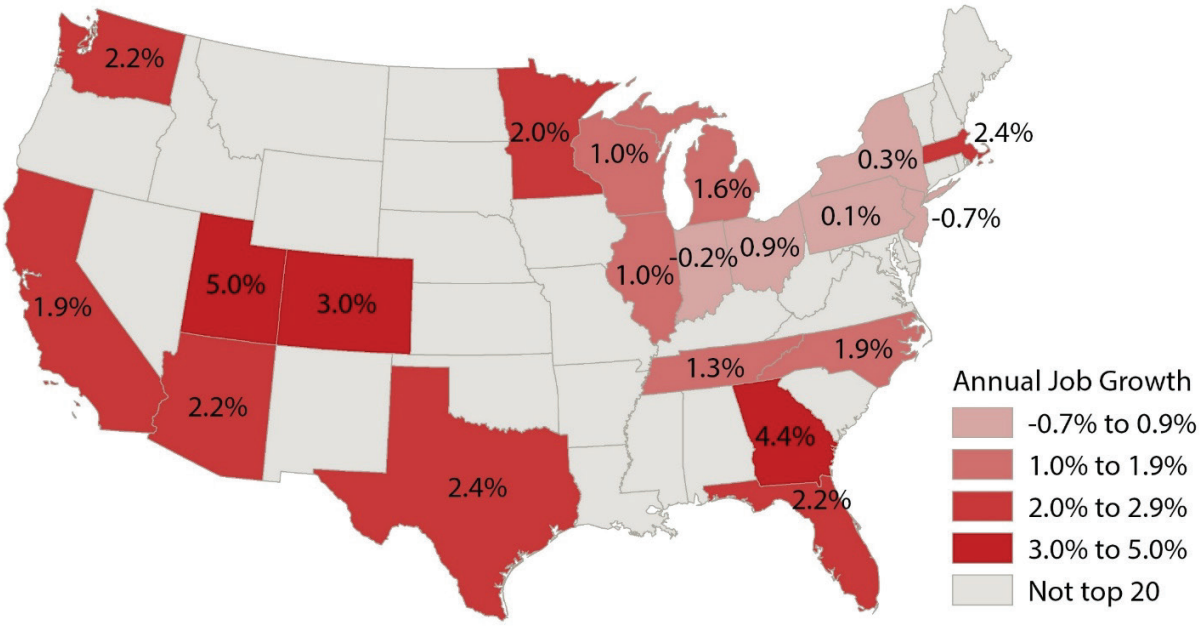


Note: This chart follows an adapted life sciences definition compatible with historical data limitations.

Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics

Figure 22.3: Life Sciences Growth in the Top 20 States, 2012 to 2017

(Five-Year Average Annual Employment Growth Rate)



Note: This chart follows an adapted life sciences definition compatible with historical data limitations.

Source: Utah Department of Workforce Services

Table 22.1: Employment in Utah's Life Sciences Industry, 2018

Industry Group	Employee	Self-Employment	Total	Share
Research, Testing, and Medical Laboratories	12,415	4,272	16,687	36.8%
Medical Devices and Equipment	13,960	1,700	15,660	34.5%
Drugs and Pharmaceuticals	6,624	332	6,956	15.3%
Biosciences-Related Distribution	5,436	615	6,051	13.3%
Total	**38,435**	**6,919**	**45,354**	**100.0%**
Share	**84.7%**	**15.3%**	**100.0%**	

Note: Employees work for a company they do not at least partially own, unlike self-employed workers (proprietors).
Source: Utah Department of Workforce Services and U.S. Bureau of Economic Analysis

Table 22.2: Worker Earnings in Utah's Life Sciences Industry, 2018

Industry Group	Employee	Self-Employment	Total	Share
Research, Testing, and Medical Laboratories	$1,172.2	$96.9	$1,269.1	34.0%
Medical Devices and Equipment	$1,236.3	-$11.8	$1,224.6	32.8%
Drugs and Pharmaceuticals	$593.2	$73.2	$666.4	17.9%
Biosciences-Related Distribution	$549.8	$22.0	$571.8	15.3%
Total	**$3,551.6**	**$180.2**	**$3,731.8**	**100.0%**
Share	**95.2%**	**4.8%**	**100.0%**	

Note: Employee earnings include payroll (wages and salaries) reported by companies and an estimate of employee benefits based on industry averages.
Self-employment earnings equal proprietors' income.
Source: Utah Department of Workforce Services, U.S. Bureau of Economic Analysis, and REMI PI+ economic modeling software