

Salt Lake County's Life Sciences and Health Care Innovation Industry

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Life sciences and health care innovation plays a vital role in Salt Lake County's economy, supporting employment, generating earnings, and boosting GDP. Companies in this sector focus on advancing medical treatments, personalized medicine, and health care delivery systems to address health challenges and improve patient outcomes.

There were 1,438 life sciences establishments located in Salt Lake County in 2023 (40.9% were in biosciences-related distribution; 32.5% in research, testing, and medical laboratories; 17.3% in medical devices and diagnostics; and 9.2% in therapeutics and pharmaceuticals). Salt Lake County accounts for 76.8% of the state's total life sciences jobs, 80.8% of total earnings, and 68.1% of the state's total life sciences GDP.

Labor Force

Salt Lake County's life sciences industry creates employment opportunities for both company employees and self-employed workers. Companies created 34,873 jobs in 2023 with an additional 6,582 self-employed jobs, totaling 41,455 life sciences jobs and representing 3.9% of all county employment (Table 2). Life sciences jobs in the county grew at an average annual rate of 4.5% from 2018 to 2023, compared to 0.8% in other Utah counties. Other Salt County industries grew at an average annual rate of 2.1% (Figure 1). In 2021, the Salt Lake City metropolitan area (MSA) ranked 7th highest in the nation by employment in medical devices and equipment and 13th highest in research, testing, and medical labs.¹

Defining Life Sciences and Health Care Innovation

Life sciences and health care innovation (life sciences) encompasses the research, development, and commercialization of technologies, products, and services that improve human health. Companies in this industry provide medical devices and diagnostics, therapeutics and pharmaceuticals, and services to pharmacies, medical providers, and other customers. The life sciences industry is also referred to as the biotechnology or biosciences industry.

This publication utilizes the Gardner Institute's life sciences definition, which includes every company in 17 industries classified by the 2022 North American Industry Classification System (NAICS, 325411-4, 334510, 334516-7, 339112-5, 423450, 423460, 424210, 541713-4, and 621511) along with 169 handpicked companies outside the primary NAICS industries. The 2023 snapshot data in this publication are based on this comprehensive definition while multi-year analyses use a NAICS-code-only definition to allow for direct comparison across years.

Salt Lake City

While this brief highlights Salt Lake County due to data availability, Salt Lake City makes up 17% of the county population and about 40% of its employment. As a result, it can be assumed a significant share of life sciences activity in the county likely takes place in Salt Lake City.

Table 1: Salt Lake County Life Sciences Industry Employment, Earnings, and GDP, 2023

(Number of Jobs; Millions of Dollars)

Industry Segment	Employment		Earnings		GDP	
	Jobs	Share	Amount	Share	Amount	Share
Research, Testing, and Medical Laboratories	5,246	12.7%	\$1,052.5	22.6%	\$1,071.9	18.6%
Medical Devices and Diagnostics	16,421	39.6%	\$1,374.9	29.6%	\$2,421.7	42.1%
Biosciences-Related Distribution	16,742	40.4%	\$1,833.7	39.4%	\$1,604.6	27.9%
Therapeutics and Pharmaceuticals	3,046	7.3%	\$390.0	8.4%	\$656.3	11.4%
Total	41,455	100.0%	\$4,651.1	100.0%	\$5,754.5	100.0%

Note: Employment and wages are reported by life sciences companies. Earnings and GDP are estimates based on life sciences employment and wages, as well as Utah data by NAICS industry for employee compensation-to-wage ratios, self-employment rates, proprietors' income per worker, and value-added (GDP) per worker.

Source: Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication; U.S. Bureau of Economic Analysis, Regional Data, Annual Personal Income and Employment by State; and REMI PI+ economic model

The life sciences industry accounts for 4.4% of Salt Lake County employment and 5.6% of county wages, more than any other county in Utah (Table 3). Total life sciences earnings reached \$4.7 billion in 2023 (4.8% of all earnings in the county). Average earnings equaled \$112,197, 27.2% higher than the countywide average of other industries (\$88,198) and life sciences jobs in other Utah counties (\$88,177) (Figure 2).

Companies

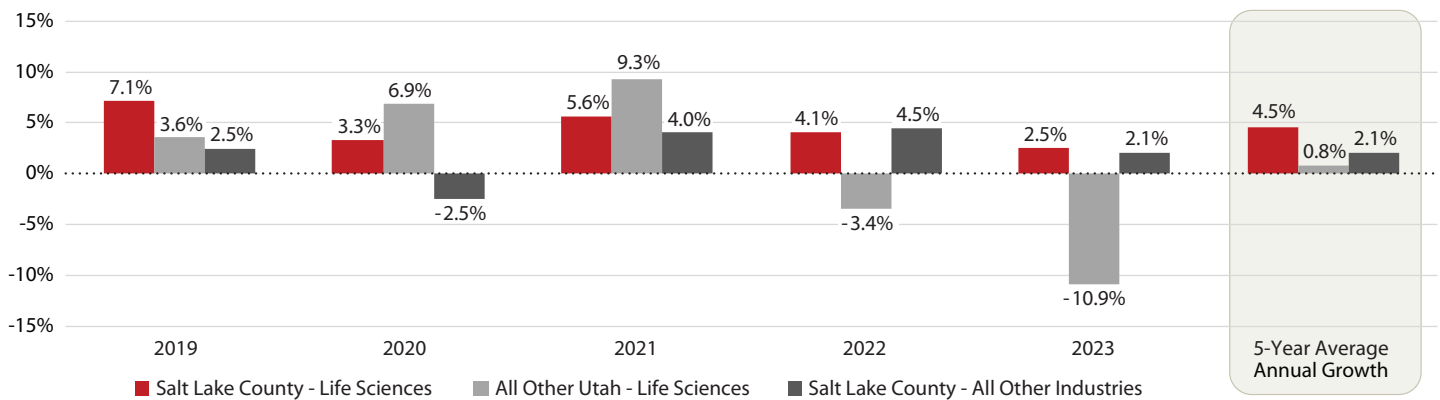
Salt Lake County had 1,438 life sciences establishments in 2023, representing 70.4% of total life sciences establishments statewide. These establishments are spread throughout the Salt Lake valley and the number increased 41.6% from 2018 to 2023 (an average annual growth rate of 7.2%) (Figures 3 and 4). Life sciences companies include small businesses and large

Table 2: Salt Lake County Life Science Industry Employees and Proprietors, 2023

Industry Segment	Employees	Self-Employed	Total Jobs
Biosciences-Related Distribution	4,797	449	5,246
Medical Devices and Diagnostics	14,658	1,763	16,421
Research, Testing, and Medical Laboratories	12,719	4,023	16,742
Therapeutics and Pharmaceuticals	2,699	347	3,046
Total	34,873	6,582	41,455

Source: Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication; U.S. Bureau of Economic Analysis, Regional Data, Annual Personal Income and Employment by State; and REMI PI+ economic model

Figure 1: Life Sciences and Other Industry Annual Job Growth, 2019-2023



Note: Averages include all employees (no self-employed workers) based on the NAICS-code-only definition.

Source: Kem C. Gardner Policy Institute analysis of data from the Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication

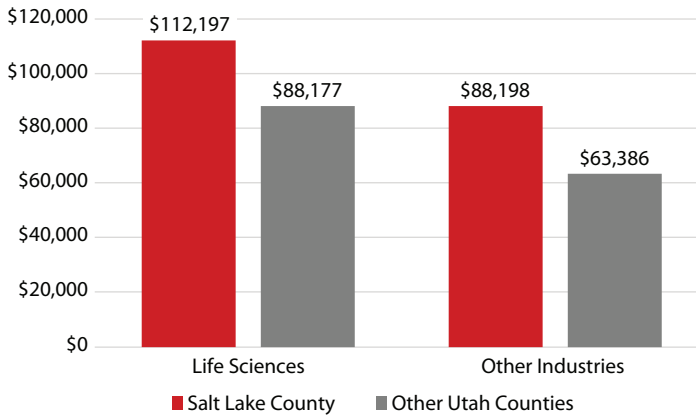
Table 3: Utah Life Sciences Industry Company Jobs and Wages by County, 2023

County	Number of Jobs	County Share of Statewide Life Sciences Jobs	Life Sciences Share of Total County Employment	Life Sciences Wages (Millions)	County Share of Statewide Life Sciences Wages	Life Sciences Share of Total County Wages
Box Elder	21	0.0%	0.1%	\$1.4	0.0%	0.1%
Cache	2,393	5.0%	3.5%	\$164.1	3.9%	5.1%
Davis	1,192	2.5%	0.8%	\$115.0	2.7%	1.4%
Morgan	9	0.0%	0.3%	\$1.5	0.0%	1.0%
Salt Lake	34,873	73.3%	4.4%	\$3,244.1	77.3%	5.6%
Summit	195	0.4%	0.6%	\$30.5	0.7%	1.5%
Tooele	42	0.1%	0.2%	\$2.8	0.1%	0.3%
Utah	4,471	9.4%	1.5%	\$368.5	8.8%	2.1%
Wasatch	29	0.1%	0.2%	\$2.4	0.1%	0.4%
Washington	552	1.2%	0.7%	\$33.6	0.8%	0.9%
Weber	3,454	7.3%	2.8%	\$213.0	5.1%	3.2%
All other counties	377	0.8%	0.2%	\$19.7	0.5%	0.2%
State of Utah	47,608	100.0%	2.6%	\$4,196.6	100.0%	3.6%

Note: Includes company employment only, no self-employed workers. Nonzero shares of life sciences employment and wages totals rounded to zero for two counties: Box Elder (0.04% for employment and 0.03% for wages) and Morgan (0.02% for employment and 0.04% for wages).

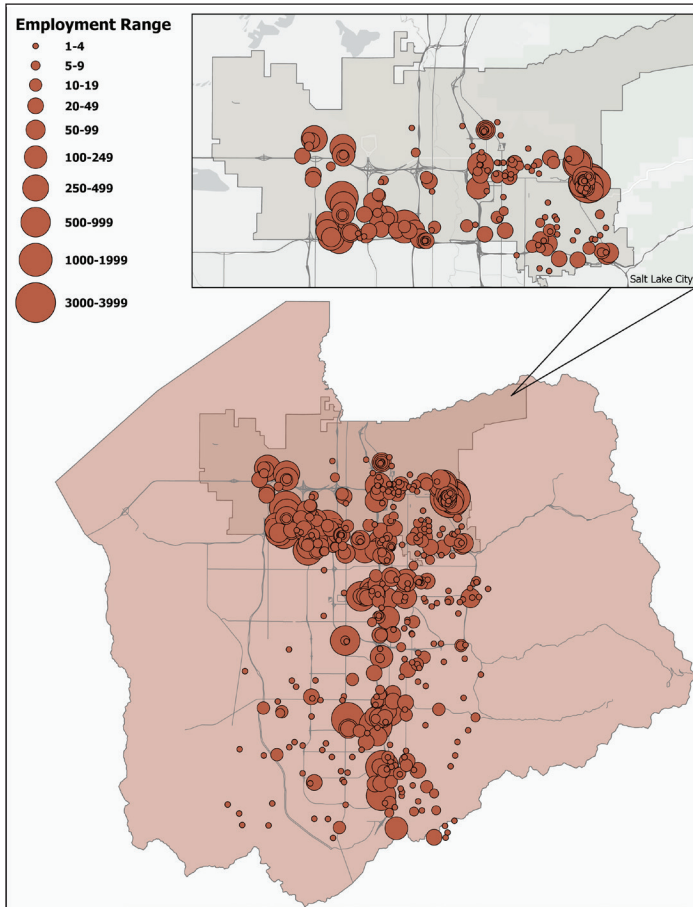
Source: Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication and Utah Economic Data Viewer

Figure 2: Average Annual Earnings per Worker, 2023



Note: Earnings include both employee compensation (wages and benefits) and proprietors' income.
 Source: Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication; U.S. Bureau of Economic Analysis, Regional Data, Annual Personal Income and Employment by State; and REMI PI+ economic model

Figure 3: Life Sciences Establishment Locations in Salt Lake County, 2023



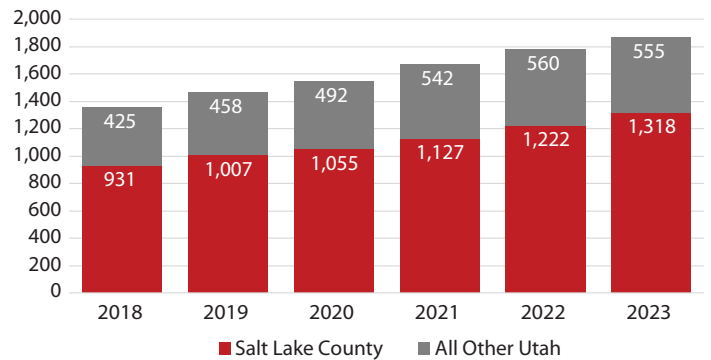
Note: This map shows 492 Salt Lake County life sciences establishments whose addresses were available. An additional 946 companies operate in Salt Lake County but are not included in the map due to data limitations.
 Source: Kem C. Gardner Policy Institute analysis of data life sciences establishments provided to the Utah Department of Workforce Services, Quarterly Census of Employment and Wages, Firm Find

enterprises. In 2023, 65.3% of Salt Lake County life sciences establishments had 1 to 4 employees while 4.4% provided at least 100 jobs. Thirteen companies in the county employed 500 or more workers (Table 4).

GDP and Sales

Salt Lake County's life sciences industry generated an estimated \$5.8 billion in GDP in 2023, accounting for 5.1% of the county's total GDP. The industry produced \$9.3 billion in total output, with 56.2% sold to in-state customers, 27.6% to other states, and 16.1% to other countries (Figure 5). Sales to other states and countries totaled an estimated \$2.0 billion.

Figure 4: Number of Life Sciences Establishments, 2018-2023



Note: Includes all establishments based on the NAICS-code-only definition. There are an additional 120 handpicked establishments in Salt Lake County and 49 in all other Utah counties in 2023. Handpicked establishments are unavailable for prior years.
 Source: Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication; U.S. Bureau of Economic Analysis, Regional Data, Annual Personal Income and Employment by State

Table 4: Largest Employers in Salt Lake County's Life Sciences Industry, 2023

Company	Segment	Employment
ARUP Laboratories	Research, Testing, and Medical Labs	3,865-5,838
bioMérieux ¹	Medical Devices and Diagnostics	2,655-5,502
Merit Medical	Research, Testing, and Medical Labs	2,000-2,999
BD ²	Medical Devices and Diagnostics	1,000-1,999
Edwards Lifesciences	Medical Devices and Diagnostics	1,000-1,999
Ultradent	Medical Devices and Diagnostics	1,000-1,999
Varex Imaging	Medical Devices and Diagnostics	1,000-1,999
Myriad Genetics	Research, Testing, and Medical Labs	750-1,498
Stryker	Medical Devices and Diagnostics	586-1,179
Sotera Health ³	Research, Testing, and Medical Labs	525-1,057
1-800 Contacts	Biosciences-Related Distribution	520-1,048
ICU Medical	Medical Devices and Diagnostics	500-999
USANA Health Sciences	Therapeutics and Pharmaceuticals	500-999

Notes: Job counts were combined for any company aliases and worksites within the life sciences industry in Salt Lake County. (1) BioMérieux is the parent company of BioFire Diagnostics and BioFire Defense. (2) BD is the trade name of Becton, Dickinson and Company. (3) Sotera Health includes business units Nelson Labs and Sterigenics.
 Source: Kem C. Gardner Policy Institute analysis of data life sciences establishments provided to the Utah Department of Workforce Services, Quarterly Census of Employment and Wages, Firm Find

Workforce Pipeline

The life sciences industry depends on a skilled workforce, making educational attainment and workforce development critical components for sustaining the sector's success. Utah institutions of higher education granted nearly 2,300 biological and biomedical degrees and certificates in 2023, a 69.8% increase from 2010 (an average annual growth rate of 4.2%). Bachelor's degrees made up the majority of degrees and certificates in 2023 (86.9%), followed by advanced degrees, associate degrees, and certificates. Ten Utah institutions granted biological and biomedical degrees, with most degrees and certificates granted

by Brigham Young University (39.1%) and the University of Utah (25.7%). Given 76.8% of the state's total life sciences jobs are in Salt Lake County, graduates employed in Utah's life sciences industry are more likely to work in Salt Lake County.

Utah Department of Workforce Services occupational predictions estimate Utah's life sciences-related jobs (e.g., life scientists, chemists, medical technicians) will grow 30.5% in the next ten years, or roughly 2.7% annually. Estimated annual growth for employment in all industries over the next ten years is about 2.1%, meaning these projections anticipate Utah's life sciences industry will outpace overall statewide job growth in coming years.

Table 5: Salt Lake County Life Sciences Industry Direct Component Output Sold by Destination, 2023

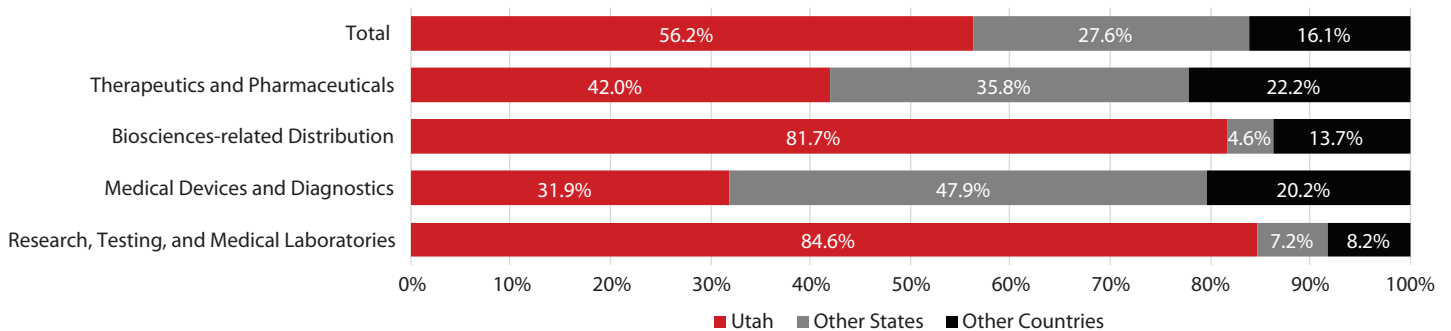
(Millions of Dollars)

Industry Segment	Utah	Other States	Other Countries	Total
Research, Testing, and Medical Laboratories	\$2,025.6	\$172.2	\$195.2	\$2,393.0
Medical Devices and Diagnostics	\$1,268.6	\$1,901.9	\$802.8	\$3,973.3
Biosciences-related Distribution	\$1,463.2	\$81.8	\$245.8	\$1,790.8
Therapeutics and Pharmaceuticals	\$498.1	\$425.0	\$263.7	\$1,186.8
Total	\$5,255.5	\$2,580.9	\$1,507.5	\$9,343.9

Note: Output is equivalent to total sales. Amounts in the table are estimates based on weighted averages from statewide sales destination shares for each industry to which life sciences companies in each segment belong.

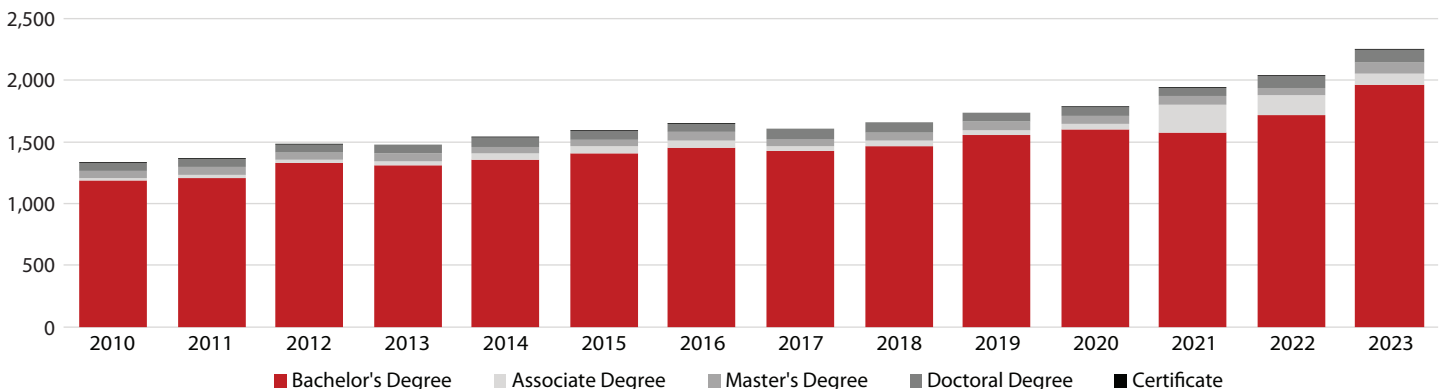
Source: Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication; U.S. Bureau of Economic Analysis, Regional Data, Annual Personal Income and Employment by State; and REMI PI+ economic model

Figure 5: Share of Salt Lake County Life Sciences Industry Component Output Sold by Destination, 2023



Source: Utah Department of Workforce Services, Quarterly Census of Employment and Wages, personal communication; U.S. Bureau of Economic Analysis, Regional Data, Annual Personal Income and Employment by State; and REMI PI+ economic model

Figure 6: Biological and Biomedical Degrees and Certificates Granted at Utah Higher Education Institutions, 2010-2023



Note: Degrees and certificates include those granted from 10 Utah higher education institutions: Brigham Young University, Salt Lake Community College, Snow College, Southern Utah University, University of Utah, Utah State University, Utah Tech University, Utah Valley University, Weber State University, and Westminster University.

Source: Integrated Postsecondary Education Data System (IPEDS)

Methods

The Utah Department of Workforce Services (DWS) provided detailed data on Utah's life sciences establishments, aggregate wages, and average monthly employment. DWS manages Utah data from the Quarterly Census of Employment and Wages (QCEW), which covers almost all employers. Private sector workers not represented in QCEW data are typically self-employed. To address this gap, the Gardner Institute estimated employment and income for self-employed workers using data from DWS and the U.S. Bureau of Economic Analysis.

Earnings and GDP estimates are based on life sciences employment and wages, along with Utah data by NAICS industry for employee compensation-to-wage ratios, self-employment rates, proprietors' income per worker, and value-added (GDP) per worker. Output (total sales) by destination was calculated using weighted averages from statewide sales shares for each industry segment.

Job openings use the Standard Occupation Classification (SOC) system and include the following SOC codes: 19-1021 Biochemists and Biophysicists, 19-1022 Microbiologists, 19-1029 Biological Scientists, All Other, 19-1041 Epidemiologists, 19-1042 Medical Scientists, Except Epidemiologists, 19-1099 Life Scientists, All other, 19-2031 Chemists, 19-2032 Materials Scientists, 19-4021 Biological Technicians, 19-4031 Chemical Technicians, 29-2011 Medical and Clinical Laboratory Technologists, and 29-2012 Medical and Clinical Laboratory Technicians. Degrees and certificates follow the Classification of Instructional Programs (CIP) system and include all codes under CIP 26: Biological and Biomedical Sciences.

Endnote

1. The U.S. Bioscience Industry: Fostering Innovation and Driving America's Economy Forward, Biotechnology Innovation Organization, go.bio.org/rs/490-EHZ-999/images/TEconomy_BIO_2022_Report.pdf.