

BUFFALO NIAGARA REGION INDUSTRY CLUSTER PROFILE

Life Sciences



Business Development. Regional Marketing. Contact Us.

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Life Sciences

Buffalo Niagara Region Industry Cluster Profile

The Life Sciences industry cluster includes three related but distinct industry subclusters – **Medical Products, Pharmaceuticals and Research**. Inter-relationships exist between these sciences at many levels. Pharmaceutical and research businesses utilize similar medical products while medical product and pharmaceutical businesses rely on research to develop end products. Also, all three Life Sciences subclusters rely on a labor pool with similar skill sets. Research institutions can be significantly impacted by government funding while all three subclusters are subject to similar government regulations and regulatory agencies.

The **Medical Products** industry subcluster includes those companies involved in the production of laboratory, surgical, medical, dental and ophthalmic equipment and supplies. These health-related items are supplied to the medical and health care industry.

The **Pharmaceutical** industry subcluster includes those companies involved in the production of medicinals, botanicals, pharmaceuticals, diagnostic substances and biological products.

The **Research** industry subcluster includes those businesses and organizations involved in commercial physical research and noncommercial research. Medical, dental and testing laboratories are also included in this subcluster. Drug discovery and design, oncology research, neurology, structural biology, bioinformatics and high-performance computing are performed by businesses in the Research industry subcluster.

The Buffalo-Niagara region is poised to **expand its life sciences presence**. Over the next three years, more than \$590 million in government and private investment will be made locally in life sciences research, infrastructure and talent. The following fundamental building blocks are already in place:

- ◆ Cutting edge research
- ◆ Access to capital
- ◆ Government incentives
- ◆ Educational institutions
- ◆ Entrepreneurial culture
- ◆ Information technology infrastructure

The Buffalo Niagara region has **the 19th highest concentration** of Life Sciences jobs out of the 50 largest metropolitan areas in the nation. Major Life Sciences businesses and institutions located in the Buffalo Niagara region include:

Medical Products

- ◆ Accumed Technologies
- ◆ Axcellent Endoscopy
- ◆ Curbell
- ◆ Ethox Corp.
- ◆ Gaymar Industries, Inc.
- ◆ Great Lakes Orthodontics
- ◆ Harmac Medical Products, Inc.
- ◆ Invitrogen
- ◆ Ivoclar Vivadent
- ◆ Polymer Conversions
- ◆ Reichert Ophthalmic Instruments
- ◆ Silipos, Inc.
- ◆ Trinity Biotech USA
- ◆ Wilson Greatbatch

Pharmaceuticals

- ◆ American Pharmaceutical Partners
- ◆ Astellas Pharmaceuticals
- ◆ Mentholatum Company, Inc.
- ◆ ONY, Inc.
- ◆ Parmed Pharmaceuticals
- ◆ Contract Pharmaceuticals Ltd.

Research

- ◆ GeneOb
- ◆ Hauptman-Woodward Institute
- ◆ Jacobs Neurological Institute
- ◆ New York State Center of Excellence in Bioinformatics and Life Sciences
- ◆ Roswell Park Cancer Institute

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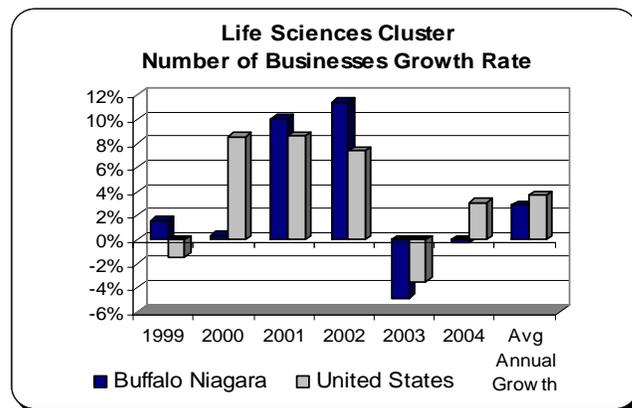
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Economic Profile

The Life Sciences industry cluster includes three related but distinct industry subclusters – Medical Products, Pharmaceuticals and Research. The industry cluster is defined by 18 6-digit North American Industry Classification System (NAICS) codes or 17 4-digit Standard Industrial Classification (SIC) codes.

Businesses

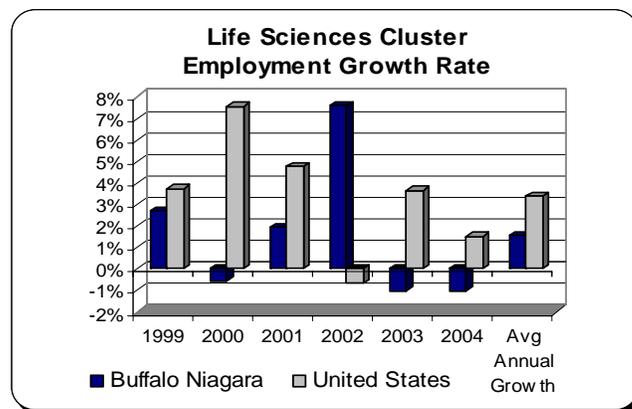
- About **371** Life Sciences businesses and institutions were located in the eight-county Buffalo Niagara region in 2004, including 72 Medical Product businesses, 30 Pharmaceutical businesses and 269 Research organizations.
- The number of businesses grew **2.9%** per year from 313 businesses in 1998 to 371 in 2004 compared to a 3.7% average annual increase nationally.
- With about **23% of Life Sciences businesses employing more than 10 people** compared to 17% of all businesses that employ more than 10 people in the Buffalo Niagara region, this industry cluster has many medium and large businesses.
- Based on the number of businesses in this NAICS-defined industry sector, the **medical laboratories sector** has the largest number of businesses.
- About 79% of all Life Sciences businesses in the Buffalo Niagara region are in **Erie County**.



Source: Dun & Bradstreet, Inc., MarketPlace database, July-Sept. 1998- 2004.

Employment

- The Life Sciences industry cluster employed about **8,600** people in the eight-county Buffalo Niagara region in 2004, including 2,600 Medical Products, 2,100 Pharmaceutical and 3,900 Research employees.
- Employment in the Life Sciences industry cluster has increased an average of **1.6%** per year from 7,806 employees in 1998 to 8,561 in 2004, compared to the national growth rate of 3.4% per year.
- Employment in this industry cluster comprises about **1.3%** of the Buffalo Niagara region's employment base, more than the 1.2% concentration nationally.
- The **diagnostic substances sector** was the fastest growing industry sector from 1998 to 2004.
- About 91% of the Buffalo Niagara region's Life Sciences industry cluster employment is in **Erie County**.



Source: Dun & Bradstreet, Inc., MarketPlace database, July-Sept. 1998- 2004.

Buffalo-Niagara Falls Occupational Salaries, 2003

Wages

Total industry cluster payroll in the Buffalo Niagara region was **\$356.1 million in 2003**. The average annual wage for employees in the Life Sciences industry cluster was \$41,200 in 2003 compared to \$60,300 nationally.

| Occupation | Average Annual Salary |
|--|-----------------------|
| Dental Laboratory Technicians | \$30,370 |
| Chemical Technicians | \$36,220 |
| Chemical Equipment Operators and Tenders | \$40,500 |
| Biochemists and Biophysicists | \$53,960 |
| Medical Scientists | \$86,570 |

Source: Bureau of Labor Statistics <http://stats.bls.gov>.

Industry Resources

The infrastructure to support the Life Sciences industry cluster comes from a variety of sources including businesses, higher education, professional associations and government. This list includes some of the industry resources found in the eight-county Buffalo Niagara region.

Professional Associations

| | |
|---|--|
| American Association of Pharmaceutical Scientists | www.aapspharmaceutica.com |
| Biotechnology Industry Association (BIO) | www.bio.org |
| BuffLink, Inc. | www.bufflink.org |
| Drug, Chemical & Associated Technologies Association (DCAT) | www.dcat.org |
| The Hauptman-Woodward Institute (HWI) | www.hwi.buffalo.edu |
| Medical DeviceLink | www.deviceLink.com |
| New York Biotechnology Association (NYBA) | www.nyba.org |
| Roswell Park Cancer Institute (RPCI) | www.roswellpark.org |
| State University of New York (SUNY) at Buffalo Center of Excellence in Bioinformatics and Life Sciences | www.bioinformatics.buffalo.edu |

Education

There are 15 regional higher education institutions with total enrollment of more than 1,000 students each, including eight institutions that are part of the State Universities of New York (SUNY) system and seven independent or private institutions. A directory of all higher education institutions with corresponding web sites may be accessed via www.highered.nysed.gov. The following information provides highlights of some regional higher education institutions and programs:

- ◆ Alfred State College (www.alfredstate.edu) offers nearly 60 associate degree programs, 12 baccalaureate degree programs and several certificate programs. An associate degree program in **biological science** is offered.
- ◆ Alfred University (www.alfred.edu) offers bachelor degree program in **biology and chemistry** in addition to a master's degree program in **biomedical materials engineering science**.
- ◆ Buffalo State College (www.buffalostate.edu) offers bachelor degree programs in **biology and chemistry**.
- ◆ Canisius College (www.canisius.edu) offers programs in **biology, bioinformatics, chemistry and clinical laboratory science**.
- ◆ Erie Community College (www.ecc.edu) has an Allied Health Division that provides associate programs in **dental laboratory technology and medical laboratory technology**.
- ◆ Houghton College (www.houghton.edu) offers bachelor degree programs in **biology, chemistry and medical technology**.
- ◆ Niagara County Community College (www.sunyniagara.cc.ny.us) provides associate degree programs in life sciences including **medical assistant, radiologic technology, surgical technology and science laboratory technology** studies.
- ◆ Niagara University (www.niagara.edu) offers bachelor degree programs in **chemistry, life sciences, biochemistry, bioinformatics, biotechnology, chemistry and computational chemistry**.
- ◆ St. Bonaventure University (www.sbu.edu) offers bachelor degree programs in **biology, biochemistry, biophysics and chemistry**.
- ◆ SUNY College at Fredonia (www.fredonia.edu) offers undergraduate and graduate programs in **biology and chemistry**. Specific degree programs include **medical technology, recombinant gene technology/molecular genetics, biochemistry and medical technology/biomedical research technology**.
- ◆ The University of Buffalo (www.mgt.buffalo.edu) is a premier research-intensive public university with exceptional intellectual and infrastructure resources in biomedical, pharmaceutical and life sciences research. The University of Buffalo is ranked among the nation's top research-intensive public universities. The School of Dental Medicine, Informatics, Medicine and Biomedical Sciences and Pharmacy and Pharmaceutical Sciences in addition to several research institutions provide programs related to the Life Sciences industry cluster. Sample areas of study include **biochemical pharmacology, medical scientist training, neuroscience, pharmacology, bioinformatics and nuclear medicine technology**.

The Buffalo Niagara Region Business Advantage

The Buffalo Niagara region offers many benefits for existing and new businesses, including a highly acclaimed and productive workforce, a bi-national location, a superior existing infrastructure, progressive business climate, competitive construction costs and an exceptional quality of life.

Workforce

With a labor force of nearly 795,000 people, the Buffalo Niagara region's workforce represents one of New York's greatest assets. The region enjoys a large, well-educated population and an abundant supply of entry-level and experienced labor. Indeed, 86.4% of the adult population has graduated from high school, ranking the region #24 out of the 45 largest metropolitan areas. The region boasts a diverse employment base that is highly productive and brings with it a very strong work ethic.

Location

The Buffalo Niagara region is a strategically located and affordable region in which to do business. It is located in geographic proximity to the major trading centers of the Northeast and is a bi-national gateway for commerce. Uniquely positioned to facilitate the movement of goods between the United States and Canada, no other region provides such easy and convenient international air, ground, shipping and water access infrastructure. The Buffalo Niagara region's extensive infrastructure and strategic border location keeps it at the forefront of the nation's international trade with Canada.

Commercial/Industrial Space

Construction costs compare favorably with those of competing markets. The commercial and industrial real estate markets within the Buffalo Niagara region offer some of the most attractive prices in the nation, and the attention towards growing the economy makes it an especially lucrative region for investment.

Cost of Living

The Buffalo Niagara region ranks slightly below the national average for the cost of living and well below many other major cities. According to the ACCRA Cost of Living Index, Buffalo-Niagara Falls has a composite index of 96.5 for the first quarter of 2005 (100 = U.S. average). The region boasts some of the lowest housing costs compared to similar metropolitan areas, with an ACCRA housing cost index of 84.5.

Housing

The Buffalo Niagara region offers a wide range of housing options, ranging from executive housing to entry-level homes and apartments. Further, the region offers the second lowest median home price out of the 133 metropolitan areas included in the National Association of Realtors' quarterly report. The median home price in the Buffalo Niagara region rose to \$93,000 in 2004 compared to the national median price of \$184,100. Prices rose 5.0% in Buffalo Niagara in 2004 compared to the 8.3% rise nationally.

Quality of Life

One of the least known facts about the Buffalo Niagara region is its great quality of life. Those not personally familiar with the Buffalo Niagara region often perceive it as a community covered in snow, without much going on. The reality is much different. While the region does receive an average of 94 inches of snow each year, temperatures tend to be more moderate due to the lake effect. With an annual average temperature of 48° F, the region has a four-season climate with temperatures ranging from an average of 25° F in January to 71° F degrees in July.

The Buffalo Niagara region offers numerous entertainment venues ranging from major league sporting events to theatre and other cultural attractions to a wide variety of winter and summer outdoor recreational activities. Independent rankings put Buffalo Niagara on par with much larger cities in cultural and entertainment rankings. For example, *AmericanStyle*, a nationally distributed lifestyle magazine aimed at art enthusiasts and collectors, named Buffalo one of the nation's Top 10 Arts Destinations for the third consecutive year in its annual readers' poll in 2004.