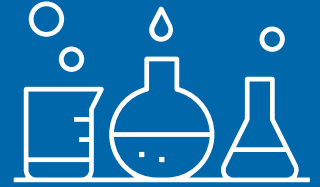


THE INNOVATIVE BIOPHARMACEUTICAL INDUSTRY'S SUPPORT FOR STEM EDUCATION IN: **NEW JERSEY**



The Biopharmaceutical Industry's Sustained Commitment to Inspiring and Advancing Tomorrow's STEM Workforce

*A high-skilled technical workforce that is proficient in science, technology, engineering, and mathematics (STEM) is increasingly important to sustained economic growth and U.S. global competitiveness. However, as the U.S. continues to lag behind other countries in terms of STEM literacy and expertise, there are legitimate concerns in the nation's ability to produce enough qualified workers to meet the demands of the global knowledge-driven, STEM-intensive economy and to develop workers with the relevant skills needed for the jobs of the future. **Inspiring and developing the next generation of STEM talent is critical to the economic success of New Jersey.***

STEM talent is especially important to the success of the nation's biopharmaceutical industry, one of the economy's most innovative sectors employing more than five times the level of STEM workers compared with the overall U.S. economy. **In New Jersey, the biopharmaceutical industry directly employs 60,715 and has a total economic impact of more than 305,000 state jobs and \$83.4 billion in total economic output.**¹

New Jersey will need to fill more than 296,000 STEM jobs by 2028. Although an analysis of a series of STEM education indicators finds that New Jersey students generally rank highly in terms of their proficiency in STEM, opportunities for improvement remain in science fields.

To help inspire and develop the next generation of STEM workers, the innovative biopharmaceutical industry supports 4 programs in New Jersey and 10 programs nationwide.

Number of STEM Programs Supported by the Biopharmaceutical Industry in New Jersey²

4

Number of National STEM Programs Open to NJ Students and Teachers

10

Projected STEM jobs to Fill in NJ by 2028³

296,290

National Assessment of Educational Progress State Ranking for NJ Students⁴

	4th Grade	8th Grade
Math	4	2
Science	22	20

Share of Graduating NJ High School Students Interested in STEM Major or Career⁵ (U.S. = 48%)

47%

Biopharmaceutical Industry Economic Footprint in New Jersey⁶

60,715
Direct Jobs

\$83.4 B
Total Output

Biopharmaceutical Industry-Supported STEM Education Programs in New Jersey

Companies such as **Daiichi Sankyo, Bayer, Bristol Myers Squibb, Merck, Novartis, Pfizer, Sanofi, and Johnson & Johnson** support the **Students 2 Science (S2S)** program, which helps students and teachers in New Jersey and across the nation develop practical STEM skills.

Sanofi supports STEM education in New Jersey in a variety of ways, including by engaging employees as volunteer mentors in the S2S initiative. Sanofi helps enhance the experience for the students, and S2S' hands-on programs are also shared at programs like Take Your Child to Work Day. Additionally, Sanofi:

- Supports and sponsors **STEM programming, equipment, and other resources** for K-12 schools and community colleges near the company's NJ headquarters.
- Sponsors **fellowships** in partnership with Rutgers University designed for post-PharmD individuals to further their experience in the pharmaceutical industry through work experience and clinical research.

Teva Pharmaceuticals supports the **STEM Scholars** program, which encourages promising urban high school students in the Philadelphia-area who are passionate about STEM to matriculate into college and careers by improving STEM subject knowledge and problem-solving skills.

Industry-Supported STEM Education Programs Nationwide

With an emphasis on student engagement, teacher development, and dynamic learning opportunities, PhRMA members **Amgen, AstraZeneca, Bayer, Genentech, and Johnson & Johnson** also support 10 STEM education programs nationwide. Read more about these programs [here](#).

- 1 *The Economic Impact of the U.S. Biopharmaceutical Industry: 2017 National and State Estimates, PhRMA and TEconomy Partners, December 2019.*
- 2 *PhRMA-TEconomy "The Biopharmaceutical Industry's Sustained Commitment to Inspiring and Advancing Tomorrow's STEM Workforce" 2020.*
- 3 *TEconomy's Analysis of Projections Managing Partnership Occupational Employment Projections for 2018-2028. Projections data reflect the 2016-26 period for the following states: AL, AZ, CT, KS, KY, MA, NM, OK, TX, VT, WA, WV.*
- 4 *U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Mathematics Assessment and 2015 Science Assessment.*
- 5 *Percentage of ACT-Tested High School Graduates Scoring Expressing Interest in STEM Majors, Occupations, and/or Activities; ACT: The Condition of STEM 2017 State Profiles.*
- 6 *The Economic Impact of the U.S. Biopharmaceutical Industry: 2017 National and State Estimates, PhRMA and TEconomy Partners, December 2019.*