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MassBioEd CEO: Invest in STEM now to establish workforce of the future

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Sunny Schwartz is the CEO of the Massachusetts Biotechnology Education Foundation.
MASSACHUSETTS BIOTECHNOLOGY EDUCATION FOUNDATION

Massachusetts continues to lead the country in highly skilled and specialized scientific and business job growth. Over the next decade alone, the commonwealth is projected to experience a [32% increase in life sciences jobs](#), netting nearly 42,000 new positions by 2032.

Exponential growth of this kind is a boon for our state but poses a challenge for our business community. How can we collectively build a pipeline of talent that meets demand, while ensuring that the full spectrum of the life sciences workforce reflects the diversity of our communities? To address the long-term needs of the industry, we must inspire and equip the next generation of talent by fostering K-12 science, technology, engineering, and mathematics (STEM) education in high-need communities.

MassBioEd's [2023 Massachusetts Employment Outlook Report](#) indicates that an average of more than 6,600 job openings will be available annually for life science occupations that require advanced degrees, such as life scientists, biotechnicians, and medical lab technicians. However, our state's academic institutions currently can only produce half the number of graduates needed in the degree fields most aligned with these openings. Diversity in these roles also continues to lag. According to a [2021 report by the industry organization MassBio](#), people of color only represent 15% of the life sciences workforce.

By inspiring students with a burgeoning scientific interest to pursue their passions after high school, especially those from high-need communities who may be on the fence about attending college, we can build a larger, more diverse pathway to secondary and post-secondary education that feeds demand for highly skilled positions.

It all starts with supporting our educators. Teachers in underserved school districts often lack the resources, equipment, training, and mentorship needed to lead advanced labs and curricula. Our organization offers training opportunities, both in and outside the classroom, to teachers across the state looking to enhance the quality of their STEM curricula. We also support the school districts of Boston, Lawrence, Revere, Chelsea, Malden and Brockton, among others, to help them secure governmental and private funding to acquire lab equipment, access inquiry-based curricula, and receive free professional development resources for their faculty. By giving teachers the resources they need to produce memorable, real-world life science learning experiences, we can help spark student curiosity and lay the foundation for further academic pursuits.

STEM education doesn't have to exist just within the confines of the classroom. Life science companies have an opportunity to educate middle and high school aged students about what can be achieved with a scientific degree by getting involved in internships and career awareness programs. Whether by visiting a classroom to discuss career pathways, hosting a company site visit for students, or offering summer internships for youth, life science companies can invest in the development of talent by showing how STEM education can lead to exciting and rewarding careers.

Investing in STEM education can be left to the Department of Education and nonprofits like ours – but the experiences it provides can be made richer and more tangible with the involvement of the life sciences community. By participating in students' scientific journeys now, we can build the life sciences workforce of the future.

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