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Communication in the Digital Age

OPINION | KARYN POLITO, JOE KENNEDY III, AND JEFFREY LEIDEN

Training the next generation in science and technology



SHUTTERSTOCK

By Karyn Polito, Joe Kennedy III and Jeffrey Leiden | NOVEMBER 21, 2016

WHEN GLADY BAEZ came to her Vertex Pharmaceuticals internship as a high school junior, she was uncertain of her future. While she was interested in science and business, she didn't know the range of career options possible.

During Glady's paid internship at Vertex, she and her class of 30 high school interns worked alongside scientists steeped in research on cystic fibrosis and other diseases. The experience sparked her imagination in science and propelled her down a track that, three years later, has her feet firmly planted as a biology major at UMass Boston. She is the first in her family to go to college.

Glady's internship at one of the nation's most dynamic biotech companies opened doors too often closed to high school students, especially females and students of color. The dearth of similar opportunities not only prevents promising young people from excelling in deeply rewarding careers, it stymies our economic growth.

Keeping Massachusetts competitive requires a workforce that excels in science, technology, engineering, and math, or STEM. More than 40 percent of the Commonwealth's economy centers on jobs in STEM fields, including advanced manufacturing, information technology, and biotech.

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Massachusetts has more open positions in these fields than employees to fill them, a void that threatens our economic drivers. Industry analysts and CEOs repeatedly identify this gap as the single greatest challenge facing the

Commonwealth's STEM economy.

Massachusetts isn't alone. Across the country, states with strong technology, biotech, medical, and engineering economies struggle to provide employers with educated, work-ready employees. And STEM readiness has global implications: There is an international race to create a highly skilled workforce capable of driving an increasingly innovation-centered world.

That is why it's so important that students like Gladys have opportunities to learn about STEM careers. And that is why we're making a simple but powerful ask of Massachusetts businesses: Hire at least one high school student for a STEM internship.

Despite the large number of jobs available, just one in six high school seniors are interested in STEM, and the United States ranks 27th among developed nations in undergraduate degrees in science or engineering.

Internships — during the school year, after school, or in the summer — are an incredibly valuable way to provide young people with hands-on, real-world work experience. And they offer value for employers interested in developing future leaders in their fields.

More than 250 STEM businesses from every region host close to 1,000 high school interns each year. These students are thriving at the Commonwealth's hospitals and biotech, finance, and IT companies, and in advanced manufacturing — learning on-the-job skills and contributing to their host companies.

At the same time, companies with a STEM intern program are beginning to nurture a strong pool of skilled and engaged homegrown talent — one that can fill critical job openings.

STEM internships are also a meaningful way for companies to engage high schools and mentor students on-site in their workplaces.

The state's School to Career Connecting Activities program supports businesses of all sizes that want to host high school interns. Through Connecting Activities — which includes the Boston Private Industry Council that helped connect Gladys to Vertex — dedicated staff in all 16 workforce regions of the state identify students and work with companies and high schools to provide assistance and guidance throughout the internship process.

The system is working, and Massachusetts companies are stepping up to the plate — in addition to Vertex, hundreds of other businesses have internship opportunities for high school students. But only a handful of companies provide internships in STEM-related fields.

To remain competitive, we can and should do more.

Our economic success depends on providing the innovation economy with smart workers and providing young people like Gladys Baez with the experience to land high-paying, satisfying jobs. We are calling on business leaders — particularly those in STEM fields — to consider taking one or more high school interns for summer 2017.

Internships are critical to get students involved early, and spark passion and drive amongst our youth to pursue STEM careers. And we can't afford to wait to get them started.

Karyn Polito is the lieutenant governor of Massachusetts. Joe Kennedy III is the US Representative for Massachusetts' Fourth Congressional District. Dr. Jeffrey Leiden is the chairman, president, and CEO of Vertex

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