

Information technology has been a major driver of U.S. employment growth in recent years, both for workers with advanced education and people without a bachelor's degree. Between 2002 and 2015, employment in IT occupations grew by 44% in the United States—five times faster than overall national employment growth—and more than one-third of U.S. tech workers hold less than a bachelor's degree.

In Greater Philadelphia, employers have created 25,000 new tech jobs since the early 2000s—equivalent to 25% of all net job growth during that span. Projections indicate that over the next ten years, our region could see 26,000–44,000 job openings in IT, between new jobs and replacement openings as workers retire.

Leveraging the potential of Greater Philadelphia's tech workforce will support business growth and expand economic opportunity—two areas where we lag peer metros. To help advance efforts to drive tech talent growth in the region, the Economy League conducted an in-depth market assessment and led the collaborative development of a shared framework for action.





# Greater Philadelphia's Tech Workforce

Taking effective action to strengthen Greater Philadelphia's tech workforce requires an understanding of the current regional labor market, an analysis of recent trends, and an assessment of future needs.

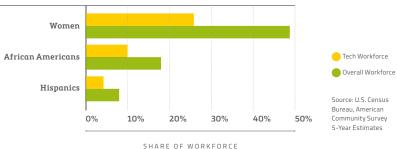
A detailed market assessment of the region's tech workforce conducted by the Economy League yielded the following key findings:

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Greater Philadelphia's tech workforce is large and growing,

but is constrained by an undersupply of qualified candidates and a lack of diversity.





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IT employers in our region are struggling to fill high-skill job openings.

"Chariot is always on the lookout for qualified software developers, and we often have more job openings than we're able to fill. Access to a broader pool of high-skill workers would enable us to better serve our clients and grow more quickly as a firm."



TRACEY WELSON-ROSSMAN

Chief Marketing Officer

Chariot Solutions

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change in technology,
employers need
high-skill workers who
can learn continuously,
problem solve, and
adapt to evolving

business needs.

With the rapid pace of

"I don't necessarily need employees who have a four-year degree and know every programming language. I need motivated people who can adapt and learn quickly, collaborate with coworkers and clients to solve problems, and are willing to go the extra mile to get results."

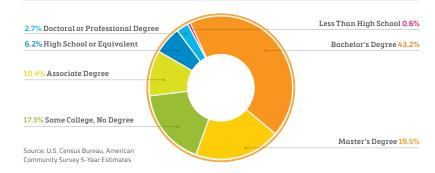


BOB MOUL
CEO
Cloudamize

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Several tech occupations provide career on-ramps for middle-skill workers, with one-third off the region's IT workforce holding less than a bachelor's degree.

#### EDUCATIONAL ATTAINMENT OF THE GREATER PHILADELPHIA TECH WORKFORCE (2015)



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Many regional residents—from K-12 students to adults—do not understand the wide variety of jobs, industries, and career paths in tech.

"In order to thrive, our region must begin thinking about a long-term talent development strategy. Exposing young people to the variety of careers in tech can help build a talent pipeline into careers that can ensure economic mobility."



STACY HOLLAND

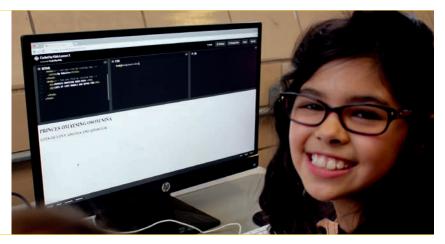
Executive Director

Lenfest Foundation

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Greater Philadelphia's IT education and training ecosystem is wide-ranging, but can better meet regional market needs.





# Driving Tech Talent Growth in PHL: An Action Framework

**Driving tech talent growth in Greater Philadelphia will require sustained, collaborative focus by a wide range of firms, institutions, government agencies, foundations, and nonprofits in the region.** To guide this work, the Economy League and a core group of key stakeholders developed a shared action framework for leveraging our tech workforce to drive regional growth and opportunity.

#### VISION

A deep and diverse tech talent pool in Greater
Philadelphia supports business growth and
fosters economic opportunity for residents

#### GOALS

- More employers invest in upskilling their incumbent workforce to fill high-skill IT openings
- More individuals in our region obtain IT education and training that meets rapidly evolving market needs
- More women, people of color, and dislocated workers consider careers in IT

## PRIORITY STRATEGIES

## Increase incumbent worker training and employerled solutions

Increased focus on upskilling existing IT workers will help to close our region's high-skill labor shortage. Enhancing capacity among industry-led workforce partnerships will provide a platform for sharing best practices, leveraging public funding, and coordinating incumbent worker training. Expanding work-based learning and coordinating HR practices will also help broaden the tech talent pool.

#### Align and scale educational and tech training programs

Our higher education system is complemented by specialized tech training and coding bootcamps that provide alternative entry points to a tech career. Expanding the number of bootcamp seats can help address the near-term undersupply of qualified candidates. Longer-term, collaboration between industry partnerships, postsecondary institutions, and K-12 schools will help ensure that foundational and technical skills being taught align with market needs.

# Raise awareness of potential tech careers among underrepresented populations

Educating more people—particularly young women and people of color—about the breadth of career opportunities in tech will help expand and diversify the talent pipeline for IT employers in Greater Philadelphia. Targeted outreach campaigns to reach these individuals as well as career-changers and dislocated workers will help drive growth and expand opportunity in the region.

### Improve access to data on tech talent in the region

Broad access to data and information about employer needs, career pathways, and education programs in Greater Philadelphia will help inform the actions of firms, educational institutions, and workforce providers. It will also empower jobseekers, students considering IT educational programs, and other interested stakeholders to take advantage of available opportunities.

