Today’s job market is changing rapidly.

As a result of advancements in workplace technology and automation, many employers are rethinking their approaches to finding the right talent and working with employees to develop skills so that they can grow within the company. Research shows that developing a community of learning not only improves employees’ work experience but also contributes to a strong company culture and more efficient organization. Locally, these practices strengthen the competitiveness of our region.

This publication provides a glimpse into different approaches employers are implementing to keep up with an evolving labor market and suggests actionable ideas to hire, upskill, and retain employees. While some organizations are leveraging strategies such as gamification to hire employees, others are cultivating talent in simpler ways, such as encouraging open dialogue about individual career paths and their organizational values.

In this publication, you will find:

- Past, current, and projected labor market data
- Case studies of innovative ways employers are engaging talent
- Resources to help employers build and develop their talent pool
Regional Labor Market

Amidst the nation’s longest economic recovery on record, labor market dynamics continue to shift and shape how employers obtain, train, and retain talent. The following data illustrates Greater Philadelphia’s demographics and evolving labor market. To view complete data sets, visit ChamberPHL.com/Talent.

Demographics

- **Total Population**
  - (over 16 years) 5,048,437

- **Age**
  - 16-19: 7%
  - 20-24: 18%
  - 25-34: 17%
  - 35-44: 15%
  - 45-54: 18%
  - 55-64: 16%
  - 65+: 18%

- **Race/Ethnicity**
  - White: 64%
  - Black or African American: 15%
  - Hispanic or Latinx: 8%
  - Asian: 6%
  - Other Groups: 2%

- **Sex**
  - Male: 47%
  - Female: 53%

- **Educational Attainment**
  - Less than high school: 13%
  - High school diploma or equivalent: 29%
  - Some college: 19%
  - Associate’s degree: 20%
  - Bachelor’s degree: 13%
  - Master’s degree or higher: 13%

- **Employment**
  - Employed: 61%
  - Unemployed: 5%
  - Not in labor force: 34%

Total Population: 5,048,437
Top 10 industries accounted for 56% of all new jobs between 2015 – 2018

Social Assistance and Ambulatory Health Care Services represented nearly 1/3 of job growth
The Current Market

Top 10 Job Postings by Industry (2018)

1. Professional, Scientific, and Technical Services
2. Hospitals
3. Educational Services
4. Food Services and Drinking Places
5. Administrative and Support Services
6. Credit Intermediation and Related Activities
7. Insurance Carriers and Related Activities
8. Ambulatory Health Care Services
9. Truck Transportation
10. Chemical Manufacturing

Top 10 Job Postings by Occupation (2018)

1. Software Developer / Engineer
2. Tractor-Trailer Truck Driver
3. Retail Sales Associate
4. Registered Nurse
5. Sales Representative
6. Customer Service Representative
7. Office / Administrative Assistant
8. Retail Store Manager / Supervisor
9. Physician
10. Business / Management Analyst
Projected Trends

Five-Year Growth Forecast by Industry

2018 - 2023

<table>
<thead>
<tr>
<th>Industry</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulatory Health Care Services*</td>
<td>12%</td>
</tr>
<tr>
<td>Social Assistance*</td>
<td>11%</td>
</tr>
<tr>
<td>Warehousing and Storage*</td>
<td>8%</td>
</tr>
<tr>
<td>Nursing and Residential Care Facilities</td>
<td>5%</td>
</tr>
<tr>
<td>Professional, Scientific, and Technical Services</td>
<td>3%</td>
</tr>
<tr>
<td>Educational Services</td>
<td>3%</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>2%</td>
</tr>
<tr>
<td>Hospitals</td>
<td>2%</td>
</tr>
<tr>
<td>Food Services and Drinking Places</td>
<td>1%</td>
</tr>
<tr>
<td>Growth Rate Across All Industries</td>
<td>2%</td>
</tr>
</tbody>
</table>

Forecast by Occupation

2018 - 2023

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Health Aides*</td>
<td>19%</td>
</tr>
<tr>
<td>Personal Care Aides*</td>
<td>16%</td>
</tr>
<tr>
<td>Software Developers, Applications</td>
<td>11%</td>
</tr>
<tr>
<td>Medical Assistants</td>
<td>11%</td>
</tr>
<tr>
<td>Social and Human Service Assistants*</td>
<td>9%</td>
</tr>
<tr>
<td>Market Research Analysts and Marketing Specialists</td>
<td>8%</td>
</tr>
<tr>
<td>Medical Secretaries</td>
<td>8%</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>6%</td>
</tr>
<tr>
<td>Combined Food Preparation and Serving Workers, Including Fast Food*</td>
<td>4%</td>
</tr>
<tr>
<td>Nursing Assistants</td>
<td>4%</td>
</tr>
</tbody>
</table>

Growth Rate Across All Occupations

2%

*Fastest growing over the past three years

Forecast for Annual Occupation Shortfalls by Number of Employees

2018 - 2023

-3,026 Registered Nurses
-3,102 Software Developers, Applications
-4,714 Licensed Practical and Licensed Vocational Nurses
-4,147 General and Operations Managers
-4,453 Medical Assistants
-4,575 Financial Managers
-4,410 Market Research Analysts and Marketing Specialists
-93 Physical Therapists
-93 Medical Secretaries
-93 Maintenance and Repair Workers, General

5 of the largest projected occupational employment shortfalls are related to the health care industry
As the U.S. economy has neared full employment and hiring workers has become increasingly difficult, it’s important to think outside of the box when it comes to attracting the most talented and diverse candidates.
PricewaterhouseCoopers

A multinational network of firms in 158 countries with 721 locations, PricewaterhouseCoopers (PwC) provides professional services in cybersecurity, privacy, human resources, finance, and business forensics for public and private clients. With a workforce of over 250,000 employees, PwC has made it a priority to pursue innovative hiring strategies to attract talented, diverse candidates to join its vast workforce and to uphold the quality of service that has sustained PwC’s success.

To maintain such a large and high-quality workforce, PwC applies a variety of practices to vet its candidate pool. One such practice, implemented by the company’s Hungary outpost, has been to use a simulated scenario called gamification as a way to understand a candidate’s behavioral traits and capabilities. Broadly, gamification is the application of game elements and principles in a nongame context.

- With the use of online simulators rising in recruitment practices, PwC turned to Multipoly, a 3D virtual game that simulates work routines and procedures, including customer interactions and tasks in accounting and consulting.

- The 12-day game, which can be played through Facebook, measures performance and goal attainment and relays feedback from coaches directly to candidates.

- Organizations are increasingly using gamification as an innovative and engaging method of recruitment to garner interest from a more diverse pool of job candidates—particularly young, entry-level talent.

Gamification often entails the use of motivational tools, such as winning points and badges, while producing analytics to track a user’s performance relative to their counterparts.

If an organization relies heavily on positions that involve digitally intensive tasks, gamification can be tailored to effectively measure a candidate’s skillset for a number of positions at varying levels of difficulty. As a result, gamification enriches the hiring process by equipping employers with supplemental measures of potential job performance and competency.
Bittenbender Construction, LP

Bittenbender Construction, LP is a general contractor and construction management firm. Since 2003, Bittenbender has grown significantly in Greater Philadelphia and in 2018 the middle market company was ranked number three in Largest Woman-Owned Businesses by the Philadelphia Business Journal.

Being the only women-led union company in the region has its recruitment challenges and Bittenbender strives to source nontraditional talent, such as returning citizens and residents, from low-income neighborhoods. Leadership at Bittenbender has taken an unconventional approach to ensure their team in the office and field remains diverse despite construction being a predominately white male-dominated industry.

- Bittenbender starts its approach to hiring diverse talent by emphasizing the company brand and this message: “Diversity and inclusion is not just a check box.”

- The company amplifies this message by utilizing social media, speaking engagements, and sponsorship of local events.

- To attract potential candidates and engage future talent, Bittenbender creates a pipeline through various means, including women and minority networking events, community outreach, workforce development programs, speaking engagements, mentorship opportunities, and more.

Bittenbender strives to maintain an inclusive, diverse, and talented workforce and extend opportunities to those who might not otherwise have access to resources. Leadership at Bittenbender maintains a presence in nearby low-income neighborhoods to exemplify to residents the opportunity that the owner, Emily Bittenbender, was once given herself: a chance at owning their own company. The company leads by example by not only promoting and advocating for diversity and inclusion but also by embodying the message in the demographic makeup of the company, office, and in the field.
Other Ideas for Hiring & Onboarding

- Remove degree requirements from appropriate job descriptions and application processes to allow diverse candidates to qualify for the position.²⁵

- Partner with a local organization, such as a workforce nonprofit, a career and technical education school, or a community college to source talent.²⁶

- Establish a mentorship program for new employees during onboarding to create a space to transfer organizational knowledge, while also relieving the anxiety of those who might feel like they are lost in the crowd.²⁷
With the continual advancement of technology in the workplace, teaching digitally intensive skills has become a necessity. By providing workers the opportunity to gain new skills, employers are helping employees improve their occupational expertise, realizing high-quality performance, and boosting overall morale.
BNP Paribas Cardif

BNP Paribas Cardif (BNP) is an international insurance firm operating in 35 countries with 500 distributor partners across Europe, Asia, and Latin America. With the help of its network—which include banks, credit companies, insurance brokers, and retailers—the firm’s primary focus is the development of products and services in savings and protection. BNP employs a skilled workforce that lead product development; however, with automation on the rise, the importance of upskilling has proven crucial to BNP’s continued success.

With that in mind, BNP has worked intentionally to operate as a “learning company” that proactively considers what automation means for the productivity of its business model and workforce of about 10,000 personnel.

- The firm developed an upskilling and training initiative, in partnership with General Assembly, called Strategic Workforce Planning (SWP). General Assembly is a multinational workforce training provider that helped BNP identify skills in high demand, find activities that are evolving because of automation, and pinpoint tasks that will be needed in the future.

- This partnership has effectively aided BNP in mitigating the onset of automation by enabling workers with the opportunity to develop their skillset and maintain a position as a productive member of their team.

- Through SWP, about 1,200 technical workers at BNP developed new skills where changing task-oriented needs have been identified in their occupations, including UX design, digital marketing, product management, data science, and cybersecurity.

In addition to upskilling in a technical capacity, workers are taught how to present projects, work in a multidisciplinary context, and improve on behavioral and relational skills. The result of SWP and similar partnerships is a growing and well-rounded workforce equipped with the skills needed to confront the evolving nature of work.
Rhoads Industries

Headquartered at The Navy Yard in Philadelphia, Pennsylvania, Rhoads Industries has grown from a small fabrication shop to a leader in industrial fabrication, installation, and maintenance services for commercial and government customers. Founded in 1896, Rhoads spans four generations of family ownership and has maintained its founding principles of quality, performance value, and recognizing that the core of the company’s success resides in its frontline employees.

Philadelphia is known as a highly competitive industrial center of excellence. To stay competitive in the market, Rhoads supports the development of its workers through education and training. Over the past two years, Rhoads has implemented a multifaceted approach to not only identify prospective talent, but to grow its current workforce, as well:

- Rhoads considers individuals with education and skill gaps in its inclusion strategy for recruitment.
- Rhoads’ recruitment technique for entry-level employment is based in relationships with local and state agencies, career and technical schools, and local universities. This strong pipeline enables Rhoads to recruit early-career talent across multiple disciplines.
- Rhoads has developed an innovative approach towards development of its current workforce. In collaboration with its local union Boilermakers Local 19, they created an in-house apprenticeship program focusing on upskilling and giving opportunity to current workers in order to identify career pathways and further hone skills.

Rhoads’ upskilling efforts allow the company to retain talent by enhancing culture and advancing employees to higher-skilled roles. For that reason, Rhoads creates a pipeline for more entry-level employees to enter its rapidly growing workforce.
Other Ideas for Upskilling & Reskilling

- Foster flexible learning environments for employees to participate at their own schedule, such as a virtual classroom training, web-based training modules for micro-learning, and technical training provided on-site.\(^{28}\)

- Encourage employees to take advantage of mentorship and coaching programs that help them continuously evolve competencies, skills, and expectations.\(^{29}\)

- Support retraining employees in new technologies as a proactive measure to counteract displacement due to automation.\(^{30}\)
Effective employee retention strategies can improve workplace morale while ensuring that your best workers are committed, engaged, and highly productive. Job retention is increasingly a concern for employers, particularly those with high turnover rates, and can have significant financial impact. To alleviate these costs, employers are thinking outside of the box to prioritize human capital and ensure employees are engaged throughout their careers.

Retaining Talent
Optimax

As America’s largest optics prototype manufacturer, Optimax Systems, Inc. leverages its business expertise to make significant investments in optics research and technology. The company, headquartered in Ontario, New York, operates primarily out of its 60,000-square-foot facility and employs around 500 employees. As Optimax continues to lead the way in optics research and manufacturing, it must also continue to prioritize continual learning as the focal point of its retention strategy.

Optimax leans on continual learning as a way to uplift the company at large through a number of employee opportunities for learning and development:

- Many Optimax employees were hired despite lacking a particular credential or prior training. Through the company’s workforce training investments, those employees are often able to acquire the skillsets necessary to become frontline technicians.

- Through a training method known as Job Instruction Training (JIT), Optimax connects new employees with more seasoned teammates to develop and strengthen skills over several months. Once new employees can demonstrate the critical competencies their job requires, they are given more time to work independently.

- Optimax collects feedback through its self-managed groups, an opportunity for employees to make decisions about training, skill and task development, and work station organization at a granular level. Self-management allows employees to experience autonomy, increases day-to-day efficiency and innovation, and leverages each employee’s unique knowledge and skills.

From nontraditional hiring practices to JIT and self-managed groups, Optimax provides employees with the space to harness their potential. The company’s approaches help employees thrive with meaningful work while also encouraging them to stay with Optimax to develop their skills and contribute to the long-term growth of the company.
Nolan Painting

Founded in 1979, Nolan Painting is one of the largest residential painting businesses in the country, providing full-service, professional interior and exterior painting to homes and businesses across Greater Philadelphia. With over 100 employees, Nolan Painting strives to keep its employees’ values at the forefront of its retention strategy.

To accomplish this, Nolan facilitated an open discussion to identify three factors employees value in workplace culture: **integrity, empathy and understanding, and plenty of constructive feedback**, from both their peers and those in leadership. Then the company got to work considering ways to meet its employees’ expectations:

- **To promote a culture of integrity**, Nolan is vocal about its commitment to stand behind the promises it makes as a company—that is, to deliver the best products and services to its clientele. Employees are coached and incentivized to seek feedback from clients, resulting in a 70% report card return rate. As a result, employees share a sense of pride in the company’s commitment to always do the right thing.

- **As an extension of “doing the right thing,” Nolan also encourages empathy at the manager level.** Each employee is expected to perform at a high level and provide excellent service, but managers are encouraged to show understanding when employees voice personal or professional circumstances that may impact their work.

- **When it comes to measuring performance, leaders at Nolan are expected to provide feedback that is positive and constructive.** Managers are encouraged to utilize positive reinforcement and applaud employees for hard work and outstanding service.

In addition to addressing the values of its employees, Nolan emphasizes skills training through individualized Learning Paths that track the experience required to earn a promotion. Because Nolan appreciates its employees’ values and development, the company retains employees that are skilled, hard-working, and enthusiastic to grow within the company. Nolan believes this strategy has contributed to a $3 million dollar increase in annual revenue in the past three years.
Other Ideas for Retaining Talent

- Empower employees to choose their own path by putting them in charge of their personal development plan. This encourages employees to be invested in their career, which not only provides them with the skills necessary to advance but also increases loyalty to the employer.  

- Focus on each individual employee’s contribution to the goals of their organization and strive to make work meaningful for that employee.

- Bring employees on board when making decisions about the company’s future, rather than communicating after decisions are fully implemented, creating an environment of shared commitment and responsibility.
How can you begin to implement these innovations in hiring, upskilling, and retaining employees?

The employers featured in this publication adopted processes to enrich their hiring and onboarding methodologies, contributed to the personal and professional growth of their current workforce, and strategically identified ways to engage and retain their talent.

You are encouraged to take these ideas and implement strategies that work for your organization.
Resources

The Chamber of Commerce for Greater Philadelphia provides employer resources for talent attraction, development, and retention:

- Learn what young professionals seek in a workplace in *10 Ways to Retain Young Talent*.


- Share your employment engagement strategies with us as we develop new case studies to share with the business community.

*Learn more at: ChamberPHL.com/Talent*

The Federal Reserve Bank of Philadelphia conducts research on relevant issues of the regional economy and the labor market:

- Read about strategies employers are using to invest in their workforce with digital skills training in *Digital Skills for the 21st-Century Workforce*.

- Review a recent report on employment accessible to workers without a bachelor’s degree and typically paying above the national annual median wage in *Opportunity Occupations Revisited: Exploring Employment for Sub-Baccalaureate Workers Across Metro Areas and Over Time*.

- Discover how transportation can pose a barrier to employment for low-income residents unable to afford a car in *Accessing Economic Opportunity: Public Transit, Job Access, and Equitable Economic Development in Three Medium-Sized Regions*.

*Learn more at: PhiladelphiaFed.org/Community-Development*

Philadelphia Works offers services and resources to onboard, upskill, and retain employees in your workforce and strategies to help your company grow:

- Visit PA CareerLink® Philadelphia to get access to talent, prescreening, and other services to explore a diverse pool of candidates looking for employment.

- Adopt a new strategy to develop on-the-job and incumbent worker training, customized job training, apprenticeship programs, and youth employment initiatives to grow your current and prospective workforce.

- Boost your retention strategy by offering incentives like literacy and computer skills development and training reimbursements from Philadelphia Works.

*Learn more at: PhilaWorks.org/Workforce-Services*
Disclaimer
The views expressed in this publication are solely those of the authors and do not necessarily reflect the views of the Chamber of Commerce for Greater Philadelphia, Federal Reserve Bank of Philadelphia or the Federal Reserve System, or Philadelphia Works. Any errors or omissions are the responsibility of the authors.

Endnotes
1 National Bureau of Economic Research (NBER).
2 11-county region: Bucks, PA; Burlington, NJ; Camden, NJ; Chester, PA; Delaware, PA; Gloucester, NJ; Mercer, NJ; Montgomery, PA; New Castle, DE; Philadelphia, PA; and Salem, NJ.
3 2013 – 2017 American Community Survey (ACS), Public Use Microdata Sample.
4 In the 2013 – 2017 data, the Public Use Microdata Area (PUMA) that covers Salem County includes the northern part of Cumberland County. This is because Salem County has too small of a population on its own to allow for the anonymity required by the ACS. This slightly inflates the numbers for the region.
5 Due to rounding, many of the total percentages in the data sets do not add up to 100.
6 Demographic data is representative of Greater Philadelphia’s 16+ population.
7 This analysis excludes the population living in institutional group quarters, such as prisons and nursing homes, as well as those who are active members of the military.
8 Those who have no job and are not looking for one are counted as not in the labor force.
10 Industries are ranked by fastest (%) growth with at least 2,000 employees added over three years.
11 JobsEQ; Bureau of Labor Statistics; The Chamber of Commerce for Greater Philadelphia; Philadelphia Works.
12 Occupations are ranked by fastest (%) growth with at least 1,000 employees added over three years.
13 The data in this section focuses on online job postings, not actual existing jobs.
14 Burning Glass; Philadelphia Works.
15 Because of differing data sources, the industry classifications are different than past and future trends.
16 Burning Glass; Philadelphia Works.
17 Because of differing data sources, the industry classifications are different than past and future trends.
18 Although Retail Sales Associates, Sales Representatives, and Customer Services Representatives made the top 10, these job postings are influenced by high turnover, not necessarily job growth.
20 Industries are ranked by fastest (%) growth with at least 2,000 employees added over five years, for which there are only nine industries.
22 Occupations are ranked by fastest (%) growth with at least 1,000 employees added over the next five years.
23 Gap is based on JobsEQ forecast comparing occupation demand growth to the local population growth and the projected educational attainment of those residents. This forecast does not include some factors like residents outside the 11-county region moving into Greater Philadelphia for employment.
24 Potential average annual occupation gaps over five years.
The Chamber of Commerce for Greater Philadelphia brings area businesses and civic leaders together to promote growth and create opportunity in our region. Our members represent eleven counties, three states, and roughly 600,000 employees from thousands of member companies and organizations. We advocate for regional development, business-friendly public policies, and economic prosperity. We support our members with practical, inspiring programs, resources, and events. And all that we do serves one clear, bold goal: to make Greater Philadelphia a great place for good business. *ChamberPHL.com*

**Philadelphia Works**, the city’s Workforce Development Board, is a quasi-public, non-profit organization serving both career seekers and employers. We invest public resources in a variety of workforce solutions and influence the public policies that support economic growth in Philadelphia. These solutions connect Philadelphia residents to employment and training opportunities and help employers find, grow, and retain local talent.

For more information about our dedicated board members and staff, workforce research, labor market data, workforce services, innovative initiatives, and to view current opportunities to engage, please visit our website. *PhilaWorks.org*