



## SUMMARY: PENNSYLVANIA STATE SYSTEM'S WORKFORCE CHARACTERISTICS REPORTS

The State System's Gap Analysis Project responds to the System's strategic plan, *Rising to the Challenge 2020*. It is a key component of the *Workforce Intelligence Toolkit* (see below), which comprises a set of resources designed to help State System universities increase their impact on Pennsylvania's economy, both individually and collectively.

The project sought to identify the occupational areas in which workforce gaps might arise in the future—where employer demand exceeds educational supply. Three distinct sets of data-driven research reports were produced:

### KEY OBJECTIVES OF THE WORKFORCE CHARACTERISTICS REPORTS

Provides a baseline reporting structure to evaluate regional workforce characteristics, which can be repeated in the future.

Identifies university workforce regions and forecasts industry growth and occupation demand.

Identifies key demographic and educational attributes of those working in skilled, in-demand occupations.

- I. **Degrees of Value Report:** Demonstrates the increasing importance of bachelor's degree holders in Pennsylvania's workforce and highlights the significant role the State System plays in supporting the state's workforce development;
- II. **Workforce Characteristics Reports:** Contain a set of economic, workforce, demographic, and socio-economic information to be used to help contextualize the third phase—the gap analysis;
- III. **Supply/Demand Reports:** Provide analyses of employer demand and higher education supply for Pennsylvania and its workforce regions.<sup>1</sup>

The goal of any given Workforce Characteristics Report is to provide answers to key policy questions including:

- What is the labor market landscape for Pennsylvania and its regions?
- Which skilled occupations are large and growing fast?<sup>2</sup>
- How are those occupations characterized in terms of the **gender** profile, **ethnicity**, **age** distribution, and **educational** attainment of those employed within the largest and high-growth occupations?

In total, the research produced 23 unique reports: (14 university-specific workforce characteristic reports, 5 sub-region reports, 2 university center reports—(Dixon University Center and @Center City), 1 statewide report, and 1 statewide summary report).

The geographic coverage of the 23 reports enables each State System university to view its area's workforce attributes and projections from a number of geographic perspectives, providing a unique insight and vital labor market intelligence.

#### WORKFORCE INTELLIGENCE TOOLKIT

State System's Academic Portfolio

STATEWIDE & REGIONAL GAP ANALYSIS

Building Capacity in Labor Market Intelligence

Platform to Help Students with Career Choices

<sup>1</sup> Regions include 5 broad sub-regions based on Department of Community and Economic Development's PREP regions, 14 university specific workforce regions, and 2 university hubs (Dixon University Center and State System @ Center City, Philadelphia). Supply/demand reports were produced for each of these regions.

<sup>2</sup> Skilled occupations in the State System's Gap Analysis project are defined using terminology from the O\*NET program. The O\*NET program is the nation's primary source of occupational information. O\*NET Job Zones range from 1 (lowest) to 5 (highest). Job Zones 3, 4, and 5 require some level of post-secondary education. To be considered skilled for the State System's Gap Analysis Project, an occupation must have an O\*NET Job Zone code of 3, 4, and 5.



## KEY FINDINGS: PENNSYLVANIA STATE SYSTEM'S WORKFORCE CHARACTERISTICS REPORTS

### Pennsylvania can expect robust job growth between 2014 and 2024.

- Projections indicate that between 2014 and 2024, **Pennsylvania's jobs market will grow by about 9.5%, adding 536,200 new jobs.** This will result in a total of around 6.2 million jobs in Pennsylvania by 2024. However, growth is not distributed equally.
- Industries showing the strongest growth include: **healthcare and social assistance** (190,000 new jobs between 2014 and 2024); **professional, scientific, and technical services** (nearly 60,000 new jobs); and **administrative and support and waste management/remediation services** (more than 57,800 new jobs).
- Growth industries like these will, in turn, **hire people in a range of occupations.** As with industries, some occupations are growing faster than others, creating more demand within the Pennsylvania economy.
- Projections indicate that occupations related to **healthcare, business, trade & transportation, education, and professional/technical services are among the fastest growing**, or will have high replacement demand due to retirement, out-migration or workforce leavers.
- Some **skilled, in-demand occupations**—jobs that typically require at least an associate's degree—are needed universally across all of Pennsylvania's regions. Such occupations include: registered nurses; general and operations managers; accountants and auditors; market research analysts and marketing specialists; and computer systems analysts. Together these occupations will present almost 121,800 new and re-placement job opportunities between 2014 and 2024. Registered nursing alone shows almost 51,900 openings between 2014 and 2024.
- **Job growth varies by region** as well, with Southeast projected to grow by 10.5%; Southwest by 7.6%; Northeast by 9.9%; Northwest by 7.7%; and Central, by 10.1%.

### Key occupations within Pennsylvania show demographic and educational diversity.

- Key occupational attributes were quantified to provide insight into who is actually employed in the top five skilled in-demand occupations, with analysis presented on gender, race/ethnicity, age composition, and educational attainment.
- **Registered nurses:** 93% of registered nurses in Pennsylvania are women; 12% are minorities; 88% have a postsecondary degree; and 52% are over the age of 45.
- **General and operations managers:** 71% of general operations managers are men; 10% are minorities; 58% have a postsecondary degree; and 56% are aged over 45.
- **Accountants and auditors:** 53% of accountants and auditors are women; 12% are minorities; 89% have a postsecondary degree, including nearly 20% with a master's degree or higher; 53% of those in the occupation are under the age of 45 years old.
- **Computer systems analysts:** 65% of computer systems analysts are male; 22% are from minorities; 51% have a bachelor's degree, while 22% have a master's degree or greater; 57% of those in the occupation are under the age of 45 years old.
- **Market research analysts and marketing specialists:** 57% are women and 86% are white, while 5% are Hispanic. Education attainment is high with 53% holding a bachelor's degree and 30% holding a master's degree or higher. Approximately 68% are under the age of 45.

### WORKFORCE CHARACTERISTICS HIGHLIGHTS

**9.5%**

growth in Pennsylvania's jobs,  
from 5.6m in 2014 to 6.2m in  
2024.

**2.1 m**

new and replacement jobs  
from 2014 to 2024

Skilled jobs are growing  
faster than the rest with

**10.9%**

growth in skilled jobs open-  
ings to 2024 compared to  
8.1% for low-skilled jobs

**35%**

of new jobs to 2024 will be  
in the healthcare industry