

**WASHINGTON STATE
WORKFORCE TRAINING AND EDUCATION COORDINATING BOARD
MEETING NO.160
JANUARY 27, 2012**

A SKILLED AND EDUCATED WORKFORCE

**AN ASSESSMENT OF THE NUMBER AND TYPE OF HIGHER EDUCATION
TRAINING CREDENTIALS REQUIRED TO MEET EMPLOYER DEMANDS**

At the January meeting the Board will hear a presentation from staff of the Higher Education Coordinating Board, the State Board for Community and Technical Colleges, and the Workforce Training and Education Coordinating Board. The staff will present the biennial assessment of the number and type of higher education credentials required to meet employer demand in Washington.

Board Action Required: None. For discussion only.



A Skilled and Educated Workforce 2011 Update

Workforce Training and Education
Coordinating Board

January 27, 2012

Randy Spaulding, Higher Education Coordinating Board
Tina Bloomer, State Board for Community and Technical Colleges
Bryan Wilson, Workforce Training and Education Coordinating Board

Purpose of this report

The report is required under 28B.76.230 to assess “the number of forecasted net job openings at each level of higher education and training and the number of credentials needed to match the forecast of net job openings.”

The report addresses this mandate using the long range occupational forecast and estimates of program graduates who would likely be entering the workforce. It should be noted that:

- The report does not fully address the impact of new and emerging occupations and industries (due to limitations of the forecast).
- The report looks at the post-recessionary period expected during 2014-2019.
- The report assumes no net in-migration into Washington of certificate and degree holders.

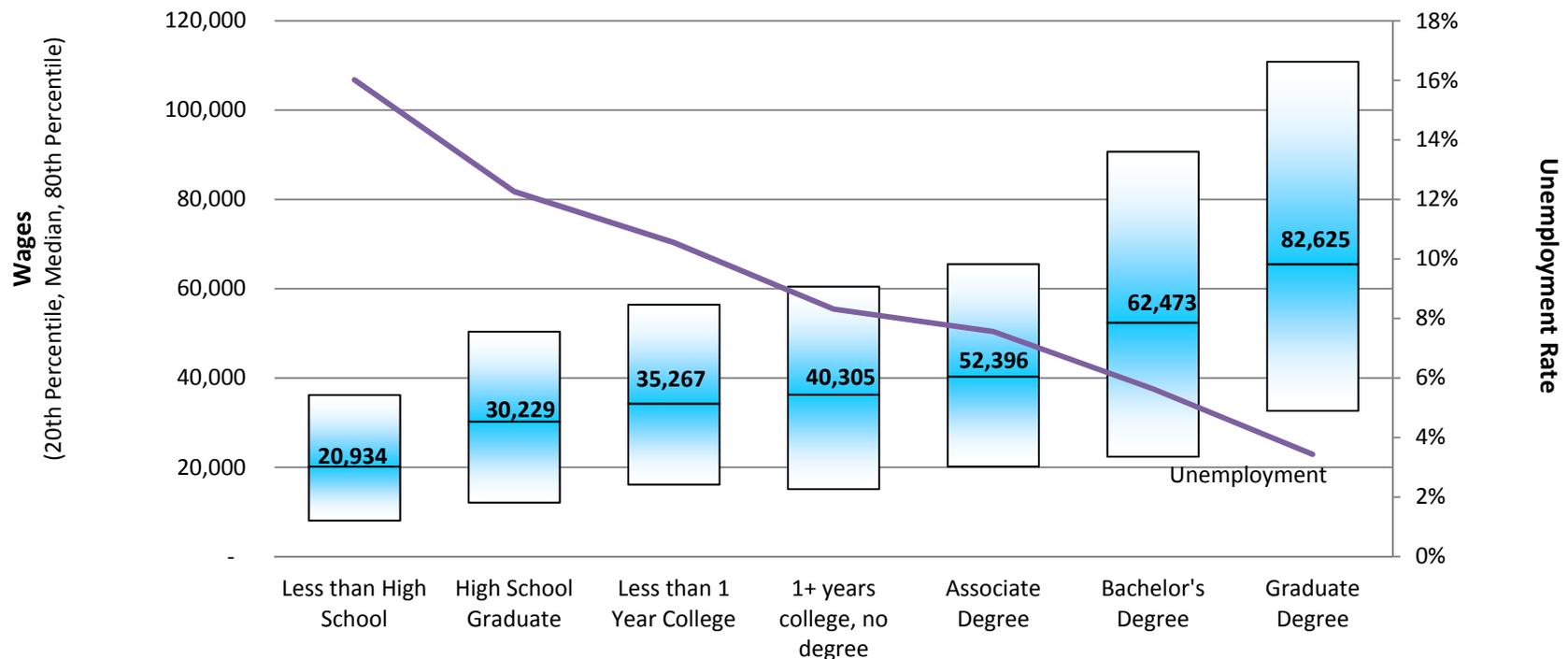
The report addresses two major issues

- 1) Identification of High Employer Demand Occupations
- 2) Aggregate Demand for Higher Education Degrees and Certificates

Education Level

- Workers with higher levels of education tend to earn more and experience lower rates of unemployment.
- At each level there is a range of earnings that varies by field of study and occupation.

2010 Wages and Unemployment by Education Level



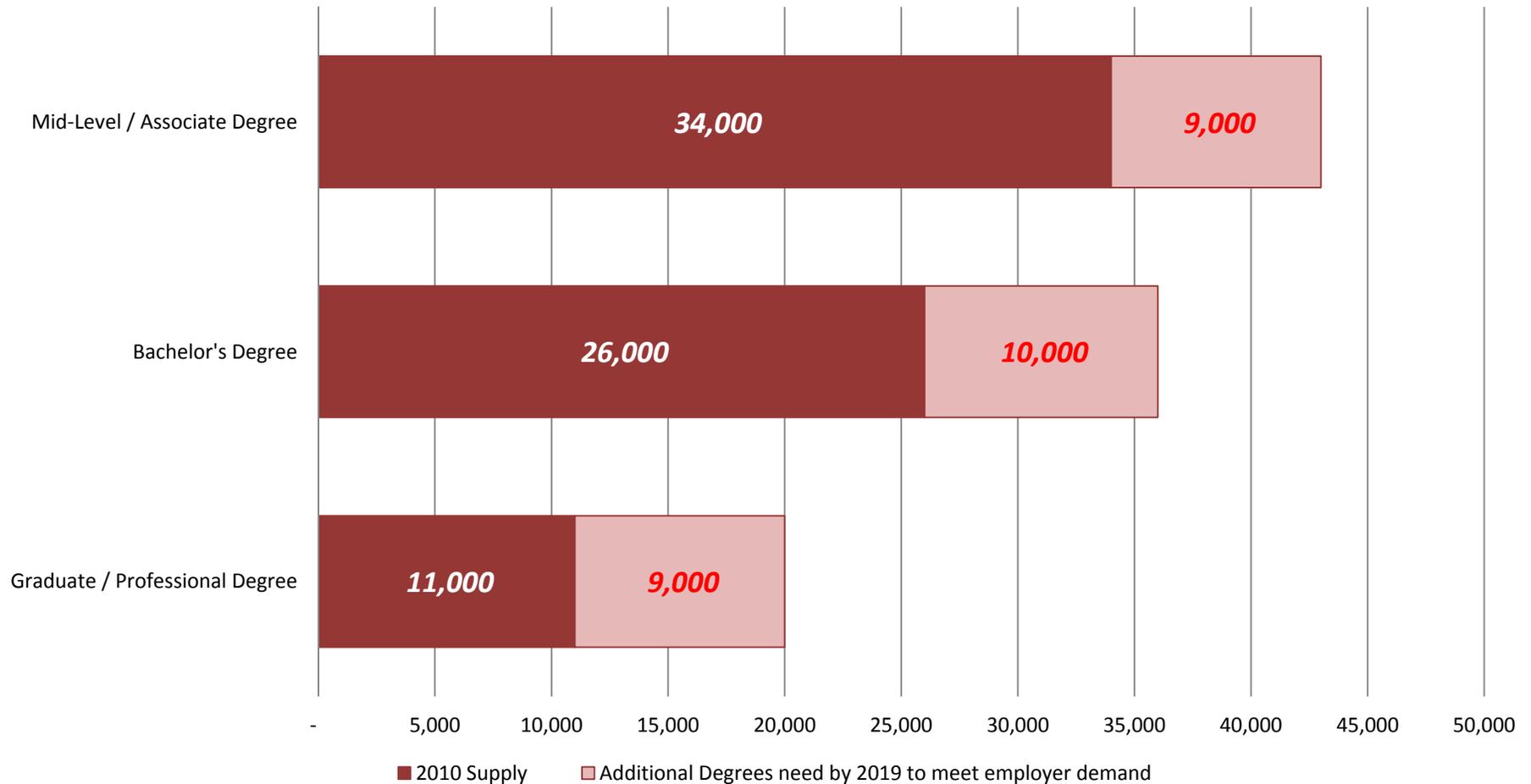
Source: 2010 American Community Survey. Wages include civilian employed WA residents age 25-64. Unemployment rate reflects civilian labor force for WA residents age 25-64.

Gap Analysis

- Gaps are calculated based on current supply and anticipated annual demand by education level in 2014-2019.
- For occupations the analysis looks at the size of the gap and occupations with unique education and training requirements.
- The analysis recognizes that training at a variety of levels is required for some occupations.

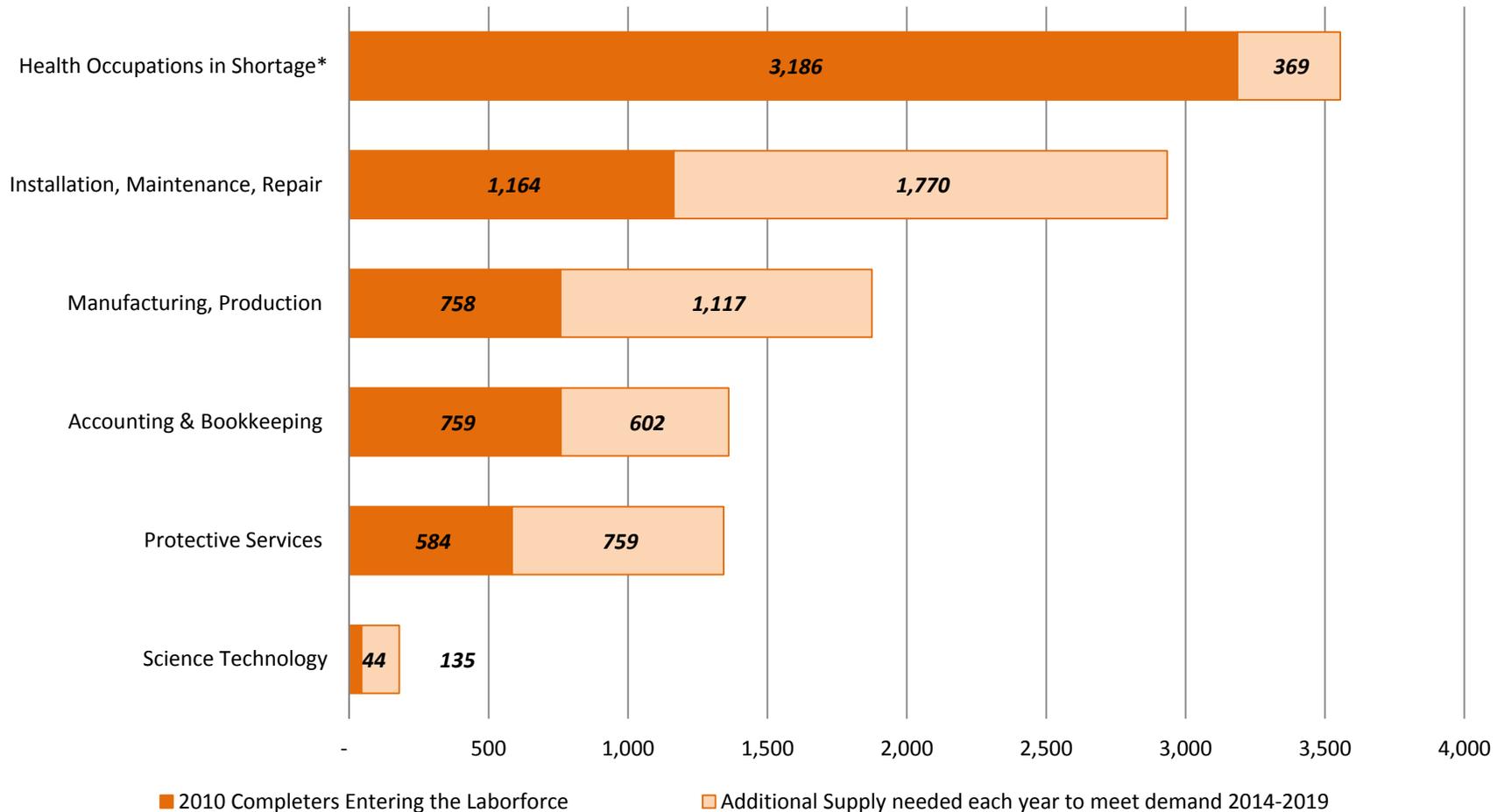
Supply and Demand

Annual Supply and Demand of Workers by Education Level
2010 Supply and Annual Average Openings 2014-2019



Mid Level Gap Analysis

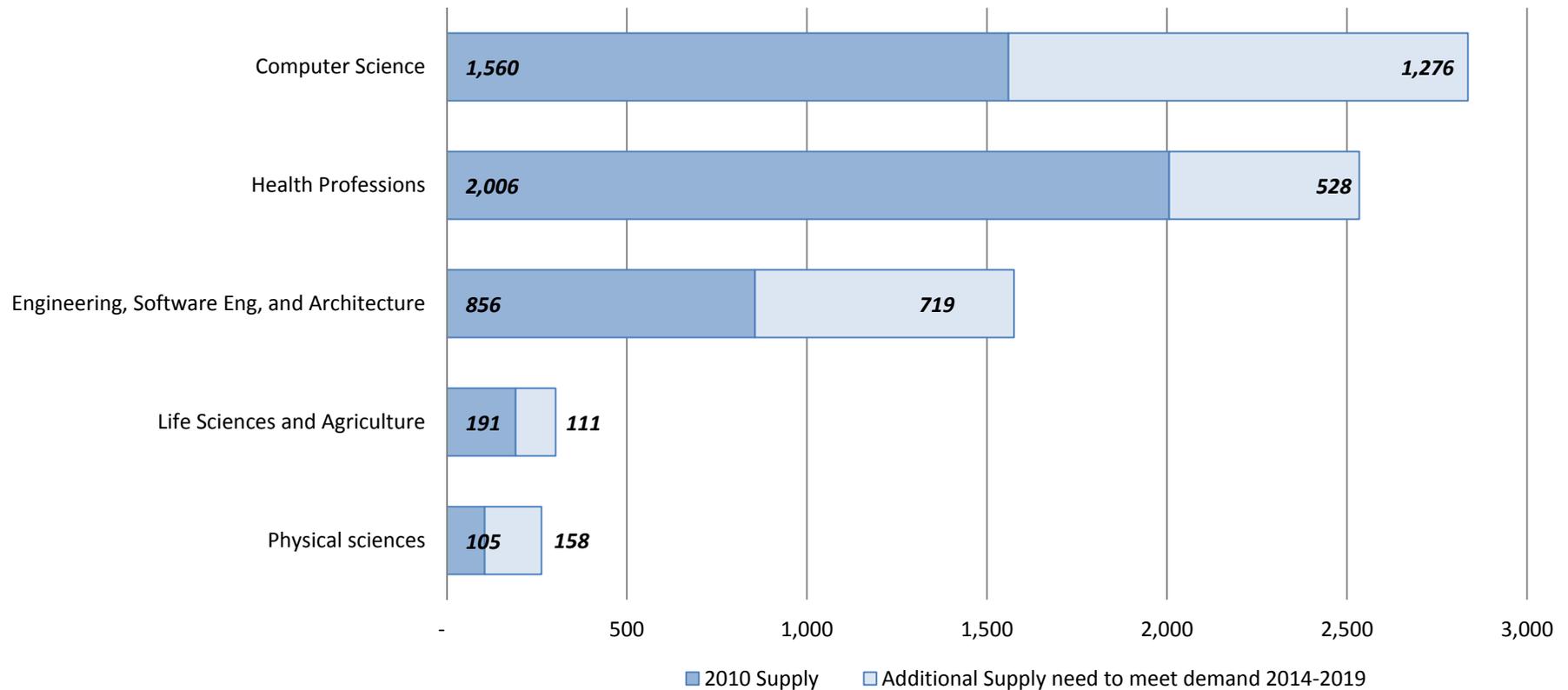
High Employer Demand Occupations at the Mid Level 2010 Supply compared to 2014-2019 Demand



*includes only mid-level health occupations with projected shortages

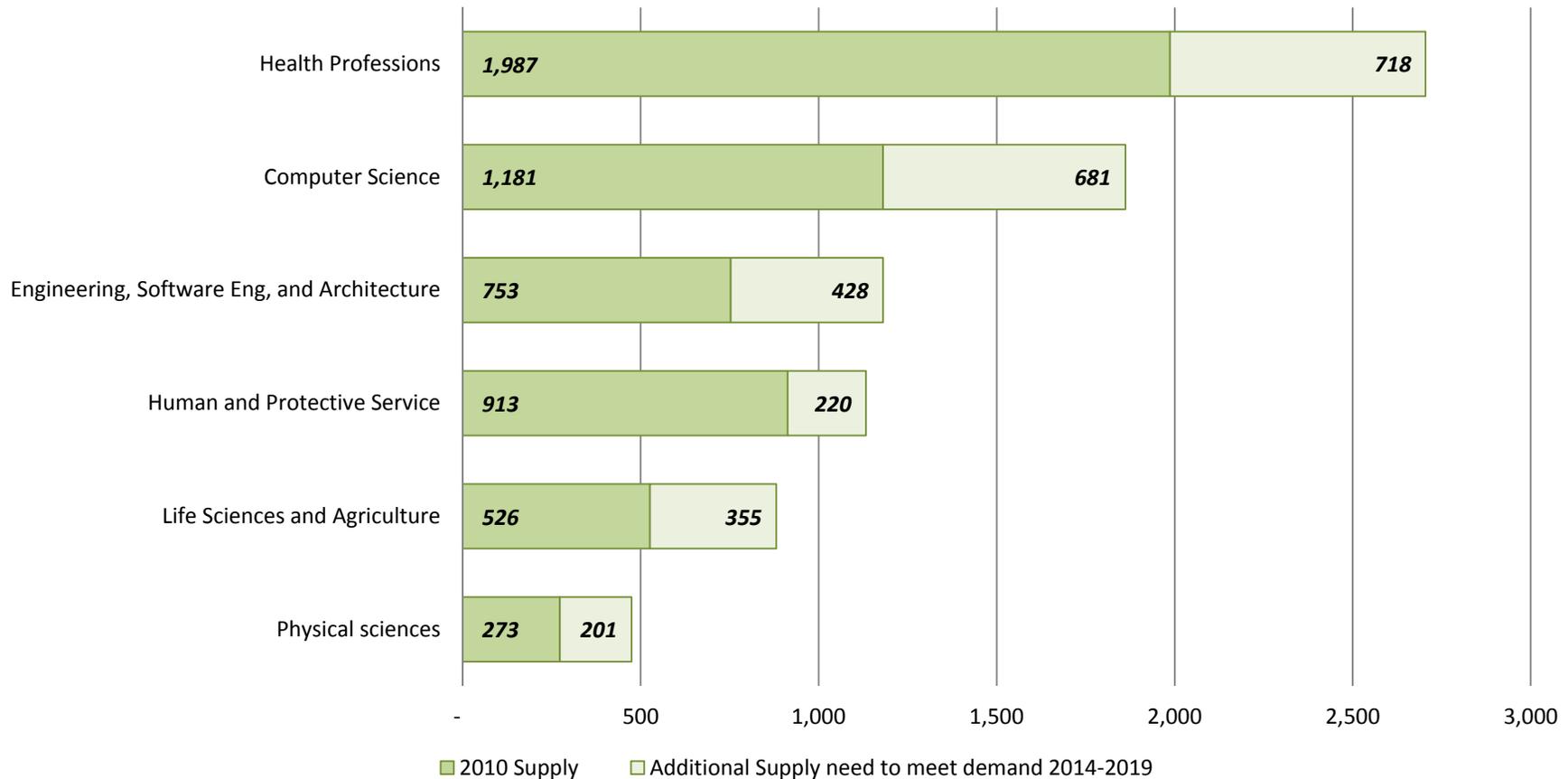
Baccalaureate Gap Analysis

High Employer Demand Occupations at the Baccalaureate Level 2010 Supply compared to 2014-2019 Demand



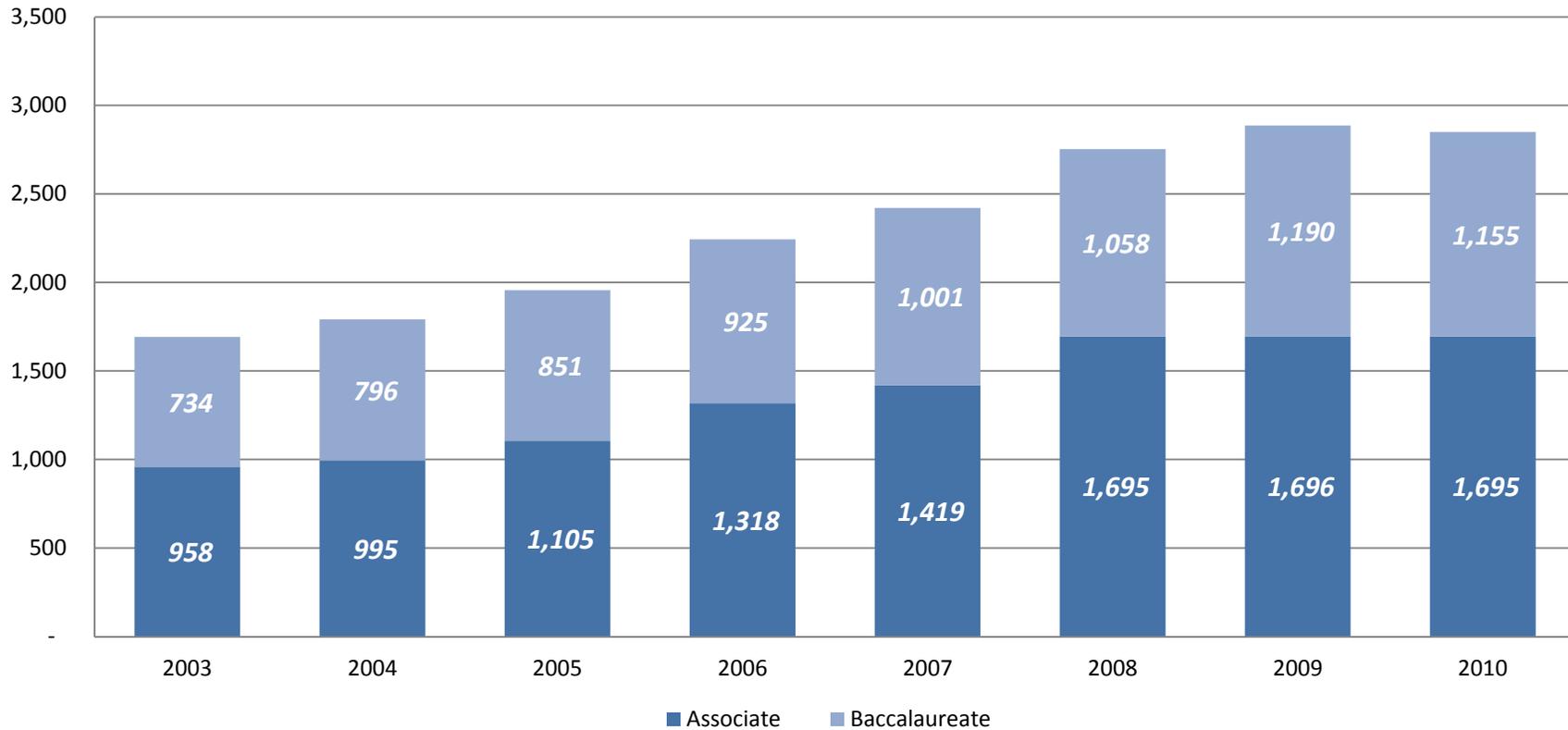
Graduate Gap Analysis

High Employer Demand Occupations at the Graduate Level 2010 Supply compared to 2014-2019 Demand



Where have we made progress?

Annual Registered Nursing Program Completions
2003-2010



Source: Health Professions Education In Washington State: 2003—2010 Completion Statistics. Workforce Training and Education Coordinating Board, 2011

Aerospace Workforce Requirements

- A higher share of the workforce is employed by the Aerospace industry in Washington than in any other state – and we rank second to California in overall aerospace employment.
- Recent increases in the Boeing orders have yet to be reflected in detailed labor market forecasts for the aerospace industry.
- However, employer surveys and Census data allow us to identify the general mix of occupations used in Washington's aerospace industry.

Key Aerospace Occupational Groups

Occupational Group	Approximate Recent Labor Force	Primary Education Level(s)
Engineers & Engineering Managers (primarily Aerospace & Industrial)	14,000	BA, some grad
Aircraft Assembly & Maintenance Specialties	8,000	Certificates, some AA & OJT
IT – Primarily Programmers, Engineers and Scientists	6,000	BA
Procurement, Budget, Logistics, Operations Research	4,000	BA, some certificates
Drafting & Engineering Technicians	3,500	AA, Certificate, BA
Machinists	3,000	Certificates
General Production & Assembly Occupations	3,000	Certificates, OJT
Inspectors, testers, samplers, incl. transportation inspectors	3,000	Certificates, OJT
Computer & Numerical Controlled Manufacturing	2,000	Certificates
Production Supervisors	1,600	BA to OJT

Next Steps

Work on final printed report is in progress.

Series of follow-up briefs:

- Aerospace industry
- Education and related occupations
- Healthcare occupations

Questions?



Contact:

- Randy Spaulding, Higher Education Coordinating Board, randys@hecb.wa.gov.
- Tina Bloomer, State Board for Community and Technical Colleges, tbloomer@sbctc.edu.
- Bryan Wilson, Workforce Training and Education Coordinating Board, bwilson@wtb.wa.gov.