

Title	Skilled and Educated Workforce
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Synopsis	<p>Staff from the three agencies collaborating on the report will present findings from the forthcoming Skilled and Educated Workforce report. This edition is the first since implementing a revised methodology based on recommendations from the W.E. Upjohn Institute for employment research. The report supports long-term educational planning and growth by identifying those fields that are in greatest demand in the economy.</p> <p>Randy Spaulding, Ph.D., Director of Academic Affairs and Policy Washington Student Achievement Council</p> <p>Daryl Monear, Ph.D., Associate Director of Academic Affairs and Policy Washington Student Achievement Council</p> <p>Tina Bloomer, Policy Research Associate State Board for Community and Technical Colleges</p> <p>David Pavelchek, Deputy Director Workforce Training and Education Coordinating Board</p>
Guiding questions	<ol style="list-style-type: none"> 1. How well does our current higher education system align with future projections of employment opportunities? 2. Where is enrollment growth needed to meet employer needs? 3. What progress have we made to close persistent gaps?
Possible council action	<input checked="" type="checkbox"/> Information/Discussion <input type="checkbox"/> Approve/Adopt <input type="checkbox"/> Other:
Documents and attachments	<input type="checkbox"/> Brief/Report <input checked="" type="checkbox"/> PowerPoint <input type="checkbox"/> Third-party materials <input type="checkbox"/> Other



Skilled and Educated Workforce Report

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Guiding Questions

1. How well does our current higher education system align with future projections of employment opportunities?
2. Where is enrollment growth needed to meet employer needs?
3. What progress have we made to close persistent gaps?

How is the report used?

Statewide Strategic Planning

- Roadmap goals.

System Planning & Allocation

- State and regional needs assessment
- High demand programs
- SBCTC allocation model.

Institutional Planning

- New degree and certificate programs

What are the primary sources of data?

- American Community Survey
- Integrated Postsecondary Education Data System (IPEDS)
- Long Term State Employment Forecast
- State Administrative Data Systems
- Survey of Income and Program Participation (SIPP – for associate crosswalk)
- National Survey of College Graduates (NSCG – for graduate crosswalk)

Analysis at three levels

Mid-Level

More than 1 year of college but less than a bachelor's, includes associate degrees

Bachelor's Degree

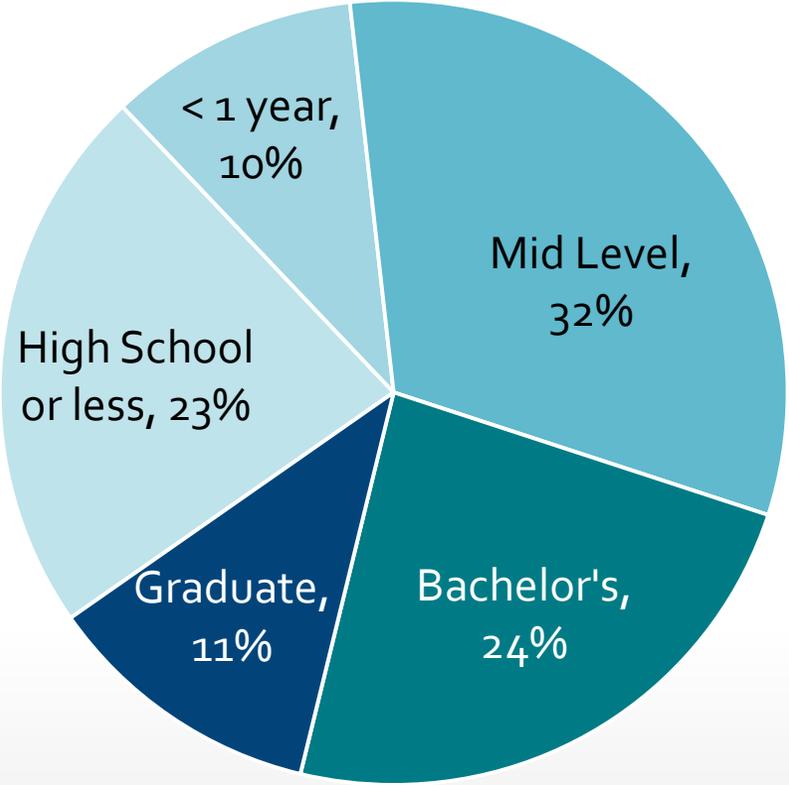
Graduate Degree

Includes master's, professional, doctoral

Total Openings by Education Level 2018-2023

2/3 of job openings
require a mid-level
education or higher.

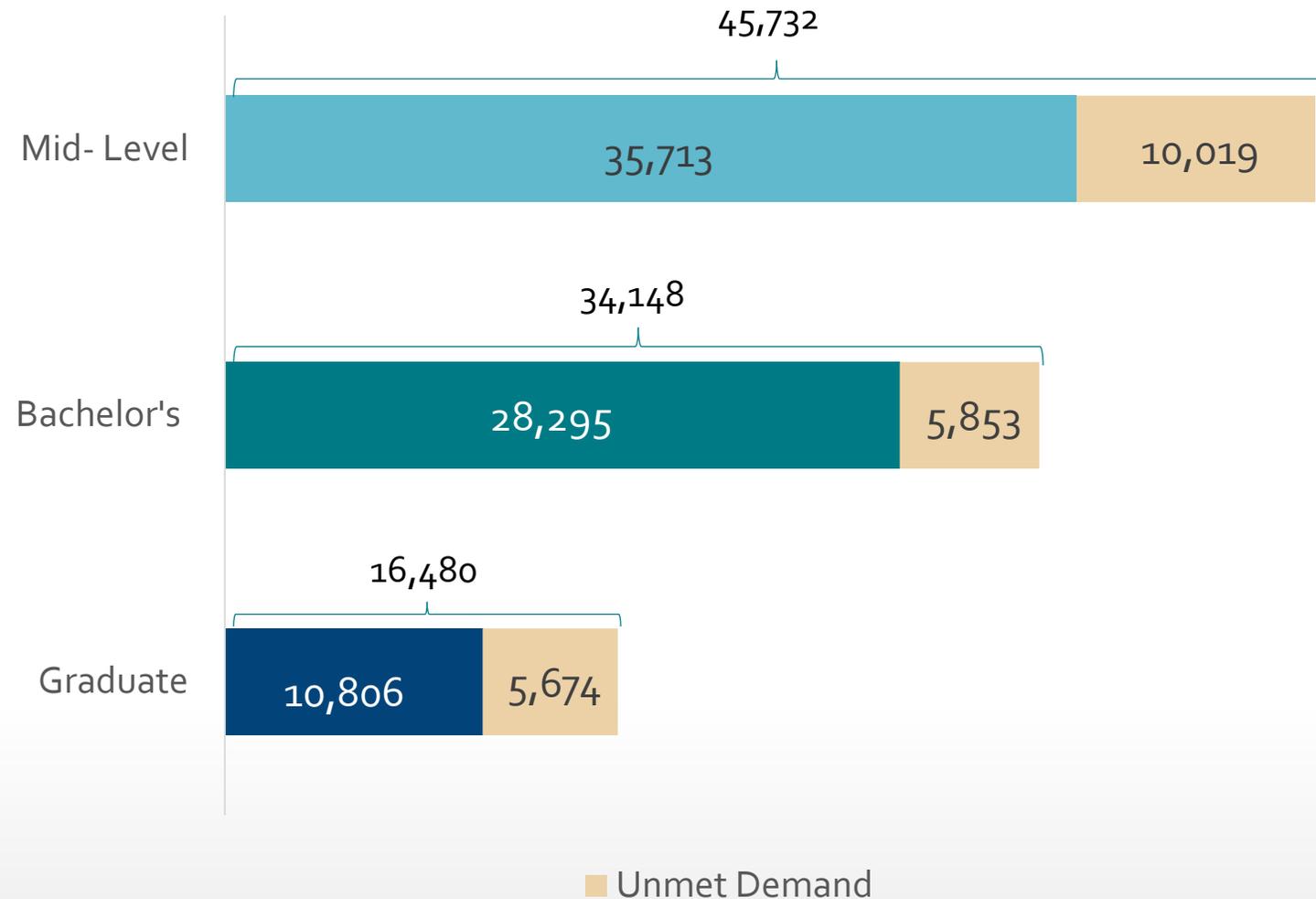
Over three-quarters of job openings
require some postsecondary education.



Employers face shortages of workers with postsecondary education at all levels.

A gap exists between the numbers of educated workers employers need, and the number of degree completions.

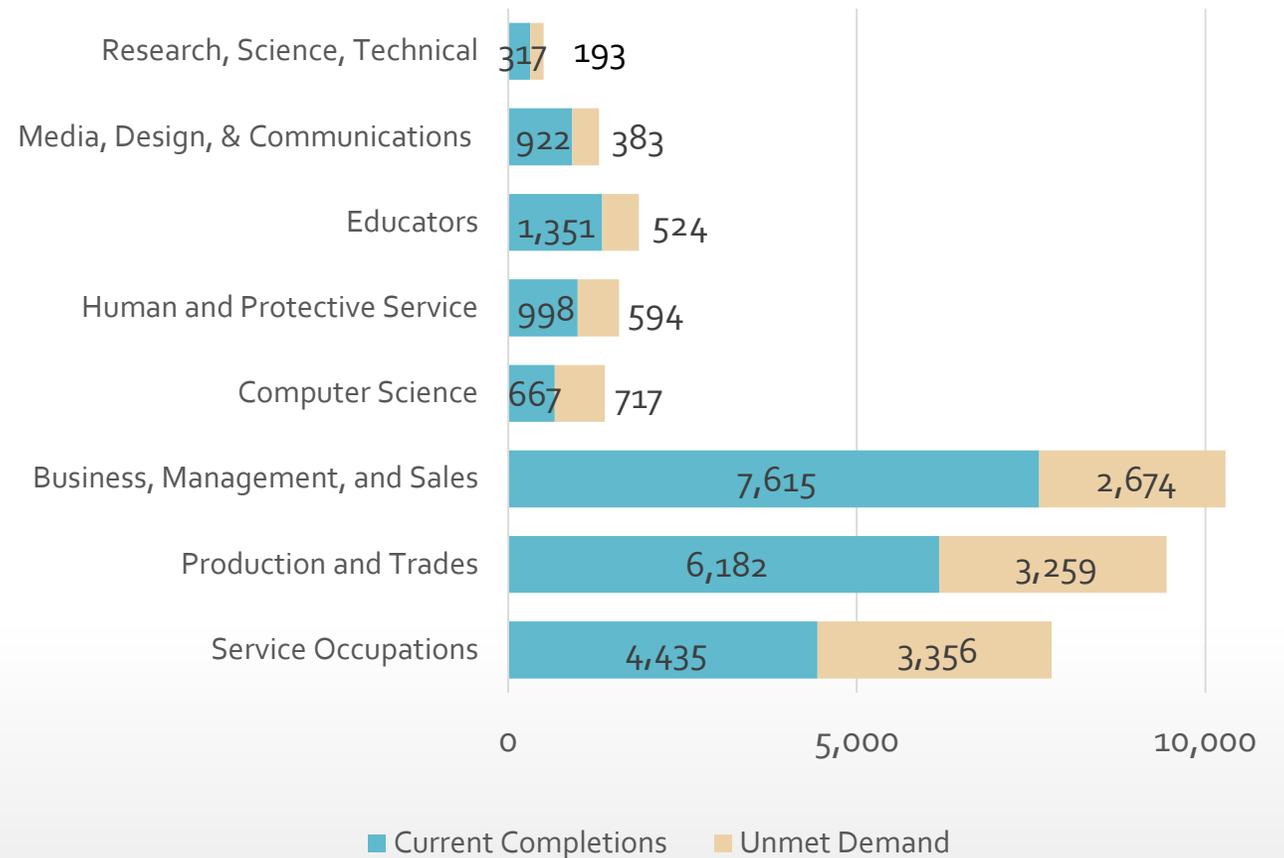
Aggregate Gaps Between Degree Completion and Unmet Demand, 2018-2023



Mid-Level Shortages

- The highest numbers of unfilled openings are in, service, production, business, management, and sales occupations.
- Three-quarters of mid-level gaps for workers with one or more years of post-secondary education are in services, production and business management occupations.
- These include the needs for more CTC students completing degree and long certificates for jobs including managers in culinary and hospitality, mechanics and installers and accountants.
- Gaps also exist in computer fields, education and protective services for jobs such as database administrators and analysts, early childhood educators, firefighters and law enforcement.

Mid-Level Unmet Demand 2018–2023
2013 Completions and Total Projected Openings



Bachelor's Shortages

The highest number of unfilled openings is in **computer science** occupations.

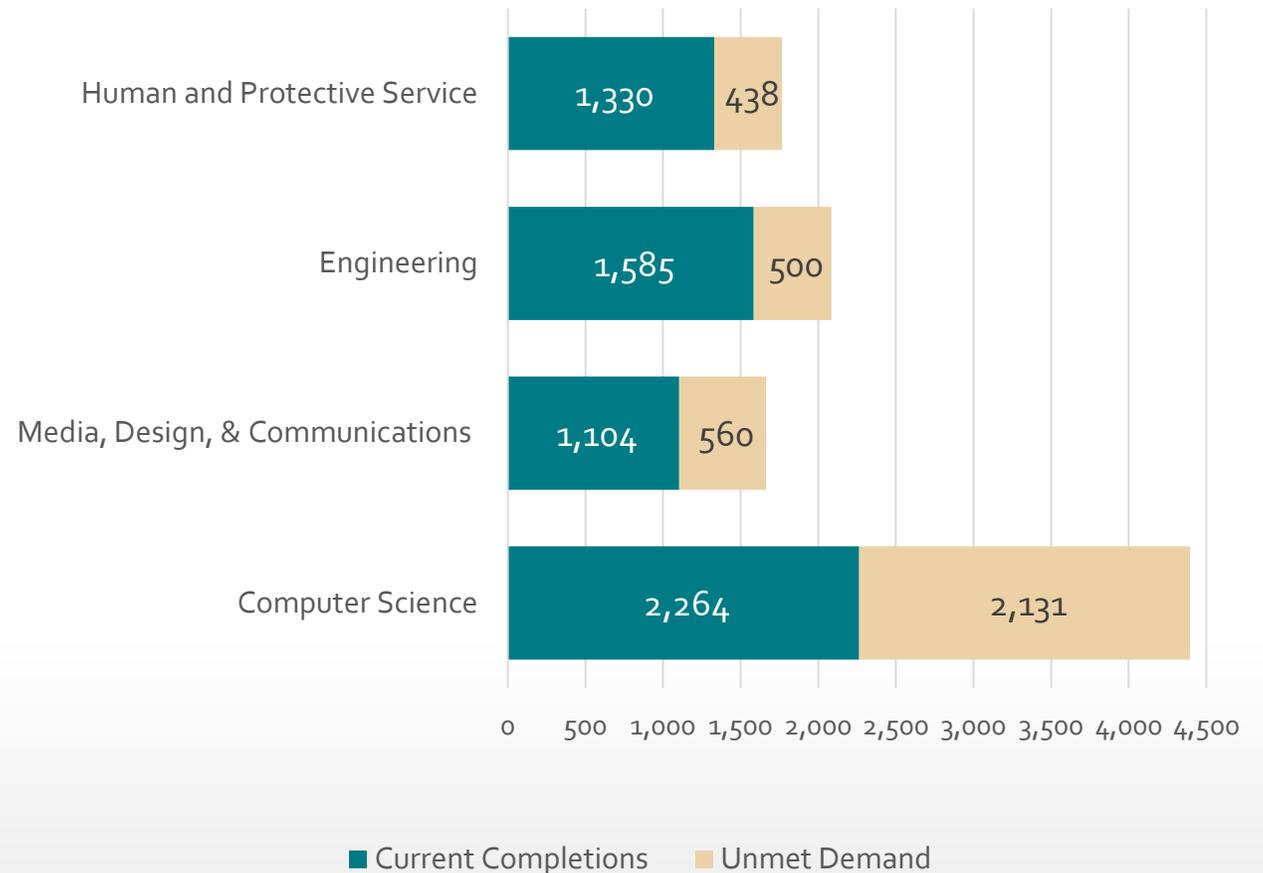
- 42% of projected openings are for software developers.
- 28% are for computer programmers and systems analysts.

Demand for **engineers** is fairly high across all areas of specialization.

- 23% of project openings are for civil engineers. Others include:
- 13% mechanical engineering
- 12% electrical and electronics engineering
- 9% aerospace engineering

Demand for **media, design, and communications** in this occupational cluster may be riding the current wave of economic recovery

Baccalaureate Level Gaps 2018–2023
2013 Completions and Total Projected Openings



Graduate-Level Shortages

At the graduate level, the largest gaps are in computer science and health occupations.

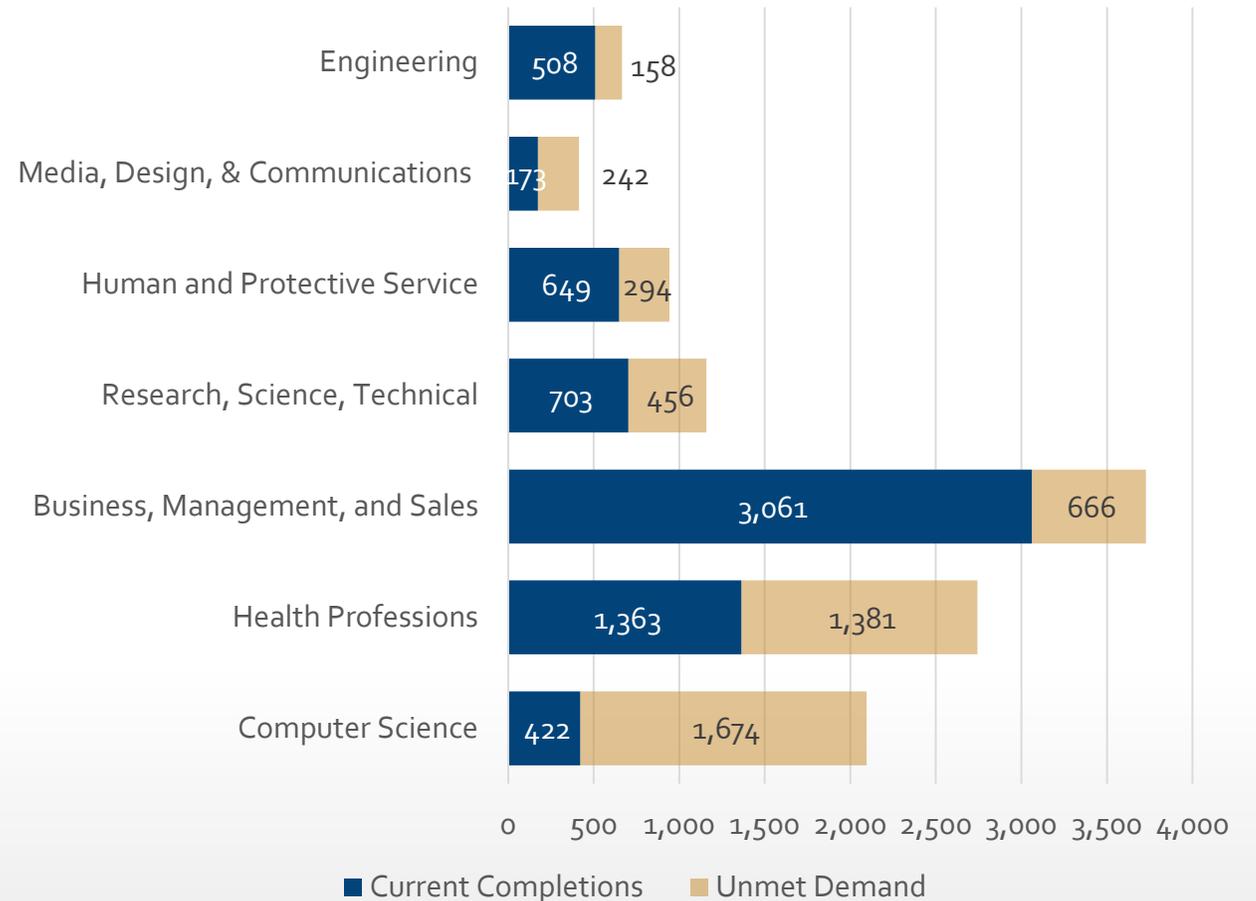
Computer Science

- 59% of projected openings are for software developers and programmers.
- 22% of projected openings are for computer programmers and systems analysts.

Health Professions

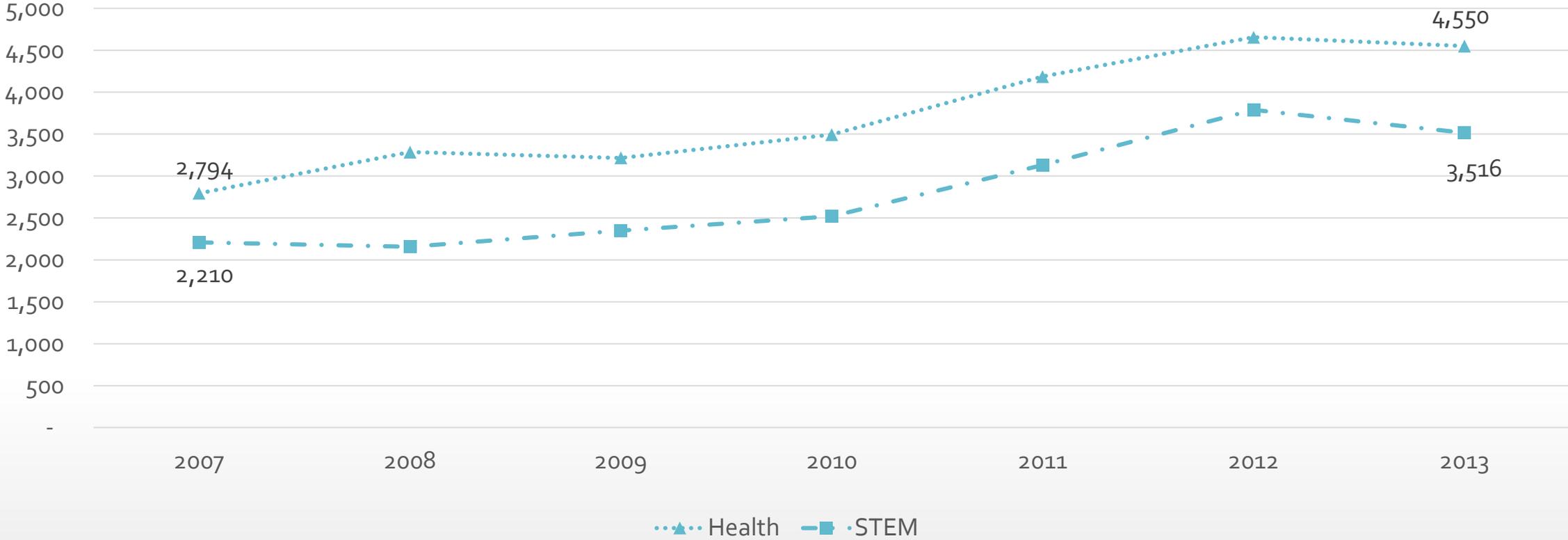
- 36% of projected openings are for physicians, surgeons, dentists, and pharmacists.
- 48% of projected openings are for registered nurses, physical and occupational therapists, and medical technician positions.

Graduate Level Gaps 2018–2023
2013 Completions and Projected Total Openings



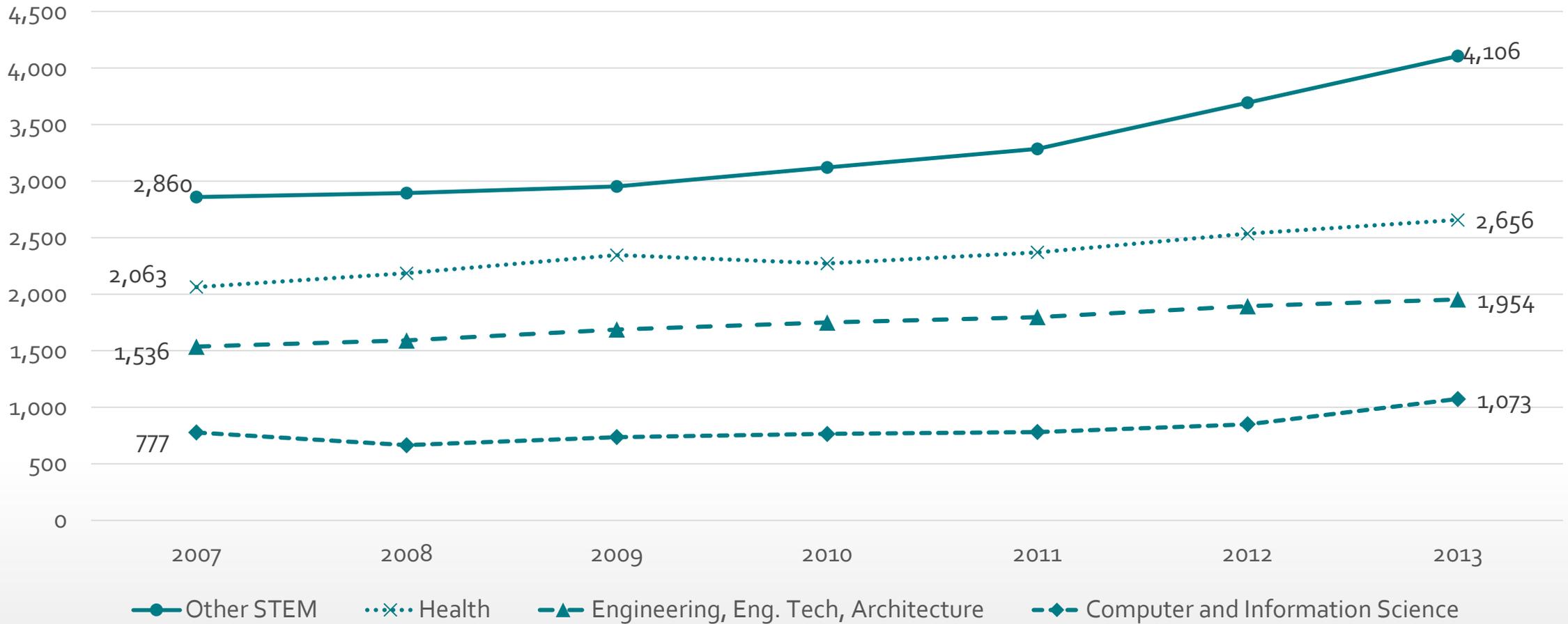
Mid-Level Degree Production

Associate Degree Production 2007–2013



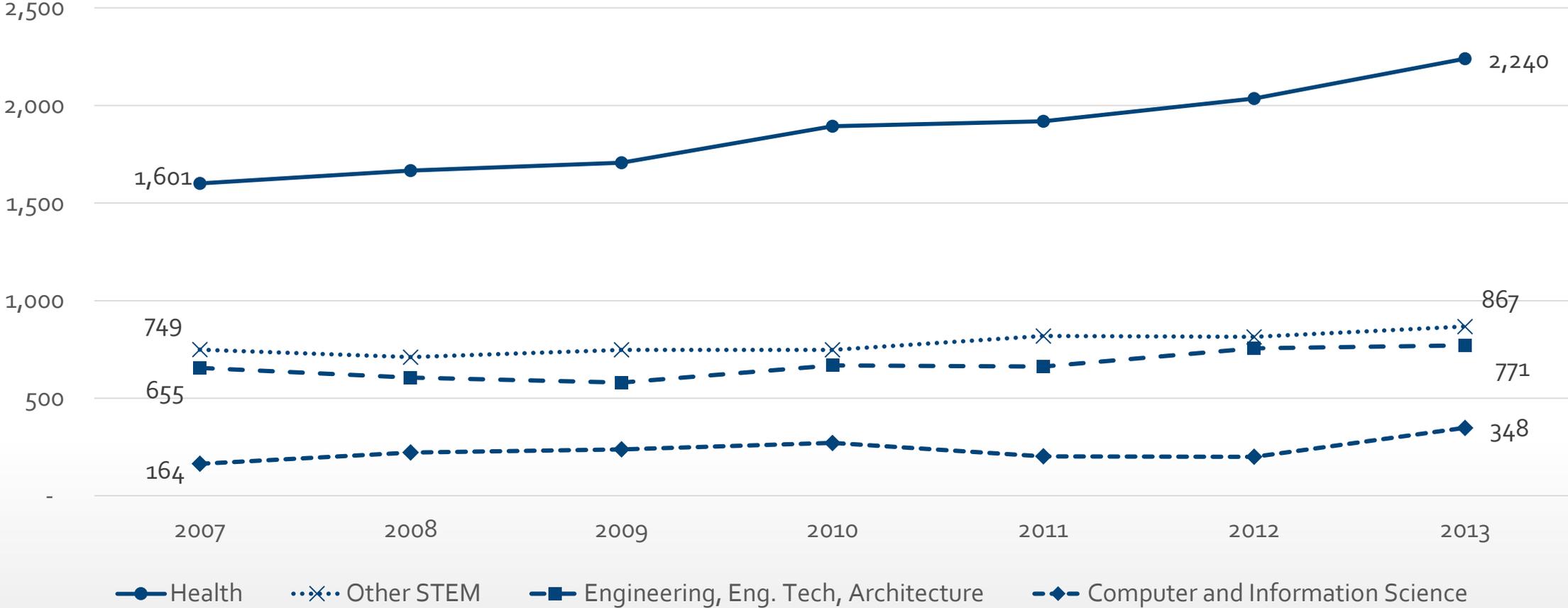
Baccalaureate Degree Production

Baccalaureate Degree Production in Health and STEM Fields 2007–2013



Graduate Degree Production

Graduate Degree Production in Health and STEM Fields 2007–2013



Employer Engagement

- Workforce Board with Business & Labor co-chairs
- Employer advisory committees for professional-technical CTC programs
- Committee established to meet a state-level industry's needs
- Skill Panels and Centers of Excellence
- STEM Education Innovation Alliance
- Industry-Education Partnerships

Continue the conversation.