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WASHINGTON STATE BOARD FOR COMMUNITY & TECHNICAL COLLEGES

Washington State Workforce Training And Education Coordinating Board

A Skilled and Educated Workforce

Senate Trade & Economic Development Committee
February 4, 2015

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Purpose

- An assessment of the number and type of higher education and training credentials required to match employer demand for a skilled and educated workforce.
- Focus on projected workforce needs during the post-recessionary period from 2016 to 2021.
- Required under RCW 28B.77.080

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Skills Gap Analysis

Calculation based on:

- Current supply (rate of degree production).
- Anticipated annual demand by education level in 2016-21.

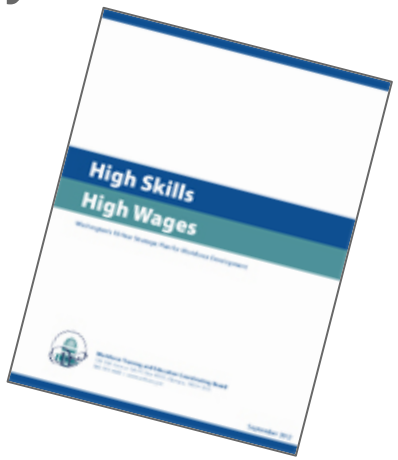
Note: Employment opportunities might exist at various training levels in some fields.

Connection to Roadmap & High Skills, High Wages

- Analyzes skills gaps and future trends.
- Identifies high employer demand fields.
- Highlights occupational fields in which students may find expanding employment opportunities.
- Identifies academic programs that may be in need of expansion.

THE ROADMAP

A Plan to Increase Educational Attainment in Washington



STEM Occupations in Demand

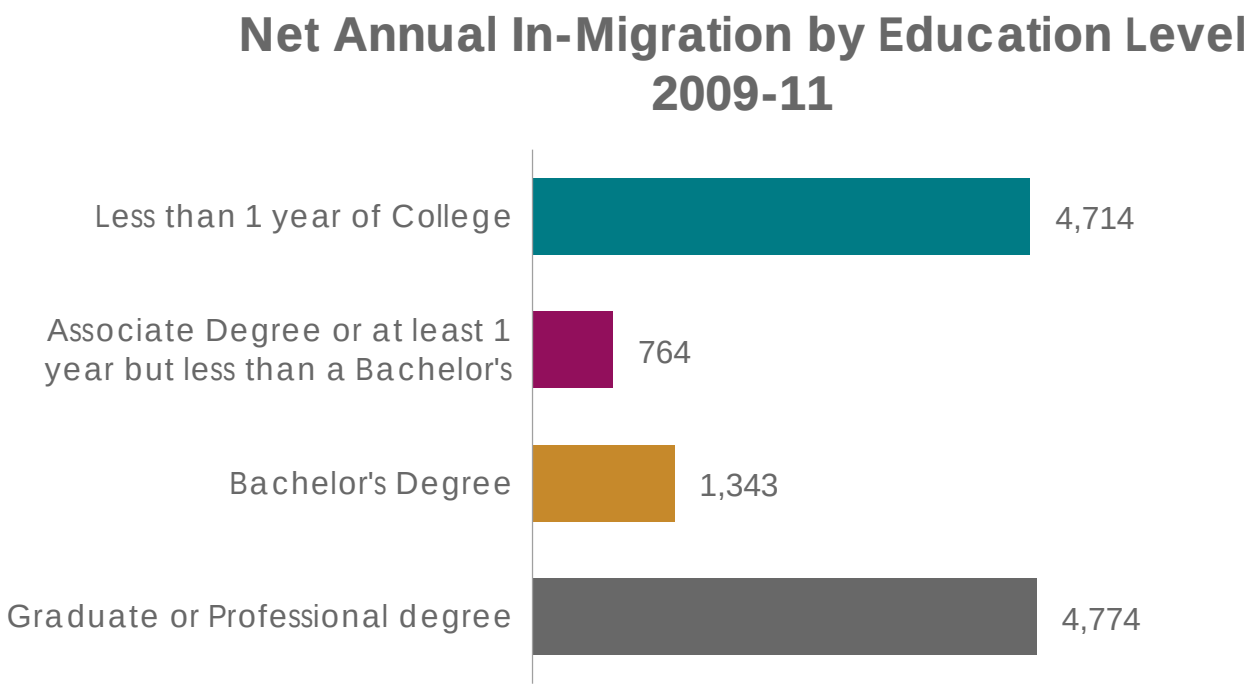
- STEM makes up 13.6% of jobs in Washington, compared to 12.8% nationally.
- The 10-year projected growth rate for all jobs in Washington is 17%, while it is 20% for STEM jobs.
- STEM jobs are projected to account for 17% of openings due to growth in 2017-2022.

	Estimated Employment 2012	Avg. Growth Rate 2012-22	Avg. Annual Openings due to Growth
Software Developers, Applications	53,197	26.7%	1,218
Accountants and Auditors	30,344	21.5%	556
Construction Managers	13,217	30.2%	258
Computer Programmers	16,706	23.9%	347
Security Management Specialists	28,154	13.7%	341
Computer Systems Analysts	15,379	22.9%	297
Computer User Support Specialists	13,081	25.3%	283
Civil Engineers	12,977	23.9%	305
Computer and Information Systems Managers	9,509	26.3%	215
Cost Estimators	5,443	34.1%	133
Software Developers, Systems Software	8,671	20.2%	156
Automotive Specialty Technicians	14,073	12.4%	143
Architects, except Landscape and Naval	4,229	26.6%	111
Business Intelligence Analysts	4,878	22.2%	93
Computer Network Support Specialists	4,574	20.6%	83

Source: U.S. Bureau of Labor Statistics and Washington's Employment Security Department

Washington Imports Talent

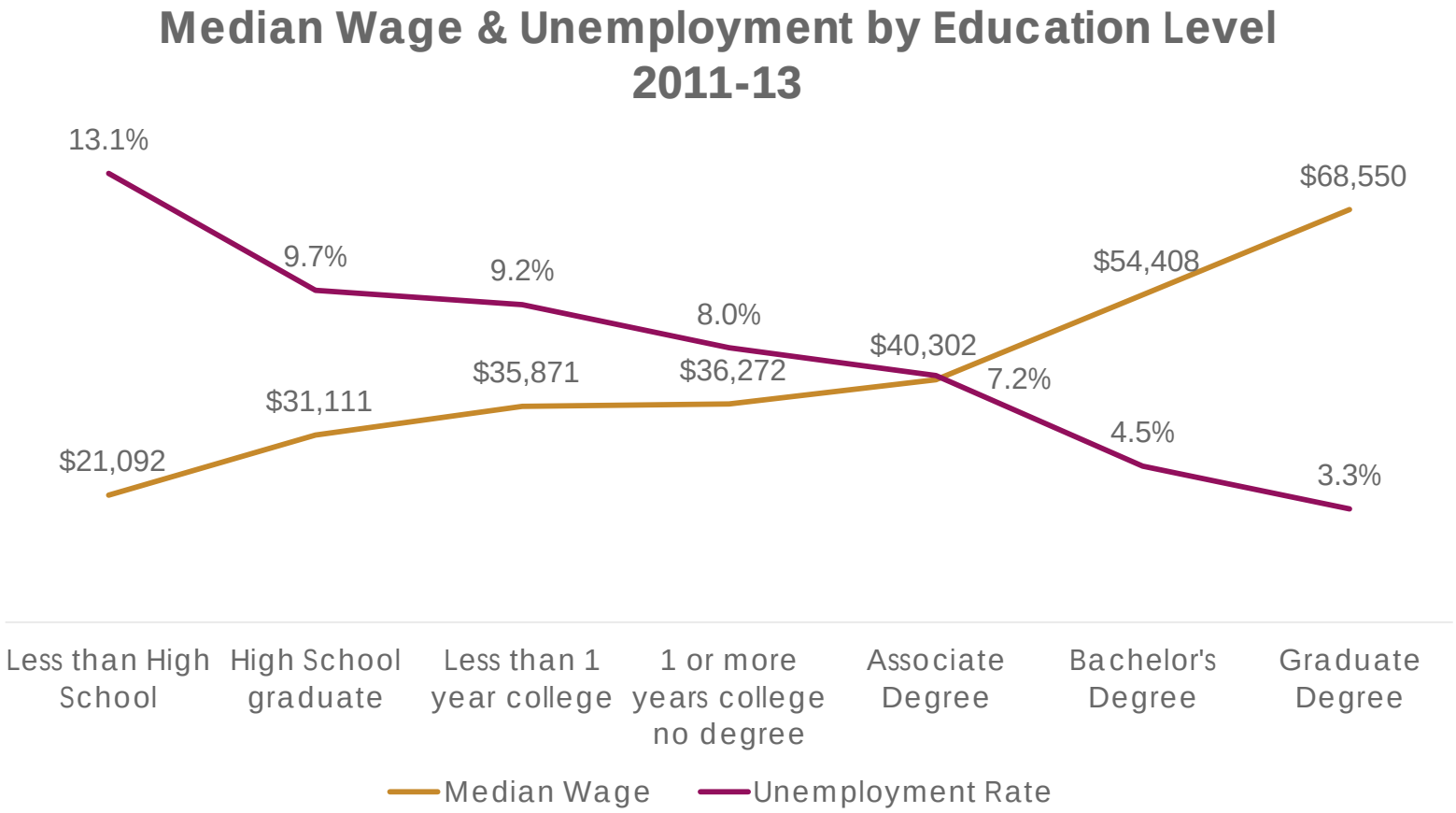
Washington employers rely on imported talent to fill a number of key positions.



Source: WSAC Staff Analysis of 2009-11 American Community Survey Data

The Economic Imperative

Education results in lower unemployment and higher wages.



Source: Washington Student Achievement Council Staff Analysis of 2009-2011 American Community Survey 3-year PUMS data file. Wages Include civilian employed WA residents age 25-64. Unemployed rate reflects civilian labor force for WA residents age 25-64

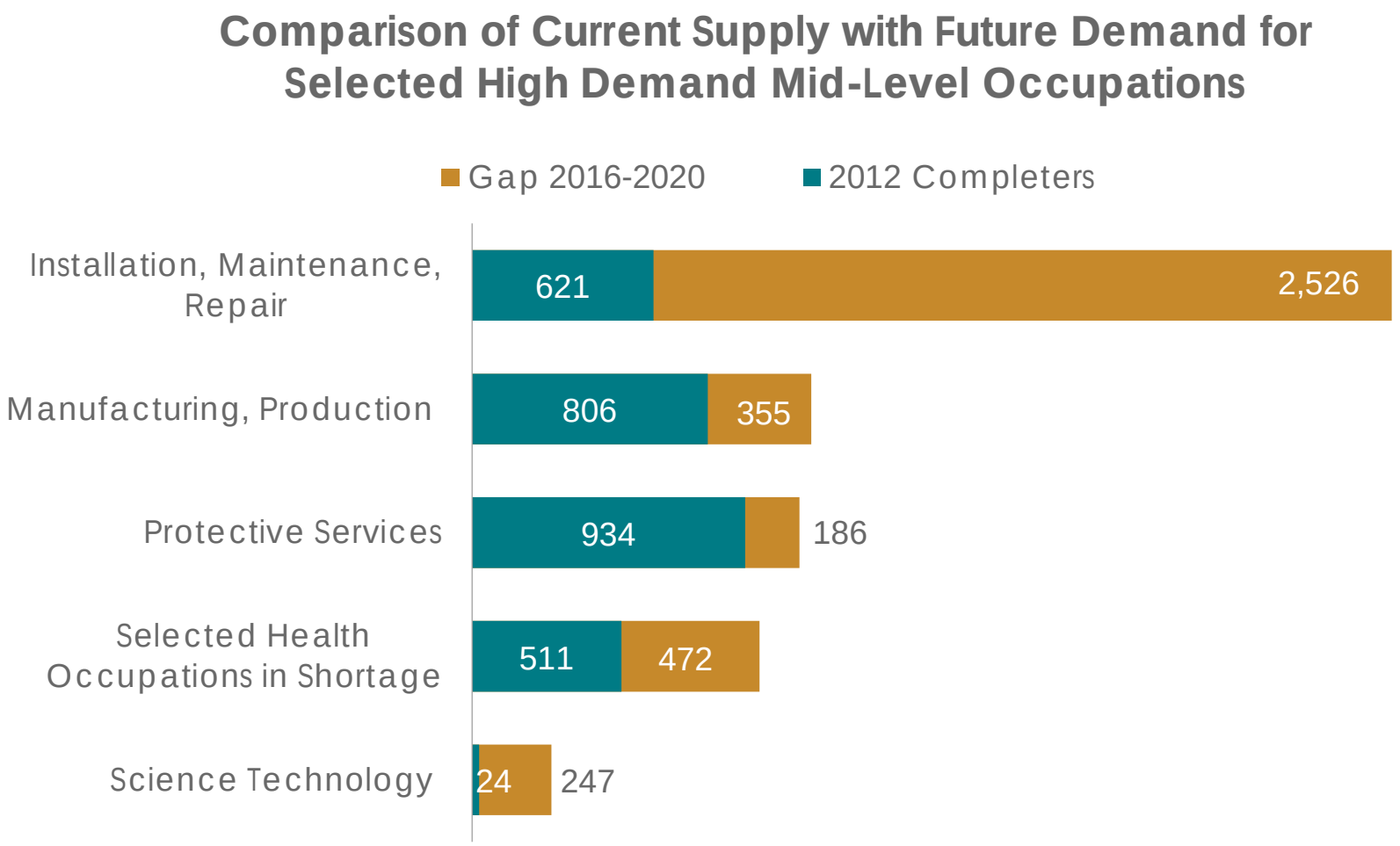
Degree Production & Demand

Annual Completions and Projected Demand for Workers by Education Level, 2016-21		
	Current Completions	Total Annual Completions Needed 2016-21
Mid-Level	59,472	66,049
Baccalaureate	32,376	45,259
Graduate	12,155	18,218

Mid-Level High Demand Fields

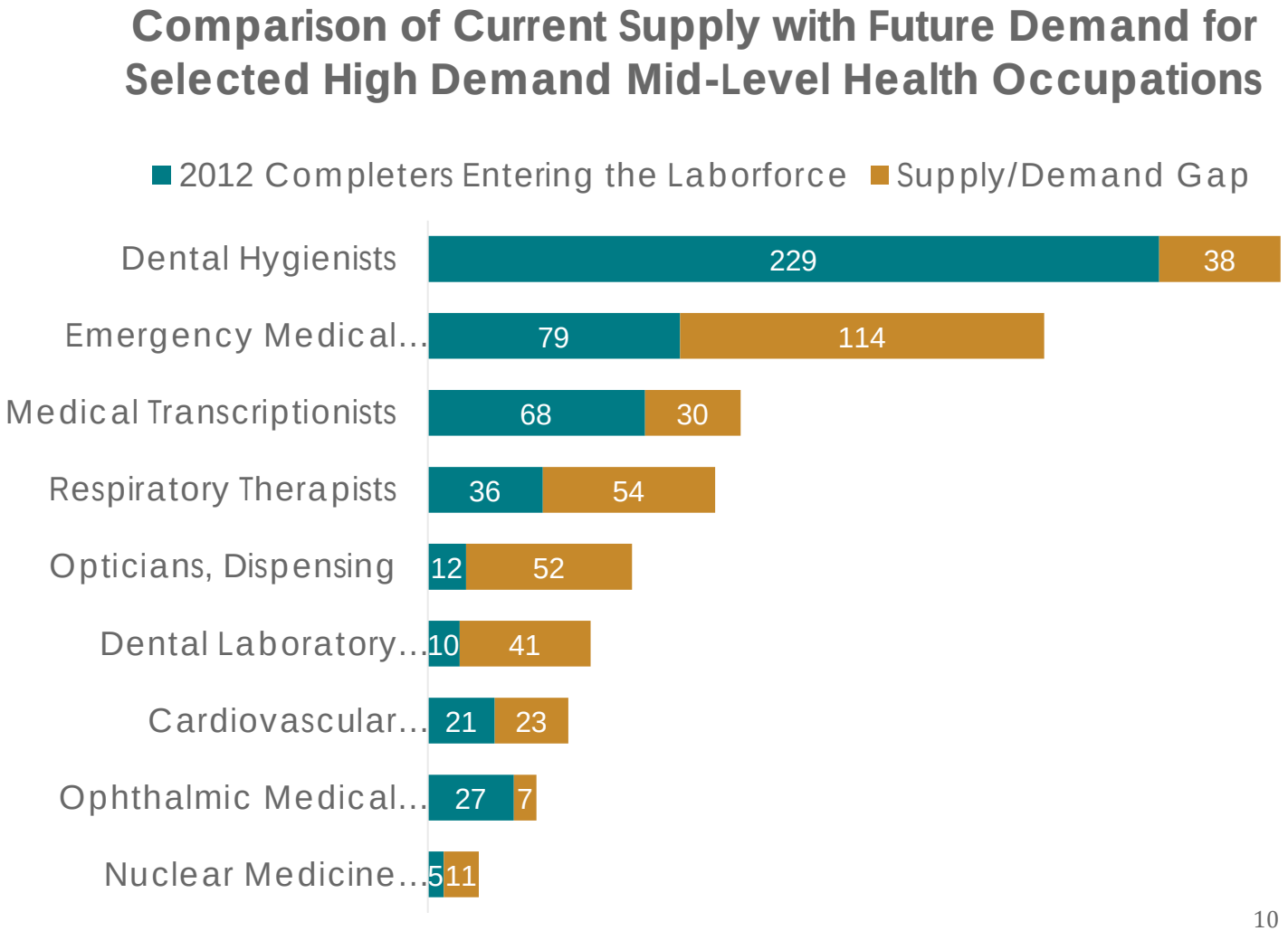
Mid-level includes 2-year degrees, long term certificates, apprenticeships from CTCs and private career schools.

The occupations have remained fairly steady, but the magnitude of the gaps has changed.



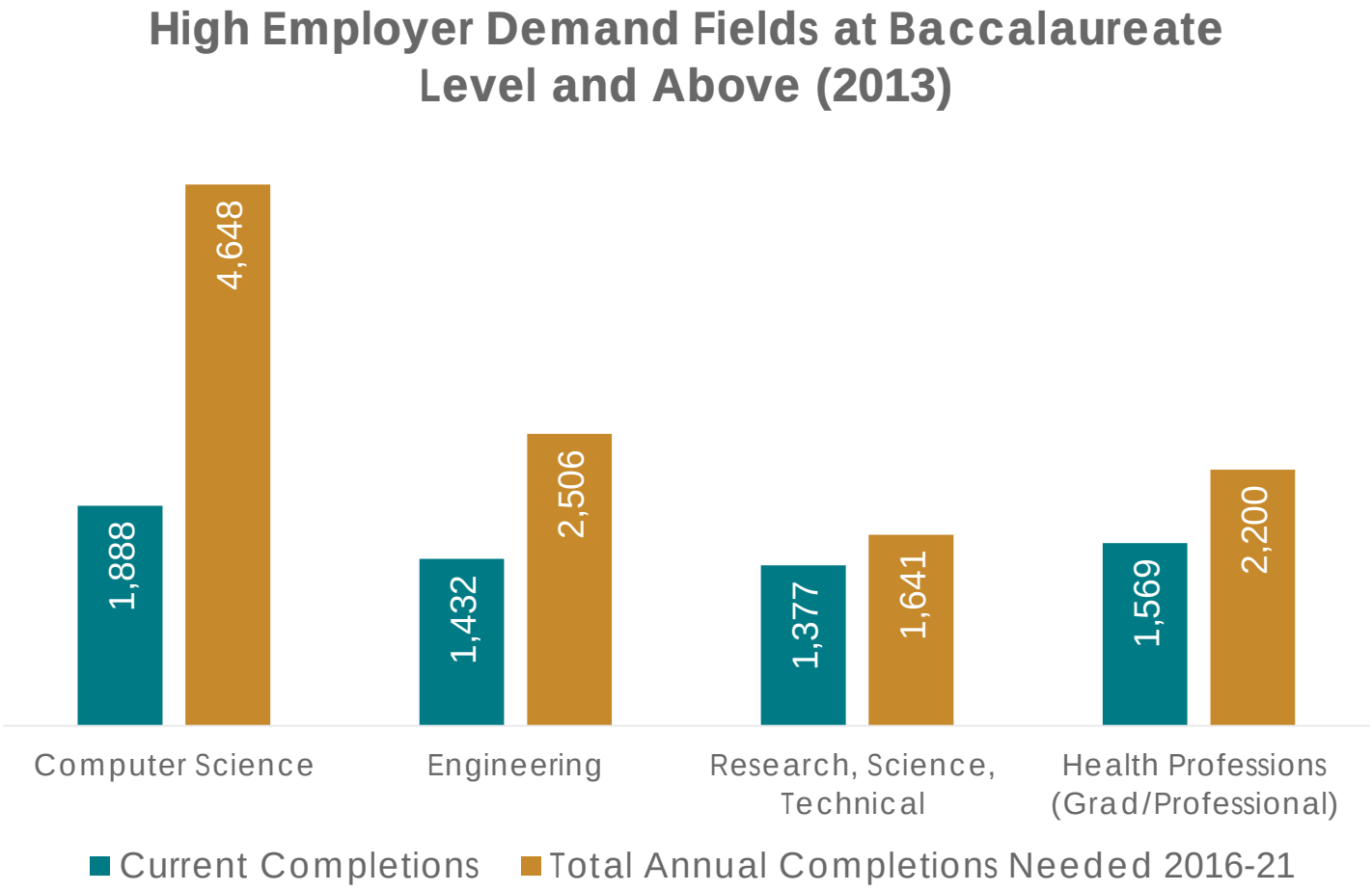
Mid-Level Health Occupations

The education and training system has been successful in helping to narrow or close some of the demand gaps. Nursing is the best example due to sustained effort for more than a decade.



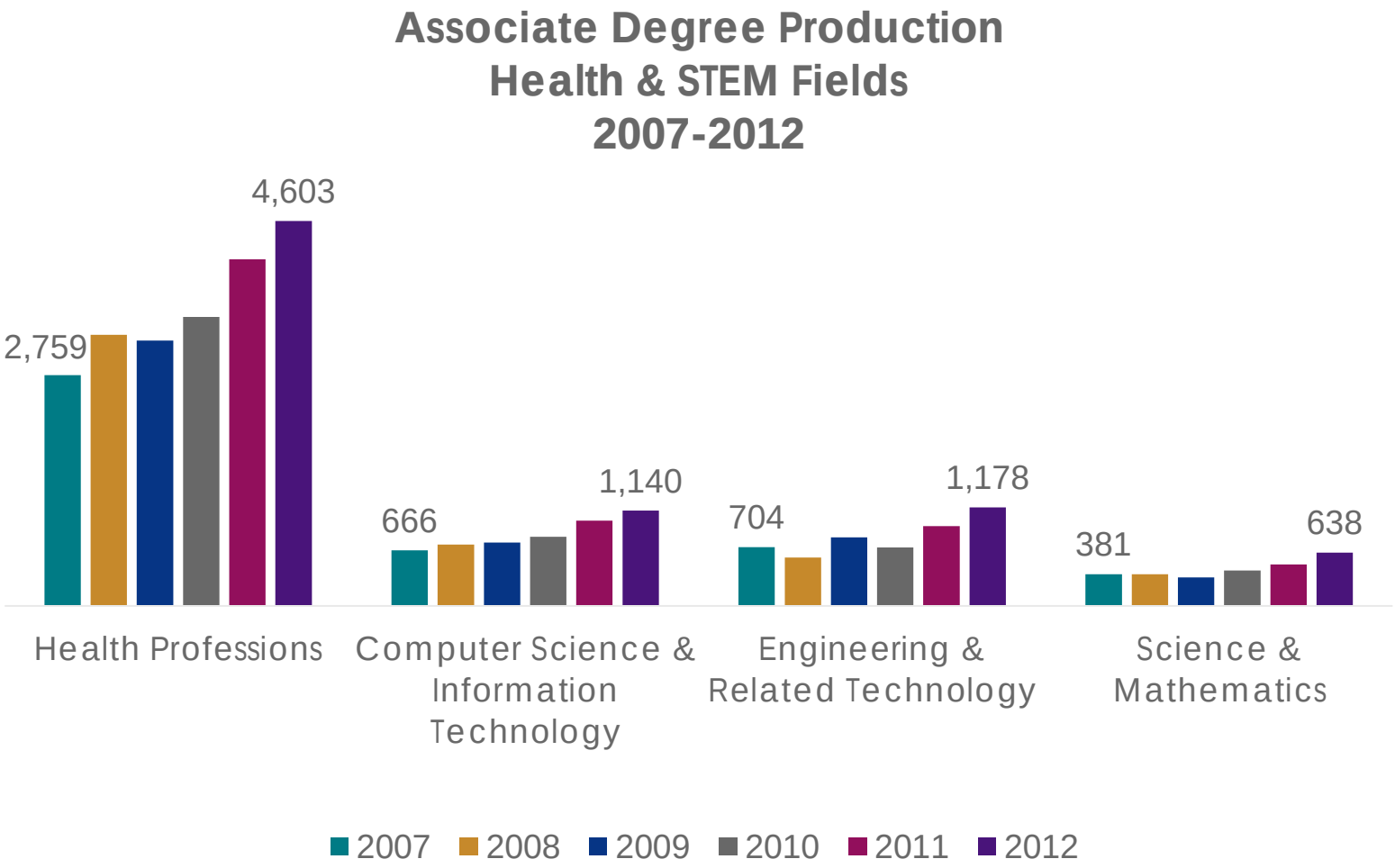
Baccalaureate & Graduate: Gaps Persist

High employer demand at the bachelor's and graduate level have consistently included key STEM fields.



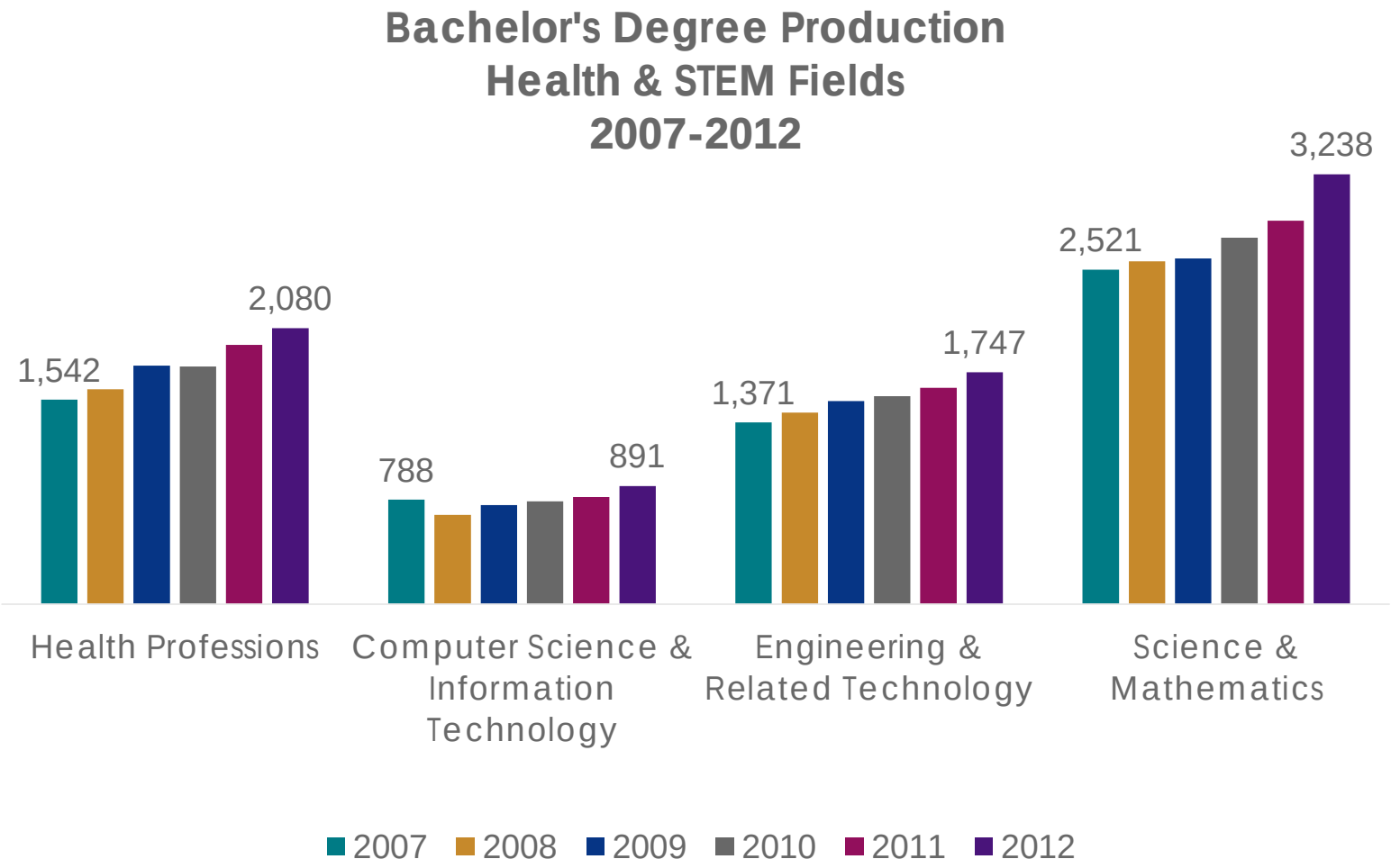
Closing Gaps

Since the three agencies began jointly reporting on these gaps, we have seen substantial growth in STEM and health fields at the mid level.



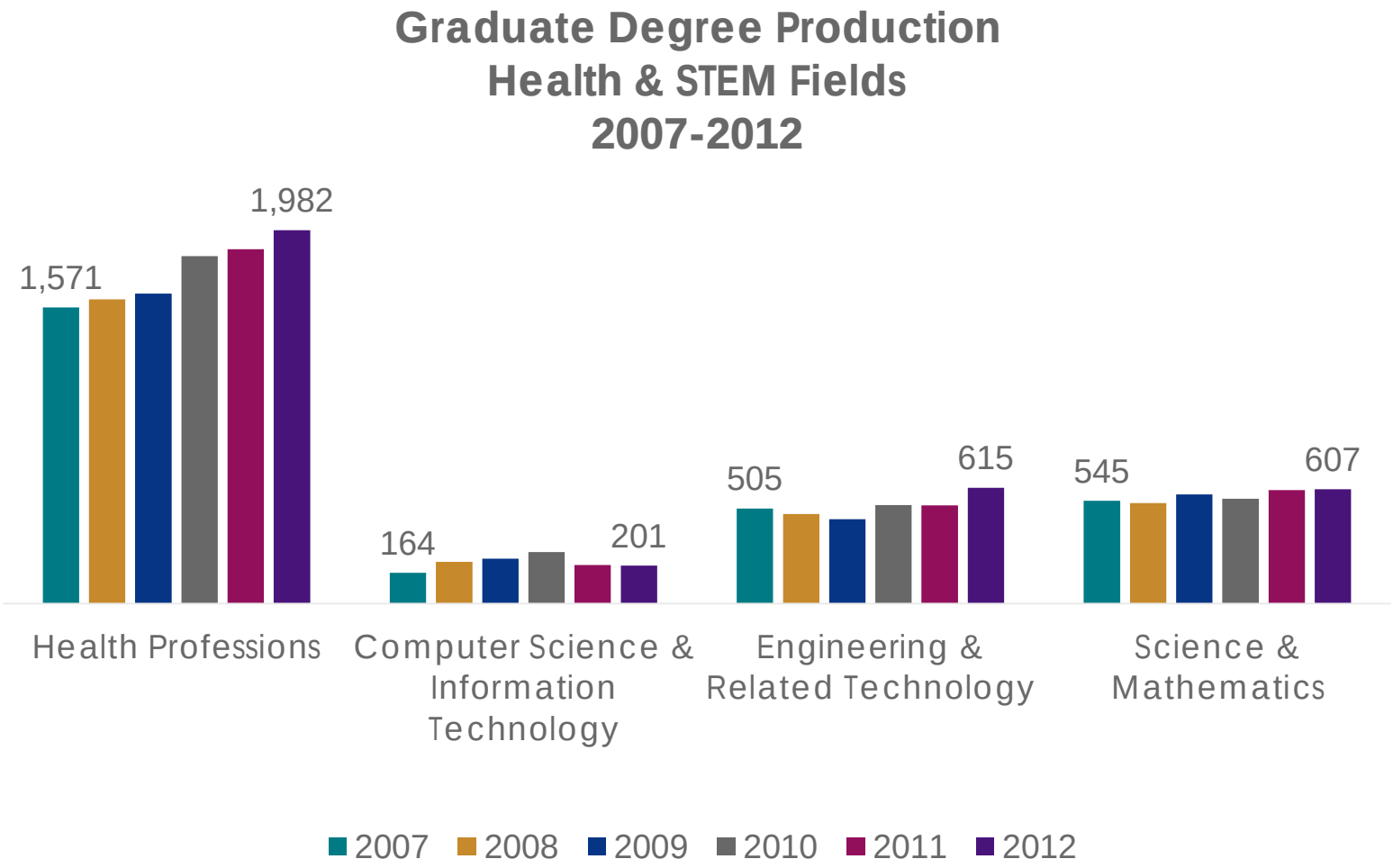
Closing Gaps

Though not as pronounced, we have also seen significant growth at the bachelor's level.



Closing Gaps

At the graduate level, we have seen significant growth in health professions but less rapid growth in other key STEM fields.



Summary & Discussion

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