

Graduation & Research Report Prepared for the Washington State Opportunity Scholarship Board Meeting September 10, 2013

1. Does the distribution of majors match the high-demand fields?

- The Washington Student Achievement Council's Regional Needs Analysis Report (2011) identified the top 50 high-demand fields in Washington State by education level required.
- Of those high-demand careers in STEM or Health Care requiring a mid-level credential, bachelor's degree or advanced degree, we find that Health Care related positions represent the highest proportion of projected job openings (46%), followed by Technology (35%), Engineering (11%), Science (8%) and Mathematics (0.2%).

Field of Study	Number of WA Job Openings by 2020	% of STEM or Health Care Jobs	% WSOS C1 Selects (n=3,045)	% WSOS C2 Selects (n=776)
Science	12,383	8%	28%	27%
Technology	54,491	35%	11%	6%
Engineering	16,379	11%	24%	24%
Mathematics	239	0.2%	5%	5%
Health Care*	71,868	46%	32%	38%
Grand Total	155,360	100%	100%	100%

**Registered Nurses represent 23,249 job openings or 15% of all high-demand STEM or Health Care positions. An additional 7,154 Nursing Aides, Orderlies, and Attendants and 5,011 Licensed Practical and Licensed Vocational Nurses total 35,414 nursing related positions or 23% of all high-demand STEM or Health Care positions.*

2. What is the capacity within universities and schools for these majors?

- In order to learn how best to frame the discussion around institutional capacity, TIP Strategies conducted a pilot study regarding computer science majors.
- They combined interview data from 10 four-year colleges and universities and 3 two-year community or technical colleges with institutional degree completion data from the Department of Education.
- TIP Strategies found that only a handful of colleges and universities had hard numbers on enrollment, retention and years-to-graduation for their computer science majors.
- With the notable exception of the University of Washington-Seattle campus, no other colleges or universities have had to constrain enrollment in their computer and information technology programs.
- For the majority of institutions, the most pressing factor limiting future capacity is the ability to hire additional faculty. (This sentiment was echoed at a recent roundtable held at the University of Washington-Seattle.)
- Virtually all interviewees spoke about increasing capacity in terms of doing more to help existing students succeed, such as more aggressive and sustained advising services and the ability to create a sense of community among students.

3. How many WSOS scholars graduated?

- In total, 296 out of 576 funded Cohort 1 Fourth and Fifth Year scholars (51%) graduated with their bachelor's degrees as of August 15, 2013.
- The graduation rate for funded Cohort 1 Fourth Year scholars is 48% and for funded Fifth Years 64%.
- An additional 55 self-reported First, Second or Third Year funded Cohort 1 scholars graduated for a total of 351 bachelor's degrees.

4. Gender distribution?

- Between 2009 and 2011 at the University of Washington-Seattle, 74% of all Computer and Information Sciences and Support Services bachelor's and advanced degrees were earned by males, while 26% were earned by females.
- During the same time period across Washington State, we find that males earned 57% of STEM and Health Care degrees, while females earned 43%.
- With the exception of Health Care for WSOS C1, WSOS C1 and C2 selects increase or maintain the proportion of females in all fields of STEM and Health Care relative to the gender distribution across Washington State.

Field of Study	% All WA Degrees Male	% All WA Degrees Female	% WSOS C1 Selects Male	% WSOS C1 Selects Female	% WSOS C2 Selects Male	% WSOS C2 Selects Female
Science	51%	49%	37%	63%	31%	69%
Technology	79%	21%	74%	26%	79%	21%
Engineering	81%	19%	77%	23%	72%	28%
Mathematics	60%	40%	47%	53%	46%	54%
Health Care	18%	82%	22%	78%	17%	83%
Grand Total	57%	43%	46%	54%	39%	61%