

Economic Success Metrics Report of Employment and Earnings Outcomes for Degrees, Apprenticeships and Certificates Earned at Public Institutions of Higher Education

As required by Section 129, Engrossed Substitute Senate Bill 6002

**Office of Financial Management
Education Research & Data Center
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Introduction

In a 2014 budget proviso, the Legislature directed the Education Research and Data Center (ERDC) to prepare “an economic success metrics report of employment and earnings outcomes for degrees, apprenticeships, and certificates earned at institutions of higher education” (Engrossed Substitute Senate Bill 6002, Section 129).

This report displays earnings of students who have received certificates or degrees from public universities and colleges (including community and technical colleges) and for those who have completed apprenticeship programs in Washington and are employed in the state. Unemployment insurance (UI) wage records collected by the Washington State Employment Security Department are used to determine earnings. These data do not include self-employed individuals, federal employees or those employed exclusively outside Washington state. Earnings are displayed by calendar year, and a person must have earned a minimal amount each quarter to be included.

This report does not represent the earnings a student should expect upon completion of a degree or certificate. Earnings for a given credential depend on the relative demand for the corresponding skills, as well as students’ knowledge, ability, work ethic, geographic location and other factors. All these factors can vary over time and between individual students. Therefore, the earnings and employment rates contained in this report should be used as inputs to a more thorough and broad assessment of the potential earnings associated with a degree or certificate.

In addition to this report, ERDC has published on its website an interactive display that shows the earnings data by field of study, by degree level and by institution for award years 2008 to 2012. Up to five years of follow-up earnings data are available. A second method of viewing the data — more of an interactive dashboard display — is also available. All the tools, data and report are available on our website.

Summary of findings

Generally, these data show higher earnings are associated with more education. The median first-year earnings for 2012 graduates ranged from \$32,800 for graduates with a certificate requiring at least one year of study to \$74,900 for graduates with doctoral degrees in professional fields.

The highest median first-year earnings for 2012 graduates with certificates requiring at least one year of study were in engineering technologies and engineering-related fields. The median earnings were \$39,400.

Median first-year earnings for 2012 graduates with associate’s degrees were \$35,500. South Seattle College and North Seattle College topped the scale at \$47,700 and \$47,500, respectively.

The highest median first-year earnings for 2012 graduates with associate’s degrees were in health professionals and related programs. The median earnings were \$47,900. Graduates who received this degree from Bellevue College had median earnings of \$57,600.

Median first-year earnings for 2012 graduates with bachelor’s degrees were \$37,900. University of Washington graduates topped the scale at \$41,400.

The highest median first-year earnings of 2012 graduates with a bachelor's degree were in computer and information science and support services. The median earnings were \$69,400 for this program.

Median first-year earnings for 2012 graduates with master's degrees were \$56,600. University of Washington graduates topped the scale at \$63,400.

Earnings outcomes for graduates

Figure 1: Graduates with postsecondary credentials

Figure 1 shows median first-year earnings for 2012 graduates by postsecondary credentials. The highest median earnings were for graduates with doctoral degrees in professional fields. The 2012 graduates who were working in apprenticeships fared almost as well as those in the highest-paid category of doctoral degrees (\$69,200 compared to \$74,900, respectively). Graduates with a certificate requiring at least one year of study showed the lowest median first-year earnings at \$32,800. The largest gap between categories is the difference in median earnings for bachelor's degree holders (\$37,900) and master's degree recipients (\$56,600).

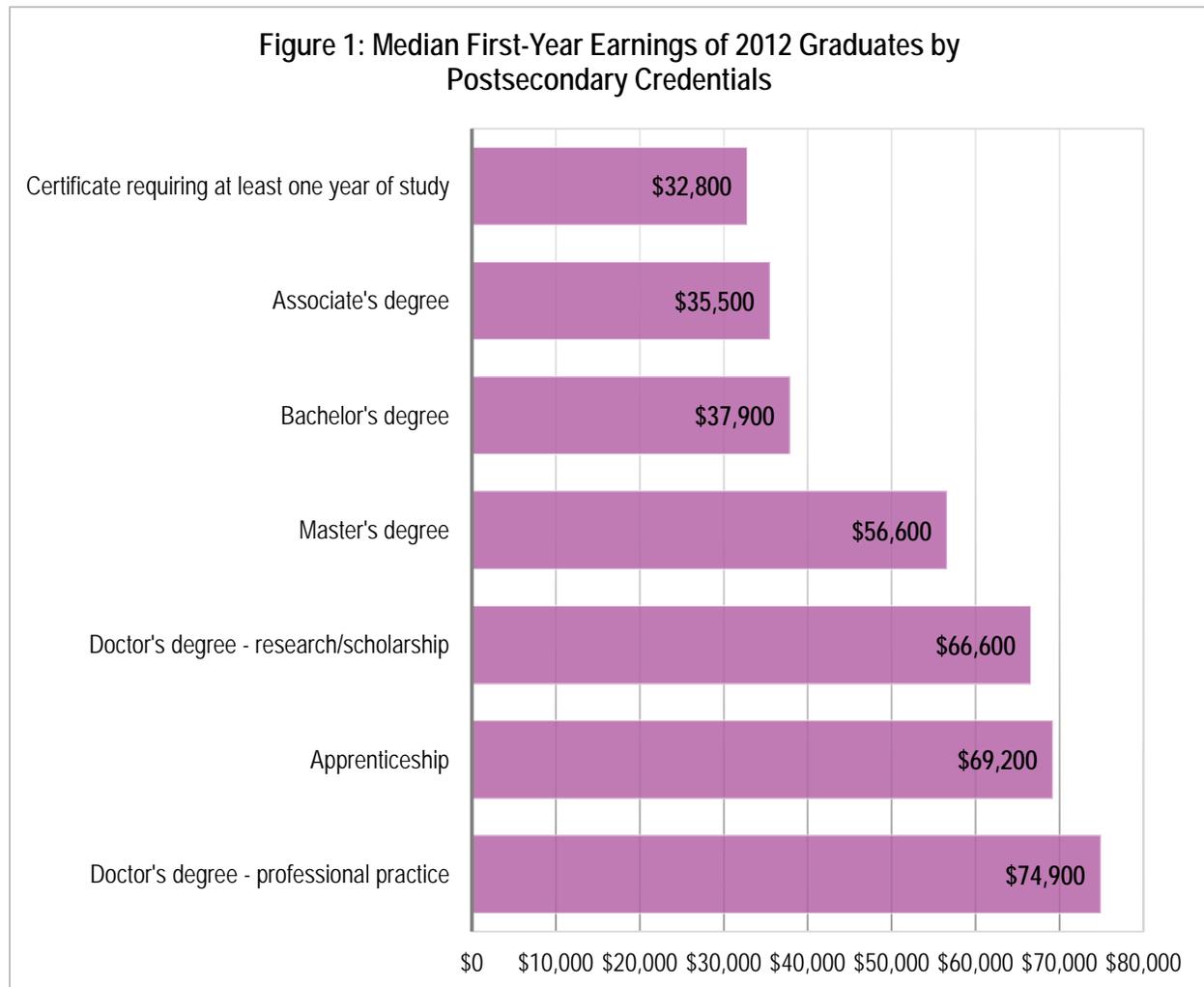


Figure 2: Apprenticeship completers

Figure 2 compares median first-year earnings for apprenticeship completers by classification of instructional program group. The Washington state median earning for all first-year apprenticeship completers was \$69,200. Law enforcement, firefighting and related protective services apprenticeships had the highest median first-year earnings (\$86,900). Construction trades apprenticeships had the lowest median first-year earning (\$66,900).

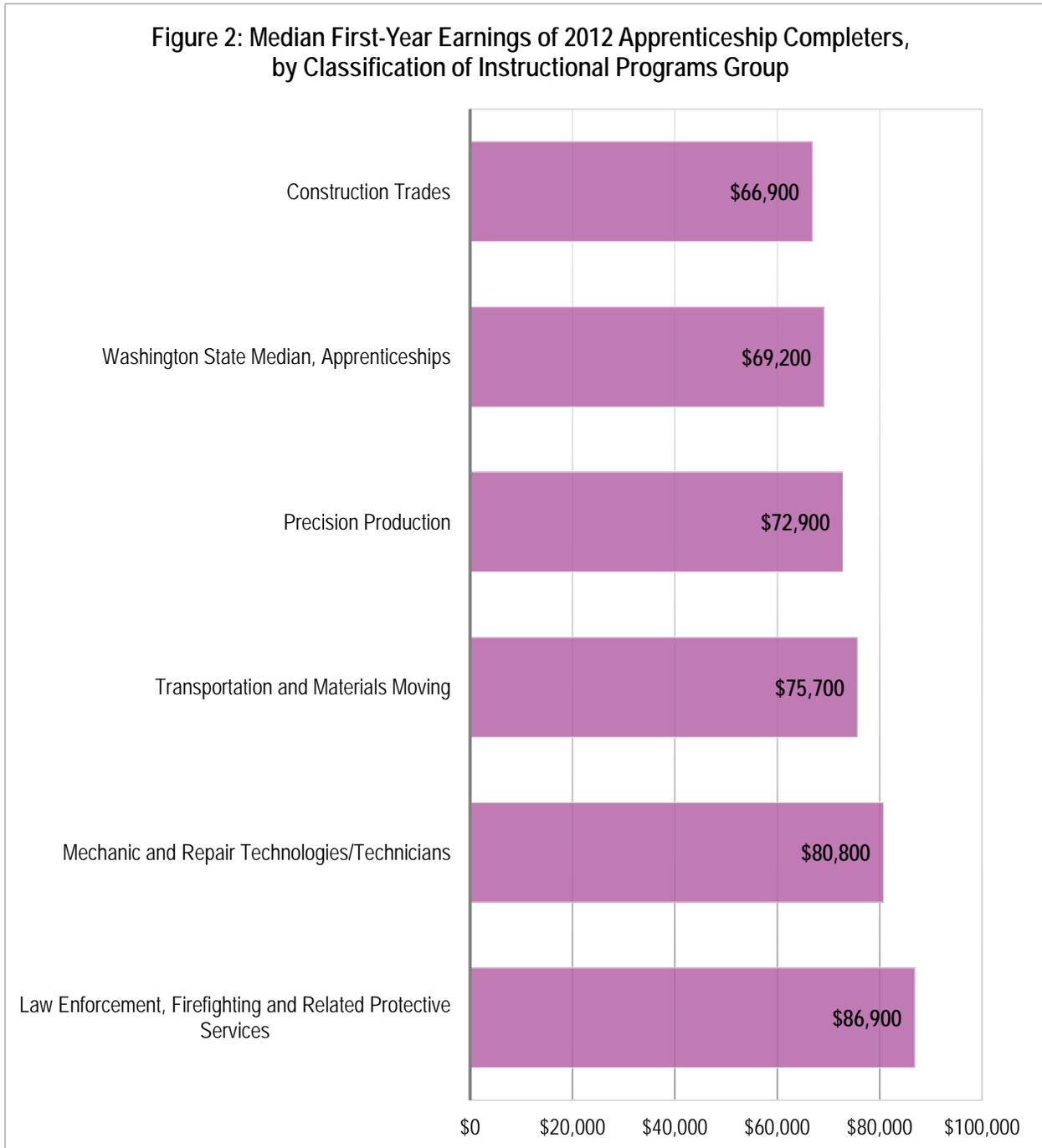


Figure 3: Certificates by college

Figure 3 shows the median first-year earnings for 2012 graduates with certificates requiring at least one year of study, by college. The median first-year earning for these graduates across all Washington colleges was \$32,800. The school with the lowest first-year earnings for graduates with these degrees was Centralia College (\$23,100); the highest, Edmonds Community College (\$39,500).

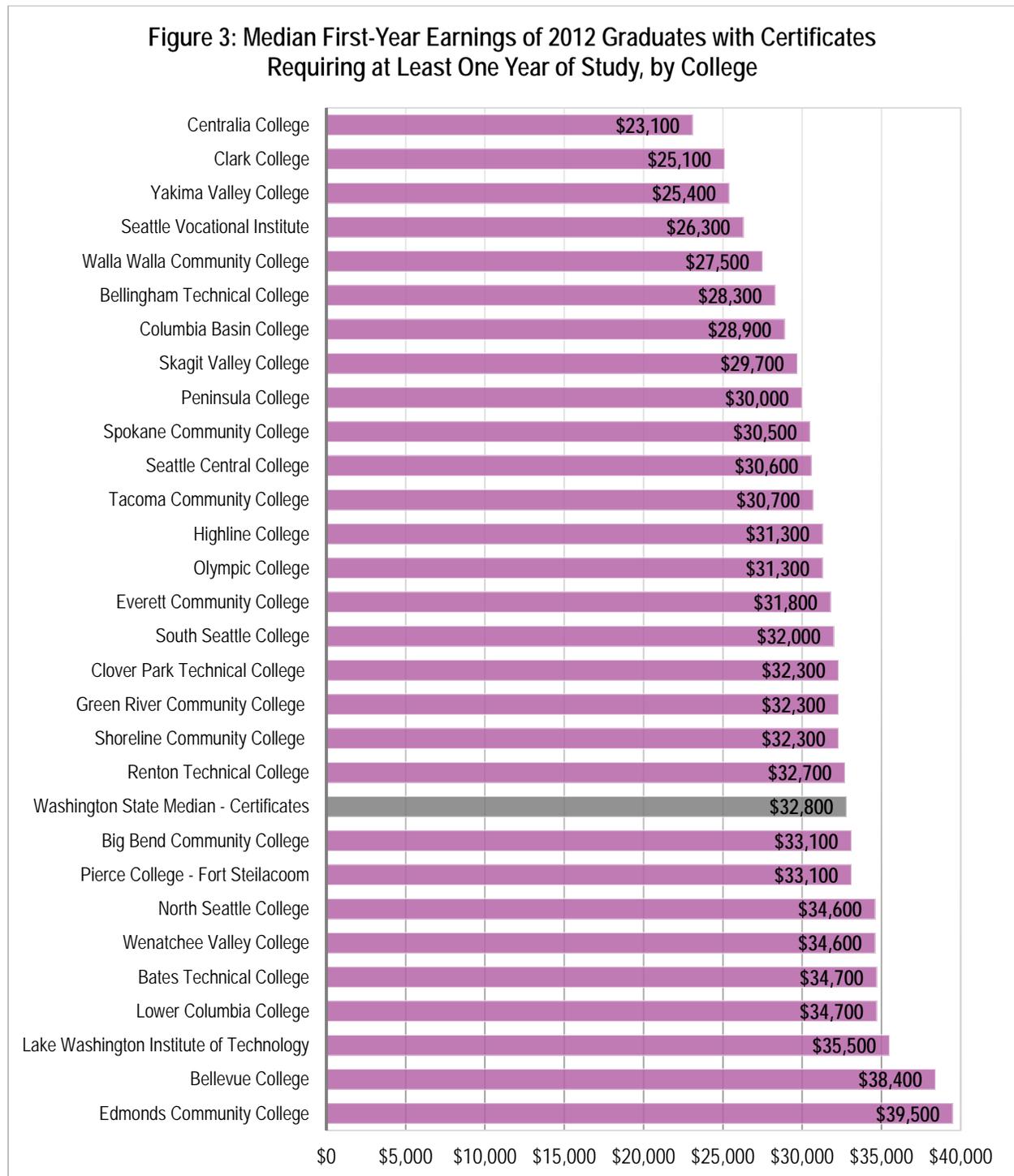


Figure 4: Certificates by instructional program

Figure 4 compares median first-year earnings for 2012 graduates with certificates requiring at least one year of study, by classification of instructional programs. By this measure, engineering technologies and engineering-related fields registered the highest median first-year earnings (\$39,400). The Washington state median first-year earning for all certificate holders was \$32,800. The lowest median first-year earnings were received by graduates with certificates in education (\$24,600).

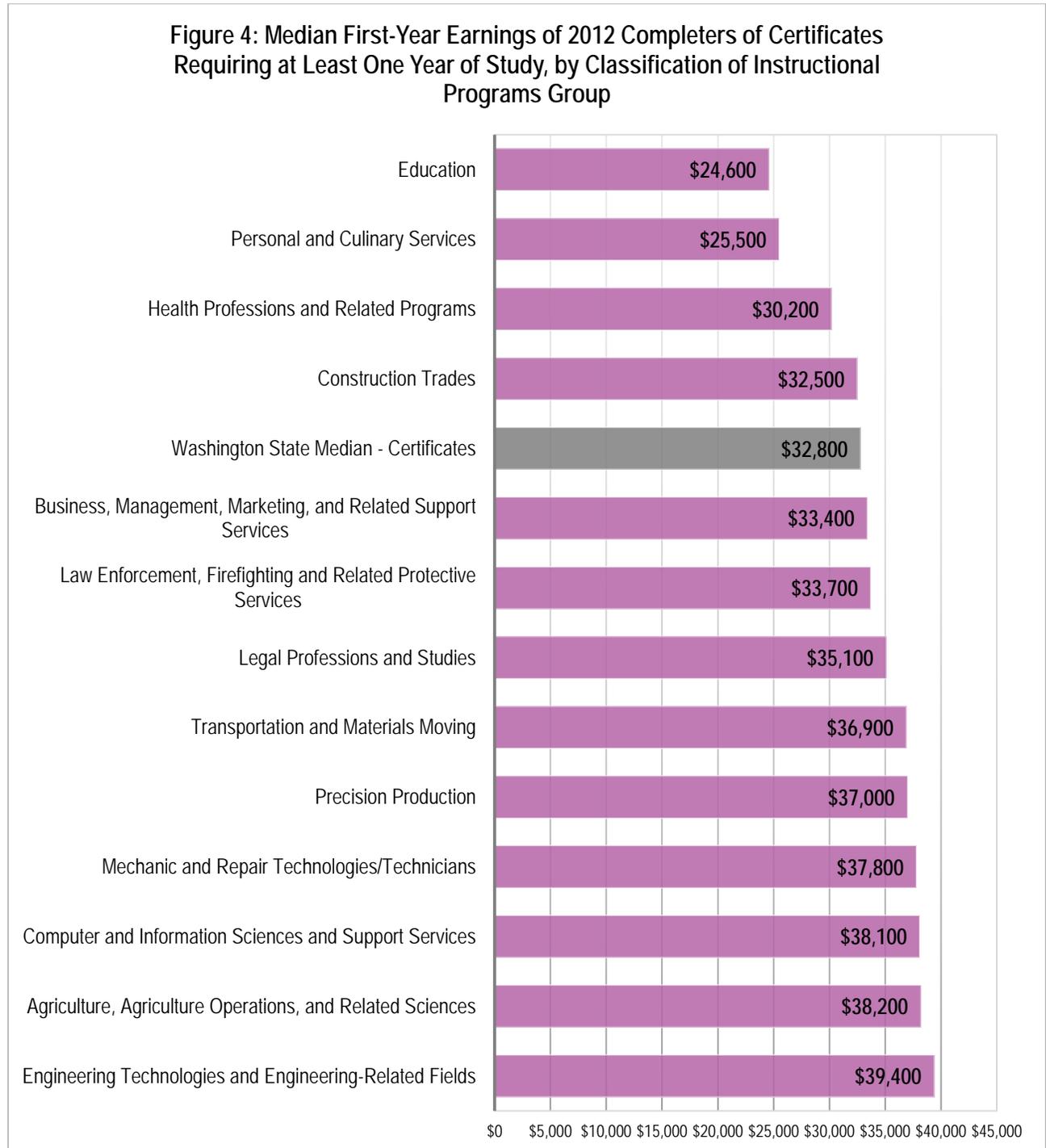


Figure 5: Certificates for health professions by college

Figure 5 shows measures of median first-year earnings for 2012 for those who received certificates requiring at least one year of study in health professions and related programs. The median first-year earnings for 2012 people with these certificates were \$30,200. The institution where 2012 graduates with certificates in health professions and related programs had the highest median first-year earnings was Bellevue College (\$37,400). The college with the lowest median first-year earnings for the same cohort and certificate was Centralia College (\$20,600).

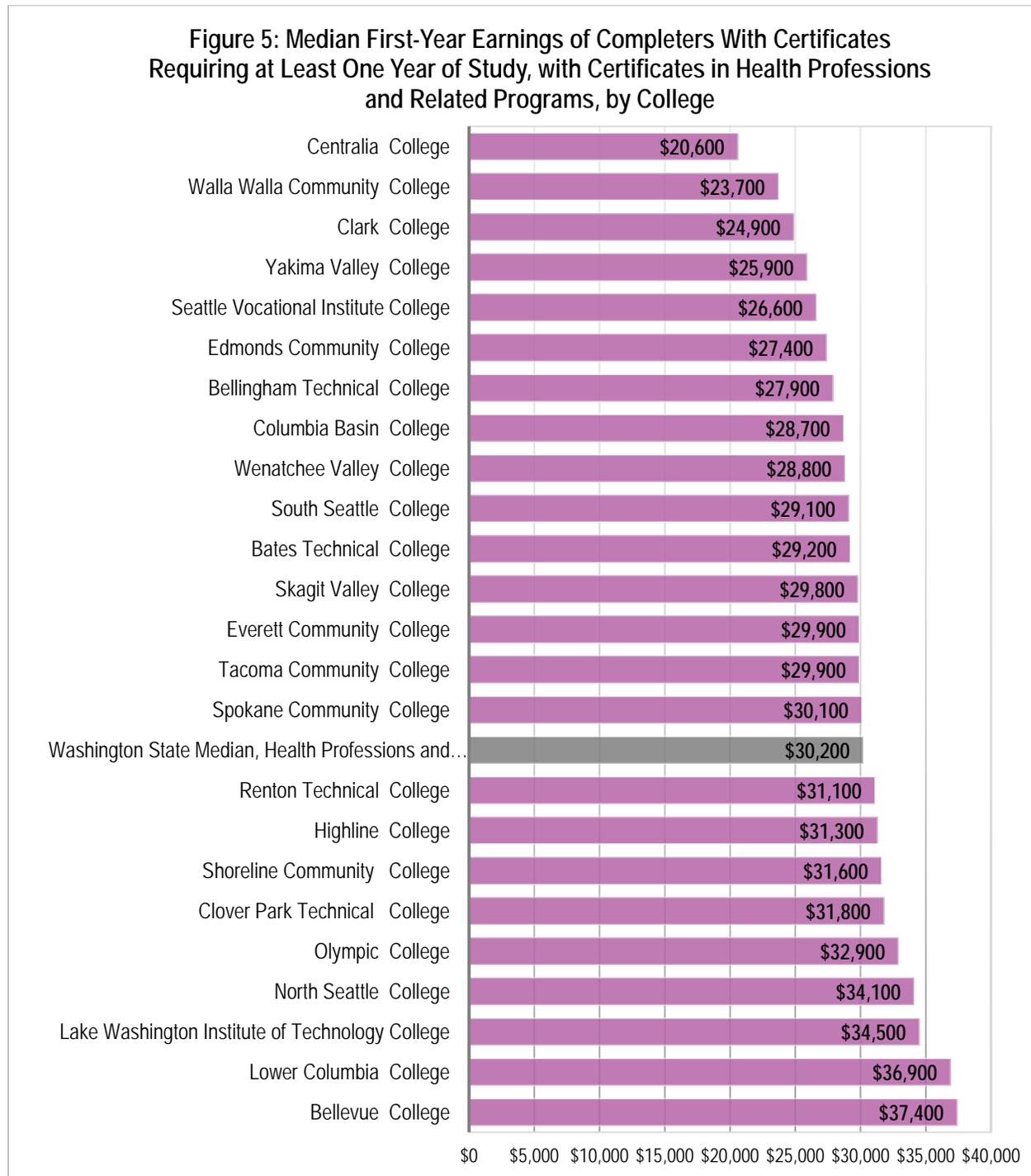


Figure 6: Certificates for mechanic and repair by college

Figure 6 shows the median first-year earnings for 2012 completers with certificates requiring at least one year of study in mechanic and repair technologies, by college. The Washington state median for this category and cohort was \$37,800. The highest median first-year earnings were received by Bates Technical College graduates (\$43,800); the lowest, Green River Community College graduates (\$27,700).

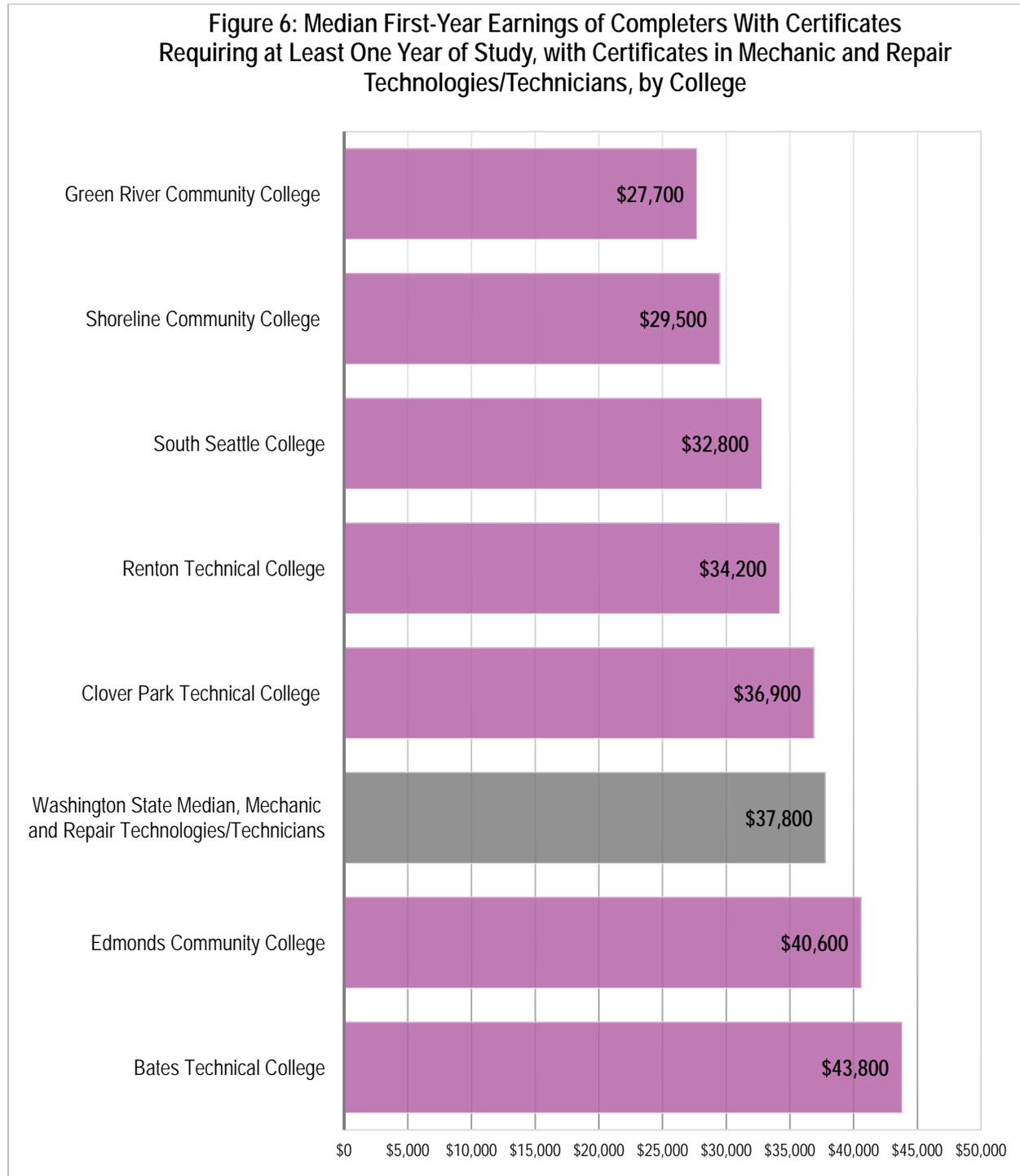


Figure 7: Associates degrees by college

Figure 7 compares median first-year earnings for 2012 graduates with associate degrees, by college. The colleges sharing the highest median first-year earnings for this category of students were South Seattle College and North Seattle College (\$47,500). The Washington state median first-year earnings for 2012 graduates with associate degrees was \$35,500. For this category of degree and this cohort, the lowest median first-year earnings were received by Spokane Falls Community College graduates (\$26,800).

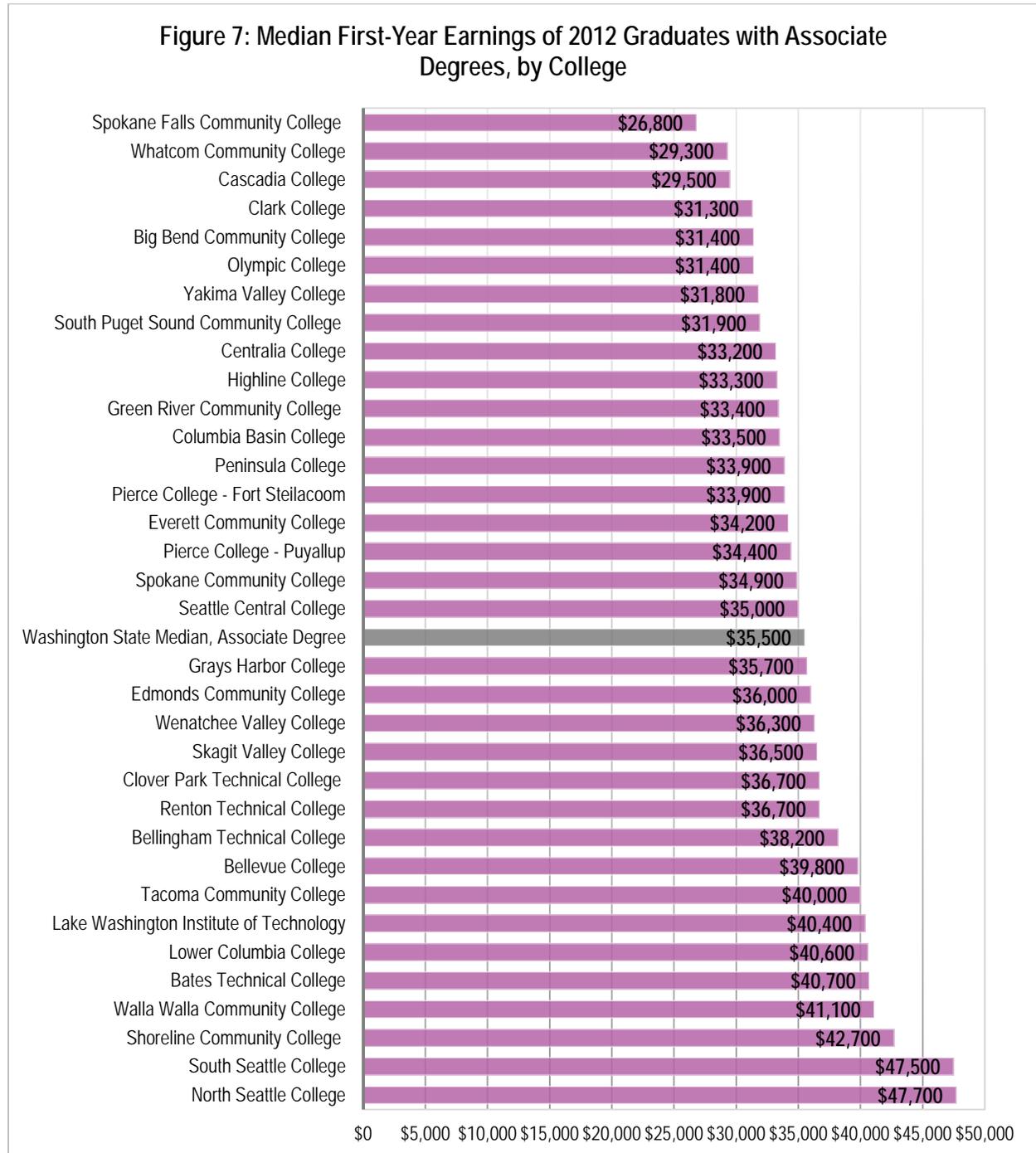


Figure 8: Associates degrees by instructional program

Figure 8 compares median first-year earnings for 2012 graduates with associate degrees, by classification of instructional programs group. Health professionals and related programs had the highest median first-year earnings (\$47,300). The Washington state median first-year earnings for all associate degrees was \$35,500. The lowest median first-year earnings were received by graduates with associate degrees in education (\$25,100).

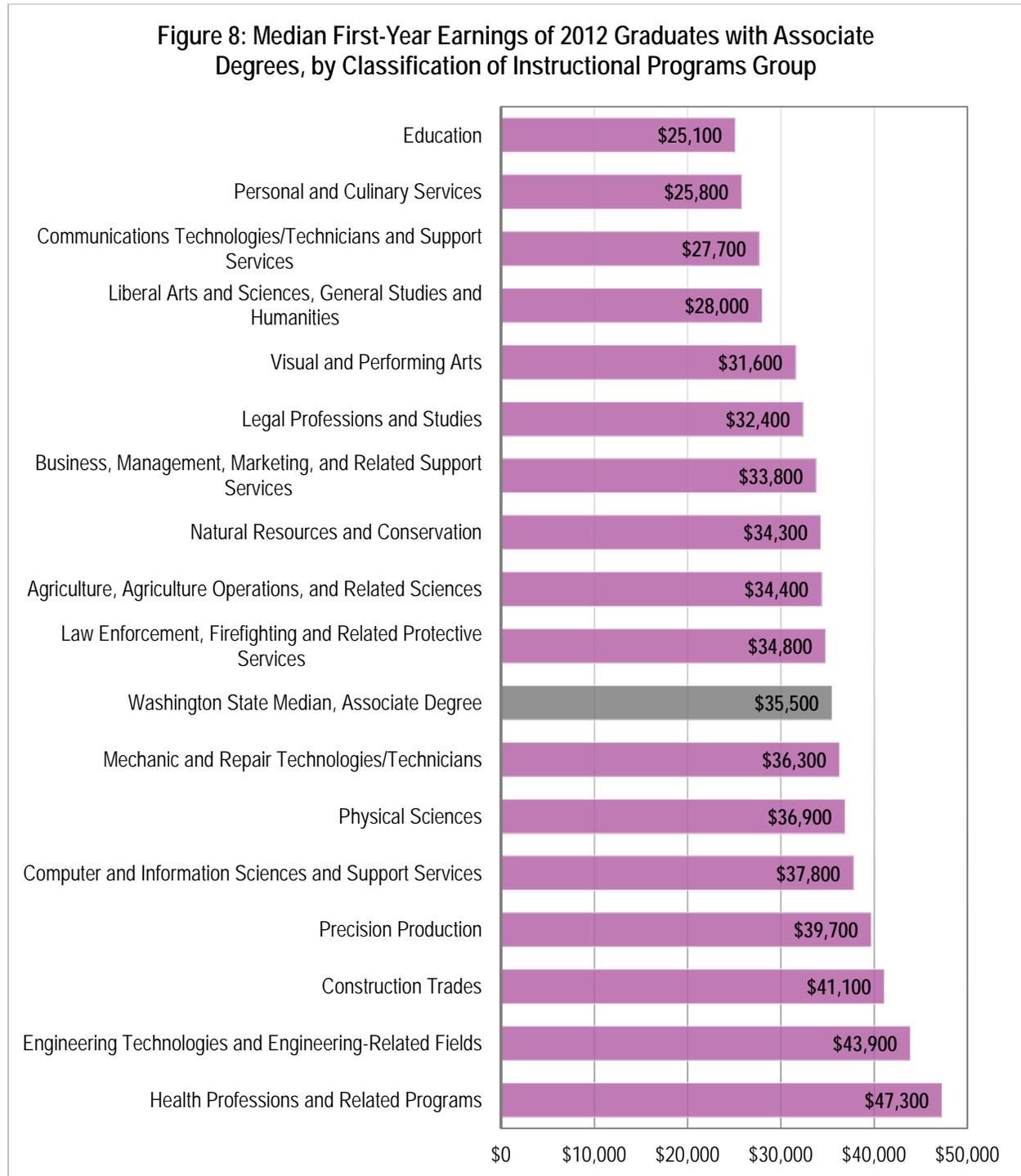


Figure 9: Associates degree in business, marketing and related support services

Figure 9 compares the median first-year earnings for graduates with associate degrees in business, management, marketing and related support services across community colleges that offer these degrees. The Washington state median was \$33,800. The 2012 graduates with the highest first-year median earnings in this category were graduates of Edmonds Community College (\$43,000); the lowest, South Puget Sound Community College (\$31,900).

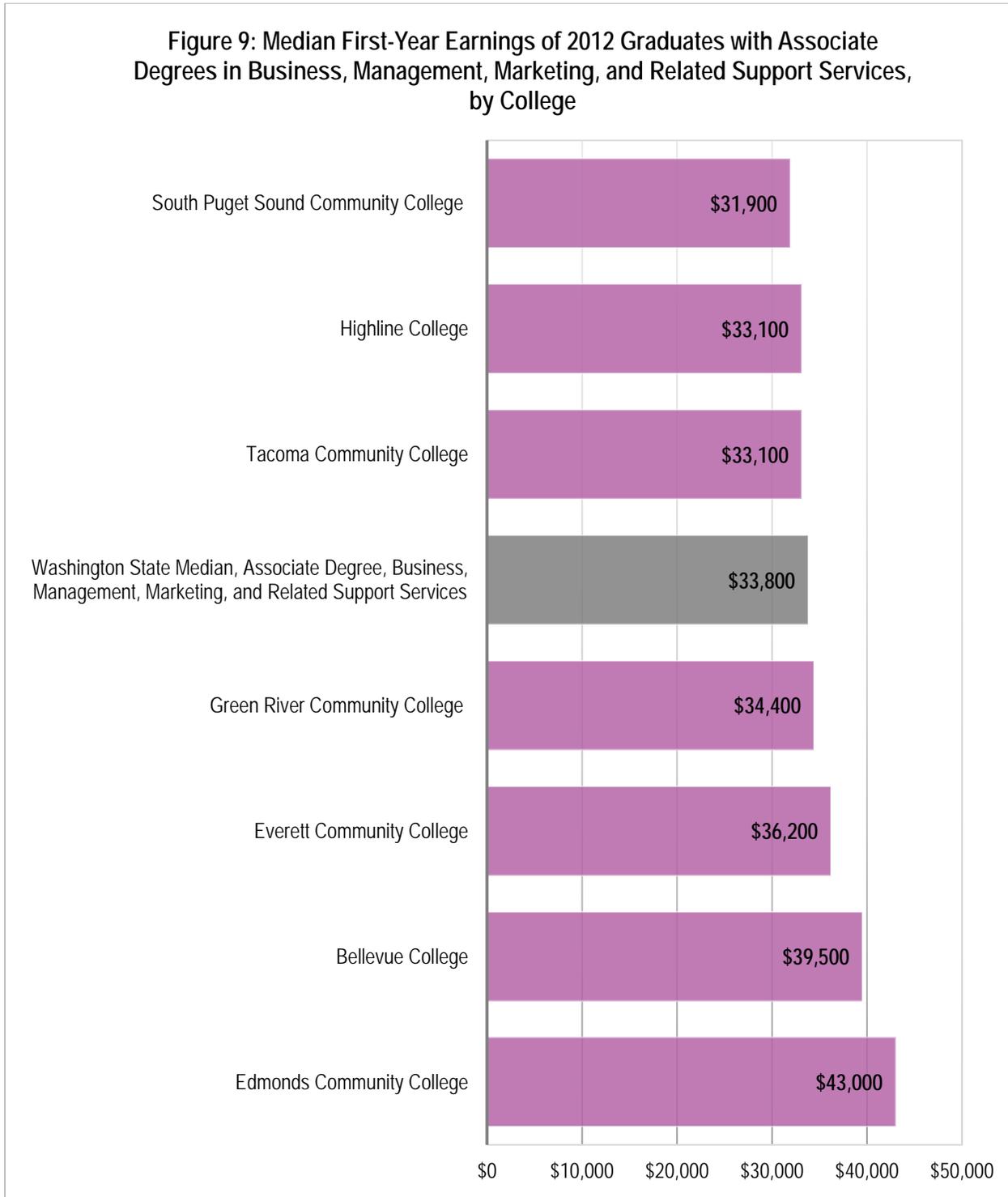


Figure 10: Associate degree, health professions and related programs

Figure 10 compares median first-year earnings for 2012 graduates with associate degrees in health professions and related programs by college. The Washington state median earnings for this cohort and degree was \$47,300. The highest first-year earnings were received by Bellevue College graduates (\$57,600); the lowest, Spokane Falls Community College graduates (\$31,400).

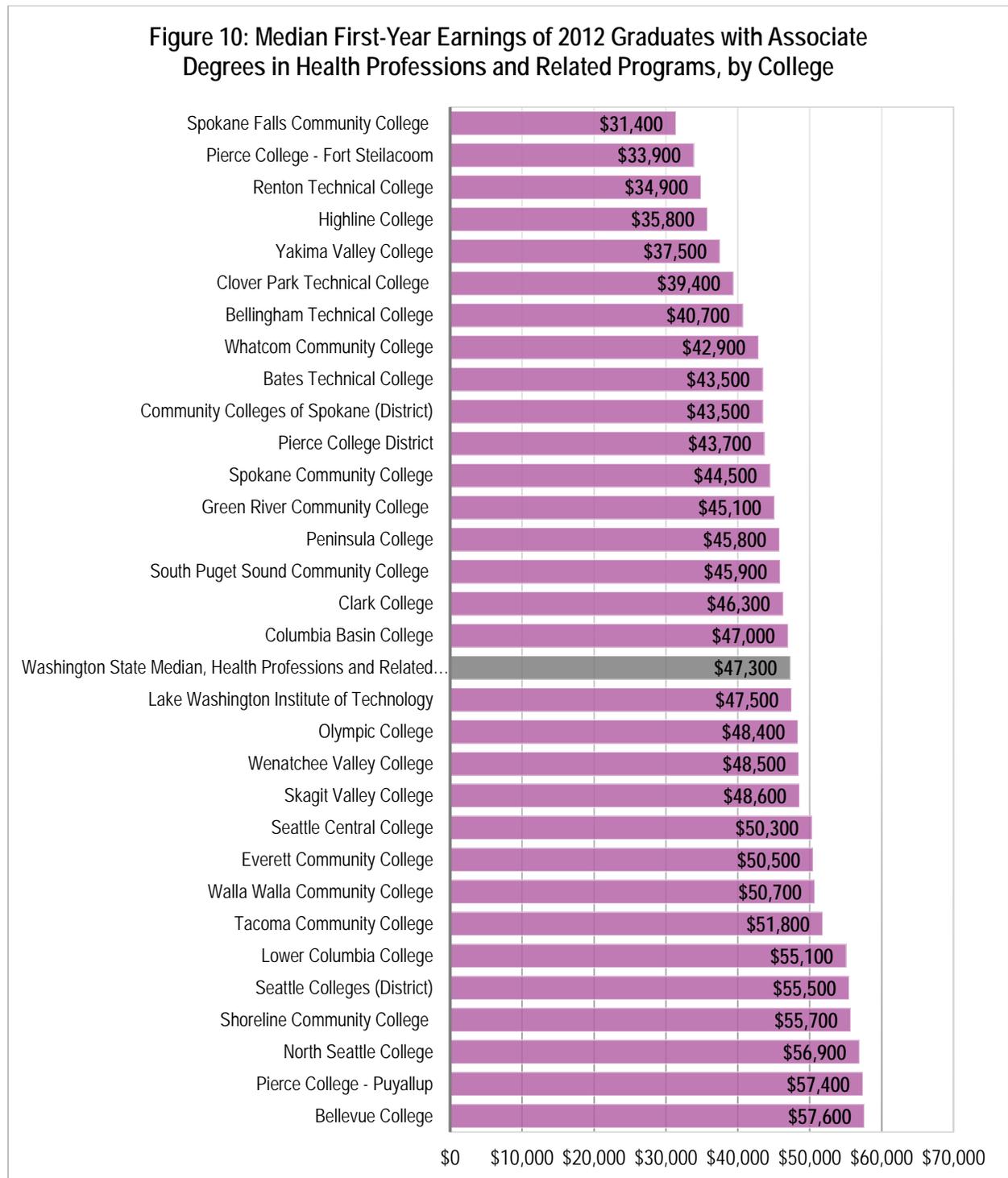


Figure 11: Academic degrees by degree type

Figure 11 shows median first-year earnings for 2012 university graduates by degree. Median first-year earnings for 2012 graduates were \$37,900 for bachelor’s degree holders, \$56,600 for those with master’s degrees, \$66,600 for graduates with doctorates applied to research or scholarship, and \$74,900 for doctoral degree recipients in professional practice. More information on the degree categories used here is available in Appendix I under “award.”

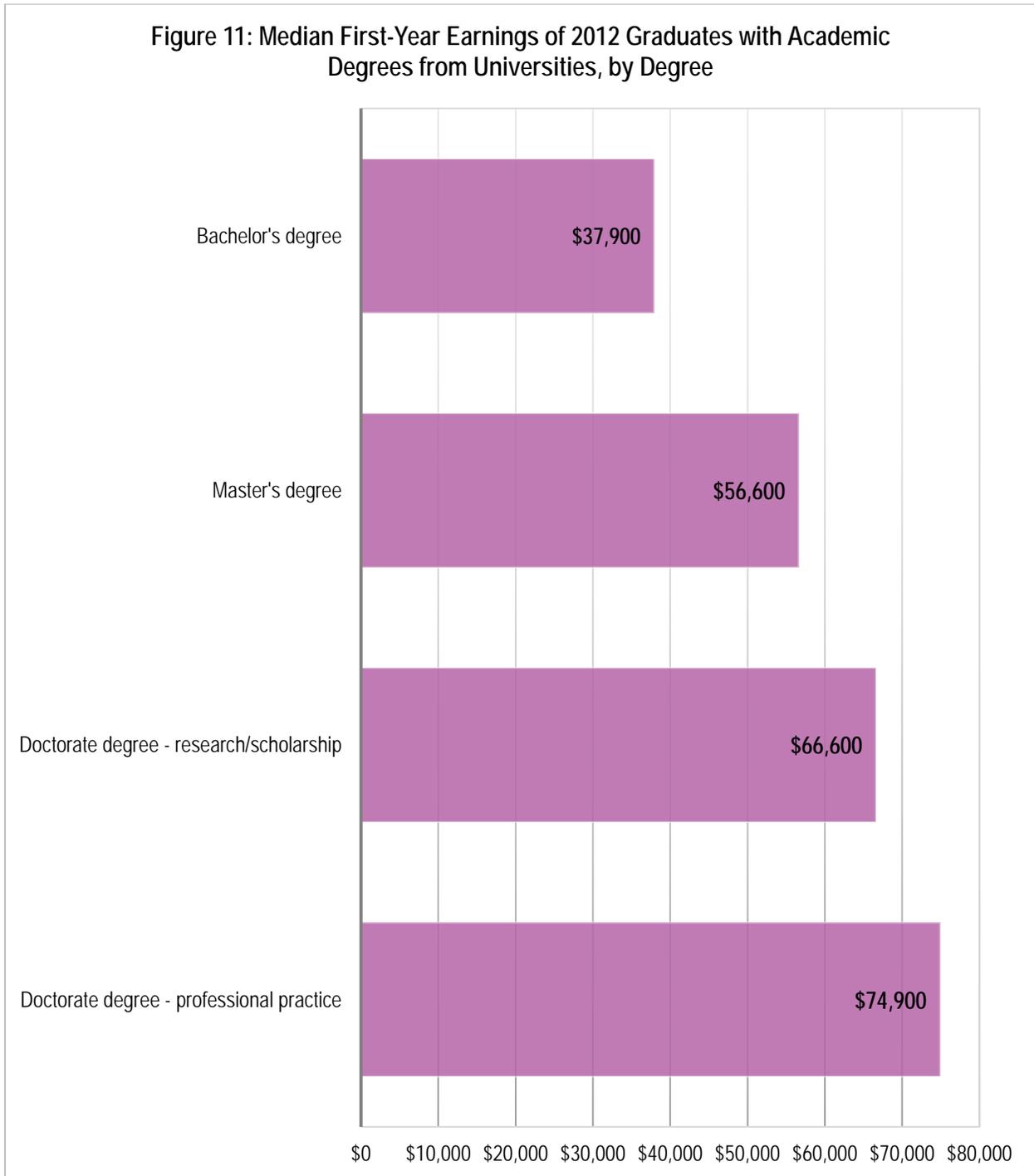


Figure 12: Bachelor's degree by university

Figure 12 provides median first-year earnings for 2012 graduates with bachelor's degrees, by university. The Washington median first-year earnings for 2012 graduates with bachelor's degrees was \$37,900. The highest median first-year earnings for 2012 graduates with bachelor's degrees were received by graduates of the University of Washington (\$41,400); the lowest, The Evergreen State College (\$30,200).

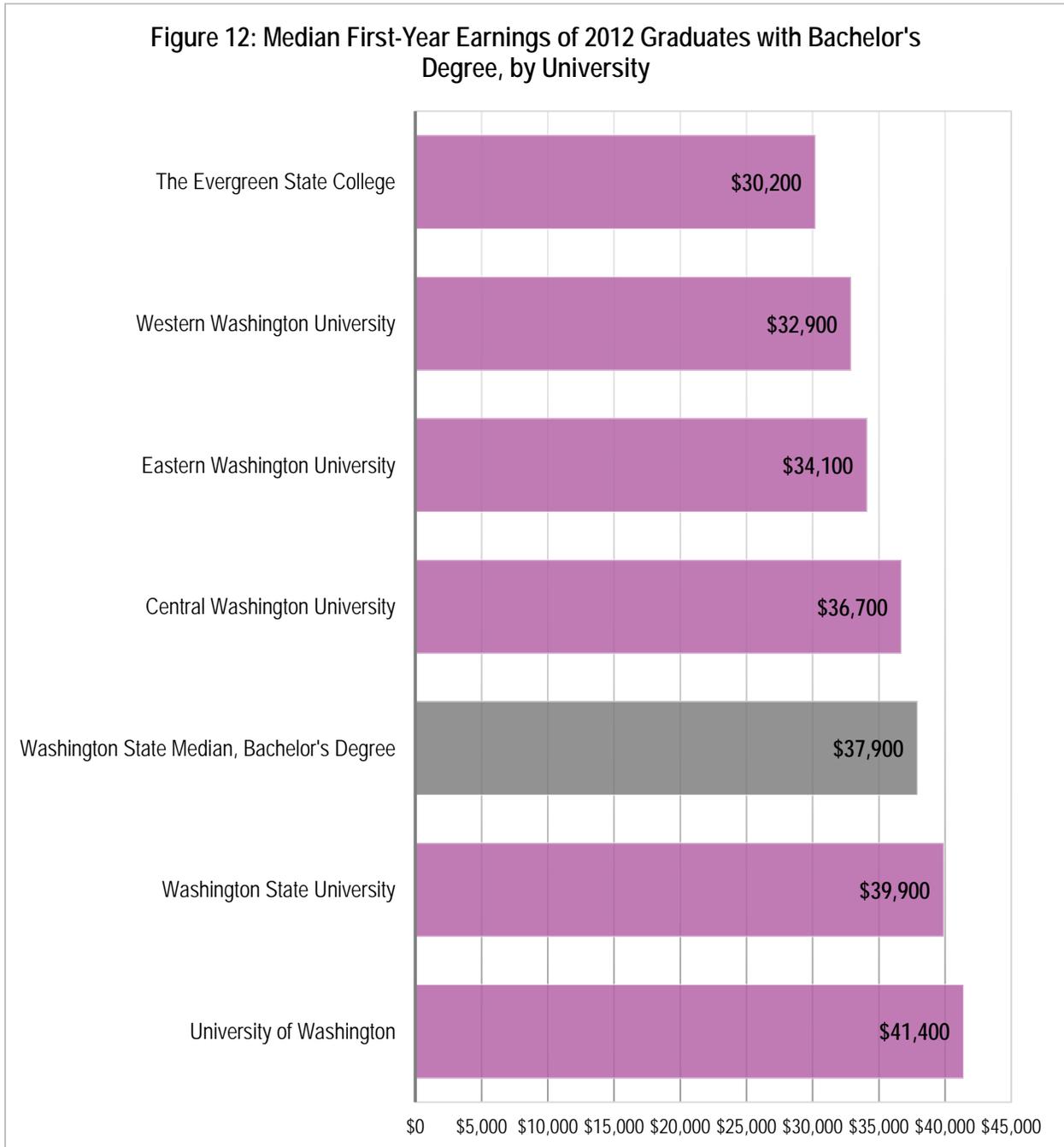


Figure 13: Popular bachelor's degrees by instructional program

Figure 13 shows median first-year earnings for 2012 graduates of the top 10 bachelor's degree programs, by classification of instructional programs group. The Washington state median first-year earnings for 2012 graduates in this category of bachelor's degrees was \$37,900. The highest median first-year earnings for this cohort were earned by graduates with computer and information sciences and support services (\$69,400). The lowest median first-year earnings for 2012 graduates among this group of bachelor's degrees were for psychology majors (\$30,000).

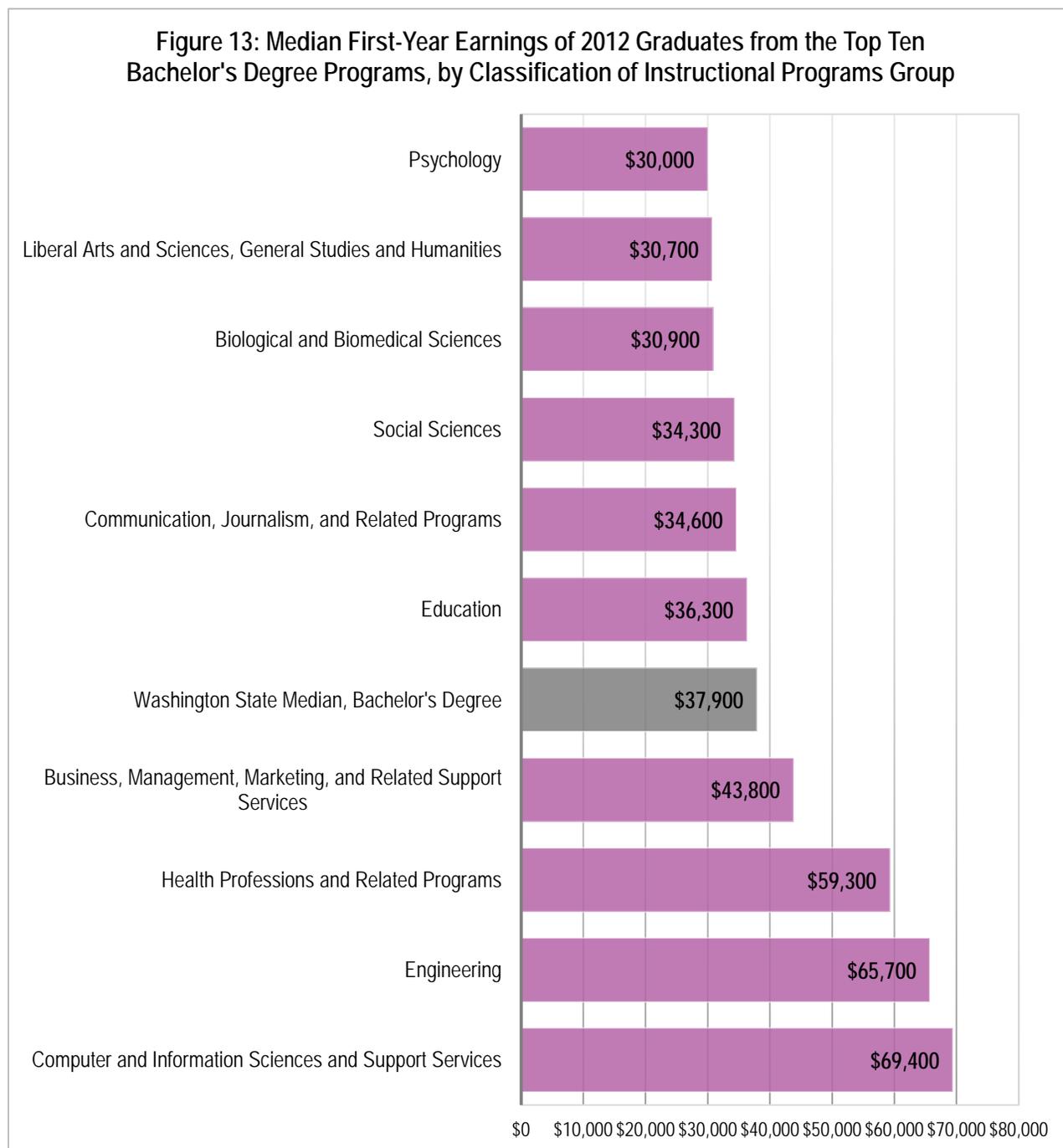


Figure 14: Bachelor’s degree in business, management, by university

Figure 14 compares the median first-year earnings for 2012 graduates with bachelor’s degrees in business, management, marketing and related support services, by university. The Washington state median first-year earnings for this cohort and category of degrees was \$43,800 — \$5,900 more than the Washington state median for all bachelor’s degrees. The highest median first-year earnings for these degrees and cohort were for University of Washington graduates (\$48,900); the lowest median first-year earnings for Eastern Washington University graduates (\$37,300).

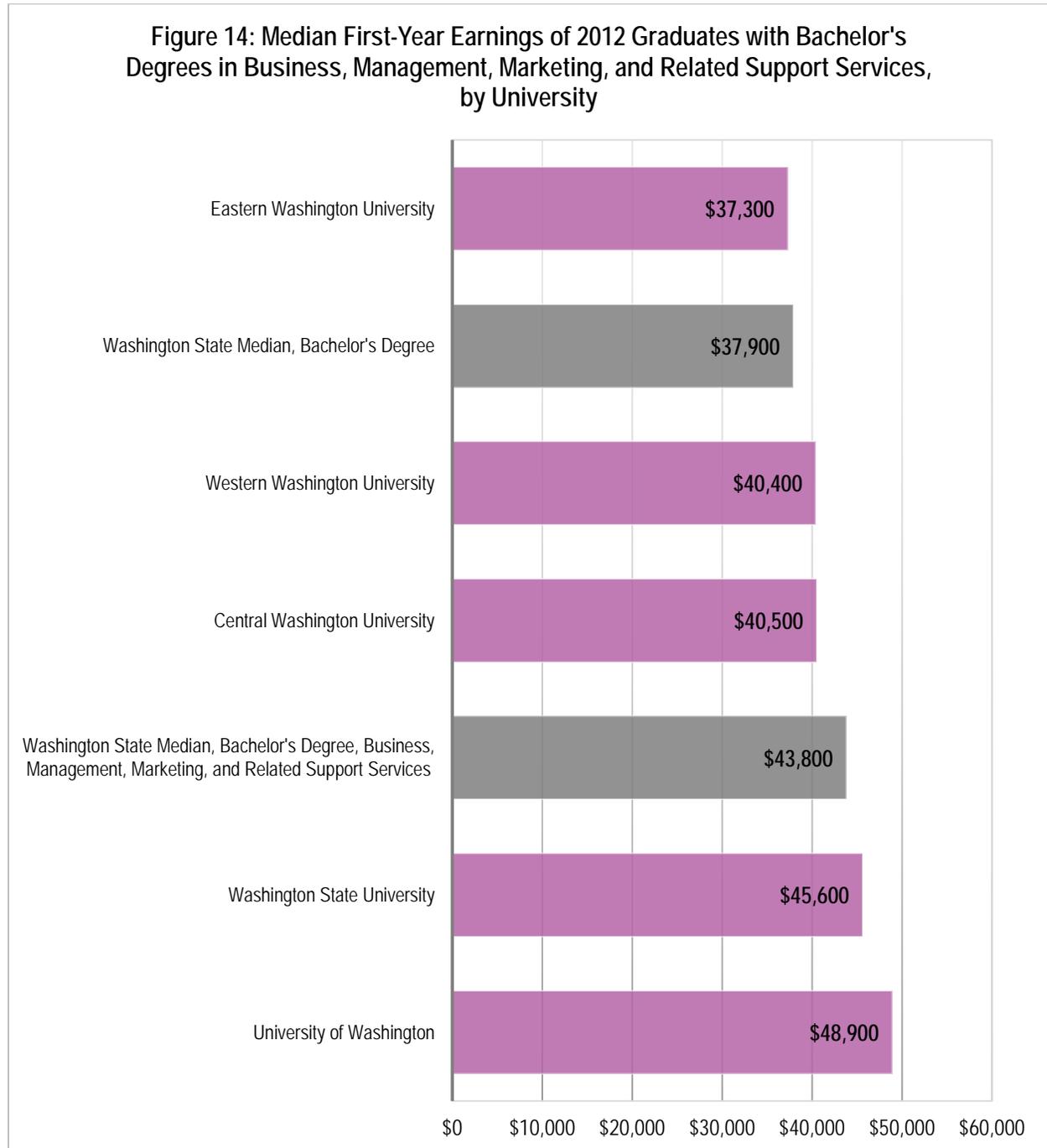


Figure 15: Bachelor's degree in engineering by university

Figure 15 compares data for median first-year earnings for 2012 graduates with bachelor's degrees in engineering or engineering technologies and engineering-related fields by university. For graduates with engineering technologies and related bachelor's degrees, the median first-year earnings were \$55,000 — \$17,100 higher than median first-year earnings for all 2012 graduates with bachelor's degrees of \$37,900. Looking just at engineering degrees, the median first-year earnings were \$27,800 higher than the median for all bachelor's degrees at \$65,700.

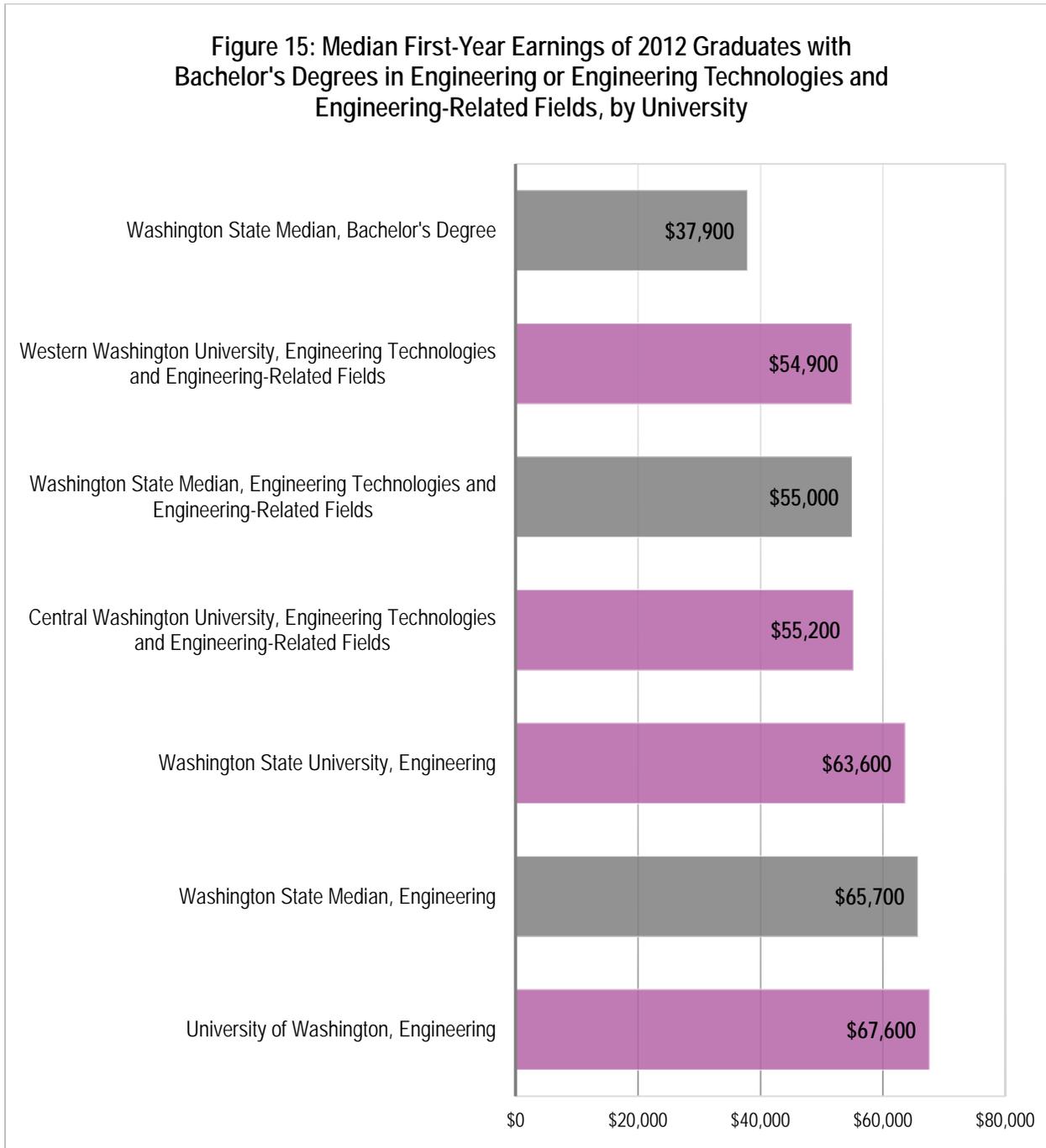


Figure 16: Bachelor's degree in computer and information sciences

Figure 16 shows data on median first-year earnings for 2012 graduates with bachelor's degrees in computer and information sciences and support services by university. The state median for graduates with the degrees in computer and information sciences was \$69,400 — \$31,500 higher than the median first-year earnings for all graduates with bachelor's degrees. Graduates from the University of Washington had the highest first-year median earnings for these degrees, \$73,600.

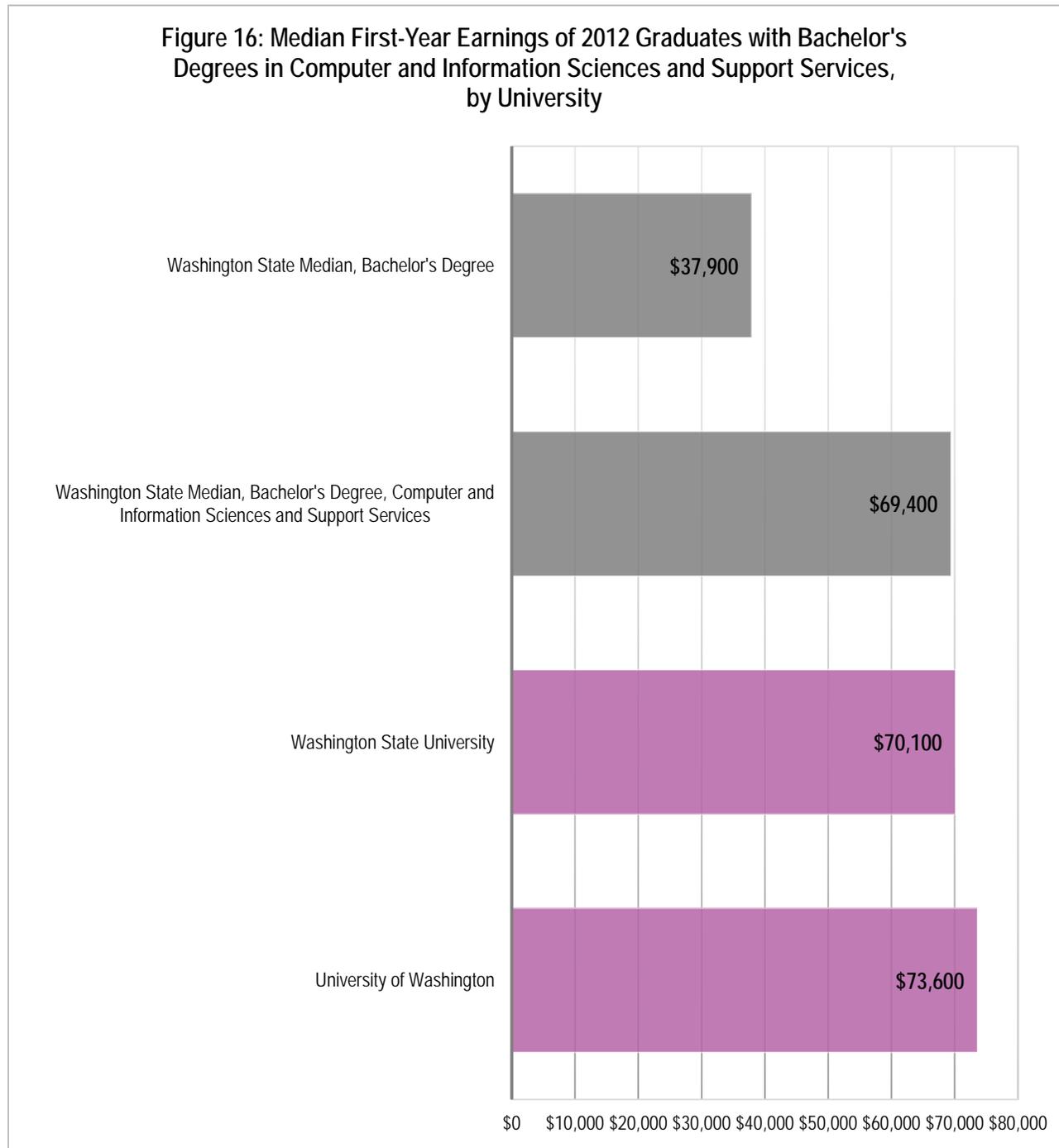


Figure 17: Master's degrees by university

Figure 17 compares the median first-year earnings of 2012 graduates from Washington universities with master's degrees. The Washington median earning for graduates with this degree was \$56,600. The highest earnings for those with master's degrees were from the University of Washington (\$63,400). The lowest earnings were for Eastern Washington University graduates (\$47,800).

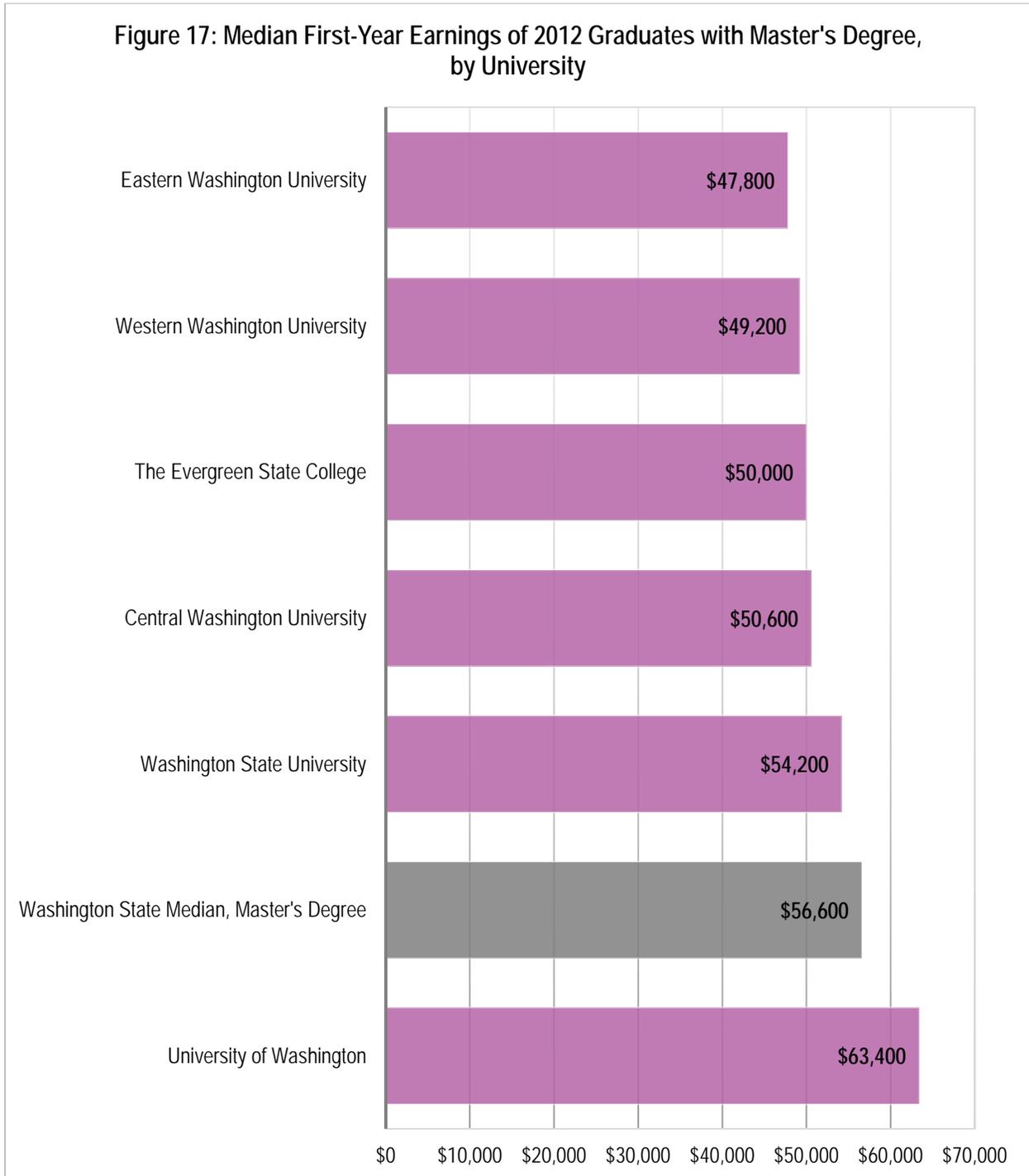


Figure 18: Master's degree by instructional program

Figure 18 compares the median first-year earnings for 2012 graduates with master's degrees by the area of study. The median first-year earning across all master's degree completers was \$56,600. Two fields (health professions and related programs; engineering) showed median first-year earnings above the statewide median for all master's degrees. The lowest median first-year earnings were received by graduates with degrees in multi/interdisciplinary studies (\$40,800).

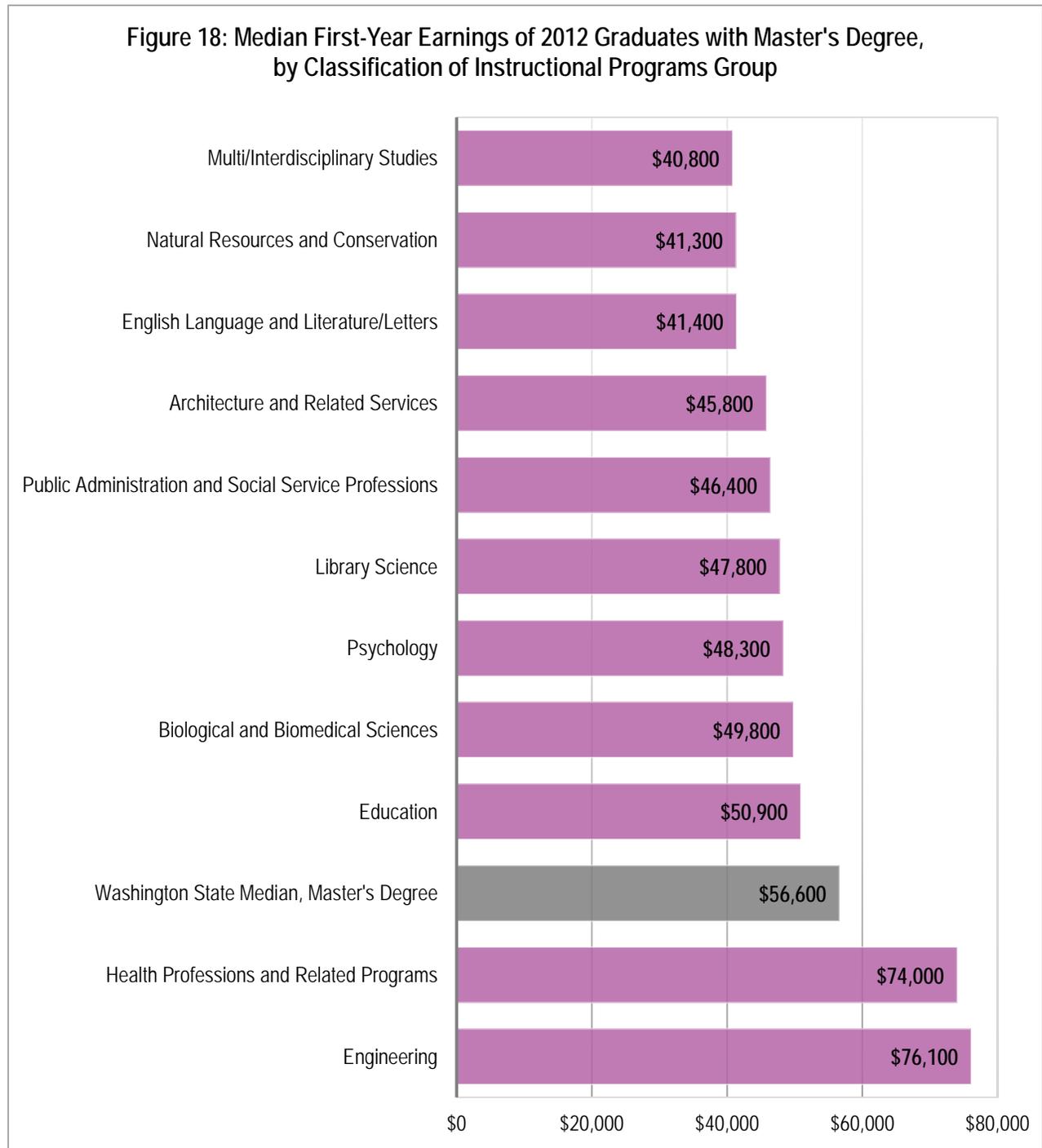


Figure 19: Doctoral degrees by type and university

Figure 19 compares median first-year earnings for 2012 graduates with doctoral degrees by type of degree and by university. The categories are limited to those having at least 30 recipients in the category. To capture the differences in doctoral degree fields, the graph provides two overall medians — one for “research/scholarship” recipients and one for “professional practice” degrees. These two categories had statewide median first-year earnings of \$66,600 and \$74,900, respectively. The highest earning degrees for this cohort were Washington State University doctorates in professional practices (\$90,800). The lowest median first-year earnings were for those who received Washington State University doctorates in scholarship professions (\$62,500).

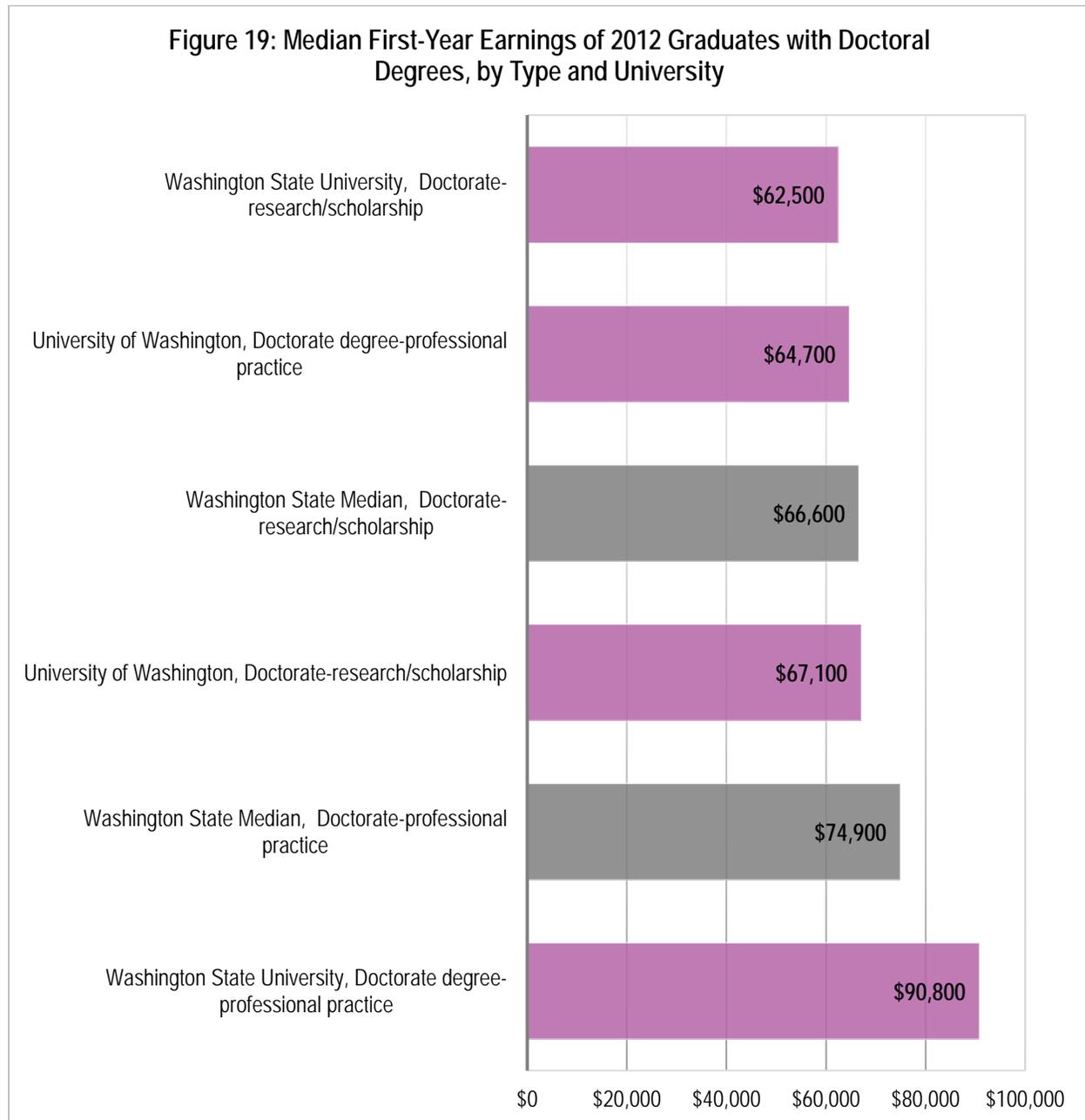
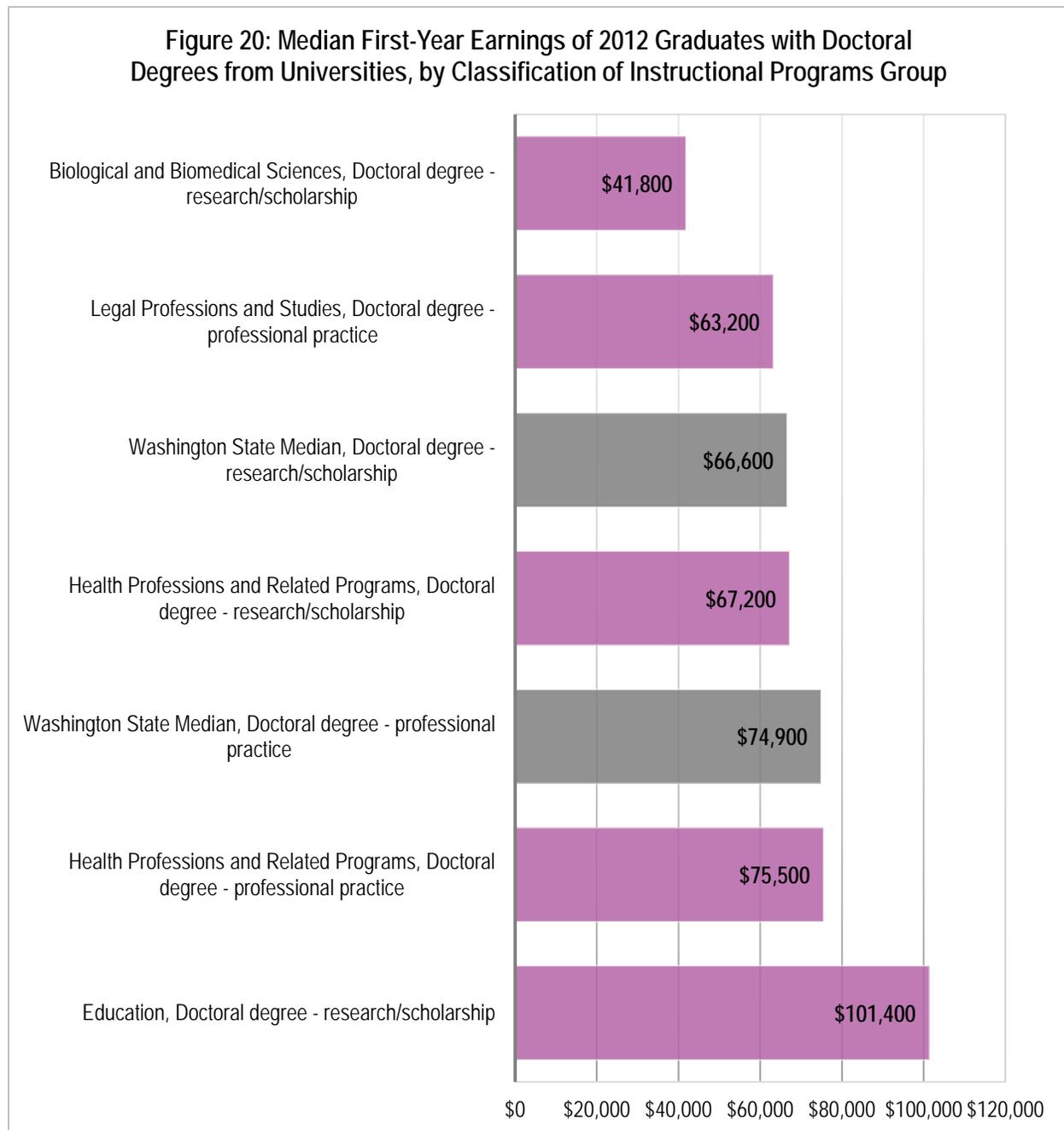


Figure 20: Doctorates by instructional program

Figure 20 shows median first-year earnings for 2012 graduates with doctorate degrees from universities by classification of instructional program group. The graph provides two overall medians: one for “research/scholarship” recipients and one for “professional practice” degrees. These two categories had statewide median first-year earnings of \$66,600 and \$74,900, respectively. The lowest median first-year earnings were for research/scholarship doctorates in biological and biomedical sciences (\$41,800) and the highest median earnings for first-year doctorates were for those with a research/scholarship degree in education (\$101,400).



Appendix I: Definition of Terms

AWARDS

Awards are degrees, certificates and apprenticeship completions. Colleges (including community and technical colleges) and universities award degrees. Community and technical colleges also award certificates. The Department of Labor and Industries oversees apprenticeship programs.

Completer and **graduate** are used interchangeably to refer to those who earn awards.

The following elements are used to describe awards:

Award year – academic year of the award (fall through summer)

Award type:

- Certificate requiring at least one year of full-time study
- Apprenticeship
- Degree: associate degree, bachelor's degree, master's degree, doctoral degree — professional practice (medicine, veterinary medicine, dentistry, pharmacy, physical therapy, law), doctoral degree — research/scholarship (Ph.D.; Ed.D.)

Field of study – The colleges and universities provided U.S. Department of Education Classification of Instructional Program (CIP) codes for all completers. Apprenticeship data contained Standard Occupation Code (SOC) for the occupation associated with the apprenticeship. We used a [SOC-to-CIP crosswalk](#) to associate the apprenticeship programs with a CIP code.

EARNINGS

The Washington State Employment Security Department provided unemployment insurance wage records for individuals employed in Washington.

Earnings measures for all cohort members who are employed in Washington and who meet the minimum wage thresholds described below.

Earnings are measured for full calendar years after program completion.

Earnings data are available only through calendar year 2013.

Earnings data are adjusted for inflation.

Values are adjusted to fourth quarter of 2013 using the Chain-Weight Implicit Price Deflator for personal consumption expenditures. All values are rounded to the nearest \$100.

Earnings data for individuals who meet certain criteria:

- Those who work all four quarters in a calendar year,
- whose minimum quarterly earnings in the year are at least \$3,500, and
- whose annual earnings are at least \$14,000.

The \$3,500 per quarter and \$14,000 per year roughly correspond to employment of 75 percent of full-time hours at Washington's minimum wage.

Earnings are displayed as percentile values.

The median is the value that divides the earners into two groups — half earning more than the median and half earning less.

There are minimum cell sizes required for display.

When there are at least 30 individuals in a follow-up calendar year, we display the median earnings of that group. If there are at least 90 individuals in a cohort, the 25th and 75th percentile earnings are available.

FIELD OF STUDY

The colleges and universities provided U.S. Department of Education Classification of Instructional Program (CIP) codes for all completers. Apprenticeship data contained standard occupation code (SOC) for the occupation associated with the apprenticeship. We used an [SOC-to-CIP crosswalk](#) to associate the apprenticeship programs with a CIP code. A field of study may be listed in a report but no earnings are displayed because that program does not have at least 30 completers employed in Washington.

FOLLOW-UP YEAR

Refers to the full calendar year (January through December) of the year indicated at the top of the column.

INSTITUTION

Institution is the general term referring to a college (includes community and technical colleges) or university that awards degrees and/or certificate or a program that certifies completion of apprenticeships.

MEDIAN EARNINGS

The median — or 50th percentile value — is the value that divides the earners into two groups: half earning more than the median and half earning less.

MULTIPLE AWARDS

For displays that do not break out results by field of study, an individual is represented only once per year, even if the individual received more than one award in a year. We use the record corresponding to the highest level award in these cases.

Example: Mark is awarded a certificate and an associate degree in 2007–08. He is a member of the 2007–08 associate degree recipient cohort, but is not included in the 2007–08 certificate recipient cohort.

For displays that show results by field of study, an individual is represented for each field of study associated with his or her awards in a particular year.

Example: Luis receives a bachelor's degree in applied mathematics and a bachelor's degree in statistics in 2009–10. Since both degrees are in the same field of study group (mathematics and statistics), he is counted only once in the analysis for that field of study.

Example: Sarah receives a bachelor's degree in meteorology (physical sciences) and a bachelor's degree in TV broadcasting (communications) in 2010–11. Her outcomes are displayed with each of the tables associated with her fields of study. (Her outcomes are included only once in the institutional profile [institution-award level] and in the summary by award level.)

We include records for the same individual for each year he or she receives an award.

Example: Jennifer receives an associate degree in 2008–09 and a bachelor's degree in 2010–11. She is a member of the 2008–09 associate degree cohort and the 2010–11 bachelor's degree cohort.

PROGRAM COMPLETERS (COHORTS)

The tables in this report provide earnings data for groups of individuals (cohorts) who completed programs in 2011–12. All cohorts are defined by the year of completion and the level of the award. They may be further subdivided by organization and/or field of study.

The following rules in assigning individuals to cohorts were applied:

For displays that do not break out results by field of study, an individual is represented only once per year, even if the individual received more than one award in a year. We use the record corresponding to the highest-level award in these cases.

Example: Mark is awarded a certificate and an associate's degree in 2007–08. He is a member of the 2007–08 associate degree recipient cohort, but is not included in the 2007–08 certificate recipient cohort.

For displays that show results by field of study, an individual is represented for each field of study associated with his or her awards in a particular year.

Example: Luis receives a bachelor's degree in applied mathematics and a bachelor's degree in statistics in 2009–10. Since both degrees are in the same field of study group (mathematics and statistics), he is counted only once in the analysis for that field of study.

Example: Sarah receives a bachelor's degree in meteorology (physical sciences) and a bachelor's degree in TV broadcasting (communications) in 2010–11. Her outcomes are displayed with each of the field of study tables associated with her fields of study. (Her outcomes are included only once in the institutional profile [institution-award level] and in the summary by award level.)

Records for the same individual for each year he or she receives an award were included.

Example: Jennifer receives an associate degree in 2008–09 and a bachelor's degree in 2010–11. She is a member of the 2008–09 associate degree cohort and the 2010–11 bachelor's degree cohort.

Appendix II: Institutions and Award Levels

Bachelor's degree column shows first-year applied bachelor's degrees that were awarded in community and technical colleges (for institutions awarding these degrees by 2011–12).

Institution Name	Location	Awards Offered					
		Apprenticeship	Certificates	Associate	Bachelor	Master	Doctoral
University of Washington	Seattle				X	X	X
Washington State University	Pullman				X	X	X
Central Washington University	Ellensburg				X	X	
Eastern Washington University	Cheney				X	X	X
Western Washington University	Bellingham				X	X	
The Evergreen State College	Olympia				X	X	
Bates Technical College	Tacoma		X	X			
Bellevue College	Bellevue		X	X	2008–09		
Bellingham Technical College	Bellingham		X	X			
Big Bend Community College	Moses Lake		X	X			
Cascadia College	Bothell		X	X			
Centralia College	Centralia		X	X			
Clark College	Vancouver		X	X			
Clover Park Technical College	Lakewood		X	X			
Columbia Basin College	Pasco		X	X	2010–11		
Edmonds Community College	Lynnwood		X	X			
Everett Community College	Everett		X	X			
Grays Harbor College	Aberdeen		X	X			
Green River Community College	Auburn		X	X			
Highline College	Des Moines		X	X			
Lake Washington Institute of Technology	Kirkland		X	X	2010–11		
Lower Columbia College	Longview		X	X			
North Seattle College	Seattle		X	X			
Olympic College	Bremerton		X	X	2008–09		
Peninsula College	Port Angeles		X	X	2008–09		
Pierce College-Fort Steilacoom	Lakewood		X	X			
Pierce College-Puyallup	Puyallup		X	X			
Renton Technical College	Renton		X	X			
Seattle Central College	Seattle		X	X	2010–11		
Seattle Vocational Institute	Seattle		X	X			

Appendix II: Institutions and Award Levels (continued)

Institution Name	Location	Awards Offered					
		Apprenticeship	Certificates	Associate	Bachelor	Master	Doctoral
Shoreline Community College	Seattle		X	X			
Skagit Valley College	Mount Vernon		X	X			
South Puget Sound Community College	Olympia		X	X			
South Seattle College	Seattle		X	X	2008–09		
Spokane Community College	Spokane		X	X			
Spokane Falls Community College	Spokane		X	X			
Tacoma Community College	Tacoma		X	X			
Walla Walla Community College	Walla Walla		X	X			
Wenatchee Valley College	Wenatchee		X	X			
Whatcom Community College	Bellingham		X	X			
Yakima Valley Community College	Yakima		X	X			
State Apprenticeship Programs meeting size criteria for display:							
Operating Engineers Regional Training Program JATC (58)		X					
NW WA Electrical Industry JATC (65)		X					
Northwest Laborers Apprenticeship (71)		X					
W WA Sheet Metal JATC (74)		X					
E WA - NE OR Pipe Trades (86)		X					
Seattle Area Plumber/Pipefitter/HVAC/Refrig (115)		X					
Washington State UBC JATC (128)		X					
Puget Sound Electrical JATC (134)		X					
Pacific NW Ironworkers #86 (141)		X					
WA State Dept of Corrections (474)		X					
WA ST Fire Fighters Apprenticeship (1499)		X					