

# Higher Education and Regional Economic Development

Higher Education Coordinating Board

May 19, 2011

# Purpose of Report

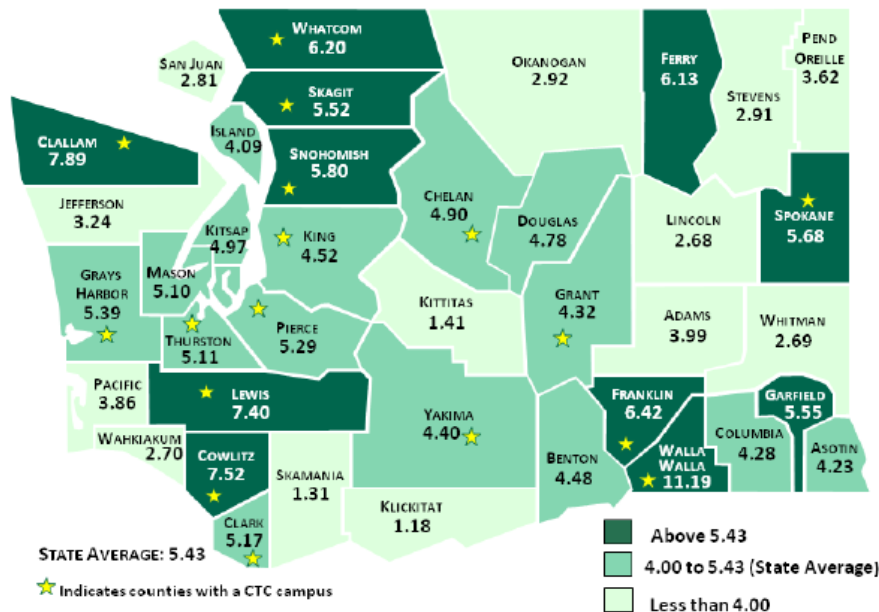
- Complies with statutory requirement for the HECB to analyze demand for additional degrees and programs.
- Supports the program review and approval processes by providing institutions with demand forecast data.
- Identifies high-demand, high-wage occupations at the regional and statewide levels.
- Provides important information needed for updating the *Strategic Master Plan for Higher Education*.

# Summary of Findings

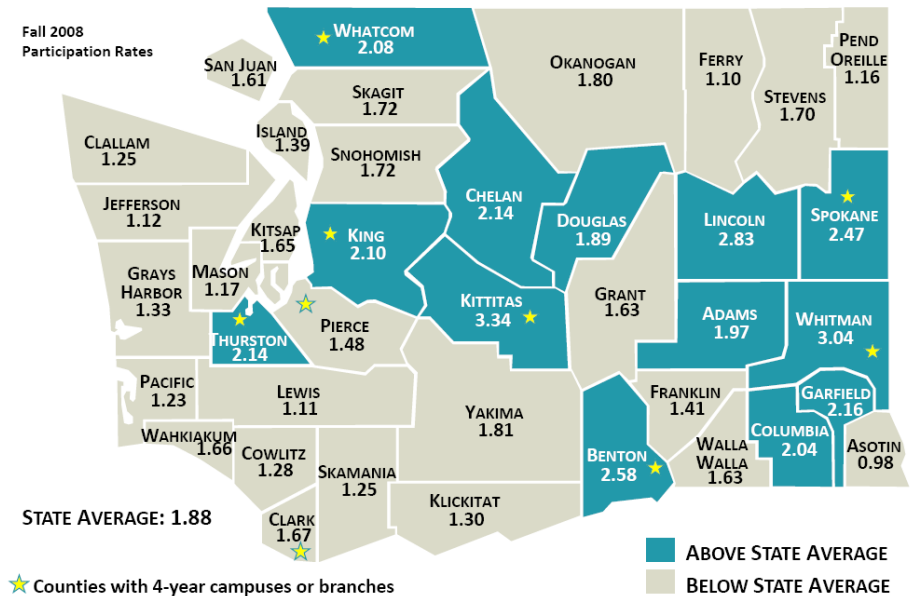
- Distribution of two- and four-year higher education capacity in each region varies widely by substate region, and in some instances is out of sync with employer demand.
- Higher education capacity is highly concentrated in King County, Spokane, and Pullman.
- The employment forecasts indicate a change in the dispersal pattern of college-level job openings from King County to other parts of the state, making the state economy less King County-centric.
- The greatest number of forecast job openings are for registered nurses, teachers in certain fields, and in business, management, and accounting occupations.
- Institutions should focus on occupations that offer both high wages and either high job growth rates or total job openings when identifying programs for expansion.

# Higher Education Participation

Community and Technical College Participation Rates by County, Percent of Population 17-64, Fall 2009



Baccalaureate Participation Rates by County, Percent of Population 17-64, Fall 2008



Sources: OFM Higher Education Enrollment Reports (HEER), OFM County Population Estimates.

Sources: State Board for Community and Technical College's Management Information System Reports; Office of Financial Management's county population estimates.

- Participation rates vary widely across the state.
- Proximity to an institution matters.

# Top High Wage Job Openings by Region

Top Self-Sufficiency Wage Occupations Requiring Postsecondary Education (by Total Job Openings)  
by Region and Statewide Degree Level, 2010-2020

Top Self-Sufficiency Wage Occupations Requiring Post-Secondary Education (by Total Job Openings) by Region and Statewide Degree Level, 2010-2020												
Rank (by Job Openings)	Central and Southeast	King	Northwest- Olympic	Northwest- Balance	Pierce	Snohomish	South Sound	Southwest	Spokane and Northeast	Washington Mid-Level	Washington Baccalaureate	Washington Graduate
1	Farm, ranch, and other ag. managers	Registered nurses	Registered nurses	Registered nurses	Registered nurses	Registered nurses	Registered nurses	Registered nurses	Registered nurses	Registered nurses	Management analysts	Postsecondary teachers
2	Registered nurses	Management analysts	Elementary school teachers, except special education	Elementary school teachers, except special education	Elementary school teachers, except special education	Elementary school teachers, except special education	Chief executives and sole proprietors	Chief executives and sole proprietors	Accountants and auditors	Carpenters	Accountants and auditors	Physicians and surgeons
3	Elementary school teachers, except special education	Computer software engineers, applications	Business operation specialists, all other	Postsecondary teachers	Physicians and surgeons	General and operations managers	Accountants and auditors	Accountants and auditors	Postsecondary teachers	Computer support specialists	Chief executives and sole proprietors	Lawyers
4	Accountants and auditors	Accountants and auditors	Fire fighters	General and operations managers	Electricians	Business operation specialists, all other	Management analysts	Elementary school teachers, except special education	Elementary school teachers, except special education	Licensed practical and vocational nurses	Elementary school teachers, except special education	Medical scientists, except epidemiologists
5	Chief executives or sole proprietors	Network systems and data comm. analysts	Teachers and instructors, all other	Secondary school teachers, except special and vocational education	Carpenters	Postsecondary teachers	General and operations managers	Medical secretaries	Chief executives and sole proprietors	Electricians	Securities, commodities, and financial services sales agents	Pharmacists
6	Postsecondary teachers	Chief executives or sole proprietors	Electricians	Farm, ranch, and other agricultural managers	Postsecondary teachers	Fire fighters	Elementary school teachers, except special education	General and operations managers	Farm, ranch, and other ag. managers	Fire fighters	Business operation specialists, all other	Clinical, counseling, and school psychologists
7	Civil engineers	Business operation specialists, all other	Carpenters	Physicians and surgeons	Business operation specialists, all other	Network systems and data comm. analysts	Network and computer systems administrators	Management analysts	Licensed practical and vocational nurses	Automotive service technicians and mechanics	General and operations managers	Physical therapists
8	Teachers and instructors, all other	Computer software engineers, systems software	Secondary school teachers, except special and vocational education	Fire fighters	General and operations managers	Aerospace engineers	Medical secretaries	Physicians and surgeons	Teachers and instructors, all other	Computer specialists, all other	Computer software engineers, applications	Educational, vocational, and school counselors
9	Carpenters	Securities, commodities, and financial services sales agents	Lawyers	Electricians	Secondary school teachers, except special and vocational education	Secondary school teachers, except special and vocational education	Computer software engineers, systems software	Postsecondary teachers	Insurance sales agents	Police and sheriff's patrol officers	Network systems and data comm. analysts	Environmental scientists and specialists, including health
10	General and operations managers	Market research analysts	Postsecondary teachers	Compliance officers, except ag., constr., health & safety, and trans.	Middle school teachers, except special and vocational education	Physicians and surgeons	Teachers and instructors, all other	Secondary school teachers, except special and vocational education	Carpenters	Plumbers, pipefitters, and steamfitters	Teachers and instructors, all other	Mental health counselors

Source: Higher Education Coordinating Board analysis based on EMSI employment forecasts (3rd Quarter 2010) and Pearce, Diana (2009), "The Self-Sufficiency Standard for Washington State," University of Washington School of Social Work.  
Note: Chart shows only those occupations requiring post-secondary education with median wages that exceed the self-sufficiency wage standard for the region, for three common family compositions.

# Job Openings by Region

## New and Replacement Job Openings, by Region Requiring Postsecondary Education, 2010-2020

Region	New and Replacement Job Openings 2010-2020	Job Openings % of Total	2009 Jobs % of Total
Central & Southeast	62,238	11%	10%
King	241,120	41%	46%
Northwest	62,733	11%	9%
Pierce	56,833	10%	8%
Snohomish	48,770	8%	8%
South Sound	28,401	5%	5%
Southwest	38,722	7%	6%
Spokane	48,130	8%	8%
<b>Washington</b>	<b>586,947</b>	<b>100%</b>	<b>100%</b>

Source: EMSI Complete Employment – 3<sup>rd</sup> Quarter 2010. (Percentages rounded)

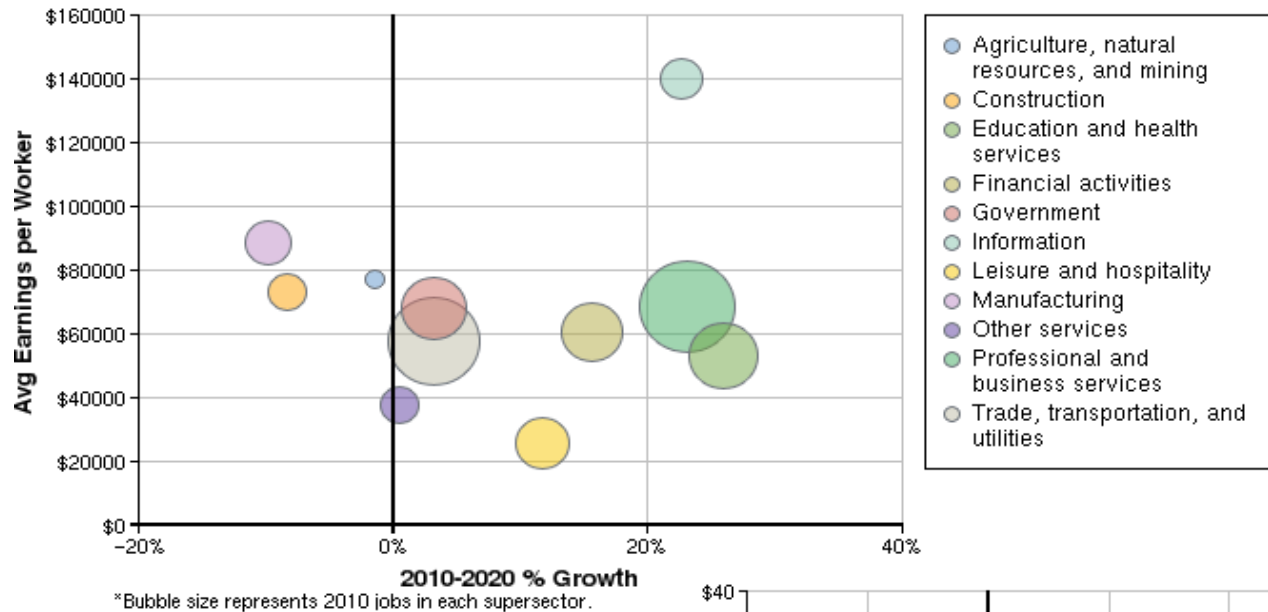
Note: Data is for jobs requiring postsecondary education only.

# Higher Education Capacity by Region

Region	Fall 2009 Enrollment in Washington, by Region					Enrollment	2010
	2-year	4-year	Undergrad Total	Graduate	Total Enrollment	% of Total	18-64 Pop.
Central and Southeast	25,065	37,555	62,620	5,995	<b>68,615</b>	15%	11%
King	92,231	53,597	145,828	22,791	<b>168,619</b>	38%	30%
Northwest-Peninsula	12,920		12,920		<b>12,920</b>	3%	12%
Northwest-Balance	17,267	13,500	30,767	1,179	<b>31,946</b>	7%	
Pierce	36,601	9,209	45,810	1,226	<b>47,036</b>	10%	12%
Snohomish	24,370	1,342	25,712		<b>25,712</b>	6%	11%
South Sound to Coast	14,863	5,910	20,773	653	<b>21,426</b>	5%	6%
Southwest	21,640	2,899	24,539	535	<b>25,074</b>	6%	8%
Spokane and Northeast	24,377	18,559	42,936	5,188	<b>48,124</b>	11%	9%
<b>Grand Total</b>	<b>269,334</b>	<b>142,571</b>	<b>411,905</b>	<b>37,567</b>	<b>449,472</b>	<b>100%</b>	<b>100%</b>

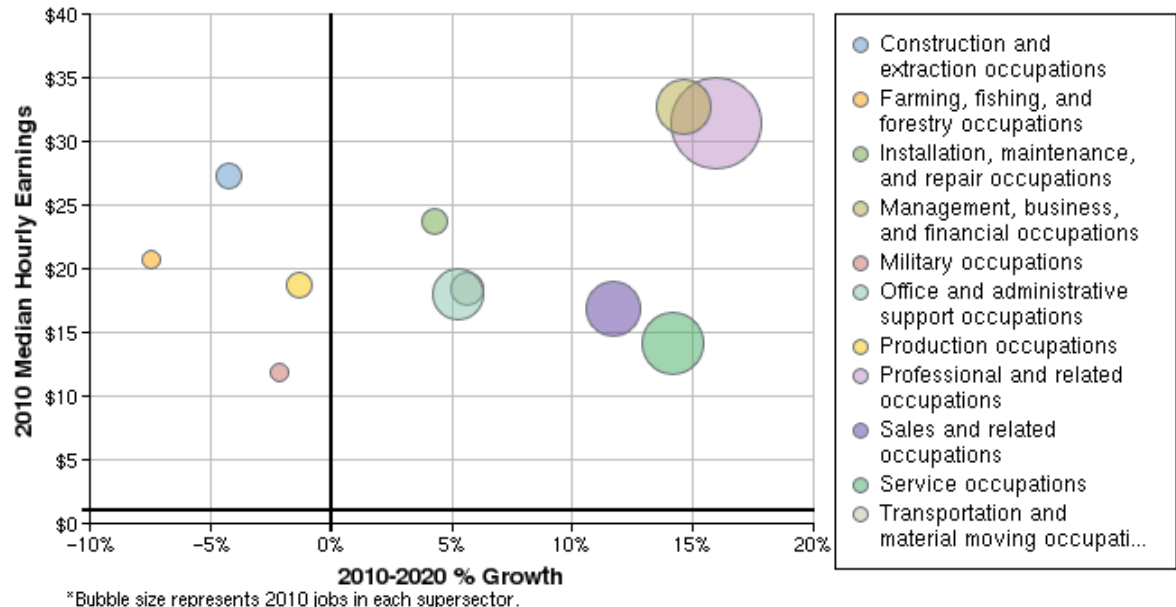
Sources: HECB compilation of NCES IPEDS data, OFM Higher Education Enrollment Reports, SBCTC Enrollment and Staffing Report and OFM Washington State Population Projections. Note: Title IV-eligible, degree-granting institutions only.

# Occupation and Industry Growth



**King County Industry Growth, Size, Earnings**

\*Bubble size represents 2010 jobs in each supersector.



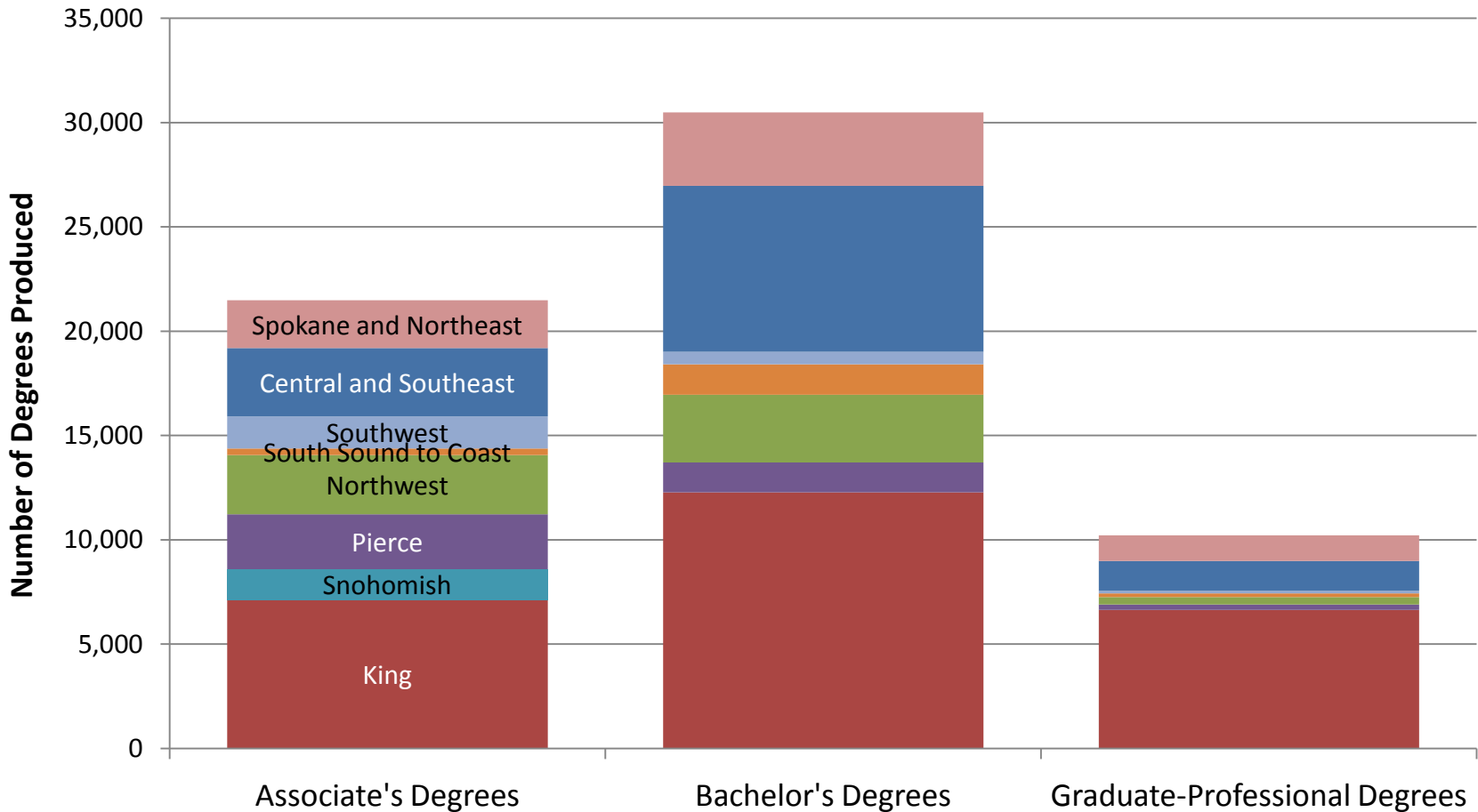
\*Bubble size represents 2010 jobs in each supersector.

**King County Occupation Growth, Size, Earnings**



# Degree Production by Region

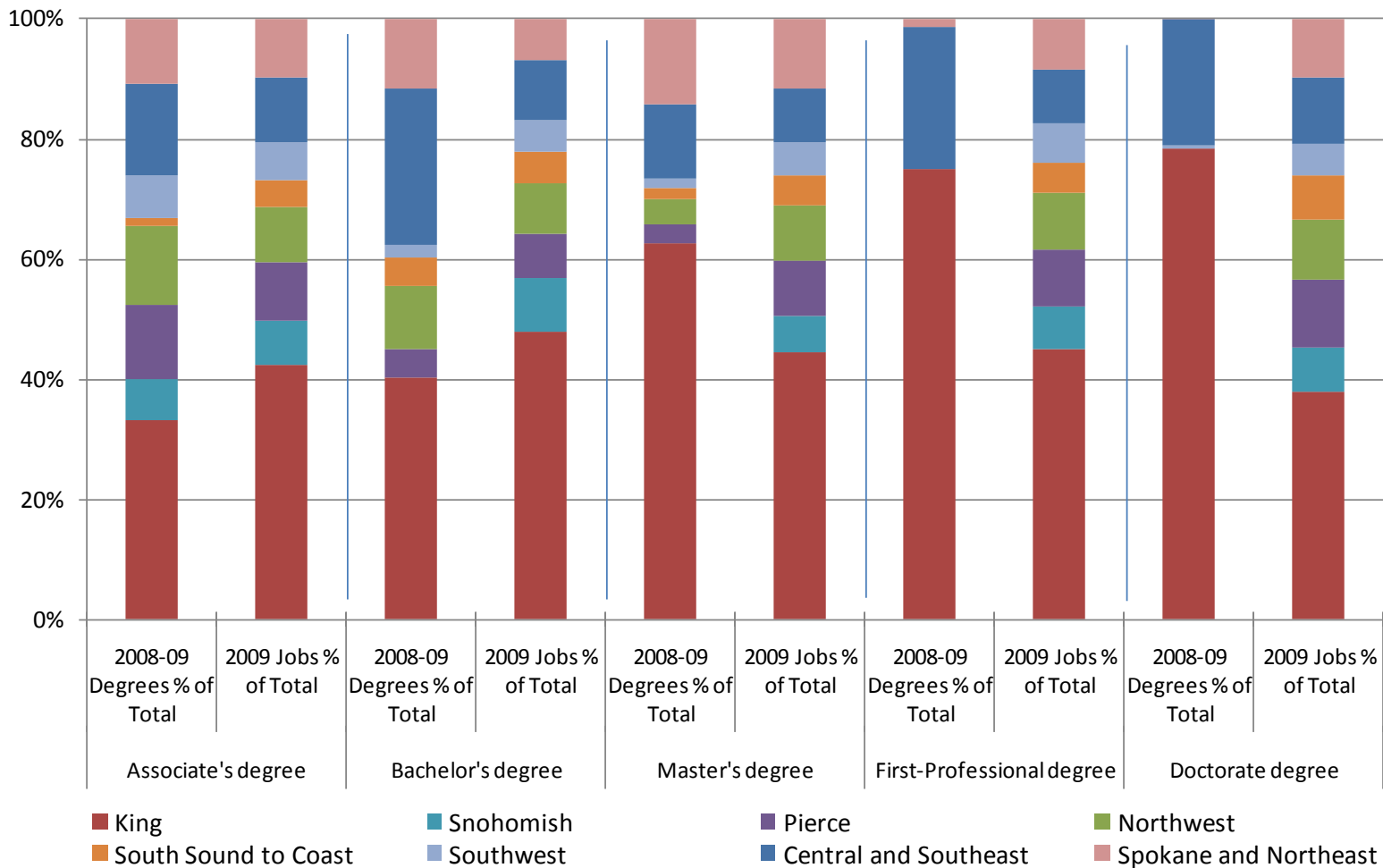
Production of Academic Degrees in Washington by Region, 2008-09



Source: HECB analysis of IPEDS data, WSU institutional research reports (<http://ir.wsu.edu/Degrees>).

# Degree Production and Employment by Region

Comparison of Degree Production and Employment by Region and Degree Type in Washington, 2008-09



Source: HECB analysis of IPEDS data, WSU institutional research reports (<http://ir.wsu.edu/Degrees>) and employment data from EMSI, Inc.

# For more information:

Jan Ignash, Deputy Director  
Higher Education Coordinating Board

[jani@hecb.wa.gov](mailto:jani@hecb.wa.gov)

(360) 704-4168