

# Educators for the 21<sup>st</sup> Century

October 26, 2010

Vancouver, WA

## Today's presentation:

- **Review of Master Plan Goals**
- **Connecting to State and National Data**



# Review of the 2008 Master Plan for Higher Education



[www.hecb.wa.gov/research/masterplans/masterplansindex.asp](http://www.hecb.wa.gov/research/masterplans/masterplansindex.asp)



# Building a roadmap for higher education

<p><b>Our population is growing</b> 2.5 million increase (+37%)</p>	<p><b>2005 - 6.2 million</b> </p> <p><b>2030 - 8.6 million</b> </p>
<p><b>We will be older</b> Those <b>over 65</b> will increase most rapidly (+72%)</p>	<p><b>2005 = 11% of population</b> </p> <p><b>2030 = 19% of population</b> </p>
<p><b>We will be more diverse</b> We will experience a <b>39% increase</b> in the diversity of our population</p>	<p><b>2005 = 23% Diversity</b> </p> <p><b>2030 = 32% Diversity</b> </p>

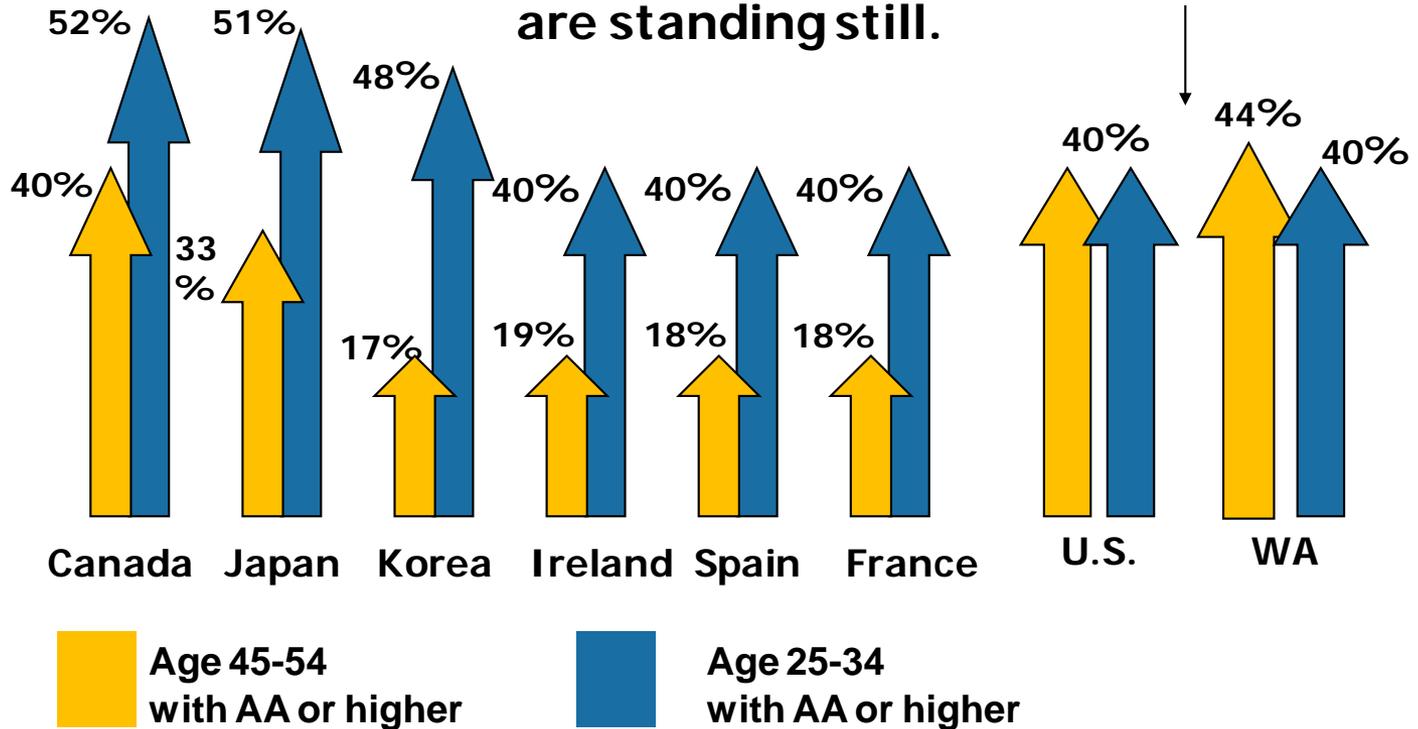
Source: OFM 2007



# Building a roadmap for higher education

Other nations are educating the next generation to much higher levels...

...but the U.S. and Washington State are standing still.

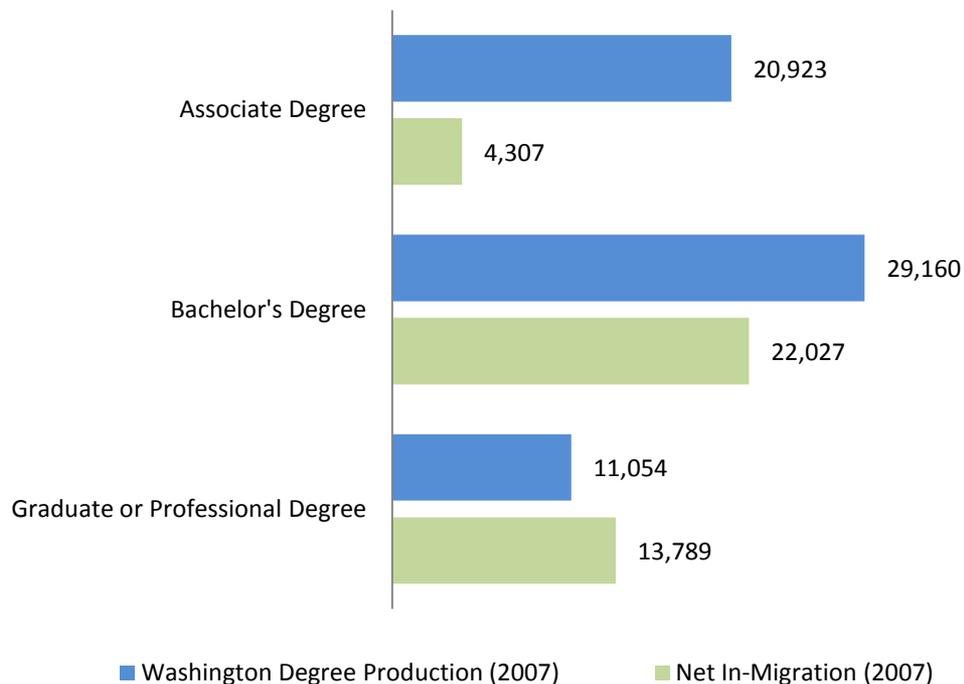


# Washington Meets the needs of the knowledge economy by importing workers from other states and nations

In 2007, Washington imported:

- **76 bachelor's degrees** to meet workforce needs for every 100 bachelor's degrees awarded by a Washington public or private university; and
- **125 graduate or professional degrees** for every 100 graduate or professional degrees awarded by a Washington public or private university.

### Washington Degree Production and In-Migration - 2007



Source: HECB calculation based on NCHEMS analysis of Net In-migration and Postsecondary Education Opportunity compilation of state degree award data from IPEDS.



## *Building a roadmap for higher education*

### **Washington Ranks:**

- 1st nationally in the employment of engineers
- 6th in computer specialists
- 9th in life and physical scientists

*However, we rank . . .*

- 38th nationally in the production of bachelor's degrees in science and engineering; and
- 42nd in the production of graduate degrees in these fields.

Source: Department of Commerce as cited in Prosperity Partnership's Higher Education Working Group Proposal



## *Building a roadmap for higher education*

### **Key Issues in Washington:**

- We're getting older – Baby boomers are retiring.
- Our younger citizens (18-34) have lower levels of college attainment.
- We import workers for jobs requiring high levels of education or training.
- We have low rates of high school graduation and college entry.
- Future population growth will be greatest among groups with traditionally low college participation.



## *Building a roadmap for higher education*

### Existing “System” of Higher Education

- **WA CTC system is effective and geographically well-distributed across the state.**
- **WA public baccalaureate system provides choice, but is relatively small.**
- **Five branches, 10 university centers, and 40 teaching sites provide additional access to baccalaureate programs.**
- **UW and WSU award 35% of all baccalaureate degrees and 92% of all doctoral degrees.**
- **Public regional comprehensive institutions award nearly 60% of all undergraduate teaching credentials and 25% of all Master’s degrees.**
- **Private universities award 25% of bachelor’s degrees and half of the state’s master’s and professional degrees.**
- **Private career colleges award a small – but growing – portion of the state’s baccalaureate degrees.**

### Major issues

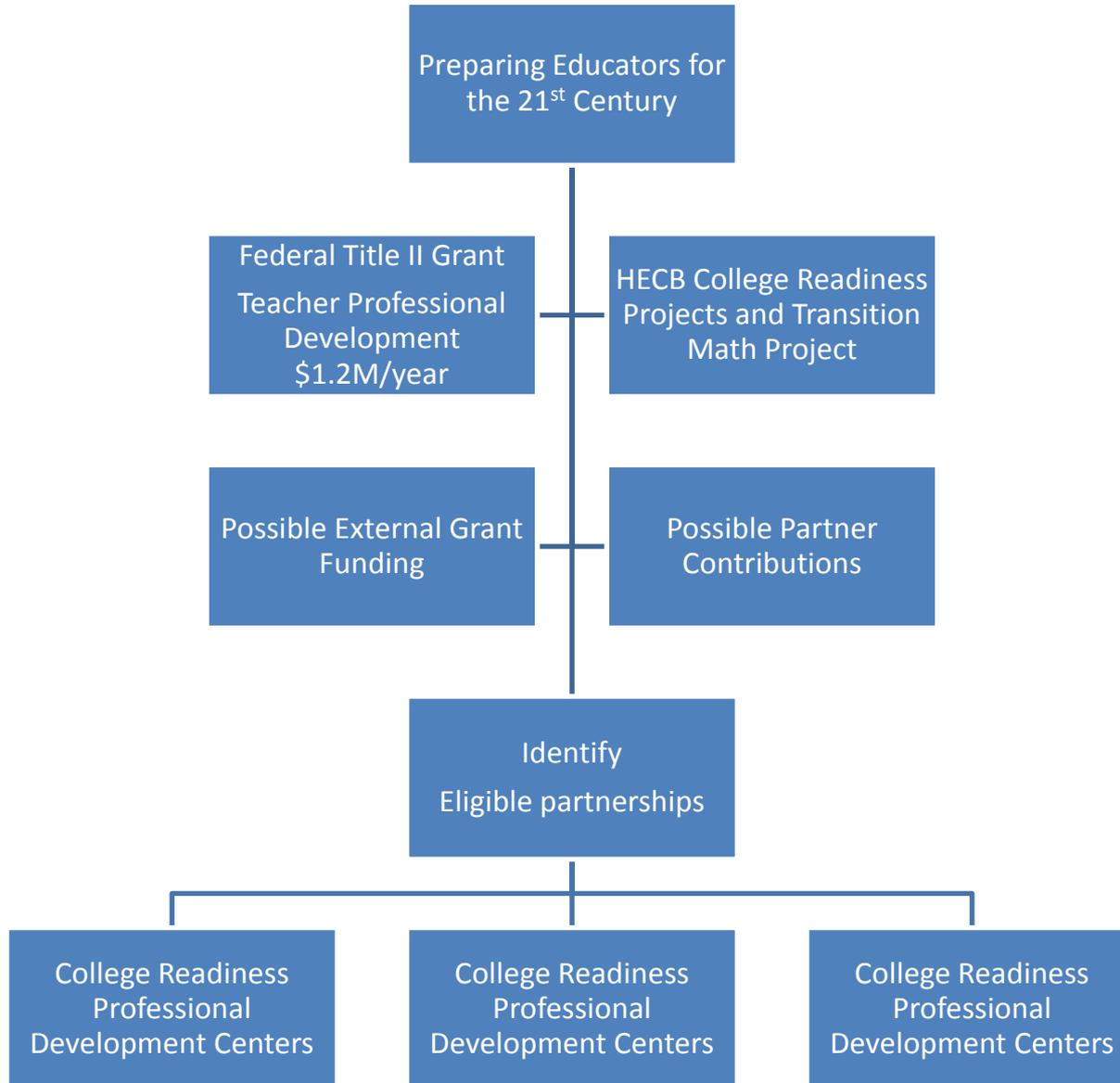
- Washington's economy relies on a **well-educated** and **technically skilled** workforce.
- We need to sustain our innovation capacity by **educating more of our own citizens** through certificate and degree levels.
- We need to **grow awareness** of college-going opportunities among K-12 students *and* adults.
- We need a well-educated workforce and **research capacity** to innovate and grow our economy.
- We need a coordinated, **systemwide plan** to expand higher education – not an ad hoc, piecemeal approach.

- 
- Turn to your neighbor

What do you find striking up to now?

# **Educators for the 21<sup>st</sup> Century**

# Educators for the 21<sup>st</sup> Century



## Project Objectives

- **Expand services** to all high-need districts in Washington.
- **Use the good work already completed** to define college readiness for math, English, and science, and to train teachers across the state to teach the content requirements defined in the standards.
- **Provide a clear picture** for teachers, students, and parents of the learning that needs to occur in 11th and 12th grades to prepare students for postsecondary education and training, and to develop the capacity to deliver that curriculum effectively.

## Project Objectives

- **Align the work of HECB with other agencies** that share the responsibility for teacher training and professional development and improve communication and collaboration among education sectors.
- **Augment existing HECB efforts related to induction and ongoing teacher professional development.** These include: professional learning communities, summer institutes, follow-up activities during the academic year, and curriculum support in the three key college readiness areas—math, science, and English.
- **Create professional development opportunities,** which include faculty from across sectors and build on each other to provide a pathway toward higher-level degrees or other credentials.

## **Essential attributes necessary for college success**

- Demonstrate intellectual engagement.
- Take responsibility for their own learning.
- Persevere through the learning process.
- Pay attention to detail.
- Demonstrate ethical behavior.
- Communicate effectively across a variety of audiences and purposes.
- Effectively read and organize information presented in questions/problems in order to formulate solutions.
- Build creative solutions to intellectual and practical real-world problems.

## **Current Projects**

- **2009 – 2012 Title II Funded Projects (\$4.7M)**
  - Six projects: 4 math, 1 science, 1 math and science
  - 58 School districts (13 high need)
  - 288 Teachers; 123 Principals
  
- **YEAR GEAR-UP Funded Projects (\$400,000)**
  - 7 Districts
  - 36 teachers
  - Impacts 1,000 students

## **District Eligibility**

- 295 School districts in Washington
- 91 Districts are “High Poverty”
- 27 Districts are “High Need” (High Poverty and teachers teaching outside of their area).
- 13 High need districts served, 11 High poverty (not high need districts) served.



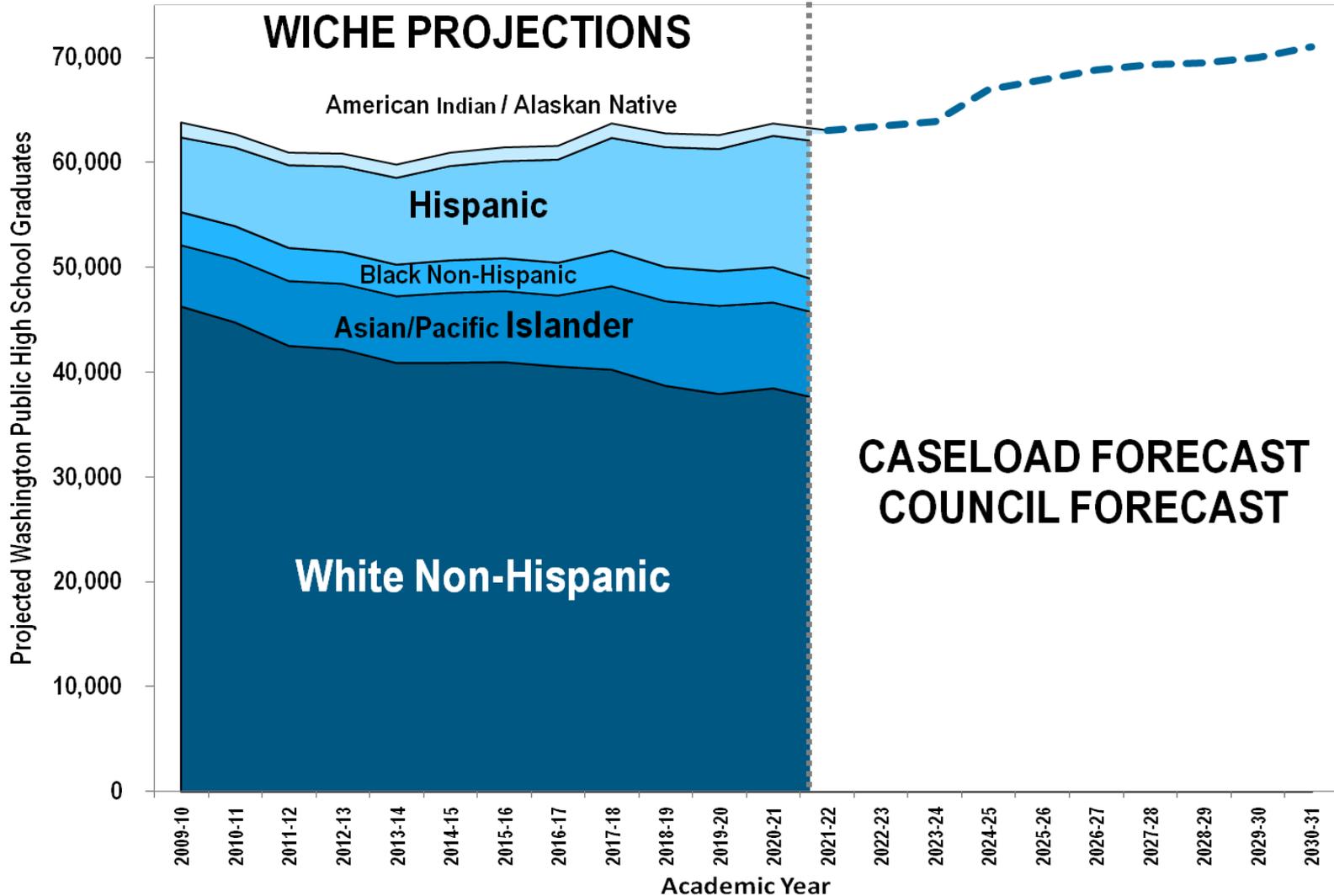
## **Three contexts for our collective work**

- **Postsecondary participation**  
— *Who is going?*
- **Preparation for postsecondary**  
— *Who is getting prepared?*
- **Benefits of postsecondary education**  
— *Why does it matter?*

# Postsecondary Participation

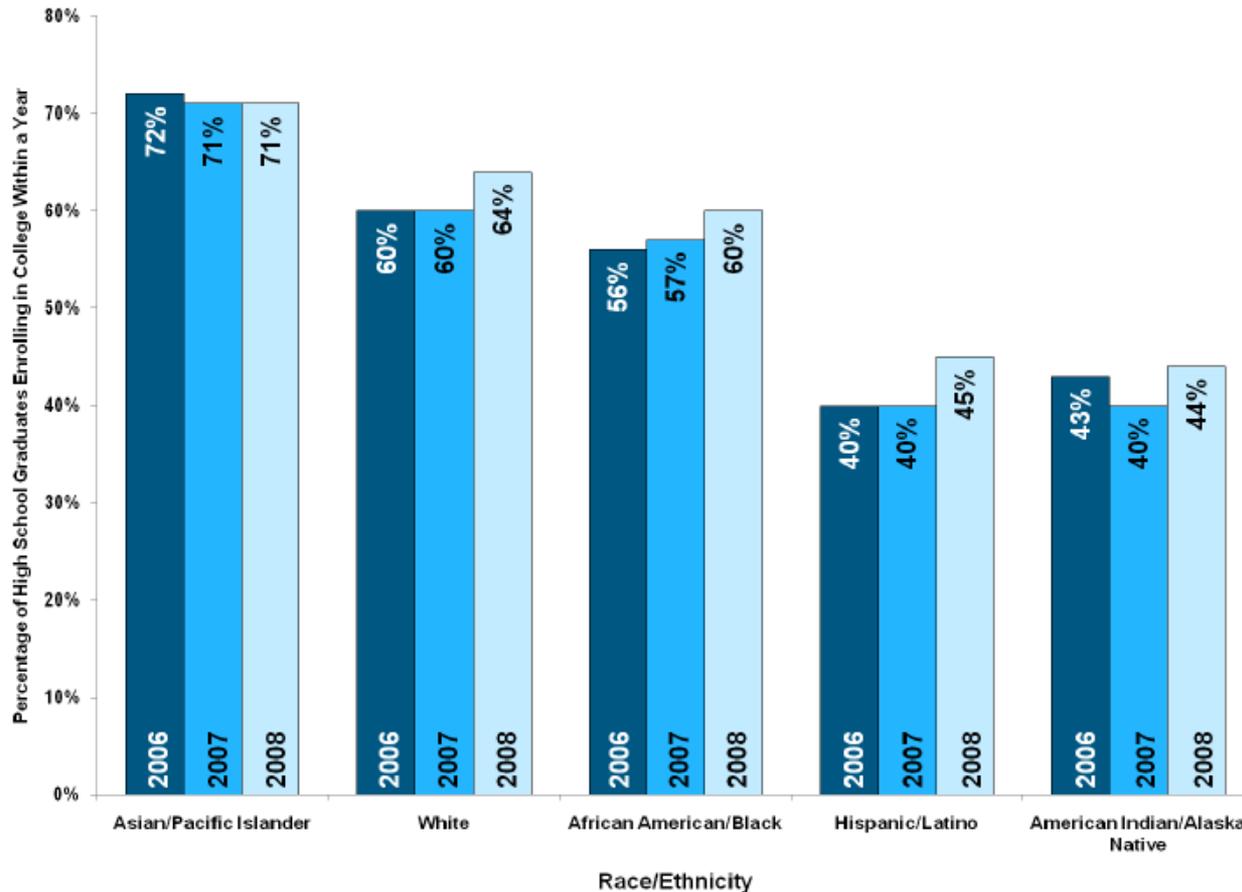
- ◆ **Increasing Diversity of High School Students**
- ◆ **Activity after high school**
- ◆ **Participation rates**
- ◆ **Productivity**

# Projected Washington State High School Graduates 2009-2031



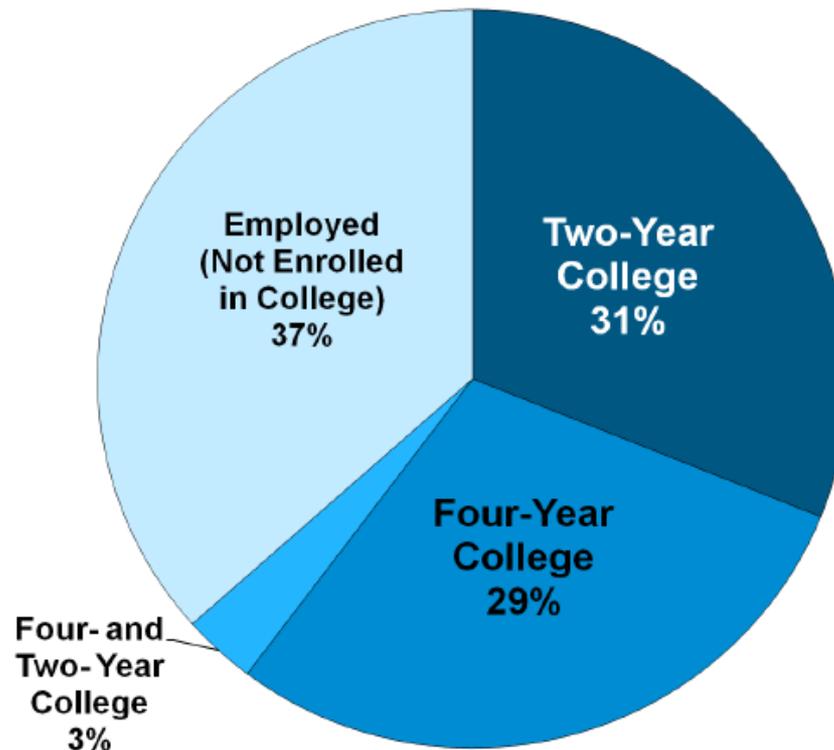
# College Continuation by Race / Ethnicity

Percentage of High School Graduates Enrolling in College within a Year  
by Race/Ethnicity, 2006-2008



## Activity after High School

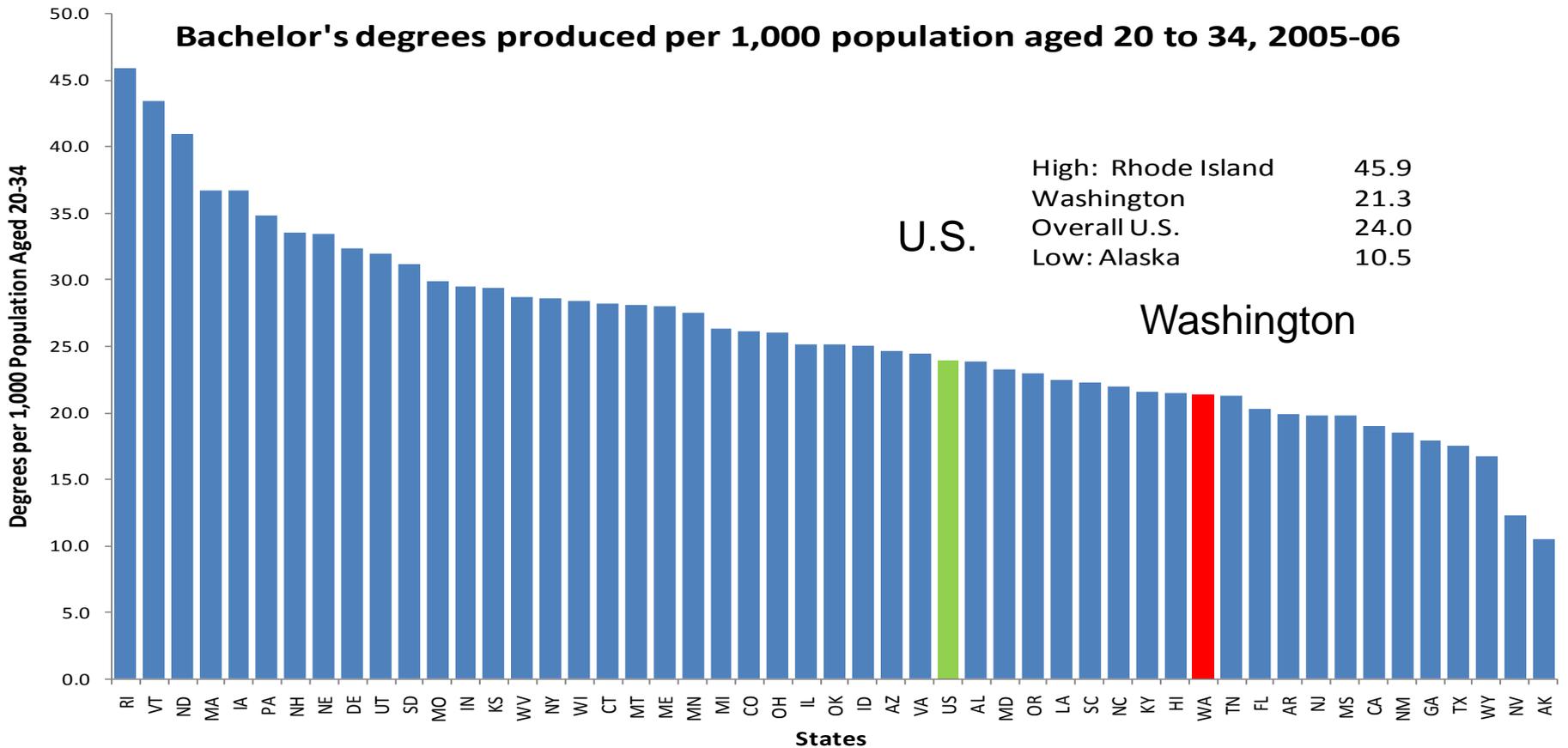
**Student Activity One Year After High School Graduation  
from Washington Public High Schools, Class of 2007**



Note: Students for whom no enrollment or employment data exists are not included.

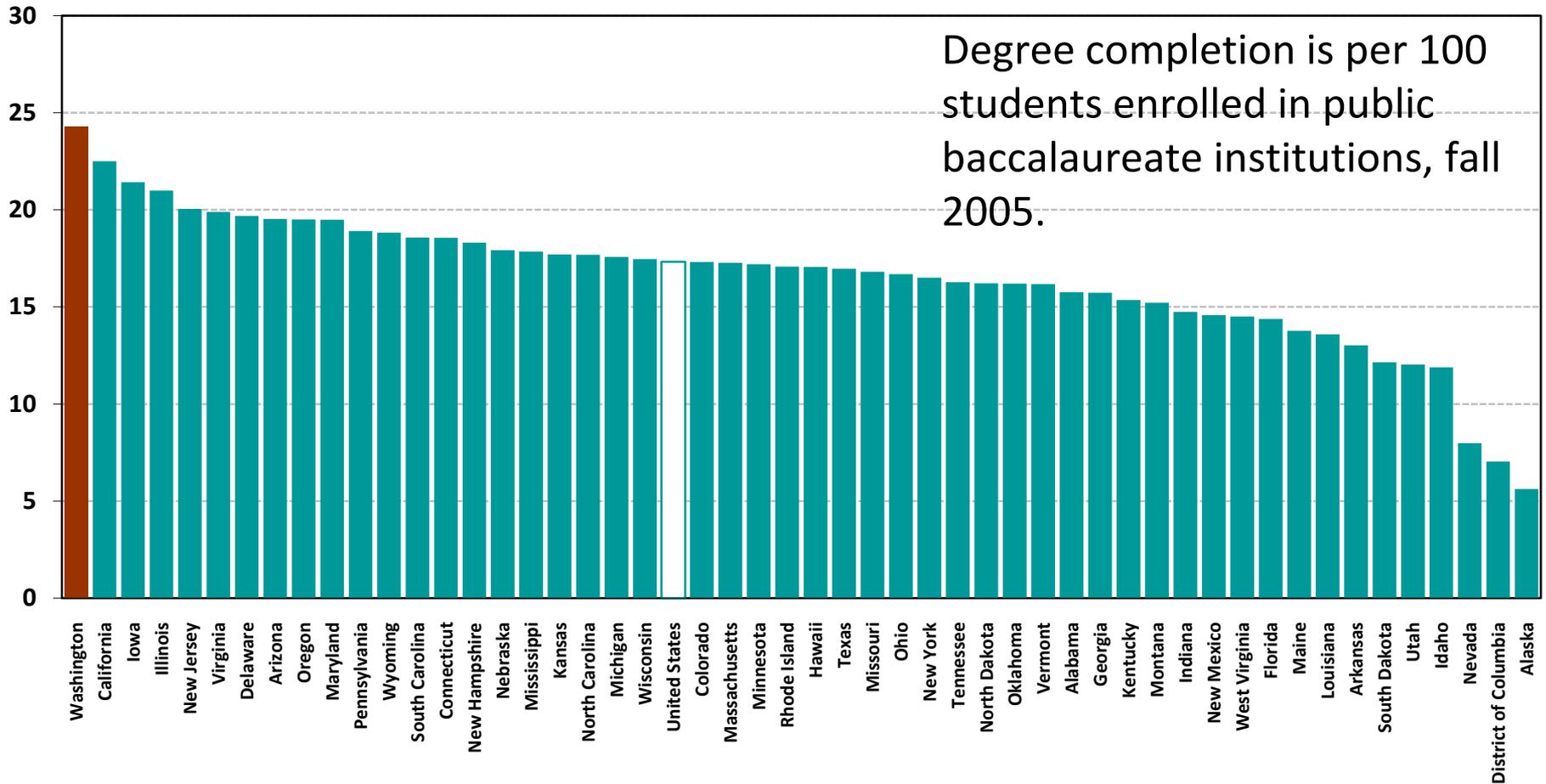
Source: WSU Social and Economic Services Research Center for the Office of the Superintendent of Public Instruction, *Washington State Graduate Follow-Up Study, High School Class of 2007*.

# Baccalaureate Participation



Source: Center for Education Statistics, Digest of Education Statistics 2007; U.S. Census Bureau.

## Baccalaureate Degree Completion



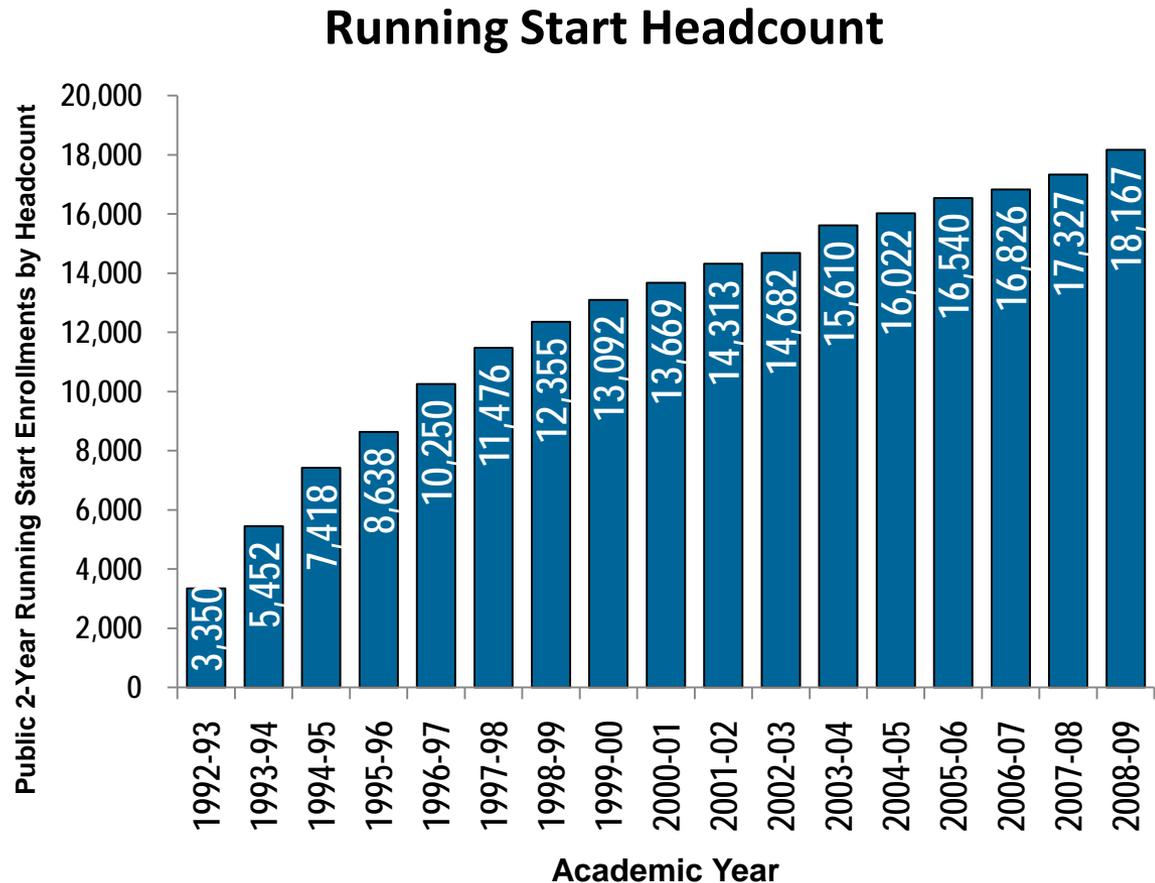
Source: U.S. National Center for Education Statistics, Integrated Postsecondary Education Data System, preliminary data downloaded January 9, 2009.

# Preparation

- ◆ **College credit in high school**
- ◆ **AP potential**
- ◆ **Remediation**

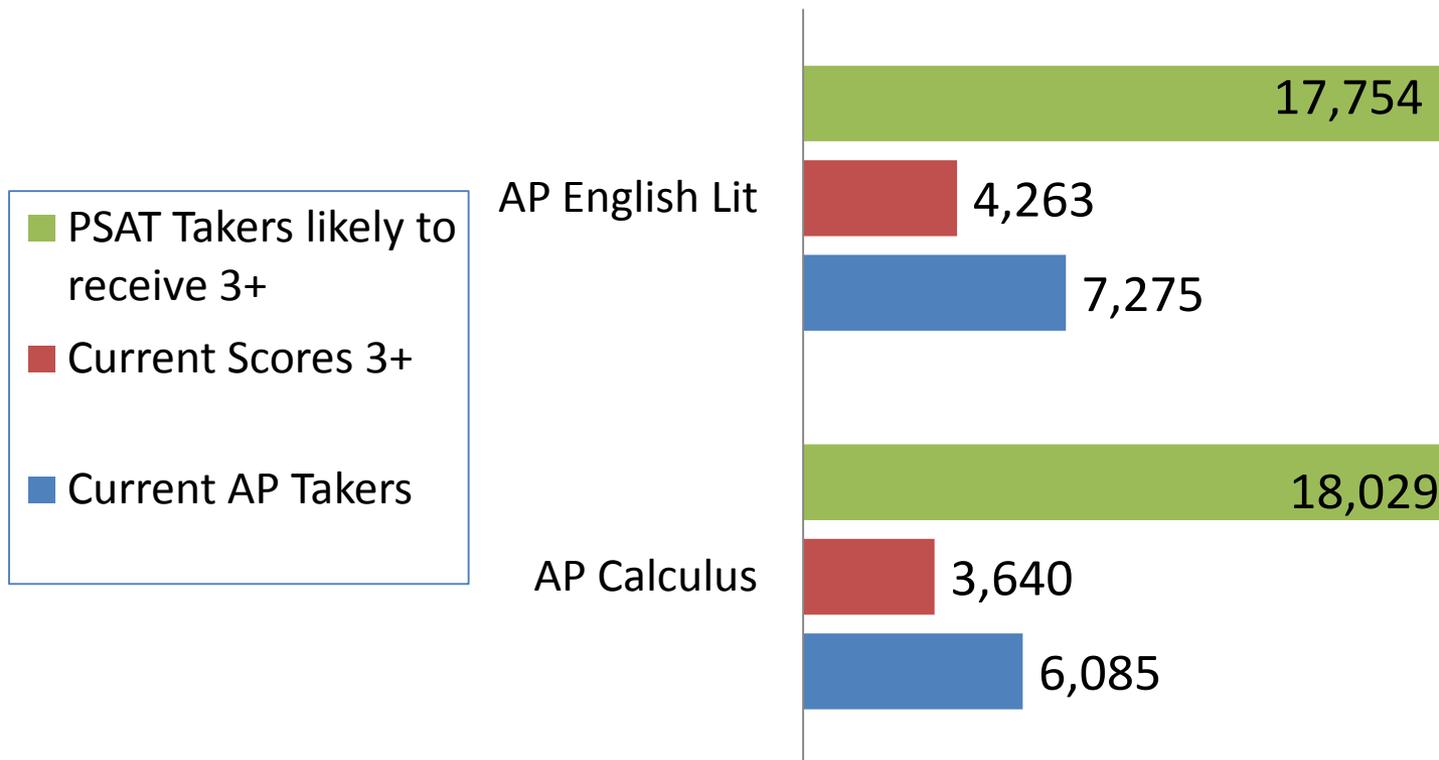
## More Students are Receiving College Credit while in High School

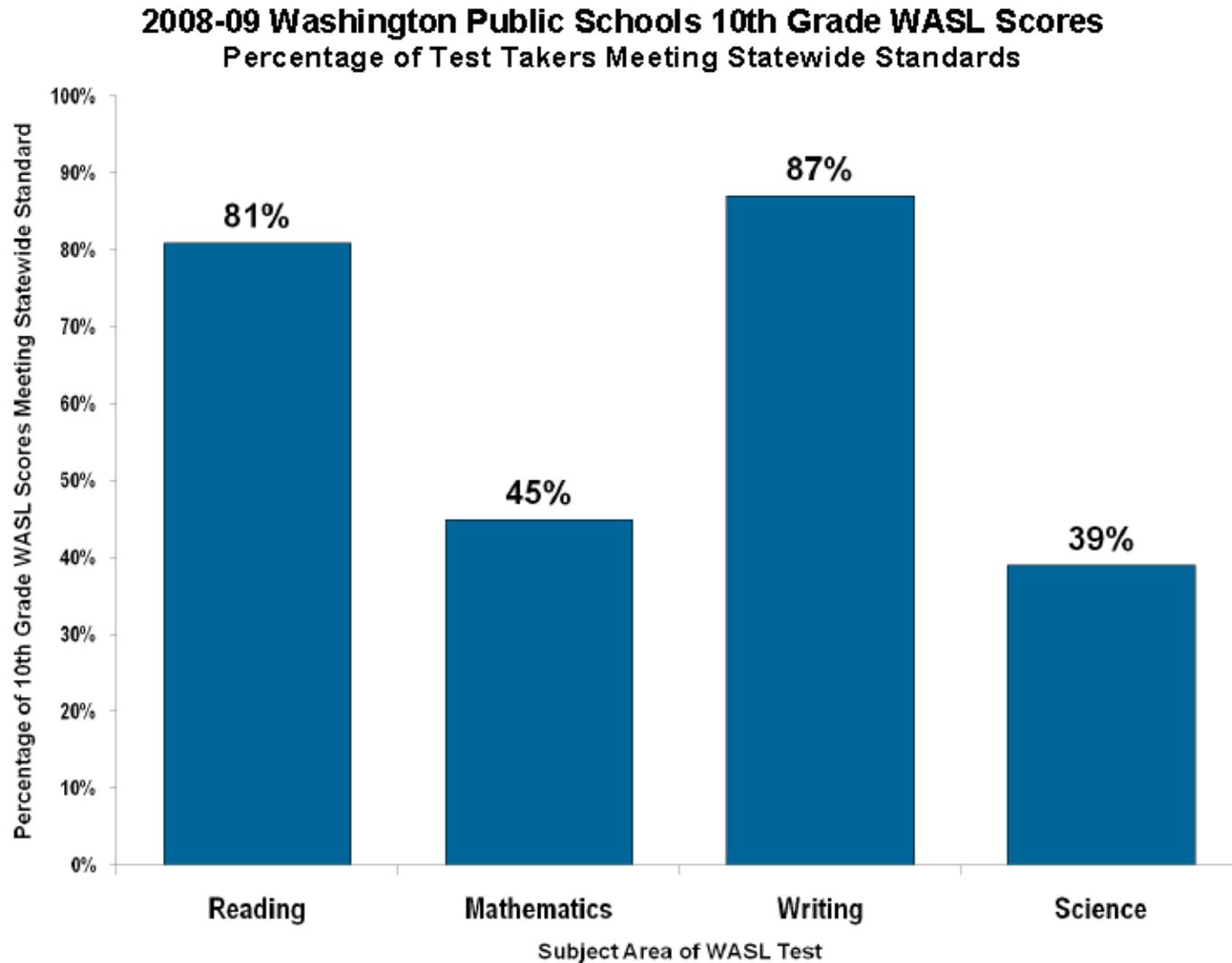
- **Running Start: 18,167** students enrolled in 2008-09.
- **Advanced Placement: 18,355** students took at least 1 AP exam in 2008-09 and received a score of 3 or higher.
- **College in the High School: 2,876** Students enrolled on CHS courses in 2008-09
- **Tech Prep enrolled 32,331** students in 2008-09.



## AP Possibilities

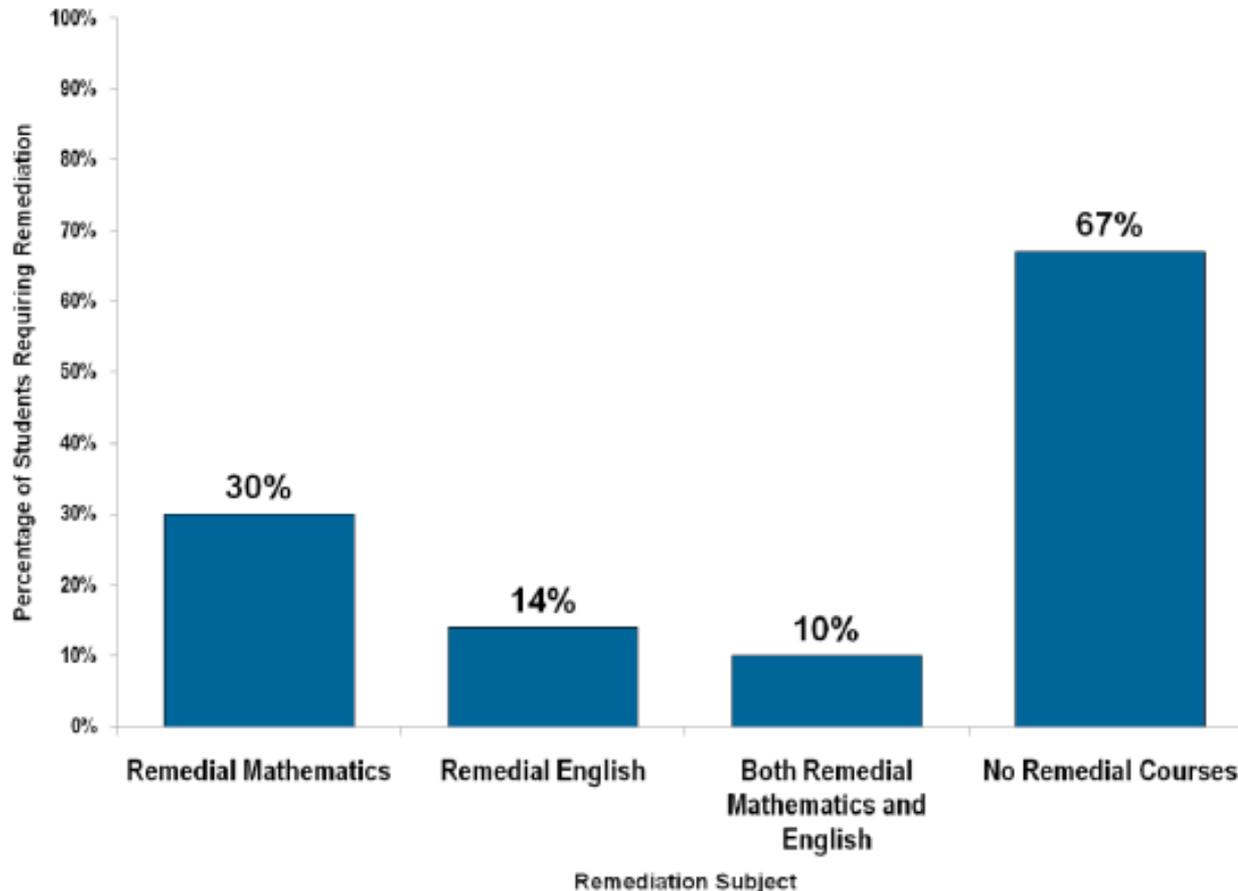
- Great potential exists for more students to complete AP courses and exams and earn college credit





## Percentage of High School Graduates Enrolled in Remedial Coursework, Class of 2007

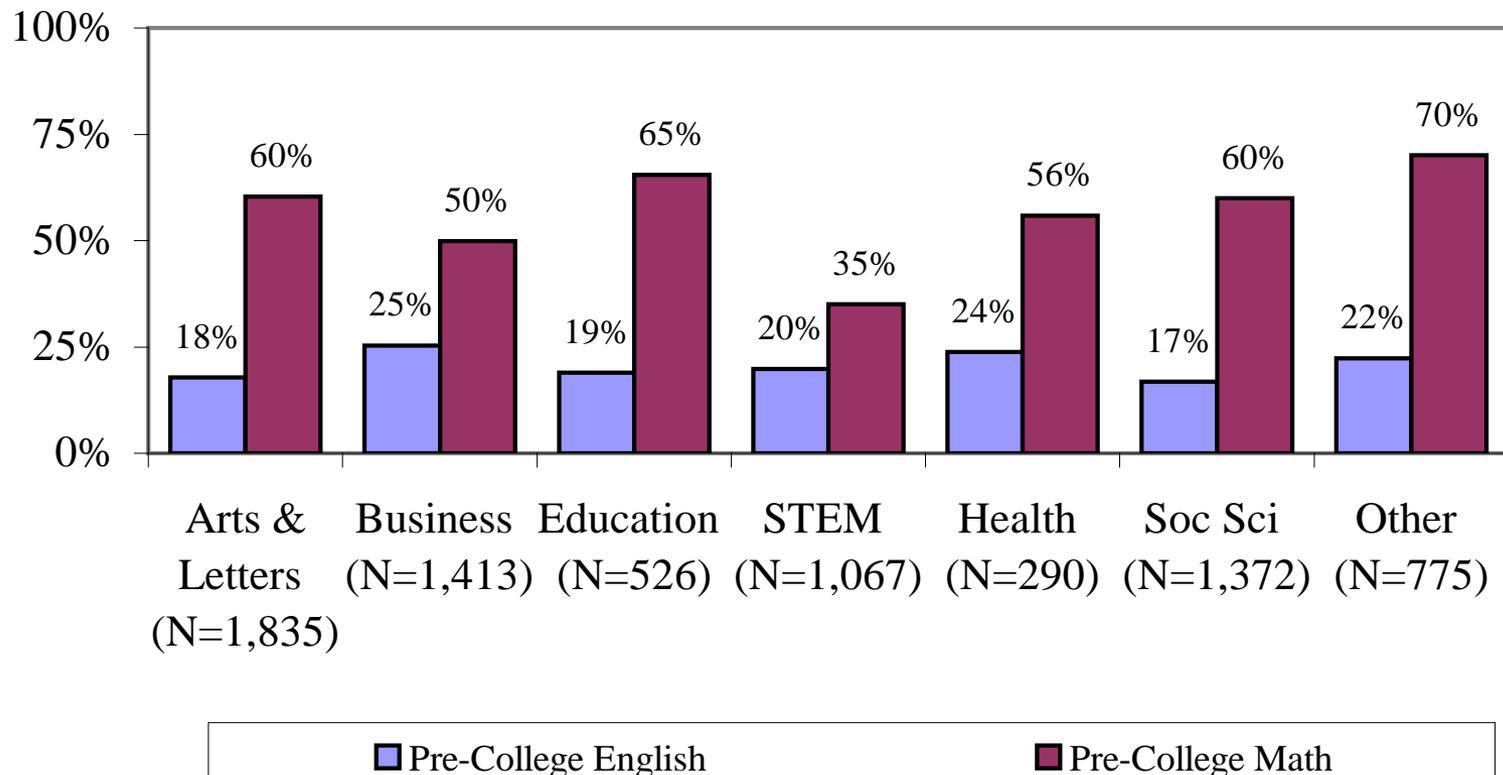
Includes only Students Enrolled in Public Higher Education Institutions



Source: WSU Social and Economic Services Research Center for the Office of Superintendent of Public Instruction, *Washington State Graduate Follow-up Study, Class of 2007*.

**More than 4,500 students successfully completed pre-college coursework at a CTC in English or Math and progressed to a bachelor's degree including 35% of STEM graduates and 50% of Business Graduates**

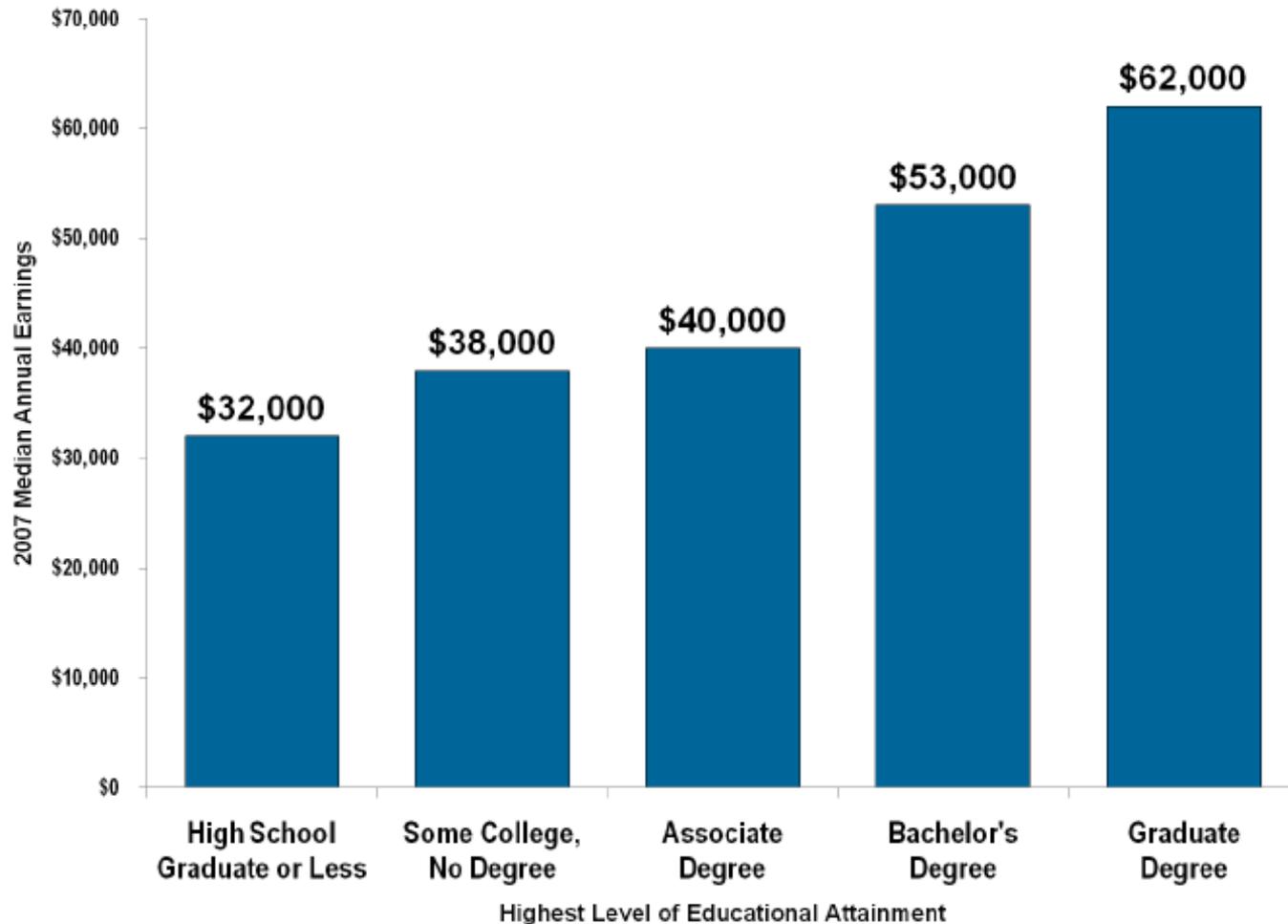
**Percentage of CTC Transfers by Major Enrolled in Pre-College Math and English**



# **Benefits of Postsecondary Education**

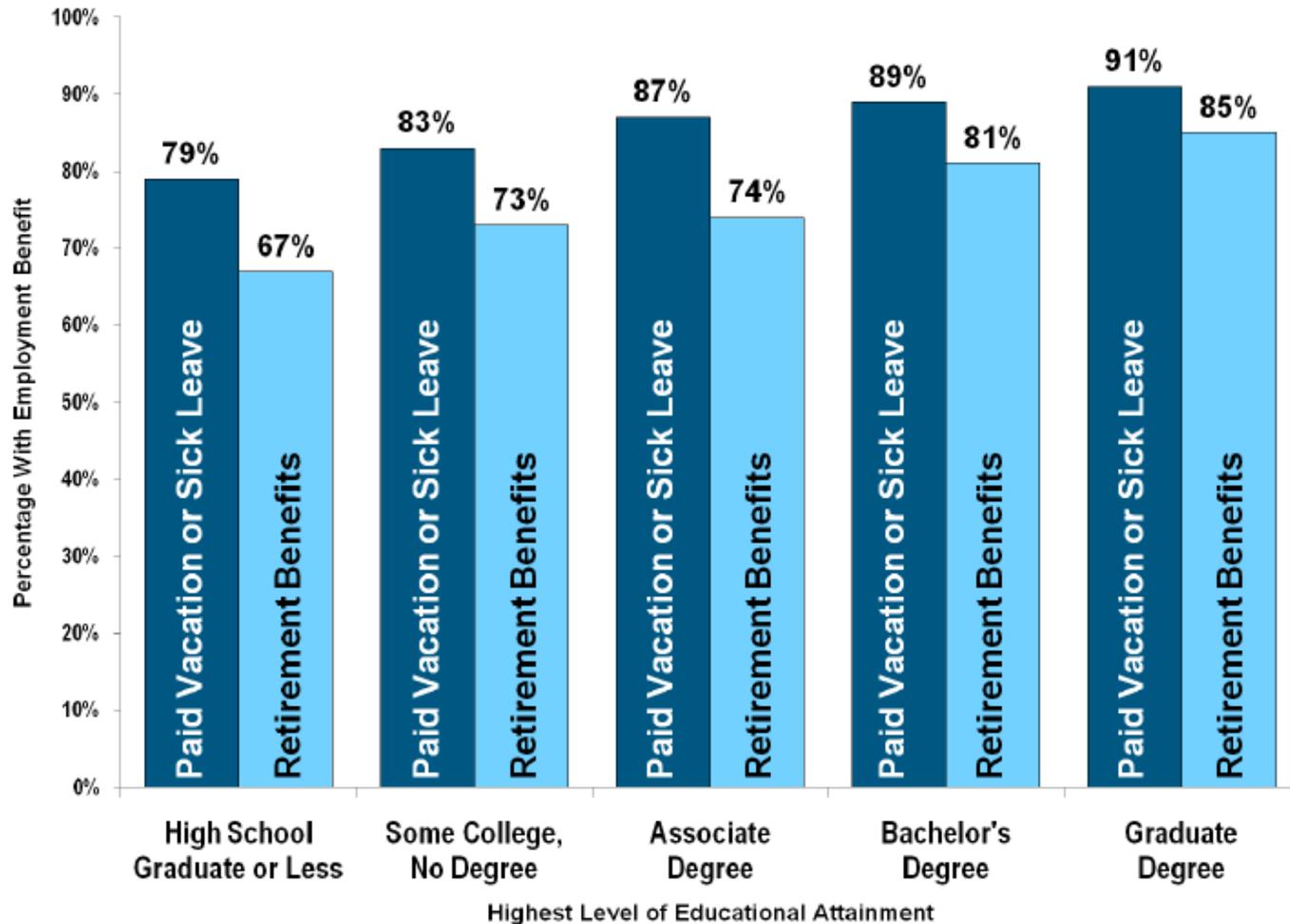
- ◆ **Earnings Gains**
- ◆ **Benefits**
- ◆ **Health Care**
- ◆ **Lower Unemployment**
- ◆ **Family Impacts**

**2007 Median Annual Earnings by Educational Attainment,  
Ages 25-64**

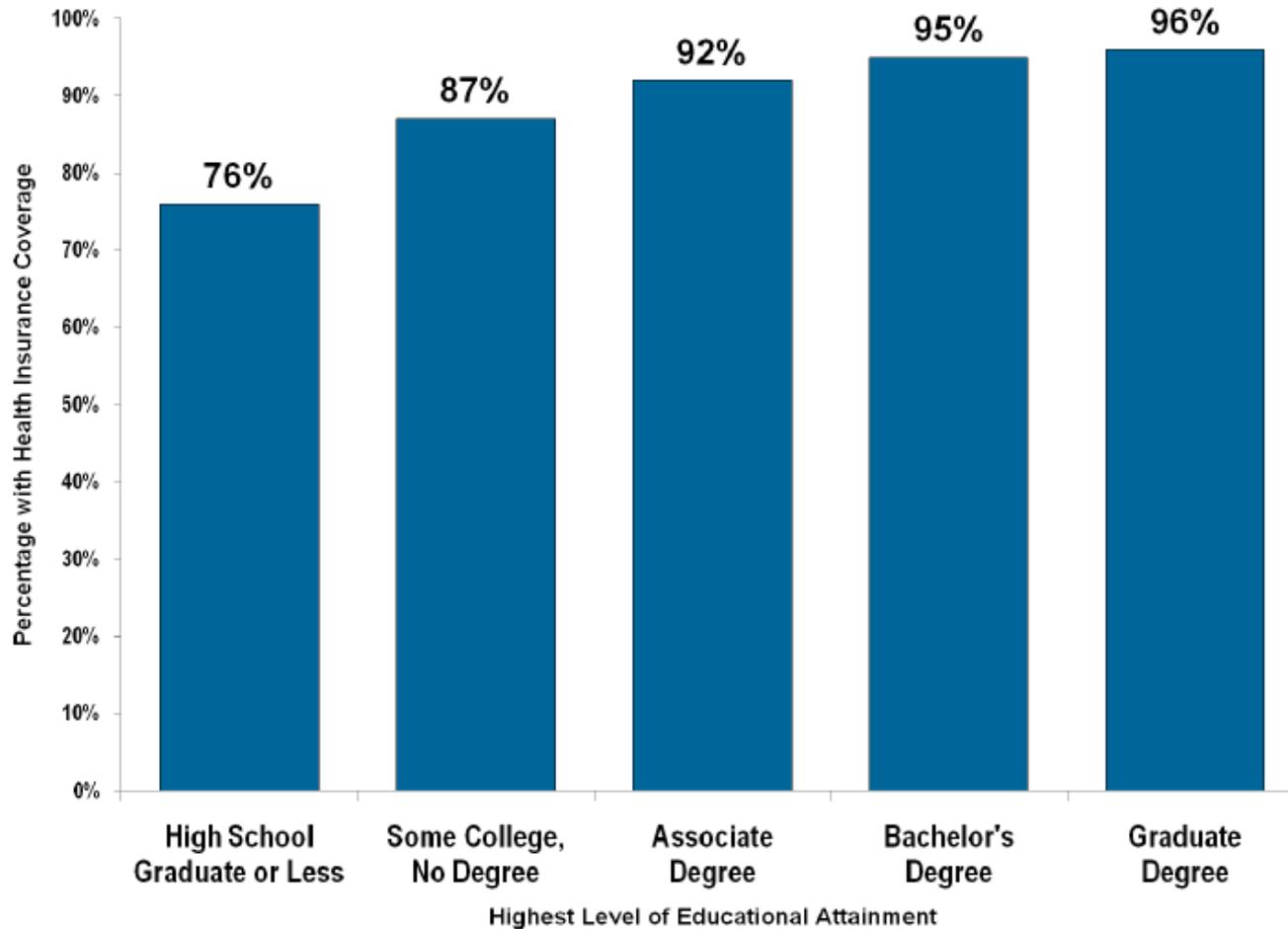


## Participation, Preparation, and Benefits

Employment Benefits by Educational Attainment  
Spring 2008, Ages 25-64

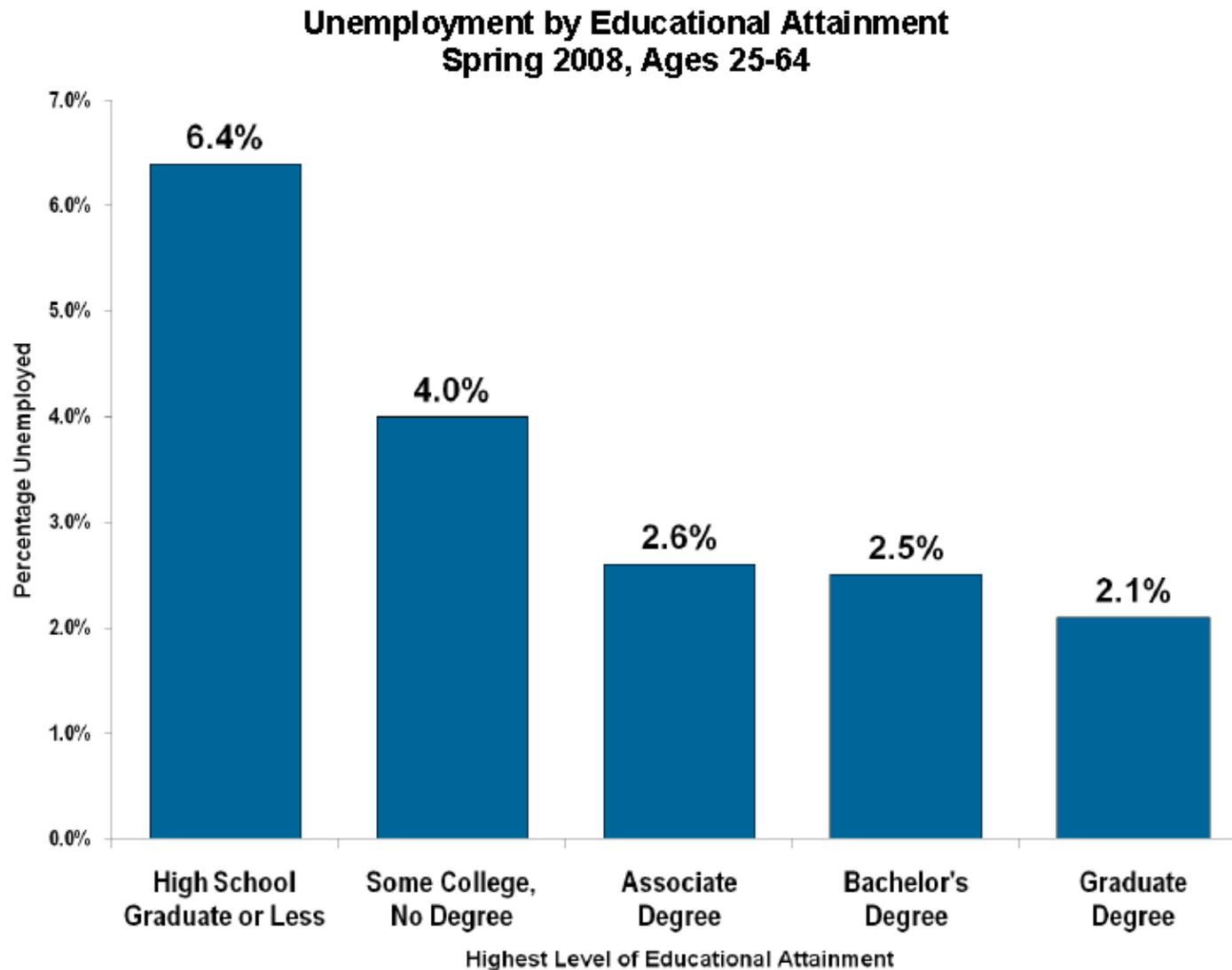


## Health Insurance Coverage by Educational Attainment Spring 2008, Ages 25-64



Note: Includes health insurance provide by employer, union, military, or self-purchased.

Source: Washington State Population Survey, 2008.



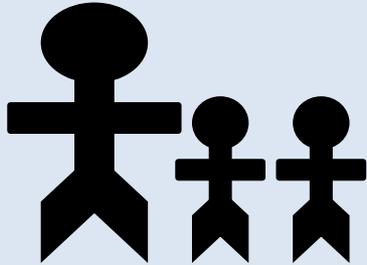
- **Table conversations**

- ♦ What do you notice about the data?

- **Reflective writing**

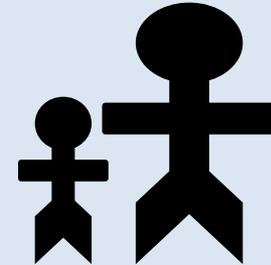
- ♦ What are the implications of the data for what you do?
- ♦ What are the implications of the data for our collective work?

## Impacts on Families



### *Single parent without a college degree*

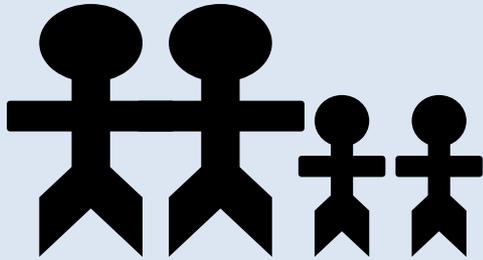
- Median annual household income: \$24,000
- Number of kids: 2
- Percent reporting use of food stamps: 38.6%
- Percent using state or federal welfare: 18.3%
- Percent living below 200% of federal poverty guidelines: 66.3%



### *Single parent with a college degree*

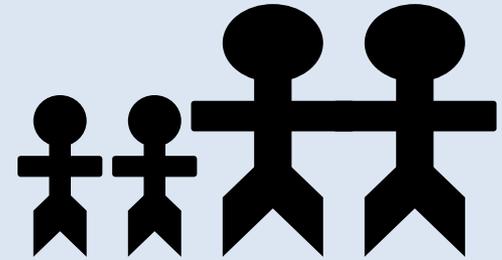
- Median annual household income: \$45,000
- Number of kids: 1
- Percent reporting use of food stamps: 24.5%
- Percent using state or federal welfare: 9.1%
- Percent living below 200% of federal poverty guidelines: 32.8%

## Impacts on Families



*Two parent family where both parents have a high school degree*

- Median annual household income: \$61,500
- Number of kids: 2
- Percent reporting use of food stamps: 13.7%
- Percent using state or federal welfare: 4.4%
- Percent living below 200% of federal poverty guidelines: 21.2%



*Two parent family where both parents have a bachelors degree*

- Median annual household income: \$101,645
- Number of kids: 2
- Percent reporting use of food stamps: 5%
- Percent using state or federal welfare: 0%
- Percent living below 200% of federal poverty guidelines: 6.3%

# Clarifying Questions and Comments

- Are all of your BS / BA graduation rates 6 year rates?
- Explain high needs district definition.
- How does all this data connect to our business of teacher professional development?
- Slide 34 – math does not represent all who eventually pass the math or take a WASL alternative.
- Discussed in-migration to WA, what about out-migration – esp. in specialized health fields?

# Questions and Comments from Table Exercise

# Clarifying Questions and Comments

- Communication between HECB and OSPI on Science. Is concern life science only – what about engineering and computer science gap.
- Is the reason for baccalaureate participation access? Do we fill all available slots. Do we consider public and private?
- Do stats on international degree levels take into account differences in degree level from one country to the next?
- College Faculty need to interact with HS students and teachers.

# Questions – Achievement Gap

- Disaggregated by race/ethnicity and gender?
- How do we close the math achievement gap?  
What works?
- Where in your data do you (or will you) address the achievement gap?
- How do these statistics address the ethnicity disproportionality in remedial classes?

# Graduation Rates

## On-Time Graduation Rates 2008-09

American Indian	53%
Asian/ Pacific Islander	82%
Black	63%
Hispanic	63%
White	76%
Total	74%

Kids Count Data Center

<http://datacenter.kidscount.org/data/bystate/Rankings.aspx?state=WA&ind=4464>

Retrieved 10/26/2010

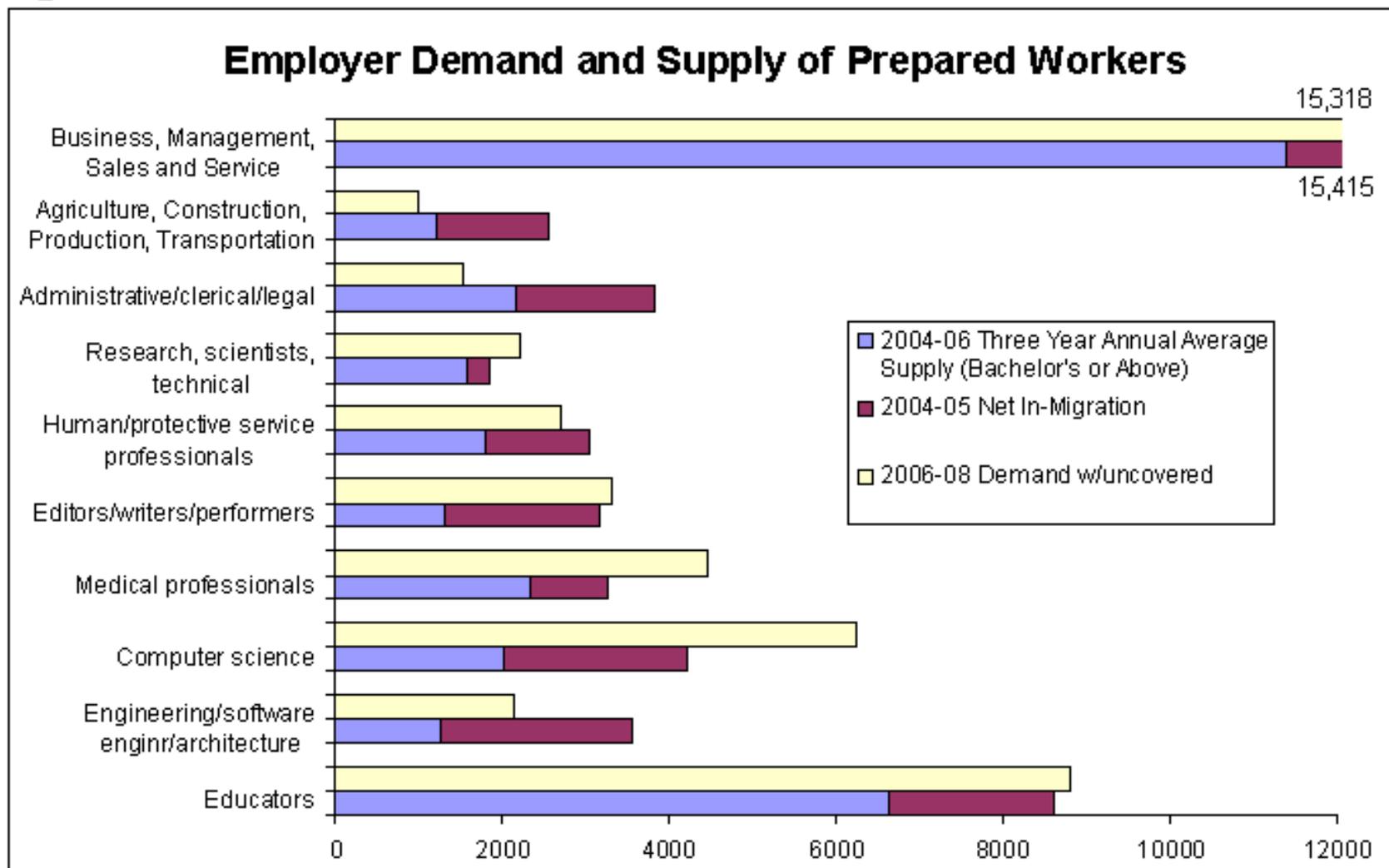
**Data Source:** Data for this measure come from the Washington State Office of Superintendent of Public Instruction (OSPI). Data were retrieved from "Graduation and Dropout Statistics" reports, and Appendix C and D at

<http://www.k12.wa.us/dataadmin/>.

# Questions – data issues

- Need better disaggregated longitudinal data following students from HS to college (looking at course taking patterns and test scores.
- Slide 38 – What does the data look like when broken down into career areas?
- Connect financial budget data?
- What % of HS students interested in STEM later earn degrees in STEM? What about other disciplines?

**Figure 3**



# Dual Credit / AP

- Slide 32
  - Why is PSAT potential low? How many do not have this option?
  - Disaggregate data by race / ethnicity, geographic area, etc...
- How do we get more students who do well on PSAT access to AP classes.
- PSAT projection underutilized?
- Slide 31 – How many running start students continue to 2 or 4 year college?
- What % of students receiving college credit in HS earn AA degrees?
- What % of students who take AP calc choose a major in STEM?
- Are most people ok with score of 3 on AP for college credit?

# AP Possibilities by Race / Ethnicity Calculus

	11th Grade (public) 2009-10	Current AP Takers		Current with scores 3+		PSAT takers likely to receive 3+	
AI/AN	2.5%	35	0.6%	15	0.4%	163	0.9%
Asian	8.2%	1,329	22.7%	783	22.3%	2,918	16.6%
BL/AfAm	5.3%	85	1.5%	34	1.0%	456	2.6%
Hispanic	12.8%	232	4.0%	82	2.3%	978	5.6%
White	68.4%	3,945	67.4%	2,465	70.1%	12,329	70.2%
Other	2.8%	223	3.8%	136	3.9%	710	4.0%
<b>Total</b>	<b>100.0%</b>	<b>5,849</b>	<b>100.0%</b>	<b>3,515</b>	<b>100.0%</b>	<b>17,554</b>	<b>100.0%</b>

Source: AP/PSAT data: College Board 2010 Annual State Report. State Enrollment by Race / Ethnicity OSPI October enrollment by Grade Level (2009-10) - <http://www.k12.wa.us/dataadmin/>

# AP Possibilities by Race / Ethnicity

## English Literature

	11th Grade (public) 2009-10	Current AP Takers		Current with scores 3+		PSAT takers likely to receive 3+	
AI/AN	2.5%	71	1.0%	31	0.8%	138	0.8%
Asian	8.2%	961	13.8%	480	11.7%	2,314	13.4%
BL/AfAm	5.3%	199	2.9%	60	1.5%	399	2.3%
Hispanic	12.8%	461	6.6%	125	3.1%	709	4.1%
White	68.4%	4,961	71.3%	3,225	78.7%	12,978	75.1%
Other	2.8%	301	4.3%	175	4.3%	745	4.3%
<b>Total</b>	<b>100.0%</b>	<b>6,954</b>	<b>100.0%</b>	<b>4,096</b>	<b>100.0%</b>	<b>17,283</b>	<b>100.0%</b>

# Policy and Implementation Questions

- Is the state willing to fund increase in AA, BA degrees, and graduate degrees?
- Is it useful to further blur roles of high school and college (running start, AP, CHS).
- How do we get data for grades 7-12 in ways that students will understand?
  - How do we become recession proof
  - Earnings after college costs (factoring fin. Aid)