

# **Hawai`i's Workforce Development Issues**

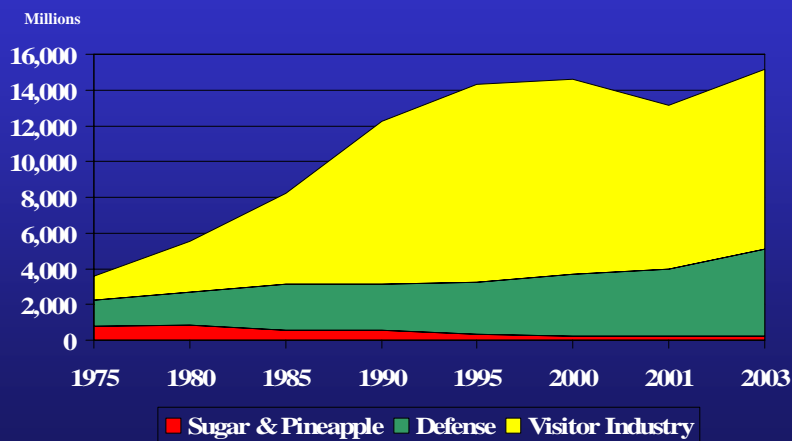
A stylized map of the Hawaiian Islands is positioned behind the title text. The map shows the main islands and several smaller ones, rendered in a light gray color against the blue background.

Presentation to the University of Hawai`i  
Board of Regents  
Community College Committee  
November 4, 2005

**In Today's Global Economy,  
A Skilled, Competent, and Diverse  
Workforce is One of  
The Most Important  
Competitive Advantages**

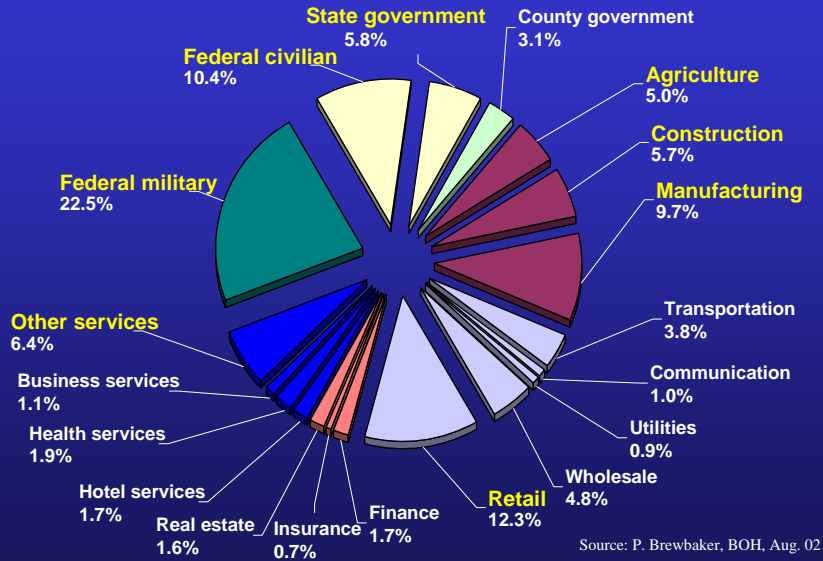
**Work in Hawai`i  
is in a process of continuous  
change, both across the economy  
and within each job.**

### **Major Export Earnings 1975-2003** In Millions

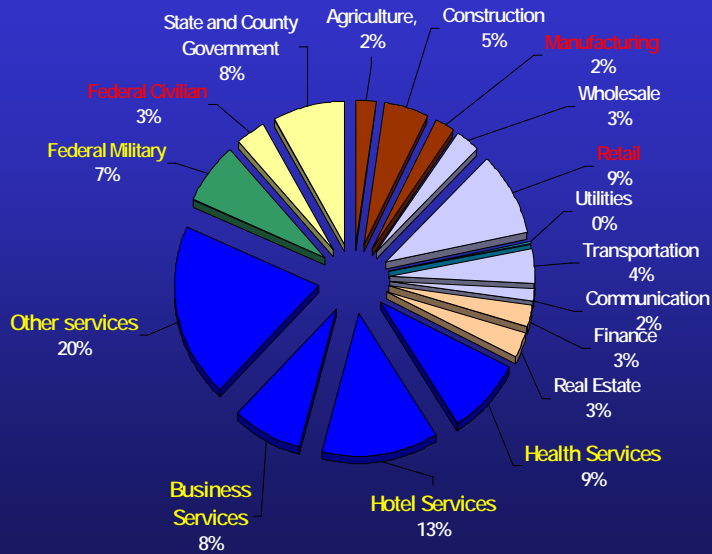


Source: HI DBEDT

## Hawai'i Employment by Industry - 1962

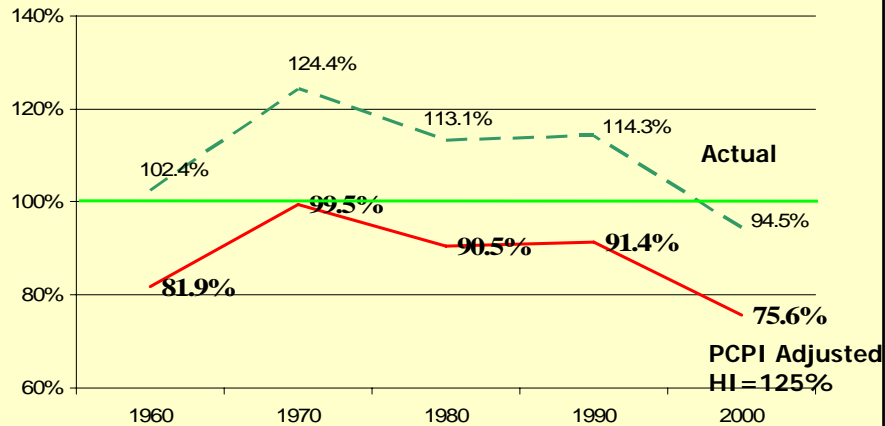


## Hawai'i Employment by Industry - 2004



## Declining Per Capita Personal Income as a Percent of U.S. Average

Hawai'i, 1960-2000



Source: U.S. Census Bureau

## The Transforming Workplace is:

- Reducing the number of lower-skill jobs
- Requiring higher-level skills in the remaining jobs
- Changing what all workers need to know and how they need to use what they know
- Limiting the long-term value of any current stock of knowledge or skill
- Exaggerating the pay gap between low skill and high skill jobs

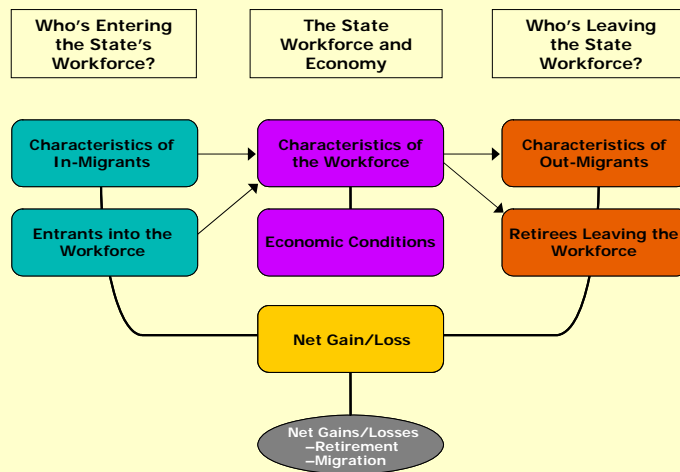
## There are Emerging Opportunities

- Environmental/Bio-Sciences
- Telecommunications/  
Information Technologies
- Health Sciences
- Transportation Technologies
- Advanced Culinary Arts



Source: UH Community Colleges Strategic Plan:  
2002-2010. 11/02

## State Workforce and Economy



## We Need to Fill 28,000 Jobs Annually

Occupation Title	Average Annual Openings			Percent
	Due To Growth	Due To Separations	Total	
<b>Total, All Occupations</b>	<b>11,352</b>	<b>16,914</b>	<b>28,266</b>	<b>100.0%</b>
Food preparation and serving related occupations	1,415	3,146	4,561	16.1%
Office and administrative support occupations	764	2,645	3,409	12.1%
Sales and related occupations	656	2,413	3,069	10.9%
Education, training, and library occupations	1,015	1,060	2,075	7.3%
Building and grounds cleaning and maintenance occupations	879	916	1,795	6.4%
Transportation and material moving occupations	554	1,001	1,555	5.5%
Management occupations	537	891	1,428	5.1%
Personal care and service occupations	712	616	1,328	4.7%
Healthcare practitioners and technical occupations	779	499	1,278	4.5%
Construction and extraction occupations	481	0	481	1.7%
Protective service occupations	529	534	1,063	3.8%
Business and financial operations occupations	466	476	942	3.3%
Installation, maintenance, and repair occupations	247	586	833	2.9%
Healthcare support occupations	593	224	817	2.9%
Production occupations	252	560	812	2.9%
Arts, design, entertainment, sports, and media occupations	350	458	808	2.9%
Life, physical, and social science occupations	248	347	595	2.1%
Computer and mathematical science occupations	403	120	523	1.9%
Community and social services occupations	249	168	417	1.5%
Architecture and engineering occupations	147	185	332	1.2%
Legal occupations	76	69	145	0.5%
Farming, fishing, and forestry occupations	0	0	0	0.0%

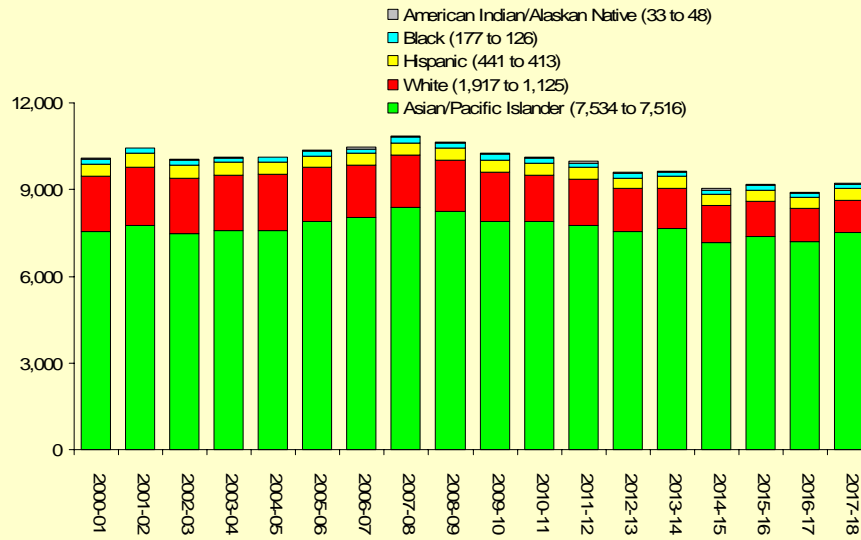
Source: EMSI June 2005

## Most Require Education Beyond HS

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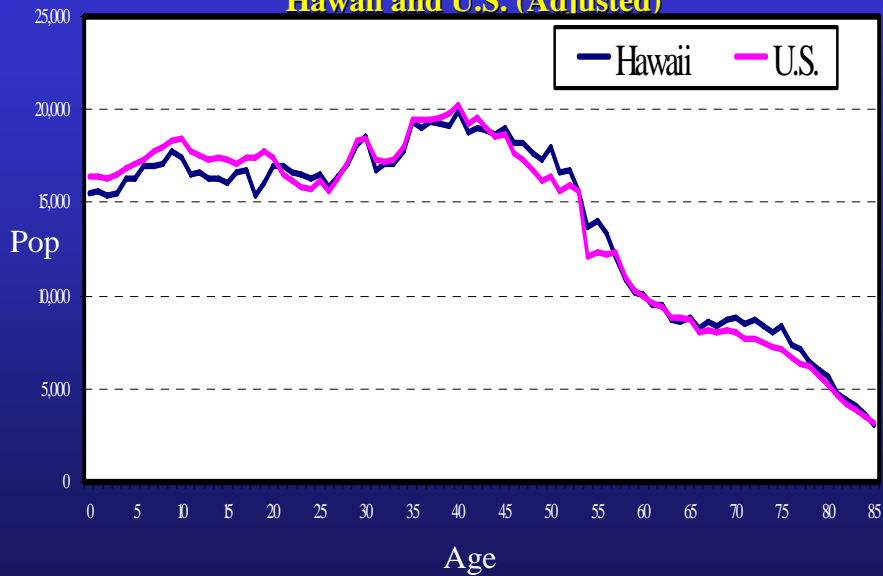
## HS Graduates Can Only Supply About 1/2 of the 28,000 Annual Jobs to Fill



Source: WICHE High School Graduate Projections

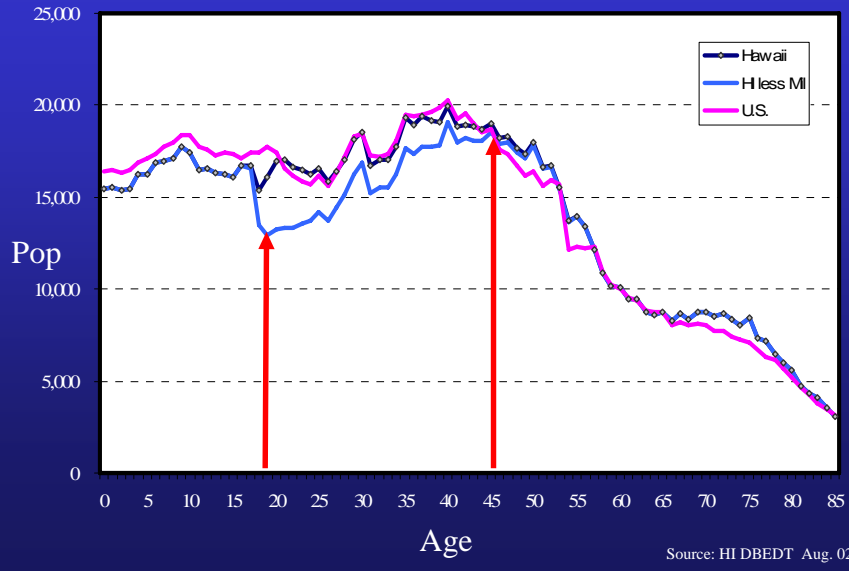
## Population by Single-year Age:

Hawaii and U.S. (Adjusted)

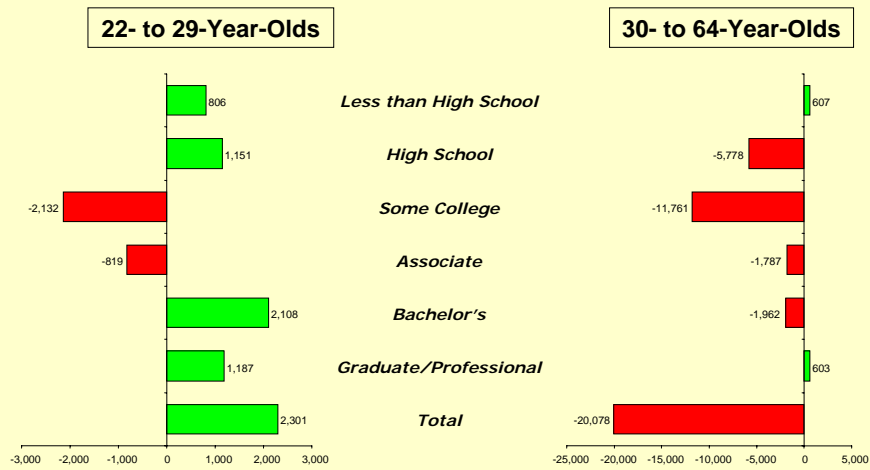


Source: HI DBEDT Aug. 02

## 2000 Population by Age: U.S., Hawaii, and HI less estimated military



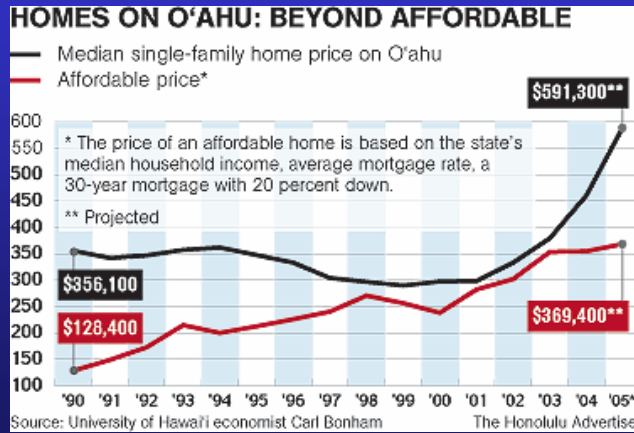
## Hawaii Net Migration by Degree Level and Age Group



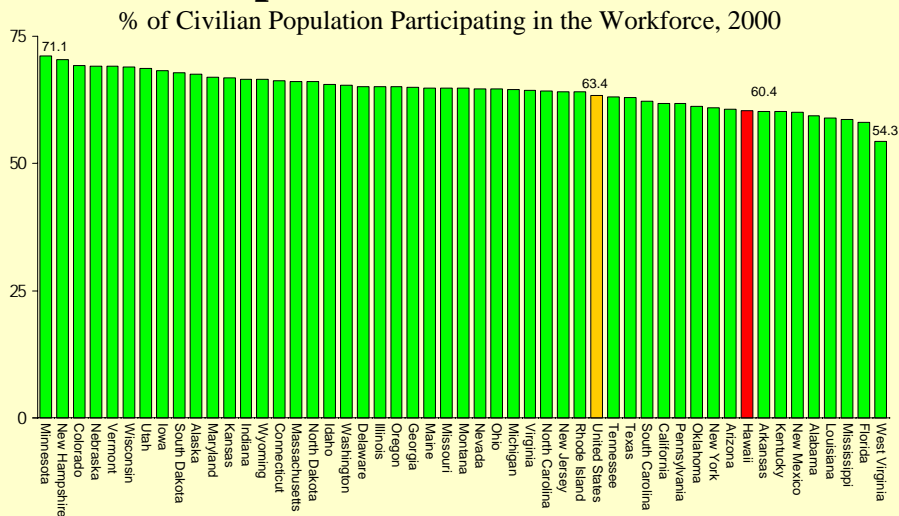
Source: U.S. Census Bureau, 2000 Census; 5% Public Use Microdata Sample (PUMS) Files



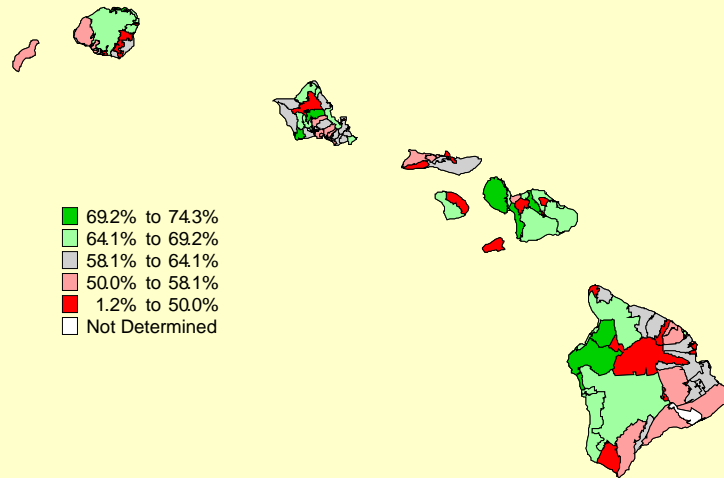
# We Can No Longer Depend on an Imported Workforce



# We Need to Get More of Hawai'i's People into the Workforce



## Percent of Population Age 16 and Older Participating in the Workforce, 2000



Source: U.S. Census Bureau, 2000 Census

## Who is Not Currently in our Workforce?

- **More Likely to Be:**
  - TANF Clients (Welfare)
  - Youth (16-24)
  - Elderly/Retirees
  - Handicapped
  - Poorly Educated
  - Residing Outside the Urban Core

**Do We Have the Education  
System in Place That Will  
Allow us to Meet  
the Changing  
Workforce Requirements?**



**Education - How Well  
Do We Compared  
With Other States?**



*Measuring Up 2002* compares states' performance in a number of critical education areas, including:

**Preparation for postsecondary education;  
Participation in postsecondary education;  
Affordability for the student; and  
Degree Completion.**

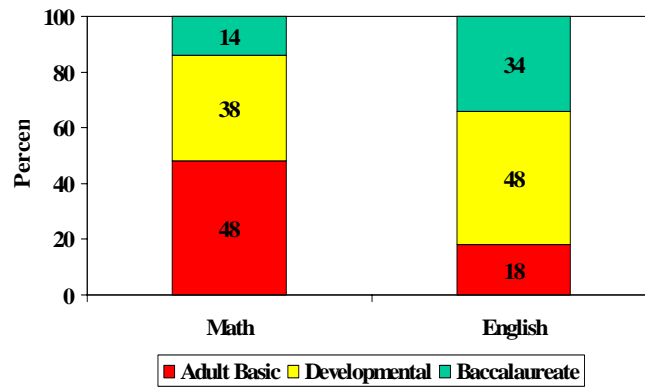
## Preparation

PREPARATION	C-		
<b>HIGH SCHOOL COMPLETION (20%)</b> 18- to 24-year-olds with a high school credential	<i>Hawaii 2000</i> 93%	<i>Hawaii 2002</i> 92%	<i>Top States 2002</i> 94%
<b>K-12 COURSE TAKING (40%)</b>			
9th to 12th graders taking at least one upper-level math course	n/a	n/a	57%
9th to 12th graders taking at least one upper-level science course	n/a	n/a	39%
8th grade students taking Algebra	n/a	n/a	30%
12th graders taking at least one upper-level math course	-	n/a	96%
<b>K-12 STUDENT ACHIEVEMENT (40%)</b>			
8th graders scoring at or above "proficient" on the national assessment exam:			
in math	16%	16%	34%
in reading	19%	19%	38%
in science	-	15%	42%
in writing	15%	15%	31%
Low-income 8th graders scoring at or above "proficient" on the national assessment exam in math	7%	8%	21%
Number of scores in the top 20% nationally on SAT/ACT college entrance exam per 1,000 high school graduates	126	135	201
Number of scores that are 3 or higher on an Advanced Placement subject test per 1,000 high school juniors and seniors	106	122	197

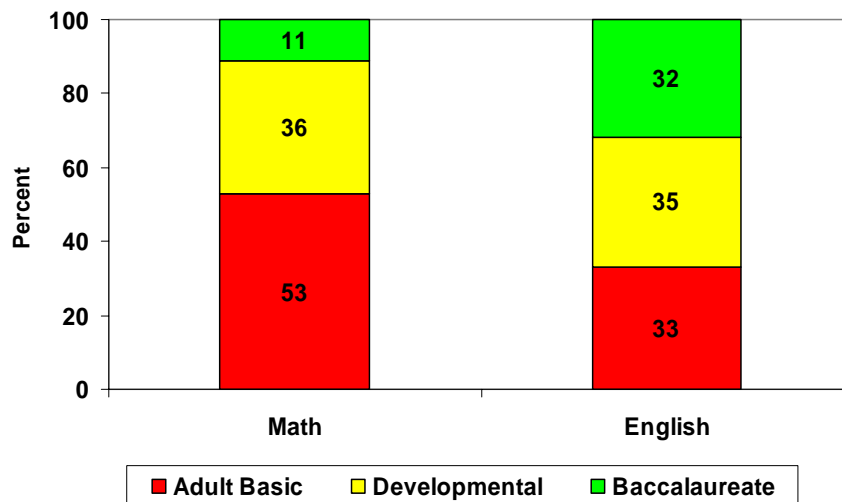
## Preparation

- We are close to the top states when we measure rate of HS graduation.
- However, we are far behind when we look at actual student performance in skills critical to success in post-secondary education and the new jobs.
- A significant number of individuals entering the community colleges require academic remediation to be successful

## UH Community Colleges' Entering Student Placement Fall 2000



## UH Community Colleges' Entering Student Placement Fall 2003



**MEASURING UP  
2002**

# Participation/ Affordability

PARTICIPATION		B-		
<b>YOUNG ADULTS (60%)</b>		<i>Hawaii 2000</i>	<i>Hawaii 2002</i>	<i>Top States 2002</i>
High school freshmen enrolling in college within 4 years in any state		46%	37%	54%
18- to 24-year-olds enrolling in college		37%	42%	41%
<b>WORKING-AGE ADULTS (40%)</b>				
25- to 49-year-olds enrolled part-time in some type of postsecondary education <sup>†</sup>		3.3%	3.6%	5.4%
<small><sup>†</sup>Data for Measuring Up 2000 are for 25- to 44-year olds.</small>				
<small>Note: In 1998, 30% of students going on to college enrolled out of state.</small>				
AFFORDABILITY		D		
<b>FAMILY ABILITY TO PAY (50%)</b>		<i>Hawaii 2000</i>	<i>Hawaii 2002</i>	<i>Top States 2002</i>
Percent of income (average of all income groups) needed to pay for college expenses minus financial aid:				
at community colleges		22%	19%	16%
at public 4-year colleges/universities		28%	24%	18%
at private 4-year colleges/universities		50%	46%	32%
<b>STRATEGIES FOR AFFORDABILITY (40%)</b>				
State grant aid targeted to low-income families as a percent of federal Pell Grant aid to low-income families		2%	2%	108%
Share of income that poorest families need to pay for tuition at lowest priced colleges		10%	9%	8%
<b>RELIANCE ON LOANS (10%)</b>				
Average loan amount that undergraduate students borrow each year <sup>‡</sup>		\$3,613	\$3,474	\$2,928
<small><sup>‡</sup>Data for Measuring Up 2000 include all students, not just undergraduates.</small>				

**MEASURING UP  
2002**

# Participation

- Inadequately developed basic skills result in fewer graduates continuing their education directly out of high school.
- However, by providing opportunities for all through the community colleges, we are able to restart many in postsecondary education by age 24.



## Affordability

- To meet our future workforce requirements, we need to get more individuals into post-secondary education, especially low and moderate income individuals.
- While our low community college tuition places us among the most affordable states, the lack of a targeted state financial aid program ignores the largest costs – foregone income and our high cost of living. This makes it particularly difficult for low and moderate income individuals to continue their education.



## Completion

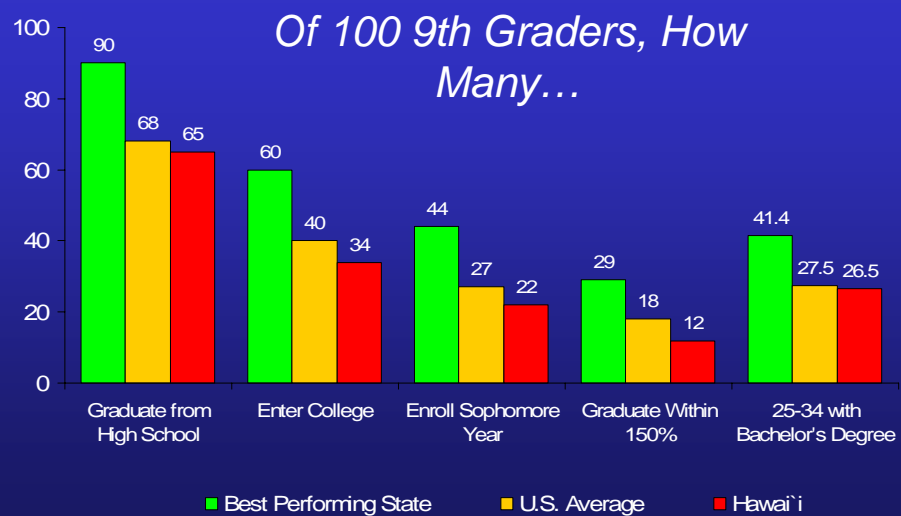
COMPLETION	C		
<b>PERSISTENCE (20%)</b>	<i>Hawaii 2000</i>	<i>Hawaii 2002</i>	<i>Top States 2002</i>
1st year community college students returning their 2nd year	40%	44%	63%
Freshmen at 4-year colleges/universities returning their sophomore year	76%	73%	83%
<b>COMPLETION (80%)</b>			
First-time, full-time students completing a bachelor's degree within 5 years of high school completion	42%	37%	66%
First-time, full-time students completing a bachelor's degree within 6 years of college entrance	–	48%	61%
Certificates, degrees and diplomas awarded at all colleges and universities per 100 undergraduate students	16	16	21



## Completion

- Many new students require significant academic and student services support to overcome previous skill deficiencies (services that have been significantly reduced over the past decade);
- Working adults frequently leave prior to completion because of conflicting responsibilities;
- As a result, we are significantly behind the top states when we look at rates of student persistence and graduation.

## Student Pipeline - 2002



Source: The National Center for Public Policy and Higher Education 2004



## **Removing the Barriers Involves**

Getting more individuals, especially those who are not currently in the workforce, to pursue and successfully complete education and training beyond high school within the state;

**and**

Providing effective remediation to support Underprepared students as they pursue more education and training;

**and**

## **Removing the Barriers Involves**

- Providing targeted state financial aid to support low and moderate income students' education and training beyond high school;
- and**
- Providing adequate student support and academic support services at the post-secondary levels to increase student persistence and rates of graduation;
- and**

## **Removing the Barriers Involves**

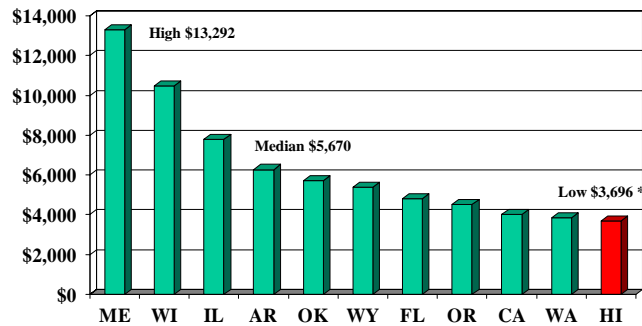
- Expanding enrollment and developing new programs in fields where there are shortages of qualified workers;  
**and**
- Developing customized incumbent worker programs to prepare employed individuals for higher skilled jobs;  
**and**

## **Removing the Barriers Involves**

- Aggregating sufficient resources to design and deliver the instructional programs and student support services needed to prepare an increasingly complex workforce.



## Hawai`i was Last in GF+T&F Expenditures Per FTE CC Student – 1998-99



\* HI adjusted to include fringe benefits

## Benefits From Increased Investment in Education

- Increased postsecondary participation rate
- Continued affordable tuition
- Increased student persistence and graduation
- More qualified workers in the State
- **Increased employability of graduates**
- **Increased lifetime earnings for graduates**



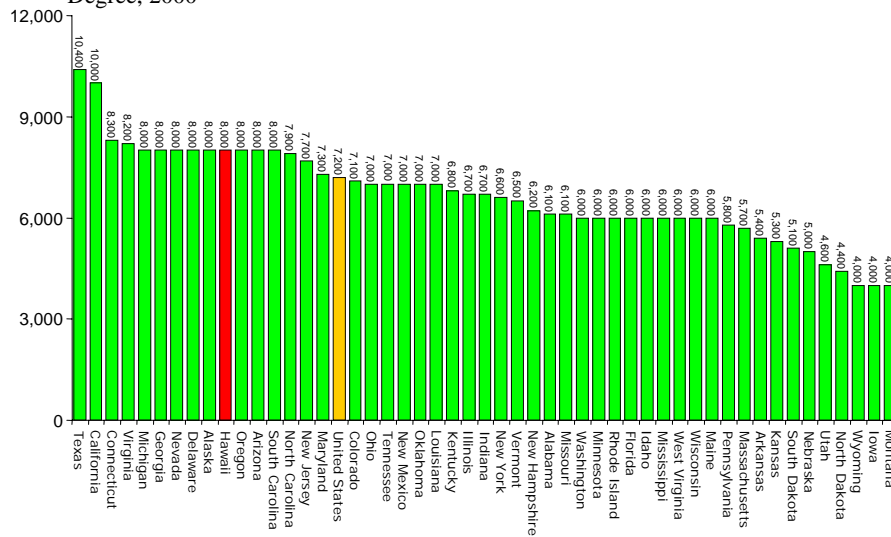
## Education and Training Pay Increased Annual Earnings



Source: Bureau of the Census

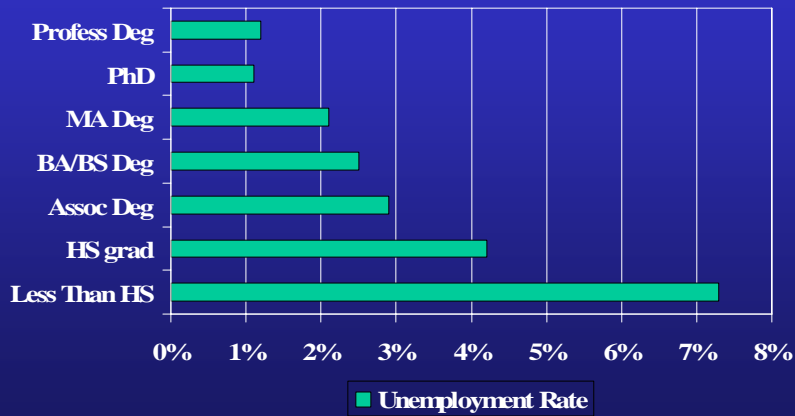
## Education and Training Pay

Difference in Median Earnings Between a High School Diploma and an Associate Degree, 2000



Source: U.S. Census Bureau, Public Use Microdata Samples, 2000

## Education and Training Pay Increased Employability



Source: Bureau of Labor Statistics

MEASURING UP  
2000

## Benefits From Increased Investment in Education



“This year, if all ethnic groups in Hawaii had the same educational attainment and earnings as whites, total personal income in the state would be **\$1.8 billion** higher, and the state would realize an estimated **\$625 million** in additional tax revenues.”