WOE IS US…

The Implications of Demography, Economy, and International Competition on the Demand for and Supply of Highly-Trained Workers in the West

Presented to the

WICHE Commission Meeting
Rapid City, South Dakota

May 20, 2008
Differences in College Attainment (Associate and Higher) Between Younger and Older Adults—U.S. and OECD Countries, 2005

Differences in College Attainment (Associate and Higher) Between Younger and Older Adults—U.S., 2005

Source: U.S. Census Bureau, 2005 American Community Survey (ACS)
Percent of Adults with an Associate Degree or Higher by Age Group—U.S. and Leading OECD Countries

Source: OECD, *Education at a Glance 2007*
Percent of Adults with an Associate Degree or Higher by Age Group—WICHE States

Source: OECD, Education at a Glance 2007
Percent of Adults with an Associate Degree or Higher by Age Group—WICHE States (continued)

Source: OECD, Education at a Glance 2007
Closing the Gap—Number of Degrees Required Beyond Current Production

To Meet International Best Performing: 15,600,000
To Close Equity Gap: 10,500,000
To Meet Manpower Demands: 16,200,000
Educational Attainment (Percent)

Current, In 2025 with Current Degree Production, and Best-Performing Countries in 2025

- Current % of Adults Age 25-64 with College Degrees, 2005: 37.4%
- Projected % in 2025 with Current Annual Degree Production: 41.9%
- Projected % in 2025 with Current Annual Degree Production and Net Migration: 45.9%
- % Needed to Reach Best-Performing Countries by 2025: 55.0%
Reaching Top Performance by 2025 (55%)—United States

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
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<tbody>
<tr>
<td>Number of Individuals to Match Best-Performing Countries (55%)</td>
<td>94,510,473</td>
</tr>
<tr>
<td>Number of Individuals (Age 25-44) Who Already Have Degrees</td>
<td>31,382,831</td>
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<tr>
<td>Additional Degree Production Needed (2005 to 2025)</td>
<td>63,127,642</td>
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<tr>
<td>Degrees Produced at Current Annual Rate of Production</td>
<td>40,605,747</td>
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<tr>
<td>Additional Residents with College Degrees from Net Migration</td>
<td>7,045,932</td>
</tr>
<tr>
<td>Additional Degrees Needed</td>
<td>15,626,080</td>
</tr>
<tr>
<td>Additional Degrees Needed per Year (Currently Produce 2,135,924 in All Sectors)</td>
<td>781,304</td>
</tr>
<tr>
<td>Increase in Annual Associate and Bachelor’s Degree Production Needed (in Public Sector Only)</td>
<td>52.8%</td>
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</tbody>
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How Can the U.S. Reach International Competitiveness?

Current Degree Production Combined with Population Growth and Migration and Improved Performance on the Student Pipeline Measures

- Degrees Produced 2005-25 with Current Rate of Production: 40,605,747
- Additional Degrees from Population Growth: 1,255,167
- Additional Degrees from Net Migration of College-Educated Residents: 7,045,932
- Reaching Best Performance in High School Graduation Rates by 2025: 1,265,118
- Reaching Best Performance in College-Going Rates by 2025: 3,270,900
- Reaching Best Performance in Rates of Degree Production per FTE Student: 7,347,209

Total Degrees Produced 2005-25 If All of the Above: 60,790,073

Degrees Needed to Meet Best Performance (55%): 63,127,642

Pipeline Performance Is Cumulative

Source: 2005 ACS, PUMS
Collective Cost to States, Assuming:  
*Tuition Stays the Same*

$ 31.0 Billion  =  Annual Costs of Additional Students at Current $ per Student

$ 78.2 Billion  =  Current State Contribution

39.7%  =  Percent Increase in Annual State Support Needed
Average Cost to Students, Assuming: No Additional State Investment

$ 2,565 = Additional Annual Costs to Students at Public Four-Year Institutions

- 47.9% Increase in Tuition and Fees
  (Currently $5,355)

$ 1,824 = Additional Annual Costs to Students at Public Two-Year Institutions

- 108.8% Increase in Tuition and Fees
  (Currently $1,677)
Additional Annual Costs at Current Funding Levels Per Student to States and Localities to Reach Benchmark, Keeping Tuition the Same

(Dollars in Millions)

U.S. = 31 Billion
**Percent Increase in Personal Income Per Capita if States Reach 2025 College Attainment Benchmark (55%)**

Source: U.S. Census Bureau Population Projections, 2005 American Community Survey
Percent of Population Age 25-64 with an Associate Degree or Higher, 2006

Benchmark for International Competitiveness (55%)

Source: U.S. Census Bureau, 2006 ACS
The “Gap”—Difference in Annual Degrees Currently Produced and Annual Degrees Needed to Meet Benchmark

Accounting for Migration

U.S. = 781,304 (a 52.8 Percent Increase in the Public Sector)

Source: U.S. Census Bureau, PUMS and Population Projections, IPEDS Completions Survey 2004-05
**State-to-State Results**

**Nine States Have No Projected Degree Gap (3 Types)**

1. States that Produce Very Large Numbers of Degrees in the Private Sector
   
   *Massachusetts, Rhode Island, Utah, New York, and D.C.*

2. States that Produce Large Numbers of Degrees Relative to Their Populations and Are Experiencing Population Declines—Maintaining Current Levels of Production Will Be Difficult
   
   *Iowa, Nebraska, North Dakota*

3. A State that Relies Heavily on Importing College-Educated Residents—Maintaining Current Levels of Net Migration Will Be Difficult
   
   *Colorado*

**Note:** Some States that Import Large Numbers of College-Educated Residents Still Won’t Recover

*e.g., California, Arizona, Nevada, Florida, Georgia, North Carolina*
Even Best Performance with Traditional College-Age Students at Each Stage of the Educational Pipeline Will Leave Gaps in More than 30 States

In order to reach international competitiveness by 2025, the U.S. and 32 states cannot close the gap with even best performance with traditional college students. They must rely on the re-entry pipeline—getting older adults back into the education system and on track to attaining college degrees.
Percent of Population Age 18-64 with Less than a High School Diploma (or Equivalent), 2005

Source: U.S. Census Bureau, 2005 ACS
Number of Adults Age 18-64 with Less than a High School Diploma (or Equivalent), 2005

Source: U.S. Census Bureau, 2005 ACS
The Demographic Context
Population Projections—Percent Change, 2000-25

Source: U.S. Census Bureau
Percent Change in Population Age 25-44
By Race/Ethnicity, 2005-2025

Source: U.S. Census Bureau
Percent of Adults with an Associate Degree or Higher, 2005

Source: U.S. Bureau of Justice Statistics 2002 data, U.S. Census Bureau 2005 data
Educational Attainment of Young Workforce (Age 25-34) Indexed to Most Educated Country, 2005

Bachelor's Degree or Higher

Canada

U.S. Index = 77%

All College Degrees (Associate or Higher)

Norway

U.S. Index = 86%

Females

Males

White

African-American

Hispanic/Latino

Native American/AK Native

Asian/Pacific Islander

Source: U.S. Census Bureau 2005 American Community Survey; OECD
**Difference Between Whites and Next Largest Race/Ethnic Group in Percentage of Adults Age 25-34 with an Associate Degree or Higher, 2000**

Source: U.S. Census Bureau, PUMS (based on 2000 Census)
Financial Environment
State Tax Capacity and Effort—Indexed to U.S. Average

Source: State Higher Education Executive Officers (SHEEO)
Projected State and Local Budget Surplus (Gap) as a Percent of Revenues, 2013

Source: NCHEMS; Don Boyd (Rockefeller Institute of Government), 2005
Why Higher Education Matters—

It’s Not Just a Workforce Issue
Educational Attainment and Income

Correlation = 0.64

Source: U.S. Census Bureau, Decennial Census' and American Community Survey
Educational Attainment and Income

Correlation = 0.76

Source: U.S. Census Bureau, Decennial Census’ and American Community Survey
Educational Attainment and Income

Correlation = 0.80

Source: U.S. Census Bureau, Decennial Census’ and American Community Survey
Educational Attainment and Income

Source: U.S. Census Bureau, Decennial Census’ and American Community Survey
Relationship Between Educational Attainment and High Tech Employment

Correlation = 0.76

Source: State New Economy Index, U.S. Census Bureau
Relationship Between Educational Attainment, Personal Income, and Economic Strength, 2005

State New Economy Index (2002)
- Top Tier
- Middle Tier
- Low Tier

Correlation = 0.83
Relationship Between Educational Attainment and Health

![Graph showing the relationship between educational attainment and health, with a correlation of 0.69. The source is United Health Foundation, U.S. Census Bureau.]

Source: United Health Foundation, U.S. Census Bureau
Educational Attainment of Adults Age 18-64—Total U.S. Population vs. Prison Population (Percent)

Source: U.S. Bureau of Justice Statistics 2002 data, U.S. Census Bureau 2005 data
Incarceration Rate by State in 2005—Prisoners Under Federal and State Jurisdiction per 100,000 Residents

Source: U.S. Bureau of Justice Statistics, U.S. Census Bureau
The Relationship Between Educational Attainment and Employment in the Arts, 2005

Source: U.S. Census Bureau, 2005 American Community Survey
Relationship Between Personal Income and Tax Revenues, 2003

Correlation = 0.84
For more information, contact Dennis Jones
dennis@nchems.org
and visit the
National Information Center for Higher Education Policymaking and Analysis
www.higheredinfo.org