Workforce & Economic Development in a Globally Competitive World:
The Higher Education Connection

A Joint Presentational Effort of NCHEMS & WICHE
Key Challenges & Opportunities to America and American Higher Education

- Global Competitiveness
- Demographic Shifts
- Financial Circumstances

The Big Question: Can We Get There From Here?
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
Number of Adults Age 18-64 with Less than a High School Diploma (or Equivalent), 2005

U.S. = 25,380,718

Source: U.S. Census Bureau, 2005 ACS
U.S. Public and Nonpublic High School Graduates, 1996-97 to 2004-05 (Estimated), 2005-06 to 2021-22 (Projected)

[Graph showing the number of U.S. public and nonpublic high school graduates from 1996-97 to 2021-22. The x-axis represents the years, and the y-axis represents millions. The graph shows a generally increasing trend with a peak around 2007-08.]
Public and Nonpublic High School Graduates by Region, 1996-97 to 2004-05 (Estimated), 2005-06 to 2021-22 (Projected)
Contribution to the Nation’s Change in Total High School Graduates Relative to 2004-05, by Region
Contribution to the Nation’s Change in Total High School Graduates Relative to 2004-05, by Region

-4.99% to 5%
Contribution to the Nation’s Change in Total High School Graduates Relative to 2004-05, by Region
Contribution to the Nation’s Change in Total High School Graduates Relative to 2004-05, by Region

-10% or less
-5% to -9.99%
-4.99 to 5%
4.99 to 5%
Contribution to the Nation’s Change in Total High School Graduates Relative to 2004-05, by Region

-10% or less
-5% to -9.99%
-4.99% to 5%
5.01% to 10%

**States**

- **MT** (Montana)
- **ND** (North Dakota)
- **SD** (South Dakota)
- **NE** (Nebraska)
- **WI** (Wisconsin)
- **MI** (Michigan)
- **OH** (Ohio)
- **PA** (Pennsylvania)
- **VA** (Virginia)
- **AL** (Alabama)
- **LA** (Louisiana)

**Legend**

- **AK** (Alaska)
- **CA** (California)
- **WA** (Washington)
- **OR** (Oregon)
- **NY** (New York)
- **CT** (Connecticut)
- **NH** (New Hampshire)
- **VT** (Vermont)
- **MD** (Maryland)
- **DE** (Delaware)
- **DC** (District of Columbia)
- **HI** (Hawaii)
- **WY** (Wyoming)
- **ND** (North Dakota)
- **SD** (South Dakota)
- **KS** (Kansas)
- **WY** (Wyoming)
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**Note:** The map indicates the contribution percentage of each state relative to the national change in total high school graduates from 2004-05.
Contribution to the Nation’s Change in Total High School Graduates Relative to 2004-05, by Region
Contribution to the Nation’s Change in Total High School Graduates Relative to 2004-05, by Region
U.S. Public High School Graduates by Race/Ethnicity, 1994-95 to 2004-05 (Actual); 2005-06 to 2021-22 (Projected)
### Educational Attainment of Young Workforce (Age 25-34) Indexed to Most Educated Country, 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Bachelor's Degree or Higher</th>
<th>All College Degrees (Associate or Higher)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>U.S. Index = 86%</td>
<td>U.S. Index = 77%</td>
</tr>
<tr>
<td>White Females</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>White Males</td>
<td>0.9</td>
<td>1.3</td>
</tr>
<tr>
<td>African-American Females</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>African-American Males</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Hispanic/Latino Females</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Hispanic/Latino Males</td>
<td>1.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Native American/AK Native Females</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Native American/AK Native Males</td>
<td>1.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Asian/Pacific Islander Females</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Asian/Pacific Islander Males</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau 2005 American Community Survey; OECD
Population Projections—Percent Change, 2000-25

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

Source: 2005 ACS, PUMS
The “Gap”—Difference in Annual Degrees Currently Produced and Annual Degrees Needed to Meet Benchmark

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

Accounting for Migration

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

Correlation = 0.64

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

Correlation = 0.76
Educational Attainment and Income

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

Correlation = 0.83
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
Relationship Between Personal Income and Tax Revenues, 2003

Correlation = 0.84
Why Higher Education Matters—

It’s Not Just a Workforce Issue
Relationship Between Educational Attainment and Health

Correlation = 0.69

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

- Less than 9th Grade: Total Population 4.5% vs. Prison Population 12.3%
- Grades 9-12 (No Diploma): Total Population 9.6% vs. Prison Population 31.6%
- High School Graduate (or Equivalent): Total Population 29.3% vs. Prison Population 43.1%
- Some College, No Degree: Total Population 10.1% vs. Prison Population 22.6%
- College Graduate or Higher: Total Population 2.9% vs. Prison Population 34.0%

Source: U.S. Bureau of Justice Statistics 2002 data, U.S. Census Bureau 2005 data
The Relationship Between Educational Attainment and Employment in the Arts, 2005

Employment in Arts & Entertainment per 1,000 Employees

Percent of Adults Age 25-64 with Bachelor’s Degrees, 2005

Source: U.S. Census Bureau, 2005 American Community Survey
Key Challenges & Opportunities to America and American Higher Education

- The Big Question: Can We Get There From Here?
  - Global Competitiveness
    - Losing Ground
    - Thanks to the West
  - Demographic Shifts
    - The Challenge if same old, same old
    - The Opportunity if we serve well the emerging population
  - Financial Circumstances
    - A tough challenge
    - But an absolute imperative to preparing the workforce of the future
    - And, it is possible