Managing Your Way Through the Maze: Coping with Higher Expectations & Reduced Funding

presented to

Western Academic Leadership Forum
Anchorage, AK
April 23, 2009
The Reality of Higher Expectations

“By 2020, America will once again have the highest proportion of college graduates in the world”
- President Obama, 2/24/09

• State Level Goals
  - Double the numbers in Arizona, Colorado, & Kentucky
  - Global Competitiveness in Minnesota and Texas
  - 40-40-20 in Oregon
Differences in College Attainment (Associate & Higher) Between Younger & Older Adults—U.S. & OECD Countries, 2006

Differences in College Attainment (Associate & Higher) Between Younger & Older Adults—U.S., 2006

Source: U.S. Census Bureau, 2006 American Community Survey (ACS)
Percent of Adults with an Associate Degree or Higher by Age Group - U.S. & Leading OECD Countries

Source: OECD, Education at a Glance 2008
Percent of Adults with an Associate Degree or Higher by Age Group—WI CHE States

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

<table>
<thead>
<tr>
<th>Age Group</th>
<th>New Mexico</th>
<th>North Dakota</th>
<th>Oregon</th>
<th>South Dakota</th>
<th>Utah</th>
<th>Washington</th>
<th>Wyoming</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-34</td>
<td>31.0</td>
<td>49.5</td>
<td>41.7</td>
<td>45.5</td>
<td>41.4</td>
<td>43.1</td>
<td>34.3</td>
</tr>
<tr>
<td>35-44</td>
<td>36.9</td>
<td>45.5</td>
<td>36.8</td>
<td>38.2</td>
<td>37.9</td>
<td>41.9</td>
<td>34.3</td>
</tr>
<tr>
<td>45-54</td>
<td>34.5</td>
<td>41.7</td>
<td>38.8</td>
<td>40.5</td>
<td>38.9</td>
<td>40.9</td>
<td>34.3</td>
</tr>
<tr>
<td>55-64</td>
<td>39.4</td>
<td>41.4</td>
<td>39.2</td>
<td>41.3</td>
<td>37.9</td>
<td>41.6</td>
<td>34.3</td>
</tr>
</tbody>
</table>

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

1. To Meet International Best Performing: 15,600,000
2. To Close Equity Gap: 10,500,000
3. To Meet Manpower Demands: 16,200,000

To Close Equity Gap
To Meet Manpower Demands

NCHEMS
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>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

Accounting for Migration

U.S. = 781,301 (a 52.8% increase in the public sector)

Source: U.S. Census Bureau, PUMS and Population Projections, IPEDS Completions Survey 2004-05
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.
FINANCIAL ENVIRONMENT
The Flow of Funds

- Economy
  - Tax Policy

- Available State and Local Govt. Funds
  - Federal Government
    - K-12
    - Corrections
    - Health Care
    - Other Govt.

- Higher Education
  - Student Aid
  - Appropriations/Grants
    - Tuition
    - Scholarships & Waivers

- Students
  - Student Aid
  - Student Aid (Restricted)

- Institutions
  - Donors
    - Foundations
    - Corporations

- Federal Government
  - Stimulus Funds
The Flow of Funds - State

- Economy
  - Tax Policy
  - Available State and Local Govt. Funds
    - Higher Education
      - Student Aid
        - Scholarships & Waivers
      - Appropriations/Grants
        - Tuition
  - Stimulus Funds
    - Federal Government
      - • K-12
      - • Corrections
      - • Health Care
      - • Other Govt.
First, recognize that many state governments have serious financial problems.

And they’re not going to recover quickly.
State Tax Capacity and Effort—Indexed to U.S. Average

Source: State Higher Education Executive Officers (SHEEO)
Projected Budget Gap for Fiscal Year 2010

Source: National Conference of State Legislatures, 2009
Projected State & Local Budget Surplus (Gap) as a Percent of Revenues, 2016

Source: NCHEMS; Don Boyd (Rockefeller Institute of Government), 2009
Second, recognize that for most states - and for most public institutions - the stimulus package is not an answer

• But it will slow the impact

• And it can buy enough time to adjust to substantially changed circumstances
After stimulus wanes, gaps could approximate 4% of spending, or $70 billion, even under the “Low-Gap” Scenario.

"Low-Gap" Scenario:
State General Revenue Minus Expenditures With and Without Federal Stimulus

Source: Don Boyd (Rockefeller Institute of Government), 2009
After stimulus wanes, gaps could approach 7% of spending or $120 billion under the “High-Gap” scenario.
Third, recognize that the big population growth will be in students of color. In the main these will be individuals of modest means.

Therefore there are real limits as to how high tuition can go before price affects participation and completion.
Change in Population Age 25-44 By Race/Ethnicity, 2005-2025

Source: U.S. Census Bureau
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)
Percentage of Children in the Lowest and Highest U.S. Family Income Quartiles by Race/Ethnicity (2006)

<table>
<thead>
<tr>
<th>State</th>
<th>Low Income Quartile</th>
<th>High Income Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White and Asians</td>
<td>Other Race/Ethnicities</td>
</tr>
<tr>
<td>Alaska</td>
<td>10.2</td>
<td>26.1</td>
</tr>
<tr>
<td>Arizona</td>
<td>12.4</td>
<td>34.8</td>
</tr>
<tr>
<td>California</td>
<td>11.8</td>
<td>30.1</td>
</tr>
<tr>
<td>Colorado</td>
<td>12.1</td>
<td>33.5</td>
</tr>
<tr>
<td>Hawaii</td>
<td>16.4</td>
<td>15.8</td>
</tr>
<tr>
<td>Idaho</td>
<td>18.0</td>
<td>35.5</td>
</tr>
<tr>
<td>Montana</td>
<td>19.5</td>
<td>38.8</td>
</tr>
<tr>
<td>Nevada</td>
<td>11.7</td>
<td>28.6</td>
</tr>
<tr>
<td>New Mexico</td>
<td>15.7</td>
<td>39.5</td>
</tr>
<tr>
<td>North Dakota</td>
<td>16.0</td>
<td>35.3</td>
</tr>
<tr>
<td>Oregon</td>
<td>17.0</td>
<td>38.4</td>
</tr>
<tr>
<td>South Dakota</td>
<td>11.8</td>
<td>44.2</td>
</tr>
<tr>
<td>Utah</td>
<td>11.1</td>
<td>31.8</td>
</tr>
<tr>
<td>Washington</td>
<td>14.3</td>
<td>36.3</td>
</tr>
<tr>
<td>Wyoming</td>
<td>18.3</td>
<td>26.6</td>
</tr>
<tr>
<td>United States</td>
<td>14.8</td>
<td>37.4</td>
</tr>
</tbody>
</table>
Collective Cost to States, Assuming Tuition Stays the Same

$31 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 & Localities to Reach Benchmark
Keeping Tuition the Same

(Dollars in Millions)

U.S. = 31 Billion
The Imperative of Improved Productivity

• The country – and most states – can’t afford the necessary gains doing business as usual

• And there is evidence that productivity gains are possible
Performance Relative to Funding: Bachelors Degrees Awarded per 100 FTE Undergraduates (Public Research Institutions)

Total Funding per FTE (2006-07)

Source: NCES, IPEDS
Performance Relative to Funding: Bachelors Degrees Awarded per 100 FTE Undergraduates (Public Bachelors and Masters)

Total Funding per FTE (2006-07)

Source: NCES, IPEDS

slide 34
Approaches to Achieving Greater Productivity

• Build cost-effective systems
• Change the academic production function
• Reduce demand each student places on the system
• Reduce leaks in the pipeline
Building Cost-Effective Systems

- More appropriate mix of institutions
- Create new types of providers
- Effective collaboration among institutions
- More efficient use of existing resources
Changing the Academic Production Function

• Create programs of cost-effective size (elimination in some cases, collaboration in others)

• Reengineer curricula

• Reengineer course delivery

• Change composition and deployment of human assets
Reducing Demands Each Student Places on the System

- Students come to college fully prepared (no remediation)
- Accelerated learning
- Minimize “rework”
- Improve rates of course completion
- Reduce credit hours to degree
- Encourage use of assessment/“test out” options
- Learning in the workplace/credit for experience
Reducing Leaks in the Pipeline

- Curricula Alignment
- Financial Aid incentives
- Early-warning systems
- Improved consumer information
Short-Term Actions

• Reallocate faculty time to undergraduate courses and away from
  – Administrative and committee work and other activities for which release time is granted
  – Undersubscribed graduate programs that cannot be justified by regional labor market needs
  – Non-sponsored research

• Collaborate with other institutions – share
  – Academic programs
  – Administrative services

• Make sure that students are receiving all aid for which they’re eligible
Longer Term Strategies – Mission Focus

Refocus on the institutional mission – serving state and student needs rather than institutional aspirations

- Eliminate small, non-core programs – close low-demand, high-cost programs that aren’t distinguished and can’t be justified by labor market needs
- Re-think institutional aid – focus on removing barriers to attendance rather than competing for students whose college participation is not in question
Longer Term Strategies

Make investments in more efficient administration and plant operations

- Retrofit building for energy efficiency
- Reengineer business processes
- Renegotiate relationships with the state (invest in a Policy Audit with an eye toward restructuring state administrative and reporting requirements)
Longer Term Strategies

Invest in reengineering curricula and delivery methods

- Restructure general education
  - Fewer options
  - More large enrollment courses
  - More courses that can be taught by faculty from multiple disciplines
- Invest in course redesign
- Tackle developmental education on a statewide basis
  - Common standards
  - Modularized
  - Technology enhanced
Campus-Level Productivity Increases

- Differentiate staffing - don’t trade small savings for large losses in capacity
- Seek new methods of delivery - especially for large, lower-division courses
- Reallocation of time - shift internal priorities
- Autonomy with accountability
The Key to Managing Costs at the Institutional Level…

Effective management of human resources. Time/effort is the key resource to be allocated. Management discretion extends to:

- Assignments of personnel to functions
- Assignments of personnel to activities
## Administrative Decision Space

<table>
<thead>
<tr>
<th></th>
<th>Full-Time Faculty</th>
<th>Part-Time Faculty</th>
<th>Students</th>
<th>Administrative/Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower-Division Instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper-Division Instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Instruction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advising</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Allocation of Assets to Instructional Activities

<table>
<thead>
<tr>
<th>Five Instructional Activities</th>
<th>Faculty Member</th>
<th>Teaching Professional</th>
<th>Technology</th>
<th>External Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Unbundling of Institutional Functions

<table>
<thead>
<tr>
<th>RESOURCES USED</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Curriculum Design</td>
</tr>
<tr>
<td>Faculty</td>
<td>X</td>
</tr>
<tr>
<td>Professional Staff</td>
<td>X</td>
</tr>
</tbody>
</table>
## The Unbundling of Institutional Functions (cont.)

<table>
<thead>
<tr>
<th>RESOURCES USED</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Curriculum Design</td>
</tr>
<tr>
<td>Faculty</td>
<td>X</td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td>X</td>
</tr>
<tr>
<td>Professional Staff</td>
<td></td>
</tr>
</tbody>
</table>
### The Unbundling of Institutional Functions (cont.)

<table>
<thead>
<tr>
<th>RESOURCES USED</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>Curriculum Design</td>
</tr>
<tr>
<td>Vendors</td>
<td>Content Development</td>
</tr>
<tr>
<td>Technologies</td>
<td>Information Delivery</td>
</tr>
<tr>
<td>Technical Staff</td>
<td>Mediation/Tutoring</td>
</tr>
<tr>
<td>Paraprofessionals</td>
<td>Assessment</td>
</tr>
<tr>
<td>Partner Organization</td>
<td>Advising/Counseling</td>
</tr>
<tr>
<td></td>
<td>Other Student Services</td>
</tr>
<tr>
<td></td>
<td>Administration</td>
</tr>
</tbody>
</table>

**Table: Resources Used vs. Activities**

- Faculty: Curriculum Design, Information Delivery, Assessment, Advising/Counseling, Other Student Services, Administration
- Vendors: Content Development, Mediation/Tutoring
- Technologies: Information Delivery, Assessment
- Technical Staff: Mediation/Tutoring, Assessment
- Paraprofessionals: Assessment
- Partner Organization: Advising/Counseling, Other Student Services, Administration
Improve Retention

As a way of
- Enhancing Revenue
- Reducing Recruitment Costs
- Filling Unused Upper-Division Seats

As a rule
- Increased Lower-Division Enrollments Create a Requirement for Additional Expenditures
  \[ MR = MC \]
- Increased Upper-Division Enrollments Create a Lesser Requirement for Additional Expenditures
  \[ MR > MC \]
For More Information

Dennis Jones

dennis@nchems.org

and visit

NCHEMS Information Center for Higher Education
Policymaking and Analysis

www.higheredinfo.org