Cost and Student Flow Productivity Model

The presentation will demonstrate the interactive model provided by NCHEMS.

The materials enclosed are intended to provide orientation to the presentation:

- A Guide to the Cost and Student-Flow Model
- Baseline Measures
- 60% Target Scenario
- 55% Target Alternative Scenario

The interactive model was created by NCHEMS to illustrate the inter-relationship between the enhanced degree production needed to reach the national target (60% of American citizens with a higher education degree by the year 2025) and cost. A model has been created for each state, and consists of two powerpoint slides - one for degree production and one for budget.

The Guide explains in more detail how the model may be used to explore the relationships between degree production and cost. The Baseline Measures document provides the default values built into the model that are based upon current levels of degree productivity and budget. The 60% Scenario outlines the amount of degree production enhancement needed to reach the 60% goal set by President Obama, and includes examples of cost cutting and revenue enhancing measures that might be used to help achieve the target. The 55% Alternative Scenario illustrates the impact of reducing the goal by 5%.
STRATEGIES TO ACHIEVE PRESIDENT OBAMA’S GOAL FOR HAWAI’I

• To reach the degree production target set by President Obama in Hawai’i (60% college attainment by 2025) we would have to move the Degree Productivity measures to the average of the top performing states. These increases may be very challenging.
  o Additional Degrees Needed to Meet Goal = 58,459
  o High School Graduate Rate - 85%
  o Going Rate - 73%
  o Participation Rate of 20 to 39 Year Olds - 1.2%
  o College Completion Rates:
    ▪ Manoa - 26%
    ▪ Hilo and West Oahu - 24%
    ▪ UHCCs - 36%

• More degree production means higher costs. To meet the $212 M budget shortfall, cost control and revenue enhancement would be required.
  o Manoa (Public Research):
    ▪ Student / Faculty Ratio – increase from 8.5 to 9.5
    ▪ Instructional Salaries – slight (0.2%) annual decrease
    ▪ Employee Benefits – eliminate 2% annual increase built into the model
    ▪ Tuition – 1% annual increase (16% over the entire period)
    ▪ Tuition Discounting – 3% annual decrease
    ▪ Productivity – increase efficiency by 5 credit hour reduction per degree
  o Hilo and West Oahu (Public Bachelor’s and Master’s):
    ▪ Student / Faculty Ratio – increase from 12.4 to 13.5
    ▪ Instructional Salaries – slight (0.2%) annual decrease
    ▪ Administrative Expenses – slight (0.2%) annual decrease
    ▪ Student Support Expenditures – very slight (0.1%) annual decrease
    ▪ Employee Benefits – eliminate 2% annual increase built into the model
    ▪ Tuition – 1.3% annual increase (21% over the entire period)
    ▪ Tuition Discounting per FTE – 2% annual decrease
    ▪ Productivity – increase efficiency by 3 credit hour reduction per degree
  o UHCCs (Public Two-Year):
    ▪ Student / Faculty Ratio – increase from 15.4 to 16.4
    ▪ Employee Benefits – eliminate annual 2% increase
    ▪ Tuition – 2.3% annual Increase (36% over entire period)
    ▪ Tuition Discounting – 4.0% annual decrease
    ▪ Credit Hours to Degree – increase efficiency by 4 credit hour reduction
THE 55% TARGET ALTERNATIVE

- If we decrease the Big Goal to 55%, we can come closer to the goal with less drastic improvement in degree production.
  - Additional Degrees Needed to Meet Goal drops to 25,466
  - High School Graduate Rate - 79% (75\textsuperscript{th} percentile)
  - Going Rate - 66% (75\textsuperscript{th} percentile)
  - Participation Rate of 20 to 39 Year Olds - 1.2% (average of top three performing states)
  - College Completion Rates:
    - Manoa – 23% (slight increase)
    - Hilo and West Oahu – 23% (moderate increase)
    - UHCCs – 24.1% (75\textsuperscript{th} percentile)

- Given the 55% goal in degree attainment, the budget gaps can be closed more easily.
  - UH Manoa (Public Research):
    - Student / Faculty Ratio – Increase to 9.5 (still well below 25\textsuperscript{th} percentile)
    - Employee Benefits – eliminate 2\% annual increase built into the model
    - Tuition – 0.5\% annual increase (8\% increase over the entire period)
    - Tuition Discounting per FTE – 1\% annual decrease
    - Credit Hours to Degree – increase efficiency by 3 credit hour reduction
  - Hilo and West Oahu (Public Bachelor’s and Master’s):
    - Student / Faculty Ratio – increase to 13.4 (still well below 25\textsuperscript{th} percentile)
    - Employee Benefits – eliminate 2\% annual increase built into the model
    - Tuition – 0.5\% annual increase (8\% over the entire period)
    - Tuition Discounting per FTE – 1.4\% annual decrease
    - Credit Hours to Degree – increase efficiency by 3 credit hour reduction
  - UHCCs (Public Two-Year):
    - Student / Faculty Ratio – increase to 16.2 (just above 25\textsuperscript{th} percentile)
    - Employee Benefits – eliminate 2\% annual increase built into the model
    - Tuition – 2.0\% annual increase (32\% over entire period)
    - Tuition Discounting – 4.5\% annual decrease (to 25\textsuperscript{th} percentile)
    - Credit Hours to Degree – increase efficiency by 3 credit hour reduction

Other combinations of cost cutting measures, revenue generating measures or increases to degree productivity are possible to achieve the financial targets. The interactive model enables the user to experiment with these measures and test different scenarios.