Performance Based Funding:
Models and Implications

The Setting

- Increased call for colleges to better demonstrate their effectiveness.
- Most common measures of institutional performance are college-level indicators.
- State governments are now experimenting with the use of performance indicators to inform budgeting and funding decisions.
- Accreditors using institutional level metrics in re-accreditation
- Driving goal of college self-improvement
- Decidedly quantitative approach
- Valid and fair
How The Session Will Work

Some Housekeeping

- Resources: Posted on a Wiki: [www.performanceindicators.wikispaces.com](http://www.performanceindicators.wikispaces.com)
- Please Hold on to Your Questions until the End of Each Section
- Additional Questions: Contact Information for Presenters in the conference materials
Looking at Institutional Effectiveness

- The College Itself
- Accreditation Commissions
- State Governments
- Federal Government

Background

- Institutional effectiveness generally refers to the extent to which a college achieves its mission, as expressed through the goals and objectives developed in a strategic or master plan.
- Includes aggregated student and institutional data on major college milestones and indicators.
- Program review, planning and SLO assessment are all part of institutional effectiveness.

AACC Core Indicators

- Student goal attainment
- Persistence (fell to first)
- Degree completion rates
- Placement rates in the workforce
- Employer assessment of students
- Number and rate of transfers
- Performance after transfer
- Success in subsequent, related coursework
- Demonstration of critical literacy skills
- Demonstration of citizenship skills
- Client assessment of programs and services
- Responsiveness to community needs
- Participation rate in-service area
League for Innovation 5 major missions

- Basic skills
- Transfer
- Career preparation
- Continuing education and community service
- Access
- Suggested operational definitions, questions to be answered, and data sources.

ACCJC Standards

- Program Review
- Planning
- Student Learning Outcomes
- Rubrics for identifying the maturity of a college's development in those three areas

AACC Voluntary Framework of Accountability

Student Progress and Outcomes
- College Readiness
- Progress
- Outcomes and Successes
Workforce, Economic, and Community Development
- Career and Technical Education
- Non-credit courses
- Adult Basic Education/GE D
AACC Voluntary Framework of Accountability

Student Learning Outcomes

- Analytical reasoning and critical thinking
- Communication (ability to speak, read, write, and listen)
- Innovative and creative thinking
- Quantitative literacy
- Information literacy
- Teamwork and collaborative skills
- Global understanding and citizenship
- Content-specific skills and knowledge

National Benchmark Project

Students and Student Outcomes

- Certificate, degree completion, and transfer rates
- Fall/spring and fall/fall persistence rates
- Performance in transfer institutions
- Student satisfaction and engagement ratings
- Educational goal attainment
- College-level course retention and success rates
- Developmental course retention and success rates
- Developmental student success in first college-level courses

National Benchmark Project

Students and Student Outcomes

- Career program completers' employment status and employer ratings
- Success rates in nonacademic skill areas
- Institution-wide grade information
- Participation rates
- High school graduate enrollment rates
- Distance learning outcomes
- Distance learning sections and grade distributions
ARCC: The California Answer to Accountability's Call

- Simple reporting, fact books until 1998
- 1998: State provides $300m ongoing in exchange for accountability reporting
  - "Partnership for Excellence" was born
    - CCC developed report in isolation
    - CCC allowed to determine "adequate progress"
    - "Contingent funding" now triggered
  - Used 5 metrics to measure system and college-level performance

PFE Metrics

- Annual volume of transfers to CSU/UC
- Annual volume of awards/certificates
- Rate of successful course completions
- Annual volume of Voc, Ed. Course completions
- Annual volume of basic skills improvements (lower to higher level)
  - 4 of 5 are volume metrics, only 1 rate

ARCC

- The Model:
  - Measures 4 areas with 13 metrics:
    - Student Progress & Achievement-Degree/Certificate/Transfer
    - Student Progress & Achievement-Vocational/Occupational/Workforce Dev.
    - Pre-collegiate Improvement/basic skills/ESL
    - Participation
  - "Process" is not measured
ARCC

College-level Data, Reporting System

- Student Progress & Achievement Rate
- At least 30 units, and Persistence Rates
- Vocational & Basic Skills Course
- Completion Rates
- ESL & Basic Skills Course Improvement
- Career Development & College
- Preparation Progress & Achievement Rate
- College Profile (demographics)

Performance Funding: The Aim

Proponents seek:

- Increased completions: degrees, certificates, transfers
- More efficient and cost effective operation
- Shift from inputs (enrollments) to outcomes (graduates)

Performance Funding: The Theory

- People respond to fiscal incentives.
- Paying colleges for specific outcomes will focus local decision-making more acutely on maximizing those outcomes.


**Early Models: Version 1.0**

- 1980s and 1990s
- "Performance-based budgeting"
- Limited data
- Focused on final outcomes
- Institutions excluded from development

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**A New Approach: Version 2.0**

- Better data
- Inclusion of "momentum point" outcomes
- Weighting for disadvantaged populations
- Institutions involved in development

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**Washington Model**

- Achievement Points:
  - Basic Skills progression
  - Earning 15 units
  - Earning 30 units
  - Completing college-level math
  - Completions: degrees, certificates, apprenticeships
- Colleges benchmarked against themselves
- Less than 1 percent of total funding
National Track Record

- Two waves: Version 1.0 and Version 2.0
- Limited sticking power
  - 14 of 26 states abandoned programs
- Some signs of positive impacts in newer programs
- Not yet validated or well-researched

My Study

Four Questions...

- How Related Are ARCC Metrics With Each Other?
- Are the Metrics Indicators Consistent and Stable Over Time?
- Are There Confounding Factors in the Rates?
- Can we identify over-performers to benchmark?
- Are intermediate indicators “Tipping Points” for Terminal Indicators

Looking at the Indicators

If Colleges Will Be Funded Based on College Level Indicators....

- Stable
- Consistent
- Fair
Theoretical Assumptions

- All the metrics should be related if they are mapped to 'institutional effectiveness'.
- A causal model can help explain performance.
- Removing the confounding factors increases the precision of the indicator.
- Benchmarking effective peers is a viable way for organizations to improve.

How Related Are ARCC Metrics With Each Other?

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Are The Metrics Consistent and Stable Over Time?

- Correlation coefficients for performance indicators (input for California Community Colleges in years)
Are The Metrics Consistent and Stable Over Time?

Test-Retest Reliability for Persistence

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Are The Metrics Consistent and Stable Over Time?

Test-Retest Reliability for Thirty Units Achieved

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Are There Confounding Factors in the Rates?

- Input Output Model
- Identify Indicators That May Influence, but Irrelevant to Output
- Filter Out Confounding Factors to Increase Accuracy of the Measuring Instrument
- Find Explained and Unexplained Error
- Identify Benchmark Institutions
- Examine for Best Practice
Inputs

- Income of Community (Census)
- Educational Attainment of the Community (Census)
- Population Density (Census)
- College Slic (FTEs) (DataMort)
- Ethnicity (DataMort)
- Age (Traditional/Nontraditional x<25<y) (DataMort)
- Gender (DataMort)

Are There Confounding Factors in the Rates?

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Are There Confounding Factors in the Rates?

From the Regression a Table of Over-performers can be identified

\[ Y = \beta X \]

\[ Y = 2X \]
ARCC for Performance Review

- Peer grouping for between-institution view
- Year-to-year comparisons for within-institution but over time (an improvement model)
- Enrollment profile (populations served)
- Self-assessment (unique local factors omitted by state data system)

Development Process for Peer Groups

Use of Resulting Peer Grouping
Positives of Peer Grouping Element

- Promotes local discussion or evaluation of key indicators
- Gives a perspective that adjusts for major known and systematic environmental factors
- Limits capacity to distort performance levels
- Avoids over-simplistic ranking schemes that prompt erroneous impressions and ill-conceived actions

Negatives of Peer Grouping Element

- Complexity hurts its transparency.
- With data revisions, colleges had a "moving target"—bad for true planning efforts.
- Some peer institutions seemed unusual to consumers/stakeholders.

Summary of ARCC

- Many colleges and districts (but hardly all) moved in the desired direction of using ARCC results and raw ARCC data to study performance.
- Critics noted lack of accountability in terms of carrots or sticks and the omission of race/ethnicity, while some chafed at the burden of data collection and reporting to the CCCCCO.
- Nationally, ARCC is positively viewed.
Possible New Directions in Policy

- Student Success Task Force
  - Senate Bill 1143
  - Task Force membership and process
  - Scope of review
  - Draft recommendations:

  [hyperlink](http://californiacommunitycolleges.cccco.edu/SSTF.aspx)

Related SSTF Recommendations

- Do not implement performance-based funding at this time.
- Chancellor’s Office should continue to review and model.
- Implement new accountability mechanisms to focus our system and the public on student success.

Goal Setting

- Statewide and college goals
  - Intermediate progress goals
  - Completion goals

- Goals disaggregated by race/ethnicity

- Colleges benchmarked against themselves
Score Card

- Clear and concise
- Posted locally and at state-level
- Intermediate and completion metrics
- Urive local and state decision-making
- Trigger assistance and intervention

Final Thoughts and Reflections