ARCC and how Chaffey uses ARCC for Planning

Presented by Keith Wurtz
Senior Research Analyst
Chaffey College
Goal of Presentation

- To provide a strategy for answering the following two questions
  1. How well are we doing?
  2. How do we know?
What does ARCC stand for?

1. Accountable Reporting for California Colleges
2. Art Reaching Children of California
3. Accountability Reporting for the Community Colleges
4. Architectural Research Centers in California
What is the objective of the annual ARCC Report?

1. To inform the public about overall system performance
2. To make policymakers and elected boards aware of system and college performance
3. To make local college officials aware of system and college performance
4. All of the above
Which groups have contributed to the development of the ARCC Report?

1. Research & Planning (RP) Group of California
2. CCC Administrators, staff and Faculty
3. A panel of nationally recognized researchers on college performance
4. All of the above
What year was the first ARCC Report published in?

1. 2006
2. 2007
3. 2008
4. 2009
Annually, the ARCC Report must be presented to each Community College District’s local board.

1. True
2. False
Each year the final version of the ARCC Report contains a College Self-Assessment written by each college.

1. True
2. False
Chaffey’s 2009 Letter

Founded in 1883, Chaffey College serves the residents of the Inland Empire in the West End of San Bernardino County. Chaffey is one of the first community colleges to be established in California, and in 2008 Chaffey celebrated its 125th Anniversary. In Fall 2008, Chaffey offered over 2,000 sections of approximately 700 courses to a diverse population of 20,859 students, an increase of 5% over Fall 2007. The college has been designated a Hispanic Serving Institution because of the proportion of low-income Hispanic Students served. In fact, approximately 74% of Chaffey students are non-traditional college students.

Chaffey College has a long tradition of preparing students for transfer to four-year colleges and universities. For example, in the 2007 – 2008 academic year, 17,802 former Chaffey College students were actively enrolled at a four-year institution.

Chaffey College has demonstrated good or above average performance on the majority of the accountability indicators. Compared to its peer institutions Chaffey has a higher annual successful course completion rate for credit basic skills courses and a higher improvement rate for credit basic skills courses than the peer group average. Chaffey is slightly below the peer group average on the student progress and achievement rate, percent of students who earned at least 30 units, persistence rate, and the annual successful course completion rate for credit vocational courses. At the same time, Chaffey has also had increases over last year’s rates in the persistence rate, the annual successful course completion rate for basic skills courses, the ESL improvement rate, and the basic skills improvement rate. Finally, even though the ESL improvement rate is substantially lower than the peer group average it is not the lowest in the peer group. In addition, the ESL improvement rate does not capture student performance in courses that are 4 or more levels below college level. Due to this, the ESL Faculty at Chaffey recently developed and implemented new curriculum that added non-credit ESL courses and changed the credit ESL courses from 7 levels below college level to 4 levels below college level. Accordingly, future cohorts will begin to more accurately reflect student performance in the ESL improvement rate.

As stated in Chaffey’s mission statement, the Chaffey family continually strives to improve lives within the diverse communities it serves through equal access to quality, learning-centered occupational, transfer, general education, and foundation programs. Based on institutional research results Chaffey is focused on increasing its efforts to connect and engage students to the college. As a result, Chaffey continues to employ a number of innovative strategies in student services and instruction, and to obtain additional funding through Federal and State grants to implement programs that the Chaffey College Institutional Research Office has found to effectively increase the performance of Chaffey students. For instance, Chaffey has recently received a $2.2 million grant to improve performance of students in math and science. Chaffey College is very proud of its performance and its continued effort to increase student success.
Which form of performance indicators are included in the ARCC Report?

1. Systemwide indicators across the community college system
2. College level indicators for each individual community college
3. All of the above
4. None of the above
Seven Systemwide Performance Indicators

1. The annual number and percentage of baccalaureate students graduating from UC and CSU who attended a California Community College
2. The annual number of Community College transfers to four-year institutions
3. The transfer rate to four-year institutions from the California Community College System
4. The annual number of degrees/certificates conferred by vocational programs
5. The increase in total personal income as a result of receiving a vocational degree/certificate
6. The annual number of basic skills improvements
7. Systemwide participation rates (by selected demographics).
Examples of Systemwide Indicators from the 2009 ARCC Report

- The systemwide transfer rate for the 2002 – 2003 to 2007 – 2008 cohort was 40.3%
- Top 5 systemwide vocational programs in 2007-2008 by volume of total awards
  1. Nursing
  2. Child Development/Early Care Education
  3. Administration of Justice
  4. First Technology
  5. Business Administration
- Community college students who earned a vocational degree or certificate in 2002-2003 year saw their wages jump from $28,087 (for the last year before receipt of the award) to $55,828 three years after earning their degree (2006), an increase of 98.6%.
In the 2009 ARCC Report there were 7 individual college level performance indicators.

1. True
2. False
In 2009 there are 8 individual college level ARCC performance indicators.

1. Student Progress and Achievement Rate (SPAR)
2. Percent of Students Who Earned at Least 30 Units
3. Persistence Rate
4. Annual Successful Course Completion Rate for Credit Vocational Courses
5. Annual Successful Course Completion Rate for Credit Basic Skills Courses
6. Improvement Rates for Credit ESL Courses
7. Improvement Rates for Credit Basic Skills Courses
8. Career Development and College Preparation Progress and Achievement Rate
The systemwide college level performance indicators are a sound method for making comparisons to individual colleges (e.g.: comparing Chaffey’s persistence of 68% to the State persistence rate of 69%).

1. True

2. False

Using the systemwide college level performance results to evaluate the performance of an individual colleges doesn’t allow for local contexts that differentiate the community colleges. For instance, when comparing Chaffey persistence rate to peer group, Chaffey has a higher percent then the peer group average (68% to 67%).
The SPAR ARCC measure tracks student progress on transfer preparedness, transfer directed, degree and certificates, and transfers to four year institutions.

1. True
2. False
Student Progress and Achievement Rate (SPAR)

• First-time college students with a minimum of 12 units who attempted a degree/certificate/transfer course within six years and who are shown to have achieved ANY of the following outcomes within six years of entry
  – Earned any AA/AS or Certificate (18 or more units)
  – Actual transfer to four-year institution
  – Transfer Directed – student successfully completed both transfer-level math AND English course
  – Transfer Prepared – student successfully completed 60 UC/CSU transfer units with a GPA >= 2.0
Persistence Rate (Fall to Fall)

- First-time students who showed intent to persist
- First-time status is defined as a student who took a credit course in the CCC system for the first time, and...
- Earned 6 or more units, while...
- Excluding students who taken only PE courses or who have transferred or received an award prior to the subsequent Fall
Improvement Rate for Credit ESL and Basic Skills

- The ESL improvement rate cohorts consist of students enrolled in credit ESL courses who successfully completed their initial course and who successfully complete a course at least one level higher across three academic years (e.g.: 2005-2006 to 2007-2008).
- The basic skills improvement rate cohorts consist of students enrolled in a credit basic skills English (or reading) or math course who successfully complete that initial course and who successfully complete a course at least one level higher across three academic years (e.g.: 2005-2006 to 2007-2008).
The Career Development and College Preparation (CDCP) Progress and Achievement Rate is the same measure as the Enhanced Noncredit Progress and Achievement Rate in the 2008 ARCC report.

1. True
2. False
Career Development and College Preparation (CDCP) Progress and Achievement Rate

• The CDCP was added to the ARCC report in 2008 as a result of legislation that increased funding for specific noncredit courses

• As of the 2009 January ARCC report only 32 community colleges were able to provide partial or complete CDCP data
Career Development and College Preparation (CDCP) Progress and Achievement Rate

• The CDCP cohort consists of first-time students who in their initial term plus the successive term generate a minimum of 8 attendance hours and did NOT enroll in any credit course in their first term and achieve ANY of the following outcomes within three years of entry (e.g.: 2005-2006 to 2007-2008
  – Successfully completed at least one degree-applicable credit course after the date of the CDCP
  – Earned a CDCP certificate
  – Achieved transfer directed
  – Achieved transfer prepared
  – Earned degree and/or certificate
  – Transferred to a four-year institution
Basic Skills ARCC Metrics – What’s Coming in 2009-10

• Descriptive Metrics:
  – Credit and Non-Credit
  – Annual Unduplicated Headcount and Percentage by Gender, Age, and Ethnicity

• Workload Metrics:
  – Credit and Non-Credit Section Offerings
    • Total Number of Sections
    • Sections That are Basic Skills (Number and Percentage
    • Math, English, ESL, and Reading
  – Credit and Non-Credit FTES
    • Total Count of FTES
    • Total Count of FTES That is Basic Skills (Number and Percentage
    • Math, English, ESL, and Reading
    • By Age (25+, 24 and Under)
Basic Skills ARCC Metrics – What’s Coming in 2009-10

• Assessment/Placement Ladder Metrics:
  – Math, English, Reading, and ESL Assessment and Enrollment
    • Assessment Levels (CB21)
    • Enrolled in Any Credit Course (First Semester)
    • Enrolled in Discipline-Specific Course (First Semester)
  – First-Time Freshmen (FTF) Exempt from Assessment (Credit and Non-Credit)
  – First-Time Freshmen (FTF) Non-Exempt from Matriculation Services (Credit and Non-Credit):
    • Orientation
    • Assessment
    • Counseling
    • Follow-Up
Basic Skills ARCC Metrics – What’s Coming in 2009-10

• Student Progress Metrics:
  – Math, English, Reading, and ESL
  – Credit and Non-Credit
  – Levels Below Transfer (CB21)
    • Percent Completed Degree-Applicable Course Within Discipline
    • Percent Completed Transfer-Level Course Within Discipline
    • Percent Completed a Degree or Certificate AND/OR Transferred or are Transfer-Prepared
What does peer grouping in the ARCC report refer to?

1. That individuals will differ widely in their objectives for using the report.
2. That the development of the ARCC report drew upon contributions of many parties.
3. Provides a method of comparing each college’s performance with other “like” colleges.
4. All of the above
ARCC Peer Grouping

• “...peer grouping provides decision makers a way to compare each college’s performance with the performances of other “like” colleges on each selected performance indicator (each ARCC outcome measure), in a fair and valid manner.”
How does peer grouping work?

• The Chancellor’s Office uses a sophisticated statistical technique to identify “uncontrollable” or “environmental” factors that predict each outcome

• These factors are used to “level the playing field” in any between-college comparison of performances
Identification of Predictors

• Examples of Factors that predicted the SPAR Outcome (Up to 120 Factors were examined)
  – Percentage of students at the community college who are 25 years old or older
  – Percentage of students at a community college in the Fall of 2005 taking at least one Credit Basic Skills Course (Basic and Pre-collegiate Basic)
  – Index representing the bachelor degree attainment of the population, 25 years or older in a college’s service area
How does peer grouping work?
Grouping Colleges with other “Like” Colleges

1. Tell the computer program (SPSS) that we want 6 peer groups
2. Identify the predictor variables for the Outcome measure
3. Computer starts with a college and looks at the next college to see how closely they match on the predictor variables.
4. If they don’t match statistically the college is excluded
5. If they do match statistically the college stays in the peer group
How does peer grouping work?
Grouping Colleges with other “Like” Colleges
The peer groupings are different for each ARCC outcome measure.

1. True
2. False
Example of Peer Groupings

• A3 Peer Group for SPAR
  – Chabot, Copper Mountain, Desert, Gavilan, Imperial Valley, Redwoods, Southwestern

• B3 Peer Group for Students who Earn at Least 30 Units
  – Butte, Compton, Copper Mountain, Crafton Hills, Feather River, Imperial Valley, Porterville, Redwoods, Sequoias, Shasta, West Hills Coalinga, Yuba
How does Chaffey use ARCC?

• One of the purposes of ARCC is to use the information provided in ARCC to improve student outcomes

• The question that this raises is “What works?”

• Or, what programs, services, learning strategies, interventions help to increase the ARCC outcomes?
How does Chaffey use ARCC?

- Chaffey started examining this question back when ARCC was PFE (Partnership for Excellence)
- Answering the question, “What works?,” was more difficult with PFE
- ARCC provides databases for almost every outcome
How does Chaffey use ARCC?

• Annually, the Institutional Research Office conducts research using the ARCC data to identify programs that are related to the ARCC outcomes

• The ARCC data is also used for individual research projects like the student-athletic program
Research at Chaffey Examining Behavior and Background Variables that Impact the ARCC Outcome Measures

- Background Variables Loaded into Models
  - Ethnicity
  - Gender
  - Age
  - Education Goal

- Other Predictor Variables
  - Full-time or part-time student status
  - Number of degree applicable units earned
  - Whether or not student was assessed
  - Whether or not student was assessed prior to first start date
  - English, reading, and math placement levels
  - Number of times student met prerequisite
  - Saw a counselor in the first term
  - Number of time student saw a counselor
  - Accessed Success Center in first-term
  - Number of times accessed Success Center
  - Number of times accessed Success Center during six year period
Successful Student Behaviors

Students are more likely to be successful if they:

• 2005-2006
  – Assessing prior to the student’s first start date
  – Seeing a counselor on a consistent and regular basis
  – Following placement recommendations or successfully completing the prerequisite course
  – Accessing the Success Centers on a regular basis
  – Utilizing Supplemental Instruction
  – Successfully completing transfer level English and math within three years of the student’s first enrollment at Chaffey

• 2006-2007
  – Assessing prior to the student’s first start date
  – Seeing a counselor on a consistent and regular basis
  – Following placement recommendations or successfully completing the prerequisite course
  – Accessing the Success Centers on a regular basis
  – Utilizing Supplemental Instruction
  – Placing into MATH-410 (i.e. elementary algebra) or higher

• 2007-2008
  – Seeing a counselor on a consistent and regular basis
  – Following placement recommendations or successfully completing the prerequisite course
  – Accessing a Success Center in the first term that a student earns a grade on record at Chaffey
  – Accessing the Success Centers on a regular basis
  – Using Supplemental Instruction
  – Placing into MATH-520 (i.e. Pre-Algebra) or higher
  – Having an informed goal to transfer
Students who saw a counselor in their first semester at Chaffey were statistically significantly more likely to improve in basic skills English/reading, math, and ESL.
Students who see a counselor on a consistent basis during a three year period (2005-2006 to 2007-2008) are statistically significantly more likely to improve in basic skills English/reading, math, and ESL.
Students who met a prerequisite in English, math, and ESL at least once are statistically significantly more likely to earn 30 or more units.
Students who met a prerequisite in English, reading, math, and ESL are more likely to successfully complete the respective course.
Access the Success Centers!

Success Center Access significantly increases success for the following groups of students:

- All students
- First-Time College Students
- Males
- Females
- African American
- Asian
- Caucasian
- Filipino
- Hispanic

First-time college students who have primarily generated DLA hours in a success center for at least one section are statistically significantly more likely to earn 30 or more units, be transfer prepared, and earn a degree, than first-time college students who did not primarily generate DLA hours in a success center.
Success by SI Utilization
(Fall 2005 to Spring 2008)

Success Rate

- Did Not Attend SI: 51%, n = 4,697
- Attended 1 SI Session: 61%, n = 686
- Attended 2 or more SI Sessions: 76%, n = 2,072
First-time college students who utilized SI are statistically significantly more likely to earn 30 or more units, be transfer prepared, earn a degree, transfer, and achieve one of the ARCC 1 indicators than first-time college students who did not use SI.
Students in the Puente learning communities were statistically significantly and substantially more likely to successfully complete ENGL-450 and to persist to ENGL-1A.
Students in the Puente learning communities were statistically significantly and substantially more likely to successfully complete ENGL-1A and to persist to ENGL-1B.
Students are more likely to transfer if they complete transfer English and math within three years of their first enrollment at Chaffey

- First-time college students were statistically significantly ($\chi^2 = 871.616, p < .001$) more likely to transfer when they had successfully completed transfer level English and math within three years of enrolling at Chaffey (63% transfer rate) than first-time college students who did not successfully completed transfer level English and math within three years (9%)

- First-time transfer students (college student who has attended another college and transfers into Chaffey) were statistically significantly ($\chi^2 = 174.686, p < .001$) more likely to transfer when they had successfully completed transfer level English and math within three years of enrolling at Chaffey College (68% transfer rate) than first-time transfer students who did not successfully completed transfer level English and math within three years (23%)
First-time college student-athletes are statistically significantly more likely to earn 30 or more units, be transfer prepared, earn a degree, transfer, and achieve one of the ARCC 1 indicators than first-time college students who are not student-athletes.
Sharing the Research Findings with the Chaffey Community

• Enrollment and Management Committee
• Student Success Initiative (Basic Skills Initiative) Committee
• Chaffey College Governing Board
• Summer Institute for Chaffey Faculty
• Faculty Coordinators
The Shared Results are used in Planning

- Student Success Initiative example — increase funding in supplemental instruction or learning communities?
- Enrollment and Management Goals
Enrollment & Growth Management Goals

• Goal 2: Identify, implement and maintain retention strategies

• Supporting Evidence for Goal – compare Chaffey’s retention to those in our comparison group in ARCC
**Examples of Enrollment & Growth Management Strategies**

<table>
<thead>
<tr>
<th>Goal</th>
<th>Strategy</th>
<th>Outcomes</th>
<th>Means / Criteria</th>
<th>Evidence</th>
<th>Use of Results for Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Monitor progress of students through the matriculation process</td>
<td>Increase student awareness and participation in all components of the Matriculation Process including admissions, orientation, assessment counseling and special programs</td>
<td>Record and monitor all student contacts. Follow up with students who have not completed assessment, education plan, etc.</td>
<td>Accurate MIS Data collection reflecting increased student participation in matriculation process/Positive results for students who have taken advantage of all services offered</td>
<td>Use results to improve process and increase matriculation services to students through outreach and technology</td>
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<tr>
<td>2.2</td>
<td>Improve student information/orientation upon enrollment</td>
<td>Increase enrollments and create a positive experience for new students</td>
<td>Conduct Pre/Post survey before and after orientation to increase participation 40%</td>
<td>Increase in number of students participation in orientation</td>
<td>Use survey feedback to expand orientation to improve students matriculation process</td>
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<td>2.5</td>
<td>Increase the number of learning communities</td>
<td>Enhance success and retention efforts through the addition of alternative instructional models. The goal is to implement 5 additional learning communities by spring 2010</td>
<td>Results will include both status achievement indicators like course success and achievement, as well as learning outcome data</td>
<td>Data has yet to be gathered</td>
<td>Once the results are gathered, then the College can examine the efficacy of implementing additional learning communities</td>
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Supporting Innovation through Research Design

• Factors that support a culture of evidence-based decision making
• Research Design
• Look at how you can begin to use data to ask and answer similar questions to the ones raised here