Outcomes and Assessment Committee

Institutional Framework for Student Learning Outcomes

Marie Boyd
Curriculum Chair and SLO Facilitator

Angela Burk-Herrick
Professor of Biology and SLO Facilitator

Laura Hope
Dean, Instructional Support and Interim Dean, Library Resources

2015-2016
# Table of Contents

Introduction .......................................................................................................................... 3
Executive Summary .................................................................................................................. 3
Timeline Overview .................................................................................................................. 5

## INSTITUTIONAL FRAMEWORK

The SLO Proficiency: Exceeding Expectations Plan ............................................................... 8
Outcomes and Assessment Committee .................................................................................. 9
Overview of SLO Nesting Hierarchy ...................................................................................... 10
Overview of the SLO Assessment Cycle ................................................................................ 10

## INSTITUTIONAL, PROGRAM & COURSE LEARNING OUTCOMES

Institutional Learning Outcomes ........................................................................................... 11
Program Learning Outcomes ................................................................................................. 13
SLOs & Program Review (PSR) ............................................................................................. 14
Course SLOs .......................................................................................................................... 15
Closing the Loop .................................................................................................................... 16

## SOFTWARE & COMPREHENSIVE ASSESSMENT REPORTS

CurricUNET SLO Reports ....................................................................................................... 17
Future SLO Software .............................................................................................................. 17

## CAMPUS WIDE ENGAGEMENT

Faculty and SLOs ................................................................................................................... 18
Administration and SLOs ....................................................................................................... 18
Classified Staff and SLOs ....................................................................................................... 19
Institutional Research and SLOs ........................................................................................... 19
Students and SLOs ................................................................................................................ 19

## SLOs & INSTITUTIONAL EFFECTIVENESS

SLOs and Ongoing Improvement ........................................................................................... 20

## SUSTAINABLE CONTINUOUS QUALITY IMPROVEMENT

Plans for the Future ................................................................................................................ 22

## APPENDICES

Appendix A Curriculum Map Example .................................................................................. 25
Appendix B Core Competency Matrix Example ..................................................................... 26
Appendix C Chronological Assessment Plan Example ........................................................... 27
Appendix D PSR SLO Instructional Program Rubric ............................................................... 28
Appendix E PSR SLO Student Services Rubric ..................................................................... 29
Appendix F CurricUNET Course SLO page ........................................................................... 24
Appendix G Did You Know v80 SP15 .................................................................................... 30
Appendix H Did You Know v67 F13 ....................................................................................... 32
Appendix I Did You Know v74 SP14 ..................................................................................... 34
Introduction

Chaffey’s SLO story is one of profound, systemic, institutional change. As with any systemic institutional change, a central plan was necessary. The original version of the *Proficiency: Exceeding Expectations*, entitled *Pathways to Proficiency*, was created to provide a plan for the college to follow through a series of profound cultural and pedagogical changes. This edition of Chaffey College’s *Proficiency: Exceeding Expectations* provides guidance for the College on its journey to excellence and sustainability. Specifically, the document serves several purposes. First, it provides a historical overview that outlines and reviews the fundamentals of the Chaffey College SLO process, which has been driven by faculty since 2004. Second, this document serves to encapsulate a vision of the future of the SLO process and student success as defined by Chaffey College. Most importantly, this document provides a roadmap to sustain our progress, not just as we achieve proficiency, but as the College moves into a meaningful, authentic and robust phase of integrated planning. As such, this document identifies the responsibilities, content, and philosophy of the Chaffey College SLO process.

Executive Summary

When Chaffey College first began the process of developing student learning outcomes (SLOs) in 2004, there was little awareness of student learning outcomes, no central plan for creating them, and no learning outcomes at the institutional level. The response to the SLO Initiative began slowly with the creation of SLOs for “model programs” by a small faculty committee that presented their progress to the college during fall 2005 FLEX. The response to the presentation was tepid at best. Faculty attitudes toward SLOs could best be described as suspicious and fearful. In 2008, however, the college made a firm commitment to the SLO process, offering 100% reassignment to any faculty member interested in facilitating the SLO process. Two SLO co-facilitators were hired (each at 50% reassignment) and an SLO Task Force was established. With Institutional Research taking the lead, an SLO assessment process based on the Nichols Model was adopted. Core Competencies were subsequently drafted by the SLO Task Force and reviewed by all college constituents, and campus-wide assessment of the competencies began. Dialogue regarding the relationship between course SLOs and course objectives became a primary focus.

By 2009 the college was actively engaged in profound institutional transformation. Institutional learning outcomes and a strategic plan, *Pathways to Proficiency*, 1st Edition, were established and approved through an extensive shared governance process. The SLO Task Force was reconfigured to become the SLO Committee, later renamed the Outcomes and Assessment Committee. A yearly “game-plan” was established with the SLO co-facilitators to make sustainability viable in the SLO process. School SLO facilitators were created. The Dean of Instructional Support became responsible for overseeing SLO co-facilitators and the SLO strategic plan was supported by the Vice-President of Instruction and the President/Superintendent.

This extensive level of support transformed the SLO process at Chaffey. Three to five student learning outcome statements were developed for all active courses and are included in all course syllabi. Intense curriculum review identified and deactivated inactive or obsolete courses. Program learning
outcomes were established for all programs of study and student services and are published in the college catalog. The Program and Service Review (PSR) process was revised with an embedded SLO evaluation section. CurricUNET became the vehicle for program review and the primary repository of SLO data. A chronological assessment plan (CAP) was established for all programs to serve as a plan for ongoing, systematic assessments. Core Competencies were developed and evaluated. Rigorous, ongoing assessment of SLOs became institutionalized. A second edition of Pathways to Proficiency that documented these changes and laid a path for the future was completed and reviewed. The passivity and fear that characterized the early years of the SLO Initiative was replaced by widespread acceptance and a firm grasp of ACCJC rubrics on student learning outcomes. The current challenge of ongoing improvement and sustainability is the focus of this second edition.

This current plan, Proficiency: Exceeding Expectations, raises the bar at the college in terms of SLOs. SLO data is now being used in a more robust manner, contributing to the Resource Allocation Process, which began in 2014, and the Integrated-planning Model, which was created in 2014. Evaluations of college personnel, including staff, faculty and administrators, will solicit information about the individual’s participation in the SLO process. Evidence-based decision-making is here to stay.
Timeline Overview

Prior to 2004
- Little awareness of student learning outcomes.
- No strategic plan for student learning outcomes.
- No institutional learning outcomes.

2004 - 2005
- SLO process begun with creation of “model programs” by faculty committee.
- Program SLOs presented to college by SLO committee at fall FLEX.
- Small number of program SLOs developed in response to presentation.
- College adopts the Nichols model for its SLO process.

2006-2007
- Limited number of program learning outcomes.
- No course learning outcomes.
- Little faculty leadership or committee oversight.
- Limited awareness of ACCJC Rubrics.
- Widespread suspicion and fear among faculty.

2007-2008
- Funds and resources committed to the SLO effort.
- Two SLO Co-facilitators to further the college’s SLO process recruited and trained.
- SLO Task Force established.

2008 - 2009
- SLO assessment with Pre/Post Tests as primary assessment tool begun.
- Core Competencies drafted by the SLO Task Force and reviewed by Faculty Senate, Student Services, college deans and vice presidents, Associated Students of Chaffey College, Classified Senate, and Board of Trustees.
- Dialogue regarding the relationship of course SLOs and course objectives a primary focus.

2009 – 2010
- School SLO-facilitators created.
- Dean of Instructional Support becomes responsible for overseeing SLO co-facilitators.
- SLO Task Force reconfigured to become the SLO Committee, later renamed the Outcomes and Assessment Committee.
- Campus-wide assessment of Core Competencies begun.
- Campus-wide dialogue regarding Core Competencies assessment tool and assessment data.
- Institutional learning outcomes and a strategic plan, Pathways to Proficiency, established and approved through this extensive shared governance process.
- Yearly “game-plan” established with the SLO co-facilitators to facilitate sustainability in the SLO process.
- SLO leadership supported by college President/Superintendent
2010-2011
- CurricUNET SLO page created, which demonstrates the alignment of Core competencies, program learning outcomes and course SLOs.
- CurricUNET SLO page created for course SLO assessment evidence, aligned with the Nichols Model.
- Program review overhauled and reconfigured on CurricUNET.
- Primary repository of SLO data housed on CurricUNET, allowing for the creation of comprehensive assessment reports produced and updated on a regular basis.
- Campus-wide dialogue regarding Core Competencies assessment tool and assessment data.

2011-2012
- Widespread acceptance of college SLO initiative.
- Firm grasp of ACCJC rubrics on student learning outcomes by faculty.
- Program learning outcomes established for all programs of study and for student services.
- Chronological assessment plan for ongoing, systematic assessment of SLOs established for all instructional programs.
- Curriculum maps mapping course to program SLOs were established for all instructional programs.
- Chronological assessment plan, mapping out semester-by-semester which course-SLOs were to be assessed and by what type of assessment tool were established by the majority instructional programs.
- All active curriculum has SLO statements in place on CurricUNET.
- Campus-wide dialogue regarding Core Competencies assessment tool and assessment data.

2012-2013
- College produces first Report on Learning, outlining model programs of study based on SLO progress and identifying those programs in need of SLO remediation.
- College president initiates “Breakfast with the President” for faculty from programs needing SLO remediation.
- Decisions for faculty hiring are based, in part, on the status of SLO progress within instructional programs.
- Program learning outcomes published in the college catalog.
- Chronological assessment plans are used to keep course SLO assessment on track for all instructional programs.
- Course SLOs become mandatory in all college syllabi.

2013 – 2014
- Intense curriculum review to identify and deactivate inactive or obsolete courses occurs.
- Second version of Pathways to Proficiency completed and reviewed.
- ACCJC College Status report on overall SLO implementation overall rating of 4.17 out of 5.
- Completion of chronological assessment plans and Core Competency Matrix by non-instructional programs.
2014-2015
- Integration of SLO progress into Resource Allocation and Integrated Planning Model.
- Evaluate existing Core Competencies. Core Competencies were revised to reflect the College’s commitment to the Hope/Growth Mindset project. Revised Core Competencies were approved through the shared governance process.

2015-2016
- Second SLO Co-Facilitator was re-established.
- Third version of Pathways to Proficiency is re-titled to become Proficiency: Exceeding Expectations to reflect the progress which has been accomplished at the College.
- The College begins to look at Taskstream as alternative to CurricUNET for housing SLO evidence.
- Continue to embed the SLO process within the college’s planning, budgeting and institutional effectiveness processes.
- Continue to evaluate and fine-tune of organizational structures, such as program review, to support student learning.
- SLO Down newsletter revived as educational outreach to prepare for accreditation visit.
- Continue to norm the College’s SLO process to reflect new changes in ACCJC Standards.
INSTITUTIONAL FRAMEWORK

The SLO Proficiency: Exceeding Expectations Plan

A successful SLO process requires several components: an institutional framework that can speak to other key college processes such as program review; planning and budgeting; institutional buy-in, from the college president through the student body; a common-sense model for the process of SLO measurement, such as the Nichols Model; a common-sense method for storing and organizing SLO data and other evidence; a shared vocabulary and process for all to follow and promote; and a college-wide commitment to revise, follow-up on, and renew the SLOs as well as the overall strategic plan.

The guiding principles for the first version of *Pathways to Proficiency* continue to serve this next edition as well. Several assumptions underlie these principles:

- Outcomes assessment for instructional programs and student services is a faculty-driven process.
- Collegial communication and reflective dialogue are the most important components of the SLO process at Chaffey College.
- Gathering data is a necessary component of the SLO process; however, the key ingredient is the “reflective dialogue” among colleagues in discussing program success and institutional effectiveness.
- Outcomes assessment should be as logical and as simple as possible without becoming “busy work.”
- Assessment plans and the use of results should be managed by the programs that created the assessment and collected the data.
- The goal of outcomes-based assessment is not punitive. On the contrary, SLO assessment is a tool to support programs in their efforts to fulfill the college mission and maintain the current student-centered learning environment.

In addition, the following features of the “Sustainable Continuous Quality Improvement” category of the Accrediting Commission for Community and Junior Colleges (ACCJC) are folded into this next generation of the *Pathways to Proficiency*:

- Student learning outcomes and assessment are ongoing, systematic, and used for continuous quality improvement.
- Dialogue about student learning is ongoing, pervasive, and robust.
- Evaluation and fine-tuning of organizational structures to support student learning is ongoing.
- Student learning improvement is a visible priority in all practices and structures across the college.
- Learning outcomes are specifically linked to program reviews.
The original philosophy underlying the first version of Pathways to Proficiency contained three components, which are still relevant to the college and the student learning process today. These three components include:

- The SLO processes are a collaborative effort that involves all facets of the Chaffey College family, including administrators, faculty, staff and students. This collaborative effort ensures that the college strives for the highest level of institutional effectiveness and that none of the stakeholders of the college’s student-centered learning environment are excluded from the assessment process.

- The SLO processes are dynamic and open to discussion, critique, and amendment. These processes will continually be evaluated for effectiveness and modified if necessary.

- The SLO process is not the end-all and be-all of the college or of a program’s ability to support student learning. At no time will this document usurp faculty primacy, academic freedom, program expertise, or federal and state mandates and regulations.

Outcomes and Assessment Committee

The Outcomes and Assessment Committee (OAC) is comprised of faculty, classified staff and administrators. The primary responsibility of this committee is the implementation of the Proficiency: Exceeding Expectations (formerly known as the Pathways to Proficiency) Plan. Other responsibilities include the following:

- Provide vision and leadership for outcomes-based assessment
- Ensure that Chaffey College is in compliance with ACCJC guidelines for student learning outcomes sustainability
- Provide administrators, faculty and classified staff with regular updates and information about the field of outcomes-based assessment, and its status at Chaffey College
- Develop policies and procedures for outcomes-based assessment development, implementation, evaluation and sustainability
- Develop comprehensive training materials and professional development opportunities on outcomes-based assessment for administrators, faculty and classified staff
- Provide administrators, faculty and classified staff with assistance, resources, and support to sustain outcomes-based assessment
- Provide substantive feedback regarding individual program SLOs as part of the college’s program review process (PSR).
- Provide training and training materials to PSR writers regarding the completion of their program SLO page in program review.
Overview of SLO Nesting Hierarchy

College learning outcomes are organized into a hierarchy. Course SLOs are “nested” under program level SLOs, which are nested under institutional level SLOs, also known as Core Competencies. The four broad Core Competencies also serve as the college’s general education course outcomes (see figure below).

Overview of the SLO Assessment Cycle

Chaffey College utilizes the Nichols Model as a “roadmap” of assessment activities, which fit within the concept of institutional effectiveness (see Pathways to Proficiency, 2014 for details). Chaffey College's SLO process consists of the following:

- Creation of an SLO statement that relates to the knowledge, skills and abilities a student is expected to obtain upon successful completion of that course, service, interaction, etc.
- Developing an assessment for the SLO
- Establishing a benchmark or criteria for success
- Collecting the data
- Participation in reflective dialoging and actions to improve success, also known as "closing the loop"
INSTITUTIONAL, PROGRAM & COURSE LEARNING OUTCOMES

Institutional Learning Outcomes – Core Competencies

The College’s Core Competencies were created in 2008 through an extensive shared governance process including Faculty and Classified Senates, the Associated Students of Chaffey College, the college deans, college administration, and the Board of Trustees. Aware that continuous quality improvement of student learning is never static, the OAC entertained suggestions of revising the Core Competencies. The college had begun an initiative directed towards student success based on the Hope/Mindset theoretical perspectives. It was suggested that these perspectives be infused throughout the Core Competencies. In addition, a Faculty Inquiry Team on Math presented a series of suggestions towards improving student success in Math. On the basis of this group’s work, and acknowledging that student success in Math is vital, the inclusion of quantitative knowledge, skills and abilities were also deemed necessary for inclusion in the revised Core Competencies.

A workgroup, comprised of OAC members, and the Faculty Success Center Facilitator revised the Core Competencies and this revision, once again, went through an extensive shared governance procedure. The resulting Core Competencies, which are included in the 2015-2016 college catalog, are shown here:

COMMUNICATION
Students will practice effective communication and comprehensions skills and strategies. Examples will include, but are not limited to the following:

• Comprehend, analyze, and respond appropriately to oral, written, and visual information.
• Effectively communicate/express both qualitative and quantitative information through oral, written, visual, and other appropriate modes of communication/expression.
• Ask questions and utilize appropriate resources to continually expand comprehension and oral, written, and visual communication skills.

CRITICAL THINKING AND INFORMATION COMPETENCY
Students will demonstrate critical thinking skills in problem solving across the disciplines and in daily life. Examples will include, but are not limited to the following:

• Identify vital questions, problems, or issues and evaluate the plausibility of a solution. Compute and analyze multiple representations of quantitative information, including graphical, formulaic, numerical, verbal, and visual.
• Apply scientific processes to solve problems and measure and observe natural phenomena
• Select sources of information based on analysis and evaluation of accuracy, credibility, relevance, and reasonableness of information.
• Analyze and assess assumptions, biases, and multiple perspectives to develop a well-informed, valid argument.
PERSONAL, ACADEMIC AND CAREER DEVELOPMENT
Students will assess their own knowledge, skills and abilities; set challenging and appropriate personal, educational, and career goals and persist in pursuing these goals; develop effective strategies for both individual and group work; and choose pathways that develop personal, academic, social, and financial responsibility.
Examples will include, but are not limited to the following:

- Demonstrate professional and ethical responsibilities of the individual.
- Demonstrate the ability to use technology to assess, evaluate, and present information.
- Set short and long-term goals, seeking and utilizing various personal, academic, psychological, and social services in pursuit of these goals.
- Seek and utilize feedback to assess learning and progress toward goals.
- Demonstrate resilience by viewing challenges and obstacles as opportunities for growth.
- Demonstrate the ability to use technology to assess, evaluate, and present information.

COMMUNITY/GLOBAL AWARENESS AND RESPONSIBILITY
Students will demonstrate knowledge of and strategies to consider significant social, cultural, environmental and aesthetic perspectives.
Examples will include, but are not limited to, the following:

- Identify and apply the social and ethical responsibilities of the individual in society.
- Demonstrate social and ethical responsibility within a community.
- Demonstrate commitment to active citizenship by recognizing and evaluating important social, ecological, economical, and political issues.
- Demonstrate an understanding and appreciation for individual, social, and cultural diversity.

Core Competency assessment has occurred at the college, in one fashion or another, since 2008. Due to the hierarchical structure of SLOs, all course level assessments and program reviews related to SLOs ultimately can theoretically be extrapolated into Core Competency assessments. Additionally, previous years’ have seen individual Core Competencies assessed per year, with a master schedule indicating each Core Competency and assessment year. The assessment tool was a 5-10 item survey asking students to evaluate their knowledge, skills or abilities in relation to the college Core Competencies – communication, critical thinking and information competency, community/global awareness and responsibility, and personal, academic and career development. Faculty opted in for the Core Competency assessment. Although this approach produced results geared to each Core Competency from a random sampling of students across all disciplines, it was felt that the assessment lacked cohesiveness and rigor.

The OAC spent much time strategizing and brainstorming new approaches to institutional outcomes assessment. The OAC is very excited with the resulting plan, which focuses, basically, on a student pre/posttest. Twelve questions, which speak to the institution’s Core Competencies, are being added to the student intake placement exam. These questions were vetted and evaluated regarding their appropriateness in relation to the specific Core Competencies. These questions have also been vetted during last year’s survey of graduating students. The plan is to administer these 12 questions during the placement exam at the beginning of a student’s career at Chaffey College, as well as at the end of the career at Chaffey. In addition, measurements will also be taken at the 30 unit marker, which is a momentum point used the State’s Student Success Scorecard (http://scorecard.cccco.edu/scorecardrates.aspx?CollegeID=921#home).
The Core Competencies assessment data will be disaggregated into student subpopulations. In preparation to meet the new accreditation standard 1.B.6 where the institution is to disaggregate and analyze learning outcomes and achievement for subpopulations of students, discussion began campus-wide regarding the need to disaggregate SLO for student populations. This discussion was held at both Faculty Senate, and among departments. A cue was taken from the Student Success Scorecard, which disaggregates student populations. Institutional Research provided further insight regarding our local ability to disaggregate assessment results into student populations. In a true stroke of collaborative brainstorming, the discussion regarding disaggregating assessment results collided with the discussion regarding a revised model for Core Competency assessments.

The college is very eager to collect this Core Competency assessment, compare it with Student Success Scorecard data and let the robust dialogue flow! Once again, this new approach to institutional SLO assessment, based on years of previous trial and error and persistence, points to a future of robust, pervasive and ongoing assessment which cannot help but lead to continuous, ongoing, systematic improvement of student learning at a very macular level!

**Program Learning Outcomes**

**Instructional Program SLOs:** Instructional program SLOs are published in the College Catalog and are present on the program pages in CurricUNET. For instructional programs, program SLOs are connected to individual course learning outcomes via a curriculum map (APPENDIX A) that indicates for each course, which program SLOs will be introduced (I), practiced (P), or mastered (M). Curriculum maps help identify gaps in a program’s curricular content and assist with curriculum modification/alignment. Curriculum maps are currently housed on the program checklist page in CurricUNET.

**Student Services Program SLOs:** Success Centers, the Library, and the Honor’s program, and other Student Service programs (e.g. Admissions and Records, CalWorks, Career Services, Counseling, EOPS, Financial Aid, Health Services, International Students, Opening Doors, Puente, Transfer Center, and GPS) follow the same "Nichols Model" approach to SLO assessment. All Student Services programs have SLOs, a chronological assessment plan (CAP), and a Core Competency Matrix, which is attached to their PSR document and housed on the Chaffey College website.

**All Program SLOs:** Program learning outcomes for both instructional and student services programs are connected to the Core Competencies via a Core Competency Matrix (APPENDIX B). The Core Competency matrix identifies gaps within a program of study or a student service in terms of the broader institutional learning outcomes. College staff and administrators are requested to review their Core Competency Matrix at least once a year. Core Competency Matrices for student services are housed in one of several locations as outlined previously – either the program’s three-ring binder, or in Program and Services Review. Instructional Core Competency Matrices are housed on the curriculum side of CurricUNET in the program checklist. Together these SLO documents demonstrate how course SLOs are related to program SLOs and, in turn, that all programs and courses speak to the college's Core Competencies (published in the College Catalog).

Since 2014, both instructional and student services programs are required to complete a chronological assessment plan (CAP) (APPENDIX C). The CAP is created for two purposes: to guide
faculty, semester-to-semester, in the cycle of course SLO assessment, and to provide evidence of ongoing, systematic SLO assessment, which is used for continuous quality improvement. These CAPs are Excel spreadsheets, which list the 3-5 course SLOs for all active courses, as well as student services, and organized by semester. The CAP provides a snapshot of SLO assessment activity by semester by identifying which course SLOs will be assessed and a brief description of the type of SLO assessment, i.e., “pre/post tests” or “embedded exams.” CAPs do not include actual assessment data. Most CAPs are planned out three years in advance.

**SLOs & Program and Services Review (PSR)**

All SLO documentation (Curriculum maps, Core Competency Matrices, and Chronological Assessment Plans) are updated and reviewed during the Programs’ and Services Review process because the college’s program and services review (PSR) includes a section devoted to each program’s degree or certificate’s learning outcomes. OAC committee members pair up into reading teams and review this section of the PSR document. In preparation for the program’s PSR, the SLO Facilitator creates an SLO update sheet, informing the PSR writers what is missing from the program’s SLO process. This report is also given to the SLO PSR readers for their use when reviewing the SLO PSR page. The reviewers also have access to the extensive CurricUNET report, which reviews “closing the loops,” course by course.

A copy of the 2016 SLO PSR rubrics for instructional programs (APPENDIX D) and student services programs (APPENDIX E) is attached to this report. In general, the review process looks for the completion of several pieces of SLO evidence including:

- The Curriculum Map (APPENDIX A) showing the linkage between program SLOs and individual courses (Instructional programs only). This document also provides a background for robust faculty dialogue about SLOs at both the course and program level.
- The Core Competency Matrix (APPENDIX B) showing the linkage between program SLOs and Core Competencies (institutional SLOs), which provides the background for rich faculty discussion about SLOs at both the program level and the institutional level.
- The Chronological Assessment Plan (APPENDIX C) showing the intent for SLO assessment, systematically, for six semesters or three years. This assessment schedule is created in conjunction with the department’s three-year scheduling tool. It is a living document, reflecting each semester’s activities within a program.

Another aspect that the SLO PSR reviewers have begun to look at is the quality of the SLO data, which is housed in CurricUNET, in the Course Outline of Record Course Checklist. Reviewers look at the past 4 semesters of the chronological assessment and compare to data entered into CurricUNET. This procedure helps programs stay abreast with entering in their SLO data. The creation and quality of these documents speaks to the faculty’s understanding of the college’s SLO process. The SLO PSR rubric evaluates these documents in terms of relevance, effectiveness, and currency.

At the conclusion of each PSR cycle, the OAC conducts a SWOT analysis on the SLO PSR review process to determine strengths, weaknesses, threats and opportunities. These findings guide the
revisions of the SLO PSR process for the following year. The OAC updates the SLO PSR rubric, drilling down every year with closer scrutiny of SLO data and “closing loops” geared toward student success. This review process has seen an improvement with programs’ SLO progress and faculty awareness. It is through these types of review opportunities that the college can guarantee that the college is at the sustainable, continuous quality improvement stage, where student learning outcomes and assessment are ongoing, systematics, and used for continuous quality improvement, dialogue about student learning is ongoing, pervasive and robust, student learning outcomes processes are evaluated, evaluation and fine-tuning of organizational structures to support student learning is ongoing, student learning improvement is a visible priority in all practices and structures across the campus, and learning outcomes are specifically linked to program reviews.

Course Student Learning Outcomes (SLOs)

Course SLOs represent the “heart and soul” of the instructional SLO process at Chaffey College. As with program SLOs, course SLOs speak to the knowledge, skills and abilities a student should demonstrate upon successful completion of that course and can address either cognitive or affective domains of learning.

Faculty are responsible for creating 3-5 student learning outcome statements per active course. The preferred format for a course SLO includes the condition which is desired, the audience that condition is desired of, and the behavior that condition will signal (see below). SLO assessment primarily occurs at the course level.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Audience</th>
<th>Behavior</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>By successfully completing CHEM 111 and 112 (grade of ‘C’ or higher in each),</td>
<td>students will demonstrate the ability to analyze sample laboratory data and locate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Following best practices for communicating with students, course SLOs have been required in all college syllabi since Fall 2012. This requirement has been facilitated by several areas including administrative assistants who daily interface with full and part-time faculty. Course SLOs are also located on the individual course site in CurricUNET. For each course SLO, faculty document the Means of Assessment, Assessment date, Criteria for Success, Summary of Evidence, Use of Results, and the Next
assessment date on the course SLO page in CurriUNET. (APPENDIX F) Because of the hierarchical structure of SLOs, assessment results at the course level inform progress on program SLOs.

SLO data for courses offered via distance education, be it totally online, hybrid, or courses offered at the Chino Institute for Women, are housed in the same curriculum area on CurricUNET, however, separate data boxes have been provided for DE courses. This facilitates the disaggregating of data in order to compare SLO for face-to-face courses and distance education courses.

Closing the Loop

The most important step of the SLO process is using assessment results (aka Closing the Loop) to make improvement to programs, curriculum or services in order to improve student success. So what, exactly, constitutes “closing a loop?” The following list represents suggestions on ways to “close the loop” for instructional programs. This list is available under the help question mark ☰️ under Box 13 on the course SLO page in CurricUNET. This partial list includes the following:

- Modify your syllabus to spend more or less time covering a particular concept/topic
- Modify the Course Outline of Record for the course
- Modify the Course Outline of Record for the entire program of study
- Establish Pre-requisites or co-requisites
- Eliminate pre-requisites or co-requisites
- Add new material/topics/content
- Engage in professional reading in your field to check trends
- Engage in other professional development activities related to your teaching style
- Employ new technologies in your classroom
- Re-write your course SLOs
- Re-write your program SLOs
- Re-considered the effectiveness of your assessment tool
- Change your assessment tool
- Seek student input into the SLO process
- Modify your program review
- Request additional faculty or staff
- Request technology
- Spend more time thinking and discussing “student success” with your colleagues
- Review results and decided to assess in the same manner again
- Employ elements of Hope Theory
- Other

This list of “Closing the Loop” possibilities is not intended to be prescriptive, but rather to provide faculty guidance on how to close a loop. Items on the “other” list often include projects or initiatives, which have come out of Professional Development through the Faculty Success Center.

In Student Services programs, students are assessed at the most granular level at which they encounter the student service. Housing the data, analysis, and descriptions of resulting actions, occurs in a variety of locations, such as three-ring binders (a format the entire college utilized until 2010), attachments to each programs PSR report, or on the Institutional Research website (www.chaffey.edu/IR). As part of “Closing the Loop,” Student Services programs participate in an annual Poster Symposium to showcase SLO activities that have led to program improvements and the development of innovative practices.
SOFTWARE & COMPREHENSIVE ASSESSMENT REPORTS

CurricUNET Reports

The Outcomes and Assessment Committee (OAC) reviewed various SLO software packages in the spring 2011 and recommended to the Vice President of Instruction and Student Services that Chaffey work with CurricUNET, the college’s curriculum database management system, to add capabilities for housing the growing body of SLO data; the philosophy was to manipulate local tools strategically, rather than to throw new software (amid tight funding). As a result, the CurricUNET database management system has served the college for the storage and organization of most SLO data. Because the primary instructional SLO assessment occurs in the classroom at the course level, it seemed logical to attach course SLO evidence with the course outlines of record in CurricUNET.

In addition, to the structural framework, the OAC worked with CurricUNET staff to create the ability to run a series of reports that would allow assessment of course SLO progress. The reports, which can now be generated on a regular basis in CurricUNET, are shown below:

- Courses with SLOs
- Summary of Evidence Report
- Course Closing the Loop Report
- Upcoming SLO Assessment Report

These reports correspond to the 5 boxes of the Nichols Model (discussed above in Overview of SLO Assessment Process). As the college has progressed through the various stages of SLO implementation, some of these reports proved more useful than others. For instance, in the beginning of the SLO implementation in 2008, the report of note was the Courses with SLOs report. At the present time, however, all courses have SLOs and this report is not as important as the Courses Closing the Loop report. The first three CurricUNET reports have been used to generate program level monitoring reports for the OAC.

Future SLO Software

CurricUNET has served the college for the first 7 years of SLO activity, however, the college is looking beyond the capacities that CurricUNET can provide and, therefore, is planning to migrate to Taskstream within the next two years. A team of faculty are exploring the capabilities of Taskstream. Unlike our current SLO related pages in CurricUNET, Taskstream provides a more dynamic and integrative platform for SLO assessment implementation related to planning, assessments, analytics and reporting.
CAMPUS-WIDE ENGAGEMENT
Faculty and Student Learning Outcomes

In accordance with the shared governance model within the California Community College system, the requirements of accreditation standards as set forth by ACCJC, and common sense the SLO process at Chaffey College was developed by faculty for faculty, staff, and administrators.

The evolution of attitudes towards SLOs has been gradual. All participants have had to exercise considerable patience. Fear and anxiety lingered for a long time. Rumor and innuendo from other community colleges regarding ACCJC’s “intentions” fed the anxiety. However, the development of strategic SLO plan lent substance to the process and helped allay fear. Further, specific language in the faculty contract reflected administration’s desire to have the SLO process be one of discovery and improvement on campus, rather than one of intimidation and reprimand. Resistance to the SLO process, while not entirely eliminated, has gradually reduced because SLO processes have become more institutionalized and faculty have experienced the benefits of the SLO process. “Enthusiasm” and “fun” are words actually used by some faculty to describe the college’s current SLO process, something that would have been unthinkable over a decade ago when the College initiated efforts towards SLO assessment.

Faculty engage in robust, campus-wide discussions about the benefits and changes resulting from the SLO processes on campus. These discussions have occurred against a backdrop, statewide, concerning criticism of accreditation processes, including SLOs. Chaffey faculty have embraced the benefits of SLO assessment and reflection to student learning and student success but have found the housing of SLO evidence in CurricUNET laborious. As a result, the OAC and faculty are currently exploring Taskstream because they are looking for a software tool that streamlines data entry, analysis, and interpretation of results, which will take student learning and college planning where it has never gone before!

Administration and Student Learning Outcomes

Governance roles at Chaffey College facilitate decisions that support student learning programs and services, which ultimately contribute to the improvement of institutional effectiveness. Chaffey College realizes that ethical and effective leadership throughout the organization enable the college to identify institutional learning outcomes, values, as well as to set and achieve goals. The college president/superintendent’s oversight and participation in the SLO process, i.e., SLO “pep talks” during convocation, established a climate of interest, curiosity, and motivation for faculty. Likewise, the Associate Superintendent, who serves as the Chief Instructional Officer and the Accreditation Liaison Officer is similarly involved with the SLO process and provides the support to back-up established deadlines, SLO procedures and reports. The Dean of Instructional Support oversees the college’s SLO Co-facilitators and provides a vital liaison service between the SLO process and the other college’s deans. The dean maps out a yearly game plan with the SLO Co-Facilitators, all towards sustaining the SLO process. The college’s deans also provide support with individual programs and faculty to assure
Classified Staff and Student Learning Outcomes

It would be impossible for the college to sustain its SLO process without the support of its classified staff. Classified staff involved in student support services, instructional programs, and administrative services, assist in the SLO process. Classified staff members serve on the Outcomes and Assessment Committee, as well as on the Curriculum Committee, both of which play a major role in the SLO process at Chaffey College. Classified staff also plays a major role in Professional Development activities, such as fall and spring FLEX, at which time SLO activities and training are offered to the campus community at large. Beginning in Fall 2012, classified staff assist school deans in monitoring course syllabi from full time and part time faculty for the inclusion of course SLOs and some have also assisted school deans with reviewing chronological assessment plans to guarantee assessment deadlines are met.

Institutional Research and SLOs

Institutional Research (IR) plays a very important role in the SLO process at Chaffey College and has representatives on the Outcomes and Assessment Committee. IR has taken a central role in campus-wide assessment of the Core Competencies. Results for several rounds of this assessment at the institutional level were published as part of the College’s Did You Know publications. Copies of these documents are in the Appendices G-I. IR consults with programs in SLO assessment design and delivery. For example, they have worked closely with Student Services programs in their assessment process and presentation of results at the Student Services Poster Symposia that brings students, staff, faculty, and administrators together to discuss learning outcomes. Finally, IR has produced longitudinal reports that analyze campus-wide SLO progress.

Students and Student Learning Outcomes

Students are exposed to all levels of student learning outcomes. The college catalog contains the Core Competencies, which reflect the Hope/Growth Mindset campus-wide project. The college catalog also contains program SLOs for all instructional programs and certificates. The course syllabi contain the course SLOs. From the continuous SLO assessments and from the more robust dialogue among faculty, students benefit from the hundreds of “loops closed” which have resulted from course SLO assessment. The SLO process, as well as other college initiatives and projects, such as the First Generation College Student study (APPENDIX G Did You Know, v. 80, SP15), Hope & Mindset analysis (APPENDIX H Did You Know? V. 67, F13) and the study regarding the increase in economically disadvantaged student (APPENDIX I Did You Know?, v.74, SP14), demonstrate the College’s commitment towards gearing instruction and students services to the needs of continually changing student population.
SLOS & INSTITUTIONAL EFFECTIVENESS

SLOs and Ongoing Improvement

Institutional Effectiveness is the gold standard for California Community Colleges. The quest for institutional effectiveness includes components of planning, program review, and student learning outcomes, as well as other important cornerstones such as fiscal stability, equity and diversity, and sustainability. Underlying it all is the desire to help students succeed, to help them improve their lives, to achieve career pathways, and to accomplish “success” in whatever personal model that may represent.

How do we measure “institutional effectiveness?” In California, many constituents have many differing ideas. Legislators feel institutional effectiveness is embedded in various legislation and changes to Title S. The Chancellor’s Office looks at a Student Success Scorecard as one gauge of institutional effectiveness. ACCJC has concurred that several Student Success Scorecard momentum points also indicate institutional effectiveness. College administrators look to numbers of degrees conferred. Institutional researchers look to graduation rates, student persistence, and successful grades. The Business community looks at procurement of employment and salary increase. Faculty look to the learning centered environment where classroom success is measured. There are many different measurements, which can imply “institutional effectiveness,” and so it goes with the successful attainment of learning outcomes and “closing loops.”

The SLO process at Chaffey College has resulted in hundreds of changes, all pointed towards student success, and ultimately, “institutional effectiveness.” It is Chaffey College’s SLO philosophy that the successful completion of various course SLOs – the closing of the loops at the course level – collectively contributes to creating students who can communicate, both verbally, visually and written; critically think by analyzing, evaluating, questioning, computing, comparing and contrasting; are information literate and can scrutinize information and its sources; are active citizens who are globally aware of important social, ecological, economic and political issues; and students who can advance and sustain their own personal, academic and career development. The degree to which we are successful at Chaffey in creating graduates who exhibit these qualities is in some measurement, the degree to which we, as a college, are effective as an institution.

The College’s quest for Institutional Effectiveness is witnessed not only through the SLO process, but also through the processes of planning and program review. The Integrated Planning Model (IPM) is a visualization of the connectivity of the College’s processes of planning, review, learning and resource allocation and is the platform for institutional effectiveness (see figure on page 22). Beginning with college planning, the IPM demonstrates collaboration and shared governance in action.

The IPM also demonstrates the relationship of SLO processes to college planning and program review (see figure below) and highlights the ongoing, systematic and robust nature of program review to assess and improve student learning and achievement. The results of program review are used to continually refine and improve program practices resulting in appropriate improvements in student
achievement and learning. In addition, the Resource Allocation Committee (RAC) is the recipient of all the robust SLO dialogue, via program review, and incorporates the evaluation of a program’s SLO processes when making resource allocation decisions. For example, individual program review scores (which now include a component rating a program’s SLO processes and SLO documents) have been used to make decisions related to faculty hiring prioritization.

The College reviews and refines the program review processes to improve institutional effectiveness. There is dialogue about institutional effectiveness that is ongoing, robust and pervasive; data and analyses are widely distributed and used throughout the College. The College participates in ongoing review and adaptation of evaluation and planning processes in a consistent and continuous commitment to improving student learning; educational effectiveness is a demonstrable priority in all planning structures and processes. Overall, there is an abiding sense campus-wide that this IPM is integrated, sound, and transparent. The College is well equipped to continue its quest to achieve the gold standard!
SUSTAINABLE CONTINUOUS QUALITY IMPROVEMENT

Plans for the Future

Since Chaffey College’s initial forays into the student learning outcomes process in the years of the twenty-first century, much has changed locally at the College, statewide within the California Community College System and nationwide with challenges for higher college completion numbers and greater career readiness. The College has evolved a process of absorbing statewide mandates and local initiatives as a basis to inform and renew the College’s SLO process. The possibilities regarding uniquely informed reflective dialogue are exciting. Local initiatives such as the Hope/Growth Mindset campus-wide project and statewide initiatives and mandates such as the Student Success Initiative, Doing What Matters for Jobs and the Economy, Student Equity Planning, and Institutional Effectiveness Partnering Initiative will provide sounding boards for SLO discussions for both instructional programs and student services.

The College’s focus on the Hope and Growth Mindset, in the academic context, hope “reflects individual’s perceptions regarding their capacity to (1) clearly conceptualize goals, (2) develop the specific strategies to reach those goals (pathways thinking), and (3) initiate and sustain the motivation for using those strategies (agency thinking)” (Snyder, C. R., et al, 2003). Mindsets are formed out of our experiences and responses to praise, reward, failure, and our environment as they are filtered through an individual’s personalities. Students’ mindset is defined by how they think about their basic qualities (intelligence, talent, character, athleticism, etc.). If they believe these qualities don’t really change much, then they are operating with a fixed mindset. Students with a growth mindset believe these qualities can change with the right amount of effort, practice, process, knowledge, and strategy. Research has shown that people who approach a goal with a growth mindset are much more successful and happy in the long-term. The fusion of these theoretical perspectives with the College’s Core Competencies of communication, critical thinking and information competency, global and community awareness and academic, personal and career development, creates an exciting synergy. The College has measurement in place currently to measure Hope/Growth Mindset. How exciting it will be to overlay this data with data, which is in the process of being collected, through the College’s Core Competencies assessment, outlined previously in this report.

The statewide Student Success Taskforce (SSTF) examined best practices and effective models within higher education throughout the nation to improve educational achievements here in California. One of the many findings of the SSTF included key momentum points and “common measures of effectiveness” (which have been endorsed by ACCJC). The Student Success Scorecard is another byproduct of the SSTF. The previously outlined revised Core Competency assessment data will overlay data from the Student Success Scorecard at similar momentum points. In effect, the College is taking the finding of the Student
Taskforce, which includes best practices nationwide for higher education, and applying data collected from our campus community.

The strategy for the Statewide Doing What Matters for Jobs and the Economy is a major economic driver for Career and Technical programs. The strategy for “Doing What Matters” includes the following: Give priority for jobs and the economy; make rooms for jobs and the economy; promote student success; innovate for jobs and the economy. What better place to insert evidence-based decision rich with SLO data, along with industry analyses, to support this four-part strategy? Shared governance processes at the College, from planning to program review and curriculum have been geared up towards this four part strategy, in the attempt to be responsive and nimble in responding to industry demands. The SLO reflective dialogue in the College’s CTE areas will provide one more substantial piece of evidence as the College responds to “Doing What Matters.”

The Institutional Effectiveness Partnering Initiative stands ready to assist the College to develop, monitor, measure and implement a framework of data analysis and standards that will assist the College in setting the bar higher. This will speak to the College’s commitment to sustainable, continuous, quality improvement.

Now that the College has a well established SLO process, one that is rich with seven years worth of data, the next step will be to up the reflective dialogue phase of the SLO process, informed by these local and statewide projects and initiatives. With the planned migration to new SLO technology, the future is indeed intriguing.
APPENDIX A Curriculum Map Example (Cinema-Screenwriting)

Chaffey College Program Level SLO Curriculum Mapping Grid

Program Name: Screenwriting
Name of Primary Writer: Daniel Jacobo
Date Completed: Fall 2015

<table>
<thead>
<tr>
<th>Program Level SLOs</th>
<th>Enter your program level SLOs in the cells below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Courses in the Cells below</td>
<td>1. Upon the successful completion of the Screenwriting Certificate of Career Preparation, students will demonstrate professional and creative written expression as they apply to a television, motion picture or video production.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CINEMA 20</td>
<td>LP</td>
<td>LP</td>
<td>LP</td>
</tr>
<tr>
<td>CINEMA 25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CINEMA 26</td>
<td>LP</td>
<td>LP</td>
<td>LP</td>
</tr>
<tr>
<td>CINEMA 30</td>
<td>LP</td>
<td>LP</td>
<td>LP</td>
</tr>
<tr>
<td>CINEMA 96</td>
<td>LPM</td>
<td>LPM</td>
<td>LPM</td>
</tr>
</tbody>
</table>
APPENDIX B Core Competency Matrix Example (Physics)

Program Name: Physics  Prepared by: Mark Padilla
Semester: Fall 2015

Directions:

**Column 1.** Write one SLO in each row (samples on page 2). For most programs, 3-5 SLOs are recommended.

**Column 2.** Using the list of Core Competencies on pages 3 & 4, list the Core Competency or Core Competencies addressed by each SLO in each row.

<table>
<thead>
<tr>
<th>Student Learning Outcome</th>
<th>Core Competency (or Competencies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students completing the Physics program will be able to:</td>
<td></td>
</tr>
</tbody>
</table>
| 1. Apply concepts in physics, physics symbolism and language, and mathematical skills to solve problems in physics. | Communication  
Critical Thinking  
Academic & Career Development |
| 2. Demonstrate skill in scientific communication (both written and oral) and apply these skills to physical concepts, describing results of laboratory experiments, and providing technical information in a clear and concise manner. | Communication  
Critical Thinking  
Academic & Career Development |
| 3. Use experimental techniques in the laboratory environment to obtain accurate and precise data, to evaluate and validate scientific data, to correctly use scientific instruments, and use proper laboratory etiquette. | Communication  
Critical Thinking  
Academic & Career Development |
**APPENDIX C Chronological Assessment Plan (CAP) Example (Dance 2016 portion of CAP)**

<table>
<thead>
<tr>
<th>SPRING 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DANCE 1</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 1</em> (grade C or higher), survey of Dance students will analyze the cultural roles of dance and the historical, religious and social forces on the development of ballet, modern, and vernacular forms from primitive societies through the 21st century.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>pre and post test</td>
</tr>
<tr>
<td><strong>DANCE 20A</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 20A</em> (grade C or higher), modern dance students will demonstrate technical skills and styles of modern dance encompassing a combination of historical methodologies and/or repertoires of movement in efficient performance at beginning level.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 42</strong></td>
</tr>
<tr>
<td>Upon successful completion of <em>DANCE 42</em> (grade C or higher), dance promotion students will be able to perform choreography for a public performance communicating ideas and feelings using the body as a medium of expression.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>questionnaire – post test</td>
</tr>
<tr>
<td><strong>DANCE 44</strong></td>
</tr>
<tr>
<td>Upon successful completion of <em>DANCE 44</em> (grade C or higher), dance production students will be able to perform intermediate/advanced choreography for a public performance communicating ideas and feelings using the body as a medium of expression.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>questionnaire – post test</td>
</tr>
<tr>
<td><strong>DANCE 420</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 420</em> (grade C or higher), musical dance students will exhibit improved posture, self-confidence, coordination, and musicality, and be able to differentiate rhythmic variations of various ballroom styles.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 400</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 400</em> (grade C or higher), hip hop students will exhibit improved posture, self-confidence, strength, flexibility, coordination, body awareness, rhythmic awareness, and musicality by analyzing and solving rhythm and movement problems in individual and group performance.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMER 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FALL 2016</strong></td>
</tr>
<tr>
<td><strong>DANCE 10A</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 10A</em> (grade C or higher), jazz dance students will demonstrate technical skills of jazz dance encompassing the historical jazz techniques and styles in efficient performance at the beginning level.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 2</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 2</em> (grade C or higher), theatrical dance students will develop and practice movement skills with proper body alignment, placement, spatial awareness, body awareness, breathing, and connected movement habit control.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 7A</strong></td>
</tr>
<tr>
<td>Upon successful completion of <em>DANCE 7A</em> (grade C or higher), ballet students will demonstrate proper classical ballet body alignment and placement through technical skills of ballet arms and center exercises at beginning level.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 10B</strong></td>
</tr>
<tr>
<td>Upon successful completion of <em>DANCE 10B</em> (grade C or higher), jazz dance students will demonstrate technical skills of jazz dance based on a broader technical jazz dance vocabulary encompassing the historical jazz techniques and styles in efficient performance at the beginning-beginning level.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 50A</strong></td>
</tr>
<tr>
<td>Upon successful completion of <em>DANCE 50A</em> (grade C or higher), jazz dance students will demonstrate technical skills of jazz dance based on a broader technical jazz dance vocabulary encompassing the historical jazz techniques and styles in efficient performance at intermediate level.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 50B</strong></td>
</tr>
<tr>
<td>Upon successful completion of <em>DANCE 50B</em> (grade C or higher), jazz dance students will demonstrate greater application and embodiment of technical skills of jazz dance vocabulary encompassing the historical jazz techniques and styles in efficient performance at advanced level.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 30B</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 30B</em> (grade C or higher), modern dance students will manipulate advanced-beginning level modern dance techniques and design elements and compose movement phrases as expressive, communicative dance through individual and group problem-solving.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 40A</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 40A</em> (grade C or higher), modern dance students will manipulate intermediate-level modern dance techniques and design elements and compose movement phrases and combinations as expressive, communicative dance through individual and group performance.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
<tr>
<td><strong>DANCE 40B</strong></td>
</tr>
<tr>
<td>Upon the successful completion of <em>DANCE 40B</em> (grade C or higher), modern dance students will manipulate advanced-level modern dance techniques and design elements and compose movement phrases and combinations as expressive, communicative dance through individual and group performance.</td>
</tr>
<tr>
<td>ASSESSMENT:</td>
</tr>
<tr>
<td>embedded assessment</td>
</tr>
</tbody>
</table>
# APPENDIX D PSR SLO Instructional Program Rubric

## 2016 INSTRUCTIONAL PROGRAMS

### PSR SLO RUBRIC DRAFT (1/20/16)

<table>
<thead>
<tr>
<th>PROGRAM NAME:</th>
<th>SCORE</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>

#### Record points in score column

| PROGRAM SLOs (1 pt) | | |
|---------------------| | |
| Are there 3-5 Program SLOs for each degree and certificate? (1 pt) | | |

| CORE COMPETENCY MATRIX (1 pt) | | |
|-------------------------------| | |
| Is there a Core Competency Matrix for each degree and certificate? (.5 pt) | | |
| Does it contain the same SLOs listed on the PSR SLO page? (.5 pt) | | |

| CURRICULUM MAP (1 pt.) | | |
|------------------------| | |
| Is there a Curriculum Map for each degree and certificate? (.5 pt) | | |
| Does it contain the current SLOs? (.5 pt) | | |

| CHRONOLOGICAL ASSESSMENT PLAN (CAP) (3 pts) | | |
|-------------------------------------------| | |
| Is there a CAP attached? (.5 pt) | | |
| Does CAP include an assessment schedule for 6 future semesters (until Fall 2019)? (.5 pt) | | |
| Does CAP indicate which course SLO will be assessed each semester? (.5 pt) | | |
| Is the type of assessment indicated for each course SLO on the CAP? (.5 pt) | | |
| Is the rationale for how the "pacing" of their assessment schedule facilitates improvement well explained? (Question # 5 in PSR template) (1 pt) | | 0.5 pt = weakly explained; 1 pt = well explained |

| CLOSING THE LOOP--Course Level (2 pts) | | |
|----------------------------------------| | |
| SUMMARY OF RESULTS on the Curricunet course SLO pages: is the data box # 10 and/or 12 for DE filled in with data from at least 2 rounds of SLO assessment? (1 pt) | | 0 = course not yet assessed; 0.5 = one round of assessment; 1 = multiple rounds of assessment |
| USE OF RESULTS ( Box # 11 and/or 12 for DE) on the Curricunet course SLO pages: Is the loop closed in a meaningful way or does the conclusing statement indicate faculty are satisfied with results and nothing else? (1 pt) | | 0 = no response; 0.5 = brief response; 1 = meaningful use of results |
| Program Level Connections (2 pts) Template Question #7 | | 0 = no response; 1 = brief, cursory response; 2 = thoughtful connections made |

### TOTAL NUMERICAL SCORE:

Now, please translate this numerical score to a "PSR score" and enter that final number on the Review Team Summary Page.

PSR Score Translation: 90-100 = 3; 70-89 = 2; 60-69 = 1; below 59 = 0
2016 STUDENT SERVICES
SLO/AUO PSR Rubric DRAFT (Revised 1/20/16)

<table>
<thead>
<tr>
<th>PROGRAM NAME:</th>
<th>SCORE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record points in score column.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROGRAM SLOs (2 pts)**

Are there 3-5 Program SLOs? (1 pt)
Are these program SLOs adequate? (.5 pt.) and can they be reasonably measured? (.5 pt)

**CORE COMPETENCY MATRIX (1 pt)**

Is there a Matrix attached to the SLO page in PSR? (.5 pt)
Does it contain the same SLOs listed on the PSR SLO page? (.5 pt)

**CHRONOLOGICAL ASSESSMENT PLAN (CAP) (3 pts)**

Is there a CAP attached to the SLO page in PSR? (.5 pt)
Does CAP include an assessment schedule for 6 future semesters Until Fall 2019)? (.5 pt)
Does CAP indicate which program SLO will be assessed each semester? (.5 pt)
Is the type of assessment indicated for each course SLO? (.5 pt)
Is the rationale for how the "pacing" of their assessment schedule facilitates improvement well explained? (Question # 3 in PSR template) (1 pt)  
0.5 pt = weakly explained; 1 pt = well explained

**CLOSING THE LOOP (4 pts)**

**SUMMARY OF RESULTS:** How and when does your program review and share assessment results? (Template Question # 5) (2 pts)  
One round of review/assessment = 1 pt.; multiple rounds of review/assessment = 2 pts).

**USE OF RESULTS:** Has the program utilized SLO assessment results for program improvement? (Template Question # 6) (2 pts)  
Describes specific, concrete action plan (1 pt) which has been implemented (2 pts)

**TOTAL NUMERICAL SCORE:**

Now, please translate this numerical score to a "PSR score" and enter that final number on the Review Team Summary Page.  
PSR Score Translation: 90-100 = 3; 70-89 = 2; 60-69 = 1; below 59 = 0
APPENDIX F: CurricUNET Course SLO page

This figure shows the CurricUNET Learning Outcomes Page within the course checklist on CurricUNET. This illustration demonstrates the alignment between Core Competency (Critical Thinking), program SLO (Distinguish question that can be addressed scientifically from those that cannot, and identify basic components of the scientific method), and the course SLO (Distinguish questions that can be addressed scientifically from those that cannot, and identify basic components of the scientific method as it pertains to human heredity). This figure also shows the boxes which align with the five column Nichols Model.
Did You Know?

This issue’s topic: First Generation Students at Chaffey College

Overview: Beginning in the Fall 2014 semester, Chaffey College began reporting the education level of the parent(s)/guardian(s) of students to the California Community College Chancellor's Office (CCCCCO). However, these data are currently only reported for students in special populations as defined by the CCCCCO. Starting in Fall 2015, this information will be reported for all enrolled students for the purpose of identifying first generation status. While these data are not yet widely available for all students, a large proportion of Chaffey students have reported their parents’ highest level(s) of education when participating in the assessment process. These data were matched with data of students enrolled during the 2013-14 academic year for an approximation of the proportion of Chaffey College students who have first generation status.

Methodology: Utilizing the college’s Chancellor’s Office Management Information System (COMIS) referential data files, the Office of Institutional Research (OIR) identified students who were enrolled at any point during the 2013-14 academic year (Summer 2013, Fall 2013, Spring 2014 semesters). After unduplicating COMIS and assessment data by student ID, the two files were merged to identify approximately 82% of students enrolled during AY 2013-14 who had data regarding parent education level. First generation status was identified for those students who reported parents’ highest level of education as High School Diploma or Less Than High School Diploma. A measure of effect size known as Cohen’s $d$ was used in this research to compare the percentages of first-generation students in measured categories. Common interpretation of this statistic considers a $d$ of .20 to be a small effect, $d$ of .50 a medium effect, and $d$ of .80 or higher a large effect. Effect sizes of .20 or larger are generally considered meaningful differences within the field of educational research.

Findings: Of the 21,839 students with enrollment records for 2013-14 who also had data on their parents’ highest education level, approximately 44.8% were classified as first generation status (Figure 1).

Fig. 1: First generation status of students with relevant data who were enrolled at Chaffey College in 2013-14

Figures 2 and 3 show the proportions of students who have first generation status by gender and economically disadvantaged status, respectively. A taller bar indicates that more students are in that demographic category; for example, in Figure 2, the bar for females is taller as there were more female students ($n = 12,136$) enrolled during 2013-14 than male students ($n = 9,005$). Similarly, the majority of Chaffey College students are identified as economically disadvantaged, as evidenced by the taller bar for that group in Figure 3. The split in colors in Figures 2 and 3 reflect the percentage of students in that group that are first generation versus not first generation students.

Figure 2 illustrates that females are almost equally likely to be first generation (47.6%) as not first generation (52.4%), whereas male students are less likely to be first generation students (41.2%) than not (58.8%). While this difference in proportions was significant, the effect size for the difference between 47.6% first generation females and 41.2% first generation males was small ($d = 0.13$). Figure 3 illustrates that students who are not economically disadvantaged are less likely to be first generation (31.0%) than not (69.0%), while students who are economically disadvantaged are almost equally likely to be first generation (50.2%) or not (49.8%). This difference in proportions (31% versus 50%) was significant, with a moderate effect size ($d = 0.39$).
Fig. 2: First generation status for Chaffey College students enrolled in 2013-14 by gender

Fig. 3: First generation status for Chaffey College students enrolled in 2013-14 by economically disadvantaged status

The most notable finding came from an evaluation of first generation status rates by ethnicity (Figure 4), which resulted in a medium effect size of $d = 0.68$. This effect size reflects the fact that Hispanic students were significantly more likely to be first generation students (57.6%) than non-Hispanic students (24.6%; $p < .001$).

Fig. 4: Ethnicity of Chaffey College students enrolled in 2013-14 by first generation status

If you have any questions or comments about this brief, please contact Danielle Pearson at danielle.pearson@chaffey.edu or (909) 652-6471.
APPENDIX H Did You Know?, volume 67, Fall 2013

Did You Know?

This issue's topic: Observed Differences in Hope and Mindset by Select Student Demographic Characteristics

Overview: The Office of Institutional Research maintains a longitudinal assessment database that extends back to July 2nd, 2001 (the first day of computerized assessment testing using the College Board Accuplacer platform) and is current through September 15th, 2013. Currently, the assessment database contains 142,535 records, generated by 122,426 unduplicated individuals. In addition to capturing data on assessment test scores (mathematics, English, reading, and English as a Second Language), course placement recommendations, student demographic characteristics, and educational background data, Chaffey College has recently begun capturing data at the point of assessment on various cognitive and affective traits. Starting July 27th, 2011, the District began capturing Adult Trait Hope Scale data. Starting March 17th, 2013, the Mindset Scale was added to the assessment process. This volume of "Did You Know?" examines Hope and Mindset scale scores by select student demographic characteristics.

Methodology: Restricting analyses to the date range that corresponds to the addition of the Mindset Scale to the assessment process (i.e., March 17th, 2013 through September 15th, 2013), 7,473 assessment records were generated by 7,156 unduplicated individuals. Reported findings are restricted to: a) the first assessment test session generated by the 7,156 unduplicated individuals; and b) individuals who were actively enrolled in one or more sections as of the first day of the Fall 2013 semester. Applying the second criteria, 3,918 students were included in subsequent analyses. All assessed students generated scores for both the Adult Trait Hope and Mindset Scales. Each scale contains eight items:

- **Adult Trait Hope Scale**: Among the eight scale items, four items address agency (the motivation to move toward one’s goals), while four address pathway (ability to identify ways to achieve those goals). Individuals were asked to respond to each scale item on an eight-point Likert scale (8 = Definitely true; 1 = Definitely false), generating a total Hope Scale score ranging from 8 (low hope) to 64 (high hope) (4-32 for subscales).

- **Mindset Scale**: Among the eight scale items, four items address growth mindset (intelligence can be developed), while four address fixed mindset (intelligence is static). Individuals were asked to respond to each scale item on a five-point Likert scale. Growth mindset items were positively coded (5 = Strongly Agree; 1 = Strongly Disagree), while fixed mindset items were negatively coded (1 = Strongly Agree; 5 = Strongly Disagree); thus, a lower fixed mindset scale score would denote that the individual was more likely to have a fixed mindset. This coding results in a growth mindset generating a higher scale score, while a fixed mindset would result in a lower scale score. Combined, the total Mindset Scale ranged from 8 (fixed mindset) to 40 (growth mindset) (4-20 for subscales).

Findings: The table below identifies mean Hope and Mindset subscale and total scale scores by select student demographic characteristics. In addition to the “core four” student demographic characteristics typically referenced by the California Community College Chancellor’s Office in equity reporting (i.e., race/ethnicity, gender, disability, and age), the Office of Institutional Research also examined the primary language that students reported speaking at home and first generation college student status.

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>N</th>
<th>Hope Scale</th>
<th>Mindset Scale</th>
<th>Fixed*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td>Agency</td>
<td>Pathway</td>
<td>Total</td>
<td>Growth</td>
</tr>
<tr>
<td>African American</td>
<td>473</td>
<td>27.11</td>
<td>27.00</td>
<td>54.11</td>
<td>15.81</td>
</tr>
<tr>
<td>Asian</td>
<td>209</td>
<td>26.03</td>
<td>25.98</td>
<td>52.00</td>
<td>15.29</td>
</tr>
<tr>
<td>Caucasian</td>
<td>749</td>
<td>27.36</td>
<td>27.34</td>
<td>54.70</td>
<td>15.70</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2,063</td>
<td>27.25</td>
<td>26.28</td>
<td>52.88</td>
<td>15.61</td>
</tr>
<tr>
<td>Other</td>
<td>323</td>
<td>27.25</td>
<td>26.92</td>
<td>54.17</td>
<td>15.57</td>
</tr>
<tr>
<td>Unknown/No Response</td>
<td>101</td>
<td>26.54</td>
<td>26.69</td>
<td>53.24</td>
<td>15.39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1,823</td>
<td>26.47</td>
<td>26.76</td>
<td>53.22</td>
<td>15.80</td>
<td>13.73</td>
<td>29.53</td>
</tr>
<tr>
<td>Female</td>
<td>2,085</td>
<td>27.15</td>
<td>26.50</td>
<td>53.65</td>
<td>15.48</td>
<td>13.98</td>
<td>29.46</td>
</tr>
<tr>
<td>Unknown/No Response</td>
<td>10</td>
<td>24.50</td>
<td>25.80</td>
<td>50.30</td>
<td>15.20</td>
<td>12.90</td>
<td>28.10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disability Status</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No Identified Disability</td>
<td>3,617</td>
<td>26.92</td>
<td>26.70</td>
<td>53.62</td>
<td>15.66</td>
<td>13.96</td>
<td>29.61</td>
</tr>
<tr>
<td>Identified Disability</td>
<td>301</td>
<td>25.67</td>
<td>25.64</td>
<td>51.31</td>
<td>15.26</td>
<td>12.72</td>
<td>27.98</td>
</tr>
<tr>
<td>Demographic Characteristic</td>
<td>N</td>
<td>Hope Scale</td>
<td>Mindset Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------</td>
<td>------------</td>
<td>---------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agency</td>
<td>Pathway</td>
<td>Total</td>
<td>Growth</td>
<td>Fixed*</td>
<td>Total</td>
</tr>
<tr>
<td><strong>Age Range</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 or Younger</td>
<td>2,552</td>
<td>26.90</td>
<td>26.41</td>
<td>53.31</td>
<td>15.47</td>
<td>13.50</td>
<td>28.96</td>
</tr>
<tr>
<td>20 to 24</td>
<td>706</td>
<td>26.99</td>
<td>27.08</td>
<td>54.07</td>
<td>15.93</td>
<td>14.28</td>
<td>30.21</td>
</tr>
<tr>
<td>25 to 29</td>
<td>265</td>
<td>26.10</td>
<td>26.95</td>
<td>53.05</td>
<td>16.04</td>
<td>14.48</td>
<td>30.52</td>
</tr>
<tr>
<td>30 to 39</td>
<td>232</td>
<td>26.48</td>
<td>27.10</td>
<td>53.58</td>
<td>15.84</td>
<td>14.99</td>
<td>30.83</td>
</tr>
<tr>
<td>40 to 49</td>
<td>105</td>
<td>26.62</td>
<td>26.76</td>
<td>53.38</td>
<td>15.64</td>
<td>14.98</td>
<td>30.62</td>
</tr>
<tr>
<td>50 or Older</td>
<td>58</td>
<td>26.60</td>
<td>26.71</td>
<td>53.31</td>
<td>16.10</td>
<td>15.40</td>
<td>31.50</td>
</tr>
<tr>
<td><strong>Primary Language</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Only</td>
<td>2,523</td>
<td>26.90</td>
<td>26.78</td>
<td>53.68</td>
<td>15.69</td>
<td>14.06</td>
<td>29.76</td>
</tr>
<tr>
<td>English and Another Language About the Same</td>
<td>1,270</td>
<td>26.69</td>
<td>26.44</td>
<td>53.12</td>
<td>14.59</td>
<td>13.56</td>
<td>28.15</td>
</tr>
<tr>
<td>Another Language</td>
<td>110</td>
<td>26.95</td>
<td>25.15</td>
<td>52.09</td>
<td>14.45</td>
<td>12.55</td>
<td>27.00</td>
</tr>
<tr>
<td>Unknown/No Response</td>
<td>15</td>
<td>25.80</td>
<td>25.93</td>
<td>51.73</td>
<td>15.80</td>
<td>14.53</td>
<td>30.33</td>
</tr>
<tr>
<td><strong>First Generation Student</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1,146</td>
<td>26.85</td>
<td>26.47</td>
<td>53.32</td>
<td>15.63</td>
<td>13.74</td>
<td>29.37</td>
</tr>
<tr>
<td>No</td>
<td>2,772</td>
<td>26.82</td>
<td>26.68</td>
<td>53.50</td>
<td>15.62</td>
<td>13.91</td>
<td>29.53</td>
</tr>
</tbody>
</table>

*Lower fixed subscale score denotes a fixed mindset.

In order to examine the main and interactive effects of the aforementioned variables, classification and regression tree (CART) modeling was applied. This statistical technique is useful in situations in which the overall goal is to divide a population into segments that differ with respect to a designated criterion (e.g., Hope or Mindset Scale score). CART modeling initially identifies the primary (i.e., best) predictor variable, conducting a splitting algorithm that further identifies additional statistically significant predictor variables and splits these variables into smaller discrete subgroups. CART modeling merges categories of a predictor variable that are not significantly different. This merging, combined with the splitting algorithm, ensures that cases in the same segment are homogeneous with respect to the segmentation criterion, while cases in different segments tend to be heterogeneous (and statistically significantly different \( \rho < .05 \)) with respect to the segmentation criterion. As it pertains to the current study, CART modeling was employed to identify specific student populations that had the highest and lowest Hope and Mindset total and subscale scores.

**Hope - Total Scale (primary predictor variable: Race/Ethnicity)**
- **Highest Score**: Caucasian students without an identified disability (54.98; \( n = 681 \)); Other Ethnicity or Unknown Ethnicity students who are female (54.76; \( n = 221 \))
- **Lowest Score**: Hispanic students with an identified disability (50.72; \( n = 134 \)); male Asian students (50.83; \( n = 106 \))

**Hope - Agency Subscale (primary predictor variable: Disability Status)**
- **Highest Score**: Students without an identified disability who were Caucasian, 19 or younger, and female (28.27; \( n = 213 \))
- **Lowest Score**: Students without an identified disability who were Asian and male (25.21; \( n = 98 \)); students with an identified disability (25.56; \( n = 301 \))

**Hope - Pathway Subscale (primary predictor variable: Race/Ethnicity)**
- **Highest Score**: Other Ethnicity or Unknown Ethnicity students whose primary language is English and who are 20 years of age or older (28.09; \( n = 110 \)); Caucasian students without an identified disability (27.48; \( n = 681 \))
- **Lowest Score**: Other Ethnicity or Unknown Ethnicity students whose primary language is not English (25.63; \( n = 107 \)); Hispanic students 20 years of age or older who are female (25.78; \( n = 755 \))

**Mindset - Total Scale (primary predictor variable: Age Range)**
- **Highest Score**: Students 20-29 years of age without a disability whose primary language is English (31.06; \( n = 559 \)) and who are female (31.33; \( n = 438 \)); students 30 years of age or older (30.87; \( n = 385 \))
- **Lowest Score**: Students 20-29 years of age with an identified disability (27.59; \( n = 77 \)); students 19 years of age or younger with an identified disability (27.68; \( n = 190 \))

**Mindset - Growth Subscale (primary predictor variable: Age Range)**
- **Highest Score**: Students 20 years of age or older who speak English or English and another language about the same (15.00; \( n = 1,292 \))
- **Lowest Score**: Students 20 years of age or older who speak a language other than English (14.39; \( n = 74 \))

**Mindset - Fixed Subscale (primary predictor variable: Age Range)**
- **Highest Score** (less likely to be fixed mindset): Students 20-29 years of age without an identified disability whose primary language is English and who are Caucasian (15.55; \( n = 160 \)); students 30 years of age or older whose primary language is English (15.38; \( n = 275 \))
- **Lowest Score** (more likely to be fixed mindset): Students 20-29 years of age with an identified disability (12.37; \( n = 77 \)); students 19 years of age or younger with an identified disability (12.48; \( n = 190 \))
APPENDIX I Did You Know?, volume 74, Spring 2014

Did You Know?

This issue's topic: Increase in the Number of Economically Disadvantaged Students Served by Chaffey College

Overview: As part of Student Success Scorecard reporting, the California Community College Chancellor’s Office recently established an operational definition for economically disadvantaged. Employing this operational definition, the Office of Institutional Research retroactively applied this criteria to prior year California Community College Chancellor’s Office Management Information System (MIS) data to: a) identify trends in the number of economically disadvantaged students served by Chaffey College; and b) determine whether economically disadvantaged status was more/less pronounced among select student populations based upon demographic, educational background, or other characteristics.

Methodology: In addition to gender, race/ethnicity, age, and disability status, the California Community College Chancellor’s Office has recently included economically disadvantaged status in both Student Success Scorecard and Equity Plan reporting. Utilizing MIS data elements, the Chancellor’s Office designates students as economically disadvantaged if they meet one or more of the following criteria:

- Receive a BOGW financial aid award (MIS data element SF21 (Student-Aid-Award-Type))
- Receive a PELL Grant financial aid award (MIS data element SF21 (Student-Aid-Award-Type))
- Are eligible to participate in the CalWORKs program (MIS data element SC01 (CalWORKS-Eligibility-Status))
- Are participants in the Workforce Investment Act (WIA) program (MIS data element SB26 (Student-WIA-Status))
- Are enrolled in at least one career technical education (CTE) course and are identified as economically disadvantaged (MIS data element SV03 (Student-VTEA-Economically-Disadvantaged-Status)). Identification of economically disadvantaged status occurs through the student:
  - Receiving CalWORKs/TANF/AFDC assistance
  - Receiving Supplemental Security Income (SSI) program assistance
  - Receiving General Assistance (GA)
  - Being identified as “Other” economically disadvantaged. At Chaffey, this occurs through the Career Technical Education (Perkins IV) Survey that is disseminated in all career technical education sections every semester. “Other” economically disadvantaged status is identified through a self-reported marital status/dependent children under 18/income matrix that is matched to the U.S. Department of Health and Human Services annual poverty guidelines.

The Chancellor’s Office has also entered into a special agreement with the California Department of Social Services (DSS) to perform a system-wide data match. While individual community colleges are unable to replicate this step, data from recent Perkins allocation criteria reporting (Perkins Title I-C) suggests that this step adds less than 1/10 of 1% to the unduplicated economically disadvantaged student headcount.

Utilizing the MIS data elements identified by the California Community College Chancellor’s Office to designate students as economically disadvantaged, the Office of Institutional Research retroactively applied this criteria to the 114,758 unduplicated students enrolled in the 2003-04 through 2012-13 academic years, updating economically disadvantaged status annually for students enrolled across multiple academic years.

Findings: Figure 1 identifies the number and percentage of unduplicated Chaffey College students who were identified as economically disadvantaged annually (Summer, Fall and Spring semesters) from 2003-04 through 2012-13. As figure 1 indicates, from 2003-04 through 2008-09, the percentage of students who were identified as economically disadvantaged remained relatively static, ranging from approximately 30-41% of the total unduplicated student headcount. Corresponding with the economic crisis that affected California and the nation, the number of Chaffey College students who were identified as economically disadvantaged began to increase in 2009-10, rising to approximately 67.5% of the unduplicated student population by 2012-13. In 2012-13, over 15,000 Chaffey College students were identified as economically disadvantaged.
Examining the 2012-13 unduplicated student population, the Office of Institutional Research also investigated whether select student populations were more/less likely to be identified as economically disadvantaged based upon demographic, educational background, or other self-reported characteristics. The Office of Institutional Research examined: gender; race/ethnicity; age; disability status; enrollment status; residency status; international student status; foster youth status; primary language; self-reported high school GPA; self-reported parent education level; planned employment hours; years out of school; and first generation college status. In order to examine the main and interactive effects of these variables, classification and regression tree (CART) modeling was applied. This statistical technique is useful in situations in which the overall goal is to divide a population into segments that differ with respect to a designated criterion (e.g., economically disadvantaged status). CART modeling initially identifies the primary (i.e., best) predictor variable, conducting a splitting algorithm that further identifies additional statistically significant predictor variables and splits these variables into smaller discrete subgroups. CART modeling merges categories of a predictor variable that are not significantly different. This merging, combined with the splitting algorithm, ensures that cases in the same segment are homogeneous with respect to the segmentation criterion, while cases in different segments tend to be heterogeneous (and statistically significantly different \( p < .05 \)) with respect to the segmentation criterion. As it pertains to the current study, CART modeling was employed to identify specific student populations that were most/least likely to be identified as economically disadvantaged.

In examining the aforementioned variables, parent education level loaded as the primary predictor variable for economically disadvantaged status. The table below identifies the percentage of students by self-reported parent education level who were identified as economically disadvantaged.

<table>
<thead>
<tr>
<th>Self-Reported Parent Education Level</th>
<th>Percentage of Students Who Were Economically Disadvantaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than High School Diploma</td>
<td>79.8%</td>
</tr>
<tr>
<td>High School Diploma</td>
<td>74.1%</td>
</tr>
<tr>
<td>Some College</td>
<td>67.8%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>61.2%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>51.6%</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>44.8%</td>
</tr>
</tbody>
</table>

Examining additional "branches" that emerged from the CART model, subgroups within parent education level were further identified who were more/less likely to be identified as economically disadvantaged. Identified subgroups were:

More likely to be economically disadvantaged

- Female students whose parents had less than a high school degree (82.2%)
- First generation female students whose parents possessed a high school diploma (78.3%)
- Students 20 years of age or older whose parents had some college experience (76.4%)

Less likely to be economically disadvantaged

- Male students whose parents possessed a Bachelor's Degree (47.4%)

If you have any questions or comments about this brief, please contact Jim Fillpot at jim.fillpot@chaffey.edu or (909) 652-6460.