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Touro University Student Learning Outcomes (SLOs)

In May, draft copies of Touro University's SLOs were disseminated to members of the Steering Committee for review. Comments from this review process, along with recommendations from the Directors of Institutional Research, guided further revisions. At the June 10th meeting, the Steering Committee revised the SLOs into the following working list:

Touro University students will demonstrate the ability to:

1) Apply knowledge from their discipline in a context reflecting real, complex situations in their profession
2) Think critically to make evidence-informed decisions and evaluate conclusions
3) Communicate effectively with a variety of audiences
4) Act in a professional and ethical manner
5) Serve the needs of their communities
6) Collaborate with colleagues across disciplines
7) Access and evaluate information
8) Commit to lifelong learning

Each of these SLOs seems to contain two core components:

1) Apply knowledge from their discipline in a context reflecting real, complex situations in their profession

To meet this SLO: Students should demonstrate knowledge of the basic principles of their discipline
Students should be placed in situations reflecting the complexity of real professional practice (reflecting cultural, gender, socioeconomic, ethical, contextual, historical, and/or political factors)

2) Think critically to make evidence-informed decisions and evaluate conclusions

To meet this SLO: Students should make decisions based on synthesis, analysis, or evaluation of evidence
Students should evaluate the validity of evidence, decisions, or conclusions.

3) Communicate effectively with a variety of audiences

To meet this SLO: Students should demonstrate the ability to transfer information and listen carefully
Students should demonstrate effective communication with a variety of (diverse) audiences

4) Act in a professional and ethical manner

To meet this SLO: Students' actions should demonstrate professional behaviors
Students' actions should demonstrate ethical behaviors

5) Serve the needs of their communities

To meet this SLO: Current students can demonstrate this through service projects or behaviors indicating commitment to service
Graduates can demonstrate community service

6) Collaborate with colleagues across disciplines

To meet this SLO: Students should demonstrate positive interactions with colleagues across disciplines
Students should demonstrate positive outcomes from these interactions

7) Access and evaluate information

To meet this SLO: Students should demonstrate the ability to access information (possibly using technology)
Students should demonstrate the ability to evaluate information

8) Commit to lifelong learning

To meet this SLO: Current students can demonstrate this through behaviors indicating commitment
Graduates can demonstrate this through activities demonstrating this commitment

Common Score Scale & Descriptors

While individual programs make many decisions regarding the assessment of these SLOs (specific assessment instruments, scoring procedures, administration methods, etc.), it was agreed that Touro University would benefit by having all assessment results reported on a common score scale. Based on recommendations from the Steering Committee, a review of rubrics used by external organizations, and the information needs of the University, the following score scale was developed:

1) Below expectations
2) Approaching expectations
3) Meets expectations
4) Exceeds expectations

The score scale labels show that student performance will be scored in comparison to sets of expectations; therefore, these expectations must be clearly defined and disseminated to all stakeholders. Initially, we considered defining these expectations at the level of performance we expect from Touro University graduates. Thus, the performance of students at all levels (including students in the initial stages of their programs) would be compared to the performance we would expect from students completing each program. Because this would severely reduce the utility of the score scale, we later considered comparing student performance to our expectations for students at the *same point in their careers*. Thus, the score scale was clarified with the following score scale descriptors:

1) Below expectations: Student performance is regularly below expectations for students at this level. Substantial improvement is needed in all aspects of this SLO.
2) Approaching expectations: Student performance is below, yet approaching the expectation for students at this level in at least one aspect of this SLO. Student performance requires some improvement to meet expectations.
3) Meets expectations: Student performance in all aspects of this SLO regularly meets expectations for students at this level.
4) Exceeds expectations: Student performance regularly exceeds expectations for students at this level in some aspects of this SLO (and meets expectations in all aspects of this SLO).

Individual programs, through their choice of assessment instruments and scoring criteria will further define expectations for students at all levels. These expectations will be shared and discussed with all stakeholders (program administrators, faculty, students, and accreditation bodies).

As an example, consider a program that assesses SLO #1 through an external standardized test and an evaluation of a simulated physical examination. The program could choose to define the score scale for students at this level as follows:

	External standardized test	Simulated clinical experience
1) Below expectations	Student composite score is below 200, indicating a severe lack of basic knowledge across all areas.	Student was unable to perform a complete physical examination or write the report.
2) Approaching expectations	Student composite score is below 400, indicating a developing level of basic knowledge.	Student was able to perform a complete physical examination, but the report was inaccurate (or minor mistakes were made)
3) Meets expectations	Student composite score is above 400, indicating proficiency in basic knowledge expected for students at this level.	Student was able to correctly perform a complete physical examination & write an acceptable report.
4) Exceeds expectations	Student composite score is above 600, indicating mastery of basic knowledge or Student composite score is above 500 and at least one subscore is above 600.	Student was able to correctly perform a complete physical examination and write a superior report.

Minimum Assessment Standards

While each program specifies the best methods with which to assess the SLOs, some standardization will facilitate assessment planning, data collection, and reporting of results. The following standards are recommended for the assessment of Touro SLOs:

Frequency of assessment

While students may not be able to fully attain our desired outcomes until graduation, it is important to continually monitor student progress. Thus, performance on each SLO will be assessed at three levels in each student's career:

1) Baseline Level: Student performance on the SLO will be assessed early-on in their programs. This assessment typically will occur sometime during/following introductory coursework/experiences, although it may also occur during the admissions process. Student performance will be compared to program- and University-wide expectations for students at this introductory point.

2) Developmental Level: Student performance on the SLO will be assessed during the developmental period of their time at Touro University. Typically, this will occur near the mid-point of their progress through the program. Student performance will be compared to program- and University-wide expectations for students during this developmental period.

3) Mastery Level: Student performance on the SLO will be assessed before and after graduation. Student performance will be compared to program- and University-wide expectations for Touro University graduates and entry-level professionals.

Number of assessment instruments

Because assessment instruments differ in quality and scope, a strict number of instruments needed to adequately assess each SLO cannot be mandated across programs. Programs will need to assess each SLO using as many instruments as they need to confidently (reliably) classify students into one of the four categories of the score scale.

At a minimum, programs will assess each SLO at each level using results from at least two instruments. Programs will administer at least one additional instrument at the mastery level to assess the performance of alumni. Programs will be encouraged to use additional instruments at each level to assess each SLO.

While programs will be required to administer multiple assessments to students at each level, results from those assessments may be combined in order to report a single score for each student at each level (see *Minimum data collection and reporting standards*).

Assessment quality

Programs can choose to assess student performance on each SLO using a variety of methods and instruments. In order to ensure decisions made from assessment data are valid, programs will work to evaluate and document the technical quality of the assessment instruments they use to assess each SLO. This includes evaluating assessment instruments in terms of their content (comprehensiveness, alignment, and relevance), reliability (over time, forms, or raters), fairness, efficiency, usefulness and their relationship to other measures of performance on the SLO.

Evaluating the quality of assessment instruments requires a great deal of time and resources. Therefore, whenever possible, information from test developers or external researchers will be sourced as evidence of assessment quality. When this information is not available (for internally developed assessments), programs will provide or develop plans to collect evidence of the quality of their chosen assessment instruments.

Assessment types

Assessments are often classified into many different dichotomies (direct/indirect; formative/summative; objective/subjective; criterion-/norm-referenced; formal/informal; performance/written; standardized/classroom; selected-/constructed-response; internal/external), with claims made that certain types of assessment are inherently superior to other types. Programs are encouraged to remain flexible in choosing assessment procedures/instruments.

The following three guidelines are intended to assist programs in choosing the types of assessment that best measure student performance:

1) Assessment instruments with documented evidence of quality will be preferred to instruments with little/no available evidence of quality.

2) Whenever possible, programs will assess SLOs at each level using information from at least one *direct measure of student performance*. Ideally, both assessments at each level would be direct measures. Information from these direct measures may be supplemented by information from *indirect measures*.

3) Preference will be given to assessment instruments allowing comparisons of student performance to external norms/criteria.

Definitions:

Direct measures: Assessments based on an analysis of *actual student behaviors or products*. Examples include analyses of written tests, essays, portfolios, presentations, performances, and simulations.

Indirect measures: Assessments based on an analysis of *reported perceptions about student performance*. Typically, indirect measures provide indicators of achievement rather than evidence of actual student achievement. Examples include surveys (of students or supervisors), interviews, and focus groups.

While indirect measures do not provide reliable evidence that SLOs have been achieved, they do provide useful information regarding student perceptions, satisfaction, and engagement. This information is important to collect, analyze, and use.

The following table summarizes the minimum assessment standards. Keep in mind that additional assessments may be needed to confidently place students within one of the four score categories.

Level	When to assess?	Which instruments?
Baseline	During or following introductory coursework/activities (possibly admissions)	1. A direct measure (if possible) 2. A high-quality measure
Developmental	Near the midpoint of the program	1. A direct measure (if possible) 2. A high-quality measure
Mastery	Near the end of the program. After graduation (immediately and/or at regular intervals)	1. A direct measure (if possible) 2. A high-quality measure 3. A post-graduation measure

Minimum data collection and reporting standards

Ideally, all assessment data would be reported at the student-level and integrated into the student information system. This would require programs to collect scores from each individual student on each assessment of each SLO. With this data, student progress could be monitored over time. The following table demonstrates the information that would be collected for a single SLO over the course of each student's career (scores represent the 1-4 scale within each level):

Assessment data collected for a single SLO over a student's career

	Baseline		Developmental		Mastery			
	Measure 1	Measure 2	Measure 1	Measure 2	Measure 1	Measure 2	Post-Graduation	Post-Grad 2
Student 1	Year: 2006 Score: 2	Year: 2006 Score: 3	Year: 2007 Score: 2	Year: 2007 Score: 2	Year: 2008 Score: 3	Year: 2008 Score: 3	Year: 2009 Score: 2	Year: 2014 Score:
Student 2	Year: 2006 Score: 3	Year: 2006 Score: 3	Year: 2007 Score: 4	Year: 2007 Score: 4	Year: 2008 Score: 4	Year: 2008 Score: 3	Year: 2009 Score: 4	Year: 2014 Score:
…	Year: Score:	Year: Score:	Year: Score:	Year: Score:	Year: Score:	Year: Score:	Year: Score:	Year: Score:

Since Touro University is at the beginning stages of the assessment process (and since assessment of SLOs will be phased-in over time), this level of data collection and reporting may not immediately feasible (especially if any classroom-level assessments or anonymous surveys are used). Rather, this level of data collection and reporting will be the standard we will strive for in the future. Even at the initial stages of our assessment process, programs should collect assessment data at the level of the individual student whenever possible.

During the initial stages of the assessment process, the minimum data collection standards for a single academic year will be as follows:

1) Each program will assess the identified SLOs at all three levels (baseline, developmental, mastery) during the academic year

2) Each program will report the number of students scoring in each category of the score scale on each assessment of the identified SLOs

The following table demonstrates the minimally-acceptable amount of information that would be collected for a single SLO over the course of a single academic year:

Minimal assessment data collected for an identified SLO over the course of a single academic year

	Baseline		Developmental		Mastery			
	Measure 1	Measure 2	Measure 1	Measure 2	Measure 1	Measure 2	Post-Graduation	Post-Grad 2
Year: 2009	# below # approach # meets # exceeds	# below # approach # meets # exceeds	# below # approach # meets # exceeds	# below # approach # meets # exceeds	# below # approach # meets # exceeds	# below # approach # meets # exceeds	# below # approach # meets # exceeds	# below # approach # meets # exceeds

While this data would not be useful in monitoring individual student performance over time, it could be use to assess and monitor programmatic and university performance (as we transition into collecting and reporting student-level assessment data).

The Directors of Institutional Research, working with academic program directors and staff from Information Technology, will develop a student tracking file to aid in the collection, maintenance, analysis, and reporting of assessment data. This tracking file will contain the student-level assessment data for each SLO (along with other useful student achievement information).

University-wide vs. programmatic assessment

In order to maximize the usefulness and minimize the intrusiveness of assessment, programs have primary responsibility for assessing their students. It is recommended that program faculty, staff, administrators, and students work together to shape, guide, and drive assessment activities (with university-wide administration providing essential support).

The Directors of Institutional Research are primarily responsible for developing a framework for University-wide assessment, including the development of assessment plans, standards, calendars, and language; systems to facilitate the collection, analysis, and reporting of assessment data; forms and reports to document assessment activities; and systems and criteria with which to evaluate university assessment activities. The Directors are also responsible for providing essential support to programmatic assessment efforts, including support in the development of new assessments, the evaluation of current assessments, and in the analysis/reporting of assessment data.

Individual programs are primarily responsible for designing, implementing, and using assessments. This includes choosing or developing effective assessment procedures; administering assessments and collecting data; and disseminating, discussing, and using assessment results. Programs, working within the standards set in this document, choose the frequency of assessment, the modes of assessment, and the criteria (expectations) against which student performance will be evaluated.

Though the process is decentralized, assessment results will be integrated into University-wide planning and assessment effectiveness will be evaluated at the institutional level (see *Evaluation of Assessment*). Also, whenever it would benefit the University, common items may be integrated into assessment instruments and/or common assessment instruments (such as teaching effectiveness, student satisfaction, faculty/staff, or alumni surveys) can be administered across programs.

Embedded assessment system

As a way to help validate results from other assessments or as a supplementary assessment of any SLO, programs may choose to implement the *embedded assessment system*. This embedded assessment system uses instructors' judgments to evaluate and score student performance on any particular SLO.

In its simplest form, this system asks an instructor to determine the number of students earning scores of 1, 2, 3, or 4 (unacceptable through exceeding expectations) on an SLO based on student performance in the instructor's course. The instructor will also be asked to document the evidence (assignments, tests, activities, projects, etc.) used to determine scores for students.

As an example, consider an instructor who was asked to complete this embedded assessment system for SLO #6 (communicate effectively with a variety of audiences). At the end of the course, this instructor reviews scores earned by students on an assigned paper and an assigned presentation. Based on these scores, the instructor believes 3 students scored at the unacceptable level, 7 scored below expectations, 20 met expectations, and 5 exceeded expectations. This instructor would then report these results along with a brief description of the paper and presentation assignments used to determine these scores.

Later, results from this embedded assessment system could be compared to results obtained from other, more direct measures of student performance as evidence of the quality of those direct measures. Also, the descriptions of evidence used in scoring students (the paper and presentation, in this example), could be reviewed to validate this embedded assessment system. Finally, samples of student work could be collected from this system to help define expectations for students at each level of assessment.

Course grades and/or GPA

Course grades typically represent many factors outside any one particular SLO. Because of this, course grades and/or student GPAs are not recommended as measures of student performance on the Touro University SLOs. Programs will be allowed to use course grades if they can document evidence that course grades do represent student performance on any particular SLO (and do not include many other irrelevant factors).

Assessment template

To assist programs in planning and documenting their assessment activities, an assessment template was developed (see *Appendix A: Assessment Template*). Programs completing this document will have documented compliance with these minimum assessment standards. This template will also be a major component of the annual updates completed by programs (see *Evaluation of programmatic assessment*).

Assessment Calendar

Ideally, student performance on every SLO would be assessed every year. This will only happen once assessment is integrated into the normal activities of our faculty, staff, and students.

Scheduled rotation of SLOs

The following table shows the timeline for assessing all 8 SLOs:

SLO	1	2	3	4	5	6	7	8
2009-10	X	X						
2010-11	X	X	X	X				
2011-12	X	X	X	X	X	X		
2012-13	X	X	X	X	X	X	X	X
2013-14	X	X	X	X	X	X	X	X

As we initiate this assessment process during the 2009-10 academic year, we will concentrate our efforts on assessing SLOs 1-2. Each year after, we will assess two additional SLOs until 2012-13, until we will reach the point where we assess every SLO every year. Following the 2013-14 academic year, the entire assessment process can be comprehensively evaluated for usefulness and efficiency.

Note: The WET Team will identify which SLOs will be assessed each year after consulting with program directors.

University and programmatic surveys

Until assessment is embedded within normal operating activities, one concern is that students, faculty, and staff may become overwhelmed with assessments (specifically, surveys). This concern was voiced recently as the *Student Satisfaction*, *Graduating* Student, *Food Service*, *WASC*, *Smoking/Tobacco Policy*, and other programmatic surveys were administered to faculty, students, and staff over the course of one month. This overabundance of surveys may lead to respondent fatigue, leading to reduced response rates or less thoughtful responses.

One way in which this problem will be addressed is through an analysis of all programmatic surveys administered regularly to faculty and students. In determining what information programs currently collect from students and faculty, this analysis will provide opportunities to reduce survey burden by eliminating redundancies in these surveys. As a result of this analysis, it may be possible to embed common, institution-wide items into the various programmatic surveys, thus reducing the number of surveys administered to students.

Detailed assessment calendar

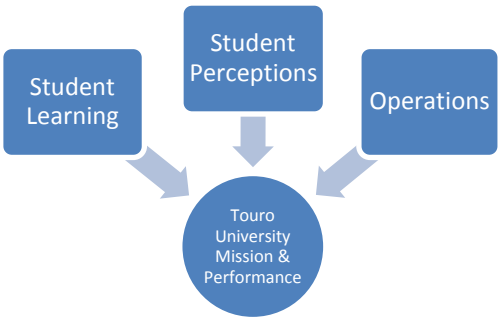
Once the assessment process has been implemented (and programs have documented the assessment instruments they will administer to assess each SLO), a detailed assessment calendar will be developed and disseminated. Ideally, the calendar will display the following:

- Due dates for all assessment documentation (assessment plans, score reports, etc.)
- Administration dates for all assessments of that year's SLOs
- Dates when assessments are collected/scored and when results are reported/discussed (if available)
- Dates when university and programmatic assessment activities are evaluated (see *Evaluation of Assessment*)
- Administration dates for any other university and programmatic assessment activities
- Dates when annual assessment reports will be published

The assessment calendar will be disseminated to program directors before the beginning of the academic year.

Evaluation of Assessment

To demonstrate an institutional commitment to outcomes and to ensure assessment leads to self-improvement, the assessment process will be evaluated at the institutional level. A comprehensive evaluation of assessment activities would review three facets of institutional assessment:



While assessment of these facets has been ongoing, evaluation of the quality of these assessment processes has not yet been formalized. A formal assessment evaluation would not only ensure compliance with minimum assessment standards, but also investigate:

1. The quality of stated outcomes
2. The quality of the chosen assessment instruments/procedures
3. The quality of standards/criteria/expectations with which to compare student performance
4. The actual results from the assessment process
5. Uses of those results to make improvements

The following table displays the evidence of assessment that is readily available for each facet. The table also proposes structures with which this evidence could be used to evaluate the quality of the assessment process.

Facets of Institutional Assessment		Evidence of assessment	Evaluation of assessment
Student Learning	Touro University SLOs	1. *Touro University Assessment Plan* 2. *Annual Touro University Assessment Reports*, including assessment templates completed by each program 3. Program reviews & annual assessment updates	1. Peer review; comprehensive evaluation conducted every 5 years by Directors of Institutional Research. 2. WASC Accreditation; comprehensive evaluation conducted every 3-5 years by Directors of Institutional Research. 3. Program review process
	College/Program SLOs	1. Programmatic accreditation reports 2. Completed assessment templates 3. Program reviews & annual assessment updates	1. Accreditation process 2. Program review process 3. Program review process; curriculum retreats
	Course SLOs	1. Course syllabi, outcomes, assessment results; samples of student work 2. Results from teaching effectiveness process	1. Within-program reviews; curriculum retreats; program review process 2. Teaching effectiveness council
Student Perceptions	Satisfaction	1. Results from institutional-level student satisfaction, graduating student, alumni surveys 2. Results from program- or college-level student satisfaction surveys 3. Student services data; retention reports	1. Comprehensive evaluation conducted every 3-5 years by Directors of Institutional Research 2. Program review process; curriculum retreats 3. Co-curricular unit review process
	Engagement	1. Course and instructor evaluations 2. Participation in student activities or service opportunities	1. Program review process; curriculum retreats; teaching effectiveness council 2. Co-curricular unit review process; program review process
Operations	College/Program	1. Strategic planning documents	1. Strategic planning process
	Co-curricular Units	1. Strategic planning documents 2. Co-curricular unit reviews	1. Strategic planning process 2. Co-curricular unit review process; enrollment/retention/completion reports
	Employees	1. Results from faculty/staff satisfaction surveys; salary comparison reports; productivity reports 2. Faculty/staff/administration evaluations	1. Comprehensive evaluation conducted every 3-5 years by Directors of Institutional Research 2. Evaluation process

While some of these evaluation systems are already in place (WASC and programmatic accreditation; curriculum retreats; within-program reviews) or proposed earlier in this assessment plan (comprehensive evaluation of institutional assessment every 3-5 years), other systems (program review process; annual assessment updates; co-curricular unit review process) need to be developed. The following sections outline proposals for these evaluations systems.

Evaluation of institutional-level assessment

The evaluation of institutional-level assessments occurs, primarily, through three systems: (a) internal and peer evaluations of this assessment plan; (b) comprehensive evaluations of the entire assessment process; and (c) evaluations of institutional-level assessment instruments.

Internal and peer-reviews of this assessment plan

The quality and feasibility of the university assessment plan, along with an evaluation of how well the plan fits within the culture and activities of Touro University, will be evaluated primarily through internal and peer reviews. The initial draft of the assessment plan will be disseminated to members of the WASC Steering Committee for review and modification. Once the Steering Committee has agreed on a draft, the assessment plan will be shared with an external evaluator for further comment.

Once the assessment plan has been finalized and implemented, the plan will continue to be evaluated regularly (every 3-5 years) during the comprehensive evaluations of the assessment process.

Comprehensive evaluation of the assessment process

As the *Assessment Calendar* displayed, the entire assessment process will undergo a comprehensive evaluation during years 5 and 9 (once each SLO has been assessed 1 and 2 times, respectively). The Directors of Institutional Research will synthesize information from the implemented assessment plan and lead the evaluation process. When possible, external evaluators will assist in the evaluation process.

While the major purposes of the comprehensive evaluation are to ensure minimum standards are being met and assessment results are being used to make informed improvements, the comprehensive evaluation will also gauge the quality of Touro University SLOs, the quality of criteria/expectations used for scoring, and the documented quality of assessment instruments administered to students. The evaluation will determine the extent to which the assessment process comprehensively and efficiently assesses all Touro University SLOs. The evaluation will also report longitudinal results from the assessment process. Because of this, the evaluation will heavily rely on the assessment templates and assessment updates completed by programs each year (see *Evaluation of programmatic assessment*).

This evaluation, which will inform future modifications to the assessment process, may also survey faculty, staff, and students to determine the degree to which Touro University has developed a culture of assessment.

Final reports from this comprehensive evaluation will be shared with the Provost, the Academic Council, and be made available (internally or, possibly, publicly) online.

Evaluations of institutional-level assessment instruments

As mentioned earlier (see *University-wide vs. programmatic assessment*), common (institution-wide) assessment instruments, assessment methods, or common items embedded in instruments may be administered to students across programs whenever it would benefit the assessment process. Some of these common assessments may include student satisfaction surveys, graduating student surveys, alumni surveys,

faculty/staff surveys, or methods/instruments to assess SLO #7 (collaboration with colleagues across disciplines).

The Directors of Institutional Research will hold primary responsibility for evaluating these common assessments. These evaluations will include documenting evidence of the quality of these assessments, documenting results from these assessments, and proposing improvements to these assessments. These evaluations will be included in the comprehensive evaluation of the assessment process.

Evaluation of programmatic assessment

Two procedures are used to document and evaluate programmatic assessment efforts: annual updates and comprehensive program reviews.

Annual Updates

Each fall, programs will submit an annual update to the Directors of Institutional Research (see Appendix A: Assessment Template). The update will identify 2 or more goals on which programs focused their assessment efforts. While at least two goals must focus on student learning outcomes, other goal(s) may focus on programmatic efforts in areas such as instruction, research, service, infrastructure, funding, and personnel.

For each goal in the upcoming academic year, programs will identify at least two measures they will use to assess performance. The programs will provide a brief description of the measures and provide information regarding the quality of each measure. Programs will also identify criteria by which they will evaluate their performance on each goal.

At the end of the academic year, programs will report the results from their chosen measures and reflect on those results in comparison to their chosen criteria. In summarizing programmatic activities for the completed academic year, programs will describe their major accomplishments, critical factors for success, and barriers to success. Programs will also begin the next annual assessment cycle by identifying goals, measures, and criteria for the upcoming academic year.

As we work to implement the institutional assessment plan, it will be expected that programs select institutional SLOs as two of their annual goals. Programs will be free to select any additional program-specific goals based on recommendations from accrediting agencies, recommendations from program reviews (see Program Reviews), or results from previous years' assessments.

Once annual updates have been collected from each program, the Directors of Institutional Research will review and evaluate the institution's progress in assessment. This evaluation will include examinations of:

1. The quality of stated outcomes
2. The quality of the chosen assessment instruments/procedures
3. The quality of standards/criteria/expectations with which to compare student performance
4. The actual results from the assessment process
5. Uses of those results to make improvements (decisions based on evidence)

As a result of this evaluation, Directors of Institutional Research may choose to meet with programs to discuss potential improvements to the assessment process.

Program Reviews

In addition to annual updates, all programs at Touro University are subject to systematic program review. The program review process is designed to evaluate and enhance the quality of academic programs through a focus on student learning outcomes, evidence-based decisions, and integration with institutional planning.

While programs document their assessment efforts and student learning outcomes in annual updates, the program review process provides for a more comprehensive evaluation of programmatic student learning outcomes. The program review process includes evaluations of the quality of program student learning outcomes, the quality of the methods used to assess achievement of these outcomes, the quality of the criteria used to measure performance, and a reflection on assessment results over a multi-year period.

This reflection on assessment results allows for programs to make evidence-based conclusions regarding their performance and evidence-based decisions in proposing major programmatic changes or in requesting resources. These evidence-based decisions and requests are then shared with the Provost and integrated with the planning and budgeting processes.

The Touro University program review process consists of 4 key components: an external review, a self-study, a faculty-driven review process, and a report of final findings and recommendations. These components align with fundamental institutional concerns regarding program accreditation, the assessment of Touro University SLOs, program improvements, and strategic planning.

External (Accreditation) Review

With the exception of the TUN College of Education, every program at Touro University is accredited by an external agency. Because of the importance of continuing programmatic accreditation, reports prepared for, or resulting from, external accreditation activities play a major role in the program review process.

Prior to the formal Program Review, externally accredited programs will be required to submit the following information to the Program Review Committee:

1. Accreditation status
    a. Name of accrediting agency
    b. Date of most recent accreditation action

2. Recommendations from accrediting agency (an accreditation action letter, recommendations from the accrediting agency, or a summary of key issues as a result of the accreditation process)

3. Response to recommendations from accrediting agency
    a. An action plan for programs to fulfill these recommendations, including a timeline and resources needed for fulfillment.
    b. Evidence demonstrating progress made in meeting accrediting agency recommendations

Programs not accredited by external agencies are encouraged to find external evaluators.

Self-Study Report

Prior to the formal Program Review, programs will be required to submit a Self-Study Report to the Program Review Committee. The Self-Study Report consists of an analysis of some of the following information collected since the last program review:

1. Introduction
    a. Program mission and how it relates to the institutional mission
    b. Major changes since the last program review
    c. Program goals and student learning outcomes

2. Program Effectiveness
    a. Student profile summary
        i. Any information deemed critical by the program or Program Review Committee to understand the profile of students and its relationship to the program mission or goals. Examples of student profile information include enrollment trends, distributions of student gender/ethnicity/age, GPA from previous institution, admissions interview/test scores, and student employment status.
    b. Curriculum and Instructional Effectiveness
        i. Any information deemed critical by the program or Program Review Committee to demonstrate the quality of the curriculum offered by the program. Evidence of curriculum quality may include a curriculum flowchart (description of how the curriculum addresses programmatic student learning outcomes), a comparison of the program's curriculum with curricula at other institutions, a comparison of the program's curriculum with professional standards, reports from curriculum retreats, examples of course syllabi (with student learning outcomes), or results from student/faculty surveys.
        ii. Any information deemed critical by the program or Program Review Committee to demonstrate the quality of instruction. Evidence of instructional quality may include course evaluation results, peer evaluations of teaching, faculty self-evaluations, faculty scholarship on issues of teaching and learning, reports from programmatic discussions of instruction.
        iii. Any information deemed critical by the program or Program Review Committee to demonstrate the quality of other learning experiences provided by the program. Evidence of this may include participation rates or evaluations of clinical experiences, internships, or research experiences.
    c. Student Learning & Success
        i. Programs will submit all annual updates completed since the last program review. This will provide the Program Review Committee with a list of measures used by the program to assess Touro University SLOs, results from those measures, the degree to which students achieve these SLOs, and uses of these assessment results.
        ii. Programs will submit student retention and completion rates (disaggregated by demographic categories)
        iii. Programs will submit an analysis of the results of direct and indirect assessments of student learning in the program, including the degree to which students achieve the program's standards.
        iv. Any information deemed critical by the program or Program Review Committee to demonstrate the achievement of programmatic student learning outcomes. Evidence of this may include licensure/certification exam scores, grade distributions by course, trends

in program GPAs, job placements, placement of graduates into continuing education programs, employer evaluations of graduates' preparation, graduating senior survey results, alumni survey results, or alumni achievements.

d. Faculty Accomplishments
    i. Any information deemed critical by the program or Program Review Committee to demonstrate the qualifications and achievements of the faculty in relation to program mission and goals. Evidence of this may include records of scholarship activity, list of faculty specialties within discipline (and how those specialties align with the program mission), teaching quality (peer- or self-evaluations), external funding awarded to faculty, record of professional practice, faculty service activities, distribution of faculty across ranks (or years experience at institution), diversity of faculty, or awards/recognition.

3. Evidence of program viability and sustainability
    a. Demand for the program
        i. Any information deemed critical by the program or Program Review Committee to demonstrate an ongoing demand for the program. Evidence of this may include trends in the number of student applications or admission rates. Evidence may also include an analysis of what is happening within the profession, local community, or society generally that identifies an anticipated need for this program in the future.
    b. Allocation of resources
        i. Faculty
            1. Any information deemed critical by the program or Program Review Committee in demonstrating sufficient resources necessary to maintain program quality. Possible information includes number of full-time faculty, ratio of full-time to part-time faculty, student-faculty ratios, faculty workload, faculty review/evaluation processes, mentoring processes, professional development opportunities, professional development resources (including travel funds), or release time for course development/research.
        ii. Student Support
            1. Any information deemed critical by the program or Program Review Committee in demonstrating sufficient resources necessary to maintain program quality. Possible information includes academic advising programs/resources, tutoring/remediation programs, orientation/transition programs, financial support (scholarships, fellowships, etc), support for engagement in the campus community, support for emotional/psychological/physical interventions.
        iii. Information and technology resources
            1. Any information deemed critical by the program or Program Review Committee in demonstrating sufficient resources necessary to maintain program quality. Possible information includes library print/electronic holdings in the program areas; technology resources available to support programmatic instruction, research, and student needs.
        iv. Facilities
            1. Any information deemed critical by the program or Program Review Committee in demonstrating sufficient resources necessary to maintain program quality. Possible information includes classroom space, instructional labs, research labs, office space, student study space, access to classrooms suited for instructional technology.

v. Financial resources
    1. Any information deemed critical by the program or Program Review Committee in demonstrating sufficient resources necessary to maintain program quality. Possible information includes the program operational budget and trends since the last program review.

4. Summary Reflections
    a. An interpretation of the findings from the analysis of program evidence, including program strengths, weaknesses, and opportunities for improvement. Examples of questions to be addressed include: (a) Are the curriculum, practices, processes, and resources properly aligned with program goals? (b) Are program goals aligned with the goals of the constituents the program serves? (c) Is the level of program quality aligned with the University's and students' acceptable levels of program quality? (d) Are program goals being achieved? (e) Are student learning outcomes being achieved at the expected level?

5. Future goals and proposals
    a. A list of the program's goals for the next few years. These goals should align with what was learned through the self-study and external review reports. If possible, measures and criteria should be specified for each goal in order to track progress.
    b. An explanation of how the program intends to achieve these goals. Examples of questions to be addressed include: (a) How will the program specifically address any weaknesses identified in the self-study? (b) How will the program build on existing strengths? (c) What internal improvements are possible with existing resources (through reallocation)? (d) What improvements can only be addressed through additional resources? (e) Where can the formation of collaborations improve program quality?
    c. A list of any formal proposals the program would like to make in order to meet its goals. The proposals should be clearly supported by information reported in the external review and self-study.

Relationship between the Self-Study Report and External (Accreditation) Reviews

While the above list of information to be reported in the self-study seems long, programs are reminded of the following:

1. Programs are not required to report *all* of the above information in their self-studies. Programs are only required to report: the introduction, completed annual update forms, retention/completion rates, an analysis of the results from assessment of program goals, and a list of future goals and proposals. Other information should only be reported according to the following guidelines:
    a. The program deems the information critical in evaluating its performance
    b. The Program Review Committee deems the information critical for all programs to report

2. Programs are encouraged to submit reports developed as part of their accreditation process as their program review self-study. No formal template or format is required for the self-study, so programs can submit materials from their accreditation process. Programs may need to supplement these accreditation materials with additional information they (or the Program Review Committee) deems critical.

3. Upon request, the Office of Institutional Research will assist programs in identifying sources of critical information and analyzing/reporting data. As the program review process is implemented, the Office

of Institutional Research will work to provide a standard data report for all programs completing a program review.

Faculty-Driven Review Process

To capitalize on the work already being done by programs, program reviews are scheduled in coordination with each program's accreditation cycle. Immediately following the initial review by its accreditation agency, programs will submit the following materials to the Director of Institutional Research:

a) The *External Review* (accreditation status, recommendations, and response to recommendations; page 14)
b) The *Self-Study* (including any additional information deemed necessary by the Program Review Committee; pages 15-17)

Within 2 weeks, the Director of Institutional Research will forward these materials, along with a collection of the annual updates (page 13) submitted by the program since its last review, to the Program Review Committee (PRC) for review.

The PRC is a committee composed of faculty from each College and the Director of Institutional Research. The PRC by-laws, approved by the Faculty Senate, detail the committee's composition and procedures.

Members of the PRC will review these materials and invite the College Dean, Program Director(s), and program faculty to present their materials at a program review meeting. During this meeting, program representatives will walk through and address questions about the program's mission, goals, self-study information, and future goals/proposals. The program representatives may then be dismissed as the PRC discusses the adequacy of the information presented.

Based on this discussion, the PRC will make a decision regarding the program review. The PRC may make one of the following decisions:

1. Accept the program review as complete and adequate. The PRC will notify the College Dean, Program Director(s), and Provost of this decision within 2 weeks following the program review meeting and begin developing its *Formal Findings & Recommendations Report*.

2. Accept the program review pending additional information. If the program review is incomplete or a small amount of critical information is missing, the PRC will notify the College Dean and Program Director(s) within 2 weeks following the program review meeting of the additional information needed and establish a date by which the additional information must be submitted to the PRC. Once this additional information is submitted, the PRC will notify the Provost and begin developing its *Formal Findings & Recommendations Report*. If the required additional information is unable to be reported in a timely manner, the program will submit to the PRC a strategic plan detailing how the required information will be collected and reported in its next program review. Once this strategic plan is submitted, the PRC will notify the Provost and begin developing its *Formal Findings & Recommendations Report*.

3. Reject the program review as being incomplete or inadequate. If the program review is incomplete (large amounts of missing information; no future goals provided) or inadequate (program

goals/outcomes are poorly developed, external accreditation recommendations are ignored, decisions/conclusions are not supported by the data reported), the PRC may decide to reject the program review. The PRC will notify the College Dean, Program Director(s), and Provost of this decision within 2 weeks following the program review meeting. The program will then develop and submit to the PRC a strategic plan detailing how the program will complete an adequate program review by the end of the next academic year.

Following the program review, programs will submit a copy of their final accreditation report to the PRC for review. This will allow the PRC to schedule, and determine if any additional information will be required, for the next program review.

Formal Findings & Recommendations Report

Once a decision has been made, the PRC begins developing a *Formal Findings & Recommendations Report*. This report summarizes the PRC's evaluation of the recently completed program review. In this report, the PRC may decide to include:

- A holistic evaluation of the program review
- Suggestions for improving program goals, measures, criteria, or other self-study components
- Comments about the program's progress in meeting recommendations from its accrediting agency
- Suggestions for improving the program's effectiveness, including potential collaborations with other programs
- Concerns about the impact of future proposals
- A list of steps to be taken (or additional information desired) in preparation for the next program review

The report may also contain a *Recommendations for Administration* section whereby the PRC may suggest ideas for budgeting and strategic planning.

The *Formal Findings & Recommendations Report* will be submitted to the College Dean, Program Director(s), and Provost within 4 weeks following the completed program review. The Director of Institutional Research will also keep a copy of this report to inform the strategic planning process.

Program Review Evaluation

At least twice a year, the PRC will meet to discuss and evaluate the program review process. As a result of these discussions, the PRC may decide to modify the program review process (change the calendar/timeline or require additional information from all programs). The PRC will also meet to discuss the development of a rubric by which to evaluate program reviews for completeness and adequacy. The Director of Institutional Research will lead the PRC in the development of this rubric.

Other Duties of the PRC

In addition to conducting program reviews, the PRC will also be responsible for reviewing proposals for new programs. An outline of this process can be found in the *Program Review Committee By-Laws* for each campus.

Evaluation of co-curricular assessment

All academic and co-curricular units at Touro University assess their performance as they contribute to student achievement of the SLOs. The evaluation of co-curricular assessment takes place primarily through each office's strategic planning process.

The following sections briefly discuss the strategic planning process for several co-curricular units:

Student Services

During regular strategic planning meetings, Directors of the following co-curricular unit offices meet to review office missions, goals, objectives, accomplishments, and challenges:

- Academic Support Services
- Admissions
- Alumni Relations
- Bursar
- Registrar
- Financial Aid
- Student Health & Counseling Services
- Student Promotion and Discipline

For each goal, the Directors identify measures and criteria they will use to evaluate their performance. These goals, measures, and criteria then become the basis for the next strategic planning meeting.

These meetings culminate in the development of a multi-year *Student Services Strategic Plan* which lists broad, long-term goals and specific, shorter-term objectives across all Student Service offices. The Strategic Plan also identifies timelines with which to complete the objectives and estimated costs for completion.

The *Strategic Plan* is reviewed and updated annually by the office Directors through a three-stage process. During the first stage, the office Directors determine which, if any, of the objectives need to be eliminated from the *Strategic Plan* (either because the objective has been met or has now become irrelevant). In the second stage, the Directors discuss actions to be taken in the next academic year in an effort to meet the remaining objectives. For the third stage, the Directors identify new objectives they believe will improve their efforts to meet University needs.

In addition to internal co-curricular goals and objectives, the Directors also discuss ways in which they contribute to the Touro University SLOs. In addition to contributing to the SLOs by attracting students to TU, guiding students through the application process, courting students through the matriculation process, ensuring students are adequately financed, registering students for classes, and following-up on students throughout their academic and professional careers, the co-curricular Directors identified specific contributions to the SLOs. These specific contributions appear in the *Core Commitment to Educational Effectiveness Report of Touro University*.

Information Technology

Similar to the process used by offices within Student Services, the IT Department at TUC has begun a strategic planning and review process focused on student achievement. Using the institutional SLOs as a starting point, the planning process begins by working with the Academic Council and academic programs to identify the most effective pedagogical strategies to help students meet the SLOs. Once these strategies have been identified, the IT Department works to help academic programs identify current and desired technologies that assist with

those strategies. Finally, the IT Department works to evaluate the current infrastructure and resources compared to those needed to support the SLOs. This framework, in addition to the existing strategic goals and outcomes assessments, allows the IT Department to evaluate its performance in assisting student learning.

Other Co-Curricular Units (Strategic Planning)

Other co-curricular units, including Administrative Affairs (communications, facilities, administration, food service), the Fiscal Department, Human Resources, and the Library, conduct evaluations of their assessment during annual strategic planning updates. Each year, these offices review their current strengths, weaknesses, opportunities, and threats; evaluate progress made on short-term goals, objectives, and tasks; and develop new short-term objectives. These co-curricular units update their mission statements and long-term goals regularly as part of the institutional strategic planning process. The last major draft of the institutional strategic plan was developed in November of 2008 and revised in October of 2009.

As with the academic program annual updates, the evaluation of co-curricular assessment is primarily a responsibility of the co-curricular unit Directors, the Dean of Students, and the Director of Institutional Research. Each year, academic and co-curricular *Strategic Plans* will be submitted to the Director of Institutional Research for review. As a result of this review, the Directors of Institutional Research may meet with co-curricular units to discuss potential improvements to the assessment process.

Evaluation of course-level assessment – Teaching effectiveness

Evaluations of course-level assessment will occur at two levels. The first level is within each program, as programs conduct internal reviews, curriculum retreats, course evaluations and accreditation reports. The second (slightly less direct) level is at the institutional level, as instructors participate in the teaching effectiveness evaluation process. While a description of this process falls outside the scope of this assessment plan, a simple description of the course evaluation survey process can be beneficial.

The Nevada Campus (TUN) has employed a centralized course evaluation system. At the end of each term, the Office of Institutional Research administers a course evaluation survey to students in all academic programs. In July of 2009, the Director of Institutional Research revised the survey items for clarity and alignment with the institutional mission/vision.

The California campus (TUC), not having an Office of Institutional Research until the 2009-10 academic year, developed a decentralized course evaluation system. At the end of each term, academic programs administered their own course evaluation surveys to their own students. This year, the Director of Institutional Research has discussed the relative merits of administering centralized, decentralized, or third party course evaluation surveys (such as the IDEA or SIR II instruments) with the institutional Academic Council. These discussions continue as the campus looks to implement a course evaluation survey that provides information useful for both evaluation and professional development.

Uses of Assessment

Because of their significance in the annual update and program review processes, and because the Directors of Institutional Research play significant roles in assessment and strategic planning, SLO assessment results will guide programmatic and institutional strategic planning processes. Trends in student performance may allow for the identification of relative strengths and weaknesses within the institution or program that can inform SWOT analyses. Score trends may also help guide resource allocation to address particular areas of student achievement.

In order to maximize the usefulness of SLO assessment results, analysis and reporting systems must be developed. Ideally, assessment results would be available to all decision-makers for analysis and reporting. As we work to improve our capacity for storing, querying, reporting, and analyzing institutional data, we can begin by identifying our information needs and methods of analysis.

Annual Educational Effectiveness Review

Appendix C: Indicators of Effectiveness lists data that can be collected, analyzed, and reported annually to demonstrate institutional effectiveness. The list was compiled from an analysis of IPEDS, WASC, programmatic accreditation agency, and program review recommendations. As we continue implementing this assessment plan, the program review process, and the strategic planning process in preparation for programmatic and institutional accreditation, this list will be modified to identify all the measures and metrics we will use to determine effectiveness.

Once the list has been more fully developed, the indicators displayed in Appendix C can be reported in an *Annual Educational Effectiveness Review*. This document, which could be presented at the beginning of each academic year to all faculty and staff, would allow the institution to reflect on its effectiveness and help initiate the institutional strategic planning process.

Publishing data

Internally, the results from SLO assessments will be available through the Annual Updates completed by each program; the self-studies and *Formal Findings & Recommendations* reports completed during the program review process; and the various programmatic and institutional accreditation reports.

Data for external audiences will be published on accreditation and Institutional Research areas of the institutional website. To determine what data will be published, the Directors of Institutional Research have synthesized information from WASC recommendations and samples of other institutional fact sheets.

Appendix A: Assessment Template

Campus: Choose a campus… **College:** Type name of College. **Program:** Type name of program.

SLO #1: Apply knowledge from their discipline in a context reflecting real, complex situations in their profession
Assessment Level: Baseline

- Measure #1: Instrument name administered when to whom.
  Assessment type: (direct vs indirect); (allows for external comparisons?)
  Evidence of quality: (Provide any evidence of the instrument's quality. You can also point to where this information can be found. If no information is available, outline any concerns you have about the quality and briefly describe what steps can be taken to document instrument quality.)
  Logistics: (Briefly describe how data from this instrument will be collected, analyzed, and disseminated.)
  Criteria: (Explain the criteria/expectations by which you evaluate student performance. How do you place students into the 4 score categories? If an external rubric is available, state where this rubric may be found.)
  Uses: (Provide an example of how information from this instrument was used for improvement or provide a brief explanation of how scores from this instrument will be used.)
  Results: Cohort: _#_ Below _#_ Approaching _#_ Meets _#_ Exceeds expectations
  Additional results: (If you've discovered any interesting results from this instrument, briefly explain here. Examples: subgroup comparisons, trends, comparisons to external norms, correlations with other instruments.)

- Measure #2:
  Assessment type:
  Evidence of quality:
  Logistics:
  Criteria:
  Uses:
  Results:
  Additional results:

Assessment Level: Developmental

- Measure #1:
  Assessment type:
  Evidence of quality:
  Logistics:
  Criteria:
  Uses:
  Results:
  Additional results:

- Measure #2:
  Assessment type:
  Evidence of quality:
  Logistics:
  Criteria:
  Uses:
  Results:
  Additional results:

Assessment Level: Mastery

- Measure #1:
  Assessment type:
  Evidence of quality:
  Logistics:
  Criteria:
  Uses:
  Results:
  Additional results:

- Measure #2:
  Assessment type:
  Evidence of quality:
  Logistics:
  Criteria:
  Uses:
  Results:
  Additional results:

- Alumni Measure:
  Assessment type:
  Evidence of quality:
  Logistics:
  Criteria:
  Uses:
  Results:
  Additional results:

Appendix B: Documenting Evidence of the Quality of Assessment Instruments

High quality assessment instruments must produce results that allow for appropriate, meaningful, and useful inferences. The quality of assessment instruments can also be judged by their fairness to those being assessed and the efficiency by which they can be administered and analyzed. The assessment template displayed in Appendix A allows for programs to document, at least minimally, evidence supporting the quality of their chosen assessment instruments.

The purposes of the *logistics* and *uses* sections of the assessment template are to encourage programs to reflect on the efficiency and usefulness of their chosen assessments. Ideally, the instruments chosen by programs to assess the SLOs would be administered and analyzed even if we had no accreditation requirements to assess institutional student learning. That is, these instruments should be designed, administered, scored, and analyzed without any additional resources (beyond what the program uses in its normal operations). If an instrument chosen to assess the SLOs requires additional resources, the program will need to determine if the usefulness of the results outweigh the resources needed to obtain and interpret those results.

The purposes of the *evidence of quality* section of the assessment template is to encourage programs to reflect on the primary question: Does this assessment instrument provide results that allow us to make inferences about performance on the intended SLO? To address this question, programs may wish to document any evidence they have regarding the following questions:

- Are the items or tasks on this assessment relevant to the SLO? Does the assessment contain any items or tasks irrelevant to the SLO? Does the assessment (or a combination of assessments) comprehensively cover the SLO?
- Are the items or tasks on this assessment aligned with the curriculum within the program? Did students have an opportunity to learn what is tested by the assessment?
- Are the results of the assessment consistent across time, different forms of the instrument, or different raters/scorers? Would the instrument consistently place students along the score scale?
- Do the results relate appropriately to results from other assessments? Do the results correlate with assessments of similar constructs?
- Are the cut-scores, especially the cut-score defining our expectations, appropriate?
- Does the assessment provide high quality feedback to the student or program? Can the results be used to make improvements to the program?

Appendix C: Indicators of Effectiveness

WASC Data Requirements

1.1 Admissions Activities by Level for the past 5 years
Number of applicants with complete credentials; number accepted; number enrolled
1.2 Preparation/Selectivity Levels of Entering Students for the past 5 years
Median and ranges from admissions/placement exams (MCAT used in CPR)
1.3 Admission by gender by level for the past 5 years
Applicants, admits, enrolled
1.4 Admission by race/ethnicity by level for the past 5 years
White, Black, American Indian, Asian, Hispanic, Other
2.1 Headcount Enrollments by Degree Objective for the past 5 years
2.2 Headcount Enrollments by Gender by level for the past 5 years
2.3 Headcount Enrollments by Race/Ethnicity by level for the past 5 years
2.4 Students receiving financial aid by level for the past 5 years
3.1 Degrees granted by degree-level program for the past 5 years
3.2 College of Osteopathic Medicine degrees granted by degree-level program for the past 4 cohorts
3.2 College of Health Sciences degrees granted by degree-level program for the past 4 cohorts
Size of cohort; 1st year retention rate; 6-year graduation rate; transfer out rate; still enrolled at 6 years
4.1 Faculty composition for the past 5 years
Gender, race, full/part-time
4.2 Faculty headcount by department/program for the past 5 years
Full/part-time
4.3 Staff by gender, race/ethnicity for the past 5 years
Gender, race, full/part-time
4.4 Full-time faculty/staff turnover for the past 5 years
Number of individuals employed; new hires; retirements; departures
5.1 Information and computing resources for the past 5 years
Libraries: Collections; books/print/electronic; periodicals; non-print media; $ spent on library acquisitions
IT: # and % of pc-equipped classrooms; # of computer workstations for students; # for faculty; networked/not
Overall value of computing and instructional equipment
5.2 Physical resources for the current year
On-campus: classroom; laboratory; clinical skills; research lab; office; study; general use; healthcare; residential
Other locations: Description
Total replacement cost for total physical plant
Equipment: Book value; replacement cost (or insured value)
5.3 Sources of revenue for the past 5 years
Tuition/fees; government app., grants; private grants; investment/endowment; sales/service; investment gains
Total revenues
5.4 Operating expenditures for the past 5 years
Education: Instruction, research, public service, academic support, student services, institutional support, operation, aux
Change in net assets
5.5 Assets and liabilities for the past 5 years
5.6 Capital investments for the past 5 years
5.7 Endowment values and performance for the past 5 years
6.2 Key asset and maintenance ratios for the past 5 years

Faculty 59 and older; O&M expenditures; equipment expenditures

6.3 Key financial ratios for the past 5 years

7.1 Inventory of Educational Effectiveness Indicators

- For each program and the institution as a whole:
    - Have formal learning outcomes been developed?
    - Where are these learning outcomes published?
    - Other than GPA, what evidence is used to measure student performance on these outcomes?
    - Who interprets the evidence? What is the process?
    - How are findings used?
    - Date of last program review for this degree program

8.1 Inventory of concurrent accreditation and key performance indicators (see bottom of next page)

- Name of accredited or certified program
- Professional accreditation agency for this program
- Date of most recent accreditation action by agency
- Summary of key issues for continuing institutional attention identified in agency action letter or report
- One performance indicator accepted by the agency; selected by the program
- For that one indicator, 3 years of trend data

WASC EER-specific Data Requirements

WASC /ACSCU Summary Data

Institutional information

- Name, year founded, president/CEO
- Calendar plan (semester)
- Sponsorship and control

Student Enrollment

- Last reported IPEDS enrollment data (FTE; headcount) by level (masters, research doctorate, professional), gender, ethnicity
- IPEDS cohort graduation rate data by ethnicity and gender for the past 3 years

Faculty

- Total faculty FTE
- Full-time faculty headcount (% minority; % male)
- Part-time faculty headcount (% minority; % male)
- FTE Student –to– FTE Faculty ratio

Finance

- Annual tuition rate (undergraduate/graduate resident/non-resident)
- Total annual operating budget
- Percentage from tuition and fees
- Operating deficit(s) for past 3 years
- Current accumulated deficit
- Endowment
- Governing board (size; meetings per year)
- Off-campus locations (number; total enrollment)
- Distance education programs (number; total enrollment)

Possible evidence to consider in a program review:

Note: All data should be reported annually for each College and program, as well as the institution as a whole.

Student profile

1. Enrollment trends – number of students enrolled (and FTE) for each class (1st year, 2nd year, etc) by
    a. Gender
    b. Ethnicity
        i. Nonresident alien
        ii. Race and ethnicity unknown
        iii. Hispanic (of any race)
        iv. American Indian or Alaska Native (non-Hispanic)
        v. Asian (non-Hispanic)
        vi. Black or African American (non-Hispanic)
        vii. Native Hawaiian or Other Pacific Islander (non-Hispanic)
        viii. White (non-Hispanic)
        ix. Two or more races
    c. Age (date of birth)
    d. Location (zip code)
    e. Degree/track
    f. Employment status
    g. Transferred from another institution?
    h. Reasons why TUC was chosen
    i. Financial aid information
        i. (Un)subsidized loan amounts
        ii. Merit-based awards

2. Annual incoming cohort profile trends
    a. Undergraduate GPA (or GPA from previous institution)
        i. Grades in discipline-specific courses
    b. Admissions test or interview scores
    c. Intended degree
    d. Anticipated completion date
    e. Parents' level of education
    f. Number of applicants
    g. Admissions rates
    h. Acceptance rates
    i. Expectations (including expected salary upon graduation)

Curriculum delivery

1. Distribution of class sizes by level (1st year, 2nd year, etc)
2. Student learning outcomes, objectives, competencies
    a. Program-level
    b. Course-specific
3. Course syllabi
4. Reports from curriculum retreats (or other meetings where curricular issues are discussed)
5. Reports from external evaluators, accreditation agencies, or external curricula comparisons
6. Number of credit hours generated (sum of enrollment x credit hours across all courses)

   a. By term
   b. By mode: traditional, traditional w/ online, online w/ traditional, online-only, clinical
7. Results from course evaluation surveys
   a. By mode: traditional, traditional w/ online, online w/ traditional, online-only
   b. By primary delivery method: lecture, discussion, clinical
   c. By level
8. Results from faculty/staff surveys
9. Results from peer-, supervisor-, or self-evaluations of instructional delivery
10. Faculty development activities (focusing on improving instruction)
11. Program SLOs/objectives/outcomes/competencies

Student achievement and progress (by gender, race)

1. Accreditation status and reports
2. Program review reports
3. Number of graduates
4. On-time graduation rates
5. Graduation rates (+2 years)
6. Cohort retention rates (by class)
   a. Reasons for dropping/transferring
7. Student employment rates (1, 2, 5 years after graduation)
   a. Employed in vs. out of discipline
   b. Full-time vs. part-time
   c. Salary ranges (or salary expectations)
8. Placement of students into further education
9. Employer surveys (of graduates' preparation and performance)
10. Alumni survey results
   a. Ratings of perceived preparation received from TU
   b. Ratings of perceived abilities
11. Alumni achievements
12. Institutional SLO performance (annual reports)
   a. List of measures used to assess each SLO
   b. Expectations (criteria for each measure)
   c. Number of students below, approaching, meeting, exceeding expectations
13. Programmatic SLO/competencies performance
   a. Course grade distributions
   b. Student GPAs (by term, year, cumulative)
   c. Licensure/certification exam scores or pass rates
   d. Student achievements (research, presentations, projects)

Resource utilization and requirements

1. Student cost of attendance
   a. Annual tuition rate
   b. Average annual change in tuition rate
   c. Student fees
   d. Estimated materials cost (including textbooks)
   e. Estimated cost of living
2. Student cost of attendance

3. Number of credit hours generated by term
4. Number of sections offered by term
5. Annual budget
6. Income
    a. Tuition income
    b. Partnership/Grant income
    c. Alumni donations
    d. Event/conference income
7. Costs
    a. Instructional personnel
    b. Support staff
    c. Technology
    d. Faculty travel and professional development
8. Costs per credit hour generated
9. Space utilization
    a. Office space (sq. ft; number of offices; number of offices shared)
    b. Lab space
    c. Classroom space
    d. Classroom space with instructional technology
10. Technical infrastructure

Organizational (faculty, staff, administration) profile and productivity

1. Total faculty FTE
2. Faculty/staff headcount by
    a. Part-time vs. Full-time
    b. Race/ethnicity
    c. Gender
    d. Rank
    e. Contract length
    f. Discipline
    g. Primary function (instruction, instruction/research/service, research, service, executive/administrative, support/service professionals, technical/paraprofessionals, clerical/secretarial, skilled crafts, service/maintenance)
    h. Highest degree earned
3. Distribution of years experience for faculty
4. Licenses/Certifications
5. FTE student-to-FTE faculty ratio
6. Faculty retention rates
7. Faculty/Staff satisfaction surveys
8. Administration evaluation summaries
9. Faculty evaluation summaries
10. Record of scholarship activity
    a. Publications
    b. Presentations
11. List of faculty specialties within discipline
12. External funding awarded to faculty
    a. Grants submitted

   b. Grants received
13. Record of professional practice
14. Faculty service activities
   a. Community service
   b. Institutional service (committee participation)
15. Awards/recognition of faculty
16. Faculty sabbaticals
17. Faculty workload
   a. Distributions of credits/term
   b. Advising loads
18. Faculty development activities
   a. Sessions attended/provided (not focused on improving instruction)
   b. Sessions attended/provided (focused on improving instruction)
19. Faculty mentoring processes
20. Resources (release time, funds) available for professional development
21. Within-program committees
22. Program mission, vision, goals
23. Organizational flowchart
24. Faculty expectations, promotion criteria

Environmental Influences

1. SWOT reports

Student Support

1. Facilities
   a. Student satisfaction
   b. Faculty satisfaction
   c. Improvements/changes
   d. Budget
   e. Staffing
   f. Measures of performance
2. Administration
   a. Student satisfaction
   b. Faculty satisfaction
   c. Measures of performance
3. Food service
   a. Student satisfaction
   b. Faculty satisfaction
   c. Budget
   d. Staffing
   e. Measures of performance
4. Library
   a. Student satisfaction
   b. Faculty satisfaction
   c. Holdings
   d. Budget
   e. Staffing

   f. Measures of performance
5. IT
   a. Student satisfaction
   b. Faculty satisfaction
   c. Budget
   d. Staffing
   e. Measures of performance
6. Student Services office
   a. Student satisfaction
   b. Faculty satisfaction
   c. Budget
   d. Staffing
   e. Measures of performance
7. Admissions
   a. Standards/criteria
   b. Student satisfaction
   c. Faculty satisfaction
   d. New student orientation activities
   e. Budget
   f. Staffing
   g. Measures of performance
8. Bursar
   a. Student satisfaction
   b. Faculty satisfaction
   c. Measures of performance
9. Campus Life
   a. Student satisfaction
   b. Faculty satisfaction
   c. Availability
   d. Participation
   e. Budget
   f. Staffing
   g. Measures of performance
10. Registrar
   a. Student satisfaction
   b. Faculty satisfaction
   c. Budget
   d. Staffing
   e. Measures of performance
11. Financial aid
   a. Student satisfaction
   b. Faculty satisfaction
   c. Available scholarships/fellowships
   d. Financial consulting availability/participation
   e. Measures of performance
12. Student health
   a. Student satisfaction

   b. Faculty satisfaction
   c. Availability
   d. Participation
   e. Measures of performance
13. Academic advising
   a. Availability
   b. Participation
   c. Faculty satisfaction
   d. Measures of performance
14. Tutoring/remediation programs
   a. Availability
   b. Participation
   c. (Pass rates of participants?)
15. Student handbook

Experiential

1. Participation rates
2. Evaluations of clinical experiences, internships, or research experiences

Faculty/Staff data

"Permanent" data

1) Employee ID
2) Name
   a. Prefix/title
   b. Last name
   c. First name
   d. Middle name
   e. Suffix
3) Address
   a. Line 1 (street number/name)
   b. Line 2 (apartment number)
   c. Line 3 (any additional info)
   d. City
   e. State
   f. Zip code
4) Gender (male, female)
5) Ethnicity (Nonresident alien, Hispanic/Latino, American Indian, Asian, Black/African American, Hawaiian/Pacific Islander, White, 2+ races, unknown)
6) Highest degree earned
   a. Degree
   b. Field/Discipline
   c. Institution granting the degree
7) Date employed
8) Date terminated

The following info would be tracked annually

9) Year
10) Faculty? (Y/N)
   a. If yes, rank
11) Employment location
   a. Campus (TUC/TUN)
   b. College or Office
   c. Department
12) Contract length (months per year)

13) Primary function (instruction, instruction/research/service, research, service, executive/administrative, support/service professionals, technical/paraprofessionals, clerical/secretarial, skilled crafts, service/maintenance)
14) Discipline/specialty
15) Licenses/certifications (Board certifications)
16) Experience
    a. Years experience at TU
    b. Years experience at this position/rank
17) Status
    a. Full-time vs. Part-time
    b. FTE (or something that can be used to calculate FTE such as hours per week)
18) Salary or salary category (0-30k; 30k-40k; 40k-50k; 50k-65k; 65k-80k; 80k-100k; 100k+)
19) Scholarly work
    a. Publications (citations)
    b. Presentations (citations)
    c. Grants submitted (description, funding requested, funding source)
    d. Grants received (description, funding, source)
    e. Professional practice (description; hours per week)
20) Development
    a. Development sessions attended (place, date, topic)
    b. Development sessions provided (place, date, topic)
    c. Professional organization memberships (name of organization)
    d. Professional meetings attended (name of organization)
    e. Annual development goals
21) Instruction
    a. Courses taught this year
    b. Credits taught this year
    c. Faculty evaluation data (I don't know what would go here)
    d. Annual instruction goals
22) Service
    a. Community service positions (name of organization, position)
    b. Community service participation (name of organization, brief description)
    c. Institutional committee memberships
    d. College/program/office committee memberships
    e. Number of advisees
    f. Annual service goals
23) Awards earned

Productivity info

Appendix D: Analysis of assessment results

The results from SLO assessments will be compared across student subgroups and tracked longitudinally. To provide the most useful information, this appendix proposes some methods that can be used to analyze the SLO assessment results.

Developmental score scale proposal

While the previously described score scale allows students from different programs to be rated on the same 4-point scale, it does not immediately lend itself to tracking the progress of individual students over time. With some assumptions, the score scale can be transformed into a 10-point longitudinal scale, facilitating developmental analyses. The following table displays how 4-point scales from each level of assessment fit into this longitudinal score scale:

Longitudinal Scale:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Baseline:	1	2	3	4						
Developmental:			1	2	3	4				
Mastery:					1	2	3	4		
Professional:							1	2	3	4

Scores within each row represent: unacceptable, below expectations, meets expectations, exceeds expectations

Shaded cells represent scores meeting expectations

When students are assessed at the baseline level, their performance is compared to expectations for students at that baseline level. These baseline-level students can earn scores of 1 (below expectations), 2 (approaching expectations), 3 (meets expectations), or 4 (exceeds expectations). These scores correspond to scores of 1, 2, 3, or 4 on the longitudinal score scale.

Students at the developmental level are compared to expectations for students at that developmental level. Students can, once again, earn scores of 1, 2, 3, or 4. The longitudinal score scale assumes that expectations for students at this level are higher than expectations for students at the baseline level. In fact, the longitudinal scale assumes that a level of performance that meets expectations at a baseline level would be unacceptable at the developmental level. The longitudinal scale also assumes that students at the developmental level must have at least met expectations at the baseline level. With these assumptions, the longitudinal scale shows that while students at the developmental level are scored on a 4-point scale, these scale values are actually 3, 4, 5, and 6.

Student performance at the mastery level is compared to expectations for students at the end of their program. Making assumptions similar to those in the previous paragraph, students at this level are scored on a 4-point scale with values of 5, 6, 7, and 8. Thus, a score of 7 on the longitudinal scale corresponds to a student who meets all expectations for a new graduate of Touro University.

The final assumption of this longitudinal score scale is that student performance can continue to improve after graduation. Thus, a "hidden" 4-point score scale at the professional level, with scores of 7, 8, 9, and 10, is embedded into the longitudinal scale. As the table shows, students can only earn scores of 9 or 10 after they have graduated. Thus, the performance of alumni will be compared to expectations for professionals in each discipline.

In addition to providing a single scale with which to track growth in student performance, this longitudinal score scale also can have the advantage of being completely hidden to those developing and scoring assessments. Assessments at each level can be scored on the 4-point scale described on the previous page. These scores can then easily be transformed at the institutional level and reported on the longitudinal scale.

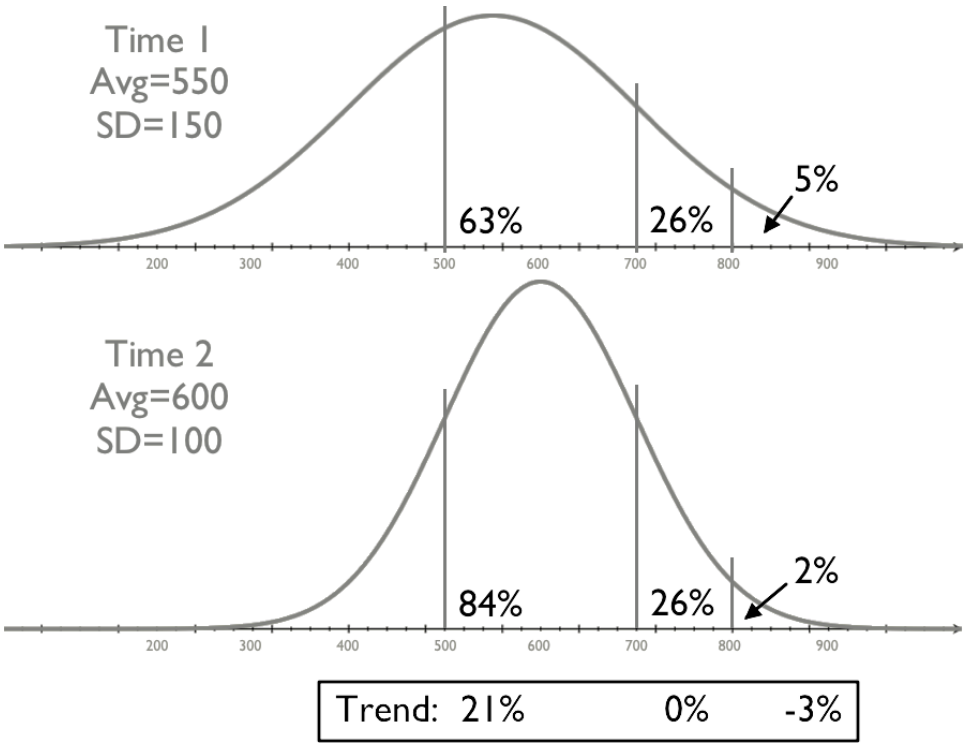
The longitudinal score scale only makes sense if the assumptions are valid. The longitudinal scale assumes:

- A student cannot make it to the next level without meeting expectations at the previous level
- A level of performance that meets expectations at one level would be below expectations at the next level

Nonparametric effect sizes

Rather than making assumptions necessary for the 10-point underlying developmental scale, an alternative approach to making longitudinal comparisons would be to calculate nonparametric effect sizes from the 4-point score scale from year-to-year. Calculating effect sizes would also make meta-analyses more straightforward.

When comparing one year's results to the next, it's tempting to simply calculate the change in the percentage of students scoring at or above our expectations (trends in the percentage of students scoring above a cut-score). Unfortunately, these trend comparisons are known to be dependent on the choice of cut-score. For example, the figure below displays score distributions from two simulated administrations of the same assessment instrument. The data were simulated so that from the first year to the second, the mean score increased from 550 to 600 and the standard deviation decreased from 150 to 100. In other words, the data were simulated so that overall student achievement increased and gaps in student achievement decreased.



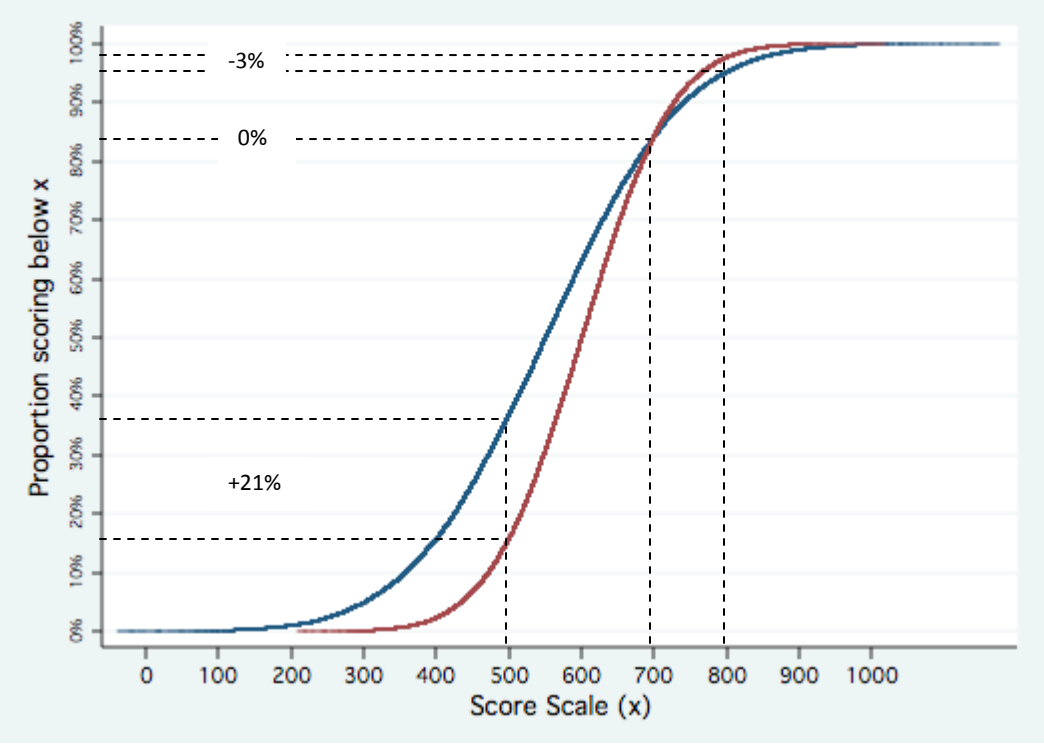
For the distributions displayed above, suppose they came from a test in which a cut-score of 500 was selected as meeting expectations. The figure shows that 63% of students at Time 1 and 84% of students at Time 2 scored above this cut-score. If this cut-score were defined as the standard for meeting expectations, then the program would conclude that the percentage of students meeting expectations increased by 21%.

Suppose, instead, that a cut-score of 700 had been selected to represent the program's expectations for students. The figure shows that in both Time 1 and Time 2, 26% of students scored above 700. Thus, the program would conclude student achievement had not changed.

Finally, suppose the program had selected a cut-score of 800 (possibly reflecting high expectations for students). A comparison of the percentage of students meeting expectations would lead to a conclusion that student achievement decreased from Time 1 to Time 2 (the percentage of students meeting expectations dropped from 5% to 2%).

The figure illustrates that the choice of cut-score in defining a program's level of expectations can impact the conclusions drawn from analyzing trends in the percentage of students meeting expectations.

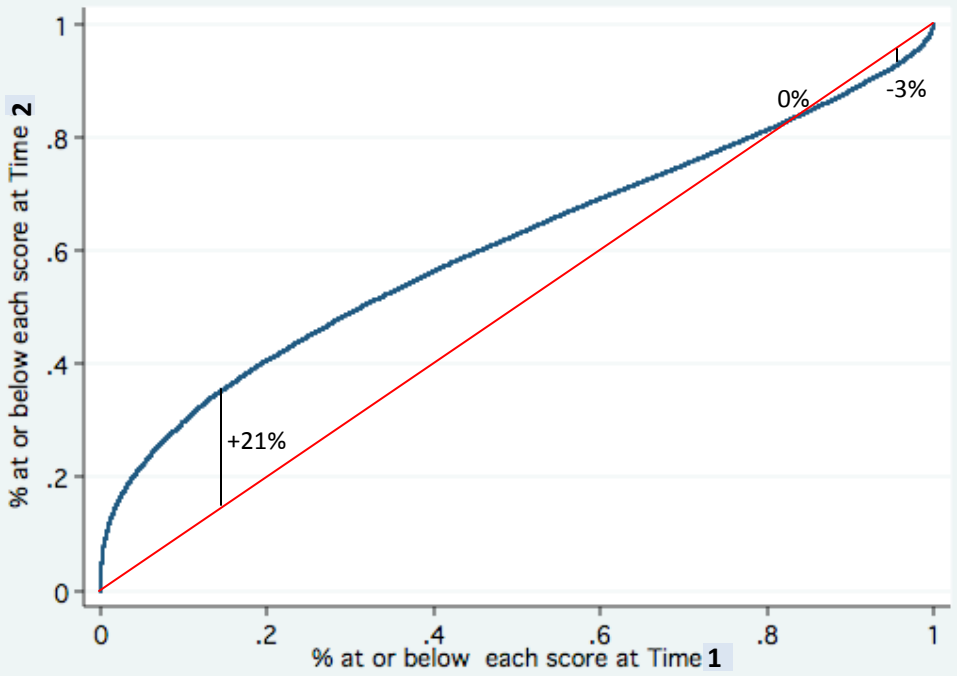
In developing the logic behind a nonparametric effect size approach, consider the same two test distributions displayed as cumulative distribution functions (CDFs). CDFs provide a visual display of the percentage of students scoring at or below a given cut-score at both Time 1 and Time 2.



This figure shows the same distributions as the figure on the previous page. The vertical gaps between the CDFs display the trend in scores from Time 1 to Time 2 (+21%, 0%, or 3%, depending on choice of cut-score).

P-P plots can display the vertical gaps between CDFs of test scores administered at Time 1 and Time 2. But rather than focusing on a single vertical slice, such as changes in the percentage of students meeting expectations, P-P plots display vertical gaps at all percentiles. As an added bonus, P-P plots, and any statistics derived from them, are invariant to transformations of the score scale.

P-P curves, which increase monotonically from the origin to the point (1,1), display the percentiles of one distribution versus the percentiles of another distribution (Holmgren, 1995). When the distributions represent scores from the same test administered twice (as in this example), the P-P curve shows the proportion of students scoring at or below a given cut-score at each time. In other words, for a given percent p, $F_2^{-1}(p) = \text{the p}^{\text{th}}\text{ percentile from Time 2}$ (which represents the test score at which p% of students scored below at Time 2), the P-P plot displays $p_1 = F_1[F_2^{-1}(p_2)]$, the percentage of students at Time 1 scoring below given percentiles of Time 2. The following figure displays the P-P plot for the simulated data set displayed in the previous two figures.



The red diagonal line is shown for reference. A P-P curve that lies on the diagonal would represent identical score distributions at Time 1 and Time 2; a P-P curve that lies mainly above the diagonal would indicate a positive score trend; and a P-P curve below the diagonal would represent a negative trend in scores. The vertical lines drawn in the figure represent the same 3 cut-scores used throughout this example. For example, the point (.16, .37) on the P-P curve shows that only 16% of students at Time 2 scored below the 37th percentile from the Time 1 distribution (the same 21% "gain" displayed in the previous figures).

Since these vertical deviations from the P-P curve to the diagonal represent score trends, one useful and interpretable statistics of interest would be the area under the P-P curve. The area under the P-P curve:

$$Area = \int_0^1 F_1\left(F_2^{-1}(p_2)\right)dp_2 = P(X_2 > X_1)$$

represents the probability that a randomly chosen test score from the Time 2 distribution is greater than a randomly chosen test score from the Time 1 distribution. For identical score distributions at Time 1 and Time 2, the P-P curve would be the red diagonal line and the area under the curve would be 0.50 (representing the chance probability). When scores improve from Time 1 to Time 2, the P-P curve would fall above the diagonal and the area would be greater than 0.50. As Ho (2007, p.8) notes, "the usefulness of this statistic is that it is invariant to discretionary choices such as cut-scores, percentile, and score scale." Thus, the area under the P-P curve addresses the problem of trend comparisons being influenced by the choice of cut-scores.

For the above figure, the area under the curve is approximately 0.611. This positive value represents the positive trend in scores from Time 1 to Time 2. It also indicates that a randomly chosen test score from Time 2 has a 61% probability of being greater than a randomly chosen test score from Time 1.

If we assume the distribution from Time 1 has a standard normal distribution and the distribution from Time 2 has a normal distribution with unit variance, the area under the P-P curve defines the mean for the Time 2 distribution that can be interpreted in terms of standard deviation units. Thus, we can calculate the following transformed summary statistic:

$$V = \sqrt{2}\Phi^{-1}\left(P(X_2 > X_1)\right) = \sqrt{2}\Phi^{-1}\left(\int_0^1 F_1\left(F_2^{-1}(p_2)\right)dp_2\right)$$

where Φ^{-1} represents an inverse normal transformation. This V statistic is a scale-free effect size of the trends in scores from Time 1 to Time 2. Unlike traditional effect sizes, the V statistic cannot be distorted by scale transformations, yet it may still be loosely interpreted as a distance in terms of standard deviation units.

For the current example, $V = \sqrt{2}\Phi^{-1}(0.611) = 0.40$. This indicates that the Time 2 scores increased by 0.40 standard deviation units over the Time 1 scores. This is supported by the fact that the data were simulated to have an effect size of approximately 0.40.

P-P plots and V statistics are calculated from test score distributions. In the data programs will report for their SLO assessment, the score distributions may not be known. As the following table shows, the data reported by programs will simply show the percentage of students scoring above or below specific cut-scores for each chosen assessment. If a program administers the same test twice and does not change the cut-scores, then the corresponding percentage of students scoring below each cut-score at each time can be used to define points on a P-P plot.

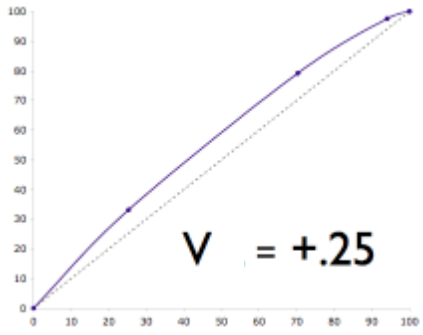
As an example, suppose a program reported the following results from its assessment of SLO #1:

	(1) Below expectations	(2) Approaches expectations	(3) Meets expectations	(4) Exceeds expectations
Year 1	33.2%	46.1%	18.4%	2.3%
Year 2	25.3%	45.0%	23.8%	5.9%

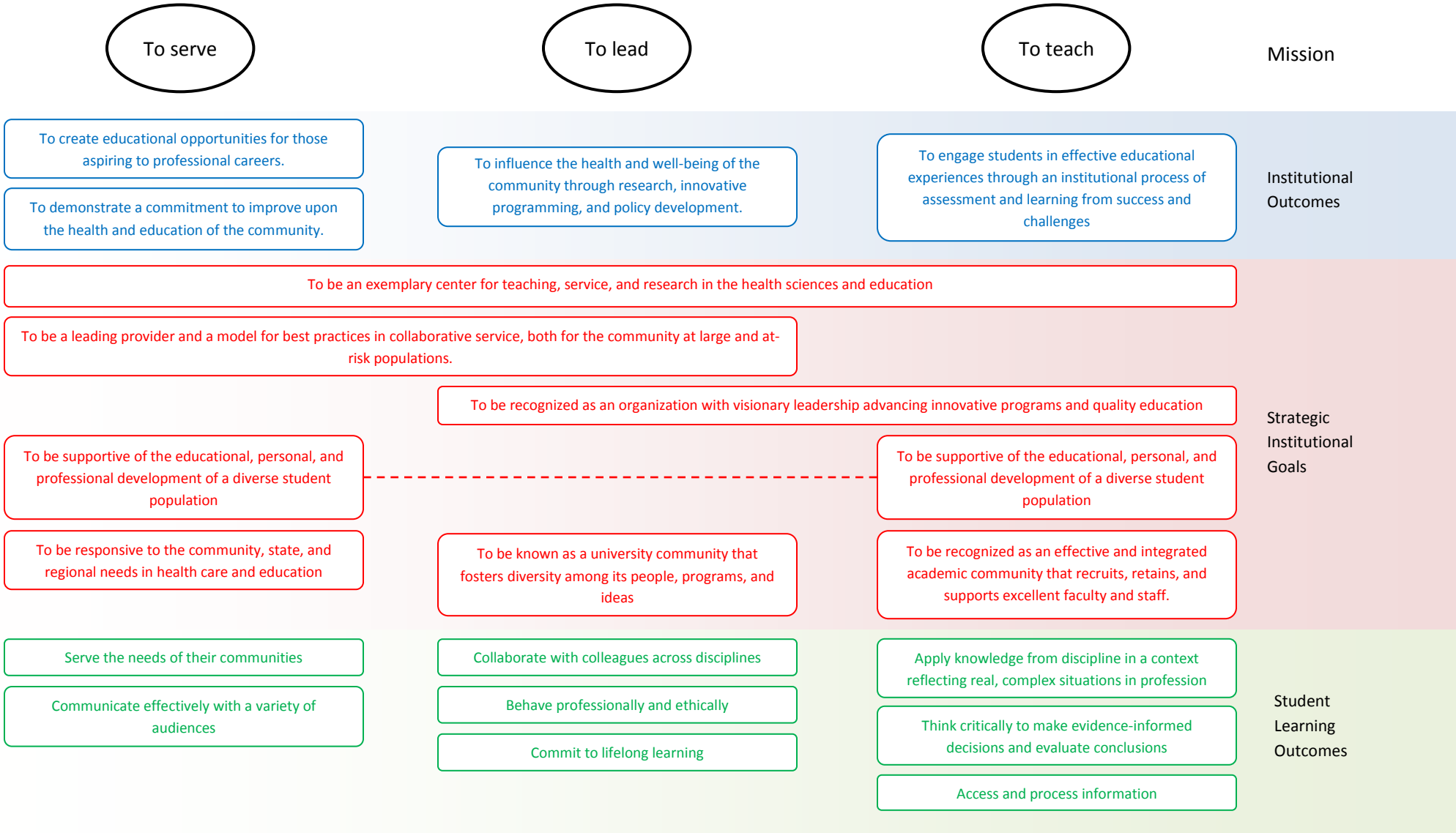
It's tempting to conclude test scores improved by comparing the percentage of students meeting expectations, but remember this conclusion is impacted by the choice of cut-scores. We can easily convert these results to display the percentage of students scoring at or below each cut score:

	Cut-score between below and approaches	Cut-score between approaches and meets	Cut-score between meets and exceeds
Year 1	33.2%	33.2 + 46.1 = 79.3%	79.3 + 18.4 = 97.7%
Year 2	25.3%	25.3 + 45.0 = 70.3%	70.3 + 23.8 = 94.1%

Once we have this information, we can plot these points – (.253, .332), (.703, .793), and (.941, .977) -- on a P-P curve. Likewise, we can add the theoretical points (0,0) and (1,1) to the P-P curve. With these five points, we can use cubic splines to define an interpolation function to get a reasonable approximation of the P-P curve. The following figure shows the interpolated P-P plot.



Once the P-P plot has been interpolated, numerical integration procedures can be used to estimate the area under the curve. The area under the curve can then be transformed to a V statistic. In this example, V = .25, indicating scores increased by 0.25 standard deviation units from Time 1 to Time 2.


To serve
To lead
To teach
Mission
To create educational opportunities for those aspiring to professional careers.
To demonstrate a commitment to improve upon the health and education of the community.
To influence the health and well-being of the community through research, innovative programming, and policy development.
To engage students in effective educational experiences through an institutional process of assessment and learning from success and challenges
Institutional Outcomes
To be an exemplary center for teaching, service, and research in the health sciences and education
To be a leading provider and a model for best practices in collaborative service, both for the community at large and at-risk populations.
To be recognized as an organization with visionary leadership advancing innovative programs and quality education
To be supportive of the educational, personal, and professional development of a diverse student population
To be supportive of the educational, personal, and professional development of a diverse student population
To be responsive to the community, state, and regional needs in health care and education
To be known as a university community that fosters diversity among its people, programs, and ideas
To be recognized as an effective and integrated academic community that recruits, retains, and supports excellent faculty and staff.
Strategic Institutional Goals
Serve the needs of their communities
Communicate effectively with a variety of audiences
Collaborate with colleagues across disciplines
Behave professionally and ethically
Commit to lifelong learning
Apply knowledge from discipline in a context reflecting real, complex situations in profession
Think critically to make evidence-informed decisions and evaluate conclusions
Access and process information
Student Learning Outcomes