

Assessment of Student Achievement

The measures used to analyze student learning and achievement as part of our continuous evaluation of programmatic effectiveness most notably have included the following:

- Tracking of student learning using capstone assessments of program completers, including scores on student portfolios and test results on nationally distributed instruments, such as ETS field examinations or Area Concentration Achievement Tests.
- Evaluation of Proficiency Profile and California Critical Thinking Skills Test (CCTST) results against aggregated means for comparable institutions. (Use of the CCTST is being phased out in 2015.)
- Comparison of junior versus first-year performance on the Proficiency Profile and the CCTST to evaluate student achievement through the General Education curriculum.
- Evaluation of the results of completers and alumni on various licensure exams, when appropriate, most notably in teacher education programs and in professional graduate programs such as the Physician Assistant Studies program
- Review of enrollment, retention and graduation data, especially the analysis of undergraduate data in the context of IPEDS data reported by peer institutions.

Capstone Program Assessments

Capstone program assessments included in Annual Program Assessment Reports provide the University's most substantive review of student achievement because these assessments are linked directly to the intended learning outcomes of programs and the learning activities within specific curricula.

Analysis of Student Performance Results. Thirteen undergraduate programs plus one graduate discipline require graduating students to take ETS Major Field Tests or Area of Concentration Achievement Tests (ACAT). In addition, 10 teacher education programs at the undergraduate and graduate level (graduate initial certification programs and graduate advanced programs) use the PRAXIS examinations, or similar standardized tests, to measure student achievement. These results are then used to evaluate program effectiveness. On normative measures (such as PRAXIS tests), cut scores provided by external agencies such as the Kentucky Education Professional Standards Board (EPSB) are used as standards for student success. On non-normative measures (such as ETS and ACAT tests), programs compare the composite performance of local completers with the aggregate performance by students nationally, usually setting the 50th percentile (i.e., the national median performance) as the threshold for student success and the benchmark for program effectiveness.

Those disciplines that lack such standardized measures make use of in-house exit/comprehensive examinations, student portfolios, or similar assessments of student achievement, such as programs in the Missions and Ministry Department. In-house exit/comprehensive examination performance standards are based on mean scores of previous graduating classes. Portfolio reviews are aligned with programmatic goals and in some cases (such as in teacher certification programs) are aligned with professional standards mandated by external agencies.

With all capstone assessments, individual programs identify thresholds of student success for each measure and use results to provide benchmarks of institutional effectiveness and to guide curricular development and pedagogical revision. These thresholds and benchmarks are highlighted in individual program reports. Below are examples of how data are derived from student performance and evaluated with specific benchmarks or thresholds for success:

- **Graduate Education, M.A.T. Graduates:** “The mean score on the PRAXIS PLT will be equal to or greater than the passing score.” (During 2014-2015, this goal was met with 96% of candidates meeting the passing cut score of 161 before graduation, for a graduating cohort mean of 177.15.)
- **History:** On the ETS Major Field Test or the ACAT, “History graduates will score, on the average, near or better than the 50th percentile on the exam.” (In 2014-2015, this expectation of success was met with the completor cohort mean score of 660.29, corresponding to the 77th percentile. Notably, four of the seven students assessed were above the 90th percentile, with one in the 99th percentile.)
- **Psychology:** On the ACAT, the cohort goal for graduating psychology majors is to have “an overall composite score at the 50th percentile or better on the ACAT.” (For 2014-2015, the cohort scored at the 73rd percentile, and two students scored at the 100th percentile.)

Some programs have defined two tiers of assessment criteria – the first is a student performance level deemed passing on the assessment, and the second a program performance benchmark based upon average student performance. Here are samples of this two-tiered identification of student success criteria with program evaluation benchmarks:

- **Undergraduate Teacher Education:** The Education Department has determined that “The average PRAXIS PLT scores for elementary, middle, secondary, 5-12 and P-12 school majors will be at least five percent higher than the state established cut scores for the exam.” The cut score represents a passing level of student performance, but the program has defined an enhanced mean performance of students as an indicator of the effectiveness of the program in nurturing student achievement. The first tier of the assessment defines a minimum level of student success; the second criterion, based upon the first, creates a benchmark for program effectiveness.
- **Graduate Education, Administrative Certifications:** The cohort of “Administrative candidates will demonstrate knowledge through critical writing on important issues and trends affecting education within the comprehensive exam at a 2.5 mean score or better, which is above the passing score of 2.0.” While a “2” is considered passing on the rubric used to assess the comprehensive examination essays, the program has set a benchmark of 2.5 against which to measure its academic effectiveness. These assessment results are also linked with the professional Interstate School Leaders Licensure Consortium (ISSLC) standards for educational administrators.
- **Health Internship Portfolio: Portfolio Assignment:** “Students in HLTH 492 will average a mean score of 2.5 on a 4-point scale on the portfolio assignment scored by a rubric.” A “2” is considered the threshold of student success; however, the department has set the composite mean of 2.5 as its benchmark for programmatic effectiveness.

Capstone Assessment Thresholds and Benchmarks. Thresholds of student success on capstone assessments have been established in the context of the University’s mission to offer a broad-

based liberal arts education to promising students of all backgrounds. This student context is summarized by the following 2014-2015 institutional demographics:

- 47% of current incoming first-year students are the first-generation in their immediate families to attend college.
- 49% of the entire current undergraduate population are first-generation college students.
- More than 50% of current undergraduate students with financial aid (52% of first-time students) qualify for PELL grants.
- 58% of current incoming students (50% of first-time students) come from central Appalachia.
- The average ACT composite for current incoming first-year students is 22.4, slightly above the average national ACT composite score of 21.0.
- 10% of incoming first-year students are conditionally admitted with entrance test scores below regular entry requirements.
- Nearly all conditionally admitted students come from central Appalachia, accounting for about 15% of the region's entrants.

With this entering student demographic, roughly 25-33% of University's undergraduate completers move on immediately to post-baccalaureate studies, with an additional 33% doing so within ten years.

General Education Assessment of Student Achievement

The criteria for student success and benchmarks for institutional effectiveness are informed by the evaluation of student performance on the Proficiency Profile and nationally distributed measures used to aid in assessment of the General Education curriculum.

Analysis of Student Performance Results. With this instrument given to both entering first-year students and to second-semester juniors, the University analyzes results to evaluate student achievement in two different contexts: 1) a comparison of the mean performance of the junior cohort with the performance reported nationally for similar institutions; 2) a comparison of first-year versus junior performance to determine the value-added achievement derived from the general education curriculum. Until 2015 the University also used the CCTST but has discontinued its use because the data provided by this measure have been of limited value in discriminating levels of academic growth. The Proficiency Profile, however, has proven to be more useful in assessing student achievement through the General Education curriculum.

Table 1. Comparison of Proficiency Profile Junior Total and Sub score Means with Institutional Cohorts

	National Mean (standard deviation)	2013 N=173		2014 N=162		2015 N=189	
		UC Juniors Mean	% 4-year Below	UC Juniors Mean	% 4-year Below	UC Juniors Mean	% 4-year Below
TOTAL SCORE	442.96 (sd 8.12)	441.09	38%	441.22	38%	442.85	46%

A comparison of the total mean scores of the junior cohort on the Proficiency Profile against the total mean scores of Four-Year Colleges (National Mean), the University seeks an aggregate student performance at the 40th percentile or better (i.e., 40% or more of institutions scoring below the UC total mean). Table 1 summarizes the data on this criterion for the past three years.

Assessment of General Education through Paired Scores. As an additional assessment of student achievement, the University is piloting a comparison of pairs of scores of students on the Proficiency Profile from their first-year and junior years. This comparison has been facilitated by improved testing procedures over the past three years that has enabled more students to be given the same assessment (the Proficiency Profile or CCTST) as juniors, which they took as incoming students. The change in performance reflected in these pairs of scores is assumed to reflect the “Value Added” learning experienced through the General Education curriculum and other courses in the intervening period.

Table 2 reflects an evaluation of the past three years of paired data. Along with the institutional cohort comparisons summarized in Table 1, the data in Table 2 indicate that an authentic and appropriate level of student achievement is facilitated through the University’s curricula. Analysis of results on the 2 tail t-test indicates that the differences in first-year to junior mean total scores are statistically significant at the .05 level or better.

Table 2. Comparison of First-Year to Junior Pairs – Proficiency Profile

Cohort Pair	First-Year Mean Total Score	Junior Mean Total Score	Value Added
2007 / 2010 n=73	442.34 sd 20.85	448 sd 21.47	5.56*
2008 / 2011 n=112	439.35 sd 18.56	442.74 sd 20.96	3.39*
2009 / 2012 N=63	440.29 sd 15.86	443.41 sd 16.64	3.13*
2010-2013 N=80	439.74 Sd = 19.53	443.16 Sd=18.96	3.42*
2011-2014 N=98	440.7 Sd 16.38	445.22 Sd 17.22	4.52*
2012-2015 N=105	447.61 SD 17.36	439.14 SD 17.46	8.47*

* Statistically significant

Professional Examinations and Licensure

In addition to the program-embedded assessments, both undergraduate and graduate programs track the results of licensure examinations, as well as post-graduation professional licensure status and employment history when these data are available. Because information on licensure

examinations is more reliably accessible and complete, these data are primarily used for formal review of student achievement and program effectiveness.

External Assessment of Student Performance. When available, licensure examination data are included in Annual Assessment Reports. Thresholds of student success on these examinations are normally determined by the passing “cut” scores identified by the appropriate testing vendor or licensing agency.

Internal Review and Evaluation of Annual Assessment Reports. Currently the tracking of professional examination and licensure is done most meticulously by the Education Department for candidates in the undergraduate teacher certification program, in the Master of Arts in Teaching, and in various education administration certification programs. Similar tracking is accomplished by the Master of Science in Physician Assistant Studies.

Enrollment, Retention, and Graduation Data

The University of the Cumberlands also tracks enrollment, retention, and graduation data at both the program level and the institutional level.

IPEDS information provides the main data for comparison, including enrollment headcount, number of degrees awarded, and the percentage of undergraduates eligible for federal aid, the current graduation rate, the first-time student retention rate, as well as the 4-, 6-, and 8-year graduation rates. This information is shared routinely with department chairs and school deans and informs administrative and strategic planning. It is also used to complete mandated external reports, such as the IPEDS – Degree Completion Report, the Kentucky Council on Postsecondary Education Annual Report, and the Title II Report. In addition, the Academic Affairs Office routinely gathers and shares with department chairs and school deans current enrollment data and trend enrollment data for individual programs and academic areas.

The thresholds of student success determined by the university on these and other measures have been established in the context of our Mission to offer “a broad-based liberal arts education to promising students of all backgrounds.” This student context is summarized in part by these demographics:

- Approximately half of incoming first-year students are the first-generation in their immediate families to attend college.
- More than 52% of current undergraduate students with financial aid qualify for PELL grants.
- The vast majority of incoming undergraduate students come from central Appalachia.
- Normally about 10% of incoming first-year students are conditionally admitted with entrance test scores below regular entry requirements.
- The average ACT composite for current incoming first - year students (2015) is 22.5, 2.5 points above the Kentucky ACT composite of 20 and 1.5 points higher than the average national ACT composite score of 21.0.

With this entering student demographic, roughly 25-33% of University’s undergraduate completers move on immediately to post-baccalaureate studies, with an additional 33% doing so within ten years.

While a variety of data sets are reviewed, particular attention is paid to retention of first-year full-time students and to the six-year graduation rate. These data sets are particularly relevant considering the demographic profile of the University’s student population (highlighted previously in this report), its rural environment, and its mission of service to the region. In these contexts, the University seeks to be in the upper 60% among its peer group, with retention and graduation rates near the peer group mean.

Table 3 details the first-year full-time retention rate for the University and its ten peers over the past five years. For this period, the University has performed just under the composite median and mean for the group, with a first-year retention rate better than four or five institutions in its peer group.

Table 3. First-Year Retention of Full-time Students 2008-2013 Peer Group Comparison (IPEDS)

Institution	2013	2012	2011	2010	2009	2008	6-Year Avg
University of the Cumberland	52	63	62	56	61	61	59
Peer Cohort Average	63	62	63	64	64	64	64

Table 4 provides similar information for the Six-Year Graduation Rate. Over the past five years, the University’s graduation rate has been at or above the median and mean for the peer group.

Table 4. Six-Year Graduation Rate, 2008-2013: Peer Institution Comparison (IPEDS)

Institution	2013	2012	2011	2010	2009	2008	6-Year Avg
University of the Cumberland	43	38	40	37	41	42	40
Peer Cohort Average	42	42	44	42	42	41	42

Conclusion

University of the Cumberland has identified thresholds of student success within the general education curriculum, within individual undergraduate and graduate programs, and across the institution as a whole. Moreover, the University analyzes the results of student achievement in order to evaluate and improve its academic programs. With many of its assessments of student achievement and of institutional effectiveness, the University objectively reviews its percentile ranking with other institutions of higher education. The assessment materials and processes highlighted in this report illustrate the University’s engagement in authentic assessment in the pursuit of its continuous improvement as an institution of higher education.