



PennState

Office of Planning and Assessment

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Learning Outcomes Assessment
Undergraduate, Graduate, and Certificate Programs
2017-18 Report

Office of Planning and Assessment

December 11, 2018

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Executive Summary

This report presents an accounting of the learning outcomes assessment reports submitted by undergraduate, graduate and certificate programs, the categories of program learning objectives assessed, the types of measures employed, the extent of rubric use, and the quality of the reports. We have also included additional LOA activities such as results of our initial assessment of our own process and a summary of our Assessment Forum. Finally, the report outlines areas of focus for learning outcomes assessment for the coming year. The following are highlights of the report.

1. **Rates of submission**: Rates varied by degree level. Graduate programs had the highest rates; associates degrees had the lowest.
 - *Undergraduate 4-year programs*
 - The average submission rate across all locations was 78%.
 - Arts and Architecture and Agricultural Sciences had the highest rates (100%; 88%) at University Park
 - Penn State Erie had the highest rate of submission among the Campus Colleges (94%)
 - Beaver, DuBois, Schuylkill, Wilkes-Barre and York had the highest rates of submission from the University College (100%)
 - *Undergraduate 2-year programs*
 - The average submission rate across all locations was 40%.
 - Wilkes-Barre, Scranton, York and Erie had the highest submission rates (100%)
 - The number of 2-year programs offered is very low – the highest number at any location is five.
 - *Graduate programs*
 - The average submission rate was 68% across all colleges/locations
 - *Certificate programs (graduate and undergraduate)*
 - The average submission rate was 55% across all locations
2. **Learning objectives**: The most commonly assessed categories of undergraduate learning objectives across all programs were *communication, knowledge, application* and *critical thinking*. The most commonly assessed graduate learning objectives across all programs were *knowledge* and *apply/create*.
3. **Assessment measures**: The most frequently employed types of assessment measures among undergraduate programs were *in-course assessments*, most often *papers/essays, course projects* and *in-class exams/exam questions*. A majority of graduate programs employed *milestone exams, culminating exams* or *reviews of portfolios, projects or research* to assess student learning.
4. **Use of rubrics**: Rubric use for undergraduate assessment ranged between 49% (University College) to 70% (Campus Colleges) with increased use by University Park from last year (65% to 72%). Overall rubric use in graduate programs was down (from 72% to 45%).

5. **Performance criteria:** Among undergraduate programs, students met or partially met performance criteria in 89% of assessments conducted. Among graduate programs, students met criteria in 94% of assessments conducted.
6. **Assessment report quality:** Reviews of the quality of assessment reports revealed that program learning objectives, type of measure, alignment between objectives and measures, and performance criteria were, in most reports, of satisfactory or exemplary quality. The majority of undergraduate rubrics (54%), and graduate rubrics (63%) were of satisfactory or exemplary quality; while majorities were of quality in both cases, the data suggest there is more room for improvement with respect to rubrics.
7. **Curricular Coherence:** An important feature of One Penn State 2025 involves programs offered at multiple locations sharing program-level learning objectives. From a total of 29 programs offered at multiple locations (not including programs offered at a single residential location plus World Campus) 9 (31%) programs offered at multiple locations have the same program learning objectives at all locations. Fourteen (48%) programs share the same program objectives at most locations, with one or two locations using different objectives. One program shares program learning objectives at all locations and conducts the same assessment at all locations. Eleven programs (38%) share some assessment methods across locations.
8. **Looking forward:** Future areas of focus for the Learning Outcomes Assessment team include the following.
- piloting the new Assessment Management System
 - continuing to gather feedback on the assessment process
 - creating additional resources to support good assessment practice
 - updating our website to provide more transparency about our process
 - developing a method for rewarding assessment activities by providing funding for making evidence-based changes.
 - conduct University-wide assessment and evaluation projects

Learning Outcomes Assessment at Penn State: 2017-18 Process Updates

This year, the LOA team adjusted and expanded its liaison model to better address programs' needs and maintain consistency and quality of feedback. Previously, liaisons were assigned specific campuses or colleges to review. While this approach was largely maintained, individual liaisons were also assigned specific programs offered at multiple locations so that a single LOA staff member would review all reports from those program(s).

The Office of Planning and Assessment also implemented a standard timeline for assessment activities that we intend to follow annually. The deadline for report submissions to our office was June 30th, 2018. During July and August, LOA staff counted, reviewed and wrote feedback for each report. In early September we posted the feedback to the campus and college Box folders and notified the Program Coordinators, Directors of Graduate Studies, and academic leadership that it was available.

At the time the feedback was posted, we also offered to visit campuses and colleges to discuss assessment reports in group settings or one-on-one. By the end of December, 2018, we will have visited 8 campuses throughout the Commonwealth and 4 University Park colleges.

Finally, the LOA team developed and tested a rubric for evaluating the quality of assessment reports. Data on report quality begins on p. 19.

Assessment Report Submissions

The Office of Planning and Assessment requested AY 2017-18 program assessment plans and reports from all non-accredited undergraduate, graduate and certificate degree programs across the University. The following sections present submission rates for AY 2017-18 reports, which include evidence collected during AY 2017-18 and assessment plans for AY 2018-19. These data represent the submissions as of November 15, 2018. The program list used to compare submissions against came from the registrar and is updated by our office as programs are closed or new ones are opened.

We requested that programs submit a report even if they had no assessment evidence – which occurs if a program is new or there are very few graduates. These reports are included in the accounting. In the case of programs offered at multiple locations, we counted each location's iteration of the program. Ph.D. programs where students obtain a Master's degree as part of the program, but a separate M.S. is not offered, we counted only the Ph.D.

Prior to presenting the current submission rates for each degree type at each location, we present a comparison of overall submission rates for 2017-18 with those from 2016-17. Table 1 presents submission rate comparisons for undergraduate and graduate programs assessment reports broken out by location. For 4-year programs, submission rates decreased at University Park but increased at Campus Colleges and University College. For 2-year programs, submission rates decreased at Campus Colleges but increased at the University College. University Park has three

2- year programs, none of which have submitted reports either year. Graduate program report submission decreased at University Park as well as Commonwealth Campuses.

Table 1: AY 2016-17 - AY 2017-18 Program Assessment Report Submission Comparison

	2016-17	2017-18
Undergraduate 4-year Programs		
UP	71%	60%
CC	81%	88%
UC	76%	82%
Undergraduate 2-year Programs		
CC	64%	50%
UC	36%	50%
Graduate Programs		
UP	70%	59%
Commonwealth Campuses	97%	82%

Undergraduate Programs – University Park

Table 2 below presents submission rates by college at University Park. The Colleges of Business, Communications, Engineering, and Nursing are not included in the table; their undergraduate programs are all professionally accredited by their respective disciplines. The Colleges of Arts and Architecture, Agricultural Sciences, Health and Human Development, and Science achieved the highest submission rates for 4-year programs.

Table 2: AY 2017-18 (4-year) University Park Undergraduate Program Assessment Report Submissions

	UP TOTAL	AA	AGS	CLA	EDU	EMS	HHD	IST	SCI
Programs	153	19	17	39	8	13	9	4	14
Accredited	63	17	1	0	6	5	2	0	2
Non-accredited	90	2	16	39	2	8	7	4	12
Submitted 2017-18 Summary REPORT	54	2	14	18	1	4	5	4	8
<i>% submitted</i>	60%	100%	88%	46%	50%	50%	71%	100%	67%

* Submitted percentages are a function of the total non-accredited programs at each college

Undergraduate Programs – Campus Colleges

The following tables present submission rates by each Campus College for 4-year and 2-year programs. Penn State Erie had the highest submission rate, though overall submission rates were quite good. Submission rates for 2-year programs were significantly lower than 4-year programs. However, the number of 2-year programs is also quite small, so a low percentage can reflect a single missing report.

Table 3: AY 2017-18 (4-year) Campus Colleges Undergraduate Program Assessment Report Submissions

	CC TOTAL	AB	AL	BK	ER	HB
Programs	134	20	22	21	37	34
Accredited	48	4	5	4	21	14
Non-accredited	86	16	17	17	16	20
Submitted 2017-18 Summary REPORT	76	14	15	15	15	17
<i>% submitted</i>	88%	88%	88%	88%	94%	85%

Table 4: AY 2017-18 (2-year) Campus Colleges Undergraduate Program Assessment Report Submissions

	CC TOTAL	AB	AL	BK	ER	HB
Programs	17	2	5	4	4	2
Accredited	5	0	0	1	3	1
Non-accredited	12	2	5	3	1	1
Submitted 2017-18 Summary REPORT	6	1	3	1	1	0
<i>% submitted</i>	50%	50%	60%	33%	100%	0%

* Submitted percentages are a function of the total non-accredited programs at each location

Undergraduate Programs – University College

The following tables present submission rates by each University College location for 4-year and 2-year programs. Penn State Beaver, Schuylkill, Wilkes-Barre, and York had perfect submission rates; submission rates, overall, were fairly good. Submission rates for 2-year programs were significantly lower than 4-year programs, though Penn State Scranton, Wilkes-Bare, and York all had a 100% submission rate for their 2-year programs. The number of 2-year programs is also quite small, so a low percentage can reflect a single missing report.

Table 5: AY 2017-18 (4-year) University College Undergraduate Program Assessment Report Submissions

	UC TOTAL	BR	BW	DS	FE	GA	HN	LV	MA	NK	SL	SH	SC	WB	YK
Programs	116	7	11	5	7	9	9	9	7	9	8	6	11	9	9
Accredited	13	0	1	1	1	0	1	0	1	2	1	1	1	2	1
Non-accredited	103	7	10	4	6	9	8	9	6	7	7	5	10	7	8
Submitted 2017-18 Summary REPORT	84	7	7	4	2	6	7	6	4	6	7	4	9	7	8
<i>% submitted</i>	82%	100%	70%	100%	33%	67%	88%	67%	67%	86%	100%	80%	90%	100%	100%

Table 6: AY 2017-18 (2-year) University College Undergraduate Program Assessment Report Submissions

	UC TOTAL	BW	DS	FE	GA	HN	LV	MA	NK	SL	SH	SC	WB	YK
Programs	61	3	8	7	3	5	1	7	4	4	6	4	4	5
Accredited	19	0	4	3	0	2	0	2	2	1	2	0	1	2
Non-accredited	42	3	4	4	3	3	1	5	2	3	4	4	3	3
Submitted 2017-18 Summary REPORT	21	1	3	1	1	1	0	2	0	1	1	4	3	3
<i>% submitted</i>	50%	33%	75%	25%	33%	33%	0%	40%	0%	33%	25%	100%	100%	100%

* Submitted percentages are a function of the total non-accredited programs at each school.

Graduate Programs – All Locations

Table 7 below presents submission rates by school/campus for Doctoral, Master’s, and Dual Degree programs.

Table 7: AY 2017-18 Graduate Program Assessment Report Submissions

	TOTAL	University Park Colleges												College Campuses				
		AA	AGS	BUS	CLA	COM	EDU	EMS	ENG	HHD	HUCK	IST	NUR	SCI	ER	GV	HB	HY
Program count	308	19	39	6	44	2	38	13	45	15	10	4	3	13	4	8	34	11
Accredited count	56	15	2	5	0	0	10	0	0	2	0	0	2	1	4	3	10	2
Non-accredited count	252	4	37	1	44	2	28	13	45	13	10	4	1	12	0	5	24	9
Non-accredited (PSU assessed)	252	4	37	1	44	2	28	13	45	13	10	4	1	12	0	5	24	9
Doctoral count	97	2	15	1	15	1	14	5	13	8	6	1	1	7	0	0	3	5
Masters count	141	2	21	0	21	1	13	6	30	5	4	3	0	5	0	5	21	4
NDUAL count	14	0	1	0	8	0	1	2	2	0	0	0	0	0	0	0	0	0
Total Report Submissions	157	2	18	0	26	0	10	9	37	8	7	4	0	5	0	5	19	7
Doctoral	64	1	7	0	10	0	7	4	11	6	5	1	0	5	0	0	2	5
Masters	88	1	10	0	14	0	3	5	24	2	2	3	0	0	0	5	17	2
NDUAL	5	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
Total Percentage	62%	50%	49%	0%	59%	0%	36%	69%	82%	62%	70%	100%	0%	42%	--	100%	79%	78%
Doctoral	66%	50%	47%	0%	67%	0%	50%	80%	85%	75%	83%	100%	0%	71%	--	--	67%	100%
Masters	62%	50%	48%	--	67%	0%	23%	83%	80%	40%	50%	100%	--	0%	--	100%	81%	50%
NDUAL	36%	--	100%	--	25%	--	0%	0%	100%	--	--	--	--	--	--	--	--	--

Doctoral Degrees include: PHD, DED, and DMA

Master's degrees include: MA, MFA, MGIS, MLA, MME, MMUS, MPS, MSP, MBA, MACC, MAE, MENG, and MHA

*Submitted percentages are a function of the total non-accredited programs at each location

Certificate Programs – All Locations

Certificate programs, both graduate and undergraduate, have been a newer focus in Penn State’s learning outcomes assessment process. To bring certificate programs into the process, the LOA team contacted all faculty who coordinate these programs during Spring 2018 to inform them of their responsibility and to offer our support. A total of 114 (out of 182) certificate programs submitted a “report” this year, though many included only a plan for the upcoming year as this was the first year they had participated in assessment. We will continue to reach out to these programs in the coming year. Data on certificate programs are represented in the following tables displaying submission rates, but not included in the charts displaying types of learning objectives, measures, or assessment report quality described in other sections of this report.

Table 8: AY 2017-18 University Park Certificate Program Assessment Report Submissions

	UP TOTAL	AA	AGS	BUS	CLA	COM	EDU	EMS	ENG	HHD	IST	NUR	SCI	SIA
Count of certificates	101	2	9	8	10	1	16	16	12	2	6	11	4	4
Undergraduate	43	1	4	3	4	1	4	9	6	2	4	3	2	0
Graduate	58	1	5	5	6	0	12	7	6	0	2	8	2	4
Submitted 2017-18 Summary REPORT	72	1	6	5	4	1	15	16	10	0	5	4	1	4
<i>% submitted</i>	71%	50%	67%	63%	40%	100%	94%	100%	83%	0%	83%	36%	25%	100%

Table 9: AY 2017-18 University College Certificate Program Assessment Report Submissions

	UC TOTAL	BW	DS	FE	GA	HN	NK	SH	WB	SC	YK
Count of certificates (undergraduate)	18	1	3	1	2	1	1	2	1	4	2
Submitted 2017-18 Summary REPORT	7	0	1	0	1	0	1	2	1	1	0
<i>% submitted</i>	39%	0%	33%	0%	50%	0%	100%	100%	100%	25%	0%

Table 10: AY 2017-18 Campus Colleges/Graduate Campuses Certificate Program Assessment Report Submissions

	CC TOTAL	AB	AL	BK	ER	HB	GV	HY
Count of certificates	63	5	2	2	26	11	11	6
Undergraduate	29	5	2	1	21	0	0	0
Graduate	34	0	0	1	5	11	11	6
Submitted 2017-18 Summary REPORT	35	1	1	1	8	9	9	6
<i>% submitted</i>	56%	20%	50%	50%	31%	82%	82%	100%

Program Learning Objectives

The program learning objectives (PLOs) assessed by Penn State’s academic programs in AY 2017-18 were numerous and diverse. These PLOs can be examined for similarities and differences within and across campuses, colleges, and departments. These patterns present opportunities for OPA staff to develop resources, identify examples for teaching and development around assessment, and to ascertain broader institutional priorities expressed in the objectives programs examine. Percentages are calculated from the total number of PLOs assessed this year; many programs assessed multiple PLOs.

Undergraduate Program Objectives Assessed

Program coordinators categorized each PLO they assessed during AY 2017-18. These categories included: *communication, knowledge, application, critical thinking, professional, create, ethics*, and “*other*” (including *research, cultural competence, and teamwork*). Some programs assessed multiple learning objectives. Figure 1 presents the percentage of PLOs assessed in each category by location. *Communication, knowledge, application, and critical thinking* represent the majority of PLOs assessed at all locations (77% at University Park; 72% at Campus Colleges; 73% at University College).

At University Park, the distribution of assessed PLO categories was broadly similar to that in AY 2016-17, except for a substantial increase in *communication* (10% to 20%) and a decrease in *application* (31% to 15%). At the Campus Colleges, the data represent a substantial decrease in assessment of *critical thinking* (20% to 6%) and an increase in assessment of *knowledge* (17% to 25%) when compared to AY 2016-17. At the University College, the percentages reveal an increase in assessment of *knowledge* (10% to 17%), as well as an increase in assessment of *communication* (15% to 23%) when compared to AY 2016-17. Data from AY 2016-17 is from the *2017 Learning Outcomes Assessment Report*, but not presented in Figure 1.

Changes in the distribution of PLOs assessed may be partly a result of a change in the way they were categorized. Last year the LOA team categorized them and this year we asked assessment leaders to categorize them. Tracking learning objectives assessed helps the University ensure that a variety of objectives are being explored and determine if there is a shift in focus toward specific objectives over time.

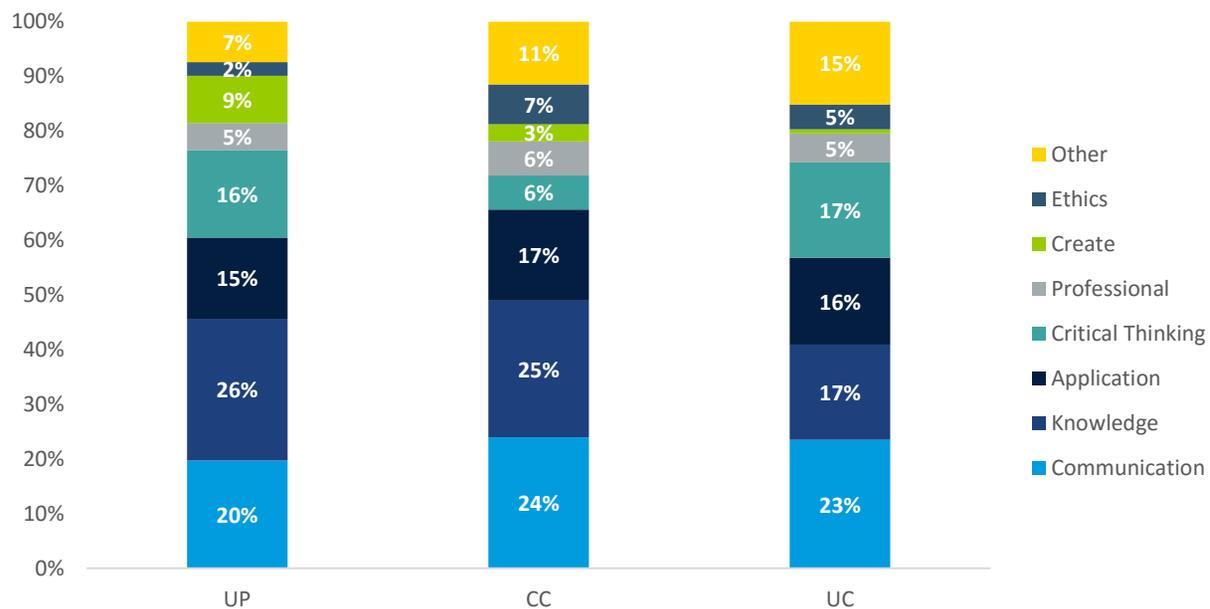


Figure 1: All Locations – Categories/Distribution of Undergraduate PLOs Assessed

Graduate Council Scholarly and Professional Goals

Graduate programs were required to align their PLOs with the Graduate Council’s Scholarly and Professional Goals. Figure 2 shows the percentages of AY 2017-18 program learning objectives assessed by each Graduate Council Goal category. Sixty-five percent of the PLOs assessed by graduate programs were categorized as “*know*” or “*apply/create*.” Overall, the distribution is comparable to that seen during the AY 2016-17, with the greatest differences being an increase in “*apply/create*” (21% to 25%) and a decrease in “*communicate*” (17% to 13%)

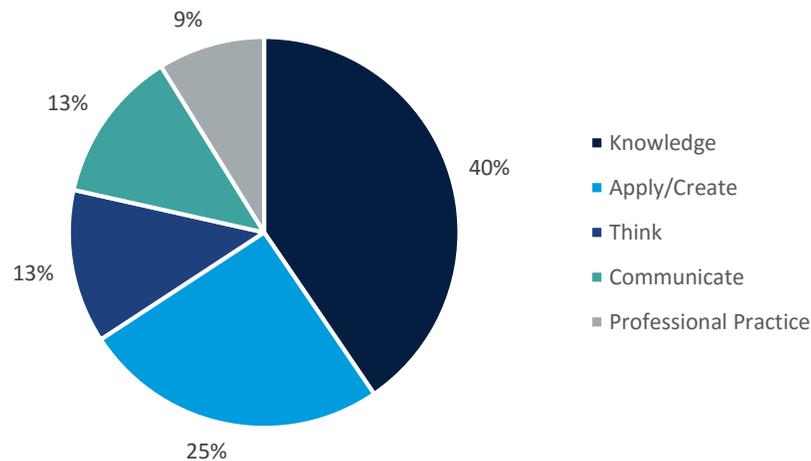


Figure 2: Distribution of PLOs Addressing Each Graduate Council Goal

Measures Employed in Assessment Studies

A wide variety of assessment measures were used to examine students' achievement of program learning objectives during the 2017-18 academic year.

Due to differences in their missions and contexts, Penn State's undergraduate and graduate programs tend to employ distinct sets of measures in their assessment activities. The LOA team asked assessment leaders to categorize their assessment measures on the AY 2017-18 assessment report template. This is in contrast to the AY 2016-17 process in which the LOA team made the categorizations. The following sections present categories of assessment measures employed at each level across the University. Percentages are calculated from the total number of assessments; many programs employed multiple assessment measures.

Undergraduate Assessment Measures

As Figure 3 shows, overall, 70% of the measures in undergraduate programs were employed within the context of a course (in-course), which represents an increase over 16/17 (64%). *In-course* measures are direct measures of student learning and provide stronger assessment evidence than indirect measures alone. *External exams* (major fields tests, or other disciplinary exams), *program exams* (authored by program faculty) and

internship evaluations (also direct measures) were employed by a few programs, as were *interviews* and *surveys*, which are indirect measures of student learning. The AY 2017-18 saw a decrease in the use of surveys to assess learning (17% to 7%). This decrease is likely linked to the LOA team’s emphasis on direct measures. Although the LOA team encourages using indirect measures such as surveys to complement direct approaches, using surveys alone is not typically recommended in program assessment, though there are situations in which such a strategy is appropriate.

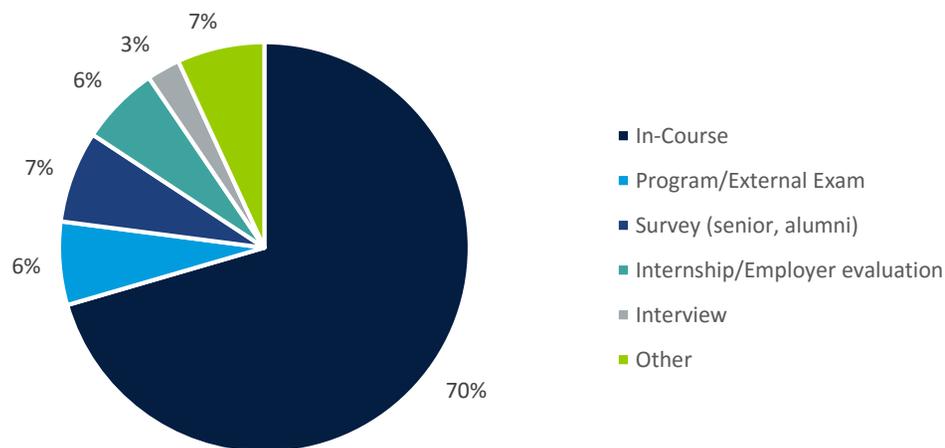


Figure 3: Undergraduate Assessment Measures Employed (Types and Distribution)

Drilling in closer to the category of “*in-course*” assessment measures (Figure 4) reveals that programs employed a diverse range of approaches to examine learning objectives. The most common in-course assessments were *papers* (29%), *projects* (28%), and *in-class exams* (22%). The remaining 17% of measures included *presentations*, *homework*, *capstone projects*, and *lab reports*.

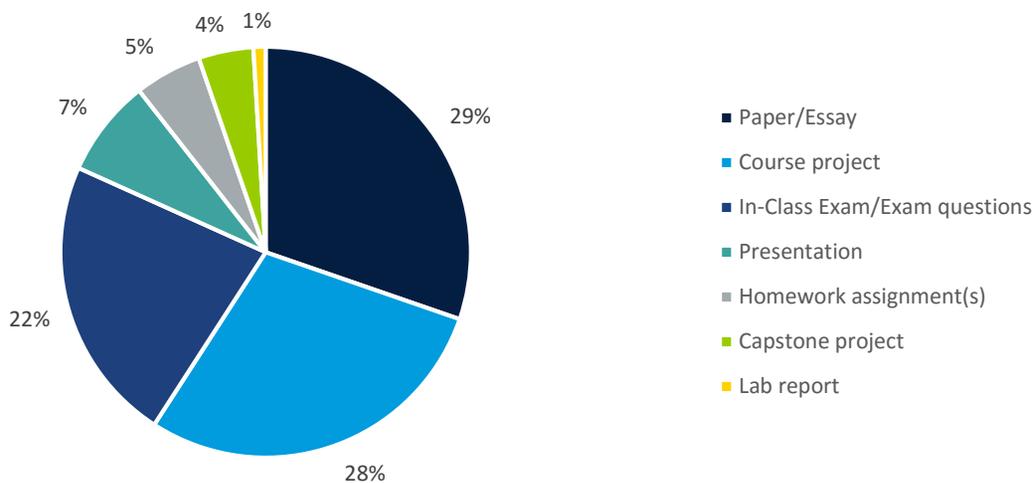


Figure 4: “In-Course” Undergraduate Assessment Measures Employed (Types and Distribution)

Graduate Assessment Measures

A majority of the assessment measures (Figure 5) employed by graduate programs (66%) included *milestone exams, culminating demonstrations of knowledge or skills* (including comprehensive exams, papers or theses, and proposals or final defenses) and *reviews of portfolios, projects or research*. While the distribution of these categories was broadly similar both years, there was also a notable decrease in use of *course grades/GPA* from 24% to 14%. Course grades and GPA are generally considered to be an inadequate approach to assessing student learning at the program level, and the LOA team is continuing to work closely with Directors of Graduate Studies to reduce programs’ reliance on these measures.

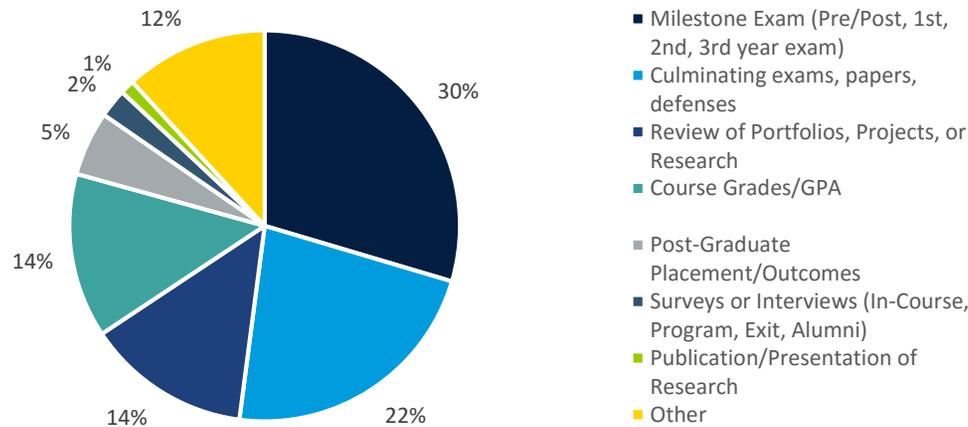


Figure 5: Graduate Program Assessment Measures Employed (Types and Distribution)

Rubric Use

One assessment practice promoted by OPA staff during the 2016-17 cycle was the use of rubrics –when appropriate— in conjunction with the assessment measure(s) being examined. Employing rubrics when assessing learning objectives in papers, presentations, essays, and more allows faculty to determine student performance on multiple elements of an assignment at one time. This approach is preferable to a single, overall, score because it can reveal strengths and weaknesses in specific components even if overall scores meet performance criteria.

Undergraduate Program Rubric Use

Figure 6 presents the percentage of program assessments that employed rubrics when rubrics were an appropriate choice for the measure for 2016-17 and 2017-18 reports. Overall these percentages suggest an increase in rubric use at University Park. This could be a result of our emphasis on rubrics in our 2016-17 assessment report feedback.

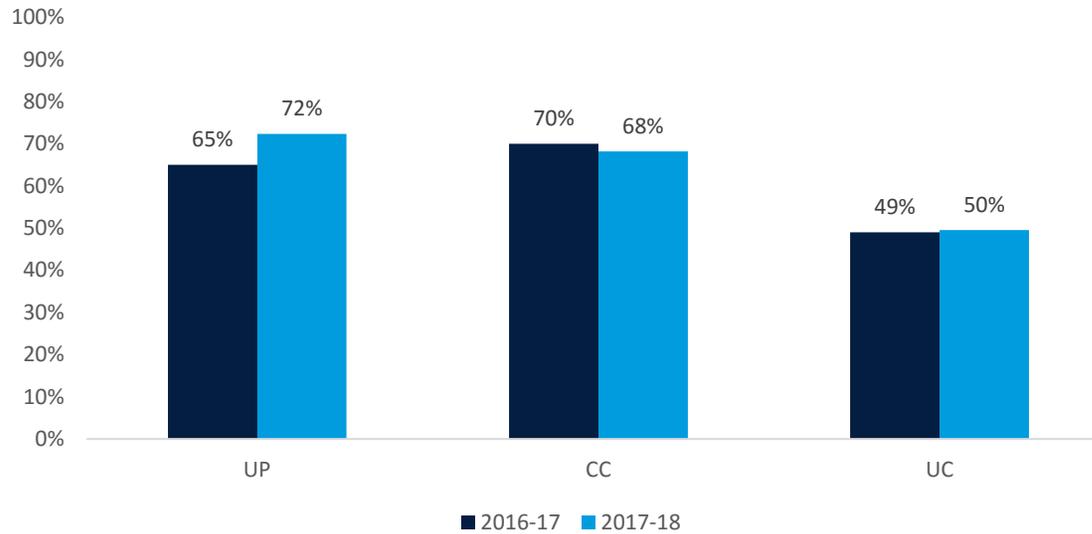


Figure 6: Rubric Use in Undergraduate Program Assessment (AY 2016-17 - AY 2017-18 Comparison)

Graduate Program Rubric Use

Figure 7 presents the percentage of graduate program assessments that have employed rubrics where rubrics were an appropriate choice for the measure for 2016-17 and 2017-18 reports. In contrast to undergraduate programs, rubric use decreased substantially at UP Colleges (down 29%) and at Commonwealth Campuses (down 18%). We are currently not able to determine the reason for this decrease in rubric use.

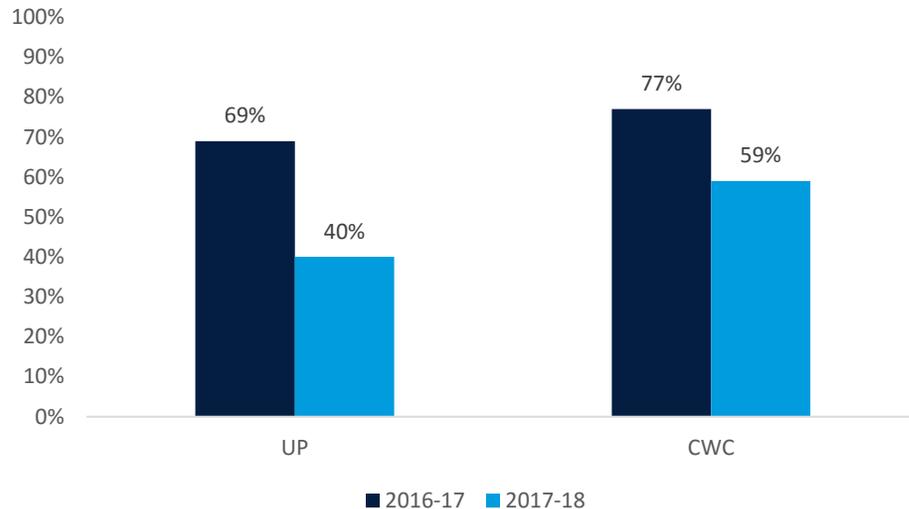


Figure 7: Rubric Use in Graduate Program Assessment (AY 2016-17 – AY 2017-18 Comparison)

Performance Criteria

The AY 2017-18 assessment report template prompted assessment leaders to report on their students’ performance with respect to the performance criteria faculty had set for the assessment of their objectives. These criteria represent the minimum level of performance at which program faculty agree students will have met their expectations for the learning objective.

Assessment leaders categorized their assessment results as “Yes, students met the performance criteria,” “Student performance was mixed,” or “No, students did not meet the performance criteria.” The distribution of their selections at the undergraduate and graduate levels is displayed below.

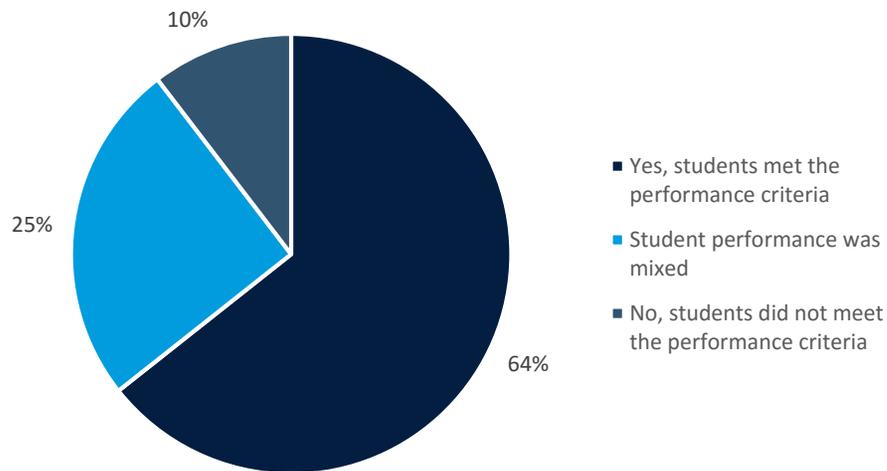


Figure 8: Undergraduate Performance Criteria and Student Performance

With respect to undergraduate programs, almost two thirds (64%) of the submitted reports indicated that students met performance criteria. An additional 25% of the reports suggested that student performance was mixed (some aspects of students' performance met expectations, some did not). Taken together, this suggests that student performance on a variety of objectives is at least partially meeting faculty expectations in up to 9 out of 10 programs conducting formal assessment studies.

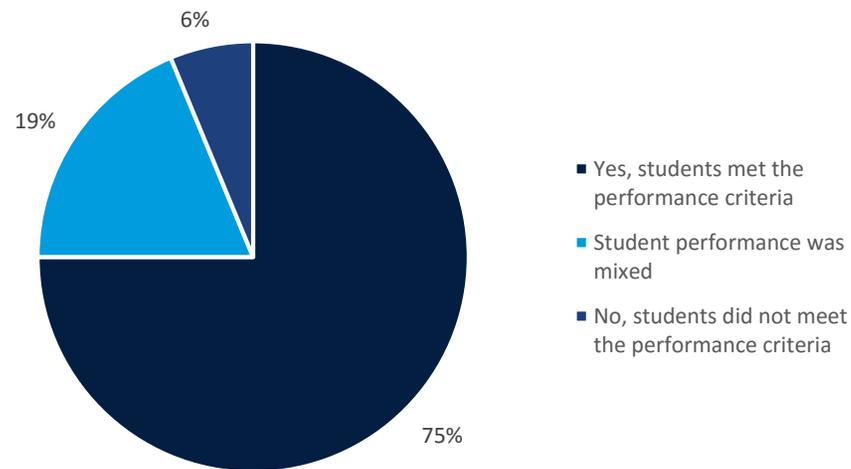


Figure 9: Graduate Performance Criteria and Student Performance

With respect to graduate programs, 75% of the submitted reports described studies in which students met performance criteria and faculty expectations. An additional 19% of the reports suggested that student performance was mixed (some aspects of students’ performance met expectations, some did not). Taken together, this suggests that student performance on a variety of objectives is meeting faculty expectations in almost 95% of the programs conducting formal assessment studies.

Assessment Process Evaluation

During Spring 2018, the Learning Outcomes Assessment team met with groups of academic leaders from University Park Colleges, Campus Colleges, and the University College to gather feedback about the assessment process. The expressed perspectives provided confirmation that many aspects of the process have proven helpful. Administrators appreciated the connection with LOA liaisons, including college and campus visits, and the ability to have their questions answered quickly. Communication efforts, including clear expectations and a multi-pronged approach that involved emails with program coordinators and directors of graduate studies, as well as associate deans and directors of academic affairs, were also appreciated. Leaders also mentioned the flexible timeline and focus on making assessment activities meaningful, as well as centering efforts on engaging with the faculty, as positive elements of the process.

Our conversations also revealed strategies that could improve our process. Administrators requested more guidance for programs offered at multiple locations, including difficult-to-assess programs, as well as online programs. Administrators lamented that feedback has not always been received quickly enough for programs to act on it. They suggested that communication could be strengthened by notifying assessment leaders of changes and deadlines more consistently, holding additional remote meetings, and sharing how data is being used by campuses, colleges, the University and Middle States. Examples of best practices was also a common request. Several academic leaders requested an Assessment Management System. Finally, administrators recommended that we gather feedback from the assessment leaders directly. This is one of our goals for this coming academic year.

We are incorporating these changes as we move forward. We will be meeting with program coordinators of 2-year programs in Spring 2019 and will focus our efforts on online programs as well. Assessment report feedback was released in early September, much earlier than ever before; many Program Coordinators expressed appreciation for the earlier delivery. We posted an explanation of how assessment information is used on our website and included it in our March 2018 webinar. We compiled several exemplary assessment reports into a single document and posted it to Box. We led an AMS evaluation team that involved many stakeholders in the process and are close to signing a contract with Nuventive.

Assessment Report Quality

This year the LOA team developed and piloted a rubric to help us determine the quality of assessment reports. We took this step as a result of multiple conversations in the past year in which individuals lamented that, although numbers of submission are helpful, they don't provide evidence of assessment quality which is equally important.

As we reviewed the submitted reports we rated the quality of the learning objective, alignment between the objective and the measure, type of measure (direct/indirect/both), rubric, and performance criteria. The results are described and depicted below. The intention is for these ratings to provide a benchmark for subsequent reporting, though we also intend to revise the rubric.

We have been reticent to share our ratings directly with assessment leaders because of the significant push-back experienced in the past when assessments reports were rated. Ongoing discussions with the University Committee on Assessment of Learning (UCAL), however, suggest that we publicize the rubric because it will clarify our expectations and increase the transparency of our process.

Although submissions include reports on 2016-17 assessment results *and* plans for 2017-18 assessment activities, we rated only the elements of the 2016-17 results. Each aspect could be rated as developing, satisfactory, or exemplary. What follows are descriptions of the elements that were evaluated and results of the evaluation.

Program Learning Objectives (PLOs)

The quality of a program's PLOs is one of the most frequently addressed aspects of an assessment study during consultations with LOA team members. Good assessment begins with well-worded PLOs and effort spent there pays dividends throughout the rest of an assessment approach. Higher quality PLOs contain precise verbs, rich description of content, skills, or attitudinal domains, are written in student-centered terms, and include disciplinary context.

Alignment between PLOs and Measures

Ensuring close alignment between the PLO being examined and the assessment measure being used to gauge student performance is a vital element of learning outcomes assessment and is closely related to PLO quality. Quality measures are described clearly and completely, and are aligned closely with the learning objective being assessed.

Types of Measures Employed

The best assessment evidence comes from a combination of direct and indirect measures of student learning. Programs were rated as *Developing* if only indirect measures were employed, *Satisfactory* if only direct measures were employed, and *Exemplary* if both direct and indirect measures were employed.

Assessment Study Design

Although there are multiple ways to approach or design assessment studies, some are stronger than others, and some are more appropriate than others given the objectives being examined, as well as the measures employed. When judging study design, we look for methods that are appropriate for the type of learning objective being examined, as well as the measure being employed. The highest quality designs employ advanced methodologies such as incorporating student information like earlier course-taking or demographics, as well as other research-like designs.

Rubric Quality

Incorporating rubrics when appropriate is an assessment best practice that we stress often. Analytic rubrics, which include descriptions of performance for each assignment element at each performance level, achieve a higher score than other types of rubrics. We evaluate the construction of the rubric and whether the rubric is used to create scores for each criterion/element of the assignment or task.

Criterion/Benchmark

A performance criterion provides a target level of performance above which students are considered to have met the learning objective. Without a strong performance criterion, it is difficult to determine whether student have met the learning objective. We look for criteria that are clearly stated and appropriate within the context of the assessment design and program.

Assessing changes based on previous assessment results

The Middle States Commission on Higher Education is interested in the changes that have resulted from the learning outcomes assessment process and the impact of those changes. We added a question to this year's template that asks about any changes made based on assessment activities. A total of 16 undergraduate and 11 graduate programs reported that they had made a change based on prior assessment results and re-assessed a learning objective to determine the impact of those changes. Due to the small number of programs reporting changes, we have not included this information in the chart below. However, we expect to see the numbers grow over time.

Undergraduate Program Assessment Report Quality

- Seventy-six percent of the undergraduate PLOs evaluated were rated as either *Satisfactory* or *Exemplary*. As the level of quality in PLOs was relatively high this year, objective/measure alignment tended to be high as well.
- Related to the high level of PLO quality, 93% of the submitted undergraduate assessment reports featured alignment that was rated as *Satisfactory* or *Exemplary*.
- The overwhelming majority (82%) of undergraduate programs, having employed direct measures, were rated as *Satisfactory*. A smaller but encouraging group of programs (11%) were rated as *Exemplary* as they employed both direct and indirect measures.
- This year, an overwhelming majority (87%) of submitted undergraduate study designs were rated as *Satisfactory* or *Exemplary*.
- Though over half of the undergraduate rubrics were rated as *Satisfactory* (37%) or *Exemplary* (17%), the largest number of rubrics (45%) were rated as *Developing*. These results suggest additional educational opportunities around rubrics is warranted for assessment leaders.
- Seventy-two percent of the undergraduate reports articulated a performance criterion that was rated as *Satisfactory*.

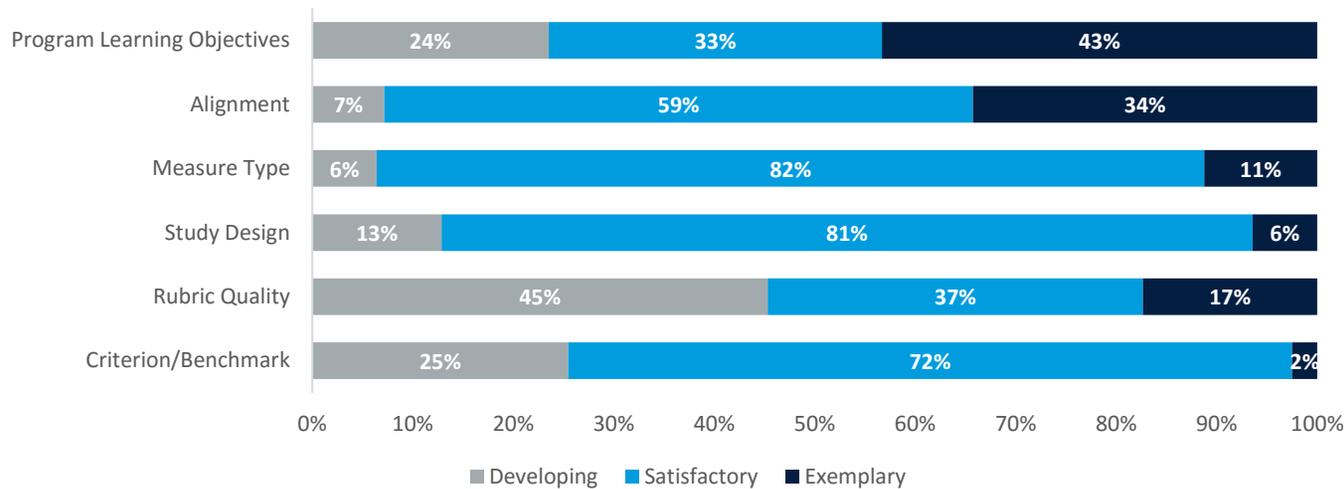


Figure 10: Quality Ratings of Undergraduate Program Assessment Reports

Graduate Program Assessment Report Quality

- Ninety-five percent of the graduate program PLOs evaluated were rated as either *Satisfactory* or *Exemplary*.
- With respect to alignment of measures, 80% of the submitted graduate assessment reports featured alignment that was rated as *Satisfactory* or *Exemplary*.
- The overwhelming majority (79%) of graduate programs employed direct measures and were rated as *Satisfactory*. A smaller group of programs (2%) were rated as *Exemplary* because they employed both direct and indirect measures.
- This year, an overwhelming majority (91%) of the submitted graduate program study designs were rated as *Satisfactory*.
- Though two thirds of the graduate program rubrics were rated as *Satisfactory* (29%) or *Exemplary* (34%), the largest number of rubrics (37%) were rated as *Developing*. This suggests that assessment leaders could use additional education and support in developing rubrics.
- Seventy-four percent of the performance criteria articulated in graduate program assessment reports were rated as *Satisfactory*.

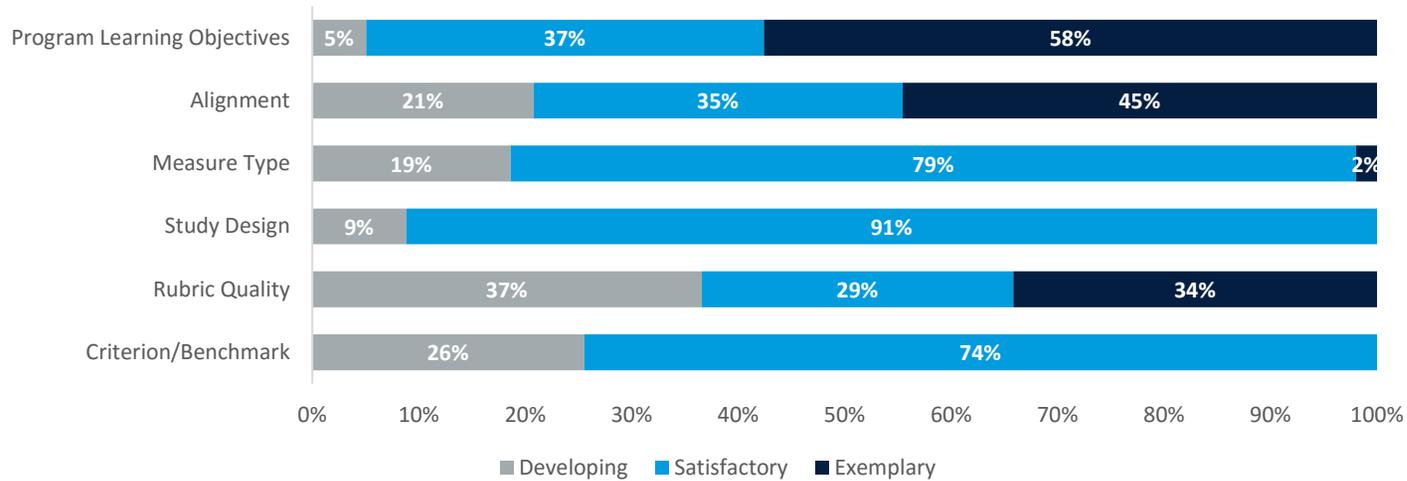


Figure 11: Quality Ratings of Graduate Program Assessment Reports

Assessment Forum

The Office of Planning and Assessment held Penn States’ first annual Learning Outcomes Assessment Forum on November 6th, 2018 at the Nittany Lion Inn on the University Park campus. The forum provided an opportunity to celebrate Penn State’s learning outcomes assessment progress. The event included a national speaker, Gianina Taylor Baker, Assistant Director of the National Institute for Learning Outcomes Assessment and panel discussions with both graduate and undergraduate assessment leaders who shared innovative assessment practices with participants. The event ended with a lunch which included remarks by Provost Jones, who thanked all for their efforts.

The event was attended in-person by approximately 100 people and virtually by many more. Attendees represented almost all colleges and campus locations as well as multiple assessment roles – assessment leaders, academic administrators, instructional designers, and even some staff from the Office of the Physical Plant who were seeking guidance for their own assessment activities. We will soon begin to plan the next Forum, currently being scheduled for Spring 2020.

University-Wide Curricular Coherence

A long-time and ongoing goal of the University –captured in the “one University, geographically dispersed” ethos, is to ensure that the student experience across the University’s many programs –and across all locations—is consistent and of equal quality.

At the level of the academic program, this requires that the learning objectives of programs offered at multiple locations be the same. Full alignment of learning objectives helps to ensure that the educational experiences of students pursuing the same degree –at any location— help students to cultivate the same set of knowledge, skills, and habits of mind Penn State faculty agree are essential for graduates. Moreover, the full alignment better supports students who move from one campus to another over the course of their academic careers. Providing encouragement and the support necessary for faculty and programs seeking to align learning objectives across multiple locations is one way the OPA team contributes to a fuller expression of the curricular coherence goal articulated in the *One Penn State 2025* vision.

Although not as vital to curricular coherence as shared program learning objectives, collaboration on assessment activities helps keep faculty teaching in the same program at different locations connected and can reduce the burden of assessment if instruments and methods are shared. This strategy can also provide a more thorough view of the program overall. It is sometimes more meaningful for some locations to employ unique assessment methods to address local issues. Maintaining flexibility across locations, even while encouraging alignment and collaboration, helps to ensure that assessment is successful in a University as complex as Penn State.

Table 11 depicts the variation in the level of sharing between locations. Programs for which PLOs that are the same in every instance or location of the program are scored “2,” for “*Full alignment.*” If some, but not all locations shared PLOs, the program scored a “1” for “*Some alignment.*” If all locations were different, the program was scored “0” for “*No alignment.*” In many cases where a program received a “1,” only a single location is using different learning objectives.

Table 11 also indicates the extent to which programs aligned their learning outcomes assessment activities. If all locations collaborated on a shared assessment, the program received a score of “2,” for “*Full alignment.*” If some, but not all locations collaborated, the program received a “1” for “*Some alignment.*” If all locations pursued their own unique assessment methods, the program was scored “0” for “*No alignment.*” Similar to the case with program learning objective alignment, in some situations where a program received a “1,” only a single location was using a different assessment strategy.

Table 12: Alignment of program learning objectives and assessment processes between programs offered at multiple locations

Program offered at multiple locations*	# of locations	Shared Objectives	Shared Assessments
Arts Administration	2	0	0
Biochemistry and Molecular Biology	2	2	0
Chemistry	2	0	0
Hospitality Management	2	2	0
Physics	2	0	0
Sociology	2	0	0
American Studies	3	0	0
Integrative Arts	3	1	0
Communication Arts and Sciences	4	1	1
History	4	1	0
Kinesiology	4	2	1
Mathematics	4	0	0
Organizational Leadership	4	0	0
Biobehavioral Health	5	2	1
Communications	5	1	1
Health Policy and Administration	5	2	2
Political Science	5	1	1
Corporate Communication	6	2	0
Rehabilitation and Human Services	6	1	1
Project and Supply Chain Management	8	2	0
Science	8	1	0
English	9	2	1
Biology	10	1	1
Human Development and Family Studies	11	1	0
Letters, Arts and Sciences	12	2	0
Administration of Justice/Criminal Justice	15	1	1
Information Sciences and Technology	16	1	1
Psychology	16	1	1
Business Administration	17	1	0
Bachelor of Science in Business (BSB)	19	1	0

Legend: "No alignment" = 0; "Some alignment" = 1; "Full alignment" = 2

*Programs offered at a single residential location plus World Campus are not included.

Programs with shared PLOs and/or Assessment Strategies

As depicted in Table 12, several programs offered at multiple locations share program learning objectives as well as assessment activities. These programs provide a positive model for multi-location collaboration on assessment studies. One key feature of these programs is strong leadership, which can come from any campus, and regular meetings. Below are two examples.

Health Policy and Administration

UP, Harrisburg, Lehigh Valley, Mont Alto, and World Campus

The HPA degree program offered at University Park has recently been extended to the other locations via the P-3 process. As such, program learning objectives are the same at all locations. Program faculty meet regularly to discuss student progress through the program and to determine where to focus assessment efforts. This past year they investigated students' abilities to "effectively receive, process, and relay information through speaking, writing, and listening." They employed the same direct measures at all locations in two common courses – HPA 301 and HPA 390. They also employed the same indirect measure – a student self-assessment. Furthermore, the group worked together to revise an existing rubric to be employed for the assignment at all locations. Their assessment report features student performance for each of the assignment categories captured by the rubric, and data are displayed separately by location.

English

University Park, Abington, Altoona, Brandywine, Erie, Greater Allegheny, Harrisburg, Scranton, Wilkes-Barre, York

For the last two annual assessment cycles, OPA staff have worked closely with English faculty to support a cross-location, shared approach to assessment. To leverage the larger numbers of students gained through collaboration, University College and Campus College locations work together on their annual study; University Park has elected to work alone.

The shared assessment employed a basic model: Faculty discussed and selected a PLO related to issues/deficits observed in their students over the previous year. This year, there was widespread agreement that students lacked proficiency in certain technical and mechanical aspects of writing. Having selected the relevant PLO, faculty from the English Joint Committee on Assessment worked together to develop an appropriate rubric. Following rounds of feedback and suggestions via email, the rubric was adopted. Over the course of both the fall and spring semesters, faculty teaching 400-level courses applied the rubric to students' final papers and entered the scores into an online spreadsheet developed with assistance from the OPA team. Scores were then analyzed, interpreted by the Joint Committee, results were shared widely via email, and the entire process and findings were discussed in the English disciplinary group's annual meeting.

Next Steps for Learning Outcomes Assessment at Penn State

The LOA team has prioritized several initiatives for 2019, as follows.

- Pilot the Assessment Management System (AMS)

January 2019 – system configuration

February/March 2019 - training of OPA staff

April/May 2019 – training of Pilot participants

June 2019 – assessment reports submitted through AMS for all Pilot participants

July/August 2019 – collect feedback from Pilot participants

September to November 2019 – adapt system based on feedback

Spring 2020 – training of all assessment leaders

June 2020 – all assessment submissions through AMS

- Continue assessing our process by collecting direct feedback from assessment leaders.
- Create additional resources that clarify good assessment practice, particularly around rubrics.
- Enhance the transparency of our process by including our standardized timeline and details about how we review assessment reports on our website.
- Explore strategies for offering funding to support learning outcomes assessment activities.
- Conduct University-wide assessment and evaluation projects