[](https://opair.psu.edu/)perform



Program Learning Outcomes Assessment   
Undergraduate, Graduate, and Certificate Programs

2021–2022 Report

Table of Contents

[Executive Summary](#_Toc120780327)

[Introduction](#_Toc120780328)

[Program Learning Objectives](#_Toc120780329)

[Program Assessment Report Submission Rates](#_Toc120780330)

[Raw Submission Rates](#_Toc120780331)

[Complete Submission Rates](#_Toc120780332)

[Incomplete Reports](#_Toc120780333)

[Future Planning](#_Toc120780334)

[Key Components of Assessment](#_Toc120780335)

[Types of Measures Employed](#_Toc120780336)

[Performance Targets and Results](#_Toc120780337)

[World Campus Programs](#_Toc120780338)

[Action Plans](#_Toc120780339)

[Curriculum Maps](#_Toc120780340)

[Impact of Assessment](#_Toc120780341)

[Report Feedback](#_Toc120780342)

[Nuventive Updates](#_Toc120780343)

[Keyword Searches](#_Toc120780344)

[New User Interface](#_Toc120780345)

[Canvas Integration](#_Toc120780346)

[Next Steps for Program Assessment](#_Toc120780347)

[Appendix](#_Toc120780348)

# Executive Summary

This page contains an infographic that summarizes this report. Word is not playing nice, and it has removed the tagging for screen readers. We’re happy to share the tagged version! Just let us know at [assessment@psu.edu](mailto:assessment@psu.edu)

# Introduction

Assessment is a critical component of high-quality educational processes. Penn State’s learning assessment process, implemented in 2016, is managed by the Office of Planning, Assessment, and Institutional Research (OPAIR) and enacted by designated assessment leaders in degree and certificate programs. Active, non-accredited, undergraduate degree, graduate degree, and for-credit certificate programs are required to participate. Because disciplinary accreditors such as those for engineering, education, and nursing require documentation of comprehensive learning assessment as part of their periodic self-studies,[[1]](#footnote-2) Penn State does not require these programs to report separately through this internal process. New programs in their first year and programs that are in the process of being phased out are also not required to submit assessment reports. For doctoral programs in which students obtain a master’s degree as part of the program but a separate master’s degree is not typically offered, Penn State requires only the doctoral program to complete an assessment report. The data in this report represents the submissions as of November 8, 2022.

Our 2021-2022 goal was to meet or exceed pre-pandemic assessment reporting in terms of submission rate and specific measures of report quality. Figure 1 illustrates the annual reporting cycle, which culminated on June 30, 2022. Reports from programs with approved extensions continued to be accepted through September 30, 2022. Assessment liaisons in OPAIR proactively connected with assessment leaders throughout the submission process to provide guidance and support, remind them of deadlines, and flag missing components of their submissions. Liaisons read each submitted report and provided formative feedback to strengthen future program assessment efforts. In addition, they met with unit academic leaders to discuss unit-level trends and feedback.

Figure 1. Assessment Reporting Timeline

As in previous years, OPAIR shared submission rates with academic leaders in September to provide them with an opportunity to encourage participation among degree and certificate programs that were behind in reporting. This year, OPAIR also shared submission rates with academic leaders at the end of July and encouraged them to check with programs that did not submit a report for 2021–2022 or did not have an assessment plan for 2022–2023.

# Program Learning Objectives

Program learning objectives (PLOs) are short statements that describe   
the knowledge, skills, values, and habits of mind that students   
completing a given program should be able to demonstrate upon   
graduation. They can address a range of types of knowledge and   
skills—cognitive, psychomotor, affective, interpersonal, and social.

The first step in program assessment is identifying learning objectives. Clear, concise, well-written, measurable PLOs form the backbone of program assessment. The implementation of the Nuventive assessment management system provided Penn State with a comprehensive view of the status of its assessment process for the first time in 2020–2021. In that year, 91% of certificate and degree programs that submitted reports had at least one active PLO in the system. This year, *100% of submitted reports met that mark*. Among all programs required to report, regardless of whether they did so or not, 5% (*n* = 35) lacked PLOs in Nuventive and the [*University Bulletin*](https://bulletins.psu.edu/). Assessment liaisons in OPAIR are working to engage these programs in this first crucial step of the assessment process and have set a target of 1% or less of programs without PLOs in 2023. Meeting that foundational goal will set the stage for further development of Penn State’s assessment culture.

Knowledge-focused PLOs remain the most common type of PLO (Figure 2) and have consistently been the most frequently identified for assessment. This suggests that additional resources may be needed to support the development and assessment of PLOs that reflect higher-order thinking, such as application and critical thinking. The consistently low proportion of assessed PLOs related to teamwork, create, ethics, and cultural competence over time—key aspects of most disciplines and professionals—suggests that programs are not prioritizing these learning categories (Figure 3). The dramatic reduction in the number of unclassified PLOs slated for assessment in 2022–2023 reflects the recent implementation of a requirement that all PLOs be assigned to a category. (This requirement only applies to PLOs that are edited, so it will be several years before this issue disappears entirely.)

Figure 2. All Program Learning Objectives by Category

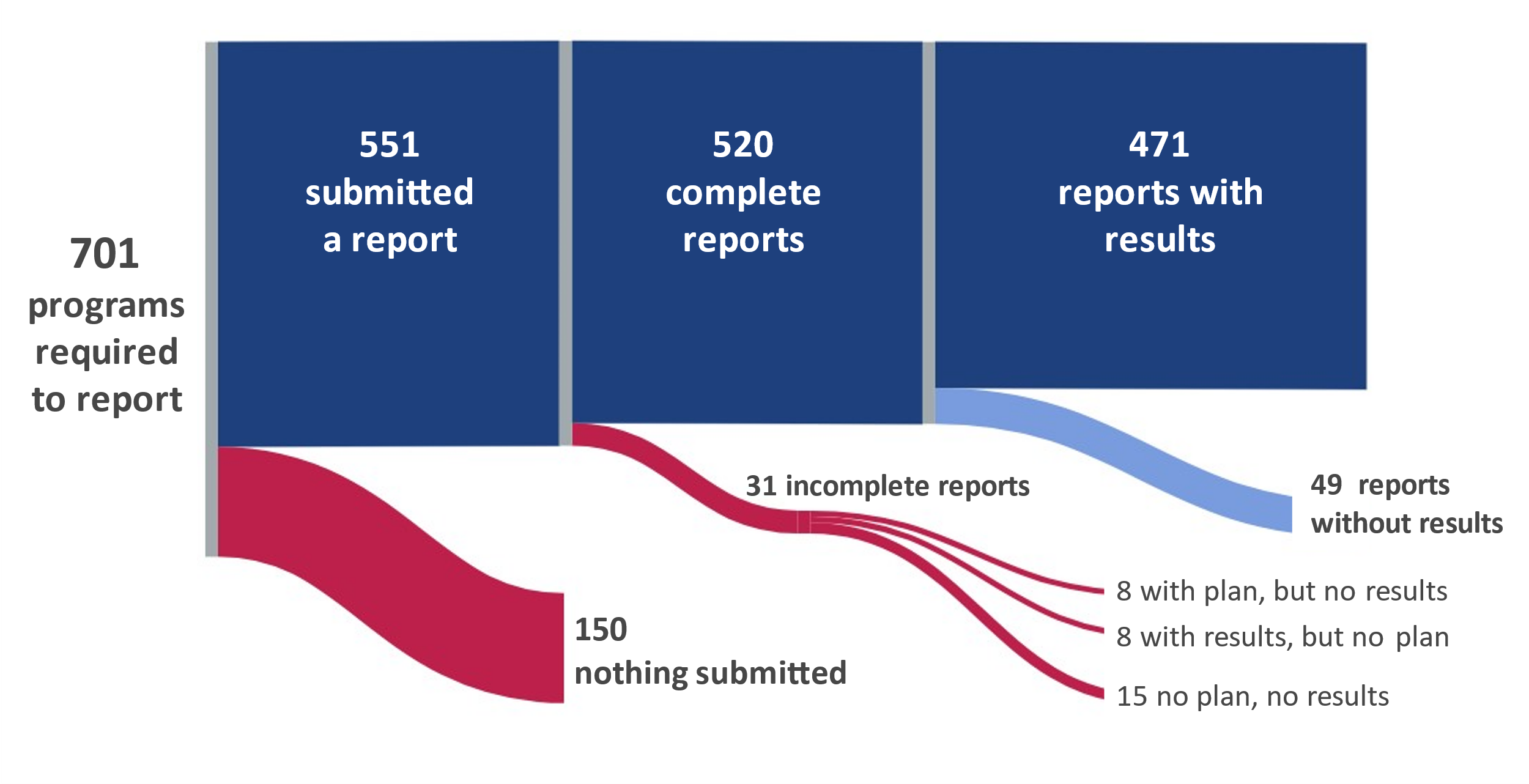
Figure 3. Percent of All Program Learning Objectives Assessed by Year and Category

# Program Assessment Report Submission Rates

Because the assessment process has solidified over time and integrated into Penn State culture, we are able to take a more nuanced view into submission rates than in prior years. Previously, any submitted report, regardless of content, was included in our calculated submission rate. This year, we tracked three categories: raw submissions, complete submissions, and complete submissions with results (Figure 4). Raw submission numbers are based on reports submitted regardless of content. These rates remain comparable to the calculated submission rates in prior years. Complete submissions are defined by their content. To be included in this category, reports must have a plan, including a method to assess at least one PLO in the coming year (2022–2023), and either include results for all PLOs slated for assessment in the prior reporting year (2021–2022) or an appropriate reason for not having results.

Appropriate reasons for not having results include situations such as relatively new programs and programs with few to no graduates in a given year. We request that active degree and certificate programs submit a report even if they are not documenting assessment results, because all programs should have a forward-looking assessment plan regardless of whether they completed an assessment the prior year. For this reason, the complete reports category is divided into complete submissions with results and complete submissions without results that had a valid reason for lacking results. Submissions that lacked a forward-looking assessment plan, results, or a valid reason for lacking results were deemed incomplete.

Figure 4. Reports Broken Out by Included Components 2021–2022



In the case of degrees and certificates offered at multiple locations, programs are given an option to submit their assessment reports collectively or separately. Only a single program chose to conduct a collaborative assessment across all locations and submit a single report in 2021–2022. We anticipate that more programs will choose this option in the future.

## Raw Submission Rates

In 2021–2022, 701 degree and for-credit certificate programs, hereafter referred to as “programs”, were required to submit assessment reports (Table 1). All submitted reports, regardless of report content, are counted in the raw submission rate. Overall, the raw submission rate for 2021–2022 was 79%, a slight increase over pre-pandemic submission rates and a continuation of the upward trend begun in 2016–2017 (Figure 5). Submission rates by credential type have varied since 2018—which was when Penn State began tracking submission by type—with the same general upward trend, punctuated by a slight dip in the year following the 2019–2020 “pandemic pause”, when assessment reporting was not required (Figure 6). Overall, certificate and graduate program submissions (72% and 75%, respectively) lagged behind undergraduate programs (85%) in 2021–2022. Undergraduate and postbaccalaureate certificates were combined to facilitate reporting.

Table 1. Number of Programs Required to Participate in the 2021–2022 Assessment Process

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Undergraduate | Graduate | Certificate | All Levels |
| Campus Colleges | 92 | 16 | 36 | **144** |
| Special Mission Units | 0 | 14 | 10 | **24** |
| University College | 140 | 0 | 9 | **149** |
| University Park | 95 | 186 | 103 | **384** |
| All locations | **327** | **216** | **158** | **701** |

Figure 5. University-wide, Raw Submission Rates

Figure 6. Raw Submission Rates by Credential Type

Examining the data by campus group[[2]](#footnote-3) and credential type, submission rates varied substantially, ranging from 66% for University Park certificates to 100% for Campus College graduate programs (Table 2). Compared to 2020–2021, submission rates this year were roughly on par or higher, with one notable exception: Special Mission Units (College of Medicine and Penn State Great Valley) graduate submissions dropped from 93% to 64%. However, it is worth noting that the 29-percentage point drop only represents four programs.

Table 2. Raw Submission Rates by Credential Type and Campus Group in 2021-2022

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Undergraduate | Graduate | Certificate | All Levels |
| Campus Colleges | 82% | 100% | 86% | **85%** |
| Special Mission Units | NA | 64% | 70% | **67%** |
| University College | 89% | NA | 78% | **89%** |
| University Park | 81% | 73% | 66% | **73%** |
| All Locations | **85%** | **75%** | **72%** | **79%** |

## Complete Submission Rates

As noted above, 2020–2021 marked the first year in which OPAIR began to differentiate between raw and complete submission rates. Complete submissions include results from the prior year (or a valid reason for not having results) and an assessment plan for the coming year (Table 3). As expected, the complete overall submission rate (74%) was slightly lower than the raw submission rate (79%). While we have not tracked this data in prior years, assessment liaisons noted that incomplete submissions are growing rarer.

Table 3. Complete Submission Rates by Credential Type and Campus Group in 2021-2022

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Undergraduate | Graduate | Certificate | All Levels |
| Campus Colleges | 78% | 94% | 83% | **81%** |
| Special Mission Units | NA | 64% | 70% | **67%** |
| University College | 84% | NA | 78% | **83%** |
| University Park | 75% | 68% | 64% | **68%** |
| All Locations | **80%** | **69%** | **70%** | **74%** |

Numerous factors can affect submission rates. Small programs may struggle to find enough students to assess or enough instructors to conduct the assessment. Programs with key courses taught by instructors that are not on the same campus or in the same academic group may struggle to gather assessment data. Unexpected changes in assessment personnel (e.g., sabbaticals, retirements, departures, and re-assignments) can derail assessment efforts. Also, the degree to which academic leadership within a unit emphasizes assessment can be very impactful. While these factors are consistently present among Penn State’s breadth of programs, sustained attention and engagement by academic administrators can have a mitigating effect and lead to improved participation. Submission rates by unit can be found in the Appendix.

## Incomplete Reports

Programs submit incomplete reports for a variety of reasons, including failure to complete an assessment or establish a plan for the coming year, departure or transition of key instructors and support staff, failure of academic leadership to support assessment, or program lack of buy-in to the assessment process. Among the four percent (*n* = 31) of programs that submitted incomplete reports in 2021-2022, 48% lacked results from the prior year and a plan for the coming year. In these cases, assessment leaders submitted a report containing only the submission page (no results or plan) to notify OPAIR that they would not be reporting. The remaining incomplete reports lacked either results from 2021–2022 (26%) or an assessment plan for 2022–2023 (26%).

While degree and certificate programs are required to submit an annual report, there are a small number of approved reasons why a report may not include assessment results from the prior year. These include: 1) being the first time a program has submitted an assessment plan, 2) not having upper-level students to assess, and 3) engaging in a multi-year data collection effort to obtain a large enough number of students from which to draw reliable conclusions. The number of programs to which these exceptions apply is relatively small, and most submissions are expected to include results.

In 2021–2022, 87% of the raw submissions included assessment results from the prior academic year a 26-percentage point increase over 2020–2021 (Figure 7). Among the complete reports, 91% included assessment results from the prior year, and 9% provided an approved reason for not having results (Table 4).

Figure 7. Percent of All Reports Including Assessment Results for the Prior Year

Table 4. Percent of Reports   
with Assessment Results for 2021–2022

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Undergraduate | Graduate | Certificate | All Levels |
| Campus Colleges | 92% | 94% | 90% | **92%** |
| Special Mission Units | NA | 100% | 71% | **88%** |
| University College | 88% | NA | 43% | **86%** |
| University Park | 86% | 86% | 84% | **85%** |
| All Locations | **88%** | **88%** | **82%** | **87%** |

Certificate programs often face particular assessment challenges, including low enrollments, the inability to identify students prior to graduation, and/or a lack of specific required courses. Despite these challenges, certificate assessment improved substantially over the last two cycles. This year, 82% of certificate programs reported assessment results, compared to only 48% in 2020–2021. University College certificates, which represent nearly a quarter of all for-credit certificates, continued to lag, with only 43% of programs reporting results. This is primarily due to the very low enrollments in many of these certificates.

## Future Planning

While there are justifiable reasons programs may not have results to report, all active degree and certificate programs are expected to enter an assessment plan for the coming year. A complete assessment plan includes identifying at least one PLO for assessment and an assessment method for each identified PLO. Assessment liaisons made a strategic effort to focus on future planning in 2021–2022, and the impact of that effort is apparent. In 2022, 96% of all submitted reports included a plan for the following year; a substantial increase over the 64% that did so in 2021 (Figure 8). The inclusion of plans was consistent across all groups and all levels (Table 5). Result and plan submission rates by college and campus can be found in the Appendix.

Figure 8. Percent of All Reports Including Assessment Plans for the Next Year

Table 5. Percentage of Report Submissions with Future Assessment Plans in 2021-2022

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Undergraduate | Graduate | Certificate | All Levels |
| Campus Colleges | 97% | 94% | 100% | **98%** |
| Special Mission Units | NA | 100% | 100% | **100%** |
| University College | 94% | NA | 100% | **95%** |
| University Park | 91% | 96% | 99% | **95%** |
| All Locations | **94%** | **96%** | **99%** | **96%** |

While assessment leaders are not required to plan assessments more than one year in advance, multi-year, comprehensive assessment planning is a best practice that is supported by Nuventive. Despite an increased focus on long-term planning in assessment communications and trainings in 2021–2022, Table 6 demonstrates that programs are still not taking full advantage of this functionality to facilitate multi-year planning. In order to promote multi-year planning, 2021–2022 program feedback to programs without multi-year plans included some variation of the following statement:

*As you move ahead, we encourage you to establish an assessment plan that charts a course for the future. A 3–5-year plan for when and how you will collect evidence for all your PLOs will provide a more comprehensive view of students’ learning and create efficiencies for your assessment leader(s) and program. Please do not hesitate to reach out to your assessment liaison if you would like to discuss these recommendations (*[*https://opair.psu.edu/assessment/liaisons/*](https://opair.psu.edu/assessment/liaisons/)*).*

Table 6. Percent of All PLOs Tagged by All Programs for Future Assessment

|  |  |  |
| --- | --- | --- |
| Planned Assessment Year | As Reported in 2021 | As Reported in 2022 |
| 2020–2021 | 19% | NA |
| 2021–2022 | 18% | 20% |
| 2022–2023 | 2% | 21% |
| 2023–2024 | 0% | 2% |
| 2024–2025 | 0% | 2% |
| 2025–2026 | 0% | 1% |
| No year designated | 60% | 54% |

In 2022–2023, assessment liaisons intend to continue encouraging multi-year planning in their assessment trainings and consultations.

# Key Components of Assessment

As detailed above, a complete report includes information describing a program's assessment activities in the previous year, as well as an assessment plan for the coming year. Embedded within are several key components to capture or describe the overall health of assessment practice at Penn State. These components include targets against which student performance is measured, an interpretation of results, and an action plan describing a program’s intended use of those results.

## Types of Measures Employed

Once programs identify PLOs to examine, the next step is to select appropriate methods to assess student performance. High-quality methods closely align with the PLOs they seek to measure. For example, a well-aligned approach would be to assess an oral communication PLO using student performance on an oral presentation. Poor alignment would be using written papers to measure that same PLO. While this is a simplified example, lack of alignment between PLOs and methods is a common challenge found in assessment reports and an area in which assessment liaisons often provide feedback to programs. Among submissions which included enough information for the assessment liaisons to make a qualitative statement regarding the alignment between PLOs and methods in 2021–2022, 94% of submissions were aligned; a three-percentage point increase over 2020–2021 submissions.

Assessment measures take many formats: class projects, surveys, milestone exams, etc. There are a number of reasons why assessment liaisons do not recommend the use of course grades or GPA for the assessment of individual learning outcomes (see [*The Use of Grades in Assessment*](https://opair.psu.edu/files/2019/05/UseOfGrades.docx)*).* The foremost reason is that these values reflect multiple objectives, rather than distilling performance on a specific PLO. Despite providing several years of consistent feedback and the provision of resources describing the limitations of grades and GPA as assessment measures, Penn State has seen no reduction in the use of this approach. In 2021-2022, fourteen percent of the reported measures relied on course grades or GPA (Table 7), up from 12% in 2020–2021. This trend is most prevalent among graduate degree and certificate programs who submitted 77% of the course grade or GPA related measures conducted in 2021-2022.

Table 7. Assessment Measures by Type for All Reports in 2021-2022

|  |  |
| --- | --- |
| Measure Type | Frequency |
| Course Grades/GPA | 14% |
| Course Project | 11% |
| In-Class Exam/Exam Questions | 10% |
| Milestone Exams (Pre/Post, Qualifying exam, 1st, 2nd, 3rd year Exams) | 8% |
| Paper/Essay | 8% |
| Survey (In-course, Program, Senior, Alumni, etc.) | 8% |
| Other | 6% |
| Capstone Project | 5% |
| Defense | 5% |
| Homework Assignment(s) | 4% |
| Thesis or Dissertation | 3% |
| Review of Portfolios, Projects, or Research | 3% |
| Presentation | 3% |
| Internship/Employer Evaluation | 2% |
| Lab Report | 2% |
| Training (Grant Writing, Interviewing, Resume Writing, Teaching, Ethics) | 2% |
| Case Study | 1% |
| Publication/Presentation of Research | 1% |
| Program/External Exam (e.g., Major Fields Test, Instructor Authored Exam, Licensure) | 1% |
| Interviews (In-Course, Program, Exit, Alumni) | 1% |
| Culminating Exam for Course | 1% |
| Post-Graduate Placement/Outcomes | 1% |

After course grades or GPA, course projects and in-class exams were the next most common assessment measures across all program types. The three most common assessment measures by credential type are:

* **Undergraduate certificates:** 50% of assessment measures are based on course grades or GPA, internship or employer evaluation, or a culminating course exam.
* **Baccalaureate degrees:** 46% of assessment measures are based on course projects, surveys, or exams.
* **Graduate certificates:** 66% of assessment measures are based on course grades or GPA, course projects, or papers or essays.
* **Master’s degrees:** 48% of assessment measures are based on course grades or GPA, surveys, or capstone projects.
* **Doctoral degrees:** 66% of assessment measures are based on milestone exams (e.g., qualifying exams), course grades or GPA, or dissertation defenses.

The best evidence of student learning is produced by a combination of direct and indirect measures of student learning. Direct measures utilize samples of student work and typically provide stronger evidence of learning than indirect evidence, which relies on students’ perceptions or other proxies. Of the assessment methods used by degree and certificate programs in 2021–2022 that could clearly be categorized by assessment liaisons as direct or indirect, 73% were direct, and 27% were indirect. This is unchanged from 2020–2021. A small proportion (8%) of all PLOs assessed were assessed using both types of measures—an assessment best practice.

## Performance Targets and Results

A key part of establishing a meaningful measure is the establishment of a performance target. A performance target establishes the level of performance at, or above, which instructors consider a group of students to have met the learning objective. An example target would be “80% of students must score at least 4 out of 5 on each rubric criterion”. Without a clearly articulated performance target, it is difficult or impossible to make clear statements about program effectiveness. Ninety-six percent of all measures flagged for use in 2021–2022 had a performance target, a two-percent increase over 2020–2021. Of those, 68% of programs met their performance target (Figure 9). The remaining 32% of programs concluded “target not met”, “mixed results”, or “inconclusive”. A review of the results and conclusion categories by assessment liaisons suggests that assessment leaders often choose the “mixed results” or “inconclusive” options where “target not met” would be a more accurate description of the assessment results. Consideration is being given to adjusting these options in 2022–2023.

Figure 9. Conclusions Based on Performance Target for All Reports in 2021-2022

## World Campus Programs

Programs are encouraged to monitor the distinct outcomes of World Campus and residential students to ensure parity in learning. Only 40% programs that include World Campus students, either exclusively or in addition to residential students, explicitly addressed World Campus students in their assessment results. This is a four-percent increase over 2020–2021 results. Assessment liaisons provided feedback to programs failing to address world campus students and emphasized the importance of including these students in the future. Conversations with assessment leaders indicate that many of the programs had actually assessed World Campus students but failed to distinguish them in their reports.

## Action Plans

The goal of learning outcomes assessment is to maintain or strengthen learning and the educational experiences provided to students. As a result, the Middle States Commission on Higher Education—Penn State’s accrediting body—monitors how programs use the information they gather to drive institutional and curricular improvement. Assessment liaisons gauge intentions to use assessment data when reviewing a program’s action plan. It is important to keep in mind that in the right circumstances (e.g., when students meet or exceed performance targets, or when no areas of concern are identified), that staying the course is a valid action plan. Among all results submitted, 79% had an action plan. Among those where the performance target was not met, 93% had an action plan, and among those with mixed or inconclusive results, 86% had an action plan (Figure 10). The biggest area of concern was the 7% of programs that did not meet their performance target and did not report an action plan.

Figure 10. All Results with Action Plans

## Curriculum Maps

Curriculum maps are an important tool in the assessment arsenal. By mapping PLOs to required components of the curriculum such as courses, internships, and key milestones (like doctoral qualifying exams), assessment leaders can identify opportunities for collecting evidence of student learning and areas of under- or over-emphasis on PLOs in the curriculum. While curriculum maps are not a required component of the assessment reports, the curriculum mapping feature in Nuventive is currently utilized by 40% of programs.

# Impact of Assessment

Since the inception of the current program assessment process in 2016, it has been a challenge to document the impact of assessment. In prior years, assessment leaders were asked whether curricular modifications were made recently, the nature of the most significant modification, and the impact of modifications. In 2020–2021, 16% of all submissions indicated that curricular modifications had been made. The nature of these modifications was most often a pedagogy change (21%), assessment measure change (15%), “other” change (15%), or addition of a course (13%). The impact of the changes was classified as positive 56% of the time. However, using the descriptive information provided, it was clear that there was a fundamental misunderstanding of the request to “Briefly describe the action and its impact”. Much of the information provided was unrelated to curricular modifications or assessment results. Just 11% (*n* = 9) of the submissions in 2020-2021 that noted a curricular modification clearly stated both the nature of the modification and its impact. As a result, the submission questions were revised for the 2021–2022 reporting cycle.

The new assessment impact section asks two, simple questions in an open-ended format:

1. Over the last year, did you make any changes based on prior assessment results from any year? (required question)
2. If yes, please describe the nature of these changes and their impact thus far.

With this adjustment, the curricular changes reported were more closely related to assessment results than those observed under the prior approach. The most common curricular changes reported were to course content or emphasis (26%), assessment methods (19%), and pedagogy (14%). It remains difficult, however, to document the impact of the implemented changes, in part because Penn State does not require programs to assess all PLOs annually. This non-prescriptive approach is preferred in recognition of the workload shouldered by assessment leaders who do not typically receive course releases or other resources to support their assessment work. A drawback to this approach, however, is that it can be several years before a PLO is re-assessed. In which case it can be difficult, if not impossible, to tie changes in student outcomes to changes implemented over time. Better ways to document the impacts of the University’s program assessment process are currently being explored.

# Report Feedback

Assessment liaisons provided written feedback to each of the 551 programs that submitted assessment reports in 2021–2022. Programs that did not submit reports were asked to meet with their assessment liaison. In addition, college and campus academic leaders—primarily associate deans and directors of academic affairs—were asked to meet with their assessment liaison to discuss the themes observed in their units’ assessment reports and to encourage assessment leaders to engage where gaps remain. As of early November, assessment liaisons had met with leaders from the Colleges of Agricultural Sciences, Education, Engineering, The Liberal Arts, Nursing; Penn State Abington, Altoona, Beaver, Behrend, Berks, Greater Allegheny, Schuylkill, Shenango, Wilkes-Barre, York, and the Huck Institutes.

Each unit had some programs that showed particular improvement in their assessment approaches. Typical improvements included moving from a reliance on indirect measures of learning to direct measures, replacing unsupported grade metrics with analytic rubrics, and completing or nearly completing a full assessment cycle covering all PLOs. One of the biggest challenges noted by assessment liaisons was the failure of programs to address prior feedback aimed at improving their assessment strategies and implementation. Some programs essentially copied and pasted their plan from the previous year without addressing any of the prior feedback. While there may be valid reasons that not all feedback is addressed, these reasons should be documented in future reports. This process is similar to that of the peer-reviewed paper process with which most faculty are familiar. Other challenges commonly noted by assessment liaisons in the feedback included:

* Failing to move the focus to a new PLO after repeatedly assessing one
* Using course grades or GPA as assessment measures
* Lack of alignment between PLOs, methods, and performance targets
* Failing to submit supporting documents (e.g., rubrics, assignment prompts, test questions) to demonstrate the alignment of PLOs, methods, and performance targets
* Failing to explicitly address the assessment of World Campus students in programs that are offered in residence and online
* Conducting assessment in lower-level courses, rather than near the culmination of a program

# Nuventive Updates

## Keyword Searches

When areas of strategic importance are identified at the University, it can be difficult to map curricula to these priorities in order to answer the question, “How does the education we provide support this priority?”. Historically this would in involve a manual process that was limited to searching key overview documents such as the curriculum descriptions in the *University Bulletin* or combing through thousands of syllabi that are not systematically collected or stored in a single location. In short, it was not feasible to answer such questions. In 2022, OPAIR worked with the Nuventive team to develop a reporting functionality that can identify PLOs, assessment methods, and assessment results using keywords. For example, it is now possible to identify every program with a PLO related to diversity, equity, inclusion, and belonging quickly and easily or every program assessment method based on an internship. This is an exciting new development in Penn State’s assessment culture.

## New User Interface

A new user interface (UI) is currently available from Nuventive that will offer significant advantages over the interface currently deployed at Penn State. After testing, OPAIR has decided to delay the transition to the new UI until fall 2023 for several reasons. The highly customized nature of Penn State’s version of Nuventive will require the system to be offline for several weeks during the transition. Given the cadence of the assessment cycle, late fall and early winter is the best time for the system to be offline. There remain a number of system updates anticipated in the beginning of 2023. Transitioning to the new UI in December 2022 would mean that users would need to adjust to multiple sets of changes in 2022–2023. Further, the extensive training developed by OPAIR to support Nuventive users would need to be updated multiple times. By delaying the transition, we can implement a single, comprehensive communication campaign throughout 2023 to prepare users for the changes and for the period during which the system will be offline.

**Advantages of the New UI Launching in Late 2023**

* Streamlined interface for entering outcomes, assessment methods, and results all from the same screens
* Ability to order, require, and add any field to any form
* Ability to add rich text fields where needed
* Quickly change between outcomes using the drop down at the top of the planning screens rather than navigating in and out of each outcome
* Easily filter outcomes and results on forms
* A cleaner report design that can be downloaded as a Word document
* New report format that allows rich text—including tables and charts
* Fewer steps to incorporate supporting documents into reports

## Canvas Integration

The integration of Nuventive and Canvas (Penn State’s learning management system) to allow assessment leaders to pull assignment results directly from one system into the other for assessment reporting was a “must have” feature for some constituents when assessment management systems were being vetted in 2018. Nuventive was selected, in part, due to its capacity to do so. An integration would create a centralized location within Nuventive to house Canvas data for courses in which program assessment is designated to occur for the purposes of improved analysis and program assessment reporting. The intention is to streamline the gathering of assessment evidence, facilitate the process of making meaningful connections between assessment evidence and PLOs, and support disciplinary accreditation needs.

In 2021, Nuventive completed the initial effort and OPAIR began working with volunteer testers[[3]](#footnote-4) from the Colleges of Engineering, Education, and Information Sciences and Technology to test and debug the integration. In early 2022, OPAIR was satisfied that the technology was in place to enable the integration. However, technology is only one part of this equation. The course data stored in Canvas is not publicly available information. Providing assessment leaders, who are often not the course instructor, with access to this data is not a step to be taken casually. Assessment liaisons are currently engaging in an extensive consulting process with concerned parties, including:

* In consultation with General Counsel, OPAIR established that there is a legitimate educational interest facilitated by the integration and that it would not violate the Family Educational Rights and Privacy Act (FERPA).
* The Vice Provost for Faculty Affairs and representatives from the Graduate School and Undergraduate Education were provided with an overview of the integration and posed no objection if an appropriate process could be identified.
* The Faculty Senate chair designated representatives from the Education and Faculty Affairs committees to consult on the project and facilitate its discussion amongst their constituents. At their recommendation, OPAIR has drafted a statement on the appropriate use of data available via the integration to be incorporated into training materials and the Nuventive interface.
* OPAIR presented an overview of the integration, potential use case scenarios, and the draft statement on appropriate use to the Senate committees on Educational and Faculty Affairs and is awaiting further feedback.

While OPAIR has established the technical feasibility of the integration, it will not move forward until there is a consensus that the benefits outweigh any concerns regarding assessment leader access to limited Canvas course data and that an appropriate process for granting access and educating users is established.

# Next Steps for Program Assessment

Penn State made incremental improvements on almost every assessment metric in 2021–2022. Fewer programs lacked documented PLOs than ever before, and PLOs were sufficiently categorized to provide a University-level view of assessment. The assessment report submission rate reached an all-time high and will likely continue to rise in future years. Submissions increasingly included all required components and fewer measures lacked performance targets than in past assessment cycles. Looking ahead, there is still work to do on many of the goals identified last year.

* **A greater focus and push for multi-year assessment plans**. The best indicator a degree or certificate program will conduct assessment in a given cycle is whether they have a plan to follow. Creating an assessment plan more than a year in advance creates efficiencies and eases transitions between assessment leaders. Nuventive’s enhanced tracking capabilities allows for better targeting of programs that lack such plans, and assessment liaisons will marshal their efforts and partners to push programs to think more than one year ahead.
* **Focus on programs that have consistently failed to engage in the assessment process. S**even years after the rollout of Penn State’s current assessment process, Penn State has made significant progress in terms of report submissions, but there is still work ahead to get to a point where a missing or incomplete submission is an anomaly rather than the norm for one in five programs. With the increased ability to easily identify consistently non-compliant programs in Nuventive, we will be able to target these programs more easily than in the past.
* **Continue to focus on common challenges. Assessment liaisons will continue to identify programs that consistently engage in ineffectual assessment practices (e.g., lacking documented PLOs, relying on course grades or GPA) and work with them to move toward best practice.**
* **Improve the user experience in Nuventive. Assessment liaisons will facilitate the transition to the new Nuventive user interface by engaging in pre-release testing and review and through a communication and education campaign to prepare users for the switch.**
* **Cultivate assessment champions. Assessment liaisons** will work to identify instructors and staff within the colleges and campuses who can help communicate the importance of assessment, as well demonstrate to instructors and administrators the links between assessment, educational improvement, and strategic planning. Early conversations around this initiative have drawn on similar models of applied expertise across Penn State, such as the General Education Faculty Scholars. A collaboration with the Office of General Education and the Schreyer Institute for Teaching Excellence could further foster connections between teaching practice, curricula, and assessment in courses and degree programs and certificates.

# Appendix

Table A-1. Raw Submission Rates by Campus/College in 2021–2022.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Campus/College | \*Degree/Cert. Programs (#) | Undergrad. | Graduate | All Levels |
| Abington | 19 | 68% | NA | 68% |
| Agricultural Sciences | 58 | 89% | 38% | 55% |
| Altoona | 22 | 55% | NA | 55% |
| Arts and Architecture | 10 | 100% | 57% | 70% |
| Beaver | 8 | 100% | NA | 100% |
| Berks | 21 | 90% | NA | 90% |
| Brandywine | 13 | 77% | NA | 77% |
| Business | 16 | 40% | 55% | 50% |
| Communications | 6 | 100% | 50% | 67% |
| DuBois | 10 | 100% | NA | 100% |
| Earth and Mineral Sciences | 70 | 55% | 83% | 74% |
| Education | 46 | 50% | 81% | 76% |
| Engineering | 51 | 100% | 100% | 100% |
| Erie | 36 | 94% | 100% | 94% |
| Fayette | 9 | 78% | NA | 78% |
| Great Valley | 10 | NA | 100% | 100% |
| Greater Allegheny | 11 | 100% | NA | 100% |
| Harrisburg | 11 | 95% | 96% | 96% |
| Hazleton | 24 | 91% | NA | 91% |
| Health and Human Development | 14 | 64% | 54% | 58% |
| Hershey | 18 | NA | 43% | 43% |
| Information Sciences and Technology | 10 | 90% | 100% | 94% |
| Intercollege | 8 | 100% | 78% | 80% |
| Lehigh Valley | 83 | 100% | NA | 100% |
| Liberal Arts | 10 | 73% | 51% | 63% |
| Mont Alto | 9 | 100% | NA | 100% |
| New Kensington | 8 | 89% | NA | 89% |
| Nursing | 5 | 100% | 100% | 100% |
| School of International Affairs | 12 | NA | 100% | 100% |
| Schuylkill | 24 | 83% | NA | 83% |
| Science | 14 | 100% | 82% | 92% |
| Scranton | 11 | 86% | NA | 86% |
| Shenango | 12 | 73% | NA | 73% |
| Wilkes-Barre | 11 | 100% | NA | 100% |
| York | 1 | 73% | NA | 73% |
| Total | **701** | **83%** | **73%** | **79%** |

\*The number of programs presented in the table is the number of active programs required to submit University assessment reports. New programs, programs that are phasing out, and programs that have disciplinary accreditation with its own assessment requirements are not included in this number.

Table A-2. Percentage of All Reports with Assessment Results   
by Campus/College in 2021–2022.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Campus/College | \*Degree/Cert. Programs (#) | Undergrad. | Graduate | All Levels |
| Abington | 19 | 63% | NA | 63% |
| Agricultural Sciences | 58 | 79% | 21% | 40% |
| Altoona | 22 | 55% | NA | 55% |
| Arts and Architecture | 10 | 67% | 57% | 60% |
| Beaver | 8 | 88% | NA | 88% |
| Berks | 21 | 81% | NA | 81% |
| Brandywine | 13 | 69% | NA | 69% |
| Business | 16 | 40% | 55% | 50% |
| Communications | 6 | 100% | 50% | 67% |
| DuBois | 10 | 60% | NA | 60% |
| Earth and Mineral Sciences | 70 | 36% | 75% | 63% |
| Education | 46 | 50% | 71% | 68% |
| Engineering | 51 | 100% | 98% | 98% |
| Erie | 36 | 88% | 100% | 89% |
| Fayette | 9 | 67% | NA | 67% |
| Great Valley | 10 | NA | 80% | 80% |
| Greater Allegheny | 11 | 91% | NA | 91% |
| Harrisburg | 11 | 89% | 89% | 89% |
| Hazleton | 24 | 82% | NA | 82% |
| Health and Human Development | 14 | 73% | 54% | 63% |
| Hershey | 18 | NA | 50% | 50% |
| Information Sciences and Technology | 10 | 70% | 88% | 78% |
| Intercollege | 8 | 100% | 78% | 80% |
| Lehigh Valley | 83 | 100% | NA | 100% |
| Liberal Arts | 10 | 64% | 38% | 52% |
| Mont Alto | 9 | 70% | NA | 70% |
| New Kensington | 8 | 78% | NA | 78% |
| Nursing | 5 | 100% | 100% | 100% |
| School of International Affairs | 12 | NA | 20% | 20% |
| Schuylkill | 24 | 92% | NA | 92% |
| Science | 14 | 69% | 64% | 67% |
| Scranton | 11 | 79% | NA | 79% |
| Shenango | 12 | 64% | NA | 64% |
| Wilkes-Barre | 11 | 75% | NA | 75% |
| York | 1 | 73% | NA | 73% |
| Total | **701** | **74%** | **64%** | **69%** |

\*The number of programs presented in the table is the number of active programs required to submit University assessment reports. New programs, programs that are phasing out, and programs that have disciplinary accreditation with its own assessment requirements are not included in this number.

Table A-3. Percentage of All Reports with Future Assessment Plans   
by Campus/College in 2021-2022.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Campus/College | \*Degree/Cert. Programs (#) | Undergrad. | Graduate | All Levels |
| Abington | 19 | 74% | NA | 74% |
| Agricultural Sciences | 58 | 84% | 31% | 48% |
| Altoona | 22 | 55% | NA | 55% |
| Arts and Architecture | 10 | 67% | 57% | 60% |
| Beaver | 8 | 88% | NA | 88% |
| Berks | 21 | 95% | NA | 95% |
| Brandywine | 13 | 77% | NA | 77% |
| Business | 16 | 40% | 55% | 50% |
| Communications | 6 | 100% | 50% | 67% |
| DuBois | 10 | 80% | NA | 80% |
| Earth and Mineral Sciences | 70 | 36% | 83% | 69% |
| Education | 46 | 50% | 81% | 76% |
| Engineering | 51 | 100% | 100% | 100% |
| Erie | 36 | 91% | 100% | 92% |
| Fayette | 9 | 67% | NA | 67% |
| Great Valley | 10 | NA | 100% | 100% |
| Greater Allegheny | 11 | 100% | NA | 100% |
| Harrisburg | 11 | 89% | 93% | 91% |
| Hazleton | 24 | 91% | NA | 91% |
| Health and Human Development | 14 | 64% | 46% | 54% |
| Hershey | 18 | NA | 43% | 43% |
| Information Sciences and Technology | 10 | 100% | 100% | 100% |
| Intercollege | 8 | 100% | 67% | 70% |
| Lehigh Valley | 83 | 100% | NA | 100% |
| Liberal Arts | 10 | 66% | 56% | 61% |
| Mont Alto | 9 | 70% | NA | 70% |
| New Kensington | 8 | 89% | NA | 89% |
| Nursing | 5 | 100% | 100% | 100% |
| School of International Affairs | 12 | NA | 100% | 100% |
| Schuylkill | 24 | 83% | NA | 83% |
| Science | 14 | 100% | 82% | 92% |
| Scranton | 11 | 86% | NA | 86% |
| Shenango | 12 | 73% | NA | 73% |
| Wilkes-Barre | 11 | 100% | NA | 100% |
| York | 1 | 82% | NA | 82% |
| Total | **701** | 80% | 72% | 76% |

\*The number of programs presented in the table is the number of active programs required to submit University assessment reports. New programs, programs that are phasing out, and programs that have disciplinary accreditation with its own assessment requirements are not included in this number.

1. Programs holding disciplinary accreditation are required to provide OPAIR with a copy of their most recent self-study, the name of their accreditor, and the year of the next accreditation review. OPAIR periodically reviews the requirements of these accrediting bodies to confirm that they require documentation of comprehensive learning assessment for accreditation. In the rare cases that a program’s accreditor does not require learning assessment, that program must participate in Penn State’s annual process. [↑](#footnote-ref-2)
2. The Campus Colleges are Penn State Abington, Altoona, Behrend, Berks and Harrisburg. Special Mission Units include the College of Medicine and Penn State Great Valley (All Penn State Carlisle/Dickenson Law programs are accredited and are not required to participate in the University learning assessment process). The University College is Penn State Beaver, Brandywine, DuBois, Fayette, Greater Allegheny, Hazleton, Lehigh Valley, Mont Alto, New Kensington, Schuylkill, Scranton, Shenango, Wilkes-Barre, and York. [↑](#footnote-ref-3)
3. The OPAIR team would like to offer special thanks to Leslie Foster, Lisa Lenze, Tom Litzinger, Amy Garbrick, Dave Hozza, Tiffany Squires, and Susan Stewart for the contribution of their time to this project. [↑](#footnote-ref-4)