National Institute for Learning Outcomes Assessment

February 2012

North Carolina A&T State University: A Culture of Inquiry

Gianina R. Baker

North Carolina Agricultural and Technical State University

North Carolina Agricultural and Technical State University (A&T), located in Greensboro, North Carolina, is a Historically Black College and University (HBCU) that prides itself on its research. Initially founded, in 1891, after the passing of the Second Morrill Act of 1890, as the Agricultural and Mechanical College for the Colored Race, it became part of the University of North Carolina (UNC) system in 1972. A&T is a Carnegie-classified doctoral/research university. Known as "Home to the Aggies," A&T offers 117 undergraduate degree programs in addition to 58 master's and 6 doctoral degree programs. Its vision as "a learner-centered community that develops and preserves intellectual capital through interdisciplinary learning, discovery, engagement, and operational excellence" has allowed it to become one of the nation's largest producers of African American engineers, psychology majors, and certified public accountants.

North Carolina A&T was selected for inclusion as a case study for NILOA due to its commitment to improving its campus by developing a "culture of inquiry"—specifically as this relates to student learning outcomes assessment activities. Three elements have been instrumental in A&T's drive to become a more data-driven institution: 1) administrative leadership that encourages discussions and collaboration around student learning outcomes assessment activities on campus; 2) the use of professional development opportunities to help foster the involvement and commitment of faculty members; and 3) the systematic and intentional use of student feedback.¹

Institutional Context

A&T is committed to becoming "a data-driven institution," according to A&T's Associate Vice Chancellor for Academic Affairs/Institutional Planning, Assessment, and Research. Furthermore, as a member of the Voluntary System of Accountability (VSA), A&T is dedicated to transparency about its learning outcomes for students; therefore, along with making student learning outcomes information publicly available as part of the process of building a culture of inquiry on campus, A&T is in the process of adopting a new general education curriculum developed around eight categories of student learning outcomes:

- 1. Written communication;
- 2. Mathematical, logical, and analytical reasoning;
- 3. Scientific reasoning;
- 4. Social and behavioral sciences;

Case Studies: North Carolina A&T

https://www.learningoutcomesassessment.org/

¹ The data gathered for this case study were from phone interviews with four A&T faculty members; the Associate Vice Chancellor for Academic Affairs/Institutional Planning, Assessment, and Research (IPAR); the Quality Enhancement Plan (QEP) Director; the Director of the Academy for Teaching and Learning; the Director of Institutional Research; and one student; as well as a systematic review of the institutional website and analysis of documents. Interviews took place during July and August 2011.

- 5. Fine arts and humanities;
- 6. Knowledge of African-American culture and history;
- 7. Global awareness; and
- 8. Student success.

Broad student learning outcomes have been developed for each of these categories and individual courses will be required to have course-level student learning outcomes that map to these general education outcomes, as well as outcome-linked assessments that track student learning and inform course-level improvement. A&T's faculty senate approved the new general education curriculum in November, 2011, and the university is currently in the process of developing general education course lists for each of the eight general education student learning outcome categories. The university is planning to implement the new general education curriculum and associated student learning outcomes in fall, 2012.²

External to the campus community, regional accreditation has been significant in moving A&T toward a culture of evidence around student learning outcomes. As a result of the last reaffirmation of the accreditation process by the Southern Association of Colleges and Schools (SACS) in 2010, A&T created its Institutional Effectiveness Council and began using a new web-based data assessment system—WEAVEonline—to develop, assess, and monitor program-level student learning outcomes as well as to create action plans for improvement based on assessment results. Additionally, faculty members have found the reaffirmation process particularly beneficial in completing their specialized accreditation reports. For example, instead of having to complete two separate reports, they were able to streamline the information and data needed for both specialized and regional accreditation.

A&T is also a participant in projects with the Center of Inquiry at Wabash College (Indiana) including the longitudinal Wabash National Study of Liberal Arts Education (WNSLAE) from 2007–2011 and the Wabash Study 2010 (started in the 2010–2011 academic year), which focuses on having institutions "use evidence to identify an area of student learning or experience that they wish to improve, and then to create, implement, and assess changes designed to improve those areas" (see https://centerofinquiry.org/wabash-national-study-of-liberal-arts-education/). A&T is focusing its work in this study on "how to improve student success in 'gateway' courses with high DFW [drop, fail, and withdrawal] rates"—particularly math courses, as noted by one faculty member.

Commitment from campus leaders fueled by creative ideas and buy-in from faculty and staff members has led to several assessment-related initiatives conducted at A&T, such as the Institutional Effectiveness Council, the Academy for Teaching and Learning, and the Wabash-Provost Scholars Program. Opportunities for faculty discussion include faculty and staff institutes and twice yearly faculty, administrator, and staff forums where discussions on current issues in assessment occur. In addition, the university participates in a number of UNC-system and national surveys that provide data to assess A&T in comparison to peer institutions to provide "a good indicator of what is going on externally, finding out how other institutions are doing" with respect to a variety of academic indicators including student learning outcomes assessment. Examples of national surveys that A&T incorporates into its assessment strategy are the Cooperative Institutional Research Program (CIRP) Freshman Survey, the National Survey of Student Engagement (NSSE), the Delaware Cost Study, and the Consortium for Student Retention Data Exchange (CSRDE) Survey. Data collected from these different assessment tools and initiatives, as one director stated, are useful in helping "develop a rich story, a narrative, of A&T" that highlights areas for improvement.

² For more information about the A&T general education review process, please contact Dr. Scott Simkins, Director of the Academy for Teaching and Learning (simkinss@ncat.edu), or Dr. Mary Smith (smithma@ncat.edu), Chairperson of the Department of Biology. Dr. Simkins and Dr. Smith serve as the co-chairs of A&T's General Education Review Task Force.

Charged in 2009 by its current chancellor to create a "culture of evidence" in both its administrative and academic units, A&T is aware and committed to the idea that involvement from its administrators, faculty, staff, and students is essential for assessing student learning outcomes and improving institutional effectiveness. As A&T becomes a more data-driven institution, dialogue between different groups on campus is essential for progress to be made in assessing student learning outcomes. This case study highlights the involvement and commitment to develop an assessment culture among A&T's various stakeholders—in particular, administrators, faculty members, and students—and how they are working to enhance the assessment of student learning outcomes across the university.

Administrative Leadership Support

A formal arrangement at A&T that promotes what a director described as "frequent, informal conversations" about assessment is the close physical proximity of the offices of Institutional Effectiveness, Institutional Research, and the Academy for Teaching and Learning. Putting these offices, each involved in different aspects of student learning outcomes assessment, in such close quarters in the provost's suite enables spontaneous conversations among these administrators in which they can share ideas and data, increasing the potential for program improvement.

With university leadership committed to creating a culture of evidence, faculty members and students also involved in A&T's student learning outcomes assessment have been able to make progress toward developing a culture of inquiry. A culture of inquiry, in no particular order, involves faculty in assessment, enlightens the university community to the various needs of students, fosters understanding of learning processes, and encourages discussions and collaboration among faculty and students. A&T administrators and faculty engage in such a culture of inquiry through a process a director described as

A gentle way of bringing assessment data to faculty and administrators as opposed to telling them what this means and what they should do. Instead, when you are rolling out and sharing assessment data, you present it and say "What do you make of this?" because there may be external factors of which others are not aware.

A&T is committed to improving student learning through a process of making meaning from data to inform decisions. In fact, one administrator discussed ways that administrators and faculty are trying to drive "an institutional change in terms of making assessment an embedded part of the culture." One group of administrators and faculty essential in promoting campus-wide dialogue and action around assessment activities has been the Institutional Effectiveness Council.

Institutional Effectiveness Council

Started in April 2010 during a SACS self-study, and currently consisting of 32 faculty and administrators who meet three to four times a semester, the Institutional Effectiveness Council (IEC) has the important role at A&T of creating a university-wide culture of ongoing assessment. IEC members said they "work with their respective units to monitor student learning outcomes and strategic plans and manage the assessment data using WEAVEonline."

In conjunction with the Academy for Teaching and Learning, a director noted, the IEC has been involved each year in bringing to campus prominent authors and practitioners whose work helps inform the pedagogy for professors around assessment. Recent workshop leaders have included Stuart Ross (course design), Stephanie Chasteen (use of clickers), Charles Blaich and Kathy Wise (Wabash National Study), and Pat Hutchings (faculty assessment activities). To help create a culture of inquiry at A&T, the IEC, according to one director, has made efforts to "align those [workshops] with what we are doing at the institutional level."

Another IEC-sponsored initiative has been the training of IEC Assessment Coordinators (ACs). While some members of the IEC are also ACs, additional training is being offered for interested faculty outside of the IEC. Because of IEC membership turnover due to meeting/class conflicts as well as a desire to reduce the number

of IEC meetings to four times a semester, it was decided to appoint unit-level ACs to serve as liaisons between the academic units and the university-level IEC. The role of the ACs is to lead the assessment of student learning outcomes in the ACs' respective schools and colleges, to review the WEAVEonline assessment reports for quality assurance, and to identify the assessment training needs of the faculty. With these pieces in place, the ACs will then be able to explain the importance of assessment to their respective schools and colleges and to facilitate collaboration between the IEC and department chairs and faculty. The idea behind the training of ACs is that the more experienced the faculty become in assessing student learning outcomes, the more the scholarship of teaching and learning will improve not only in their classrooms but also across campus. In addition, faculty training will provide opportunities for collaboration and will ensure that more people on campus understand the assessment processes. Faculty are key in changing the institutional culture to one that values assessment, and this change requires education through professional development.

Faculty and Professional Development

While engaging faculty in student learning outcomes assessment can often prove difficult, at A&T many faculty members are interested in incorporating student learning assessment data into their course improvement efforts. One reason for this faculty interest and involvement in assessment is accreditation, yet faculty members are also buying into the idea of assessment being essential to knowing what students are learning in the classroom. One faculty member said, "The more I learn about it [assessment], the more I believe in it." In fact, one director estimated that between 70–80 percent of faculty have "bought-in" to assessment in their classrooms.

To improve student outcomes, faculty buy-in is essential. One director described using faculty as "facilitators, promoters of assessment." Faculty development is necessary for faculty to become knowledgeable about quality assessment. One strategy promoted in workshops is the use of the homegrown COOL model³ (Conditions, Observable Behaviors, Object/Evidence, Level of Achievement), developed by the Quality Enhancement Plan (QEP) director and discussed with his colleagues of the Institutional Effectiveness Council Executive Committee. Similar to the ABCD (Audience, Behavior, Condition, Degree) model, COOL provides a template to aid faculty in writing student learning outcomes statements for their courses and syllabi:

- *Conditions*, or "what is given to the student for him/her to display the observable behavior," include settings such as after attending a lecture or after completing an assignment
- Observable behaviors are classified in six levels:
 - 1. knowledge (i.e., define, describe)
 - 2. comprehension (i.e., distinguish, estimate)
 - 3. application (i.e., classify, prepare)
 - 4. analysis (i.e., compare, interpret)
 - 5. synthesis (i.e., change, develop)
 - 6. evaluation (i.e., assess, rate)
- *Object* indicates what end product the professor desires the student to create
- *Level of achievement*, or outcome, is the "performance standard on which the learner will be assessed or the acceptable level of the behavior," for example, "the percent of correct responses, within a given time period, in compliance with criteria presented by the faculty."

Several A&T faculty have been trained in using the COOL model, however the QEP director has been primarily responsible in leading the charge. While several different models are available to assist in writing effective and measurable student learning outcomes, A&T has focused on the COOL model because it provides an easy-to-use template for developing high quality student learning outcomes.

³ For more information about the COOL model, contact Dr. Pedro Niño, Quality Enhancement Plan Director (ninom@ncat.edu).

Leading the way to a data-driven institution at A&T are faculty and administrators who value assessment. Many of the administrators are past faculty members with experience in assessing student learning outcomes. Several faculty and administrators have had graduate-level training in assessment, have served on specialized accreditation boards, or have used assessment to improve instruction in their own classrooms. These individuals have been instrumental in establishing a culture of assessment on campus by providing didactic, useable assessment activities in their classrooms and helping train colleagues in promising practices for assessing student learning outcomes. A&T's Academy for Teaching and Learning has also been highly influential in helping faculty implement assessment activities in their classroom.

Academy for Teaching and Learning

Recognized by several interviewees for its dedication across the A&T campus to the development of faculty members, the Academy for Teaching and Learning (ATL) is committed to its mission:

To promote continuing faculty development and enhanced student learning through the development of scholarly teaching; the scholarship of teaching, learning, and engagement; and formative assessment of teaching practices, curricular design, and student learning through activities that are informed and guided by research on teaching and learning, national teaching and learning-related initiatives, University-level strategic goals and objectives, and UNC-system priorities.

The ATL was established on the A&T campus in 2004 and is located in the Office of the Provost. Its director is committed to helping faculty improve teaching, learning, and assessment practices through the use of workshops and invited speakers. Each year approximately four to five internationally recognized speakers lead campus-based workshops on teaching, learning, and assessment topics. The ATL director is quite active in teaching and learning areas often choosing the speakers, and has developed connections with many of the people brought to campus. The ATL director is "interested in getting the best people here, especially those whose message is consistent with our mission, SACS, and institutional effectiveness work." Furthermore, as one administrator noted, the current ATL director is "constantly trying to bring new ideas on how we can undertake or foster a culture of assessment" on campus.

The ATL also frequently collaborates with groups such as the IEC as well as with the SACS QEP director in hosting and promoting external workshop leaders. In addition, in-house workshops led by the ATL director on topics such as using rubrics, developing student learning outcomes, and using formative assessment have been effective in promoting a culture of assessment both in the classroom and at the program level. The ATL director noted that an average of 20 to 40 faculty attend the workshops/speaker events, where book giveaways are often incentives to attending faculty and staff.

Faculty members' involvement and commitment, as opposed to one person's effort, are essential for an institution to improve its focus on scholarly teaching informed by local assessment measures. "Trained, knowledgeable experts [faculty] to help," according to one director, is essential in establishing and expanding inquiry efforts in teaching and learning. The same director noted that "by breaking synapses, undoing previous knowledge, and creating dissonance," faculty and administrators are able to understand the need for assessment to make necessary improvements in student learning in the classroom and, ultimately, across the university. To create this culture of inquiry about teaching and learning, both quantitative and qualitative evidence are needed, as well as the perspective of students.

Wabash-Provost Scholars Program

The most compelling qualitative evidence, as stated by several interviewees, used in improving A&T often comes from students' personal experiences in the classroom and at the university more broadly. According to the co-directors of A&T's locally developed Wabash-Provost Scholars Program (WPSP), capturing and sharing these "student voices" is critical to a university's understanding of the academic environment and its

impact on student outcomes. Growing out of A&T's involvement in the Wabash National Study of Liberal Arts Education from fall 2007 through spring 2011, the WPSP was developed in particular to dig deeper into questions faculty, staff, and administrators had regarding the results of A&T's first-year (2007–2008) in the Wabash National Study. For instance, faculty were intrigued with the data gathered around a question about faculty interest in the growth of their students. Unsatisfied with their students' responses and the fact that when comparing scores, A&T's were well below institutions of similar size, A&T wanted to find out qualitatively how students felt about their faculty and how faculty could better communicate their interest in their students. This question along with others of particular interest on A&T's campus spawned WPSP and thus, student-led focus groups.

Undergraduate students were trained to conduct student focus groups and other types of institutional assessment, including training on institutional review board (IRB) protocols. Each year there has been a different concentration for the focus groups. In the first year, scholars were interested in understanding more about student responses to the Wabash Study data collected that year. During the second year, attention shifted to A&T's intellectual climate, and students were asked about issues such as admissions and dress code policies. This past year, focus groups have centered on A&T's math department. In addition to conducting focus groups and collecting focus group data, the Wabash-Provost Scholars asked students follow-up questions to help better understand that year's concentration. They also analyzed and summarized the data, developed written reports (with recommendations), and presented their results to faculty and administrators, including the provost and chancellor. The WPSP started with 15 students in 2008 and grew to around 30 students during the 2010–2011 academic year. Details about the program, including its reports, are available on the ATL web site at http://www.ncat.edu/divisions/academic-affairs/atl/wabash-provost-scholars/.

The WPSP has been very useful to A&T in providing systematic and targeted student feedback on key institutional goals such as improving the university's intellectual climate. The student feedback is also shared with the campus community in public forums. For example, the chancellor highlighted data collected by the Wabash-Provost Scholars in his fall 2010 opening-day presentation to campus faculty, administrators, and staff, in which the process for developing the university's new strategic plan was introduced. Several interviewees also noted that the chancellor and other senior administrators at A&T have asked for WPSP students to serve on institutional committees after seeing WPSP results from various projects.

Through this program, a total of over 40 undergraduate students have been directly involved in leading and carrying out institutional assessment efforts on campus. In the process, these students have developed valuable academic and job-related skills that will benefit them after they graduate. One scholar interviewed described the WPSP as having "turned into a passion," allowing him to develop valuable research experience he might not otherwise have gained as an undergraduate. Interested in attending law school after earning a degree in economics from A&T, he believed his WPSP experience would make him a better lawyer as a result of his focus group interviewing, analysis of data, and writing of reports. He also considered the presentations he gave with the co-directors on WPSP activities at regional and national conferences invaluable experiences in developing his professional skills.

The scholar described above, interviewed because of his high level of interest and involvement in the WPSP, strongly believes that the use of student-led assessment can help the institution learn more about its students. According to one of the WPSP co-directors, the program allows students to become personally involved at the ground level in developing institutional knowledge about the university's students and the campus learning environment.

Use of Evidence of Student Learning

One of the main benefits of institutions engaging multiple constituents in assessment is the discussion that ensues bewteen them. Helping departments see where programs and processes align promotes student progress and success. Both faculty and students at A&T agree that collaboration and discussion are needed, especially in terms of student learning outcomes assessment. As one student mentioned,

It invokes a sense of teamwork, a sense of collaboration, but more importantly, a system of dialogue, consensus-building and metacognition. It's about how both faculty and students think about the class, not as individuals, but as a collective and then, at the end of the day, something good will come out of it.

A faculty member agreed that this connection and collaboration between faculty members and students is important for improving students' success. Although professors have been listing student learning outcomes, or objectives, on their syllabi for years, students often are not aware of what these are and why they are listed. Through the work of the IEC and the Assessment Coordinators, this is beginning to change. Discussing these connections within and across programs helps faculty members make those connections more visible and understandable to their students. Additionally, in one professor's opinion, students who make this connection seem to be more successful.

The personal experiences uncovered in student-led focus groups are particularly compelling to faculty members and administrators and have led to further questions being explored—a key component in cultivating a culture of inquiry. For example, initial Wabash National Study findings indicated that A&T students spent little time outside of class on academic activities. Further inquiry by Wabash-Provost Scholars through student focus groups and analysis of time-use diaries (of over 200 students) provided a clearer understanding of how students actually did spend their time outside of class. These results helped inform new academic policies and the institution's new strategic plan, unveiled in fall 2011.

In addition, assessment data obtained from WPSP activities have helped faculty and administrators better understand the students in their classes. For example, although a common belief among faculty members is that an overwhelming percentage of students at A&T are first-generation college students, in fact, assessments showed that only about "25% of the student population are first-generation." Such assessment data helps create more effective and targeted support services to improve student learning outcomes, retention, and graduation rates.

Next Steps

As A&T focuses on becoming a more transparent and data-driven institution, revisions are currently underway on the A&T website to share data with constituents outside the university as well as within the university community. A separate QEP website is currently being maintained. One director discussed creating dashboards for sharing information at the institutional level. In addition, the ATL director regularly uses the ATL listserv to share assessment information and promising teaching practices in hopes of creating a broader assessment community on campus. It is also the hope of one faculty member for A&T to become "more conducive for collaboration" among both students and faculty and to create physical spaces that facilitate such collaborations. The provost's suite is an example of how this may be done and shows the commitment of administration to allow for such dialogue. With a new strategic plan in place, additional opportunities for creating safe spaces for collaboration, dialogue, and public sharing of ideas are also being discussed. As one director noted

As an institution, you never really feel ready to be public about what you are doing because you are in a process and you feel that you have something raw and incomplete, which is true with any kind of research. That is what oftentimes holds people back from being public about what they're doing. I think we are somewhere in the middle, but I think it's useful to see the steps we are taking and it also helps to hear that [we] are doing good work. That in itself is very affirming and needs to be heard as well.

As the new general education curriculum is fully implemented in the next year, course and program-level assessment of general education learning outcomes will begin. It is expected that the new general education outcomes will be added to each department's major-level outcomes in WEAVEonline, with evidence collected on how the general education learning outcomes are being reinforced in the major. The Assessment Coordinators will play a primary role not only in helping to promote these revisions but also in helping with assessment activities and writing up reports concerning their departments' assessment activities.

The WPSP is taking a year to reflect on the entire program and make modifications. One of the co-directors discussed how fast the WPSP had initially taken off and the large number of students now involved. The co-directors are assessing how to better manage this program and retain its scholarly focus. Several other campuses have also asked for information about the WPSP and how they can implement similar initiatives on their own campuses. As a result, the co-directors are working on scholarly papers describing the WPSP to illustrate the benefits of involving students in institutional assessment and to define key principles in developing efforts like the WPSP. In addition, the co-directors are developing WPSP activities into an academic course so that WPSP scholars can earn college credit for their work. Finally, the co-directors are hoping to involve students more deeply in assessment activities conducted in the Institutional Research office, promoting the "training of students to be assessment scholars." In fact, one WPSP scholar is currently employed as a student worker in the office, a direct outgrowth of the program.

The IEC has been the main coordinator of assessment activities on campus. The addition of the WEAVEonline software for reporting assessment results has enhanced the efficiency of creating, sharing, and reviewing assessment documents. Several departments have been using the data management system to post their departmental program reviews and other pertinent documents. In fact, WEAVEonline departmental reports judged exemplary by the IEC are presented as models for other departments in IEC workshops. The growing proficiency in using WEAVEonline of department chairs and others will further facilitate collaboration between and among departments.

Lastly, because of A&T's commitment to the professional and personal development of its faculty, the ATL plans to continue its work in helping faculty enhance their scholarship of teaching and learning. ATL is working with the university and its faculty to encourage more faculty to use institutional assessment results, to promote assessment within courses, and to find creative ways to reward faculty for improving teaching and learning in their courses.

Lessons Learned

- 1. Creating a culture of inquiry requires the sustained involvement and commitment of a variety of stakeholders. Involving each group—administrative leaders, faculty members and, most important, students—in campus assessment activities which capture their respective interest is essential to the success of assessment efforts.
- 2. To move from an assessment agenda focused on accountability to one focused on improvement requires opportunities for making sense of data collaboratively through structured supportive experiences, allowing those interested in assessment to dig deeper into the results, and creating processes, policies, and pedagogies to improve student learning outcomes.
- 3. Reflection is a vital part of any assessment process. Time and space are needed to review accomplishments and to consider next moves forward. As an administrator stated, such reflection "helps you understand what you've done, how much you've done, and where you need to move in going forward" allowing faculty and administration to, according to one director, "not just [be] consumers of information but also producers of knowledge."
- 4. A culture of inquiry requires understanding that changing institutional behavior and norms takes time and commitment from various groups through a continuous cycle of assessment and improvement at the university, department, and classroom levels.
- 5. Clarifying to internal and external audiences how the campus assesses student learning, what the campus learns through assessment, and why the campus takes or does not take actions based on assessment results will further buy-in and commitment to assessment processes.

NILOA Examples of Good Assessment Practice

With funding from several foundations, the National Institute for Learning Outcomes Assessment's (NILOA) mission is to examine institutional practice and help institutions productively use assessment data to inform and strengthen undergraduate education as well as to communicate with policy makers, families and other stakeholders. Documenting what students learn and can do is of growing interest both on campus and with accrediting groups, higher education associations, parents, employers, and policy makers. And yet, we know far too little about what actually happens in assessment on campuses around the country. NILOA conducted several short case studies, titled *Examples of Good Assessment Practice*, of two- and four-year institutions in order to document institutional achievements in the assessment of student learning outcomes and highlight promising practices in using assessment data for improvement and decision-making. The data collection process included a thorough examination of the websites and relevant assessment documents (accreditation self-studies, assessment reports, program reviews etc.) for selected institutions and interviews with key institutional representatives.

About NILOA

- The National Institute for Learning Outcomes Assessment (NILOA) was established in December 2008. It is funded by Lumina Foundation for Education and The Teagle Foundation.
- NILOA is co-located at the University of Illinois and Indiana University.
- The NILOA website went live on February 11, 2009. www.learningoutcomesassessment.org
- The NILOA research team has reviewed over 1,000 institution websites for learning outcomes assessment transparency.
- NILOA's founding director, George Kuh, founded the National Survey for Student Engagement (NSSE).
- The other co-principal investigator for NILOA, Stanley Ikenberry, was president of the University of Illinois from 1979 to 1995 and of the American Council of Education from 1996 to 2001. He served again as Interim President of the University of Illinois in 2010.

National Institute for Learning Outcomes Assessment

For more information, please contact:

National Institute for Learning Outcomes Assessment (NILOA) University of Illinois at Urbana-Champaign 51 Gerty Drive Suite 196, CRC, MC-672 Champaign, IL 61820

learningoutcomesassessment.org niloa@education.illinois.edu Phone: 217.244.2155

The ideas and information contained in this publication are those of the authors and do not necessarily reflect the views of Lumina Foundation for Education or The Teagle Foundation.