AACRAO

CLR PHASE II REPORT

Acknowledgments

Table of Contents

Executive Summary

In November 2017, AACRAO was awarded $1.19M in a grant (#10199) from Lumina Foundation to expand its prior work on new forms of student records that were focused on learning or competencies of postsecondary education. There were three main objectives of this project:

1. Build upon the pilot work in the earlier project (2015-2017) to expand and scale adoption of the Comprehensive Learner Record (CLR).
2. Address data integration issues that were identified as one of the major obstacles to data integration in the first project.
3. Provide guidance on how student information systems (SIS) and/or learning management systems (LMS) could be used to track progress toward learning outcomes/competencies.

The project that preceded this one (2015-2017) is now known as Phase I. It developed 12 pilots with institutions that represented the breadth and diversity of American higher education. Those pilot record forms, which started under the name "extended transcripts", quickly changed names to "comprehensive student records." This moniker was devised as a way to more accurately describe the records and to avoid confusion with official academic transcripts. Although never intended, stated or communicated, some faculty and registrars assumed that the project's goal was to replace academic transcripts and/or upend the curriculum, replacing academic courses with student activities. While inaccurate, these comments and questions allow the project team to understand some of the concerns that came along with challenging the way student learning has been organized and recorded in American higher education. They allowed the project team to carefully and consistently address these concerns over the past five years.

Phase II, as the current project is known, sought to expand the understanding and use of CLRs ("student" was replaced by "learner" in the name to be even more inclusive and to focus on learning more intently) among many more institutions. To paraphrase Lumina Strategy Director Dr. Amber Garrison-Duncan, "You can't pilot your way to adoption." This phase sought to expand it to implementations in as many as 150 campuses, an ambitious effort. It also sought to clarify what a CLR is and its benefits. There was a good deal of communication about the CLR and the project through AACRAO and through our partner associations, NASPA and NILOA, as well as with other associations and higher education groups.

The challenges of integrating data across information platforms in higher education was documented in the Phase I report in 2017. It was identified at that time as being one of the significant barriers to broader adoption of CLRs. During Phase II, this challenge was addressed by creating a work team of experienced and technically savvy registrars who were aware of the limitations of information systems, as well as the need for student identity to be joined accurately and securely when data from multiple systems is used for student records.

This work team used a three-step approach to the issue. First, the registrar group met to identify the issues across their institutions with sensitivity toward those that have few technology resources. Once those issues were identified and some initial ideas about solutions were drafted, technology providers were invited into the group to broaden the understanding of the issues and potential solutions as the second step of the process. A working paper was drafted and made available to AACRAO members for comment. Special working sessions were set up during the 2018 AACRAO Technology and Transfer Conference, where the issues and potential solutions were discussed. Additional ideas surfaced from these meetings and were incorporated into a final guidance paper, which is publicly available on AACRAO's website.

The use of SIS platforms to track progress toward learning outcomes was not a final success. While there was some initial work to identify willing partners who would share their resources on how degree audit milestones could be used for this purpose, two issues arose that limited

the success of this work. First, those institutions who were willing to share information did not have data in place to test or program actual degree audit rules. Second, those who had complete degree audit systems in place were unwilling to participate for fear that their participation would somehow be used to commercialize a product. Although there were repeated assurances to the contrary (at least AACRAO would not do this), those were not enough to overcome concerns.

Although the original intent was not realized, there were outcomes that will be helpful to higher education. Rather than relying upon existing degree audit systems, practitioners developed their own "views" of learning data that allow students, advisors or faculty to see the progress learners have made toward intended outcomes. Examples are included in this report, as are the hypothetical means by which degree audit systems could be used to track learning outcomes, if so desired.

The novel coronavirus (COVID-19) had a significant impact on Phase II. All institutions had to at least pause any progress they had made on their work to develop and implement a CLR. For a few, this pause is indefinite at the time of this report, and it is unclear when they may pick up the work again. The pandemic also precluded the scheduled workshops and final showcase event in 2020. While video meetings were held and were productive, the in-person workshops, especially in Indiana, were much more successful in driving the large group of institutions to complete steps in their work. The final showcase was scheduled for January 26-27, 2021 and will allow all participants from both phases of the project to present their outcomes and progress to date.

Expansion of the CLR's Use

At the conclusion of Phase I in 2017, significant interest had grown in the CLR from the work done by AACRAO and NASPA to promote it. Based upon email exchanges and phone calls between interested institutions and AACRAO/NASPA representatives, it was clear that the level of readiness among those interested institutions was highly varied. The *idea* of having a CLR was keenly interesting to many; the process and information required to actually create one was less known and often daunting, once institutions realized what lay underneath the veneer of the digital record. Some were well aware and had followed closely the work in Phase I; others had a glancing look at a CLR somewhere along the way and were exploring it. Add to this variation the claims in the marketplace by companies seeking to sell software solutions (i.e., Portfolium and Campus Labs) that offered a CLR to their clients. However, these portfolio, co-curricular transcripts and other products lacked the structure and depth of information that define the CLR. The audience was understandably confused.

AACRAO and NASPA embarked on an information campaign across our meetings and speaking engagements to raise awareness of the CLR and define it. This included the following standard information.

A Comprehensive Learner Record (CLR) is:

⇒ An official institutional record issued to students

⇒ A record focused on learning that occurs throughout the educational experience:

   o Through coursework

   o In co-curricular experiences

   o In learning experiences that may occur at the same time as the educational experience but outside the institution's oversight

⇒ Records may focus on any or all of these but go beyond rosters of courses, activities or experiences to evidence learning

Figure 1. CLR Example from Lipscomb University
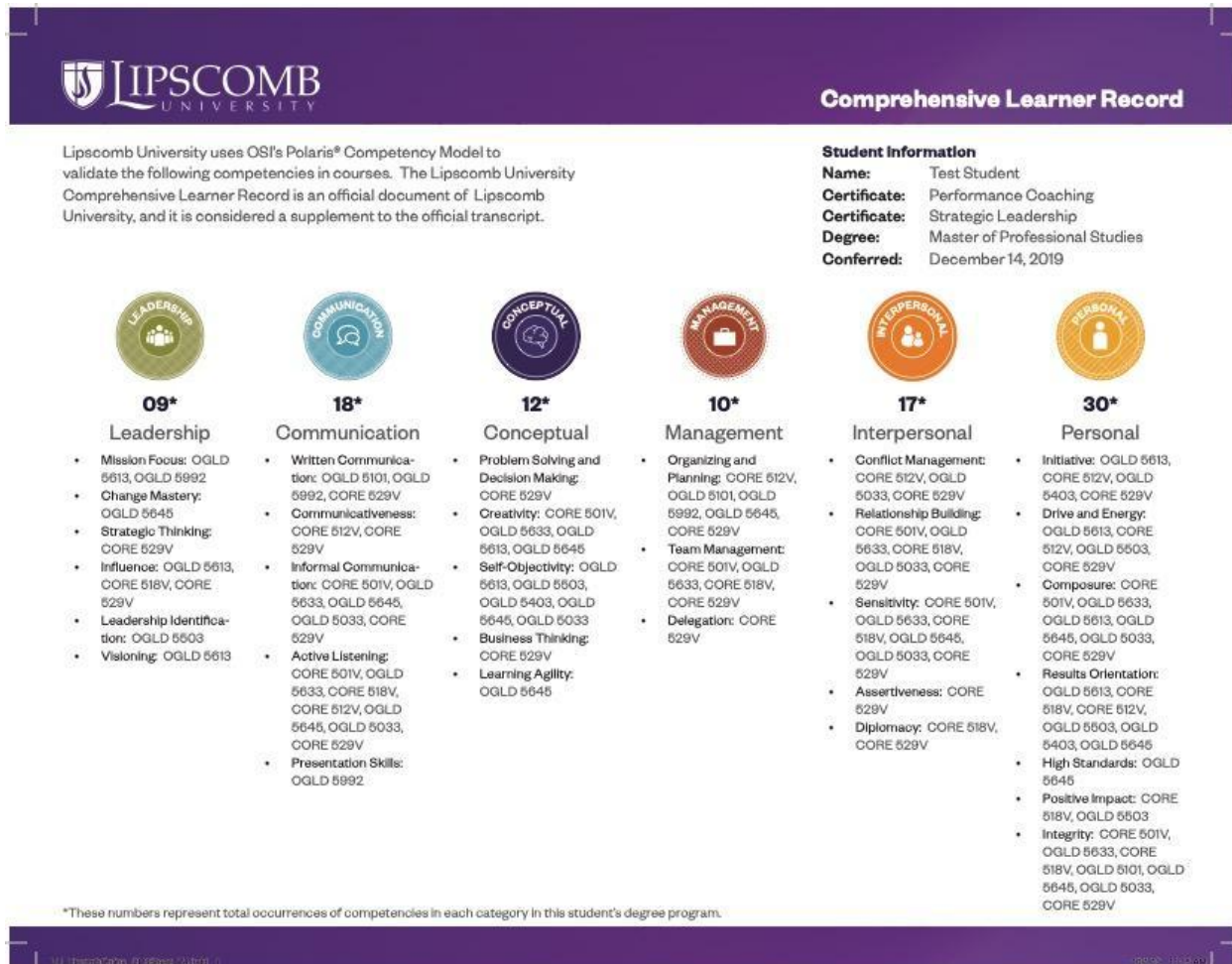
A screening device was developed that allowed interested institutions to apply for inclusion in Phase II. It asked questions along a number of areas that were informed by Phase I outcomes and from the numerous conversations with colleges and universities who expressed interest in being part of any future work. An online survey instrument was developed and deployed on the AACRAO website. A copy of the survey, called a "readiness assessment," is found in Appendix A.

By November 2018, 13 institutions had applied for participation in Phase II. While this number was fewer than needed, there were some interesting developments within and around these submissions. Indiana as a public higher education system applied, as did the University of North Texas, which is a system, as well. It became clear that the scale required for this phase would more quickly be realized by seeking out and working with systems or networks of institutions, rather than individual campuses. A combination of outreach to institutions, referrals from colleagues who knew we were seeking these systems, and occasional luck at being at a meeting where the CLR was discussed generated additional conversations and interest from larger systems. The Tennessee Board of Regents and the University System of Maryland joined Phase II. Three very large online institutions – Purdue Global, the University of Southern New Hampshire and Western Governors University – also joined.

Institutions joined at various points throughout Phase II. Some came in right away, others straggled in but were able to join the early group. Others came in too late to be grouped with this phase, so Phase IIB was created to accommodate them. Regardless of when an individual school or system entered the project, a similar format was followed. It provided workshops and experts to deliver content, and a structured approach to completing the project. In some of the larger system workshops (Indiana, Maryland, North Texas), the content was slightly tailored to the technologies and policies of each system.

The workshop series started with an introduction to the CLR, what it is, who it benefits, examples of existing digital records, etc. It also introduced a planning tool to guide each institution's development of their CLR (Appendix B). In Phase IIA, institutions were grouped into three geographic regions – East, Midwest and West. One of the patterns noticed from this was that many people preferred to travel to Las Vegas for their workshop and, as a result, the number of sites was reduced to two from three, saving some meeting costs.

The core team from AACRAO, NASPA and NILOA met after each workshop to debrief on what worked well and what could be improved. Feedback from participants was solicited and reviewed during this debrief. One of the strongest and initially underestimated aspects of the workshops was the chance to speak with other institutions who were working to develop their CLRs. Unstructured and structured networking was built into each subsequent workshop. During meals, there were themed tables according to institutional role – academic affairs, student affairs, registrars and IT. Before the afternoon sessions began, each table reported their discussions and what they had learned during these networking opportunities. At other times, participants were encouraged to set up times after the workshop day ended to meet and share information or ask questions of each other, but there was no requirement to do so.

The second workshop was designed around progress and barriers to it. The progress reports created accountability for each institution. Each team (up to four people could attend) needed to make a presentation to the rest of the teams in the workshop about where they were with the development and implementation of the CLR, including their outlook for a timely implementation. Each team was also scheduled for an individual meeting with consultants to discuss progress barriers and how they could overcome them.

The third workshop was designed to report completion of the CLRs' development and implementation. Each team made a presentation about their progress to date and what was left to be completed. For some institutions, this meant a great deal of technical work to have a working CLR in place. For others, it was expanding the use of the CLR to more student groups, as institutions were encouraged to create a project scope that was narrow enough to get a working CLR within the original timeframe of the grant.

The workshops for Phase IIB were similar to those in Phase IIA but were set up around the needs of state systems. Perhaps the most customized workshops were for the University of North Texas (UNT) System and neighboring North Central Texas College (NCTC). The project was already underway at UNT in Denton, and the team there knew exactly the technology and

approach they wanted to use. It was curriculum-focused and used Canvas' LMS to capture and badge completed assignments that lead to broad learning outcomes. Their challenges were socializing this among faculty at UNT, working with student affairs staff on assessment of learning outside the classroom, and helping all areas of NCTC enter into the project in a way that allowed their students to obtain CLRs that could transfer to NCTC. Workshops were created that addressed these highly varied needs and held on two separate onsite visits to Denton, TX.

The Tennessee Board of Regents (TNBOR) and its 40 campuses engaged into the project in Phase IIA but extended their work into Phase IIB. The Student Affairs division of the System Office took a unique approach to this work. Rather than have all 40 campuses engage at once, they formed a core team that included representatives from the System Office, a few community college and a few technical college representatives, and an outside business advisory member. The first workshop combined information on the CLR with meetings between the consultants, the TN BOR core team and executives from the System Office. This also included meetings with two potential solution providers, the National Student Clearinghouse and Paradigm.

It was during these last meetings that the technical college's warranty card surfaced. One of the team members noted that they issue a paper certificate to graduates of their programs. It is to be provided to the student's employer and notes the competencies that the student should have mastered during his/her certificate program. If the competencies are not evident to the employer, as evidenced by the new employee's work, the student may return to the technical college for six months of additional training at no cost. Everyone present at the meeting noted that making this into a digital credential not only made far more sense than issuing pieces of paper but that the work of identifying the competencies had already been done. While the System had an idea about other competencies for community college students, this opportunity was too great to pass up, and work began to turn toward the warranty card as a CLR, instead.

Navigating the changes in direction or issues that arose within systems was a significant part of completing Phase IIB. The TN BOR didn't abandon their CLR ideas for community colleges but the project had to change course. The second workshop was focused on training student affairs personnel across the state on concepts and methods to assess learning outside the classroom. The warranty card process was being tracked, at the same time.

In Indiana, some schools just wanted to observe the process without a commitment to complete a CLR. As workshops were designed to be interactive, this meant creating ways for these two schools to be engaged in them without having anything to share. It also meant keeping the other 11 schools motivated to complete their work when the two schools were not expected to do so.

The University System of Maryland had some very engaged participants, but other institutions in the system were only marginally interested. After an initial workshop to introduce the project to all schools in the system, the three highly motivated universities stayed in the project. Winston-Salem State University in North Carolina agreed to join this group, and although they weren't a part of the USM, they were warmly welcomed into the group and were able to participate equally in the workshops. This group of four institutions also wanted a fourth progress workshop to keep them on pace, which was accommodated by using AACRAO and NASPA personnel who lived on the East Coast and by joining NILOA personnel through a video call.

Phase IIB schools were also those hit hard by the pandemic. Their workshops were postponed, attendance at some was sparse, and expectations changed sharply due to the chaos that ensued across higher education in 2020. See "The Impact of COVID-19" later in this report for more information on this.

All participating institutions filed final reports, which are supplemental to this report. These include samples of the CLRs they developed and the status of their implementation at the conclusion of 2020.

Data Integration

The challenge of data integration emerges from the way that various higher education computer systems have been developed and deployed over the past 30-40 years. At the origins, they sought to capture enrollment transactions and computerize the student academic record. As learning was occurring in classes taught by the institution, capturing registration, billing for courses/terms, recording grades/degrees and issuing academic transcripts and grade reports were the main important functions. Integrating these with an institution's general ledger enhanced financial reporting and streamlined accounting. Computerizing and automating financial aid functions added to that enhanced financial ability.

Since that time, there have been many other computerized needs in higher education. Functions from housing, libraries, lab and room access, and online course platforms all need information from the student information system (SIS) to knit student identity into these areas. Generally speaking, the idea was to push the student's information out to these systems, so that they could then operate, as needed. Most recently, student life offices have seen the need to have their own systems to track club and organization membership (formerly kept on lists within offices of student life), organize career services and provide a better understanding of student engagement outside the classroom. These systems are not always populated from the SIS, as student self-reported engagement was adequate for student affairs departments to see the activities and engagement trends.

Computer systems for student records is based on an outdated paradigm of student learning. It tracks only those learning activities that occur within courses and, even then, it only tracks the summary of those activities, final grades and their associated credits. There is little or no information on the expressed learning outcomes or competencies gained within these courses. Further, learning happens in many settings, and courses are an incomplete picture of the student's educational experience, especially when the campus has student life and residence

life programs. More and more faculty are working to incorporate global study, internships, research and discipline-based student organizations into their curricular offerings.

The CLR harvests the evidence of learning across many modalities, inside and outside of courses. Figure 2 below (taken from a CLR workshop in December 2019) illustrates the ways in which learning activities occurring within and outside of courses must be associated with learning outcomes from those activities, then securely and accurately joined to the student's identity.

Figure 2. CLR Data Model
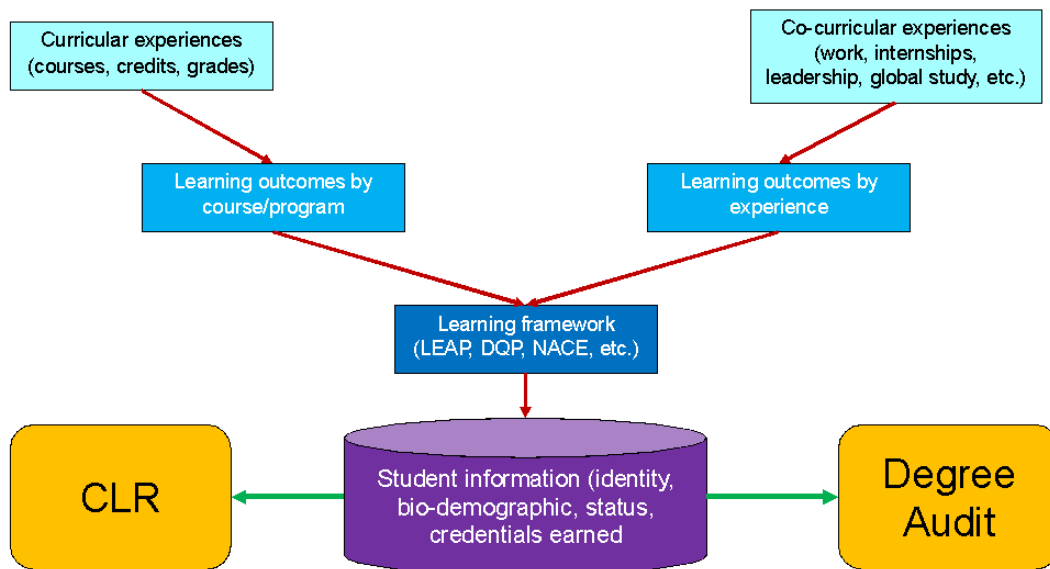
Those data that occur in curricular experiences have been segmented into both the SIS and LMS in many instances. They were never intended to be joined back together. Rather, the LMS was enabled to provide the required final summary grade of a course back to the SIS. No learning outcomes, evidence of competencies or other information was carried back to the SIS, so it was not available for use in the student record.

Some data on co-curricular engagement are housed within the SIS itself. Offering what was called a "co-curricular transcript" improved the lack of information on student engagement outside the classroom at least a decade ago. While not ubiquitous in the SIS world, these are offered in several systems. Not everyone uses them, even when they are available. Furthermore, they are only rosters of activities that provide dates of when a student may have been engaged in any number of possible student activities. As noted at the start of this report, a CLR must go beyond a simple roster of activity and be focused on what was learned, not what occurred.

Co-curricular data are housed in any number of third-party systems. As these systems were designed for use in student life and career services offices, not academic units, they did not carry an assumption that they would have to be joined with other student information. Many of them began by having students self-identify and place their own personal information in the system. While this was convenient and allowed for quicker set-up and configuration, it makes accurate and secure joining of student data much more difficult. Newer systems are now being populated by the SIS, similar to the methods used for LMS, library and other academic systems. This routine makes the joining data back together much more accurate and simplifies any process to do so, using a unique record identifier (usually the student ID) to ensure the data match.

In fall 2017, a work group was created to address the data integration challenges posed by these disparate learning data locations. The group was chaired by Shelby Stanfield, who was the Associate Provost and University Registrar at the University of Texas Austin when the group

started but who moved to the National Student Clearinghouse during the period the work group was active, and Tom Black, Associate Provost and University Registrar at Johns Hopkins University. They led a group of registrars with particularly strong backgrounds in data and systems. The membership was carefully developed to include representation from various institutional types and sizes. One concern entering the work was that most of the progress to date had been made by registrars from very large, well-resourced universities, many of which were members of the Association of American Universities (AAU). By their nature, they are complex, research-intensive institutions. Their contributions to this work are significant but can overshadow the realities of those who work at institutions with very few IT resources and small budgets to outsource other IT needs.

The work group met in January 2018 to scope the size and nature of data integration issues. One of the assignments made to the group was to return home after this meeting and solicit feedback and identify any issues not already surfaced during the January meeting. The co-chairs then took the feedback and crafted an initial draft document that laid out the issues and some of the potential solutions or pathways to them that had emerged, to that point.

The work group reconvened in May 2018 and added corporate partners to the conversation. These included representatives from both private firms (CourseLeaf/Leapfrog, Paradigm, Parchment) and nonprofit organizations (Credential Engine, Dxtera, IMS Global, National Student Clearinghouse). The issues and potential solutions were sharpened, as a result.

In July 2018, the work group leveraged the AACRAO Technology and Transfer Conference as a platform to discuss the issues that arose from the work of this group, and to further explore solutions to them. A "green paper" was developed and issued prior to the conference to everyone who registered. A session on data integration was included in the conference program, and it was well attended by more than 70 of the roughly 400 conference attendees. The co-chairs discussed the paper and encouraged responses from the audience. A second and more informal session was held in roundtable fashion. This second session yielded greater

interaction, perhaps because conference participants had a day between the first and second sessions to consider the issues and possible solutions. From this second session, a number of additional solutions were added to the green paper.

A final paper was issued by AACRAO in fall 2018. It outlines the challenges of data integration and poses several potential solutions, as well as a list of seven broad recommendations to be followed by institutions who are considering the development and implementation of a CLR. The paper is available to the public on the AACRAO website (https://www.aacrao.org/docs/default-source/signature-initiative-docs/clr/data-integration-white-paper-9_2018.pdf).

Tracking Progress Toward Learning Outcomes and Competencies

One of the important uses of learning data is to inform the development of students as they progress through an academic program. Using the data collected for the CLR, it is possible to create formative tools that help students understand the learning that is intended through an educational program. This goes beyond the acquisition of earned credits and implies that an education is also measured in outcomes focused on learning, rather than only the completion of a set of prescribed courses.

One example of how learning assessment differs from course completion is in the set of general education outcomes found in virtually every college and university in the United States. Required by many if not all major accrediting bodies, these outcomes are the intended aims of a liberal education. While individual to an institution or even a college within a university, they do have similarities. The VALUE rubrics[1], sometimes called the LEAP framework, was developed by the American Association of Colleges and Universities (AAC&U) and shows the areas of learning that are summarized by discrete learning outcomes within courses or other learning activities:

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[1] Rhodes, T. (2010). *Assessing Outcomes and Improving Achievement: Tips and Tools for Using Rubrics.* Washington, DC: Association of American Colleges and Universities.

Table 1. VALUE rubrics

Intellectual and Practical Skills	Personal and Social Responsibility
Critical thinking	Civic engagement – local and global
Inquiry and analysis	Intercultural knowledge and competence
Creative thinking	Ethical reasoning
Written communication	Foundations and skills for lifelong learning
Oral communication	Global learning
Reading	
Quantitative literacy	
Information literacy	Integrative and Applied Learning
Teamwork	Integrative learning
Problem solving	

Many of these outcomes are also desired traits for employees in the workplace. The ability to work with people from different backgrounds, to work effectively in teams, strong communication skills, civic engagement and ethical behavior are just a few of those that align closely with the VALUE rubrics. By tracking student progress toward these outcomes, we can also demonstrate their progress toward outcomes that will be useful and helpful to them after the credential is earned. These are implied by earning a credential but rarely are they overtly stated to students.

As more and more students come to higher education each year, it is important to be clear about what an education's purpose is for them. Tracking learning outcomes and competencies allows students to align those with career and life goals: getting a good job, working in a field that challenges and inspires them, going on for further education, etc. A large number of students enter without a family background of higher education and may not understand the implied learning that they are receiving. For these and other reasons, it is important to be clear about the intentions of learning and to track progress toward them.

Degree audits

One possible tracking mechanism is the degree audit. Now common in higher education SIS platforms or integrated with them when provided by a third party, these tools allow students, faculty and advisors to see what a student has completed and what is left to complete in a given degree program. It is based upon course requirements, or rules, that are a translation of the college's catalog requirements. These rules can be simple (must take this course) or very complex (choose any three courses from among six areas).

Degree audit systems also contain non-course requirements, often called milestones. These requirements can be capstones, exams or assessments. Degree audit system providers had to develop these, as not all requirements for a degree were merely courses. These same milestones can be used to track progress toward learning outcomes, provided that the rules are programmed into the system and that the data to track progress is available in the student record.

While this will remain a potential pathway to tracking outcomes, it also appears that few have chosen this route. There have been other ways to use learning data to track progress. These innovative options were developed by participants in Phases I and II of the project, as well as by one institution that was not a participant but used similar methods.

In the first example below, the University of Maryland Global Campus (UMCG) shows the real-time progress toward learning outcomes. It collects these within a general education badge, as shown on the page's upper right corner.

Figure 3. UMGC General Education Outcomes Tracking

It is also possible to track progress toward important learning activities that are not courses in other ways. Another example, shown in Figure 4, demonstrates how Elon University tracks outcomes using a custom dashboard of learner data. At Elon, the faculty have established areas of learning that are closely related to high-impact practices. All students are expected to engage in multiple areas before graduation. The view in Figure 4 shows how this can be tracked across groups of students; it can be narrowed to track an individual student, as well.

Figure 4. High-Impact Practice Tracking, Elon University
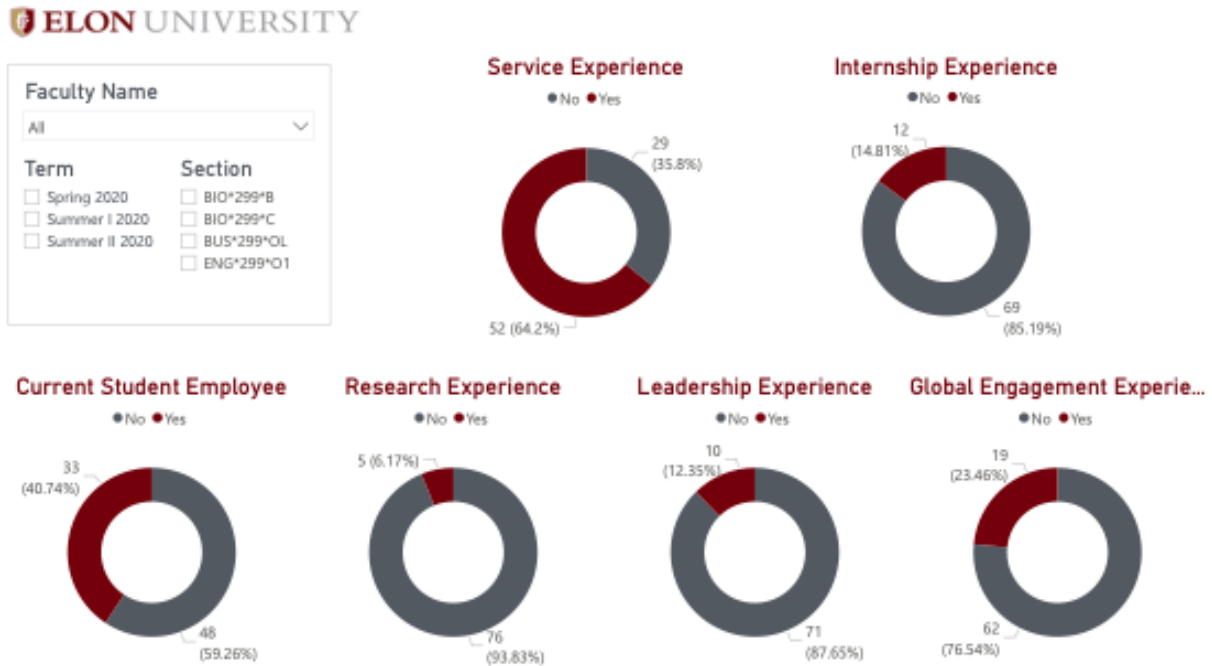
The University of North Texas (UNT) System attached learning outcomes to individual assignments, as well as courses, using their LMS, Canvas. By doing this, it creates a flexible use of the data to track course completion, as well as progress toward badges. The University uses a badging platform, where each assignment creates a small badge, and these assignments/badges become parts of larger badges. These all reside within the broad learning outcomes of the degree. Students can view their progress toward these learning outcomes through a dashboard developed for this purpose, as shown in Figure 5 below.

Figure 5. Skill Pathway Tracking – Student View, University of North Texas

The university can also monitor progress in real time for skill pathways using administrative dashboards and views. Figure 6 shows one of these views that allows academic and student success administrators to track these skills across all learners.

Figure 6. Skill Pathway Tracking – Administrative View, University of North Texas
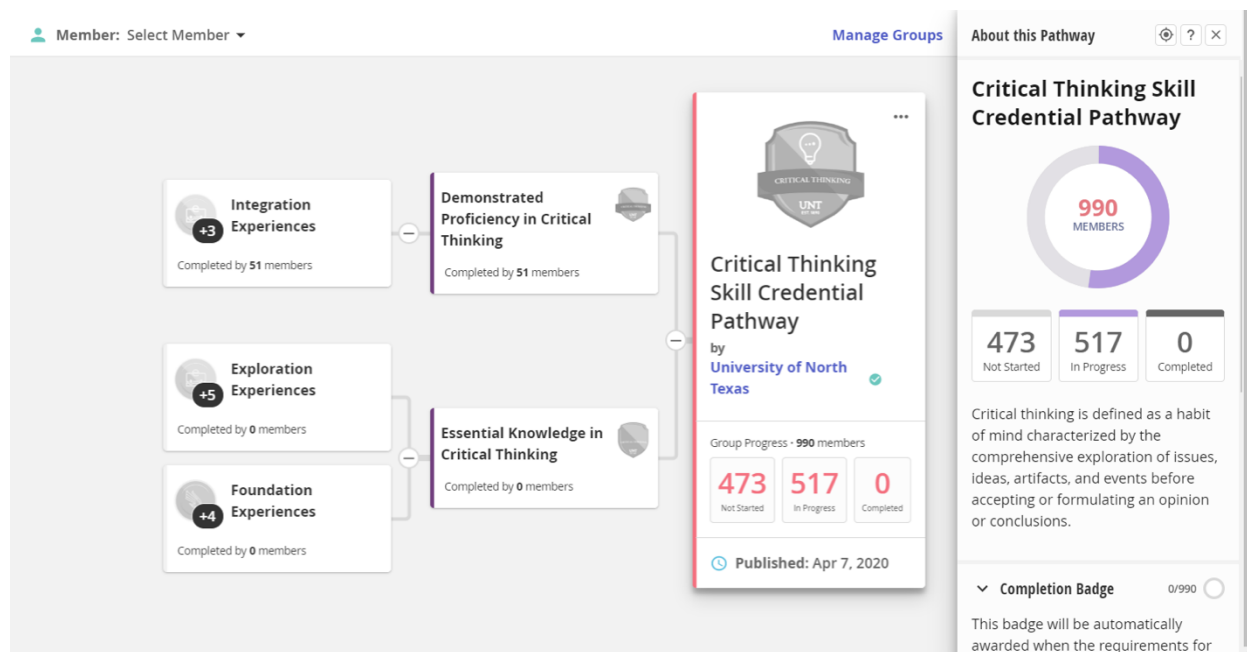
In Phase I of this project, the University of South Carolina used the data collected on student engagement outside the classroom to evaluate whether their student affairs programs were "hitting the mark." The university spent millions of dollars each year on high-quality programs and to support student organizations. They developed these with the intent of improving engagement for general and specific students. The data allowed them to align the programs and services with the students who used them. In some cases, they learned that they did indeed "hit the mark," and in others, they "missed." Elon University and the University of Central Oklahoma continued their work from Phase I and reported during Phase II that the students who were more engaged in the university's intentionally developed co-curriculum were retained at statistically significantly higher rates than those who were not part of these programs.

While these data have been collected to create records for individual students' benefit, the data clearly have multiple uses that can benefit student success. As the mechanisms to collect, track and report data evolve and become more available in higher education LMS and SIS platforms, tracking outcomes beyond course requirements to learning requirements will be possible at any

institution. Today, these are new technologies and not yet available as standard components of these systems.

The Impact of COVID-19 on Phase II

In March 2020, the pandemic hit higher education. All institutions moved to not only remote instruction but remote administration in a matter of weeks. There were several workshops and a showcase event planned for Phase II between March and August. Initially, the workshops that were approaching soon (April and May) were postponed into June and July. As the extent of the pandemic broadened and all institutions, including nonprofit associations, understood the length of time that in-person events or meetings would be unsafe, a different set of decisions were made.

All in-person meetings were cancelled. Remote connection tools like Zoom and Microsoft Teams were put in place. As these new tools were used, rescheduling the workshops was considered and attempted. These were successful, at least to the extent that they allowed work to resume in Maryland (including Winston-Salem State University). A pathway forward seemed to appear.

Technologies that allowed remote meetings didn't solve the issues that the pandemic brought to the project. Contracts had been signed for a June workshop in Indiana, as well as the showcase event, planned for August 9-10, 2020, in Indianapolis. There was a great deal of uncertainty on when or how these could occur. Status and conditions changed on a weekly basis, and decisions on whether an event could or could not take place were elusive. For two months, there were no employees at the Indianapolis Hilton's events department, and no amount of contact attempts yielded responses. Eventually, things began to resolve, and by mid-June it was clear that no in-person meetings would take place in 2020. Both contracts were canceled without penalties.

Indiana was hit particularly hard by the pandemic. With 11 participating institutions, there was a spectrum of responses to moving forward with the project. Some had made strong progress prior to the pandemic and were able to push to the end after a pause to deal with campus changes. Others made strong progress but were derailed by the pandemic and struggled to get

the project back on track. Others had varying levels of completion by March 2020, and the pandemic appeared to sink the project, altogether. The in-person meetings that had spurred progress in the past were no longer an option. Fading back from the project was perhaps a path of least resistance at a time when so much energy had to be devoted to immediate issues with students, staff and faculty. Following advice from Ken Sauer and Jillian Scholten at the Indiana Commission for Higher Education, a survey was administered, asking teams where they were and where they thought they could be by the end of 2020. A few stated that they had no timeline for resuming the work, but most thought they could resume or had already done so. A virtual workshop was held in August 2020, and most institutional teams participated, even if they hadn't yet made any progress.

The grant, which had already received a no-cost extension to allow more institutions to join and complete their work, moved from September 2019 to September 2020. By August, it was clear that the institutions would not be able to complete their work by the end of the following month. An additional extension of time to the end of December 2020 was granted.

The fall term brought even more uncertainty for campuses that didn't know if they would teach all classes in-person, some proportion of them, none at all, etc., and the answers seemed to change day by day. A decision was made to make the showcase a virtual event, but what that meant or entailed was unknown. As AACRAO worked to create its first virtual event for the end of October, it became clear that some options were much harder than others, but that any virtual meeting would require a great deal of time and resources to pull off. Initially, the showcase was scheduled for early December. That was pushed back to January 26-27, 2021, to allow the time necessary to arrange the agenda and technology required for it.

The cancellation of all travel, including larger events such as the workshop in Indiana and the showcase, meant that the funds intended for these events needed to be redirected. Much of the remaining funding was used to provide direct assistance grants to institutions that were in the final phase of their work. Some additional funding allowed them the resources to finish or

further the work in progress. A roster of direct assistance grants can be found in Appendix D. Other funding was redirected to a virtual meeting platform (Zoom), a video documentary platform (Gather Voices) and staff support to organize and create the registration, event website and meeting.

The persistence of the teams was impressive. Although the progress of the project was in doubt, the teams came around by the end of the summer, and by fall, they were engaged and moving again.

The Future of the CLR

While the Lumina grant term has ended, the work of encouraging and supporting the development and adoption of digital learner records does not. AACRAO is engaged with IMS Global to provide an implementation guide to those institutions who will be implementing a CLR, so that they records can be interoperable over the data standard developed by IMS and reviewed and recommended by AACRAO. Regional consortia, such as the Midwest Higher Education Compact, are actively discussing how CLRs may be a part of the digital credentials landscape; AACRAO has engaged with the group and presented information to its members on the CLR and its current implementations.

The exchange of CLRs among higher education institutions is the next step toward broader use of them by institutions and learners. Given the high volume of transfer in the United States, learners will be able to provide more than a transcript to demonstrate what they learned. Receiving institutions will have richer information on learning outcomes from courses, enabling better matching of earned credits to degree requirements.

Employers do not yet have a mechanism to ingest the data provided by a CLR. While those who have been surveyed about its use in hiring have found it to be insightful, most said that it would inform a deeper review of candidates, rather than the initial review. The limitations of applicant tracking systems in hiring, coupled with expectations that reviews of candidates are done quickly, identify gaps that need to be closed before learning record data can be mined and used in a more effective manner.

The broader landscape of digital records includes the work of the T3 Network, hosted by the U.S. Chamber of Commerce Foundation. This network seeks to connect higher education and business with the technology companies that will build mechanisms and digital networks to implement and transmit these records. AACRAO has an important an ongoing membership in the T3 Network. The Association is strongly positioned in the international networks of digital

records through both the IEEE working group and the Groningen Declaration Network. In the latter, AACRAO is a founding member and has maintained a board position. In the former, we are an active and voting participant, contributing to the emerging documentation on how digital credentials will be exchanged across borders.

AACRAO recently completed a new partnership agreement with Parchment as that company seeks to implement a new, turnkey approach to CLR development and implementation. Our consulting arm will provide the same type of services for their clients as the services provided to the Phase I Lumina Grant project participants. We support and encourage participation in the new AEFIS Academy CLR group, which allows any institution to join the conversation about CLR with their peers. These corporate entities have a vested interest in the expansion of CLR usage; AACRAO will maintain an appropriate neutral stance on an institution's choice of providers while active encouraging institutions to pursue services that can make CLR development, implementation and maintenance easier and more accessible to their students.

Appendix A. Screening Survey Instrument

Comprehensive Learner Records (CLR) Readiness Assessment

Please note: The survey question logic is not displayed. Not all questions will be proffered to each respondents

Introduction

New types of student records are emerging in higher education. While official academic transcripts are still very valuable and required in higher education institutions, these records are intended as a chronological record of student enrollment and related results, expressed in credits, grades and earned credentials (certificates, degrees), generally. New record types are focusing on learning, rather than course attempts. Some institutions will refer to these as learning outcomes and others as competencies.

Comprehensive Learner Records (CLRs) are intended to reflect learning where and when it happens. This can be inside the classroom through traditional in-person experiences, online learning, co-curricular experiences, research projects, student employment, or other environments where learning is recognized by the college or university.

American institutions interested in pursuing the development and implementation of these records are encouraged to complete this readiness assessment. The instrument, developed jointly by a team from the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and NASPA – Student Affairs Administrators in Higher Education, will be used to help respondents understand areas where they may be prepared to take on this work and areas where they may have much to do before they should consider CLRs.

To ensure that this will be supported at the highest levels of the administration, note that we ask that a letter of support be provided by the senior academic officer (provost, vice president of academic affairs) OR the senior executive officer (president, chancellor) of your institution. Please be prepared when completing the assessment to upload that document as a PDF document.

Section 1: Institutional Information
- o Institution name _____
- o Address _____
- o State _____
- o Zip Code _____

Institutional control and level

▼ Public … Private for-profit ~ Other

Please describe your institutional level:

_____

Primary contact information
- First Name _____
- Last Name _____
- Title _____
- Email _____
- Phone _____

Section 2: Project Team

It is critical that a CLR project has support from the highest levels and that it be led by a strong team that will coordinate the work of the institution across the project. We recommend representation from the following areas: academic affairs, student affairs (if this is present at your institution), the registrar, and information technology. You may select a team of other representatives but if you do, please present the rationale for doing so in the comments area of this section.
Please upload a document in Excel format that includes the following information about each team member.
First name   Last name   Position title   Email   Best contact phone number   Team lead? Yes/no

Upload a letter of support from your institution's senior academic or executive officer in PDF format.

Please use the area below for any comments about the project team that will help us know more about your reasons for the team composition: (free text of up to 500 characters).
_____

Section 3. Learning Frameworks and Learning Outcomes/Competencies

A CLR is the report/reflection of the institution's framework of what matters in learning. In order to create a CLR, the institution must have a clear sense of what it declares to be learning by its students. Within this framework are learning outcomes. If the nomenclature at your institution utilizes the term(s) competencies or proficiencies rather than learning outcomes, please identify your competencies/proficiencies in the learning outcomes section of this survey.

Below are some learning frameworks that you may be using or with which you may be familiar. This list is not intended to be all-inclusive (you may be using others) but rather to help you more clearly identify the meaning of our inquiry into your use of learning frameworks at your institution.
- ∀ Degree Qualifications Profile http://degreeprofile.org/
- ∀ AAC&U LEAP Essential Learning Outcomes http://www.aacu.org/leap/essential-learning-outcomes
- ∀ NIRSA Core Competencies http://nirsa.net/nirsa/wp-content/uploads/Core_Competencies-Levels_Framework.pdf
- ∀ NACE Career-Readiness Competencies http://www.naceweb.org/career-readiness/competencies/
- ∀ NILOA Transparency Framework http://www.learningoutcomesassessment.org/TFComponentUSLE.htm NACA Next http://www.naca.org/NEXT/Pages/default.aspx

Do you have an existing framework or rubric that you plan to use in this project to measure learning? Examples of this may include AAC&U "LEAP", Degree Qualifications Profile (DQP) or other national frameworks (see sample list above) or an institutionally-developed framework.
- Yes
- No
- Unsure

Which of the following best describes your institution's current learning framework?
- o   We are using a framework that was developed in-house.
- o   We are using an existing framework (e.g. Liberal Education and America's Promise, Degree Qualifications Profile, etc.)
- o   We are using both an in-house framework and an existing framework.

Existing Framework

Please describe the rationale for the existing framework selected.

_____

Which divisions or institutional units were involved in the selection of the existing framework? Please select all that apply.
- ☐   Registration and records
- ☐   Provost
- ☐   Financial aid
- ☐   Curriculum
- ☐   Faculty governing body
- ☐   Advising
- ☐   Chief executive
- ☐   Student success unit
- ☐   Student affairs
- ☐   Institutional research/assessment
- ☐   Information technology
- ☐   Other

Please describe the other divisions or institutional units involved in the selection of the existing framework.

_____

When did your institution adopt the existing framework?
- o   Within the last academic year
- o   1 to less than 2 academic years ago
- o   2 to less than 3 academic years ago
- o   3 to less than 4 academic years ago
- o   4 or more academic years ago
- o   Unsure of the timing of the adoption of the existing framework

In house Framework

Please describe the rationale for the in-house framework selected.

_____

Which divisions or institutional units were involved in the development of the framework? Please select all that apply.

- Registration and records
- Provost
- Financial aid
- Curriculum
- Faculty governing body
- Advising
- Chief executive
- Student success unit
- Student affairs
- Institutional research/assessment
- Information technology
- Other

Please describe the other divisions or institutional units involved.

_____

When did your institution initially develop the framework?
- Within the last academic year
- 1 to less than 2 academic years ago
- 2 to less than 3 academic years ago
- 3 to less than 4 academic years ago
- 4 or more academic years ago
- Unsure of the timing of the adoption of the existing framework

Further information on your framework(s)

How often is it reviewed?
- Never
- Once a year
- Once every other year
- Every 3 years
- Some other frequency. Please describe.
_____

In which areas of the institution is it applied? Please select all that apply.
- Courses within the academic curriculum
- Experiences in the co curriculum
- Learning outside of institution's control
- Other

Please describe the other area(s) in which it is applied.
_____
Does your institution define discrete levels of knowledge/proficiency?
- Yes
- No
- Unsure

Do you maintain the framework's relevance and improvement as part of your quality assurance process?
- o Yes
- o No

How is it maintained?
_____
Has the framework changed since it was adopted?
- o Yes
- o No

How has the framework changed?
_____

What quality assurances are in place to maintain the consistency and accuracy of learning outcome assessments?
_____
Do you provide assessment trainings to faculty and/or staff?
- o Yes
- o No

Section 4: Assessment of Learning

Do you offer a competency-based education (CBE) program that results in a credential (certificate or degree)?
- o Yes
- o No

Describe the CBE program(s) (what area(s), how long has it been offered in this format?) up to 1000 characters
_____

Section 5: Integration of Student Learning

Data and information related to student learning may exist in several places at your college or university. These may include the student information system (SIS), learning management system (LMS), co-curricular system (Campus Labs, Suitable, Symplicity, Handshake, etc.), electronic catalog or other institutionally-developed databases. The following section addresses issues related to where you collect and store student learning data and how that data is integrated across systems to align with the SIS as the system of record.

Please specify student information system(s) (SIS) being used at your institution to capture student data and the primary offices, who maintain these records and/or oversee the software? Include learning management system(s) (LMS), customer relations management tool(s) (CRM), co-curricular software used to capture student activities and/or learning outside the classroom, and any degree audit software, data warehouse or other technologies being used to capture student information and from which reports are created.

Please upload an Excel spreadsheet.   ·   System ·   Admin Unit or Position   ·   Comment

Does your institution use a data warehouse to archive student information system data today?
- o Yes
- o No

Please briefly describe the data warehouse (type, platform and/or vendor name) and its use.
_____

Are data from other systems kept in the data warehouse?
- o Yes
- o No

Are these data joined to student records?
- o Yes
- o No

Please upload an Excel sheet identifying the data elements currently being used for reporting and transcript fields that are already an extension or addition to your SIS.

What data collection on student learning takes place and how is this learning validated?
_____

Describe how collection and reporting processes are coordinated.
_____

Do you currently use an extended/co-curricular transcript, ePortfolio or another instrument including, but not limited to, noncredit, honors programs, service learning, or athletic participation, etc.?
- o Yes
- o No

Are you using a third-party provider to capture requests for and/or issue official transcripts?
- o Yes
- o No

Which third-party provider are you using?
_____

Are there other primary projects which are competing for existing personnel, technology or other resources that would impact your participation in this project?
- o Yes
- o No

Please provide additional information on the major project, including a brief description, timeline for completion and/or how this would be managed in light of the CLR project?
_____

Section 6: Concluding Statements

Please describe any current projects that you feel align particularly well with the CLR project or that you feel make your institution or system particularly ready to take on this project. (up to 2000 characters)
_____

What are the greatest challenges you see in creating and maintaining Comprehensive Learner Records at your institution or system today? (up to 2000 characters)
_____

Appendix B. CLR Planning Tool

Lumina 2017-19 Lumina Grant Comprehensive Learner Record Project

Institution:
Date:

A. Which learning frameworks are you using now or how will you document learning?

    a. Communication strategy on learning framework to campus?

B. How will you evaluate/assess your program(s)?

C. How will you integrate learning opportunities?

D. List the potential experiential/out-of-class areas of learning that you could include in your CLR:

    1.
    2.
    3.
    4.
    5.

E. Scope of Project

F. Project Communication Strategy Planning/Considerations

    1.
    2.
    3.
    4.

G. Technology Challenges

    1.
    2.
    3.
    4.

H. Potential Barriers

    1.
    2.
    3.

I. Comprehensive Learner Record Steering Committee

Member Name	Position	Role

J.   **Meeting Cadence / Timelines**

Date Goal	Feedback/Follow-up/Comments

K.   **Identify resources needed to complete the project**

1.
2.
3.
4.

Appendix C. Data Integration work group Roster

Name	Title	Institution	Status/Comments
V. Shelby Stanfield	Director, Service Innovation Networks	National Student Clearinghouse	Co-Chair
Tom Black	Assistant Vice Provost and University Registrar	Johns Hopkins University	Co-Chair
Tom Green	Associate Executive Director, Consulting and SEM	AACRAO	Grant Leader
Mark McConahay	Associate Vice Provost and Registrar	Indiana University	VP, AACRAO; confirmed
Helen Garrett	University Registrar and Chief Officer of Enrollment Information Services	University of Washington	Confirmed
Frank Blalark	Assistant Vice Provost and University Registrar	Duke University	Confirmed
Lou Jimenez	University Registrar and Chief Officer of Enrollment Information Services	Texas State University	Confirmed
Randy Weber	Vice President, Student Success and Engagement	Johnson County Community College	Confirmed
Connie Garrick	Executive Director Records & Enrollment Services/Registrar	Lone Star Community College System	Confirmed
Rodney Parks	University Registrar and Director of Summer College	Elon University	Confirmed
Sue Van Voorhis	Associate Vice Provost	University of Minnesota	Confirmed

Appendix D. Direct Assistance Requests – COVID-19 Fund Redirection

College, University or System Name	What expense will this direct assistance cover?
Lipscomb University	Assistance with Phase II of implementation
University of Maryland Global Campus	We would like to allocate the resources to hiring contractual workers to perform data analysis, cleaning and wrangling of student data so that we can move beyond the MBA program (which is a competency based program where courses must be taken sequentially and students cannot transfer in credits)
Winston-Salem State University	Technology solution: a community service/service-learning tool that integrates with our CLR platform
IUPUI	Currently, we must manually enter each student into the CLR - one student at a time. We are requesting funds to support the development of an import function, which would allow faculty, staff, and program directors to upload/import multiple students into the CLR using an Excel file.
Western Governors University	Licensing service agreement for utilization of a badging platform.
Purdue Northwest	We are in the process of purchasing Engage from Anthology as a technology solution to track CLR at Purdue Northwest.
University of Missouri (MU)	One-year membership to IMS Global (Contributing Member level for institution 15,000+)
University of North Texas	Development and implementation of UNT CLR in partnership with Concentric Sky/Badgr to include first-of-kind student facing CLR dashboard
Ball State University	Hire 2 CLR Executives in Residence to help provide feedback and guidance on students CLR - Employer and alumni engagement in our CLR refinement and deployment - Hire a student employee to help directly engage students and market the CLR