

Approaches to Considering Cost Savings from Transfer-Specific Technology Investment

By Olivia Tufo and Nicholas Fuselier

Background

Institutions increasingly face pressure to demonstrate that technology investments produce measurable benefits for students and operations. This paper examines how participating institutions in the Transfer Partnerships initiative by the Western Interstate Commission for Higher Education (WICHE) approached the challenge of estimating student and institutional cost savings associated with transfer-focused technology investments. Because the initiative did not prescribe common definitions, measures, or methodologies, the three following examples illustrate what institutions believed they could reasonably track within their local contexts. This paper identifies patterns across those approaches and considerations that may inform future institutional planning and measurement.

Technology investment on campus is typically made with the promise of some kind of return on investment, be it technology cost offsets, staff productivity, function-specific efficiency, or improved compliance and governance. However, attempting to connect specific student-level tuition cost savings to a specific technology implementation can be difficult. These calculations become even more difficult to grasp when having to consider a cross-institutional pathway. By investing in a technology solution intended to be leveraged by multiple institutions on a pathway, the Transfer Partnerships initiative facilitated by

This is the fourth in a four-part series that highlights findings from the **Technology and Partnerships for Transfer Success** initiative that explored how technology and cross-institutional partnerships can improve transfer pathways and student outcomes. The briefs share insights and lessons to inform efforts to make credit transfer more seamless, transparent, and effective.



Learn more at wiche.edu/technology-partnerships-for-transfer-success.

WICHE provided a unique opportunity to try and measure impact on student-level savings before and after the implementation of the technology solution.

Given the relatively short timeline of the project (one academic year to implement and one academic year to measure interim data), participating institutions could not provide robust expenditure comparisons. Rather, WICHE asked the institutions in the community of practice to consider benchmarking data and developing a cost savings methodology by which they could measure student cost savings in the future. The resulting methodologies reflect differences in partner priorities, available data, transfer pathways, and technology investments.

Proposed Approaches to Measuring Student Cost Savings

When trying to understand the impact of a change in technology, policy, or process, institutions may establish key performance indicators (KPIs), gather baseline data, and measure change over time to determine the success of implementation. The Transfer Partnerships initiative asked participants to consider what measurable and trackable data about transfer student expense and time to degree could be gathered as a baseline, and how they would approach a cost savings methodology to understand if efficiencies in their technology contribute to savings for students traversing the transfer pathway between their institutions.

“The community college to four-year degree is a compelling pathway given the increasing cost of higher education. Specifically, the cost of higher education is making it increasingly difficult for many to attend college, and this is happening while many are also questioning the value of higher education. Given this background, a strong case can be made for students to begin their higher education journeys at a community college. However, the promise of this pathway is undermined by the extreme inefficiency that accompanies transfer.... This inefficiency destroys much of the cost advantage that should accompany transfer...Transfer articulation is a national problem. We are working to solve this problem on a local scale...”

– Project participant final report

The community of practice participants identified the following generalized dimensions of possible student costs and savings:

- Avoiding duplicate or non-transferable credits

- Tuition and associated fees
- Living expenses during additional time in college
- Opportunity cost of delayed workforce entry

To calculate or estimate the value of these dimensions, an understanding of time to degree and excess credit among transfer students is important to understanding overall cost and value. Project examples are provided to demonstrate how institutional context and priorities impact thinking about this topic.

Project Example: Northern Arizona University, Maricopa Community College District, and Mohave College

The project among Northern Arizona University (NAU), Maricopa Community College District (MCCD), and Mohave College, all located in Arizona, proposed development of a technology system to connect silos of information between the student information, customer relationship management systems, and statewide data with a focus on supporting the “some college, no credential” (SCNC) student population in re-enrolling and completing their credentials or reverse transferring for completion of a different credential. In this project, the Arizona General Education Curriculum (AGEC) was treated as an effective proxy for transfer-readiness, based on statewide transfer policy and research on the AGEC and student success. The project participants monitored the total AGEC credits the identified student population successfully completed to establish the per-dollar savings to students compared to university tuition rates for the same coursework.

Institutions taking a similar approach by prioritizing the transfer of general education credits might consider the following:

- Does your state mandate a block transfer of lower division general education credits, or do general education credits transfer through articulation agreements held between institutions?
- If general education credits can be unpacked by a receiving institution, how applicable are the credits to a program of study?
- How can you track students who have met transferable general education requirements?
- What would that general education cost a student depending on where they completed their coursework?

Project Example: Montana University System and Helena College

The project between Montana University System and Helena College, both located in Montana, requested funds to implement DegreeWorks, a widely used web-based degree audit review program that allows undergraduate students to monitor progress toward degree completion. The project participants proposed tracking the average number of excess credits accumulated by any transfer-intending students prior to DegreeWorks implementation versus after and applying the per-credit cost of tuition to the reduction.

Institutions taking a similar approach by taking point-in-time measurement prior to technology implementation and at set points following implementation might consider:

- What baseline metrics can be captured by existing systems prior to implementation that can serve as comparison after implementation?
- What data sharing agreements need to be in place to share student data between institutions?

- How can you disaggregate by student demographics, sending institutions, or program of study to better understand which students carry excess credits at graduation?

Project Example: Dakota State University and Lake Area Technical College

The project between Dakota State University (DSU) and Lake Area Technical College (LATC), both located in South Dakota, identified a need to improve transfer pathways between a technical college and a regental university leveraging Transferology and the Transfer Evaluation System (TES) developed by CollegeSource. The project participants proposed the following solution to understanding the general cost per student traveling the identified transfer pathway (see Figure 1).

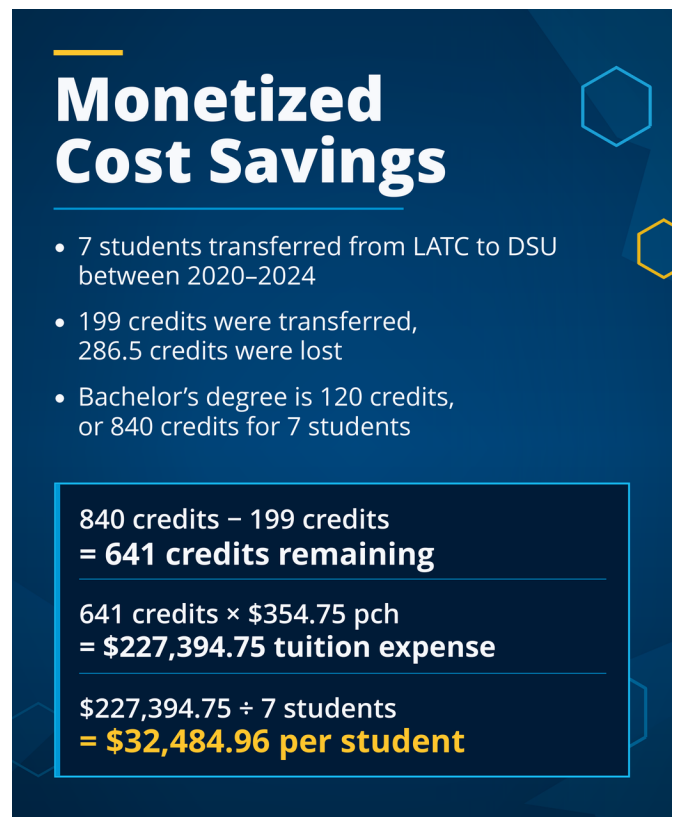


Figure 1: Monetized Cost Savings Methodology from the DSU and LATC project

Preliminary methodology is as follows:

1. Identify the number of DSU credits required for students transferring from LATC in computer or cyber science in 2023-24.
2. Multiply the number of credits by the tuition rate in 2023-24 to identify the cost of tuition to complete a bachelor's degree in computer or cyber science.
3. Identify the number of DSU credits required for students transferring from LATC in computer or cyber science in 2025-26.
4. Multiply the number of credits by the tuition rate in academic year 2023-24 (for consistency, as the tuition rate will be different in 2025-26 and lead to a false conclusion).
5. Subtract the total cost of tuition from the LATC students who transferred in 2023-24 from the students who transferred in 2025-26 to determine whether a difference exists.

Institutions considering a similar approach that captures aggregate cohort information might consider:

- Adjusting for changes in tuition rate when developing cost-savings methodology.
- Cohort size may have a significant impact on the interpretation of data, especially on low-flow transfer pathways.

Technology Impact on Operational Savings

Most, if not all, of the technology investments made as a part of the Transfer Partnerships initiative identified saving staff time or administrative work as a part of the rationale for their investment. Project participants identified the following generalized dimensions of possible institutional savings:

- Reduced time spent on manual transcript evaluations

- Fewer course substitution and exception requests
- Streamlined advising sessions focused on predefined pathways
- Time tracking of transcript evaluation before and after technology implementation
- Reduction in advising appointment length and frequency
- Decreased volume of transfer related appeals or corrections
- Improved consistency in advising and transfer decision-making

Measuring and understanding operational savings require coordination among the information office, procurement, the individual with purchasing power, and the end user who is expected to use the system. Change management can be incomplete, duplicative, or take years to provide a return on investment. The start-up cost of technology is not the only cost that must be evaluated. IT resources, subscription or licensing fees, application programming interfaces (APIs), consultants, and ongoing training/refining and certification are all expenditures that can build up over time.

Institutions pursuing technology solutions to address transfer-specific issues should consider:

- What key performance indicators (KPIs) do the technology address?
- What kinds of baseline indicators exist? Who is responsible for collecting, measuring, and assessing them?
- What is the timeline for full implementation of the technology solution?
- How will the technology be socialized among the end-user population? If those users are not on your campus, how will cross-institutional training and marketing roll out?

Evaluating staff sentiment and gaps in performance, training, platform fatigue or perception can help lead effective change management and support strategic technology usage on campus. Institutions should carefully consider which staff are impacted by technology implementation and incorporate feedback from end-users early and often.

- In resolving an inefficiency in one area, does the technology produce duplication in another area because of disconnected systems or across different teams?
- How do staff and students feel about using new technologies? Is there platform fatigue? Are end-users excited about or anxious about adding a new platform or product to their process?
- What are the long-term or ongoing expenses associated with the technology? Does the platform require licensing fees, cloud resource utilization, or customization?
- Will a consultant be needed for effective change management? Do staff need to undergo certification or training?

The inherent complexity of transfer advising is difficult to scale, and the promise of a streamlined technology solution that can aggregate pathways, match syllabi, or predict with a degree of certainty that a credit will be

applied to a program makes for meaningful technology investment. The marketing for these investments often cites that saved staff labor will help offset costs. However, change management, systems that do not interoperate, marketing, and training for the solution can often add considerable cost to a technology that is not reflected in the price on the contract.

Conclusion

Answering the question of how much transfer costs students and institutions is not straightforward and cannot be answered through technology implementation alone. Still, understanding how much it costs a student to transfer is a powerful metric for transparency and progress. Budgetary constraints demand that institutions measure the effectiveness of the solutions implemented in service of student success so that investments can flow toward effective tools. Institutions seeking to make investment in technology to support transfer pathways must understand their context, priorities, and chief concerns to benchmark, measure, and understand the impact of those investments on their local partnerships and student success.

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Community of Practice Members

Bolded individuals acted as project leads and held primary responsibility for communicating across institutions and producing project deliverables to WICHE.

- Don Abens, IT Director of Enterprise Systems, Pima Community College
- Aaron Adamian, Manager, Enrollment Reporting Compliance & S Office Registrar, Mohave College
- **Helice Agria, District Director of Academic and Student Systems, Maricopa Community College District**
- Sharon Aiken-Wisniewski, Asst. Vice Provost for Academic Advising and Affiliate Faculty, University of Arizona
- Nichole Anderson, Associate Registrar, Lake Area Technical College
- Amy Beaner, Registrar, Northern State University
- Amanda Bormann, Director of Enterprise Applications, Southeast Technical College
- Debbi Bumpous, Vice President of Technology/Chief Information Officer, Northern State University
- Shelly Caseneda, Executive Director, Institutional Research, Mohave College
- Kerry Casper, Director, Academic Advising & Student Achievement Office, Northern State University
- Ravneet Chadha, Associate Vice President and Chief Data Officer, University of Arizona
- Christi Chaney, Information Technology Director, Lake Area Technical College
- **Lauren Copeland-Glenn, Delivery Lead/ Director of Business and Educational Partnerships, Northern Arizona University**
- Andy Corbin, Chief Information Officer, Laramie County Community College
- **Cameron Corey, Vice President, Lake Area Technical College**
- Charlie Couch, University Registrar, University of Northern Colorado
- Laura Cross, Registrar, Dakota State University
- Tim Culver, Interim President, Mohave College
- **Sarah Dellwo, Executive Director of Enrollment, Helena College**
- **Angela DeWolf King, Director of Transfer and Special Projects, Montana University System**
- Casey Feininger, Graphic Design & Digital Communications Instructor / Department Supervisor, Associate Dean, Lake Area Technical College
- Megan Fischer, Vice President for Enrollment Management, Southeast Technical College
- **Erin Fouberg, Provost, Vice President for Academic Affairs, Northern State University**
- Tyrell Garton, Student Success Coach, Laramie County Community College
- Autumn Glanzer, Associate Registrar, Dakota State University

- Tom Halverson, Professor, Associate Dean of Beacom Undergraduate Programs, Dakota State University
- Kim Harding, Marketing Instructor and Advisor, Southeast Technical College
- **Gregory L. Heileman, Vice Provost for Undergraduate Education and Professor, Dept. of Electrical & Computer Engineering, University of Arizona**
- Sierra Heppler, Director of Institutional Research, Dakota State University
- **Rebecca Hoey, Provost, Senior Vice President for Academic & Student Affairs, Dakota State University**
- Fenecia Homan, Vice President of Academic Affairs, Southeast Technical College
- Suzanne Huizing, Director of Student Success and Functional Area Assessment, Southeast Technical College
- Jack Huls, Dean for Student Success, Mohave College
- Laura Jones, Chief Data Officer Office of Strategic Planning, Institutional Research, and Analytics, Northern Arizona University
- Barb Kleinjan, Dean of Academics, Lake Area Technical College
- **Meghan Knox, Associate Registrar, Mohave College**
- Tina Kruse, Data Specialist, Lake Area Technical College
- **Pete Lien, Associate Vice President Enrollment Management, University of Northern Colorado**
- Jennifer Madrid, Dean of Students, Pima Community College
- **Stacy Maestas, Registrar, Laramie County Community College**
- Brenda Mammenga, Director of Institutional Research, Northern State University
- Jennifer McCartney, Director of Sponsored Awards Services, Laramie County Community College
- **Renee Nelson, English Faculty, Laramie County Community College**
- Amy Olson, Software Engineer, Dakota State University
- Audrey Pirtle, Transfer Admissions Counselor, Dakota State University
- Nic Richmond, Vice Chancellor: Strategy - Analytics, and Research, Pima Community College
- **Nick Schneider, Dean of Curriculum and Instruction, Southeast Technical College**
- Eric Schultz, Registrar, Lake Area Technical College
- Darren Shelton, Transfer Admissions Counselor, Lake Area Technical College
- Sarah Smith, Librarian, Laramie County Community College
- Julie Smith, Manager, Information Technology, Maricopa Community College District
- Andrea Stalker, Director, Information Technology, Northern Arizona University
- Leslie Stover, Director of Academic Affairs Operations, Dakota State University
- Gerard Strouth, Director of IT Infrastructure and Support, Southeast Technical College
- **Jeff Thies, Provost and Executive Vice Chancellor for Academic Affairs, Pima Community College**
- Michael Tulino, Director of Registrar Operations, Pima Community College
- Alex Underwood, Registrar, University of Arizona
- **Benjamin Valdez, Vice President of Academic Affairs (former), Southeast Technical College**

- Erik Vanlaecken, Chief Information Officer, Southeast Technical College
- Kristie Vortheims, Registrar, Southeast Technical College
- Josh Walters, Assistant Chief Information Officer, Mohave College
- **Melanie Young, Director of Mathematics & English, English Instructor, Laramie County Community College**
- Laura Zemp, District Director, Maricopa Community College District

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The Western Interstate Commission for Higher Education (WICHE) is a regional interstate higher education compact of 15 Western states and the U.S. Pacific Territories and Freely Associated States. Since 1953, WICHE has focused on its mission of expanding educational access and excellence for all residents of the West. By promoting innovation, cooperation, resource sharing, and sound public policy, WICHE strengthens higher education's contributions to the region's social, economic, and civic life.

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