

P-20 Electronic Transcript Pilot Project

Final Report

16 October 2009



In collaboration with:

**Office of the Commissioner of Higher Education
Office of Public Instruction
Office of the Governor
Montana Tech of UM
UM - Helena College of Technology
UM - Western
Arlee High School
Beaverhead County High School
Helena High School (Helena Public Schools)
Sentinel High School (Missoula County Public Schools)
Victor High School**

P-20 Electronic Transcript Pilot Project Final Report

Introduction

The Electronic Transcript Pilot Project (ETPP) was a collaborative effort among The University of Montana, including its affiliated campuses, the Office of the Commissioner of Higher Education, the Office of Public Instruction, and the Office of the Governor, and several P-12 school districts.

The project objectives, as described in the original proposal (Appendix 1) were: 1) to investigate the applicability and utility of electronic transcripts in documenting individual student records at the P-12 and higher education level; 2) to assess the seamlessness between the P-12 and higher education record; 3) to investigate the logistics of loading, hosting and accessing the electronic transcript record, and 4) to determine the ability of mining the database for information that will ultimately improve student success.

The project was piloted between spring 2008 and fall 2009 in four phases.

Phase I: Identification of Project Participants and Project Design

Phase II: Data Gathering/Loading High School Transcript Information

Phase III: Transcript Movement and Storage Among Institutions

Phase IV: Data Extraction and Analysis

This report looks at each phase, describing briefly the methodology behind each phase, observations made during the execution of each phase, and specific recommendations related to successful implementation of that phase. A section on Final Recommendations is included, along with Appendix material.

Phase I: Identification of Project Participants

During spring 2008, the Electronic Transcript Pilot Project Committee (ETPP-C) sought and identified a vendor having experience in secure electronic transcript exchange. A contract for the pilot project was signed with the National Transcript Center (NTC) of Austin, Texas. In June 2008, a meeting was held on The University of Montana-Missoula campus with project participants to introduce the vendor, discuss project details and develop a work plan.

During spring and summer of 2008, the ETPP-C sought and confirmed participation of a cross-section of high school partners representing a broad range of enrollments and student records software: Class AA (Sentinel High School and Helena High School); Class A (Beaverhead County High School); Class B (Arlee High School); and Class C (Victor High School). Once high school partners were identified, two of the University of Montana affiliates, UM-Western and UM-Helena College of Technology, were asked to participate. A cohort of 100 students currently enrolled in one of the participating higher education institutions and who graduated from one of the participating high schools was identified. It was this set of students whose transcript information was ultimately transferred to the NTC system and used for the remainder of this project.

During this phase, the project was also subjected to examination by the Institutional Review Board at The University of Montana and approved. The information of the students has been kept confidential.

Phase II: Data Gathering and Loading High School Transcript Information

Methodology:

In fall of 2008, NTC created the infrastructure to gather and load transcript information. In early 2009, NTC began working with high school counselors and IT specialists to facilitate the process of data-gathering and submission of student data from the high school software to the NTC database. High school IT personnel worked with their current student data management systems to enable them to extract either data files or Portable Document Format (PDF) files for transmission to the NTC database. Student data systems currently in use at participating high schools included Zangle, SchoolMaster, and PowerSchool constituting the broad array represented across the state. Following completion of the data entry phase, high school IT personnel were surveyed to assess their perceptions regarding ease of use of the product and support provided by NTC.

Observations:

During the early part of the project, NTC was sold to another software company, resulting in a significant delay and loss of continuity and communication with high school partners. IT specialists and counselors alike expressed dissatisfaction with NCT support and failure to respond to questions posed over several months. Responsiveness from the company did improve and eventually two high schools were able to submit student transcripts as data files and three high schools entered PDF submissions. The three schools were limited to PDF submissions because either their software would not convert student transcripts from PDF's to data elements, student transcripts were annotated with handwritten remarks, or the high school was in the process of changing student-software vendors. It should be noted that PDF files, while convenient and easy to transport electronically, do not allow for data extraction. That limitation will be discussed further.

Recommendations:

- A common set of specifications for high school student records software will be essential for statewide implementation. Those specifications do not necessarily require a common software system, but they should require the transfer of transcripts by electronic means, preferably both as data files and PDF files. A "P-20 Buying Cooperative" model could be considered to help reduce the cost of this transition.
- High schools and district information technology personnel and counseling staff will need training and time to initiate an electronic transcript process. This effort would require a workload shift at the high school and district level that would subsequently be mitigated in increased efficiencies of transcript submission performed regularly by counselors.
- A standard set of agreed-upon transcript data elements should be developed. Schools could also add elements for their own unique record-keeping, but a minimum standard data set would be required. The new OPI initiative creating a single student identifier for those entering the K-12 system would prove an asset, especially if those numbers are adopted for post-secondary settings.

Phase III: Data Movement and Storage

Methodology:

During April-May 2009, NTC provided web-based training to high school counselors and post-secondary admissions personnel to unveil the first sample of the "Montana Transcript Center" transcript. High school counselors were able to send test student transcripts to the NTC database, and higher education admissions personnel were able to retrieve the transcripts from the NTC database. In late May, actual pilot student data was transmitted to and retrieved from the NTC database.

Observations:

The NTC platform was easy to use and worked quite well for sending and receiving both PDF transcripts and data transcripts from one institution to another. The user interface facilitates transactions and provides requisite security. The NTC system contains identities for essentially any college in the country, so students could readily send transcript information not only to Montana institutions, but to any institution in which they might have interest. In the event of transfer between one university and another, transcript information can be readily moved. However, long term data storage proved to be a concern, because the NTC practice is currently to store transcript data for a maximum of only 60 days. They are not in the business of storing transcript information, but receiving and transferring it.

Recommendations:

- Establish a secure central data repository (such as the Montana University System Data Warehouse) for the storage and management of electronic transcript data, P-20. At present, OPI and OCHE have been discussing such a collaborative project and the benefits that may emerge from it, including the facilitation of that data analyses sought in this project. The central data repository would have to permit ready access by higher education institutions in a secure manner.

Phase IV: Data Extraction and Analysis

Methodology:

Once student transcripts were present in the NTC database as data files, campus IT staff began to investigate the potential of loading the data into the students' personal BANNER accounts. The objective was to extract high school academic data, along with the students' post-secondary academic data, thereby creating the capability to respond to queries regarding both high school and college performance to seek correlates of student success. As an example, the system should permit a detailed correlative study between years of mathematics taken in high school with success in college mathematics courses.

Observations:

Due to the nature of the NTC database construction and management, this phase of the project revealed that it is not possible to conduct data analysis at the present time. The NTC system itself does not permit the development and probing of such questions. However, it is possible to download transcript data into another database from which the data could then be extracted. Upon detailed

examination and analysis of the BANNER Form that holds high school academic data, it was determined that the BANNER product is not at this time designed to handle receipt and management of electronic high school transcript data in a useful format. Further assessment by admissions BANNER Technical and IT personnel revealed it would be possible to modify baseline BANNER to accommodate high school transcript data. However, any such modification would involve significant programming and maintenance. BANNER does have the capability to store PDF files, but the appropriate BANNER module has not been licensed on most campuses and PDF files do not function as accessible data files.

Recommendations:

- Assure that high school transcripts can be sent from as many schools as possible as data elements (not just PDF files), by following recommendations cited in Phase I.
- Other vendors (e.g., National Student Clearinghouse) do not appear to have data analysis capability at this time. Continue to press vendors to develop such capability.
- Request that SunGardHE (the Banner company) modify the BANNER Admissions Form to allow seamless entry/storage of high schools students' transcript data elements.

Final Recommendations

- The ETPP Committee *does not recommend statewide implementation at this time*. The benefits of an electronic transcript system derive from two principal features: 1) the ability to readily move transcript information electronically, ultimately saving time and resources while enabling an especially high degree of flexibility and ease for students, high school counselors, and higher education admissions officers; 2) the ability to conduct data analysis that will provide direction in improving the success of our students as the transition from high school to college. The first of these benefits is within reach and while significant resources would be required for a full-scale implementation, the technology and expertise is currently present to realize that benefit. The second benefit is not yet realizable because of limitations in vendor software. The Committee recommends that we urge the recognition by vendors of the need for data transfer and analysis, which will require either a stand-alone analysis module with the transcript vendor or the development of a "translation" module between the transcript product and BANNER. Several vendors have indicated they are interested in working to develop this capacity as data-driven decision-making becomes increasingly imperative nationwide.
- The findings of the Electronic Transcript Pilot Project indicate clearly that the statewide implementation of electronic transcript transmission is an appropriate and achievable goal in the longer term. There is no doubt that this mode of academic information transfer is the wave of the future; in fact, this effort revealed that Montana's vision is at the forefront in the research and development of a model nationwide. Thus, full implementation of the electronic transcript project will require further exploration of technical progress and fiscal commitment.
- Representatives from OCHE and OPI should continue to monitor developments in capability of vendors or assess the feasibility of an "in-house" development of the translation module. The Committee anticipates that the dynamic nature of the industry and the potential power of electronic transcripts will drive a rapid development of capability.
- Electronic transcription should be integral to and essential for the planning of any statewide P-20 data system. The ultimate ability to track student progress throughout the entire academic career will contribute to increasing the number of students who earn a college-level credential in Montana.

- Future partners in this study should expand to include community colleges, tribal colleges, and private colleges, as well as private high schools—all with a broad geographic diversity across Montana.

Acknowledgements- Project Participants

This project required a high level of collaboration among secondary and post-secondary educational institutions and among state agencies. Representing a unique and strong partnership of many stakeholders in Montana, this effort established clear channels of communication through a comprehensive analysis of a significant system transformation. Future efforts should build upon the work conducted by these partners in an effort to ensure continuity of evaluation, particularly as new products and firms emerge for consideration. The participants are listed below:

The University of Montana- Missoula Electronic Transcript Pilot Project Committee

Roberta Evans, Dean of College of Education and Human Services
 Jed Liston, Assistant Vice-President for Enrollment Services
 Robert Gannon, Director, Academic Budgets and Personnel, Provost's Office
 Edwin Johnson, Registrar
 David Micus, Former Registrar
 Kerry Herndon, Assistant to the Registrar
 Royce Engstrom, Provost and VP for Academic Affairs
 Bill Muse, Associate VP for Office of Planning, Budget & Analysis – The University of Montana - Missoula
 John Thunstrom, Assistant CIO Enterprise Info Sys/IT, The University of Montana - Missoula
 Cindy Ferguson, Computer Systems Analyst, The University of Montana – Missoula
 Tim Irmen, Computer Systems Analyst, The University of Montana-Missoula
 Lanell Curry, Assistant to the Provost, The University of Montana – Missoula
 Kyra Cardella, Administrative Associate, The University of Montana – Missoula

The University of Montana-Helena College of Technology

Sarah Dellwo, Registrar, University of Montana- Helena College of Technology

The University of Montana-Western

Karl Ulrich, Vice-Chancellor of Academic Affairs, University of Montana- Western
 Jason Karch, Registrar, University of Montana- Western

School Administrators of Montana

Darrel Rud, Executive Director

Arlee High School

John Miller, Superintendent, Arlee High School
 Misty Brien, Counselor, Arlee High School

Beaverhead County High School

Fred Chouinard, Superintendent and Principal, Beaverhead County High School
 Megan Conrow, IT Specialist, Beaverhead County High School

Helena High School

Bruce Messinger, Superintendent, Helena School District
Greg Upham, Principal Helena High School
Marilyn Williams, IT Specialist, Helena High School

Missoula County Public Schools

Alex Apostle, Superintendent, Missoula County Public Schools
Tom Blakely, Principal, Sentinel High School
Steve, Burckhard, Counselor, Sentinel High School
Orville Getz, Superintendent, Victor High School
Dan Johnston, Principal, Victor High School
Cynthia Davidson-Martin, Counselor, Victor High School
Ed Clark, IT Specialist, Victor High School

OCHE

Tyler Trevor, Associate Commissioner for Planning, Technology & Communications
Bill MacGregor, Director of Transferability Initiatives

OPI

Madalyn Quinlan, Chief of Staff
Denise Juneau, Superintendent of Public Instruction

Office of the Governor

Dan Villa, Education Policy Advisor
Anna Green, First Lady Assistant/Policy Advisor

National Transcript Center

Russell Buyse, Chief Operating Advisor
Mark Johnson, CEO

Appendix I

Pilot Study of Electronic Transcripts in Support of the High School to College Transition

Project Proposal

Introduction: This proposal is the result of discussions between The University of Montana, including its affiliated campuses, the Office of the Commissioner of Higher Education, the Office of Public Instruction, and the Office of the Governor. It is designed to take place within Fiscal Years 08-09 and its purpose is to learn about the implementation of electronic transcripts so that an informed recommendation can be made regarding statewide implementation of electronic transcripts.

Objective: This project will determine the feasibility of implementing electronic transcripts on a state-wide basis. The project will be conducted on a pilot scale consisting of three higher education institutions within The University of Montana system and three to four K-12 systems, each selected to represent a diversity of size, programming, and student clientele. The study will examine electronic transcript tools that are available to determine: 1) the applicability and utility of the electronic transcript to document individual student records at the K-12 and Higher education level; 2) the compatibility of the record between K-12 and college work and the seamlessness of the transition between the two; 3) the logistics of loading, hosting and accessing the electronic transcript record; 4) the ability of the database to be mined for information that ultimately will improve student success.

Relationship to UM and MUS Initiatives: The University of Montana has recently submitted a budget initiative for FY 2010-11 that addresses the successful transfer of high school students to college. That initiative, a pilot study in its own right, pursues implementation of a greater alignment between what is taught in high school college classes and what is needed to succeed in college. The project also seeks to develop improved in-class assessment tools to ensure that students are mastering the college preparatory material. Underlying that work is the need to have a continuous electronic record of student progress so that analysis of college preparatory work can lead to an improved understanding of success in college. Student success in higher education is a high priority for the state of Montana, but without a comprehensive approach to electronic transcripts, a thorough analysis of factors that promote success will elude us.

Methodology: The following are the key steps in this project:

1. Select the set of higher education partner schools and the K-12 school districts. We envision three higher education institutions of varying size, including, for example: The University of Montana-Missoula, The University of Montana- Western, and the Helena College of Technology. Likewise, the K-12 systems must reflect the range of challenges faced in the state, and might include: Missoula, Kalispell, Arlee, and Superior. This range of schools will involve one of more

varieties of inter-local agreements between the specific secondary school or district and either MUS or a particular campus. The secondary units reflect a variety of methods, technologies, and capabilities of transcription now in place, as well as a variety of prospects for successfully implementing an e-transcript process (e.g., staffing levels & capabilities, technology in place, etc.) (Time for completion: April 15, 2008).

2. Examine electronic transcript tools available, such as the project from the National Transcript Center based in Austin, TX, and discussion with states and districts that have already adopted such tools. This will be done by bringing to Montana representatives from the National Transcript Center and from another state that has successfully implemented electronic transcripts. (Completed by May 15, 2008).
3. "Load" the electronic transcripts with the records of high school seniors at the pilot schools and any students at the participating colleges who have come from the pilot schools. (Completed by October 1, 2008).
4. Design and run sample reports that will provide an analysis of K-12 work completed and success in college. For example, what math courses taken in high school correlates with early success in college-level math? What fraction of students take a full "college-preparatory curriculum" and how do they fare in college compared to those that did not complete such a curriculum. Other factors that will be examined include the ability to review all sorts of early-college access curricular features such as dual credit / dual enrollment; tech prep; running start; AP / IB / Honors; etc. (Completed by December 1, 2008).
5. Prepare and submit a report on the findings of the pilot project which focuses on transferability to a state-wide implementation. The report will include the strengths and concerns of the electronic transcript implementation, summary of information obtained through available reporting, and recommendations for and cost of scaling up to a state-wide implementation. (Completed and submitted by May 30, 2009).

Project Administration: Responsibility of completion of this project will be with the Provost at The University of Montana- Missoula. However, the day-to-day oversight of the project will be the responsibility of the Registrar, David Micus. An oversight committee will be configured to include at least one person from each of the higher education institutions, from each of the K-12 districts, from OCHE, OPI, and the Governor's Office. Other individuals will be brought in as resource people or members of the oversight committee as needed.

Appendix II

Electronic Transcript Project

High School Counselors – Implementation Assessment

Thank you very much for playing an integral role in Montana's Electronic Transcript Pilot Project! Your assessment of the inner workings of this effort will become vital information for decisions to be made this spring regarding whether this system warrants further investment for Montana high schools and post-secondary institutions. This represents the first of two questionnaires you'll be asked to complete as the potential benefits are considered. Please respond to the following questions regarding your experience with implementing the database transfer with the National Transcript Center:

Name: _____

Position: _____

School: _____

Phone: _____

Email Address: _____

1. What types of student records were transferred from your students' transcripts to the National Transcript Center? (Academic, attendance, other? For high school only, or were other years also included?)
2. How many students' records did you submit in your part of this pilot?
3. Please describe the level of difficulty associated with this task. In other words, did you find it to be straightforward and simple or highly complex, given the instructions from the National Transcript Center? (Include details describing your interactions with NTC.)
4. How helpful was the support provided to you and your technical specialist colleague by the National Transcript Center?
5. Approximately how long did this work take?
6. Was it necessary to involve your school's tech specialist in this task, or could you have managed it by yourself with instructions from the NTC?
7. Do you have any suggestions to improve the process?
8. Are there additional comments you'd like to offer?

PLEASE SEND YOUR RESPONSES TO:

**ED JOHNSON, REGISTRAR
THE UNIVERSITY OF MONTANA
MISSOULA, MT 59812**

EMAIL: Edwin.Johnson@umontana.edu

PHONE: 406/243-2412

Electronic Transcript Project

IT Specialists/Technology Support Personnel – Implementation Assessment

Thank you very much for playing an integral role in Montana's Electronic Transcript Pilot Project! Your assessment of the inner workings of this effort will become vital information for decisions to be made this spring regarding whether this system warrants further investment for Montana high schools and post-secondary institutions. This represents the first of two questionnaires you'll be asked to complete as the potential benefits are considered. Please respond to the following questions regarding your experience with implementing the database transfer with the National Transcript Center:

Name: _____

Position: _____

School: _____

Phone: _____

Email Address: _____

Your Student Data System: _____

1. Describe the process you utilized to transfer student records from your database management system to the National Transcript Center.
2. Please describe the level of difficulty associated with this task. In other words, did you find it to be straightforward and simple or highly complex, given the instructions from the National Transcript Center? How helpful was the support provided to you and your school counselor colleague by the National Transcript Center?
3. Please describe the level of service you received from the NTC as you made this transition.
4. Approximately how long did this work take?
5. Was it necessary for you to provide assistance to your school's counselor in this task, or could s/he have completed this without your involvement using the instructions from the NTC?
6. Do you have any suggestions to improve the process?
7. Are there additional comments you'd like to offer?

PLEASE SEND YOUR RESPONSES TO:

**ED JOHNSON, REGISTRAR
THE UNIVERSITY OF MONTANA
MISSOULA, MT 59812
EMAIL: Edwin.Johnson@umontana.edu
PHONE: 406/243-2412**