Appendix E

Response to
NWCCU Letter
October 9, 2015

MONTANA STATE UNIVERSITY
NORTHERN

Education that Works

Provost and
Vice Chancellor
for Academic Affairs

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October 9, 2015

Sandra E. Elman, President
Northwest Commission on Colleges and Universities (NWCCU)
8060 165th Avenue N.E. Suite 100
Redmond, WA 98052-3981

SUBJECT: **Response to NWCCU Letter Dated February 5, 2015**

Dear Ms. Elman:

MSU Northern (MSUN) greatly appreciates the opportunity to respond to the "Notice of Concern" letter dated 5 February, 2015. After a review of the documents MSU Northern submitted, we fully recognize the incomplete nature of the original report. The intent of this response is to provide NWCCU with more complete documentation of the institution's previous actions and specifically address reported deficiencies. New measures we are currently implementing are outlined as well as future activities scheduled to be implemented to address each Challenge (i.e., Recommendation).

Challenge 1: *"While the University has identified core themes, objectives, and indicators of achievement, the evaluation committee found that levels of mission fulfillment have not been defined in a manner that encompasses all of the core themes. In other instances, the threshold level of mission fulfillment does not appear to lead to meaningful improvement and be sustainable. The evaluation committee recommends that indicators of achievement need to be better aligned with the clearly defined and meaningful levels of mission fulfillment. "*(Standard 1.A.1, 1.B.2)

MSU Northern's current mission statement is:

> **MSUN**, a teaching institution, serves a diverse student population by providing liberal arts, professional and technical education programs ranging from certificates through master's degrees. The university promotes a student centered and culturally enriched environment endorsing lifelong learning, personal growth and responsible citizenship. The university partners with a variety of community and external entities to enhance collaborative learning, provide applied research opportunities, stimulate economic development and expand student learning.

MSU Northern recognizes a genuine need to devise a more succinct, achievable and measurable statement of mission. The institution will undertake a reevaluation of the mission statement for the institution. MSU Northern appreciates NWCCU's evaluation of the core themes encompassed in the current mission statement. We recognize that a previous lack of articulation between themes and their fulfillment was a contributing factor that led to Challenge 1.

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As articulated in the Year 3 report, MSU Northern's three core themes are:

1. **Comprehensive Programs** that provide liberal arts, professional, and technical programs serving a diverse student population,
2. **Student Success** through the promotion of student centered and culturally enriched environments, and
3. **Inclusive Partnerships** formed with external entities which enhance and expand student learning experiences.

The interpretation of MSU Northern's Mission Fulfillment is presented in Appendix I and can be found at http://www.msun.edu/aboutmsun/mission-interp.aspx . Based on the criteria listed, the following information is provided.

CORE THEME 1: COMPREHENSIVE PROGRAMS

The objectives of Core Theme 1 are to, 1) provide excellent academic programs, and 2) cultivate teaching and learning excellence. Achievement indicators for MSU Northern's comprehensive programs include a discussion of the following:

- Retention and Graduation Rates
- Scores on State and National Exams
- Environments Conducive to Learning
- Satisfaction Rates within Academic Areas, Support Services and Resources

RETENTION AND GRADUATION RATES

In this response, please find updated and more comprehensive data on retention and graduation rates at MSU Northern (Appendix II). In spring of 2013, then Chancellor Limbaugh and his advisory team determined MSU Northern required assistance in addressing student recruitment and their retention at the institution. To accomplish this task, Noel-Levitz (now Ruffalo Noel Levitz) of Denver, CO, (www.noellevitz.com), consultants in the field of higher education, were hired to visit the campus in May-June, 2013. The charge conveyed to Noel-Levitz personnel was to complete an assessment of current resources in place at MSU Northern, and, given these and anticipated resources, provide effectual recommendations for improvement. Below are highlights from the Noel-Levitz report (6 July 2013), including graphical presentations of data, and the most current information.

Positive student college outcomes that directly affect retention rate goals vary greatly among academic institutions. Additionally, these are known to be closely tied to entrance exam scores such as those generated by ACT or SAT exams (e.g., see Westrick et al., 2015, Alarcon and Edwards, 2013, Bettinger et al., 2011). From 2006 through 2013, the average ACT scores for entering freshman at Montana State University (MSU) Bozeman was 24.8 (average n = 1928.38). During this same eight year period, incoming MSU Northern students had an overall average ACT score of 19.3, with students entering in Fall 2007 having the lowest average ACT score (18.8; average n = 200.13). Retention of freshman students to their sophomore year at MSUN averaged 79.1% between 2006 and 2013, a rate that is above the 2015 national average of 69.2% for traditional, four-year public institutions (ACT Institutional Data File, 2015) (Figure 1). This rate of first year persistence also exceeds the 64.2% national average for all four-year public institutions, including highly selective institutions. Additionally, MSU Northern's average first year student retention is slightly above that of MSU Bozeman's during this same

period (73.8%), but slightly lower for persistence to sophomore year (MSU Northern: 58.6%, MSU Bozeman: 63.5%). Despite the evidence for correlation between entrance exam scores and persistence to degree, MSU Northern's student retention rate falls well within expected percentages, but the institution continues to take steps to retain students to graduation.

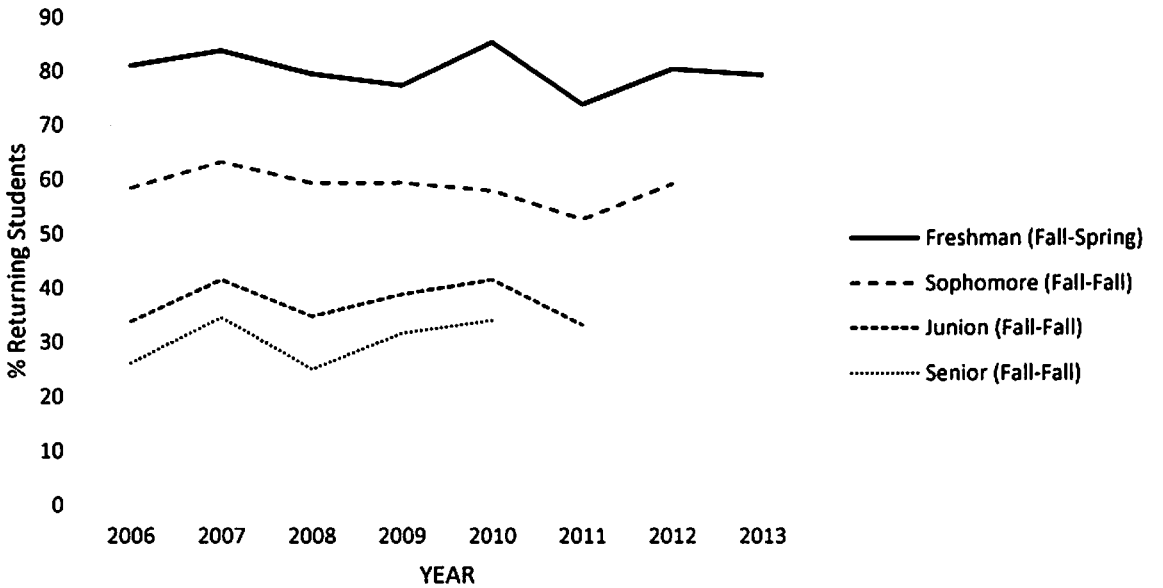

Figure 1. Student retention percentages shown are calculated for each academic year. Overall means for each group are 79.1% (Freshmen), 58.6% (Sophomores), 37.3% (Juniors), and 30.2% (Seniors) for respective data years.

An examination of MSU Northern's persistence-to-degree rates show overall mean persistence-to-degree rates for students graduating in four, five, or six years are 13.38%, 23.13%, and 26.5%, respectively (Figure 2). These rates are above national rates of 8.7%, 12.5% and 19.9% for four-year institutions with open enrollment, but below rates calculated for all four-year public institutions in the United States (25.9%, 36.4%, and 40.2%) (ACT Institutional Data File, 2015). In addition, MSU Northern's persistence-to-degree rates are lower than those recorded for MSU Bozeman for students graduating in four, five, or six years (21%, 42.5%, and 49.3%, respectively), a possible reflection attributable to the lower ACT scores of MSU Northern's incoming students.

The final Noel-Levitz 2013 report recommended that five teams be developed on the campus, the purpose of which is to support and enhance student recruitment and retention. Identified and assigned specific tasks were the 1) early alert, 2) enhanced advising, 3) learning community, 4) service excellence, and 5) financial challenges teams.

The *Early Alert Team* was tasked with presenting the Grades First early alert software to the campus community. Full installation of the software was completed in spring of 2015 and faculty orientation to its use was presented during the fall 2015 faculty orientation.

Enhanced Advising, Learning Community, and *Service Excellence* team tasks have been incorporated and addressed through the development and continued enrichment of a Learning Success Center. Additionally, faculty members have elected to establish learning communities within specific courses.

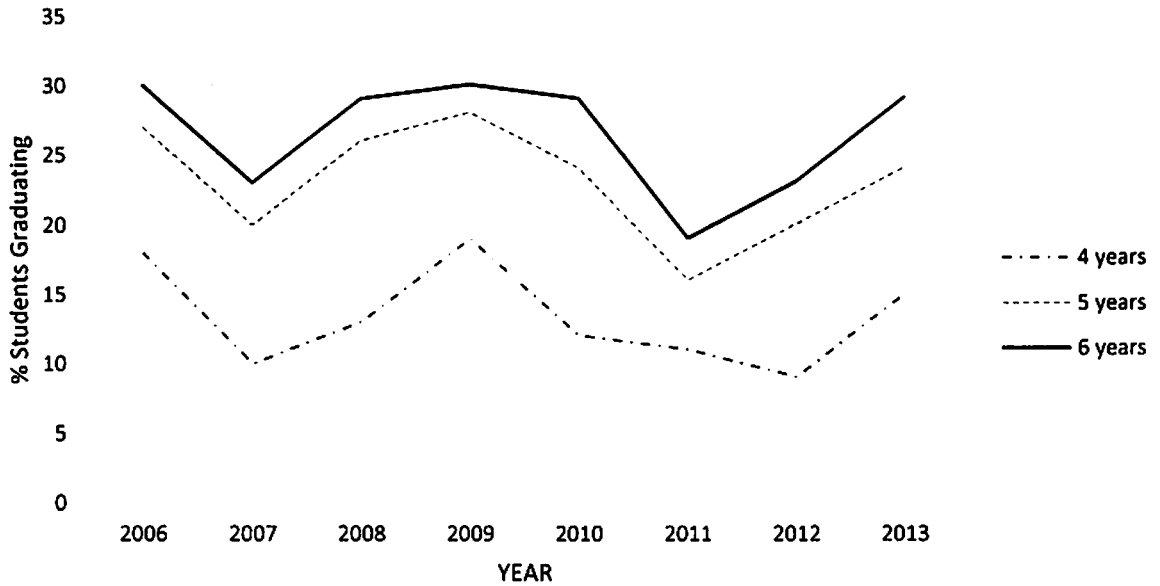

Figure 2. Persistence-to-degree rates for MSUN students from 2006 – 1013. Overall mean persistence-to-degree rates for students graduating in four, five, and six years are 13.38%, 23.13%, and 26.5%, respectively.

The team formed to address *Financial Challenges* faced by MSU Northern students spear-headed the development of the Financial Success Office located within MSU-Northern's Office of Financial Aid. The Financial Success Office employs staff available to meet face-to-face with students. This office also maintains an informative website for students. Periodic workshops are presented to students in which financial challenges they may encounter are addressed.

Student achievement at every level of their academic career is key in a student's decision to remain at an institution. MSU Northern's *Student Support Services* provide students with computer access, individual or group study areas, and tutoring resources. Students find personnel in Student Support Services that provide career guidance as well as personal counseling. These individuals guide students through the application process and answer questions on academic programs, pointing them to appropriate and helpful faculty when needed.

SCORES ON STATE AND NATIONAL EXAMS

Several MSU Northern degree programs require students to adequately perform on state and national standard exams. Performance on state and national exams is a valuable measure of how MSU Northern students compare with students from other academic institutions. The MSU Northern degree programs that include acceptable execution of standardized exams are:

Civil Engineering Technology: Students in this program must execute the Fundamentals of Engineering (FE) exam prior to or shortly after graduation. With qualifying scores, these students enter the engineering field as an Engineer in Training (EIT). After working five years in the engineering field, EIT students earn qualification to sit for the Professional Engineers (PE) exam. MSU Northern's Civil Engineering Technology students continue to compare favorably with the national pass rates (Table 1).

Table 1. Testing data for 2014 MSUN graduates of the civil engineering program are shown. Although enrollment numbers are not high, students in the MSUN program performed above national averages (shown in parentheses) on the fundamentals of engineering civil exam.

Student Group/Exam Taken	No. Students Participating	No. Students Passing	Percentage of Student Success
Enrolled/FE Civil	2(162)	2(92)	100(57)
Graduates/FE Civil	3(117)	1(32)	33(27)
Graduates/FE Other Engineering Disciplines	1(27)	0(4)	0(15)
Graduates/PE Civil - Geotechnical	1(14)	0(5)	0(36)

Education: Prior to student teaching, education students must qualify on the PRAXIS II content area national standard exam. Satisfactory performance on the exam is one component of a multifaceted procedure for teaching licensure in the state of Montana. Over the last three years, 31 MSU-Northern educated teachers have contributed to the education of K-12 students throughout Montana and the surrounding region. The goal of the Education program at MSU Northern is to continually have students perform well on these content specific exams with a pass rates of 90%. Additionally, the percentage of students accepted to the MSU Northern Education program that successfully complete and enter the workforce is tracked. From 2012 – 2014, sixty-six MSU Northern elementary education students completed the program, including completion of the PRAXIS II exam and met or exceeded the set score for content area. During the same period, fifteen students earned secondary education degrees in the content areas of broad-field social science, general science and English, completing PRAXIS II content specific exams with scores that met or exceeded the set score. These students earned one component toward the "high qualified" teacher notation for the Office of Public Instruction licensure, one of MSU Northern's finest measures of program excellence.

Nursing: Graduating students in the Associate of Science in Nursing Program must succeed on the National Council Licensure Examination (NCLEX) exam as part of their requirement for registered nurse licensure in the

state of Montana. Students in the MSU Northern program had passing rates of 85.5%, 70%, and 91% for the years of 2012 - 2014. The 91% pass rate is among the highest recorded for the state of Montana and significantly exceeds MSU Northern's overall objective of 70%.

Business: Students enrolled in the Bachelor's Degree of Science in Business Administration program are required to participate in the national business exam as part of their capstone course assessments. The Business Competency Exam (Capsin COMP-XM™) tests MSU Northern Business Program student performance relative to the national average for six functional domains that measure business knowledge. MSU Northern 2015 scores reflected higher averages in the Marketing, Operations, and Human Resource domains (Table 2). In the Accounting, Finance, and Strategy domains, MSU Northern student scores were slightly lower than national averages.

Table 2. Students enrolled in the MSU-Northern Business Administration Program are compared annually to those across the nation through their performance on the COMP-XM exam. Averaging across all domains, MSU-Northern students had an overall mean of 58.17%, slightly below the national overall mean of 59.33%. Scores exceeding national averages are shown in bold.

Functional Domain	MSU-Northern 2015 Scores (%) (n = 13)	National Average (%)
Accounting	58	60
Finance	54	62
Strategy	56	63
Marketing	**62**	60
Operations	**56**	52
Human Resources	**63**	59

ENVIRONMENTS CONDUCIVE TO LEARNING

During the 2013/2014 academic year, MSU Northern committed considerable effort and resources to campus improvement. These include:

- Installation of WIFI throughout the residence halls and other campus buildings.

  The installation of WIFI throughout campus allows students, especially those taking online courses, access to instruction, homework, and resources for completion of class assignments. In addition, the MSUN Emergency Alert system is tied into email and phone systems which also utilize the WIFI network.

- Renovation of 29 classrooms.

  In addition to general restoration, renovations included significant technology upgrades. These classrooms now include instructor computer stations and projectors that facilitate presentation as well as student interaction, e.g., clicker technology. The ventilation system in the welding lab has been much

improved. Newly developed PolyCom™ rooms significantly increase the communication between instructors and distance education students.

Laboratory upgrades for Hagener Science Center.

Upgrades in Hagener Science Center continue, the most recent of which include new ventilation hoods in three labs. Contemporary benches, sinks, and computers were installed in one chemistry classroom and concentrated efforts continue in the other. Renovations have begun in a laboratory designated for molecular genetics and a registered (Index Herbariorum) herbarium with cabinets, database and bar coding capabilities has been established.

Installation of a greenhouse for science classes and biofuels research.

Completion of a greenhouse shell was accomplished in December 2014 and efforts are now focused on acquiring ventilation, heating, watering, bench, and growth systems. It is anticipated that installation of these components will be accomplished by March 2017 with full use of the facility following. Primary use of the greenhouse is to enhance classes with the addition of another hands-on component, but biofuel research also will occur in the new facility.

Hiring of an online instructional designer.

This individual has developed online learner seminars, weekly technology seminars, and videos to facilitate online learning. The online instructional designer provides "Quality Matters" seminars for faculty training to improve online course development and delivery.

Establishment of the Learning Success Center.

To enhance the campus learning environment, Noel-Levitz consultants recommended the establishment of the Learning Success Center. This has been completed, with a center that provides an area for students to study and meet with content area professors as tutors, especially instructors for math, business and writing courses. The Learning Success Center (LSC) opened during academic year (AY) 2013-2014 and a Director was hired. Through her vision and budget, three self-enclosed study rooms were established and tables for tutoring were added. During AY 2014-2015, the Director assumed the duties of Disability Coordinator and Testing Coordinator as well. Spring 2015 further featured a writing tutor embedded into two different classes to help students with writing projects.

Located in the heart of the MSU Northern Library, the Learning Success Center is a gathering place that focuses on a common-cause *customized* learning, support and success. Many faculty across disciplines voluntarily hold Office Hours at the LSC. During AY 2013-2014 and AY 2014-2015, faculty in Education, History, Mathematics and Business held office hours at the LSC. Of these faculty, three teach general education core courses in Category II: Mathematics, Category IV: Social Sciences/History, and Category V: Cultural Diversity. Some faculty make themselves available in the evenings or weekends as well. This setting motivates students, faculty and staff to be more engaged and successful.

Student use of the LSC has increased since its inception with an overall average of 8.67% of the student population taking advantage of these services (Figure 3). Of those students, an average of over 60% visit on two or more occasions, representing 5.55% of the student population experiencing the benefits of this student success tool.

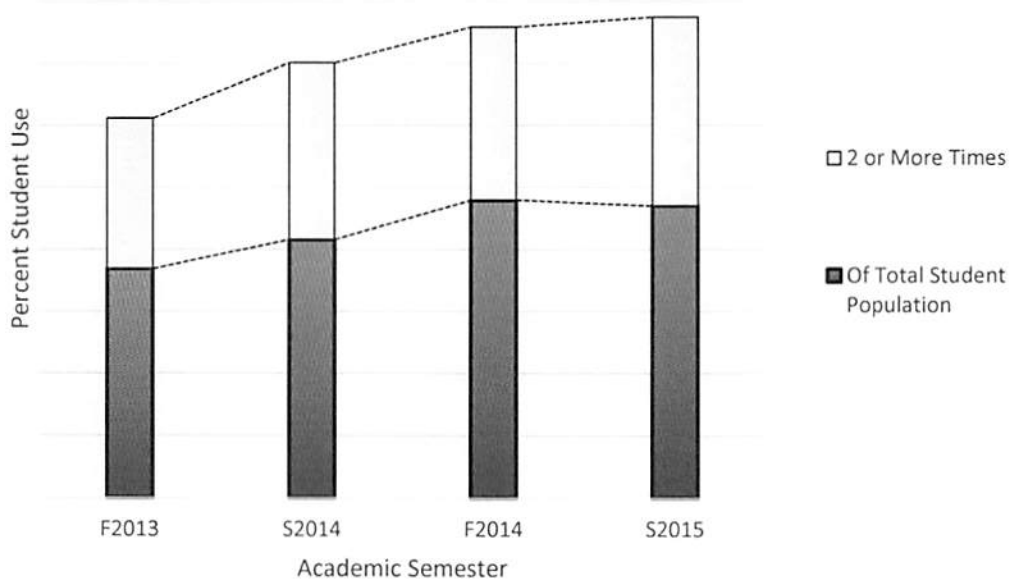

Figure 3. Student use of the Learning Success Center has grown since its inception in the fall 2013 semester with a slight decrease in the most recent semester (10%). In contrast, the percentage of students making multiple visits has grown from 59% to 64%.

Establishment of a Testing Center.

A formal Testing Center was established during the 2014-2015 academic year and is used for placement tests and standardized testing (e.g., PRAXIS or Miller Anthologies Test). During this time, a total of 164 tests were given including students taking the PRAXIS test for entry into the teaching program, Miller Analogies Test for graduate school admission (MAT), and College Level Examination Program (CLEP) exam, as well as the Compass Math and E-Write exams. MSU Northern just recently received approval to offer the Automotive Service Excellence (ASE) and Pearson tests as well.

Financial Commitment

MSU Northern is committed to the goal of increasing the proportion of its overall operating budget for instruction to 50% within the next five (5) years. As reported to the Montana Board of Regents, this

portion was 43% in fiscal year 2010 and 42.5% in 2014 with an average of 43% (2010-2015) (Appendix III).

SATISFACTION RATES WITHIN ACADEMIC AREA, SUPPORT SERVICES, AND RESOURCES

MSU Northern uses the National Survey of Student Engagement (NSSE) to access student perceptions of success within several areas. The NSSE is available for first-year and senior students to take over a four (4) year period. Survey data are available to the public and posted on the MSU Northern Provost web site (https://ia.msun.edu/SitePages/TheHome.aspx). Through a series of questions answered by respondents, NSSE calculates an overall percentage of student satisfaction in specific areas (Table 3). In addition, a comparative analysis of survey responses is performed. Previously, MSU Northern has not selected specific institutions to be included in the comparison group. The default group includes 13 academic institutions scattered throughout the Rocky Mountain Region, including major research universities (e.g., University of Montana, University of Utah, Metropolitan State University of Denver), significantly larger teaching institutions with Masters Programs (e.g., Colorado School of Mines, Utah Valley University, and Southern Utah University), but no institutions of similar enrollment or emphases as MSU Northern. Currently, the Assessment Committee is developing a more representative comparison group that permits better evaluation of student perception in these areas.

Table 3. NSSE categories that indicate MSU Northern student satisfaction with academic areas as well as available support services and resources. Values represent the percentage of respondents that answered "very much" or "quite a bit" to questions associated with each indicator.

NSSE INDICATORS		Provide support to succeed academically	Use of learning support services	Provide support for well-being	Providing help for non-academic responsibilities
2013 $n = 22$ (10.6%)	**MSUN First Year**	**77**	**72**	**65**	**48**
	Rocky Mountain Public	*73*	*74*	*65*	*35*
2014 $n = 15$ (10.7%)	**MSUN First Year**	**58**	**67**	**42**	**27**
	Rocky Mountain Public	*77*	*78*	*69*	*38*
2013 $n = 39$ (13%)	**MSUN Seniors**	**52**	**51**	**43**	**14**
	Rocky Mountain Public	*68*	*62*	*56*	*24*
2014 $n = 53$ (17.7%)	**MSUN Seniors**	**53**	**58**	**48**	**20**
	Rocky Mountain Public	*71*	*64*	*59*	*26*

MSU Northern, like many other institutions, struggles with low survey response rates for the NSSE (Table 3). Although sample sizes increased slightly for students completing their academic career at the university (seniors), the interpretation of statistical analyses remains weak at best (and inconclusive at worst) with such small sample sizes. The Assessment Committee is considering several options to increase student response rates including

paper administration of the survey in classrooms during the spring semester, incentive programs for completion (e.g., entry into a drawing for an iPad), as well as other types of encouragement. The NSSE has great potential to provide insights on student opinions of MSU-Northern's performance, but only if sample sizes grow.

MSU Northern also recognizes the need to develop a definite schedule for evaluating results from the NSSE by all university administration, staff, and faculty. Although a cursory examination occurs annually, the institution is working on implementing a timetable that permits in-depth interpretation of survey results and spurs discussion on the steps taken to address student perception of their MSU Northern experiences. Equally important in this process is the design of a monitoring program that ensures realistic implementation of actions and ensures student academic success.

MSU Northern recognizes the need for data-based decision making and established an institutional research analysis position in the fall of 2014. The responsibility of this individual is to provide much needed data to administration, faculty, and staff to assist in making decisions that move MSU Northern forward as well as assess the success of the specific efforts put forth for recruitment and retention.

CORE THEME 2: STUDENT SUCCESS

The objectives of Core Theme 2 are to 1) prepare students for careers in their chosen field, 2) provide a student-centered environment conducive to success, and 3) promote a culturally enriched environment. Achievement indicators for MSU-Northern's student success include a discussion of the following:

- Rates of Student Engagement in Campus Life
- Graduate and Employer Surveys
- Quantity and Quality of Event Sponsorships
- Rates of Student Engagement

RATES OF STUDENT ENGAGEMENT IN CAMPUS LIFE

The NSSE, in addition to recording data on student perception of academic areas, support services, and resources, also provides information on indicators related to student engagement (Table 4). As discussed above, response rates for the NSSE survey for the 2013 and 2014 were very low, ranging from 11% to 18% for individual questions. Overall the campus environment was perceived as more supportive for first year students in 2013 than 2014 (2013: 33.7%; 2014: 27%) (Appendix V). Students that completed their academic training at MSU Northern found the environment less supportive than first year students in 2013 and slightly more supportive in 2014 (24.3% and 27.8%, respectively). Please see above (pages 8-9) for the changes MSU Northern anticipates concerning data gained from the NSSE as well as its implementation.

GRADUATE AND EMPLOYER SURVEYS

MSU Northern's Career Center is responsible for conducting graduate and employer surveys. Employer surveys are conducted, primarily, for students enrolled in cooperative education credits that fulfill program requirements or act as electives. Data reported by the Career Center shows that from the summer of 2012 through fall of 2014, 192 employers submitted evaluation surveys. Survey results indicated that employers found 39.6% of

students were outstanding performers in their tasks, 43.8% rated very good in their positions and 16.7% were average in overall performance. Attempts to survey employers of MSU Northern graduates at one and three year intervals after graduation have provided limited data due to extremely low survey return rates, a condition MSU Northern shares with other academic institutions. Appendix IV details survey statistics based on responses from 2013 MSU Northern graduates.

Table 4. NSSE categories that indicate MSU Northern student satisfaction with the opportunities provided for student engagement. Values represent the percentage of respondents that answered "very much" or "quite a bit" to questions associated with each indicator.

NSSE INDICATORS		Encouraged contact among students of different backgrounds	Provided opportunities for social involvement	Emphasized attending campus activities & events	Emphasized attending events addressing importing issues
2013 *n* = 22 (10.6%)	**MSUN First Year**	51	72	76	54
	Rocky Mountain Public	*51*	*64*	*60*	*49*
2014 *n* = 15 (10.7%)	**MSUN First Year**	58	58	42	25
	Rocky Mountain Public	*54*	*67*	*64*	*50*
2013 *n* = 39 (13%)	**MSUN Seniors**	36	63	45	12
	Rocky Mountain Public	*44*	*58*	*50*	*43*
2014 *n* = 53 (17.7%)	**MSUN Seniors**	38	58	58	30
	Rocky Mountain Public	*44*	*59*	*51*	*43*

QUANTITY AND QUALITY OF EVENT SPONSORSHIPS AND RATES OF STUDENT ENGAGEMENT

MSU Northern has endeavored to enhance the area of multicultural diversity with its 2013 establishment of the Office of Diversity Awareness and Multicultural Programs. Through this office the Sweet Grass Society, International Friends and the Diversity Committee meet and operate with oversight by the Program Director. For example, the 2014-2015 academic year saw an increase in the number and diversity of programs and events offered. These activities celebrate Native Americans, African Americans, Hispanics, Irish, and Gender diversity. As the number and breadth of events has increased, participation by students, staff and faculty has grown. Prior to July 2014 five events at MSU Northern targeted multiculturalism, but, after July 2014 and with the hiring a full-time director, the number of events increased to 27.

The institution continues its sponsorship of the MSUN Community Choir, Community Orchestra and the Chancellor's Lecture Series. The Community Choir and Community Orchestra allow students to participate for general education credit while interacting with interested members from the broader community. The Chancellor's Lecture Series engages speakers from outside the institution. Presenters represent a variety of interests and offer programs that are free of charge to students, staff, faculty and the larger community. Recent speakers have engaged their audiences on such diverse topics as Chinese immigrants to Montana, Rembrandt and Bach, poetry, and women's suffrage.

The institution also has developed campus wide "days" that focus on specific tasks as well as building connections among students, faculty and staff as part of the larger campus community. Most recently, for example, "Campus Clean-up Day" was held during the third week of April. It was a time when student clubs were encouraged to have members identify campus areas in which trash and debris were removed. At the conclusion of Campus Clean-up Day, a free BBQ was held outside, near the Student Union Building.

CORE THEME 3: INCLUSIVE PARTNERSHIPS

The objectives of Core Theme 3 are to 1) use external partnership input to develop or enhance programs or disciplines, 2) expand students' collaborative or external learning experiences, and 3) stimulate economic development of our region. Achievement indicators for MSU Northern's inclusive partnerships include a discussion of the following:

- Collaborative or External Learning Experiences
- Seek and Acquire External Research Projects and Funding
- Creation of Advisory Boards
- Meeting State and National Accreditation Standards

COLLABORATIVE EXTERNAL LEARNING EXPERIENCES

The MSUN faculty established collaborations with myriad entities that provide opportunities for student and faculty development. Working with federal and private agencies (e.g., Bureau of Land Management, Natural Resource Conservation Service, Montana Wilderness Society, and The Nature Conservancy), new collaborations have been developed. For example, biology faculty have developed relationships that allow students to learn field skills as well as networking for competitive internships and seasonal employment positions. This hands-on application of academic skills is a critical component of partnerships that allow MSU Northern's students to succeed beyond graduation.

In the College of Technical Sciences (COTS), opportunities for cooperative education or internship experiences have been established and require between three and six semester credits of work with an external partner. Diesel Technology and Automotive Technology require this experience for students to complete their program. In the College of Education, Arts & Sciences and Nursing (CEASN), the Criminal Justice, Community Leadership and Health Promotion degree programs require six hours of internship or cooperative education as part of their curriculum. MSU Northern's Teacher Education Program requires student teaching experience as a portion of student curriculum. Additionally, the Nursing Program requires students to complete clinical experiences that occur in cooperating hospitals. Other university programs accept these experiences as credits, but do not require them as part of their curriculum.

SEEK AND ACQUIRE EXTERNAL RESEARCH PROJECTS AND FUNDING

The primary external and applied research project that is located at MSU Northern is the Biofuels Center that investigates materials for generating biofuels as well as researches improving methodology to develop more efficient and economical ways of preparing fuel efficient biofuels. This research center utilizes the equipment

and materials from the diesel technology program as well as provides students majoring in science an opportunity to learn and synthesize biodiesel in the research laboratory setting.

The major external source of income to MSU Northern is in the form of scholarships to support the academic activities of MSU Northern students. In 2014, the total amount of student scholarship funds was $995,766 which included monies from the state of Montana, federal dollars from Tribal Higher Education and monies raised in support of student athletes.

CREATION OF ADVISORY BOARDS

A key mechanism for feedback on the strengths and weaknesses of a program is through the establishment of an advisory board. Selection of individuals that facilitate evaluation of program curriculum, as well as the skills program graduates have acquired, provides incredibly valuable information used in program development. It is the goal of MSUN to have all baccalaureate degree programs with established and active advisory boards within the next 5 years. Specific goals for the advisory boards are developed by the Assessment Committee and distributed to each board. The Assessment Committee then requests a summary report from each program area to be submitted at the end of the academic year. Programs that currently have advisory boards or are in the process of establishing an advisory board are shown in Table 5.

Table 5. Advisory boards currently active, in place or in development at MSU-Northern are shown. Minutes from advisory board meetings are available for some programs whereas other programs are at various stages of development.

Program	College	Status	Activity	Minutes
Ag-technology	COTS	In place	Regular meetings	X
Automotive Technology	COTS	In place	Semi-annual meetings with good participation from members.	X
Business Technology; Computer Programing	COTS	In place	First meeting November 2013	X
Civil Engineering Technology	COTS	Active	Semi-annual meetings. Members participate in grading senior projects and advise on curriculum and development issues.	X
Community Leadership	CEASN	In place		
Computer Programming	COTS	In development	Not Applicable	
Criminal Justice	CEASN	In development	Members identified	
Diesel Technology	COTS	In place	Semi-annual meetings with positive results & active involvement in the program.	X
Education	CEASN	In place	Regular meetings and active input.	X
Electrical Technology	COTS	Active	Annual meetings with good participation	X
Graduate Programs	CEASN	In place		

Nursing	CEASN	In place	Quarterly meetings; active participation; minutes taken and posted.	X
Plumbing Technology	COTS	Active	Regular meetings with active participation	
Welding	COTS	In development	Several interested community members identified and have expressed interest in participating.	

MEETING STATE AND NATIONAL ACCREDITATION STANDARDS

The objective at MSU Northern is to investigate the feasibility of state and/or national accreditation for the programs offered at the university as well as those developed as funding allows. Currently, the MSU Northern programs accredited by state entities or are nationally accredited are listed in Table 6. The institution continues to commit to researching the enhancement of employment opportunities for students graduating from accredited programs.

Table 6. MSU Northern degree programs are listed with their associated accrediting organization. Not all programs have organizations other than NWCCU that grant additional accreditation. As MSU Northern develops new certification and degree programs (e.g., allied health fields such as Emergency Medical Training and Phlebotomy), the university anticipates seeking accreditation for these programs.

Degree Program	Accrediting Organization
Agriculture degrees (AAS, BS)	Not Applicable
Automotive Technology (AAS, BS)	National Automotive Technicians Education Foundation
Biology (BS)	Not Applicable
Business Administration (BS)	No
Civil Engineering Technology (AAS, BS)	American Society of Mechanical Engineers - Accreditation Board for Engineering and Technology
Community Leadership (BA)	Not Applicable
Counselor Education (MEd)	Montana Office of Public Instruction
Criminal Justice (BS)	Not Applicable
Diesel Technology (CAS, AAS, BS)	Associated Equipment Distributors (in progress)
Education, Instruction & Learning (MS)	Montana Office of Public Instruction
Electrical Technology (AAS)	Montana Department of Labor
Elementary Education (BSEd)	Montana Office of Public Instruction
Graphic Design (BA)	Not Applicable
Health and Physical Education (BSEd)	Montana Office of Public Instruction
Health Promotion (BS)	No

Liberal Studies (BA)	Not Applicable
Native American Studies (Minor)	Not Applicable
Nursing (ASN, BSN)	Accreditation Commission for Education in Nursing & Montana Board of Nursing
Plumbing Technology (AAS)	Montana Department of Labor
Welding Technology (CAS)	American Welding Standards

Challenge 2: *"Efforts should be undertaken to ensure that the assessment of general education learning outcomes are standardized across multiple sections of the same course. Assessment efforts should place less reliance on course-specific assessment and course grades, and a broader portfolio of assessment techniques should be developed and used."* (Standard 2.C.10)

Montana State University Northern assesses student learning in general education and in the academic majors. Effective teaching and learning are essential to meeting our long-held goal of producing responsible, well-prepared citizens and leaders in their professions. Our program of student outcome assessment has been implemented to ensure that we continually evaluate and improve the teaching and learning process for the programs supporting that process.

The purpose of general education core courses is to ensure a wide-ranging general education regardless of each student's major or area of study. As such, the general education core curriculum forms a significant part of every degree program. It develops areas of appreciation not necessarily provided for in specialized areas of a major, and provides a sense of interrelatedness between various disciplines. Above all, the general education core makes available to students the tools and awareness necessary for lifelong learning and for active, literate participation in today's technological society. The general education core allows students to reaffirm their common experiences, common goals and common problems.

General Education Core Curriculum is linked to MSU Northern Core Theme 1 and Core Theme 2. To that end, MSU Northern uses student outcomes assessment proactively as a means to keep teaching and learning vital, contemporary and grounded. A review of the learning outcomes and assessment activities currently in use is occurring. A General Education Task Force was created in academic year 2014-2015; this task force developed an action plan for addressing assessment as well as engaging core faculty and students in the assessment process. Evaluation of performance indicators occurs in various ways at the institutional level. General education courses and outcomes are evaluated by the General Education Committee, Academic Senate, faculty, administrators and student service personnel.

Seven University-level General Education Categories and integrated learning outcomes, developed in 2005, broadly describe expected and desired effects of learning through general education courses. All students seeking an associate of arts, associate of science, or bachelor's degree at MSU Northern are required to fulfill coursework within each of the seven General Education Categories as listed below (Table 7) and accessed electronically at http://www.msun.edu/registrar/catalogs/2014-2015/2014-2015Catalog.pdf .

Most recently, changes in the General Education core curriculum included the development of new outcomes for the Humanities/Creative Arts category, a reduction in the number of courses offered through the curriculum, the development of an online evaluation system implemented through the Institutional Assessment Intranet, and the implementation of the ETS (Education Testing System) Proficiency Profile as a requirement for students enrolled in capstone courses from four program areas (spring semester 2015).

Table 7. The General Education core curriculum is delineated into seven categories, each requiring either three or six credit hours of study.

Category No.	General Education Category	Minimum Required Credits
I	Communication	6
II	Mathematics	3
III	Natural Science (with lab)	6
IV	Social Science/History	6
V	Cultural Diversity	3
VI	Humanities Appreciation/Creative Arts	6
VII	Technology	3
Total General Education Core Credits		*33*

In review of our previous practices, MSU Northern recognizes that unacceptable delays in data gathering, unclear analysis plans, and weak development and implementation of an action plan occurred. To remedy these problems, MSU Northern has resolved to designate personnel responsible for each state of general education assessment and implement the following schedule:

- ~ Collection of general education assessment data on a biannual schedule that represents the conclusion of each academic semester
- ~ Analysis of data completed by the end of each academic year
- ~ Compilation and reflection summarized prior to the beginning of the following academic year
- ~ Presentation of the previous year's summary by the provost to all faculty at the Fall semester opening meeting
- ~ Posting of yearly summaries on the institutional website by the start of fall semester classes.

PREVIOUS ASSESSMENT TOOLS

The general education assessment methodology that has been used previously centered on a data collection system housed on an internal website and based on learner outcomes identified for each general education subject category (http://catalog.msun.edu/general-education-core/). Faculty associated with core curricula were responsible for locating the website and inputting data. Clear directions and workshops to illustrate this process were not implemented and resulted in less than optimum participation. Some faculty did participate in

the process and a brief assessment of this information occurred, but was not included in the previous report to NWCCU. Data from the intranet system are provided in Appendix VI with lower than acceptable response rates of 14% and 17% for the respective years (2013-2014 and 2014-2015).

REVISED AND NEWLY IMPLEMENTED ASSESSMENT TOOLS

Disappointment in previous tools and their implementation has given rise to a new assessment plan for general education. In addition to designation of personnel and a firm schedule, three separate assessment tools are involved in MSU Northern's new general education core assessment. These are:

1. **Revised Collection of Assessment Data**

   Faculty complete a general education assessment based on learner outcomes for a category using the original general education assessment system tool until a new system can be developed (Appendix VI). Currently, instruction information for the system is provided to faculty and those versed in the system are aiding others to complete assessments in a timely fashion. After development of a new system, the general education academic senate committee and general education faculty must agree to its use. The new faculty input tool must be easy to use and readily produce data used for evaluation. Faculty are involved in its development and implementation, including workshops and professional development opportunities.

2. **Education Testing Service (ETS) Proficiency Profile**

   The use of this standard tool was implemented in capstone courses for each discipline initially. Data collection from these courses allows generation of a baseline from which objectives are developed. Results from this assessment tool have been shared with designated personnel and the general education committee for analysis, evaluation, reflection and assessment of future directions. In the spring 2015 semester, the first use of this tool was undertaken with fifteen students taking the exam in four different capstone courses. Overall, MSU-Northern students performed above national proficiency averages in Level 1 for the three dimensions tested (Reading, Writing and Math). MSU Northern students scored 66.7%, 73.3%, and 80.0% at Level 1 compared to national rates of 58%, 55%, and 43% proficiency in the reading, writing and math dimensions. Additionally, MSU Northern had fewer student scores rated as "not proficient" for all dimensions and at all levels. Review of all scores, as well as descriptions of skills tests at each level, is presented in Appendix VII.

3. **Specific Course Projects**

   The final tool is the development of a distinctive course project used as an assessment tool in a capstone course. This project also serves as a submission to a general education category faculty committee that evaluates the project using the rubric developed for that category. Each category-specific faculty committee analyzes data collected for submission and present it, along with a summary, to the larger general education committee.

DESIGNATED PERSONNEL AND ACTION PLANS

The Dean of the CEASN oversees collection of general education assessment data. While some general education coursework is taught by faculty in the College of Technical Sciences, it is important to centralize responsibility for overseeing general education assessment to one university office.

In consultation with appropriate discipline-specific faculty, the Dean is responsible for the completion of data analysis in addition to working with faculty to develop action plans for improvement of the program. Action plans may take many forms, including a 1) recommendation to continue current practices, 2) call for additional assessment measures, and, 3) proposal for curricular change. In some cases, e.g., curricular proposals, the path from recommendation to implementation is guided by existing university policies. However, because any plan for improvement is likely to impact all academic programs and require cross campus support for successful implementation, it is important that full faculty have an opportunity to review and discuss any action plan recommendation. The action plan is reported to the full faculty, forwarded to the General Education committee for its recommendation, and simultaneously forwarded to the provost. To insure careful and timely consideration, a strict timetable for development and review of an action plan is important. For this reason, a one year cycle (beginning in the fall of consecutive years) results in an implementation report by the provost during fall semester orientation in the following year.

STANDARDIZATION OF LEARNING OUTCOMES ACROSS MULTIPLE SECTIONS

Over the previous two years, efforts driven by the Office of the Commissioner of Higher Education have focused on the adoption of a common course numbering system. One result of these efforts has been the state-wide reassessment of learning outcomes for General Education courses. Concerted efforts at MSU Northern to ensure reassessment of learning outcomes on published syllabi continue. Standardization across multiple sections of General Education courses is occurring through the utilization of standard course syllabi that include clearly presented specific learning objectives for each course. For example, in academic year 2014-2015, faculty teaching CAPP 120: Introduction to Computers implemented a Common Syllabus, Common Exams, and Common Grading Rubrics. In 2015-2016, faculty are changing the textbook to better align course content with the course description and General Education CAT VII: Technology.

The manner in which course content is delivered, evaluated and graded is, of course, a matter of individual academic freedom, but expectations of overall objectives have been established as part of the General Education categories established at the university.

REVISION OF EXISTING LEARNING OUTCOMES

MSU Northern seeks to focus on revision of no more than two of the seven categories in our general education program each year. Faculty teaching general education core courses in Category III (Natural Sciences) recently began this process by evaluating and revising learning outcomes. New learning outcomes have been developed and are currently working their way through the approval process (Appendix VIII). As noted in the Natural Science General Education course assessment rubric, a broader range of tools are employed to evaluate student success and these scaffold across the four defined outcomes. Tools include oral presentations, expression of and implementation of the scientific method, and the presentation of formal lab reports or manuscripts. Additionally, course grades are not used for evaluation of Natural Science general education courses, but rather student development of an array of skills and knowledge as they progress across each course.

Assessment is also occurring outside General Education courses, using capstone or other final program experiences to quantify the success of students in these programs to demonstrate published learning outcomes. For example, an analysis of course papers in the Nursing Leadership and Management Course indicated that:

- 85% of students stated that learning statistics was helpful as an indicator to determine statistical significance,
- 81% of students stated that courses in technology are valuable for nurses
- 88% of the students stated that cultural diversity enhanced public interactions in their current practice, and
- 96% exhibited satisfactory writing skills as evidenced in the presentation of capstone papers.

ADDITIONAL STEPS TAKEN

Faculty in specific programs most recently have undertaken steps to develop targeted general education assessment tools. Faculty in business, for example, implemented adapted Living Room Conversations as part of the pedagogy to teach diversity in BGEN 360: International Business, a course within General Education CAT V: Culture Diversity. Assessment results of this method have been reported, and its use and evaluation continues. In addition, academic year 2014-2015 also saw faculty in the business program developing and implementing a Team Assessment Form in BGEN 110: Applied Business Leadership. A two team project--each with a goal and presentation component--have been integrated into the course design. Students are assessed on communication and creative thinking skills as well as participation and presentation skills. Similarly, science faculty are assessing manuscript writing and scientific presentation skills in BIOB 160: Principles of Living Systems as well as report writing in courses that target aspiring health professionals (e.g., Human Anatomy and Physiology) (Appendix VIII).

Montana State University received a round 3 TAACCCT (Trade Adjustment Assistance Community College and Career Training) grant through the United States Government Department of Labor. Thirteen two-year colleges in Montana (SWAMMEI) received a $25 million grant and MSU Northern's portion was $1.7 million. The grant runs for three years from its initial award date of October 1, 2013. The focus of this grant is to "initiate or enhance implementation of (the) Emporium math model or associated strategies of developmental math delivery." Through this funding a newly hired math tutor holds office hours and tutoring sessions for students in the Learning Success Center located in the Library and also provides assistance to faculty members teaching math courses. An evaluation by math faculty on the effectiveness of extra tutoring contributes to general education assessment models.

A Writer's Café component was added in the Learning Success Center to build student writing skills. A writing consultant is now available to all Northern students several hours daily, plus the consultant is "embedded" in two classes as a pilot study. The embedded consultant provides brief lessons directly focused on class writing assignments and also met privately with students at the Café to guide progress. Additionally, the use of standardized templates for writing assignments has been implemented for some programs.

The Education Program uses a number of requirements for admission into the program. One of these is a passing score on the Core Skills Exam provided by ETS. The Core Skills Exam evaluates the reading, writing

and math skills of each candidate and student demonstrate proficiency if they score above a set score in each area. Education faculty have evaluated the success rates of student candidates and specifically addressed lower than acceptable performance with the development of courses that strengthen student skills.

Challenge 3: *"The university should continue to carefully monitor its financial situation and exercise appropriate diligence with the goal of moving the institution out of a negative balance in its unrestricted net asset position on the institution's balance sheet as soon as possible.* " (2.F.1)

RISK MANAGEMENT AND CONTINGENCY PLANNING

In the NWCCU follow-up letter dated February 5, 2015, the commission indicated that MSU Northern's risk management and contingency planning was adequate and it is unnecessary to address this topic in our Response Letter.

MSU Northern sincerely appreciates the opportunity to provide this Response Letter to NWCCU. It was our objective to clarify items found wanting in earlier submissions, as well as to provide more information on the university's objectives that serve to increase student success. Please do not hesitate to contact myself or others at MSU Northern if you require further information or materials.

Sincerely,

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Please review the literature cited in this Response that is found in Appendix IX.

APPENDIX I
MISSION FULFILLMENT INTERPRETATION

Core Theme	Objectives	Indicators of Achievements
1. Comprehensive Programs:		
Provide liberal arts, professional and technical programs that serve a diverse student population	1. Provide excellent academic programs 2. Cultivate teaching and learning excellence	• Student retention and graduation rates • Student pass rates and scores on state & national exams • Environments conducive to learning • Rates of satisfaction with academic areas, academic support services, and institutional resources (NSSE, FSSE, and SSI)
2. Student Success:		
Promote student centered and culturally enriched environments which fosters student success	1. Prepare students for careers in their chosen field 2. Provide a student centered environment conducive to success 3. Promote a culturally enriched environment	• Graduate and employer surveys • Rates of student engagement in campus life (NSSE and FSSE) • Quantity and quality of event sponsorships and student, staff, faculty participation in multicultural activities, clubs, courses, and projects • Rate of student engagement (NSSE and FSSE)
3. Inclusive Partnerships:		
Partner with external entities to enhance and expand learning experiences	1. Use external partnership input to develop or enhance programs or disciplines 2. Expand students' collaborative/external learning experiences Through partnerships, stimulate economic development of our region	• Creation of advisory boards • Programs meet state and national accreditation standards • Programs or disciplines require collaborative/external learning experiences • Number of successful external and applied research projects • Amount of external funding – grants, contracts, materials, equipment and scholarships for MSUN

APPENDIX II
RETENTION AND GRADUATION RATES

	First-time, Full-time entering class							
Term	**Fall 2013**	**Fall 2012**	**Fall 2011**	**Fall 2010**	**Fall 2009**	**Fall 2008**	**Fall 2007**	**Fall 2006**
Count	179	179	199	226	234	204	185	195
Average ACT (composite)	19.05	19.3	18.96	19.74	19.55	19.36	18.83	19.98
First year persistence (Fall to Spring)	74.30%	80.45%	73.87%	85.40%	77.36%	76.47%	83.78%	81.03%
Persistence to Sophomore year (Fall to Fall)		59.22%	52.76%	57.96%	59.41%	59.31%	63.24%	58.46%
Persistence to Junior year (Fall to Fall)			33.17%	41.59%	38.89%	34.80%	41.62%	33.85%
Persistence to Senior year (Fall to Fall)				34.07%	31.62%	25.00%	34.59%	26.15%
Year Reported	2013	2012	2011	2010	2009	2008	2007	2006
Cohort Year	2007	2006	2005	2004	2003	2002	2001	2000
First-time, Full-time Bachelor degree-seeking	131	128	134	156	187	171	165	160
% graduating - 4 years	15%	9%	11%	12%	19%	13%	10%	18%
% graduating - 5 years	24%	20%	16%	24%	28%	26%	20%	27%
% graduating - 6 years	29%	23%	19%	29%	30%	29%	23%	30%

APPENDIX III
FINANCIAL COMMITMENT

MONTANA UNIVERSITY SYSTEM

MUS Operating Budget Metrics
Current Unrestricted Expenditures
Source: BUD 200/230, CHE 113, and Official Enrollment Report

MSU Northern

	Actual						Budgeted	FY15 to FY16 Difference	
	FY10	FY11	FY12	FY13	FY14	FY15	FY16	#	%
Current Unrestricted Faculty/Staff FTE									
Contract Faculty FTE CU	80.6	76.2	74.8	81.2	84.3	77.4	80.4	3.0	4%
Contract Admin FTE CU	5.0	5.1	6.2	6.2	6.4	7.0	7.0	0.0	0%
Contract Professional FTE CU	26.4	28.3	29.0	31.3	35.3	41.8	41.8	0.0	0%
Classified FTE CU	42.5	43.3	44.8	46.3	43.3	44.8	44.8	0.0	0%
Current Unrestricted Expenditures									
Total Expenditures (gross)	14,606,999	14,994,615	14,357,749	15,075,218	15,766,994	16,836,995	16,852,719	15,724	0%
Instructional Expenditures	5,893,170	6,730,432	6,191,105	6,710,058	6,703,729	7,229,783	7,309,863	80,080	1%
Waivers/Scholarships	1,005,778	1,017,101	1,074,998	1,076,890	1,102,149	1,187,843	1,210,701	22,858	2%
Net Expenditures	13,601,221	13,977,514	13,282,751	13,998,328	14,664,845	15,649,152	15,642,018	-7,134	0%
Student FTE (Fiscal Year Average)	1,118	1,155	1,125	1,156	1,148	1,105	1,105	0.0	0%
Expenditures per FTE									
CU Expenditures per Student FTE	13,070	12,977	12,764	13,041	13,734	15,237	15,251	14	0%
Instruction Expenditures per Student FTE	5,273	5,825	5,504	5,805	5,839	6,543	6,615	72	1%
Instruction Expenditures, % of Total Exp	40.3%	44.9%	43.1%	44.5%	42.5%	42.9%	43.4%	0.4%	-
Instruction Expenditures, % of Net Exp	43.3%	48.2%	46.6%	47.9%	45.7%	46.2%	46.7%	0.5%	-
Waivers/Scholarships per Student FTE	900	880	956	932	960	1,075	1,096	21	2%
Waivers/Scholarships, % of Total Exp	6.9%	6.8%	7.5%	7.1%	7.0%	7.1%	7.2%	0.1%	-
Student to Faculty/Admin/Staff Ratios									
Student FTE to Contract Faculty Ratio	13.9	15.2	15.0	14.2	13.6	14.3	13.7	-0.5	-4%
Student FTE to Contract Admin/Pro Ratio	35.6	34.7	32.0	30.9	27.6	22.7	22.7	0.0	0%
Student FTE to Classified Employee Ratio	26.3	26.7	25.1	25.0	26.5	24.7	24.7	0.0	0%

APPENDIX IV
2013 MONTANA STATE UNIVERSITY NORTHERN GRADUATE SURVEY
(Statistics based on responses from 2013 graduates)

SUMMARY STATISTICS

- 83% of graduates earning a Master Degree are employed in a field related to their chosen degree
- 73% of graduates earning a Bachelor Degree are employed in a field related to their chosen degree
- 91% of graduates earning an Associate Degree are employed in a field related to their chosen degree

SALARY INFORMATION

- $38,854 is the average salary for graduates earning a Master Degree who are employed in their field
- $37,193 is the average salary for graduates earning a Bachelor Degree who are employed in their field
- $32,976 is the average salary for graduates earning an Associate Degree who are employed in their field

IN-STATE VS. OUT-OF-STATE EMPLOYMENT

- 76% of graduates are working in the state of Montana
- 17% of graduates are working in the state of Montana

EXAMPLES OF EMPLOYERS RECRUITING MSU-NORTHERN GRADUATES

Benefis Health System
Central Montana Medical Center
Torgerson's
Western States CAT
Kiewit
Montana Dept. of Transportation
Malta High School
Great Falls Public Schools
Peterson Grain and Cattle
Precision Plumbing
Northern Montana Hospital
Tractor and Equipment
Diesel Doctor
Butler CAT
Halliburton
General Electric
Havre Public Schools
Havre Daily News
KPAX
Waddell and Reed
Bureau of Land Management

NSSE national survey of student engagement

Campus Environment: First-year students

Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment.* Below are three views of your results alongside those of your comparison groups.

2013 Mean Comparisons

		Your first-year students compared with					
	MSUN	Rocky Mt Public		Carnegie Class		NSSE 2013	
Engagement Indicator	*Mean*	*Mean*	*Effect size*	*Mean*	*Effect size*	*Mean*	*Effect size*
Quality of Interactions	42.3	40.5	.14	41.5	.06	41.7	.05
Supportive Environment	33.7	33.8	-.01	36.1	-.16	37.2	-.25

Notes: Results weighted by gender and enrollment status (and institution size for comparison groups); *p<.05, **p<.01, ***p<.001 (2-tailed); Effect size: Mean difference divided by pooled standard deviation; Symbols on the summary page are based on effect size and p before rounding.

2014 Mean Comparisons

		Your first-year students compared with					
	MSUN	Rocky Mt Public		Carnegie Class		NSSE 2013 & 2014	
Engagement Indicator	*Mean*	*Mean*	*Effect size*	*Mean*	*Effect size*	*Mean*	*Effect size*
Quality of Interactions	36.5	41.4	-.39	42.8	-.50	41.9	-.44
Supportive Environment	27.0	35.5 *	-.63	38.2 **	-.81	38.0 **	-.80

Notes: Due to nonstandard sampling or response issues, all results are unweighted; *p<.05, **p<.01, ***p<.001 (2-tailed); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding.

Campus Environment: Seniors

Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment.* Below are three views of your results alongside those of your comparison groups.

2013 Mean Comparisons

		Your seniors compared with							
	MSUN	**Rocky Mt Public**			**Carnegie Class**			**NSSE 2013**		
Engagement Indicator	*Mean*	*Mean*		*Effect size*	*Mean*		*Effect size*	*Mean*		*Effect size*
Quality of Interactions	40.5	41.4		-.08	43.3		-.23	42.8		-.20
Supportive Environment	24.3	30.3	*	-.44	33.2	***	-.61	33.1	***	-.61

Notes: Results weighted by gender and enrollment status (and institution size for comparison groups); *p<.05, **p<.01, ***p<.001 (2-tailed); Effect size: Mean difference divided by pooled standard deviation; Symbols on the summary page are based on effect size and p before rounding.

2014 Mean Comparisons

		Your seniors compared with						
	MSUN	**Rocky Mt Public**			**Carnegie Class**			**NSSE 2013 & 2014**		
Engagement Indicator	*Mean*	*Mean*		*Effect size*	*Mean*		*Effect size*	*Mean*		*Effect size*
Quality of Interactions	42.2	42.0		.02	44.1		-.16	42.9		-.06
Supportive Environment	27.8	31.1		-.24	34.8	**	-.49	33.8	**	-.42

Notes: Due to nonstandard sampling or response issues, all results are unweighted; *p<.05, **p<.01, ***p<.001 (2-tailed); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding.

APPENDIX VI
INSTITUTIONAL ASSESSMENT (INTRANET) RESULTS

AY 2013 – 2014: General Education Assessment System					
No. of Responses	**No. of Courses Offered in Category**	**Response Rate**	**General Education Category**	**Learning Outcome**	**Average**
N = 0	5	0%	CAT I: Communications	Write clear, accurate sentences and paragraphs in standard American tell stories, describe events, and/or express feelings, insights and personal values	No Data
				Write extended papers which effectively develop and support theses, tell stories, describe events, and/or express feelings, insights and personal values	No Data
				Demonstrate the ability to communicate effectively in written form through the forms of writing most common in the student's chosen	No Data
				Identify and incorporate research materials into informative and analytical writing	No Data
				Demonstrate the ability to select, develop and deliver an effective oral presentation to a target audience for specific purposes	No Data
				Demonstrate an awareness of the oral communication process, including critical listening skills	No Data
N = 1	12	8.3%	CAT II: Mathematics	Solve problems through mathematical reasoning using calculators and computers	88%
				Describe or demonstrate how mathematical models or statistical designs are used to obtain knowledge in several disciplines	88%
				Perform mathematical applications beyond intermediate algebra	92%
				Demonstrate understanding of the discipline of mathematics through multiple means of oral, written and visual assessment	92%
N = 7	25	32%	CAT III: Natural Sciences	Describe the processes of observation, problem identification, hypothesis formulation, experimentation and verification which underlie scientific advancement	66%
				Systematically develop principles for comprehension of the natural world	61%
				Demonstrate an appreciation for Laboratory Practice:	69%
N = 1	20	5%	CAT IV: Social Sciences / History	Describe processes of continuity and change which have shaped events up to the present	50%
				Identify and describe the characteristics of major era in world history or international relations, or a distinct social movement, thereby providing a framework for comprehending aspects of human experience	50%
				Explain how human experiences give rise to movements, institutions, traditions, and ideas which have a subsequent influence	50%
				Analyze factors leading to the dominance, suppression, or acceptance of selected racial, gender, ethnic, class and religious groups	No Data
				Analyze of the extent to which individuals, institutions, and/or traditions are able to influence events, making reference to illuminating examples	No Data
				Use factual and interpretive information to analyze and draw conclusions on historical or political hypotheses in selected areas of the social sciences	No Data

AY 2013 – 2014: General Education Assessment System - Continued					
No. of Responses	**No. of Courses Offered in Category**	**Response Rate**	**General Education Category**	**Learning Outcome**	**Average**
N = 6	18	33.3%	CAT V: Cultural Diversity	Describe and compare the political, socioeconomic, philosophical-spiritual, historic, scientific and literary creative perspectives of various ethnic groups or cultures	78%
				Analyze social problems, social structures and human behaviors of ethnic groups and cultures	77%
				Examine how generalizations are developed and how stereotyping and prejudice are being addressed currently and historically	76%
N = 0	17	0%	CAT VI – A: Humanities	Discuss great works of literature, drama or visual art	No Data
				Compare the beliefs of different cultures reflected by literature or music or art or philosophy	No Data
				Make informed judgments concerning the aesthetic, entertainment, and intellectual value of a work in an area of fine art	No Data
				Recognize the expression of cultural values in works of literature, music, theatre, and visual art, and the ways the arts shape culture	No Data
N = 0	8	0%	CAT VI – B: Creative Arts	Demonstrate skills in practice of a fine art, such as visual art, performing art, or literary art	No Data
				Describe the basic elements and practices of a fine art	No Data
				Demonstrate an appreciation for the creative process as it is expressed in master work of a fine art	No Data
N = 0	5	0%	CAT VII: Technology	Explain the impact of technology on society and conversely, how society impacts technology in a historical, present and future sense	No Data
				List technology's role in problem solving and communication	No Data
				Describe the ethical, legal and social concerns stemming from advances in technology	No Data
				Demonstrate an ability to use technology within a discipline	No Data
				Demonstrate an introductory level of technology literacy	No Data

AY 2014 – 2015: General Education Assessment System					
No. of Responses	**No. of Courses Offered in Category**	**Response Rate**	**General Education Category**	**Learning Outcome**	**Average**
N = 0	5	0%	CAT I: Communications	Write clear, accurate sentences and paragraphs in standard American tell stories, describe events, and/or express feelings, insights and personal values	No Data
				Write extended papers which effectively develop and support theses, tell stories, describe events, and/or express feelings, insights and personal values	No Data
				Demonstrate the ability to communicate effectively in written form through the forms of writing most common in the student's chosen	No Data
				Identify and incorporate research materials into informative and analytical writing	No Data
				Demonstrate the ability to select, develop and deliver an effective oral presentation to a target audience for specific purposes	No Data
				Demonstrate an awareness of the oral communication process, including critical listening skills	No Data
N = 7	12	58.33%	CAT II: Mathematics	Solve problems through mathematical reasoning using calculators and computers	76%
				Describe or demonstrate how mathematical models or statistical designs are used to obtain knowledge in several disciplines	72%
				Perform mathematical applications beyond intermediate algebra	78%
				Demonstrate understanding of the discipline of mathematics through multiple means of oral, written and visual assessment	72%
N = 6	25	24%	CAT III: Natural Sciences	Describe the processes of observation, problem identification, hypothesis formulation, experimentation and verification which underlie scientific advancement	79%
				Systematically develop principles for comprehension of the natural world	81%
				Demonstrate an appreciation for Laboratory Practice:	81%
N = 1	20	5%	CAT IV: Social Sciences / History	Describe processes of continuity and change which have shaped events up to the present	82%
				Identify and describe the characteristics of major era in world history or international relations, or a distinct social movement, thereby providing a framework for comprehending aspects of human experience	87%
				Explain how human experiences give rise to movements, institutions, traditions, and ideas which have a subsequent influence	77%
				Analyze factors leading to the dominance, suppression, or acceptance of selected racial, gender, ethnic, class and religious groups	77%
				Analyze of the extent to which individuals, institutions, and/or traditions are able to influence events, making reference to illuminating examples	77%
				Use factual and interpretive information to analyze and draw conclusions on historical or political hypotheses in selected areas of the social sciences	87%

AY 2014 – 2015: General Education Assessment System - Continued					
No. of Responses	**No. of Courses Offered in Category**	**Response Rate**	**General Education Category**	**Learning Outcome**	**Average**
N = 2	18	11.11%	CAT V: Cultural Diversity	Describe and compare the political, socioeconomic, philosophical-spiritual, historic, scientific and literary creative perspectives of various ethnic groups or cultures	81%
				Analyze social problems, social structures and human behaviors of ethnic groups and cultures	75%
				Examine how generalizations are developed and how stereotyping and prejudice are being addressed currently and historically	78%
N = 0	17	0%	CAT VI – A: Humanities	Discuss great works of literature, drama or visual art	No Data
				Compare the beliefs of different cultures reflected by literature or music or art or philosophy	No Data
				Make informed judgments concerning the aesthetic, entertainment, and intellectual value of a work in an area of fine art	No Data
				Recognize the expression of cultural values in works of literature, music, theatre, and visual art, and the ways the arts shape culture	No Data
N = 1	8	0%	CAT VI – B: Creative Arts	Demonstrate skills in practice of a fine art, such as visual art, performing art, or literary art	No Data
				Describe the basic elements and practices of a fine art	No Data
				Demonstrate an appreciation for the creative process as it is expressed in master work of a fine art	No Data
N = 2	5	40%	CAT VII: Technology	Explain the impact of technology on society and conversely, how society impacts technology in a historical, present and future sense	56%
				List technology's role in problem solving and communication	45%
				Describe the ethical, legal and social concerns stemming from advances in technology	47%
				Demonstrate an ability to use technology within a discipline	81%
				Demonstrate an introductory level of technology literacy	78%

APPENDIX VII

2015 EDUCATION TESTING SERVICE PROFICIENCY PROFILE RESULTS

Bold figures denote indicators that exceed national performance

Skill Dimension	Score Level (National Average) %		
	Proficient	Marginal	Not Proficient
Reading, Level 1	**66.7** (58)	**26.6** (18)	**6.7** (24)
Reading, Level 2	26.7 (33)	**33.3** (17)	**40.0** (50)
Critical Thinking	0.0 (6)	**20.0** (13)	80.0 (80)
Writing, Level 1	**73.3** (55)	26.7 (28)	**0.0** (34)
Writing, Level 2	**20.0** (19)	**46.7** (31)	**33.3** (50)
Writing, Level 3	**13.3** (6)	13.3 (23)	**73.4** (80)
Math, Level 1	80.0 (43)	13.3 (23)	**6.7** (33)
Math, Level 2	**40.0** (23)	**33.3** (22)	**26.7** (55)
Math, Level 3	**13.3** (6)	**20.0** (13)	**66.7** (80)

Skills Test at Each Level

Reading and Critical Thinking

To be considered proficient at **Level 1**, a student should be able to:

- Recognize factual material explicitly presented in a reading passage
- Understand the meaning of particular words or phrases in the context of a reading passage

To be considered proficient at **Level 2**, a student should be able to:

- Synthesize material from different sections of a passage
- Recognize valid inferences derived from material in the passage
- Identify accurate summaries of a passage or of significant sections of the passage
- Understand and interpret figurative language
- Discern the main idea, purpose or focus of a passage or a significant portion of the package

To be considered proficient at **Level 3**, a student should be able to:

- Evaluate competing casual explanations
- Evaluate hypotheses for consistency with known facts
- Determine the relevance of information for evaluating an argument or conclusion
- Determine whether an artistic interpretation is supported by evidence contained in a work
- Recognize the salient features or themes in a work of art
- Evaluate the appropriateness of procedures for investigating a question of causation
- Evaluate data for consistency with known facts, hypotheses, or methods

Writing

To be considered proficient at **Level 1**, a student should be able to:

- Recognize agreement among basic grammatical elements (e.g. Nouns, verbs, pronouns and conjunctions)
- Recognize appropriate transition words
- Recognize incorrect word choice
- Order sentences in a paragraph
- Order elements in an outline

To be considered proficient at **Level 2**, a student should be able to:

- Incorporate new material into a passage
- Recognize agreement among basic grammatical elements (e.g., nouns, verbs, pronouns, and conjunctions) when these elements are complicated by intervening words or phrases
- Combines simple clauses into single, more complex combinations
- Recast existing sentences into new syntactic combinations

To be considered proficient at **Level 3**, a student should be able to:

- Discriminate between appropriate and inappropriate use of parallelism
- Discriminate between appropriate and inappropriate use of idiomatic language
- Recognize redundancy
- Discriminate between correct and incorrect constructions
- Recognize the most effective revision of a sentence

Mathematics

To be considered proficient at **Level 1**, a student should be able to:

- Solve word problems that would most likely be solved by arithmetic and do not involve conversion of units or proportionality (these problems can be multi-step if the steps are repeated rather than embedded)
- Solve problems involving the informal properties of numbers and operations, often involving the Number Line, including positive and negative numbers, whole numbers and fractions (including conversions of common fractions to percent, such as converting ¼ to 25%)
- Solve problems requiring a general understanding of square roots and the squares of numbers
- Solve a simple equation or substitute numbers into an algebraic expression
- Find information from a graph (this task may involve finding a specified piece of information in a graph that also contains other information)

To be considered proficient at **Level 2**, a student should be able to:

- Solve arithmetic problems with some complications, such as complex wording, maximizing or minimizing and embedded ratios (these problems include algebra problems that can be solved by arithmetic [the answer choices are numeric])
- Simplify algebraic expressions, perform basic translations and draw conclusions from algebraic equations and inequalities (these tasks are more complicated than solving a simple equations, though they may be approached arithmetically by substituting numbers)
- Interpret a trend represented in a graph, or choose a graph that reflects a trend
- Solve problems involving sets (the problems would have numeric answer choices)

To be considered proficient at **Level 3**, a student should be able to:

- Solve words problems that would be unlikely to be solved by arithmetic; the answer choices are either algebraic expressions or are numbers that do not lend themselves to back-solving
- Solve problems involving difficult arithmetic concepts such as exponents and roots other than squares and square roots and percent of increase or decrease
- Generalize about numbers, e.g., identify the values of (x) for which an expression increases as (x) increases
- Solve problems requiring an understanding of the properties of integers, rational numbers, etc.
- Interpret a graph in which the trends are to be expressed algebraically or in which one of the following is involved: exponents and roots other than squares and square roots, percent of increase or decrease
- Solve problems requiring insight or logical reasoning

APPENDIX VIII
LEARNING OUTCOMES FOR CATEGORY 3: NATURAL SCIENCES

1. Demonstrate basic competence in the principles and theories used in the natural sciences.
2. Define, describe, and apply the scientific method.
3. Convey ideas using language and presentation skills specific to the natural sciences.
4. Use critical thinking to synthesize information, evaluate assumptions and claims, and draw evidence based conclusions.

RUBRIC FOR ASSESSING GENERAL EDUCATION CATEGORY 3 NATURAL SCIENCE LEARNING OUTCOMES (LO)

	Exceeds Expectations **4**	**Expected** **3**	**Satisfactory** **2**	**Unacceptable** **1**
LO 1: Demonstrate basic competence in the principles and theories used in the natural sciences	*More than 60% of the students can correctly do the following:* **a)** identify major and some minor historical figures and/or precedents, **b)** define key concepts and principles, **c)** describe theories and/or methods appropriately, and **d)** make meaningful connections between figures and precedents.	*At least 50% of the students can correctly do the following:* **a)** identify major historical figures and/or precedents, **b)** define key concepts and principles, and **c)** describe theories and/or methods accurately.	*At least 40% of the students are able to do two of the following:* **a)** identify major historical figures and/or precedents, **b)** define key concepts and principles, and/or **c)** describe theories and/or methods accurately.	*Less than 40% of the students are able to do two of the following:* **a)** identify major historical figures and/or precedents, **b)** define key concepts and principles, and **c)** describe theories and/or methods accurately.
LO 2: Define, describe, and apply the scientific method.	*At least 60% of the students can correctly do the following:* **a)** identify the steps of the scientific method, **b)** recognize its correct application, **c)** formulate a testable hypothesis, and **d)** outline an experiment, analyze and interpret results.	*At least 50% of the students can correctly do the following:* **a)** identify the steps of the scientific method, **b)** recognize its correct application, **c)** formulate a testable hypothesis, and **d)** outline an experiment, analyze and interpret results.	*At least 40% of the students can correctly do the following:* **a)** identify the steps of the scientific method, **b)** recognize its correct application, **c)** formulate a testable hypothesis, and	*Less than 40% of the students are able to do all of the following correctly:* **a)** identify the steps of the scientific method, **b)** recognize its correct application, **c)** formulate a testable hypothesis, and

LO 3: Convey ideas using language and presentation skills specific to the natural sciences.	*At least 60% of the students can correctly do two of the following:* **a)** write well-constructed essay and/or formal lab report, **b)** design and articulate an oral group or individual presentation, **c)** develop skills in affording constructive feedback, and **d)** independently write a comprehensive paper	*At least 50% of the students can correctly do two of the following:* **a)** write well-constructed essay and/or formal lab report, **b)** design and articulate an oral group or individual presentation, **c)** develop skills in affording constructive feedback, and **d)** independently write a comprehensive paper	*At least 40% of the students can correctly do two of the following:* **a)** write well-constructed essay and/or formal lab report, **b)** design and articulate an oral group or individual presentation, **c)** develop skills in affording constructive feedback, and **d)** independently write a comprehensive paper	*Less than 40% of the students can correctly do two of the following:* **a)** write well-constructed essay and/or formal lab report, **b)** design and articulate an oral group or individual presentation, **c)** develop skills in affording constructive feedback, and **d)** independently write a comprehensive paper
LO 4: Use critical thinking to synthesize information, evaluate assumptions and claims, and draw evidence based conclusions.	*At least 60% of the students are able to do the following:* **a)** organize information from several sources, **b)** synthesize and communicate material correctly, and **c)** critically extend or defend its intended purpose	*At least 50% of the students are able to do the following:* **a)** organize information from several sources, **b)** synthesize and communicate material correctly, and **c)** critically extend or defend its intended purpose	*At least 40% of the students are able to do two of the following:* **a)** organize information from several sources, **b)** synthesize and communicate material correctly, and **c)** critically extend or defend its intended purpose	*Less than 40% of the students are able to do the following:* **a)** organize information from several sources, **b)** communicate information to minimally meet its intended purpose

APPENDIX IX
LITERATURE CITED

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