

MONTANA UNIVERSITY SYSTEM

**Mission Review  
of  
Montana State University  
Bozeman**



**February 2010**

**Memorandum of Understanding**

This document serves as a Memorandum of Understanding between the Montana Board of Regents, the Montana University System Office, and Montana State University as a depiction of institutional role, characteristics, and system and statewide contributions. This agreement helps guide the system and the institution in developing strategic directions that build on distinctive strengths and the leadership role that Montana State University contributes to its affiliated campuses and the University System.

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Stephen Barrett, Chair  
Montana Board of Regents

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Sheila M. Stearns, Commissioner  
Montana University System

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Waded Cruzado, President  
Montana State University

## **MISSION STATEMENT**

- To provide a challenging and richly diverse learning environment in which the entire university community is fully engaged in supporting student success.
- To provide an environment that promotes the exploration, discovery, and dissemination of new knowledge.
- To provide a collegial environment for faculty and students in which discovery and learning are closely integrated and highly valued.
- To serve the people and communities of Montana by sharing our expertise and collaborating with others to improve the lives and prosperity of Montanans.

In accomplishing our mission, we remain committed to the wise stewardship of resources through meaningful assessment and public accountability.

## **VISION STATEMENT**

Montana State University will be the university of choice for those seeking a student-centered learning environment distinguished by innovation and discovery in a Rocky Mountain setting.

## **1.0 INSTITUTIONAL CHARACTERISTICS**

### **1.1 Profile**

Montana State University is the state's land-grant institution with a tripartite purpose of providing undergraduate and graduate educational programs; conducting research and creative activity; and providing service through outreach to the state, region, and nation. MSU houses the agencies of Extension, the Montana Agricultural Experiment Station and Fire Services Training School. It serves as the outreach arm that transfers knowledge and provides services to the citizens of the state, including all 56 counties and seven tribal colleges.

### **1.2 Role**

Montana State University in Bozeman is a doctoral research institution within the Montana University System that offers high quality undergraduate and graduate programs through its eight academic colleges and other related entities. MSU recognizes its important role as the state's land grant university and its commitment to the traditional educational areas associated with this status – agriculture, engineering, basic and applied sciences, without exclusion of the liberal disciplines. Additionally, MSU serves the state as the sole provider of educational programs in some professional fields (e.g., architecture) and is the home of the WWAMI medical education program. As the administrative center of the four-campus Montana State University, MSU in Bozeman facilitates the collaboration among these campuses in maximizing service to students, administrative efficiencies, and academic coordination.

### **1.3 Distinct Characteristics & Strengths**

Institutional Uniqueness: MSU is distinct from other MUS units in that it is classified by the Carnegie Foundation for the Advancement of Teaching as one of only 96 universities in the U.S. with "very high research activity." This top tier classification—out of over 4,400 institutions—recognizes the significant

opportunities for research, scholarship and creative work at MSU. MSU is the only top tier research institution in the five-state region of Montana, Wyoming, Idaho and North and South Dakota, and its external research funding typically exceeds \$100 million annually.

A unique characteristic of MSU is that it is highly successful in combining the positive attributes of an intensive research institution with a parallel emphasis on personal, student-focused experiences for undergraduates. This attribute was cited by the evaluation team for MSU's recent regional accreditation review as a notable area for commendation. MSU's award-winning CORE 2.0 general education curriculum, Freshman Convocation, and the First Year Initiative exemplify the university's commitment to the early integration of learning and the discovery of knowledge.

MSU's distinctive characteristics are best illustrated by a sampling of various educational, research and service activities:

**Energy:** Ongoing research exploration in four key areas including fuel cells, wind, carbon sequestration and biofuels show promise for tomorrow's energy needs. (Energy Research Institute)

**Biomedical:** Education and research programs directly improve lives, advance medical technologies, and prepare students for careers in a wide array of health professions. (Center for Biofilm Engineering, Division of Health Sciences, College of Nursing, Center for Bio-Inspired Nanomaterials)

**Laser Optics:** Integration of physics, chemistry, mathematics and engineering to develop technologies such as radar and lidar, and finding new applications for computational, communication, sensor, or measurement that exceed state-of-the-art capabilities. (Optical Technology Center)

**Native American Health Initiatives:** The NIH-funded Center for Native Health Partnerships reduces disparities of Native Americans in Montana through community-based health projects that are conducted in partnership between community members and health researchers. (Health and Human Development Department and Division of Health Sciences)

**Thermophiles (Yellowstone Microorganisms):** Scientists explore life in the extreme environments of the Yellowstone ecosystem to develop improvements in medicine, energy production and environmental concerns. (Thermal Biology Institute and Center for Astrobiology Biogeocatalysis)

**Infectious disease:** Researchers strive to increase understanding and develop vaccines for threatening diseases such as brucellosis. (Department of Veterinary Molecular Biology)

**Paleontology:** Students pursue minor and major degree programs while interacting with world-class experts. (Museum of the Rockies, Various Academic Departments)

**Snow Science:** Research and educational programs using state-of-the-art laboratory facilities to understand extreme weather conditions. (Subzero Laboratory, Colleges of Engineering, Letters & Science, Agriculture)

**Science and Natural History Filmmaking:** Our Rocky Mountains setting in the Greater Yellowstone ecosystem affords many student opportunities to combine scientific knowledge and filmmaking skills. (School of Film and Photography)

**Montana Horizons Program:** Program to address issues of rural poverty across the state in collaboration with local communities. (MSU Extension Service)

Core Themes: Although MSU has yet to identify its 'core themes' required to satisfy the new NWCCU standards for regional accreditation, they will likely be consistent with our current guiding values for the university:

- Embracing our role as the state's land grant university and continuing our commitment to the dissemination of knowledge to Montana citizens and communities through our educational, research and outreach programs.
- Striving to increase the diversity of the student and employee population, recognizing how diversity enriches both the student experience and the workplace environment.
- Seeking partnerships that enable the development of creative solutions to our most complex and pressing problems.
- Maximizing our impact by careful stewardship of the resources entrusted to us and by adherence to processes and decision-making that are open, transparent and accountable.

Strategic Plan: Montana State University's Vision and Strategic Plan is available at:

<http://www.montana.edu/vision/>

#### 1.4 Areas of Commonality:

Montana State University shares areas of commonality with other units of the Montana University System in a number of educational, research, and outreach arenas. As the two doctoral research universities in the state, MSU and the University of Montana engage in similar and complementary activities in graduate education and research related to environmental sciences, energy and other disciplinary areas. The Montana University System Science & Technology Plan (<http://mus.edu/research/>) details some of these areas of commonality.

#### 1.5 Peer Institutions

Within the Montana University System, the University of Montana is considered a peer institution for comparative purposes for topics such as tuition and fee rates, expenditures by categories, and other financial and academic data. External to the MUS, Montana State University uses public institutions in our Carnegie Foundation classification (very high research institution) for most comparative analyses. For facilities and other business process-oriented comparisons, MSU uses the flagship public institutions in the contiguous states, which are roughly similar in size and location. For non-resident tuition analyses, MSU uses competitors for non-resident applicants, derived from the National Student Clearinghouse. Peer sets established by the National Center for Higher Education Management Systems (NCHEMS) are used in other comparative studies.

## 2.0 ACADEMIC PROFILE

### 2.1 Academic Programs

At the undergraduate level, MSU offers approximately 60 bachelor’s degree programs that span the breadth and depth of our academic expertise in response to student interest and societal demand. Many of these degree programs include options to allow for specialization within the discipline.

MSU offers graduate degree programs at the masters and doctoral levels in 50 distinct disciplines. The graduate degree programs are administered by 33 academic departments across eight colleges and the Divisions of Health Sciences and Graduate Education. Specific master’s degrees include masters of arts, sciences, architecture, fine arts, education, professional accountancy, public administration, and science education. At the doctoral level degrees include the doctor of philosophy (Ph.D.) and doctor of education (Ed.D.).

General Education Program: *Core 2.0*, MSU’s general education program, holds the distinction of placing MSU on the leading edge of undergraduate research among public institutions. When started in 2004, MSU was the first public university in the nation to require an undergraduate research/creative experience in its general education component. As a complement to this requirement are four inquiry courses, in the Arts, Humanities, Natural and Social Sciences. Similar to other MUS campuses, the general education program covers fundamental topics in terms of subject areas and learning outcomes, so its courses should be easily transferable from one institution to another.

Class Size Analysis, Student Faculty Ratios:

**Undergraduate Section Size, Fall 2008**

Section Size	Number of Sections	Percent of Sections
2 to 9	262	16%
10 to 19	486	30%
20 to 29	320	20%
30 to 39	239	15%
40 to 49	119	7%
50 to 99	101	6%
100+	72	5%
<b>Total sections offered</b>	<b>1599</b>	<b>100%</b>

Source: CDS

**Student/Faculty Ratios**

Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008
17:1	16:1	17:1	16:1	16:1

Source: CDS

2.2 Technology and Instruction

Montana State University has increased its ‘online only’ and ‘hybrid’ course offerings in recent years. The establishment of *Montana State Online*, and the successful conversion to a more robust and ‘user friendly’ learning management system, *Desire 2 Learn*, have helped facilitate a continuing evolution towards more

technology-enhanced instruction. Cooperative distance delivery programs/courses exist with MSU-Billings and with several out-of-state institutions.

### 2.3 Alternative Scheduling

Student needs for alternative scheduling are addressed through various programs that individual departments and colleges offer, as exemplified by the highly successful Master of Science in Science Education program for place-bound teachers. MSU's Extended University collaborates with academic units to identify student demand areas and develop programs to meet specific scheduling requirements.

## 3.0 STUDENTS

### 3.1 Student Characteristics and Student Services

Appendix C1 contains information regarding MSU's student body (headcount distribution for major demographic variables) ex. gender, residency, level, ethnicity, age, FT/PT. Appendix C2 contains information regarding student success measures.

### 3.2 Retention and Graduation Rates

Appendix C3 shows a five year summary of fall-to-fall retention rates and six-year graduation rates

### 3.3 Student Satisfaction and Student Learning

MSU's participation in the National Survey of Student Engagement for Spring 2008 shows the following:

- 82% of seniors would attend this institution if they started over again
- 82% of seniors rated their entire educational experience as good or excellent
- 79% of seniors reported that other students were friendly or supportive

MSU's learning outcomes assessment process places the primary responsibility on departments to clearly articulate learning goals for their majors and to plan, implement, and report an appropriate process for measuring how these goals are being met. Departments must update plans at least every two years and must report annually on how plans were implemented and how, if appropriate, the department will respond to any shortcomings identified through the process.

### 3.4 Enrollment trends, projections, and challenges

At MSU, all resident enrollment figures are up significantly in the Fall 2009 semester compared with Fall 2008. MSU has experienced strong growth in nonresident undergraduate students. In addition, there are approximately 140 FTE Bozeman students in Great Falls College of Technology courses on the Bozeman campus.

MSU's enrollment projection model is driven by the numbers of Montana high school graduates and historic figures for nonresident students, transfer students, and continuing/returning students. The model has difficulty reacting to conditions that change rapidly (like the economy over the last year). The declining number of high school graduates in Montana will continue to present an enrollment challenge.

### 3.5 Student Finances

The impact of eroding state support for higher education is substantially impacting MSU's students. MSU's Financial Aid Office strives vigorously to address the financial needs of our students and is well respected in that endeavor. Average cumulative debt of graduating MSU students is below national figures.

## 4.0 PUBLIC OUTREACH, RESEARCH, & TECHNOLOGY TRANSFER

### 4.1 Outreach programs

To carry out its land grant mission, MSU has an abundance of outreach programs designed to disseminate knowledge and education throughout the state and beyond:

- Extension coordinates the statewide 4-H program and serves all 56 counties and 7 tribal colleges in the state.
- The Montana Agricultural Experiment Station (MAES) has eight locations around the state which conduct scientific investigations and experiments relating to agriculture, natural resources and rural life.
- The Montana Manufacturing Extension Center is a statewide manufacturing outreach and assistance center that provides technical assistance to businesses in a variety of industries. MMEC has a proven record of positive impact for client firms and the economy.
- Extended University promotes lifelong learning to help students of all ages take advantage of the learning opportunities that excellent instruction and emerging technologies make possible.
- The Museum of the Rockies, a Smithsonian Institution affiliate and a federal repository for fossils, showcases the rich natural and cultural history of America's Northern Rocky Mountains. The Museum reaches diverse communities with engaging exhibits, educational programs, and original research that advance public understanding of the collections.
- KUSM, Montana Public Television, serves more than 150 communities around the state. MontanaPBS can be viewed over the air and on cable, satellite and dish networks and works through media to enrich the lives of Montanans.
- The Montana Early Childhood Project is dedicated to improving the quality of programs and services for Montana's young children and their families and is housed in MSU's Department of Health and Human Development.
- Montana Shakespeare in the Parks brings professional productions, at no cost to the public, to communities throughout Montana, northern Wyoming, eastern Idaho, and western North Dakota.

4.2 Funded research program profile

**Montana State University Research and Other Sponsored Programs, Fiscal Year 2009 Expenditures by Colleges and Departments**

<b>College of Agriculture</b>		<b>College of Letters and Science</b>	
Dean's Office	\$187,694	Cell Biology and Neuroscience	\$2,658,700
Agricultural Economics and Economics	\$1,122,659	Chemistry and Biochemistry	\$9,951,032
Agricultural Education	\$2,348	Earth Science	\$738,774
Animal and Range Sciences	\$1,943,922	Ecology	\$2,634,292
Plant Sciences and Plant Pathology	\$2,551,822	English	\$10,271
Land Resources and Environmental Sciences	\$4,718,335	History and Philosophy	\$303,183
Research Stations	\$452,192	Mathematical Sciences	\$248,209
Veterinary Molecular Biology	\$7,849,682	Microbiology	\$1,403,397
<b>TOTAL</b>	<b>\$18,828,654</b>	Modern Languages	\$43,027
<b>College of Arts and Architecture</b>		Native American Studies	\$25,984
Dean's Office	\$137,208	Physics	\$6,011,089
Architecture	\$130,080	Political Science	\$206,710
School of Film & Photography	\$127,621	Psychology	\$69,277
Shakespeare in the Parks	\$42,345	Sociology	\$148,460
<b>TOTAL</b>	<b>\$437,254</b>	<b>TOTAL</b>	<b>\$24,452,405</b>
<b>College of Business</b>		<b>University Programs</b>	
Dean's Office	\$74,599	Animal Resource Center	\$11,559
<b>TOTAL</b>	<b>\$74,599</b>	Athletics & ASMSU	\$126,409
<b>College of Education, Health and Human Development</b>		Big Sky Institute	\$1,313,329
Dean's Office	\$1,990,532	Center for Community Involvement	\$45,604
Education	\$1,236,714	Division of Graduate Studies	\$15,241
Health and Human Development	\$3,332,956	Division of Health Sciences:	
<b>TOTAL</b>	<b>\$6,560,202</b>	American Indian Research Opportunities (AIRO)	\$424,671
<b>College of Engineering</b>		Office of Rural Health	\$567,523
Dean's Office	\$108,176	WWAMI	\$1,589,634
Chemical Engineering	\$1,790,568	EPSCoR Programs	\$4,032,728
Civil Engineering	\$714,709	Extended University	\$311,467
Computer Science	\$427,908	Extension Service	\$1,309,271
Electrical and Computer Engineering	\$2,728,449	Fire Training School	\$50,794
Industrial and Mechanical Engineering	\$1,276,465	INBRE	\$3,196,296
Center for Biofilm Engineering	\$2,811,792	International Programs	\$514,500
MT. Manufacturing Extension Ctr.	\$1,947,930	KUSM	\$1,424,749
Western Transportation Institute	\$8,066,950	Library	\$10,500
<b>TOTAL</b>	<b>\$19,872,947</b>	Montana Water Resources Center	\$594,252
<b>College of Nursing</b>		MSU TechLink	\$3,584,711
Nursing	\$1,543,186	Museum of the Rockies	\$1,713,627
Area Health Education Center (AHEC)	\$714,235	Special Projects	\$4,552,004
<b>TOTAL</b>	<b>\$2,257,421</b>	Student Affairs (ABC)	\$395,144
		Student Health	\$89,574
		Undergrad Scholars	\$74,622
		<b>TOTAL</b>	<b>\$25,948,209</b>
<b>GRAND TOTAL</b>		<b>\$98,431,691</b>	



**Montana State University Research Expenditures by Sponsor - FY2006 through FY2009**

<b>Agency</b>	<b>FY06 Exp.</b>	<b>FY06 % of Total</b>	<b>FY07 Exp.</b>	<b>FY07 % of Total</b>	<b>FY08 Exp.</b>	<b>FY08 % of Total</b>	<b>FY09 Exp.</b>	<b>FY09 % of Total</b>
<b>Department of Defense (DOD)</b>	\$11,078,898	10.8%	\$10,511,174	10.3%	\$10,113,956	10.5%	\$2,033,697	2.1%
<b>Department of Interior (DOI)</b>	\$5,508,042	5.3%	\$5,424,557	5.3%	\$3,919,736	4.1%	\$2,859,245	2.9%
<b>Health &amp; Human Services (HHS)</b>	\$24,917,428	24.2%	\$24,988,634	24.5%	\$22,579,559	23.5%	\$23,707,511	24.1%
<b>Homeland Security (HOMLAN01)</b>	\$103,963	0.1%	\$222,363	0.2%	\$232,230	0.2%		0.0%
<b>National Aeronautics &amp; Space Administration (NASA)</b>	\$8,046,602	7.8%	\$6,928,262	6.8%	\$6,701,179	7.0%	\$5,781,387	5.9%
<b>National Foundation for Arts and Humanities (NFAH)</b>	\$58,568	0.1%	\$50,566	0.0%	\$137,014	0.2%		0.0%
<b>National Science Foundation (NSF)</b>	\$13,116,628	12.7%	\$11,887,238	11.6%	\$12,328,532	12.8%	\$14,292,504	14.5%
<b>U.S. Agency for International Development (USAID)</b>	\$746,903	0.7%	\$604,245	0.6%	\$325,598	0.3%	\$204,519	0.2%
<b>U.S. Department of Agriculture (USDA)</b>	\$9,559,361	9.3%	\$9,098,645	8.9%	\$7,069,990	7.3%	\$7,759,199	7.9%
<b>U.S. Department of Commerce (USDOC)</b>	\$839,738	0.8%	\$1,077,946	1.1%	\$607,582	0.6%	\$751,538	0.8%
<b>U.S. Department of Energy (USDOE)</b>	\$5,475,490	5.3%	\$7,916,273	7.8%	\$8,829,920	9.2%	\$8,648,589	8.8%
<b>U.S. Department of Education (USDOED)</b>	\$2,858,092	2.8%	\$2,254,409	2.2%	\$1,803,768	1.9%	\$1,998,550	2.0%
<b>U.S. Department of Transportation (USDOT)</b>	\$3,694,444	3.6%	\$4,201,807	4.1%	\$4,248,245	4.4%	\$5,776,202	5.9%
<b>U.S. Environmental Protection Agency (USEPA)</b>	\$1,682,235	1.6%	\$1,389,898	1.4%	\$740,065	0.8%	\$988,219	1.0%
<b>Other Federal</b>	\$2,202,644	2.1%	\$2,345,612	2.3%	\$2,289,927	2.4%	\$9,431,340	9.6%
<b>Federal Agencies Total</b>	\$89,889,036	87.2%	\$88,901,629	86.3%	\$81,927,301	79.5%	\$84,232,500	81.7%
<b>Private Total</b>	\$8,104,014	7.9%	\$8,700,233	8.5%	\$9,877,263	10.3%	\$10,520,053	10.7%
<b>State Agencies Total</b>	\$5,055,815	4.9%	\$4,514,455	4.4%	\$4,345,989	4.5%	\$3,679,138	3.7%
<b>Total</b>	\$103,048,865	100.0%	\$102,116,317	100.0%	\$96,150,553	100.0%	\$98,431,691	100.0%

#### 4.3 Inventions, patents, and spin-off companies

<b>Technology Transfer Measures</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>
R&D Expenditures	\$103,048,865	\$102,116,323	\$96,150,553	\$98,431,691
Number of <b>new</b> invention disclosures filed	32	30	22	25
Number of <b>new</b> start-up companies which have licensed or commercialized university-developed intellectual property	5	1	2	3
Number of <b>new</b> intellectual property licenses issued	29	35	43	48
Total intellectual property licenses in effect at the close of the fiscal year	109	130	152	182
Total gross revenues from intellectual property licenses	\$219,931	\$257,621	\$664,244	\$557,832
Patents Issued	2	7	8	18
Trademarks Issued			3	1
<b>Total Active Licenses</b>	109	130	152	184
<b>Total Active Licenses with MT Companies</b>	68	81	89	105
License/Patent Revenues	\$49,949	\$69,165	\$221,614	\$290,690
Reimbursed Patent Costs from Licenses	\$169,982	\$138,562	\$442,630	\$267,142

#### 4.4 Community engagement

Some of MSU's community engagement activities include activities of the Office of Community involvement in which thousands of hours of student time are volunteered in serving not-for-profits, schools and government organizations; the Science Olympiad in which approximately one thousand middle and high school students compete in science competitions annually; and Engineers without Borders, a student-led group providing clean water supply to villages in Kenya.

#### 4.5 Special recognition

- Native American Studies received accreditation from World Indigenous Nations Higher Education Consortium, first mainstream, non-indigenous institution in the world to receive this designation
- 16 NSF Career Awards for faculty since 1995
- 11<sup>th</sup> nationally in Goldwater Scholars awarded
- 18 MSU students received Fulbright grants from 1997-2008

#### 4.6 Peer comparisons

- MSU is classified as a Research University - Very High Research Activity by the Carnegie Foundation for the Advancement of Teaching. MSU is one of only two top research institutions that also maintain a Very High Undergraduate profile.
- MSU ranks in the top 100 research institutions nationally for research expenditures.

- MSU's academic departments' instructional expenditures per FTE in FY08 were 76% of the average for research institutions, as measured by the Delaware Study of Instructional Costs and Productivity. MSU's departments taught 23% more credit hours and 55% more sections than the same research institutions.
- According to the National Delta Cost Project, Montana's two doctoral research institutions' expenditures per FTE student are 63% of the national average for peer institutions.
- In 2007, 47% of the Montana University System Honors Scholars attended MSU, 14% more than any other in-state institution.

## **5.0 SYSTEM COLLABORATION**

### **5.1 Collaborations with K-12**

MSU faculty work with teachers and administrators at the local and statewide level (including many tribal communities) to address issues specific to the needs of K-12 teachers and students. This includes undergraduate and graduate teacher training (including on-line masters programs), in-service teacher education, summer programs for students (including fully-funded research opportunities), outreach programs to schools, summer research experiences for teachers (often funded through NSF's Research Experience for Teachers program) and a number of federally supported programs to enhance teacher effectiveness in specific disciplines. A recent highlight is the I LEAD (Indian Leadership Education and Development) program, for which Montana State University has been awarded two grants totaling \$2.5 million from the US Department of Education to recruit, prepare, and train Native American teachers to become school principals and superintendents.

### **5.2 Program Partnerships**

MSU has a number of established academic partnerships at the graduate level. Joint degrees with the University of Montana – Missoula include doctoral programs in Fish & Wildlife Biology and Neuroscience. MSU also jointly awards the Master of Public Administration with MSU-Billings. Additional partnerships that include graduate course offerings are as follows:

- Great Plains IDEA Network (GP IDEA) – An alliance of eleven universities offering online graduate degrees, certificates, and courses in the human and agricultural sciences.
- Big Sky Science Partnership (BSSP) – A partnership between Salish Kootenai College, the University of Montana, and Montana State University in collaboration with K-8 schools and Tribal Communities in Montana focused on strengthening elementary science education. BSSP is working with MSU's Masters of Science in Science Education program to provide a graduate program in science education for elementary teachers in Montana.

- MSU-Great Falls College of Technology – The College of Technology in Great Falls offers developmental courses for conditionally admitted students on the MSU-Bozeman campus, short-term training through a downtown Bozeman center and certificate and Associates degree programs both on-campus and at facilities elsewhere in the community.

### 5.3 Participation in System Initiatives

Montana State University in Bozeman is leading the four campus *MSU Integration Initiative* in which the vision is to unite all campuses and agencies of MSU into a seamless system, based on standardized policies, procedures, data elements, and calendars to enhance service to our university community and to the citizens of Montana. The four primary goals of the project are to improve service to students, increase administrative efficiencies, enhance academic coordination, and enrich the quality of data collection and dissemination.

Consistent with MSU's student-centered approach, common course numbering has been fully implemented to ease the transfer of credits between institutions throughout the state. The leadership and faculty at MSU engaged early on in the initiative to apply common course numbering and maintained a high level of involvement through the faculty learning outcome committees to assist in making the transition. MSU also developed an awareness campaign including a website and printed materials to promote the change.

MSU was the lead in developing the MUS Green University web site. MSU collaborated with OCHE to develop an online resource that serves as a clearing house for green learning opportunities such as online and place-based courses and programs, energy research and careers. The site also outlines statewide sustainability initiatives.

### 5.4 Support for Campuses Affiliated with the University

MSU in Bozeman has provided significant centralized operational support to its affiliated campuses in the following categories:

- Budget Office support
- Financial Reporting support
- Business Office Inter-Campus Communication Services
- Financial Systems Technical support
- Accounting Operations support
- Banner Enterprise Information System support
- Human Resources support
- Administrative support
- Facilities support

5.5 Support/Collaboration with other campuses (CC's, Tribal Colleges, other)

MSU and UM have two joint graduate programs: Fish & Wildlife Biology and Neuroscience.

MSU faculty have traditionally been active in attracting federal funding to support work that either directly or indirectly supports Montana's Tribal Colleges and their students. This includes programs such as The Center for Native Health Partnerships and Montana INBRE (IDeA Network of Biomedical Research Excellence), which is itself a collaborative project in which MSU is the lead institution.

MSU has a 10+ year history of partnering with MSU-GF to offer developmental and workforce training on the Bozeman campus. The Bozeman extension is now referred to as the COT in Bozeman, which includes a very robust set of highly integrated pre-college level courses and a growing array of workforce programs.

6.0 OPERATING BUDGET

REPORTING METRIC EXPENDITURES PER STUDENT						
<u>Campus</u>	<u>FY 05 Actual</u>	<u>FY 06 Actual</u>	<u>FY 07 Actual</u>	<u>FY 08 Actual</u>	<u>FY 09 Budgeted</u>	<u>Growth Rate</u>
<b>University of Montana</b>						
UM - Missoula	\$ 8,904	\$ 9,369	\$ 9,799	\$ 10,354	\$ 10,851	5.1%
UM - MT Tech	9,341	10,192	10,443	10,903	11,198	4.6%
UM - Western	8,302	8,561	9,298	9,794	10,412	5.8%
UM - Helena COT	6,177	6,815	6,793	7,671	7,677	5.6%
<b>Montana State University</b>						
MSU - Bozeman	9,692	10,370	11,242	12,090	12,429	6.4%
MSU - Billings	7,568	7,897	8,375	8,786	9,133	4.8%
MSU - Northern	9,143	9,839	10,498	11,826	12,521	8.2%
MSU - Great Falls COT	6,504	6,734	7,071	7,656	7,772	4.6%
<b>Community Colleges*</b>						
Dawson	6,423	6,881	8,319	8,939	9,316	9.7%
Flathead Valley	6,267	7,027	7,820	8,328	8,208	7.0%
Miles	7,095	8,412	9,265	10,698	11,229	12.2%

Source: Individual campus reporting metric worksheets for "Expenditures per Student FTE"

\*FY 08 was the first year this information was reported for Community Colleges.

By all nationally recognized measures, Montana State University is an exceptionally low cost, efficient Research University.

As shown in Figure 2, MSU's Total Net Expenditures per FTE in FY07 were only 68.49% of the Peer Average for Research Universities.

**Figure 2. Net Expenditures Per Student - Compared to Peer Average**

Campus	FY06 Actual	FY07 Actual	FY08 Actual	FY09 Actual	FY10 Budgeted	Growth Rate
<b>Montana State University</b>						
MSU-Great Falls COT	\$6,551	\$6,892	\$7,503	\$7,356	\$7,746	4.3%
MSU-Northern	\$8,939	\$9,533	\$10,781	\$11,373	\$11,471	6.4%
MSU-Billings	\$7,475	\$7,849	\$8,337	\$8,851	\$8,927	4.5%
MSU-Bozeman	\$9,630	\$10,338	\$11,098	\$11,470	\$11,607	4.8%
<b>Research University Peer Average</b>		<b>\$15,094</b>	<b>68.49%</b>	<b>MSU Bozeman % of Peers</b>		
<b>University of Montana</b>						
UM-Missoula	\$8,639	\$9,008	\$9,533	\$9,769	\$10,265	4.4%
UM-MT Tech	\$9,460	\$9,676	\$10,409	\$10,950	\$10,825	3.4%
UM-Western	\$8,025	\$8,696	\$9,151	\$9,749	\$9,683	4.8%
UM-Helena COT	\$6,700	\$6,938	\$7,512	\$7,170	\$7,510	2.9%

Another important consideration is that the University budget is driven by numerous expense components that are subject to significant inflation in recent years: salaries, medical benefits, energy commodities, and academic journals. Despite these factors, the multi-year growth rate of the budget has been a relatively controllable 4.8%.

## APPENDICES

### Appendix B – Academic Profile

#### B-1 - Undergraduate Degree Recipients by College, 2008-09

College/Department	#	%
College of Agriculture	120	6%
College of Arts & Architecture	231	12%
College of Business	213	11%
College of Education/HHD	226	12%
College of Engineering	323	17%
College of Letters & Science	541	29%
College of Nursing	179	9%
University College	56	3%
Total Undergraduate Degrees	1889	100%

#### B-2 - Graduate Degree Recipients by College, 2008-09

College/Department	#	%
College of Agriculture	45	5%
College of Arts & Architecture	498*	54%
College of Business	43	5%

College of Education/HHD	118	13%
College of Engineering	57	6%
College of Letters & Science	102	11%
College of Nursing	13	1%
Division of Graduate Education	38	4%
Total Graduate Degrees	914	100%

### B-3 - Faculty Characteristics and Faculty Productivity

#### Faculty Characteristics

Faculty Type	Headcount	% Full Time	FTE	% Women
Professor	188	93%	181.75	14%
Associate	140	98%	139.22	42%
Assistant	141	100%	141.00	43%
Adjunct	345	29%	211.78	57%
Research	46	59%	36.15	30%
Ag Exp. Station	15	100%	15.00	13%
Extension	116	90%	110.68	49%
<b>Total</b>	<b>991</b>	<b>71%</b>	<b>835.58</b>	<b>42%</b>

#### Faculty Productivity

Productivity Measure	Average Departmental Percent of Research Institution Peers
Student Credit Hours Taught per Faculty FTE	125%
Organized Course Sections Taught per Faculty FTE	136%
Research Expenditures per Tenure-Track Faculty FTE	210%
Service Expenditures per Tenure-Track Faculty FTE	343%

Source: Delaware Study of Instructional Costs and Productivity

**Appendix C – Students**

C-1 - General description of student body (headcount distribution for major demographic variables) ex. gender, residency, level, ethnicity, age, FT/PT.

**Fall 2008 Headcount Enrollment**

	<b>Undergrad</b>	<b>Graduate</b>	<b>Total</b>	<b>%</b>
<b>Total</b>	10519	1850	12369	
<b>Male</b>	5708	882	6590	53%
<b>Female</b>	4811	968	5779	47%
<b>African American</b>	51	3	54	<1%
<b>Asian American</b>	137	19	156	1%
<b>Hispanic American</b>	152	13	165	2%
<b>Native American</b>	282	80	362	3%
<b>White</b>	9283	1171	10454	85%
<b>Other</b>	27	10	37	1%
<b>Unknown</b>	313	421	734	6%
<b>International</b>	274	133	407	3%
<b>Average Age</b>	22	33	23.63	
<b>Resident</b>	7757	1197	8954	72%
<b>WUE</b>	327	0	327	3%
<b>Nonresident</b>	2435	653	3088	25%
<b>Full Time</b>	8996	494	9490	77%
<b>Part Time</b>	1523	1356	2879	23%

C-2 - Freshmen ACT scores distributed by ranges (<18, 18-20, 21-24, 25-29, 30+)/ same for SAT; % of entering class requiring remediation, in either English, in math, or both

**Fall 2008 Incoming Freshmen Test Scores**

<b>ACT</b>	<b>&lt;18</b>	<b>18-20</b>	<b>21-24</b>	<b>25-29</b>	<b>&gt;30</b>
<b>Number</b>	107	235	499	474	142
<b>Percent</b>	7%	16%	34%	33%	10%
<b>SAT</b>					
<b>Number</b>	47	74	241	352	170
<b>Percent</b>	5%	8%	27%	40%	19%

**Fall 2008 Incoming Freshmen Requiring Remediation**

	<b>English</b>	<b>Math</b>	<b>Both</b>
<b>Number</b>	195	464	69
<b>Percent of incoming class</b>	8.35%	19.87%	2.96%

C-3 - Retention & Graduation Rate of First-time, Full-time Freshmen

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>



Fall to Fall Retention Rate	70.5	70.6	71.4	71.6	72.2
Six year Graduation Rate		49.6	47.7	47.9	48.3

C-4 - Student FTE by Residency & Level

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Resident Total	8,001	8,089	7,944	7,851	7,777
Undergraduates	7,367	7,456	7,315	7,166	7,072
Graduates	634	633	629	685	705
Non-resident Total	2,527	2,554	2,611	2,616	2,732
Undergraduates	1,876	1,869	2,000	2,086	2,170
WUE	394	421	361	299	321
Graduates	257	263	251	230	240
Total FTE	10,528	10,642	10,555	10,467	10,509

C-5 - Student Headcount by New Student Status

	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008
First-time Freshmen	2,174	2,237	2,203	2,088	2,054
New Transfer Students	729	758	684	569	578
First-time Graduate Student	276	314	278	303	387
First-time Non-degree	175	188	179	185	211
Total New Students	3,354	3,497	3,344	3,145	3,230

C-6 - Degrees Award by Type

	2003-04	2004-05	2005-06	2006-07	2007-08
Associate Degrees	--	--	--	--	--
Bachelor's Degrees	1821	1805	1821	1837	1809
Master's Degrees	440	442	440	466	434
Specialist's Degrees	0	1	0	1	1
Doctoral Degrees	42	40	40	56	52
First Professional Degrees	--	--	--	--	--