

## Montana University System Initiatives

Priority	Initiative	Amount	Brief Description of Initiative
1	Improve Transferability and Student Data	\$1,900,000	Funds needed data systems, faculty program council expenses, and P-20 work (\$1.3 million OTO); and sustainability of initiative (\$600,000).
2	Expand Indian Education for All	\$500,000	Funds programs needed to implement IEFA at postsecondary institutions.
3	Improve Affordability	\$3,900,000	Includes MPACT scholarship program (\$2.5 million) and 2-year program tuition buy-down (\$1.4 million).
4	Coordinate and Expand Distance Learning	\$600,000	Continue implementation of distance learning coordination and program expansion, including creation of "gateway" for MUS distance programs.
5	Healthcare Worker Education	\$4,900,000	Includes developing healthcare worker strategic plan, creation of data and program advisory groups, expansion of WWAMI medical school (\$1.9 million) and new allied health programs, principally in 2-year colleges, to address critical shortage areas (\$3 million).
6	Create Montana Energy Center	\$2,000,000	Create a Montana Energy Center to coordinate and promote energy development (including research) in Montana.
<b>Total</b>		<b>\$13,800,000</b>	

**MONTANA UNIVERSITY SYSTEM**  
**2009 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2006)**

<b>UNIT/CAMPUS: MONTANA UNIVERSITY SYSTEM</b>	<b>UNIT PRIORITY: 1</b>
<b>NEW PROPOSAL NAME: TRANSFERABILITY &amp; INTEGRATED STUDENT DATA SYSTEM</b>	
<b>BOARD OF REGENT STRATEGIC GOAL: <input checked="" type="checkbox"/> ACCESS    <input type="checkbox"/> ECONOMIC DEVELOPMENT    <input checked="" type="checkbox"/> EFFICIENCY</b>	
<b>TOTAL BIENNIAL COST: \$ 1,900,000</b>	<b>FUNDING SOURCES AND PERCENT: 100% GENERAL FUND APPROPRIATION</b>
<b>ADDITIONAL STAFF IN FY08 (FTE): 2.5</b>	<b>ADDITIONAL STAFF IN FY09 (FTE): 2.5</b>

**DESCRIPTION OF NEW PROPOSAL:**

In today's global economy, the economic well-being of Montana depends on an educated citizenry. That education is essential for both the viability and health of the State's economy and the long-term career success of Montana's citizens. It isn't enough to focus on just the workforce needs of Montana in 2007. The State and its educational entities must develop a future perspective to insure that Montanans are not left behind. That perspective requires that more and more of Montana's citizens complete as much education beyond high school as possible. And they need help in that effort by assuring that post-secondary education in Montana is available, affordable and efficiently delivered.

To accomplish that lofty goal, a multi-faceted approach is necessary. It will require the following:

- a comprehensive program to improve transferability between campuses of the Montana University System. In response to a 2004 Legislative audit, the Montana Board of Regents made an initial start in this effort with the adoption of several System-policies. The most difficult work has yet to be done, however. The work requires the development of multiple pathways for students to follow as they work on a degree program in the System. Those pathways could include program-to-program/institution-to-institution articulation agreements, common coursework for some degree programs, agreement on course content, and possibly common course numbers. In the handful of states that have undertaken such an effort, the participation and consensus of program faculty is essential. In fact, the accreditation status of Montana's post-secondary institutions could be jeopardized without that involvement.
- the development of a comprehensive information database. The success of all these projects depends on the development of a much more sophisticated and comprehensive data base that is also integrated with the data systems of other State agencies. It is imperative that this information system be integrated with the Student Education Information Data System currently being developed by the Office of Public Instruction. The impact and effectiveness of all these programs on students and Montana citizens is simply not determinable without good data, especially data that tracks students from the K-12 system through post-secondary education and on to the work force. The Office of the Commissioner of Higher Education would continue the Director of Institutional Information and Research on its staff to enhance the capacity and effectiveness of the existing Montana University System Data Warehouse and to develop assessment models to monitor the impact of all these programs.

The transferability effort and the comprehensive information database are inherently connected and would require the following effort and investment:

- development of a comprehensive and refined Data Warehouse and implement the required assessment models (OTO)	\$ 750,000
- faculty program council expenses (OTO)	<u>430,000</u>
Total (OTO)	\$1,180,000

Management and sustainability of this project will require a 09 biennium investment of \$ 600,000

Total Biennial Cost \$ 1,780,000

The management and sustainability investment would include 2 FTE (1 FTE with the requisite academic credentials to lead the transferability effort and 1 FTE to lead the comprehensive database effort) office space, equipment and operating expenses. Some ongoing funds would be needed for faculty program councils and faculty release time.

- a coordinated and collaborative educational system that begins with pre-school and continues all the way through graduate education. The most significant “educational transfer” for any student is the move from high school to post-secondary education. In order to insure Montana’s economic vitality now and into the future, more and more of its citizens. . .both traditional college-going students and adult workers. . .need to make that transition. The groundwork for a collaborative educational system has already been established in Montana, with the work of the Board of Education and its P-20 Committee. That effort has no full-time staff person to work on these important activities, however. Any achievements to date have been the result of personnel in both the Office of Public Instruction and the Office of the Commissioner of Higher Education who committed to a project at the expense of other essential work that needs to be done. The P-20 effort is a major commitment of many states, with large staffs to spearhead the effort. Montana needs to get started by adding .5 FTE position in the Office of the Commissioner of Higher Education to work exclusively on this important and unprecedented collaboration. A biennial investment to cover the salary, benefits and operating costs for the .5 FTE would be \$120,000.

#### HOW SUCCESS IS MEASURED:

- transfer pathways are created in 22 different program and subject areas; those pathways may include common coursework, a common curriculum, common course content, articulation agreements, etc.
- appeals of transfer credit decisions are reduced by 50% from the baseline year of 2006 – 2007.
- a 25% increase in the number of pre-post-secondary educational credits that are accepted by the Montana University System, in such programs as dual enrollment, running start, advanced placement, tech prep, etc.
- the development of an integrated and comprehensive data system for the Montana University System, particularly a data system that does not rely unnecessarily on the campuses for information.
- alignment of K-12 graduation standards and post-secondary proficiency standards in composition, mathematics and science.

Are there any external partners proposed to join in the funding of this initiative? If yes, please note proposed partners.  
None.

Is this proposal in place of something presently being done? If yes, please note activity that would cease once new proposal was initiated. No.

Can this proposal be absorbed into current services without additional funding? The work on transferability initiatives would continue, but at a significantly reduced level; the P-20 efforts would continue, using the part-time assistance of current staff at OCHE and OPI who do this work now as part of their many responsibilities.

Would this proposal be undertaken irrespective of additional state funding (i.e. 100% tuition funding)? No

Would this proposal be undertaken only with funding other than tuition? Yes.

**MONTANA UNIVERSITY SYSTEM**  
**2009 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2006)**

<b>UNIT/CAMPUS: MONTANA UNIVERSITY SYSTEM</b>	<b>UNIT PRIORITY: 2</b>
<b>NEW PROPOSAL NAME: INDIAN EDUCATION FOR ALL</b>	
<b>BOARD OF REGENT STRATEGIC GOAL: <input checked="" type="checkbox"/> X ACCESS    <input type="checkbox"/> ECONOMIC DEVELOPMENT    <input type="checkbox"/> EFFICIENCY</b>	
TOTAL BIENNIAL COST: \$500,000	FUNDING SOURCES AND PERCENT: 100% GENERAL FUND APPROPRIATION
ADDITIONAL STAFF IN FY08 (FTE): 1	ADDITIONAL STAFF IN FY09 (FTE): 1

**DESCRIPTION OF NEW PROPOSAL:**

Section 20-1-501, Montana Codes Annotated, states that “. . .every educational agency will work cooperatively with Montana tribes. . .to include information specific to the cultural heritage and contemporary contributions of American Indians, with particular emphasis on Montana Indian tribal groups and governments.” Individual campuses that make up the Montana University System have developed individual programs to meet that statutory mandate, particularly in the area of teacher education. The Montana University System has not been as responsive, however, until recently. A work group, made up of representatives from several of the campuses, will meet during the 2006 – 2007 academic year to develop a system-wide plan. That plan will be presented to the Montana Board of Regents, for its review and approval, in November 2006. The money in this budget request is intended to implement that plan.

The money will be used as follows:

- \$10,000 to fund the travel expenses of an advisory board on Indian Education for All and other Indian issues, made up of representatives from the tribes throughout Montana.
- \$50,000 to develop an Indian Education for All website, with information on resources for academic programs in the Montana University System.
- \$130,000 to fund the development of Indian Education for All instructional materials and programs for the Montana University System, using an RFP process.
- \$85,000 to fund a faculty development program on Indian Education for All in the Montana University System.
- \$25,000 to sponsor a symposium or research conference on Indian Education for All.
- \$200,000 for 1 FTE to work exclusively on this effort, along with office space, equipment and operating expenses for that person.

**HOW SUCCESS IS MEASURED:**

--implementation of all of the projects described in the proposed budget. I.E., creation of an advisory board for the Office of the Commissioner of Higher Education, creation of the web site, establishment of a faculty development program, etc.

--creation of at least ten (10) “public domain” courses that can be used by other faculty members throughout the System in the area of Indian Education for All.

--implementation of a faculty development program that a) results in at least one Indian Education for All “lead faculty” member in each unit of the Montana University System, to advise and support his/her colleagues at that campus; and b) results in at least one program on each campus that has imbedded Indian Education for All materials throughout its curriculum.

Are there any external partners proposed to join in the funding of this initiative? If yes, please note proposed partners.  
None.

Is this proposal in place of something presently being done? If yes, please note activity that would cease once new proposal was initiated.

The proposal will not replace current activities undertaken by the campuses to satisfy the statutory requirements of Indian Education for All. The proposal is intended to supplement those plans.

Can this proposal be absorbed into current services without additional funding?

Some campuses may be able to implement the expectations of the System-wide Indian Education for All proposal, without this appropriation, using the resources available on their campuses. For many campuses, however, particularly the smaller units, the resources to comply with an Indian Education for All policy or statement are simply not available without additional funding.

Would this proposal be undertaken irrespective of additional state funding (i.e. 100% tuition funding)? No.

Would this proposal be undertaken only with funding other than tuition? Yes.

**MONTANA UNIVERSITY SYSTEM**  
**2009 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2006)**

<b>UNIT/CAMPUS: MONTANA UNIVERSITY SYSTEM</b>	<b>UNIT PRIORITY: 3</b>
<b>NEW PROPOSAL NAME: AFFORDABILITY</b>	
<b>BOARD OF REGENT STRATEGIC GOAL: ACCESS</b>	
<b>TOTAL BIENNIAL COST: \$ 3,900,000</b>	<b>FUNDING SOURCES AND PERCENT: 100% GENERAL FUND APPROPRIATION</b>
<b>ADDITIONAL STAFF IN FY08 (FTE):</b>	<b>ADDITIONAL STAFF IN FY09 (FTE):</b>

**DESCRIPTION OF NEW PROPOSAL:**

According to Tom Mortenson of the Pell Institute, postsecondary education “has become the dominant factor in the growth of personal incomes and the living standards of people, families, cities and states.” It is a well accepted fact that more education correlates highly with increased wages. Over a 40-year working career, those with some postsecondary education will earn about 75% more than those who have only a high school education. But the correlations between higher educational attainment and non-monetary benefits are equally strong. Improved health, decreased crime, higher charitable giving, and greater civic participation, among others, are all strongly related to the education of the individual and the overall education levels of a community. In addition to all the important things a university system does on a daily basis for the state and its communities, a central tenet of our mission must be to continue to prepare students for life by getting them into, and successfully through, a postsecondary education.

Montana faces increasingly high postsecondary education costs relative to income levels. In 1994 Montana’s average tuition was \$27 below the 15 western states’ average; in 2004 it was \$703 above the average. Montanans must now pay a 40% higher share of their incomes for resident tuition and fees than residents of the other western states. The average student debt for a Montana university graduate is \$20,000 and rising. With these trends, it is no surprise that in 2000-01 the college participation rate for Montana students from low-income families was 27.9% compared to 42% for the general population. According to *Measuring Up 2000*, the state of Montana received a grade of “D-” for affordability. In 2002, the affordability grade sank to “F” and remained there in 2004.

High tuition does not create as much of a barrier to education if it is coupled with relatively high tuition assistance. Virtually every state in the US has a substantial need-based aid program, but Montana is far behind every other state in the region in the amount of aid provided our students. Montana appropriations for need-based aid are just \$70 per student as compared to \$238 per student for the other 15 western states. Even in Montana’s two-year colleges – in most states the low-cost point of entry for many students – cost is increasingly a barrier. On average, a Montana family pays 25% of its income at two-year colleges compared to 16% nationally.

Federal loan limits no longer provide many Montana students and families with sufficient lending capacity to satisfy the cost of education. For the first time, the cost of education (including room and board) now exceeds the amount of borrowing available to many Montanans. There simply isn’t enough need-based aid to serve our Montana residents and this lack of aid impacts enrollment, persistence, and success in postsecondary environments.

The purpose of this initiative is to provide Montana residents with greater access to Montana’s postsecondary institutions, through entry-level scholarships based upon financial need and buying down the tuition increases of two-year programs, with the goal of alleviating student debt burdens. In addition, the MUS strongly supports full funding of the Governor’s Postsecondary Scholarship Program.

MPACT Scholarship Proposal	\$2.5 million
2 Year Program Tuition buy-down	\$1.4 million

HOW SUCCESS IS MEASURED:

Success will be measured as follows:

- the dollar amount is distributed in the form of scholarships to qualifying Montana residents
- increase the participation rates of Montana resident students

Are there any external partners proposed to join in the funding of this initiative? If yes, please note proposed partners.

- No, although it should be noted that businesses and individuals are already significant partners in providing scholarships, and yet the need is demonstrably well beyond what the private foundations can meet.

Is this proposal in place of something presently being done? If yes, please note activity that would cease once new proposal was initiated.

- No

Can this proposal be absorbed into current services without additional funding?

- No

Would this proposal be undertaken irrespective of additional state funding (i.e. 100% tuition funding)?

- No. Tuition increases presently help fund the MTAP – Baker Grants and tuition waivers. Further burden on tuition for all students to fund need-based grants would be disadvantageous for Montana's middle income students.

Would this proposal be undertaken only with funding other than tuition?

- Yes. This initiative proposes to enhance existing aid programs (PSGS, MTAP, MPACT) and Pell grants so that Montana more nearly compares with similar states that are providing an average of \$238 per student, over three times Montana's level.

**MONTANA UNIVERSITY SYSTEM**  
**2009 BIENNIUM BUDGET PLANNING – NEW PROPOSALS**

<b>UNIT/CAMPUS: MUS</b>	<b>UNIT PRIORITY: 4</b>
<b>NEW PROPOSAL NAME: EXPAND DISTANCE LEARNING</b>	
<b>BOARD OF REGENT STRATEGIC GOAL: ACCESS &amp; ECONOMIC DEVELOPMENT</b>	
TOTAL BIENNIAL COST: \$600,000	FUNDING SOURCES AND PERCENT: 100% GENERAL FUND
ADDITIONAL STAFF IN FY08 (FTE): 0	ADDITIONAL STAFF IN FY09 (FTE): 0

**DESCRIPTION OF NEW PROPOSAL:**

The funds will be used to continue the 1.0 FTE position in the Office of the Commissioner of Higher Education, create and implement a web portal for MUS distance courses, and develop new distance learning programs. The current position of Director Distance Education Business Development was created with funds allocated by the 2005 Montana Legislature. In addition to continuing the projects that have already been implemented by the current Director of Distance Education and Business Development, the money will also be used to create and refine the Montana Distance Learning Gateway, an informational website that will ultimately serve as the single portal entrance to distance learning programs in Montana. The funds will also be used to develop new distance education programs in Montana, both credit and non-credit bearing, that will serve place-bound students, workers and employers who do not have access to traditional campus educational and training opportunities in the State.

**HOW SUCCESS IS MEASURED:**

Funding for this initiative will result in: 1) reduced duplications of redundant offerings, saving money; 2) expanded offerings through greater state-wide collaborative efforts to deliver additional courses and programs at no significant additional cost; 3) development and delivery of new courses and programs focused on workforce development and training; 4) enhanced student user-friendliness of all aspects of distance education delivery, which in turn supports a higher quality higher education attainment by place-bound citizens.

Specifically, this funding will allow us to:

- Develop consensus, identify a web-based platform that will serve the campuses, and create the Montana Distance Learning Gateway that was a high priority recommendation of the Shared Leadership Steering Committee. This will allow significantly more students to access the numerous distance learning courses offered across all our campuses.
- Develop and deliver new credit and non-credit bearing distance education programs in the State, including new collaborative offerings, intended to serve primarily workers in need of career training and employers in need of specially skilled workers.
- Significantly expand the number of distance education programs and increase the number of students enrolled in distance education.

Are there any external partners proposed to join in the funding of this initiative? If yes, please note proposed partners. None have been formally identified as of this time, but they are being developed over the next year. Priority for distance education program expansion will be given to those programs that have strong industry partnerships.

Is this proposal in place of something presently being done? If yes, please note activity that would cease once new proposal was initiated: It is a continuing extension of the 2005 Session funding to support distance education development for students, workers, and employers, across Montana and beyond.



Can this proposal be absorbed into current services without additional funding? Present funding includes the initial cost of 1.0 FTE to develop the program described, to lay out the plan and the timeline, and to identify possible solutions to the many related challenges. The development of a collaborative and supported approach across all campuses is a primary mission of the present process.

Would this proposal be undertaken irrespective of additional state funding (i.e. 100% tuition funding)? It would likely continue to be piecemeal and based upon the preferences and concerns of each individual campus. As clearly stated in the Shared Leadership report, "...Montana is too small and too poor to continue down its current path with distance education." (Sally Johnstone, Western Cooperative for Educational Telecommunications)

Would this proposal be undertaken only with funding other than tuition? In part. The gateway would not be developed without funding other than tuition. The campuses have the ability to generate certain tuition for distance education support and development, but a successful approach is dependent on the willingness and ability to coordinate programs across the state and build the distance education portal. In addition, a strong central-coordination approach almost eliminates the present conflict of "traditional vs. distance" education funding and development that exists on each campus.

**MONTANA UNIVERSITY SYSTEM**  
**2009 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2006)**

<b>UNIT/CAMPUS: MUS</b>	<b>UNIT PRIORITY: 5</b>
<b>NEW PROPOSAL NAME: ELIMINATE HEALTHCARE WORKER SHORTAGES</b>	
<b>BOARD OF REGENT STRATEGIC GOAL: ACCESS</b>	
<b>TOTAL BIENNIAL COST: \$4.9 MILLION</b>	<b>FUNDING SOURCES AND PERCENT: 100% GENERAL FUND APPROPRIATION</b>
<b>ADDITIONAL STAFF IN FY08 (FTE): 0</b>	<b>ADDITIONAL STAFF IN FY09 (FTE): 0</b>

**DESCRIPTION OF NEW PROPOSAL:**

Montana faces a severe shortage of allied health professionals, due to increased demand, an aging workforce, and an aging society. Current projections indicate we will need about 6,100 additional health professionals in the workforce to meet the needs of Montana's citizens in 2010 – about a 30% increase. Also, we currently have 47 of our 56 counties that are, in whole or in part, designated as Health Professional Shortage Areas (generally less than one primary care physician per 3,500 people). While there are many aspects to healthcare affordability and access, if there are inadequate numbers of trained professionals in the workforce it is impossible to have access to basic healthcare throughout the state. While the university system can play a supporting role in solving many of our state's healthcare access problems, it unquestionably has a lead role in educating the healthcare workforce in all of our communities.

There are many initiatives in the university system that are underway or being proposed to address this problem, but we lack a coordinated statewide plan for meeting our current and future needs. Without such a plan, it is exceedingly difficult to make an informed decision as to what combination of programs is most likely to address our workforce shortages over the next decade in the most cost-effective way.

This initiative proposes that the Board of Regents require a statewide plan be developed, with clear long-term goals, before funding individual initiatives to expand healthcare training programs. This plan should also include data that give us a clear understanding of the current capacity of existing programs and the cost effectiveness of these programs. New or non-traditional programs should also be considered, with the goal of eliminating the shortage of qualified healthcare workers in each of the state's regions, regardless of the source of those workers.

**The following is a DRAFT proposal, which outlines programs and alternatives which should be considered in developing a comprehensive and systematic approach to healthcare worker training in Montana. Cost estimates are approximations only.**

**Goal: Develop a comprehensive plan, including associated costs, to close the healthcare worker gap in ten years with the most cost-effective combination of programs.**

**1. Establish a healthcare data team to evaluate, over time, the state's healthcare worker shortages (both existing and anticipated).**

This team should consist of, as a minimum, representatives of the following agencies or organizations:

- Montana Department of Labor and Industry Research and Analysis Bureau
- Montana Department of Labor and Industry Licensing Business and Occupational Licensing Bureau.
- Office of Commissioner of Higher Education
- MHA

- Others agencies or organizations as appropriate.

*Cost: none additional*

**2. Establish an advisory group to evaluate proposals and make recommendations on the most cost-effective options to train, recruit, and retain healthcare workers.**

This group should consist of 10-15 individuals and have approximately 50% of its members from non-government organizations. The group should also contain representatives of the Montana University System, including the state's community colleges and tribal colleges.

*Cost: none additional*

**3. Work with the advisory group to evaluate options to reduce shortages of non-physician healthcare workers:**

- Improve efficiency of current programs, including transferability and use of common curriculum across institutions, to lower attrition rates and speed graduation rates.
- Expand capacity in existing programs.
- Create funding pool to attract and retain targeted faculty in high-demand healthcare fields.
- Create new programs at strategically targeted institutions.
- Expand partnership with tribal colleges to offer more allied health training programs.
- Expand distance learning, either in-state or in cooperation with other states' programs (e.g. expand participation in WICHE's WRGP nursing Ph.D. program or offer on-line advanced degree programs similar to Arizona and Colorado).
- Expand partnerships with rural hospitals (or other options) to increase the number and size of clinical training sites.
- Create a fast-track for BA degree holders wanting to become nurses.
- Create programs to encourage/facilitate professionals not in the workforce to re-enter the workforce through re-certifications or incentives.
- Increase career pathways and dual-enrollment programs to increase supply of students wanting to enter healthcare professions.
- Expand programs to offer and encourage advanced degrees in nursing to build stronger base of potential instructors.

*Cost: The advisory group should estimate the total costs, over the next 10 years, to reach our goal of eliminating worker shortages. The group should also make recommendations for priority funding requests in the next biennium. Estimate \$3 million in next biennium*

**4. Develop stronger support from industry (primarily hospitals and clinics) to provide additional matching funds for expanding the number of trained healthcare workers in the state in a systematic way.**

*Cost: none additional*

**5. Actively solicit federal and/or non-profit grants and funds, as a state or university system, to help eliminate the healthcare shortage in Montana.**

*Cost: none additional*

**6. Expand physician education to increase the number of physicians in Montana, with particular emphasis on increasing the number of primary care physicians practicing in rural areas.**

- Increase WWAMI slots for entering class from 20/year to 40/year (total in 4-year program increases from 80 to 160 after four years).

*Cost: \$1.9 million next biennium, \$3.4 million subsequently*

- Implement selection criteria for WWAMI to increase percentage of physicians returning to Montana rural areas in primary care specialties.  
*Cost: none to MUS or general fund*
- Implement a third year WWAMI medical training program in Montana.  
*Cost: none to MUS or general fund*
- Develop a proposal to expand MT Family Practice Residency Program.  
*Cost: none in the next biennium, possibly funding required subsequently*
- Consider adding residency program in another specialty area in 3 years, possibly in a community other than Billings.  
*Cost: none in the next biennium, possibly funding required subsequently.*

**7. Increase the funding for, and more carefully target, incentives to encourage primary care physicians to locate in high-need areas by considering the following options:**

- Charge higher rates (on par with all other WWAMI states) for first year WWAMI students and put funds into Montana Rural Physician Incentive Program (MRPIP) and WWAMI program.  
*Cost: none to general fund or MUS. Increases tuition for medical students that is more-than-offset by future incentives if they return to practice in Montana high-need areas.*
- Phase out current Rural Physician Tax Incentive (grandfather current enrollees for time left under current law), put equivalent funds into MRPIP.  
*Cost: none to general fund or MUS. Requires legislative action to change tax code and reallocate funds.*
- Increase “surcharge” for WWAMI program from \$2K to \$4-5K per year, put additional funds into MRPIP.  
*Cost: none to general fund or MUS. Increases tuition for medical students that is more-than-offset by future incentives if they return to practice in Montana’s high-need areas.*
- Use combination of above proposals to generate \$approximately \$1 million per year for MRPIP. Revise MRPIP to increase incentive amounts and to better target locations in most need of primary care physician with a goal to eliminate all Health Professional Shortage Areas (HPSAs) in 10 years. Include a larger selection team for awards to have greater rural representation and to ensure incentives are targeted at highest-need areas.  
*Cost: none to general fund or MUS.*
- Consider adding other healthcare professional which are also in critical short-supply to the incentive program.  
*Cost: none to general fund or MUS*

**8. Continue to evaluate options for increasing the number of dentists through expanded partnerships with other states (including WICHE and WWAMI).**

This is currently being evaluated by the Montana Dental Association and the MUS through a \$5,000 grant from the Legislature and a \$20,000 grant from the American Dental Association. Particular emphasis is being placed on training dentists likely to practice in Montana’s rural areas.

**HOW SUCCESS IS MEASURED:**

Montana will have a strategic plan for meeting the healthcare worker needs of the state during the next decade. Healthcare program expansion or creation of new programs will be substantiated and monitored with accurate data. The MUS will have significantly better coordination with state agencies and other healthcare organizations in Montana and the region to ensure all are better working together to achieve common workforce and healthcare access goals. An advisory group from both the public and private sector will be able to advise the Regents on program and spending priorities over time. Ultimately, Montana’s citizens (and particularly those in rural, historically underserved areas) will have improved access to healthcare.

Are there any external partners proposed to join in the funding of this initiative? Yes, as noted above.

Is this proposal in place of something presently being done? If yes, please note activity that would cease once new proposal was initiated: None, although current efforts both inside and outside the MUS should be better coordinated.

Can this proposal be absorbed into current services without additional funding? Yes, with the exception of new or expanded education programs.

Would this proposal be undertaken irrespective of additional state funding (i.e. 100% tuition funding)? Partially. It is unlikely new or expanded programs could be undertaken without significant funds, but the planning and coordination efforts could proceed without additional funding. Changes to the location incentive program may not require new funds, but it will require Regent's and Legislature's action.

Would this proposal be undertaken only with funding other than tuition? Partially. It is unlikely new or expanded programs could be undertaken without significant funds, but the planning and coordination efforts could proceed without additional funding. Changes to the location incentive program may not require new funds, but it will require Regent's and Legislature's action.

**MONTANA UNIVERSITY SYSTEM**  
**2009 BIENNIUM BUDGET PLANNING – NEW PROPOSALS (JANUARY 2006)**

<b>UNIT/CAMPUS: MUS</b>	<b>UNIT PRIORITY: 6</b>
<b>NEW PROPOSAL NAME: MUS ENERGY CENTER</b>	
<b>BOARD OF REGENT STRATEGIC GOAL: ECONOMIC DEVELOPMENT</b>	
TOTAL BIENNIAL COST: \$2,000,000	FUNDING SOURCES AND PERCENT: 100% GENERAL FUND APPROPRIATION
ADDITIONAL STAFF IN FY08 (FTE): 4	ADDITIONAL STAFF IN FY09 (FTE): 4

**DESCRIPTION OF NEW PROPOSAL:**

The state of Montana has tremendous energy resources at its disposal at a time which national needs for developing energy independence and security are dramatically increasing in priority. Additionally, there is clear interest in state government in the development of energy resources and in investigation of newly developing technologies for doing so. Potential areas of state interest include understanding fossil resources in the state, new, clean coal power generation technologies, biofuels and environmental issues. The Montana University System has a number of nationally and internationally recognized research programs that overlap significantly with state needs including the Zero Emission Research and Technology Center (ZERT), the Big Sky Carbon Sequestration Regional Partnership, the Bureau of Mines, the Montana Wind Energy Consortium, the Load Control and Grid Optimization Program (GridWise), the High Temperature Electrochemistry Center, Hydrogen Transportation Project. These programs are federally funded and involve specific research projects and goals which do not provide freedom to meet state needs with the federal funds. However, the expertise and infrastructure built by these programs provides the MUS and the state a unique leveraging opportunity for state funds. Additionally, these programs have involved MUS researchers in collaborations with six national labs (PNNL, INL, LANL, NETL, LLNL, LBNL) other universities, and other federal programs (including FutureGen) providing the state with access to external resources and expertise. State funding will provide integration of these capabilities and expertise, the ability to focus on state needs, and the ability to coordinate with state offices. The table below indicates some of Montana's activities and potential impacts.

	Natural Resources	Power Generation	Transmission & Distribution	Alternative Energy	Environmental Issues	Policy and Economics
MUS Research Programs	ZERT, Bureau of Mines	ZERT, HiTEC	HiTEC, Grid Optimization	Wind Energy, Oilseed Biofuels, Biobased Institute, Hydrogen Futures Project	Big Sky Partnership, ZERT, Reclamation Res. Center, CBM Water	
Impacts	Understanding oil, gas, coal resources, extraction	Evaluating new generation technologies (including coal – liquids), clean coal technologies	Research in distributed power, alternative power impacts on grid, grid management	New turbine materials, Evaluation of Wind resources, Dispatch and grid issues, Oilseed crops for fuel	Mine reclamation, water quality issues, carbon management,	Technical input from MUS can assist DEQ, Dept. of Economic Opportunity, Dept. Natural Resources, etc

The MUS has approximately \$7-8 million of research directly related to energy generation (conventional and alternative) or transmission but almost no resources dedicated toward linking these research projects together to address state issues and potential economic development. A Montana Energy Center would provide the resources to coordinate the extensive energy-related research and expertise in the state in order to focus on opportunities specific to Montana. The Center

would consist of a director with a small staff that would have expertise to coordinate energy projects, resources, and data across state agencies, federal agencies, MUS campuses, and private companies. The center would maintain a database of active energy projects and resources in, or available to, the state. It would also coordinate periodic seminars and conferences to convene related experts and businesses to promote Montana energy resources and/or address state priorities.

As an example, a basin scale, high resolution characterization of the Powder River Basin would be beneficial to the state and to the private sector for understanding fossil fuel resources, extraction issues, and carbon storage potential. This work is unlikely to be performed by the private sector or by the Bureau of Mines because it is too labor intensive. It would be very appropriate to assign to a team of several geology professors and about 5-6 grad students and it would result in several theses and a data set useful to the state and the private sector. This could be done in cooperation with the Bureau of Mines, using resources in the Montana Energy Center.

Other activities of the center could include: variety development for oilseed plants for bio-diesel; detailed characterization of wind resources in the state (at higher resolution than the NREL map); and development of coal expertise to understand impact of coal type and altitude on coal utilization technologies (gasification, liquefaction).

#### HOW SUCCESS IS MEASURED:

The Montana Energy Center will significantly increase Montana's competitiveness for private and federal projects. For example, the state's ability to attract large energy projects (such as the FutureGen project or the development of a large coal gasification or liquefaction facility) will depend on our capability to coordinate technical, regulatory, environmental, and state agency resources. The Montana Energy Center will not guarantee our state is successful in attracting these, or other, projects. However, without some dedicated, professional resources to help coordinate the state's efforts it is highly unlikely we can be successful.

The energy center will increase the amount of energy related research funding and the number of technical experts available within the state – not only within the center, but also by better coordinating our existing resources and helping to attract additional energy professionals and researchers to the state. The coordination and interaction between the MUS and state agencies will be greatly increased which will lead to better data and technical expertise being available to both entities. The center will also help to increase the level of energy related research funding, publications, and students graduated – and in fields potentially more valuable to meeting the state's needs.

Ultimately, the center will lead to increased energy generation in MT, including that from alternative sources, which brings the associated economic development and expanded tax base to the state. The positive impacts of increased energy development also fall disproportionately on the rural and most in-need regions of the state.