

Montana University System

Making Opportunity Affordable

**Report on the Policy Framework for Two-Year
Education in Montana**

Office of the Commissioner of Higher Education

**Submitted to:
Montana Board of Regents**

May 2009

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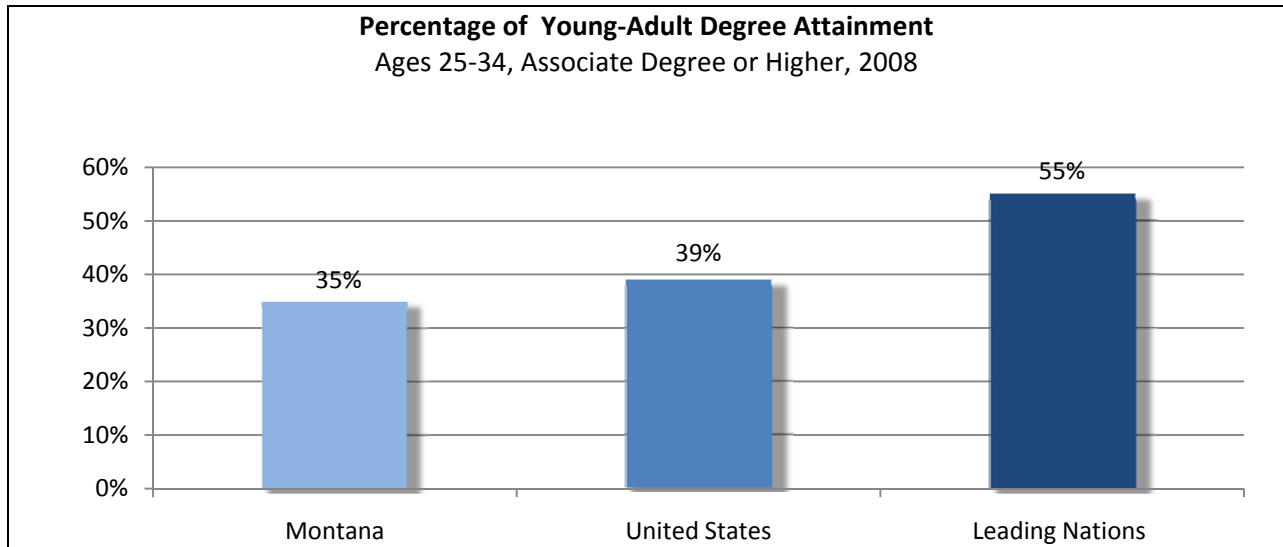
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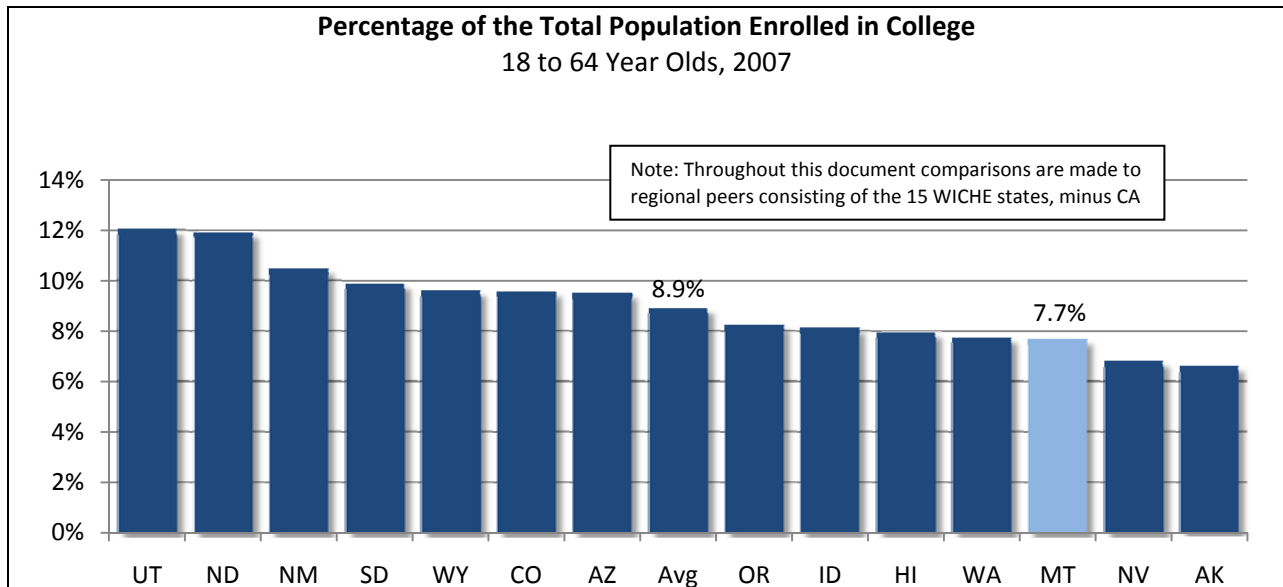
Montana's Two-Year Education Productivity Agenda: An Introduction

The global economy is increasingly requiring an educated workforce. Educational attainment rates are rising in almost every industrialized country in the world, except for the United States. According to the National Center for Higher Education Management Systems (NCHEMS), in order to keep pace with leading nations, by the year 2025 the U.S. needs to produce 64 million more undergraduate degrees. At our current pace, the gap between the U.S. and leading nations will significantly widen.



Source: OECD, Education at a Glance 2008

Montanans' engagement in higher education is low in comparison to other states and suggests that the state has significant room for improvement. In order to meet future workforce demands and to ensure that younger generations of Montanans have opportunities and prosperity equal to, if not greater than, those that 20th-century Montanans enjoyed, it is critical for Montana to increase participation in higher education.

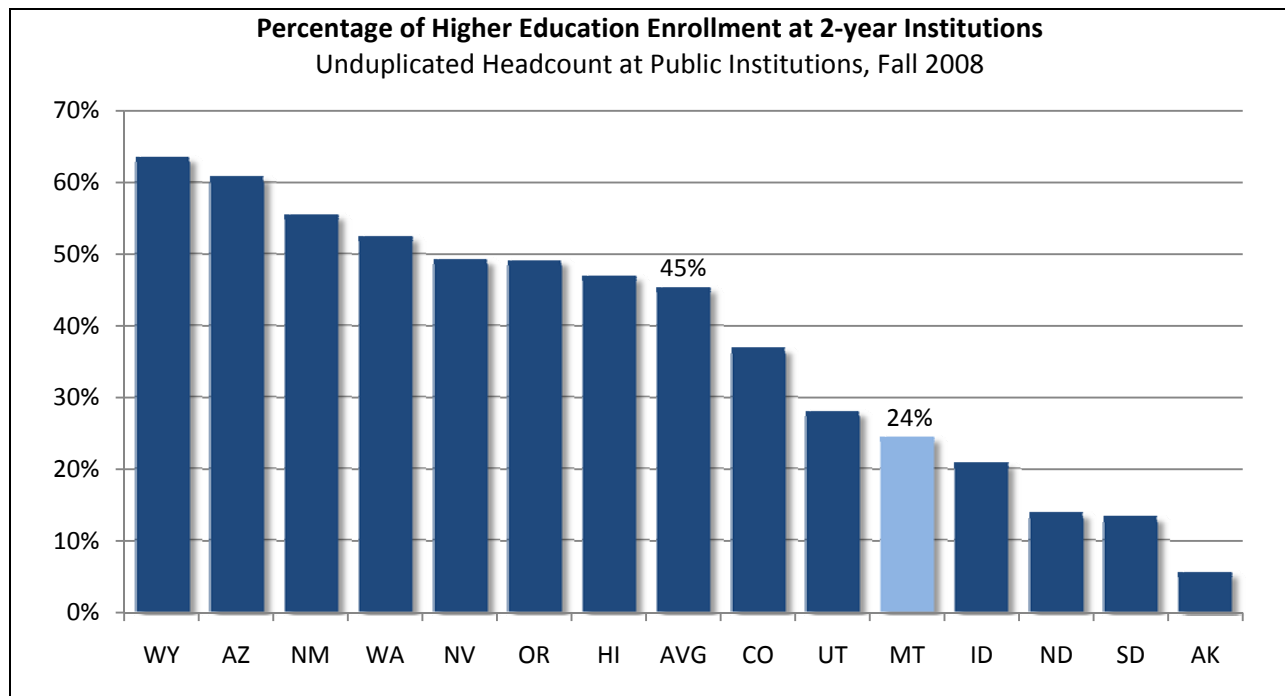


Source: IPEDS Fall Enrollment Survey, US Census Bureau

Making Opportunity Affordable (MOA), a national initiative led by the Lumina Foundation for Education, has advanced a “productivity agenda” to reverse trends related to lagging degree production and educational attainment facing the nation. MOA’s productivity agenda has three priorities:

- Increasing higher education degree attainment in the United States
- Improving the efficiency of academic programs and administrative functions
- Reducing unit costs so state systems can serve more students

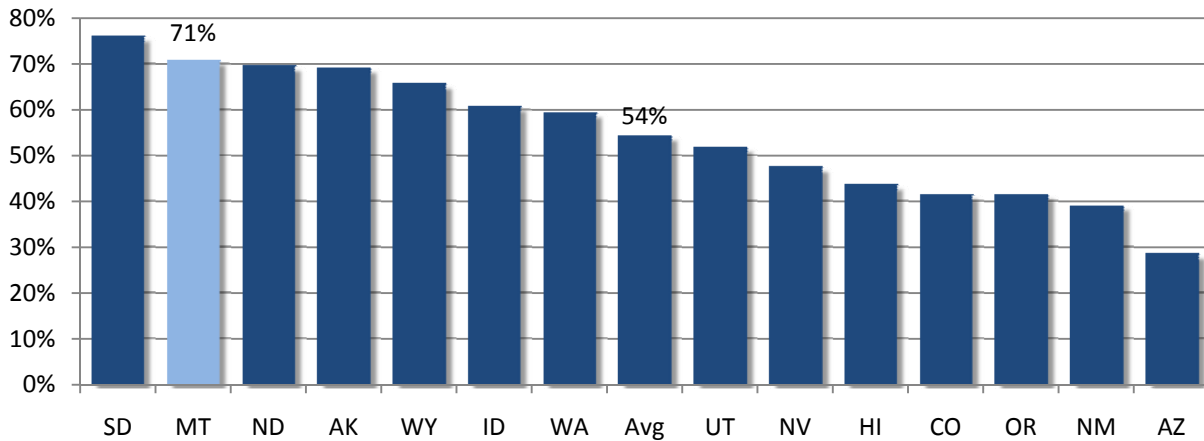
Montana’s MOA proposal addresses these priorities by focusing on two-year education. For over two decades, the Montana Board of Regents has identified two-year education as a point of emphasis – initially to provide a broader array of postsecondary options for a wider variety of students, later to provide a more affordable option to the four-year degree, and currently to combine those advantages with the goals of extending access and responding more effectively to communities and the economy. Although enrollments and completions in two-year colleges have increased significantly in the past 20 years, the percentage of Montana’s college students enrolled in two-year colleges (24%) remains far below the regional average (45%).



Source: IPEDS Estimated Fall 2008 Headcount

Relatively high tuition rates contribute to the lack of participation in two-year education in Montana. Tuition and fees at Montana two-year institutions are 70% of the four-year price, while the regional average for two-year college tuition and fees is 54% of the four-year college level.

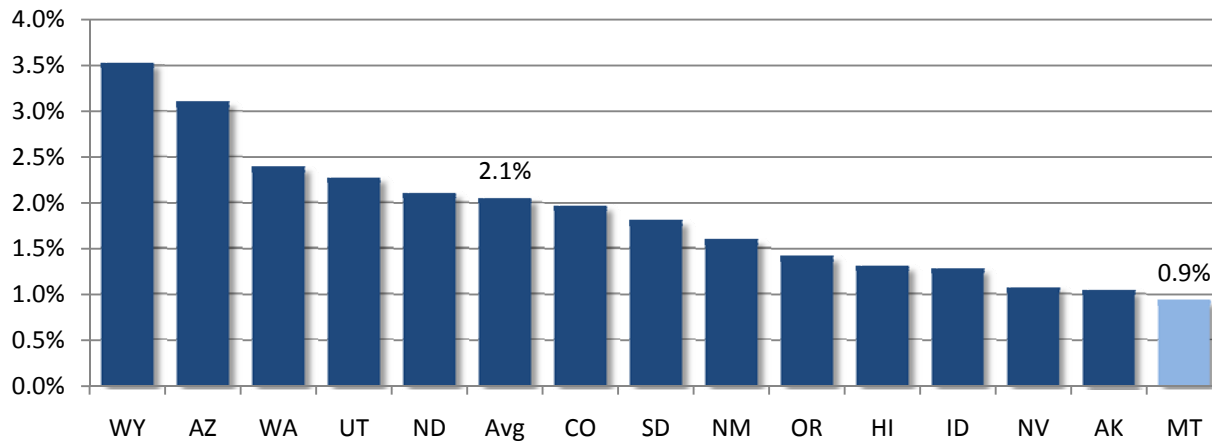
2-year Tuition & Fees as a Percentage of 4-year Tuition & Fees
Average Annual Resident Undergraduate Tuition & Fees, 2007-08



Source: IPEDS

Data indicate that the potential pool of students available to two-year education in Montana is high. Montana ranks last in the nation when comparing the total number of two-year degree and certificate recipients produced annually to the total number of Montana residents who are without a higher education credential.

Associate Degrees and Certificates Awarded per 1,000 Adults Age 18-44 with No College Degree, 2006



Source: IPEDS and American Community Survey data compiled by NCHEMS

While the percentage of students taking advantage of two-year education is low and the number of student completions in relation to the number of residents without a credential is even lower, degree production relative to the number of students attending two-year institutions in Montana is slightly above average. Data provided by The Delta Project on Postsecondary Education Costs, Productivity, and Accountability, ranks Montana above the national average in terms of degrees produced per FTE student. Also, according to The Delta Study, Montana's two-year colleges are relatively efficient

compared to other states. Although Montana’s efficiency and productivity measures compare favorably to other states in this study, the wide ranges and variability between campuses (as displayed later in this report) clearly demonstrate room for improvement.

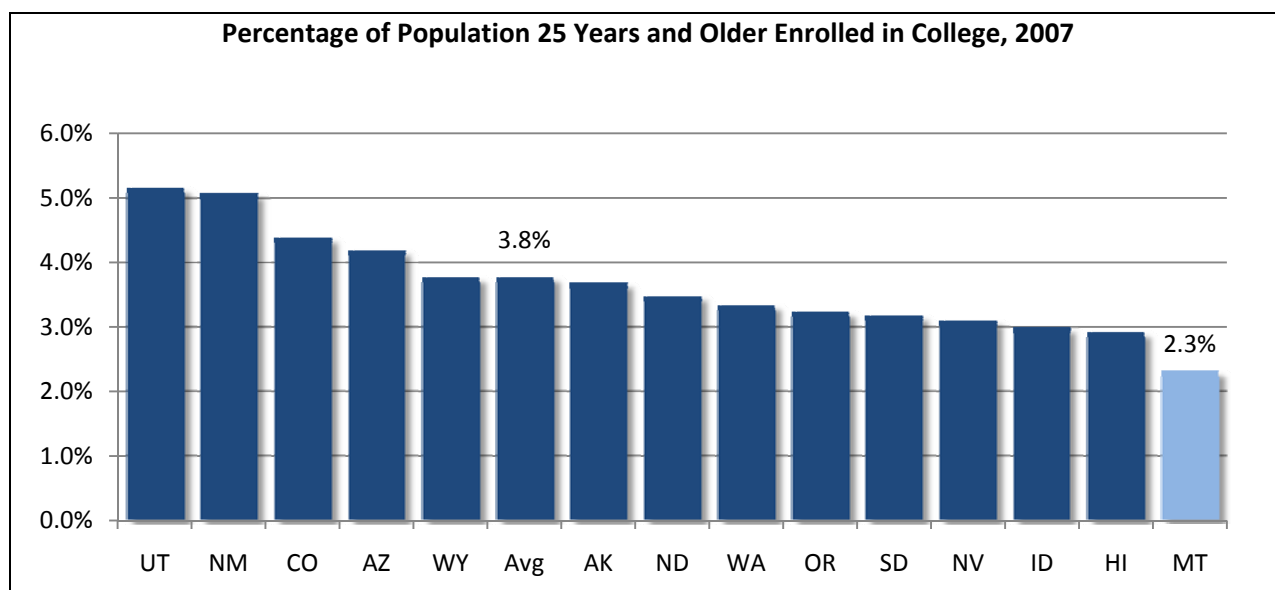
2-year Public Institutions, 2006	Montana		National Average	Top-Ranked State
	Rank	Amount		
Education and related spending per FTE student	41	\$7,704	\$9,036	\$37,938
Education and related spending/student completions	47	\$27,673	\$43,126	\$72,363
Completions per 100 FTE students	21	26	24	48

Through our MOA initiative, Montana aims to increase participation and productivity in two-year education, thereby helping to achieve the national agenda of increasing educational attainment and degree production in every state. Montana’s productivity goals for the Making Opportunity Affordable initiative are:

- to increase enrollments in Montana’s two-year colleges;
- to increase two-year degree completions;
- to increase successful transfers from two-year to four-year colleges, which will in turn increase four-year degree production;
- to improve efficiency so as to make the opportunities at Montana’s two-year colleges more affordable for students and taxpayers.

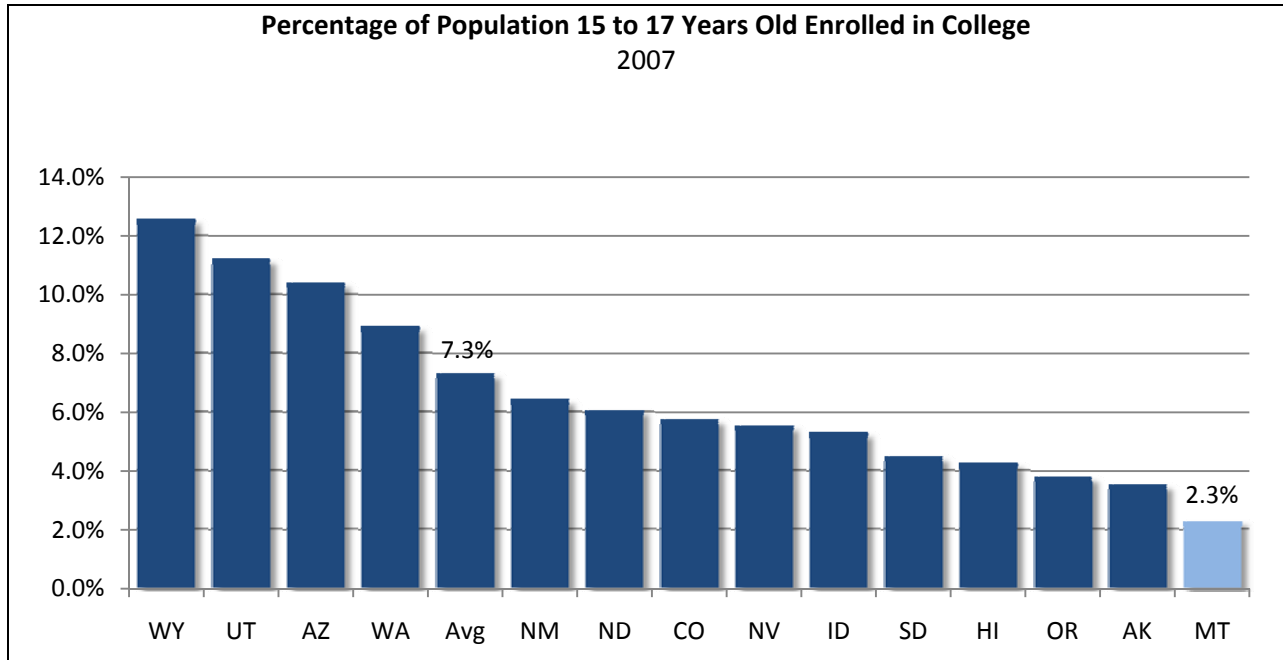
Montana’s MOA initiative identifies five particular groups as “target populations:

1. **Nontraditional Students.** Montana ranks last in the West and 49th in the nation on the percentage of its population over 24 years of age engaged in higher education.



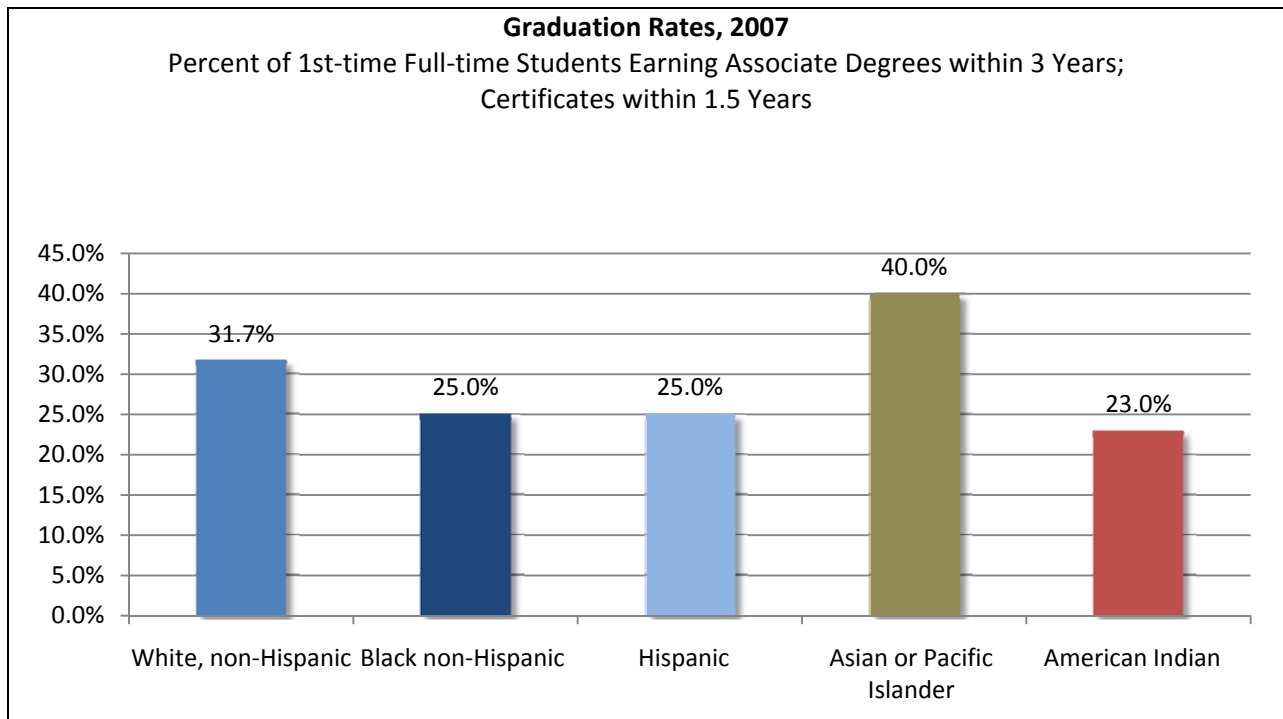
Source: IPEDS Fall Enrollment Survey; U.S. Census Bureau

2. **High School Students.** Montana ranks last in the West and 45th in the nation in the percentage of 15- to 17-year-olds taking at least one college course.



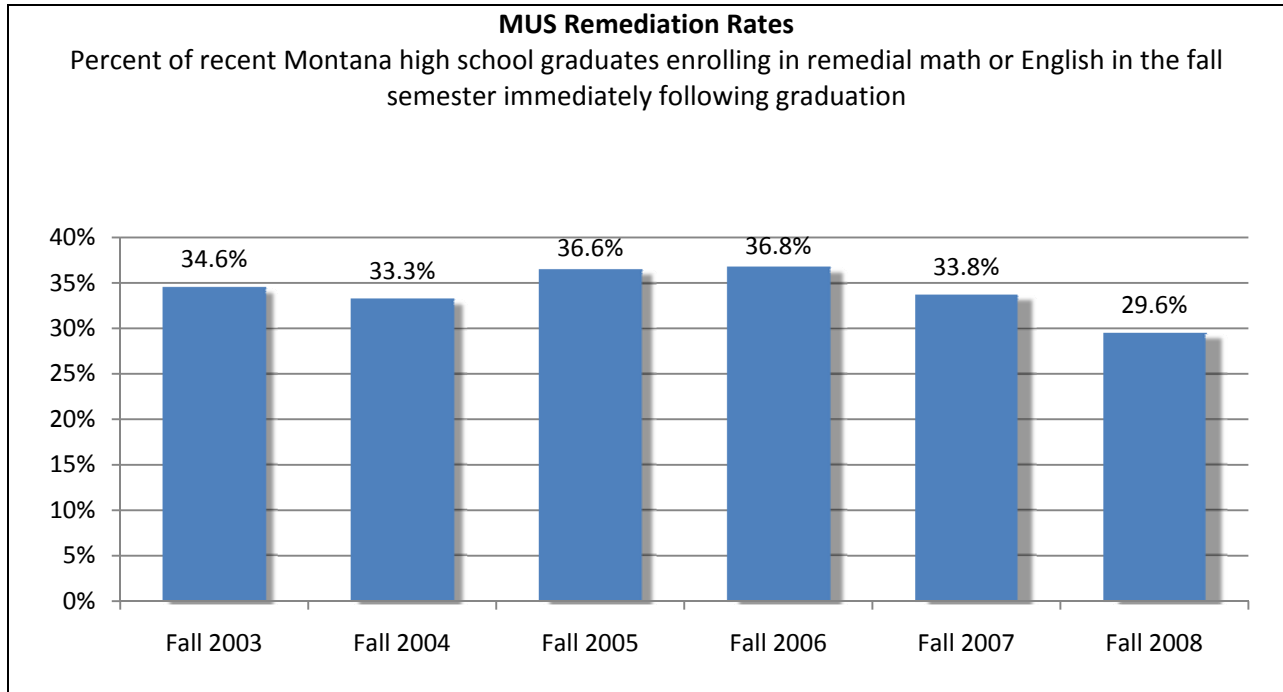
Source: IPEDS Fall Enrollment Survey; U.S. Census Bureau

3. **American Indians.** At critical points in the education pipeline, Montana fails to retain American Indians, resulting in associate degree and baccalaureate degree completion rates that lag behind overall Montana rates.



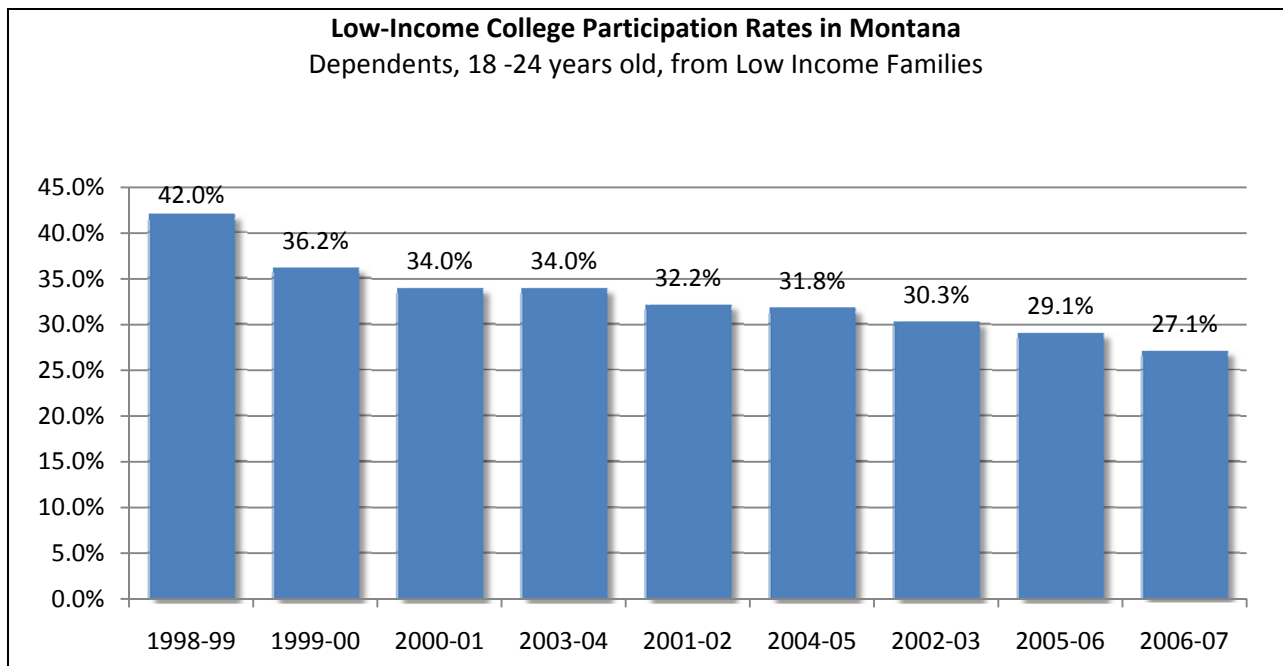
Source: IPEDS

4. **Under-prepared Students.** Although remediation rates have dropped recently, nearly 1/3 of Montana high school graduates attending a campus of the Montana University System* must take at least one developmental course. Students who are under-prepared for college are less likely to complete a degree. (*does not include community colleges)



Source: MUS High School Follow-up Report, 2008; does not include community colleges.

5. **Low-income Students.** College participation rates of low-income students in Montana have been steadily declining since 1999.



Source: Postsecondary Education Opportunity, Mortenson

In order to reach our target populations and achieve our productivity agenda, Montana has engaged in an in-depth review of the policy framework for two-year education in Montana. Montana conducted this review mindful that the success of our strategies will be affected by the full array of policies, provisions, and regulations framing two-year education in Montana. The incentives and constraints any policy or statute is intended to create may – upon implementation, over time, and within the contexts of the full array of state-level policies and provisions – result in gaps between policy purpose and goal achievement. Identifying gaps between intent and effect of individual policies, as well as the alignment of the array of policies, regulations, statutes, and court decisions with our two-year education productivity agenda, is at the heart of this policy audit.

The Opportunity Analysis/Policy Audit Process

1. Using the “Opportunity Analysis” templates provided by MOA, a team at the Office of the Commissioner of Higher Education identified an initial set of constitutional provisions, state statutes, implementing regulations, court decisions, tax provisions and state allocations with relevance to two-year education.
2. Five “audit teams” were formed, consisting of representatives from the Board of Public Education, the Office of Public Instruction, the Board of Regents of Higher Education, the Office of the Commissioner of Higher Education, the Governor’s office, Montana Education Association/Montana Federation of Teachers, and various administrators from Montana’s two-year and four-year institutions. Each team focused on a dimension of the productivity agenda: (a) readiness, (b) access/capacity/retention, (c) curriculum and transferability, (d) affordability, and finance/administration. Members evaluated the positive or negative impact of each provision, provided comments, and suggested additional policies, statutes, or regulations to include.
3. The results of the audit teams’ reviews were compiled and posted on Montana’s MOA website, as well as MOA’s Knowledge Collaborative. Team members were then asked to identify 3-7 “key policies,” based on their positive or negative impact on the three key areas of the two-year productivity agenda: increasing two-year enrollments, increasing two-year degree completions, and improving cost-effectiveness. These results were also compiled and posted on Montana’s MOA website and the MOA Knowledge Collaborative.
4. Evaluating the teams’ rankings and comments in light of the factors affecting cost per student, cost per degree, and production of high-need degrees, Montana’s MOA Project Director completed the Opportunity Analysis templates intended to provide the national MOA project with an overview of the opportunities and challenges created by Montana’s policy framework.
5. Using all the grids, templates, and commentary compiled through the previous steps, Montana’s MOA Project Director, the Deputy Commissioner for Two-Year Education, then prepared a draft of this report in order to provide a more in-depth summary of the policy audit for consideration by the Montana Board of Regents. The draft was disseminated to all stakeholders for comment and revised based on their feedback. When feedback was complete, the Project Director added her recommendations to the Board of Regents.

The final product of this process is this formal report evaluating how well Montana statutes, administrative rules, policies, court decisions, and tax provisions support the two-year education productivity agenda. Like all audits, it has been conducted with a critical eye, and like all audit reports, the focus is on areas for improvement.

READINESS

Basic Conclusion

The policy framework in Montana does not explicitly define “open admission” to Montana’s two-year colleges in a way that encourages enrollments regardless of readiness, but also distinguishes the multiple dimensions of readiness for two-year college programs, which include high school completion programs, developmental/transition programs, workforce non-credit and credit/degree programs, and transfer programs.

Specific Observations

Our review of policies raises the following concerns with respect to communicating clearly about readiness for two-year education in order to support Montana’s productivity goals of increased enrollments, degree completions, successful transfers/job placements, and cost-effectiveness:

Admissions Policies

- Admissions requirements for the colleges of technology are not listed at all in policy. In the admissions policy for community colleges, there is no explicit policy defining “open admission” and at the same time distinguishing the readiness levels required for immediate entry into the various academic offerings of two-year colleges. At a minimum, the “open admissions” policy should include all MUS-affiliated two-year colleges, should be inviting and welcoming in tone, and should communicate these messages about readiness:
 - Many two-year degree programs require the same level of high school preparation as would be required for admission into baccalaureate studies.
 - The Associate of Arts and Associate of Science are in fact equivalent to lower-division studies for the baccalaureate degree and require the same level of readiness.
 - Adult basic education/GED completion and other developmental programs and services at two-year colleges help students who are not ready for degree programs to transition from where they are academically to where they can be.
- Although various policies provide students with clarification on basic proficiencies required to be ready for baccalaureate studies, they send a mixed message as to how important that readiness is for their success. The system has not come to terms with the disparity between what its admissions and proficiency policies indicate is “college-ready” and various exceptions for students who are not ready. Between part-time and summer exceptions, along with the option of provisional admission to baccalaureate studies for up to three semesters, under-prepared students have multiple avenues to engage in studies in which, if the philosophy guiding proficiency-based admission has foundation, they are not likely to succeed.
- The policy framework as a whole supports and perhaps reflects the misperception that enrolling in a two-year college is not the optimal choice and that the academic experience at a two-year college best fits students who are lacking in some way - readiness, family college-going history, age, etc. – when in fact the two-year college academic experience best fits those students, as well as many students who would not be perceived as lacking in any way. Policy issues feeding this misperception:
 - Failing to clarify the multiple levels of study at two-year colleges, many of which are simply the lower division of baccalaureate studies.
 - Naming the two-year colleges included in the Montana University System through the restructuring of 1994 “colleges of technology,” a name too reminiscent of the “vo techs”

they once were when affiliated with school districts and an inaccurate description of the range of academic opportunities available there.

- Mentioning only the developmental mission of two-year colleges in admissions policies.
- Embracing a philosophy of baccalaureate study-readiness based on proficiency standards (which is good), but admitting students who are not ready into the university anyway for 3/8 of their projected time for degree completion, setting them up for failure and sending the message that being required to enroll in a two-year college with a specific mission to help students transition to college-level work is a fate so harsh that it requires amelioration.

High School to College Transition

- Montana's K-12 schools, led by the Office of Public Instruction and the Board of Public Education, have identified content and learning standards for 11 program areas. These standards establish a baseline for learning outcomes in mathematics, composition, reading, science, social studies and other areas crucial to college-readiness, but the standards do not clearly identify the proficiencies in each area that indicate readiness for college or for family-sustaining work. Because the Montana University System admissions standards were established earlier than these standards and focus on subjects to be taken, rather than proficiencies to be achieved, Montana has no parallel statements from K-12 and higher education communicating mutually agreed-upon standards for college entry. Both sectors have built a bridge beginning at their respective banks, but they are different bridges that do not meet in the middle. School districts are left to make the curricular leap and hope it serves their students well.
- The courses delineated as minimum high school graduation requirements may not adequately prepare high school students for many two-year degree programs. Students planning to enroll in a two-year program for nursing, respiratory care, or biofuels technology, for instance, must take more than two years of math and two years of science to be adequately prepared. Yet documents explaining the various admissions requirements for units of the Montana University System tell students who complete only those minimum high school graduation requirements that they are prepared for a two-year college. This miscommunication may explain in part why the median number of credits taken by students receiving an Associate of Applied Science degree in a two-year program in the Montana University System (data do not include community colleges), is over 80 credits, even though 68% of Montana's A.A.S. degrees are 68 credits or fewer and regents' policy "caps" all A.A.S. degrees at 72 credits.
- Although progress is being made on establishing pathways from high school to two-year colleges, that work has not yet come together as a single package and has the danger of leading to program "tracks," one for baccalaureate studies and one for career/technical studies. In the 21st century economy, these two paths should increasingly intertwine, especially in terms of high school preparation, and all students should be encouraged to explore and to challenge themselves academically while in high school.
- The clear proficiency standards and the statewide administration of the Montana University System Writing Assessment (MUSWA) at no charge to students statewide have advanced students' and faculty's understanding of college-readiness for baccalaureate studies, whether begun at the two-year college or the four-year college. However, progress in identifying similar

proficiencies for entry into career/technical programs is hindered by the lack of alignment in two-year college expectations statewide (as explained in a later section).

Readiness Options after High School

- Because adult basic education (ABE) programs are not available at Montana’s colleges of technology and most tribal colleges, as they are at the community colleges, most two-year colleges in Montana are not able to serve the full range of students needing programs that help them transition into college. Many of these colleges are pursuing partnerships with the ABE providers in their communities; that effort should be supported by a statewide approach to ensure that students are not deterred from or unaware of effective programming preparing them for two-year degree programs.
- Collectively, policy provisions for developmental courses convey a sense of censure that may affect students’ willingness to enroll in them. The constant emphasis on the fact that these courses are not transferable is an example. In point of fact, with common course numbering, the courses may transfer to meet the requirements that equivalent courses meet throughout the system. What is meant is that they are not applicable to the total credits in a baccalaureate degree. In addition, while intended to underscore the point that developmental courses are not “college-level,” the course-numbering convention which assigns a number beginning with zero to developmental courses may also deter students from taking these courses because they believe, as “zero” courses, they “don’t count.” This impression is reinforced by the fact that students’ grades in their developmental courses are by policy not factored into decisions on suspension for poor academic performance.
- Although two-year colleges are appropriately recognized in policy as the appropriate providers of developmental programs and services, some four-year colleges continue to provide them, in spite of the fact that a two-year college is available in every four-year college community to serve this function so central to the two-year mission, values, and culture.
- Although not part of Montana’s policy framework, Montana’s GEAR-UP program has produced positive results in developing readiness among Montana’s most at-risk populations. Those lessons may inform improvements to Montana’s policy framework for readiness.

The Readiness Policy Framework and MOA Productivity Goals

- The policy framework in general does not “brand” Montana’s two-year colleges in the consistent, accurate, and compelling ways needed to tap two-year college enrollment potential.
- The policy framework does not define “two-year college readiness,” with its multiple points of entry, effectively. It is important for students and policy-makers alike not to confuse open admissions with goal-specific readiness. When students are not adequately prepared for two-year degree programs, their time to degree and associated expenses escalate, threatening degree completion.
- Directing underprepared students as soon as possible to effective developmental programs and services increases their likelihood of completing an academic credential. Our policies do not do that adequately/consistently.

ACCESS, CAPACITY, RETENTION

Basic Conclusion

The policy framework in Montana supports access to postsecondary education, including two-year colleges, but has yet to address key impediments to access and to strike the appropriate balance between student access, institutional capacity, and system duplication. Exceptional and innovative initiatives, including the Montana University System Writing Assessment (MUSWA) and placement policies, are already showing improvements in both readiness and retention. Nonetheless, the policy framework supporting retention could be clearer and stronger.

Specific Observations

Our review of policies raises the following concerns with respect to meeting productivity goals for two-year education:

Structural Impediments to Access to the Comprehensive Two-Year College Mission

The comprehensive two-year college mission consists of these five prongs:

1. Adult basic education (ABE)/general equivalency diploma (GED) completion programs;
2. Developmental courses and programs helping the under-prepared student transition to college-readiness;
3. Career/technical certificate and degree (Certificate of Applied Science/Associate of Applied Science) programs preparing students for high-wage, high-demand careers;
4. Associate degree programs (Associate of Arts, Associate of Science) equivalent to the lower division of baccalaureate degree programs and designed for transfer; and
5. Non-credit workshops, seminars, and courses responding to individual, community, and business/industry needs.

All three community colleges provide access to all five prongs of the two-year college mission.

Five of the seven tribal colleges do not have ABE/GED completion programs; otherwise, all seven tribal colleges provide access to the remaining four prongs of the mission – and they emphasize an additional prong: the preservation of tribal culture.

The table below indicates the level of access to the comprehensive two-year college mission provided by Montana's colleges of technology, situated in or providing extension programming in 6 of the 8 highest-population counties in Montana:

2-year Colleges	ABE/GED	Transition (Developmental)	AAS/CAS	Transfer	Noncredit
MSU Billings COT	Available on campus through cooperative arrangement w/local school district (SD)	Guided by the four-year campus; available at both four-year and two-year campuses	Major emphasis	Some emphasis currently – primarily at four-year campus	A shared emphasis with the four-year campus
MSU Great Falls COT	Not available; working w/SD to bring to campus	Major emphasis in Great Falls; shared emphasis w/ MSU at extension in Bozeman	Major emphasis	Major emphasis	Major emphasis
MT Tech COT	Not available	Guided by the four-year campus; available at both four-year and two-year campuses	Major emphasis	Not an emphasis; provided at the four-year campus	A shared emphasis with the four-year campus
UM Helena COT	Somewhat available on campus through cooperation w/local SD	Major emphasis	Major emphasis	Major emphasis	Major emphasis
UM Missoula COT	Not available on campus; strong coordination w/local SD	Major emphasis	Major emphasis	Some emphasis on AA advising, articulations	A shared emphasis with the four-year campus

This disparity in access makes it difficult for those within the Montana University System to remember, much less promote, the two-year college mission. It must be even more difficult for students, parents and the public to place their faith in and plan around such differing doorways for access.

- As noted earlier, although Montana’s two-year colleges are touted as “open access institutions,” that concept is not clearly defined in policy. The omission of colleges of technology from many policies on two-year colleges contributes to public unawareness of what, exactly, students have access to there. The audit reveals that, even within the two-year college sector, top professionals are not aware of the range of academic programming at other two-year colleges, especially colleges of technology. Compounding this problem, the name “college of technology” does not accurately describe the range of the COTs’ missions and is too similar to the “vo-techs” they once were for Montanans to see them as colleges with the comprehensive mission that many of them now deliver.
- The disparate delivery and cost of adult basic education (ABE) programs hinges access on affordability at some sites and hinders a seamless flow from General Equivalency Diploma (GED) completion to college enrollment. The line of demarcation between ABE and developmental programs is also undefined and inconsistent campus to campus.

Technological Impediments to Access

- The growth of online courses and programs in Montana in the last decade has greatly expanded access to higher education, including two-year education. That access would be expanded further with an integrated information system allowing students to enroll in several institutions' online courses simultaneously, as if they were all offered on one campus with one rate for tuition and fees. Such a system could also help the regents and community college/tribal college governing boards address capacity goals at under-enrolled institutions. The variety of information systems used in Montana's colleges, together with the lack of seamlessness even when the information system itself is the same, hinders the overall efficiency of operations, access and service to students, and consistency of business practices expected within a system.

Lack of Coordination and Consistency

- The question "Open access to what?" is answered differently across two-year education providers. All two-year colleges provide workforce preparation certificate and degree programs, but in some communities two-year students must complete transfer degrees and even developmental courses on the four-year campus and, at times, at the more expensive four-year rate. The three community colleges are authorized and have elected as communities to fund ABE programs on their campuses. Two of the seven tribal colleges receive state and federal funding for ABE programming through Montana's Office of Public Instruction. The colleges of technology receive none of these funds and must therefore rely on collaborative arrangements with local school districts to provide this important level of access. (Students at MSU-Northern and UM-Western, with their embedded two-year mission, would also profit from such arrangements.) Apart from the difficulty of promoting enrollments in two-year colleges clearly and compellingly, the most at-risk of the two-year college population are easily daunted by these kinds of disparities, inconveniences, and costs.
- Montana's two-year colleges have been leaders in dual enrollment, but, as with most things, their approaches are distinctly different, with the result that Montanans' awareness of and access to dual enrollment opportunities are not widespread, and costs for dual enrollment opportunities are inconsistent for consumers from one two-year college to another. Of concern as well is whether our dual enrollment programs have appropriate quality controls and assessment features in place. Many high school students are not ready for college course work, and concerns about luring them from what should be their primary focus – completing the learning outcomes associated with a high school diploma – should be heeded. The ability to assess the progress of dual enrollment students through high school and college requires a focused, cooperative coordination among school districts, two-year colleges, and four-year colleges. Currently, that coordination is generally recognized as important, but it is not yet in place.

Access, Institutional Capacity, and Duplication

- Various policies emphasize the regents' concern about unnecessary duplication of courses and programs, yet many two-year degree programs have been duplicated across the system. This duplication may be justified when local demand requires a local response and when the program can be delivered more effectively and less expensively at the local level. However, there are no doubt cases where this duplication is not justified, and there are no mechanisms or metrics in place to help regents make this assessment. Also, as noted earlier, coordination of new programs with existing ones would better support efficiency goals.
- The duplication of online courses and degree programs is even more difficult to justify, especially when early providers of those courses/programs later experience the enrollment erosion that can cause them to operate at less than capacity. Allowing other campuses to duplicate online programs already offered by under-enrolled campuses further erodes the enrollments of these "early adopters," driving up the cost of education for students and for taxpayers.
- The system has expanded access to two-year education offerings through satellite campuses, higher education centers, and distance-delivery; however, the expectations for these kinds of arrangements, as well as their funding, vary. Some models appear to be cost-effective; others clearly have not been. Balancing expanded access and cost-effectiveness in a consistent way is a key consideration if Montana is to achieve its productivity agenda.

Access and Target Demographics

- Facilitating access by and retention of Montana's American Indians, a crucial demographic in Montana's productivity goals, lacks a coherent and comprehensive focus in the policy framework.
- Insufficient attention/incentive is given to addressing the access considerations of the working adult or the adult with family – the very demographics we most need to reach to meet our productivity goals. According to Measuring Up 2008, only 4.5% of Montana's working-age adults (ages 25-49) are enrolled in postsecondary education or training, as compared to 8.9% in the top-performing states. Montana's working-age adult enrollments have declined by 31% since the early 1990s, compared with a national decline of 22%. To reverse this trend, these issues related to access and retention need attention:
 - More focused consideration should be given to awarding credit for experiential learning using such assessment tools as WorkKeys, conversion of noncredit offerings to credit upon the demonstration of appropriate outcomes, and partnerships with business and industry that incorporate on-the-job learning and continuing education into the employment model.
 - Alternative scheduling – especially compressed coursework (as in the X-1 model at UM-Western), evening offerings, and online programs and services – widens access significantly for non-traditional students. Other than online learning, Montana has not made the changes in institutional approaches needed to expand access for nontraditional students through nontraditional scheduling.
 - Continuous enrollment (including summer) keeps nontraditional students in the "degree completion pattern." In general, Montana's two-year programs continue to be designed for academic year delivery, rather than continuous enrollment.

Retention

Only 40% of first-year students in Montana’s two-year colleges return for their second year, making Montana the lowest-performing state in the nation on this measure (*Measuring Up 2008*). Providing access is meaningless when it does not come with an emphasis on retention and the completion of a recognized degree or credential. Areas to address:

- Systems funded on an FTE basis may unwittingly reward poor practices in placement, advising, and transfer because repeated or unnecessary course work increases enrollment. The university system has assumed a funding formula that reduces the emphasis on enrollment in recent years, but it has not assumed a retention- and completion-based model. The community colleges continue to be funded at the state level through an enrollment-based model.
- In comparison to the number of policies on admissions and access, the policies framing retention are fewer in number and less clear in direction. Salient examples include:
 - The proficiency-testing and placement policies help to identify the appropriate level of course work for entering students, but as noted earlier, provide too many opportunities for under-prepared students to choose an option ill-suited to meet their needs and/or to procrastinate in ways that imperil their persistence and degree completion.
 - The academic probation and suspension policies specifically exclude developmental courses from the calculation of GPA that determines whether they will be able to continue as students on our campuses. Completing developmental courses is crucially important if under-prepared students (approximately 30% of our incoming freshmen) are to participate in and receive the full benefit of college-level studies. In addition, the wisdom of suspending low-performing students, rather than directing them to programming that may better address their needs, should be probed.
 - As noted earlier, the developmental policy framework as a whole conveys a view of developmental students that is not conducive to their retention. Students fail to acquire college-level proficiencies in reading, composition, and mathematics for a variety of reasons, most having little to do with innate ability. They have paid the social, academic, and personal prices for that failure for most of their lives. It is neither necessary nor helpful to remind them at every turn that their skills in these areas are wanting and to make them feel that their efforts “don’t count.” If we are to capture these students and their potential – and to meet our productivity goals, we must – we need to re-envision the under-prepared student. We must see a competent person inside each one, trying (once again) to get out. Our policies must be geared to helping these students discover their competence and rewarding their progress.

The Access/Capacity/Retention Policy Framework and MOA Productivity Goals

- The policy framework encourages enrollments in two-year colleges, but the structural impediments and lack of consistency make the advantages of two-year colleges difficult to communicate comprehensively and accurately, negatively affecting enrollment potential.
- The policy framework does not focus in a coherent and comprehensive way on the five target demographics in Montana’s MOA productivity goals: Montana’s American Indians, nontraditional students, high school students, low-income students, and under-prepared students.

- Admissions and developmental policies may deter enrollments in two-year colleges and encourage under-prepared students to choose a college option that is less affordable and jeopardizes degree completion.
- Duplication of programs and courses may add unnecessarily to the cost of education.
- Adult basic education is not available free of charge at every two-year campus, making the seamless transition from ABE to a two-year degree program more expensive and more complicated than it need be. In addition, the distinction between ABE and developmental programming (if any) has not been defined, resulting in differing credit/non-credit status and costs from campus to campus.
- Funding protocols reward enrollment, rather than retention or completion.

CURRICULUM AND TRANSFER/JOB PLACEMENT

Basic Conclusion

Montana's policy framework for curriculum and transfer/job placement generally supports high-quality curriculum that prepares students for (a) high-wage, high-demand work responsive to local needs or for (b) transfer to a four-year college. Of particular promise is the potential for articulation of curriculum and transfer opportunities with Montana's tribal colleges. Although Montana has made important progress, there is still room for improvement, especially in aligning curricula and credentials, emphasizing the completion of and appropriate recognition for transfer degrees, and providing clear and efficient pathways for students to complete degrees and either enter the workforce or transfer.

Specific Observations

Our review of policies raises the following concerns with respect to meeting productivity goals for two-year education:

- Successful transfer is a primary component of the two-year college mission and a major emphasis of the Montana legislature, the governor, and the regents. Although the recently implemented policy on common course-numbering simplifies some aspects of the transfer process for students, it addresses only one component of the difficulties students have with successful transfer. The regents have adopted two policy tools to create "blocks" of transferable coursework, but the results of each tool are mixed:
 - One tool is the general education transfer core, a block of courses from one Montana campus that will meet lower-division general education requirements at every other campus in the system. Each campus can design its own "core" within the parameters of the policy or students may fulfill the requirements for a Montana University System transfer core. Few students complete – or are aware they have completed – either the campus-specific core or the MUS "core." Moreover, the profusion of courses in each campus's "core" and the vast array of "cores" across the System can only complicate students' planning, receiving institutions' recognition of transfer credit, and assessment.
 - Another tool is the transfer degree itself. Policy specifies that the completion of an associate degree satisfies the lower-division general education requirements at the receiving institution, yet receiving campuses frequently cite – and enforce – exceptions.
- The Associate of Arts and Associate of Science do not "automatically" transfer to meet all lower-division requirements at the receiving institution. Even if the general education component of these transfer degrees were consistently honored, other lower-division course work completing these degrees must be tailored to the intended program of study at the receiving institution. In order to ensure that their students take programs of study within their Associate of Arts or Associate of Science degree that will be recognized by the receiving institution, two-year colleges create "articulation agreements" for specific majors – e.g., Elementary Education, Civil Engineering. It is an extremely time-consuming process to begin with and a difficult arrangement to keep current. Each two-year college in Montana invests considerable human resources to keep transfer articulations for various majors current. The four-year colleges also dedicate such resources as they establish and update these articulations with college after college in the same degree area. This duplication of effort could be avoided and students' pathways to certain majors would be better-defined and -assessed with a more coordinated, system-wide approach to articulations of transfer by major. Similarly, although career/technical programming varies from college to college, there is considerable duplication; more coordinated

efforts to align curriculum across institutions would support student preparation and institutional resource-sharing and broaden student and industry employment opportunities.

- Replacing the old “Tech Prep” approach, which focused on course-by-course equivalency of career/technical courses offered at both high schools and colleges, Big Sky Pathways uses a degree pathway approach, encouraging high school students to pursue an articulated program of study in high school to prepare themselves for and in some cases make progress toward the two-year degree in a particular career/ technical area. Broadening the Big Sky Pathways approach to include not just career/technical academic planning, but all postsecondary options, including the baccalaureate, should be done to avoid “tracking” students, thereby encouraging them to narrow their academic goals too soon.

- Using Big Sky Pathways to facilitate preparation for and completion of requirements in two-year colleges’ career/technical programs is an important feature of Montana’s two-year productivity agenda. However, articulation of high school programs with college programs would be greatly facilitated by more common requirements in similar programs statewide.
 - First-year programming in career/technical areas need not vary widely, and both students and resource-constrained institutions would be better served with some commonality.
 - Communication about program-readiness would be more consistent as well if campuses’ requirements for related instruction/general education in career/technical areas were the same. Despite an existing policy requiring alignment of related instruction requirements in similar occupational areas, the requirements still vary considerably, complicating high school students’ planning, school districts’ articulations, and the system’s promotion of the Pathways. The figure below, illustrating differences in related instruction across four different two-year colleges providing an A.A.S. degree program in medical assisting (as of 2008), is just one of many examples of the disparity.

Medical Assistant Programs at MUS 2-year Colleges, 2007-2008				
2-year Colleges	Communication Requirement	Computation Requirement	Human Relations Requirement	Other General Education Requirements
MSU Great Falls COT	WRIT 124 Bus & Prof Comm	M114 College Algebra w/Science Apps.	Interpersonal Communication	Anatomy & Physiology (A&P) I and II
MT Tech COT	WRIT 101 English Composition	M 095 Intermediate Algebra	Interpersonal Communication	A&PI, A&PII Healthcare Soft Skills, Principles of Speaking, Employment Strategies
Flathead Valley CC	WRIT 122 Business Communication	M108? Business Math	Interpersonal Communication	A&PI, Microbiology Lab, Intro to Psychology
UM Missoula COT	WRIT 121 Technical Writing	M 115 Prob & Linear Math OR M121 College Algebra	Interpersonal Communication	A&PI, A&PII, Intro to Psychology Human Development thru the Lifespan

These differences in the level and “applied academics” approach in related instruction requirements also raise concerns about the equity of meaningful access to career preparation programs across the state. Students at some institutions are able to complete degrees and perform well as medical assistants while other students are hindered and perhaps deterred from degree completion by coursework not needed to succeed in the field and sometimes requiring a series of developmental courses prior to the required course.

- The Bachelor of Applied Science degree provides a pathway to a four-year degree for Associate of Applied Science degree graduates, yet few students pursue it. Between 2002 and 2008, only 118 B.A.S. degrees were awarded by Montana’s four-year colleges – an average of 17 degrees annually statewide.
- As noted earlier, regental policy limits A.A.S. degrees to 72 credits and requires that A.A.S. degree programs be designed for completion in two academic years. A 2006 curriculum review established that over 2/3 of Montana’s AAS degrees consist of 68 or fewer credits. Nonetheless, the median credits-to-A.A.S.-degree awarded through Montana’s COTs is more than 80 credits, which suggests that, at a minimum, the typical graduate is taking 12 credits more than the degree requires. Whether this statistic reflects students’ under-preparedness, indecisiveness, or love of learning in the two-year college environment, it adds to student costs and system costs. It should be explored and addressed.
- The completion of a recognized transfer credential is not appropriately reinforced in practice:
 - Completion of the general education transfer core, as prescribed by Regents’ policy, provides students with an important tool for transfer without the need to repeat general education coursework, yet few students complete and/or present this credential to be recognized at a receiving campus. In fact, of the 6,051 students transferring to a four-year campus in the Montana University System in Fall 2006, only 5.9% had completed the transfer core.
 - Completion of an associate degree also provides students with an important tool for transfer without having to take additional lower-division general education coursework at the receiving campus. However, of the 6,051 students transferring to a four-year campus in the Montana University System in Fall 2006, only 11.85% transferred with an Associate of Arts or Associate of Science degree.
 - The emphasis on degree completion, as opposed to completion of a few transferable courses, is not as strong on many two-year campuses as it should be. The availability of online courses, encouraging the “swirling” of students from campus to campus, may account in part for this acceptance of “a course here, a course there.” Apart from the difficulties students encounter as receiving campuses adjudicate the applicability of haphazardly acquired courses to particular programs of study, only a degree stands the test of time.
 - Less than half of Montana students receiving a transfer degree go on to upper-division studies the next academic year. Of the 2002-2003 graduates with A.A. or A.S. degrees, 46% had enrolled in a four-year institution by 2006 and only 18% had truly transferred – i.e., enrolled in a new institution. The remaining 28% re-enrolled in the four-year college where they had earned the transfer degree. Of the 2007-2008 graduates with transfer degrees (excluding the community colleges), only 37% had enrolled in a four-year institution by 2009. Although 29% transferred to a new institution and only 8% re-

enrolled at the same institution, the low continuation rates call into question the utility of the degree.

- Like the rest of the nation, Montana’s transfer students spend, on average, “half a semester” more completing the baccalaureate degree. (In Montana, the average transfer student needs 9 more credits to complete the degree than the non-transfer student.) Like the credits toward A.A.S. degrees exceeding policy intent, this excess detracts from affordability.
- Coordination of efforts between state-level agencies and offices with a workforce development mission has improved in recent years.
 - Career/technical education divisions from the Office of the Commissioner of Higher Education and the Office of Public Instruction meet regularly to strategize on how to advance a vision of seamless transition from high school to family-sustaining work or to college, using Perkins-funded programming.
 - Montana’s State Workforce Investment Board (SWIB) includes the state director for Perkins programs. This year SWIB identified assisting with the Big Sky Pathways initiative as one of three major priorities.
 - The Department of Labor and Industry has facilitated the development of a statewide curriculum for the building construction trades and has helped develop a memorandum of understanding between colleges and labor unions articulating program completion with apprenticeships.
 - Funded by the Student Assistance Foundation, the Montana Career Information System (MCIS) has developed an impressive website for career exploration by K-12 students. In partnership with the Office of Public Instruction and the Workforce Development Division in the Commissioner of Higher Education’s office, this website is being expanded to support elements of Big Sky Pathways.
 - The Governor’s Inter-Agency Rapid Response Initiative has provided state-level coordination of efforts to assist dislocated workers, resulting in a comprehensive and centralized list of short-term training and dislocated worker assistance available at Montana’s two-year colleges.

The Curriculum/Transfer/Placement Policy Framework and Montana’s MOA Productivity Goals

- Recent policy changes and the OPI/OCHE career/technical education collaboration should greatly improve high school students’ planning for enrollment in two-year degree programs and two-year college students’ successful transfer to and completion of four-year degree programs.
- The transfer initiative should improve the rate of successful transfers, and common course-numbering has already reduced the bewildering variety of courses that are in fact equivalent across the system.
- Successful transfer of students from tribal colleges is particularly important to Montana’s two-year productivity agenda; the involvement of tribal college faculty on faculty councils and the establishment of articulation agreements for common course-numbering with tribal colleges will lay the foundation for successful transfers for their students.
- Judging by two-year degree production, as opposed to two-year college transfer before completing a degree, the two-year colleges are not emphasizing the importance of the

completion and use of a recognized transfer credential. Of particular concern is the minimal use of the general education transfer core. Judging by the low continuation rates for students with transfer degrees, the colleges may not be emphasizing transfer itself enough.

- Affordability, successful transfer, and efficiency are all negatively affected by the number of different general education transfer cores.
- Affordability and completions are also affected by the excessive number of credits the average student takes to complete a degree, whether it is the Associate of Applied Science degree or the bachelor's degree of the transferring student.

AFFORDABILITY

Basic Conclusion

Montana provides lower tuition for two-year colleges, but it is not low enough and is not consistent college to college, making affordability difficult to promote. Moreover, Montana does not direct aid dollars to students and institutions in a way that maximizes their impact on college attendance. Thus, the policy framework does not support the goal of affordability in two-year education.

Specific Observations

Our review of policies raises the following concerns with respect to meeting productivity goals for two-year education:

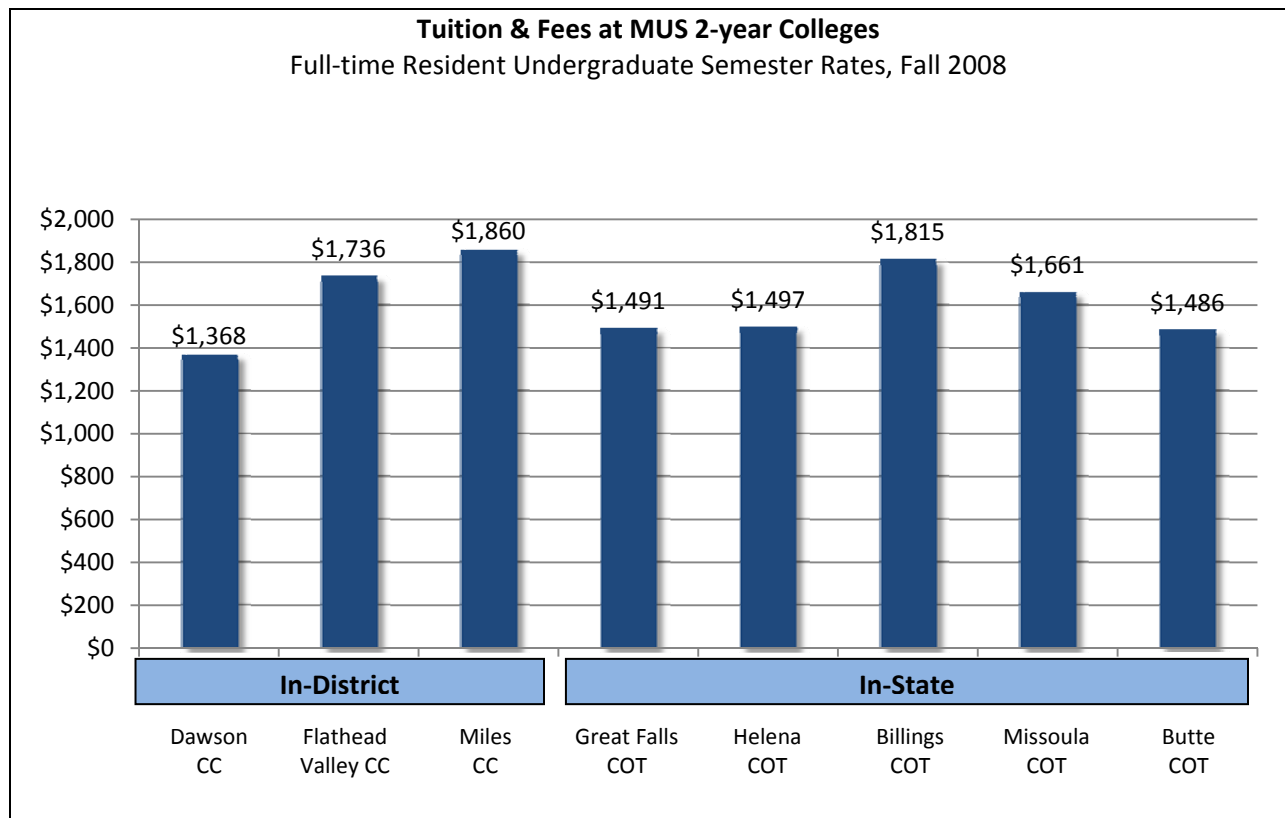
Financial Aid

- As noted in *Measuring Up 2008*, the percentage of annual family income needed to pay for college expenses at Montana's two-year colleges is 23%, up 3% from the 2000 level, and 10% higher than the top-performing states. At the lowest-priced Montana colleges, the poorest families pay 29% of their family income for college expenses, up 16% from 2000, and 22% higher than the top-performing states.
- Need-based aid is of particular importance to two-year college students, especially those in the target populations for the two-year education productivity agenda. Although Montana increased its investment in need-based aid by \$1.6 million between 2001 and 2008, compared to other states, Montana's support for financial aid targeted for Montana's low-income students is low. As *Measuring Up 2008* reports, for every dollar in Pell Grant funding, Montana adds only 9 cents in need-based aid, compared to 89 cents in the best-performing states.
- Montana's emphasis is on merit-based aid, and the emphasis of individual merit-based aid programs is on access to four-year colleges:
 - The Montana University System Honor Scholarship is entirely merit-based. The aggregate value of the honor scholarship tuition waivers approaches \$4 million annually, none of which is awarded on the basis of need. Only 10% of the recipients of an honor scholarship attend two-year colleges.
 - The Governor's Scholarship requires that 50% of its proceeds go to meritorious recipients. A merit award, however, is worth \$2,000, whereas a need award is worth \$1,000. A disproportionate number of merit recipients attend 4-year colleges while need recipients *must* attend 2-year colleges or programs.
 - The only Montana need-based program with no "strings" attached is the Montana Higher Education Grant program (MHEG). MHEG is funded at \$500,000 annually, a sum too small to have significant impact statewide. Because two-year colleges have significantly lower tuition, these dollars would stretch farther at two-year colleges and would also support the regents' goal of increasing enrollments at two-year colleges. However, MHEG funds are distributed proportionally on the basis of enrollment to each of the 11 campuses affiliated with the Montana University System. The vast majority of these funds, therefore, go to four-year campuses, especially the two research universities.
 - Tuition waivers, 43% of which are funded with state dollars, represent nearly half of all state aid. Need is not the primary criterion for any of the waivers provided through board policy or statute.

- Merit-based aid is not provided equitably across two-year colleges. The community college honor scholarship applies only to students completing Associate of Science or Associate of Arts degrees at Montana’s three community colleges. In 2008 alone, Montana’s colleges of technology awarded 151 A.S. and A.A. degrees. None of those graduates were eligible for the community college honor scholarship.

Tuition

- Tuition and rates are not consistent from one two-year college to the next, making it difficult to promote the tuition differential in a compelling way. The variation in two-year college tuition is nearly \$500, or 36%; the variation among colleges of technology is nearly \$330, or 22%.



Source: MUS Tuition & Fee Tables, FY09

Note: The colleges of technology hold tuition constant for students enrolling in 12 or more credits; at the community colleges the level is set at 15 or more credits (except for FVCC, where tuition is constant for students enrolling in 14 to 18 credits).

- The regents’ policy of differentiated tuition at the lower-division level has helped keep two-year college tuition lower than tuition at Montana’s four-year colleges – about 70% of the four-year rate. Compared to regional averages, it is still relatively high and as a percentage of the average family income, it is arguably too high. As one policy audit reviewer remarked, “If Montana really wants to make two-year colleges affordable, cut the tuition in half.”
- Tuition and mandatory fees are only a small portion of the cost of education, particularly at the residential campuses. As an example, tuition and mandatory fees for the academic year at The University of Montana – Missoula College of Technology are \$3,322, but the estimated total cost of attendance (including room and board) for an academic year is approximately \$14,000.

Affordability for Target Populations

- Various policies make affordability a particular issue for working adults.
 - Tuition is based on a full-time enrollment model and may discourage part-time enrollment. For instance, a working adult would pay an average of \$350 for tuition and mandatory fees alone for one evening course at a Montana two-year college. Add the textbook, supplies, and possible course-specific fees, and the cost rises quickly tops \$400. That's a difficult investment for a working adult with a family to make even for one semester; for the investment to pay off with a certificate or degree, the part-time student must make a similar level of investment for several years.
 - Fees for the amenities of campus life are regarded as unwarranted and unsupportable by many working adults, and such fees add significantly to the cost of their education.
 - Class schedules designed for traditional students (M-F, 8 a.m. – 3 p.m.) not only create the access problems for working adults noted earlier, but also add expense. Weekend, evening, online, and compressed classes often reduce nontraditional students' childcare and transportation costs, thus reducing the cost of their education.
 - As noted earlier, Montana's fragmented approach to funding adult basic education (ABE) programs has not only affected their availability, but their affordability. ABE is available at some two-year colleges, but not at others, and is free through some providers, but not through others.

- Effective dual enrollment programs can make college more affordable for traditional college students by providing high school students with opportunities to complete college course work at a reduced rate while they are still living at home. Montana's dual enrollment programming does provide high school students with a tuition reduction – generally half-price – but it is still too high for the new students Montana needs to engage while they are in high school. In addition, tuition for dual enrollment varies widely campus to campus.

The Affordability Policy Framework and Montana's MOA Productivity Goals

- State need-based aid is low, and costs as a percentage of family income are high, deterring enrollment and persistence to degree.

- Merit-based aid does not include incentives that steer students to two-year colleges, contributing to the "not for smart kids" image problem of these colleges and missing the opportunity to stretch financial aid dollars farther in a lower-tuition setting.

- Fee structures and other affordability factors are not responsive to the needs of working adults, thus discouraging enrollment and completion in this target population for Montana's productivity agenda.

- Fee policies for dual enrollment are inconsistent and a barrier to access for some high school students, another target population for Montana's productivity agenda.

EFFICIENCY

Basic Conclusion

With eleven campuses to supervise and coordinate, efficiency is a major goal in the Montana Board of Regents' strategic plan. By some measures, particularly at our research universities, Montana operates extremely efficiently. As noted in the introduction to this report, when taken collectively, Montana's two-year colleges appear to operate cost-effectively. Costs per student at our two-year colleges, however, are extremely varied. Total cost per student at one community college is twice as much as total cost per student at one of the co-located colleges of technology. Key factors influencing costs are the mix of academic programming, the technology and personnel infrastructure, and enrollment levels relative to capacity. The policy framework does not adequately address these factors.

Specific Observations

Our review of policies raises several concerns with respect to the efficiency of two-year education in Montana:

Variety of Governance and Funding Structures

Montana's two-year college configuration presents special challenges for efficient coordination:

- Montana's 7 tribal colleges are not part of the Montana University System; each is funded and governed separately, although the State of Montana provides reimbursement funds for non-beneficiary students enrolled at the tribal colleges.
- Montana's 3 community colleges have been assigned by the legislature to the Montana Board of Regents to supervise and coordinate, but are managed and controlled by locally elected boards of trustees. The state funds approximately 50% of their operational budgets, local levies fund approximately 25%, and student tuition and fees fund approximately 25%. Capital construction, adult education, health insurance and in some cases, retirement costs are funded entirely or primarily at the local level.
- Montana's 5 colleges of technology (COTs) are governed entirely by the Montana Board of Regents and are funded approximately 60% by the State of Montana and 40% through student tuition. The processes for both governance and funding of the COTs are part of the hierarchical arrangements of the 1994 – 1997 restructuring of the Montana University System. The two "stand-alone" colleges of technology advance their budgets, capital construction proposals, and academic program proposals through their respective "flagship" universities to the Board of Regents, just as the other four-year colleges do. The three "co-located" colleges of technology advance these proposals through the campus processes of the four-year college within which they have been merged, and from those processes forward through the flagship university to the regents.
- Two 4-year colleges are also recognized as providers of two-year degrees and programs (although in fact two-year degrees are offered by all the non-flagship colleges, even those with co-located colleges of technology that could be offering them).
- Extensions of Flathead Valley Community College, MSU-Great Falls, MSU-Northern, and The University of Montana – variously called service regions, branch campuses, or higher education centers – offer two-year degree programming in Lincoln County, Ravalli County, Gallatin County,

and Fergus County. Their funding and governance structures vary, depending on statute and the expectations of the campus with which they are affiliated.

It is no small feat to coordinate this mix of funding, governance, and program models, and although improvements can and should be made, evidence of collaboration and coordination across two-year campuses to accrue efficiencies does exist. Examples:

- Various grant initiatives in the past few years (e.g., BILT, WIND) have pulled together two-year providers to develop and implement statewide curriculum in construction and alternative energy technologies.
- Big Sky Pathways (Tech Prep IV) is led by a partnership between a community college and a co-located college of technology.
- The transfer initiative funded by the 2007 legislature has engaged all 3 community colleges, all 5 colleges of technology, and most of the tribal colleges in the process of identifying equivalent courses throughout Montana.

However, to accrue the level of efficiency needed to advance Montana's two-year education productivity agenda, Montana's policy framework supporting efficiency must be strengthened. In every one of the previous sections of this report, at least one problem is presented that would not have occurred to begin with or could be resolved right now with a framework more committed to efficiency.

Examples (which are not intended to be exhaustive) include:

- Readiness
 - Because Montana has fragmented adult basic education (ABE) programming among multiple providers, most Montanans cannot access ABE free at their nearest two-year college.
 - Because Montana has not designated two-year programs as the only providers of developmental coursework and has not clarified where the point of transition is between ABE and developmental education, we do not consistently offer these transition programs at the lowest cost for the taxpayer and the student.
- Access/Capacity/Retention
 - Because Montana has not made the comprehensive two-year college mission available at every two-year college campus at a standard tuition rate, we are not providing access to the broad array of potential two-year college students in a consistent, affordable, and cost-effective way across the system.
- Curriculum/Transfer
 - Because Montana has not required a limited, focused approach to the general education transfer core, general education courses that can apply to the core have proliferated – to the detriment of efficient transfer for the student, efficient evaluation of the quality of preparation by the receiving campus, and efficient operations as a two-year college system.
 - Because Montana has not required significantly aligned curricula in career/technical programs preparing students for the same career, high school students cannot prepare for and progress through two-year programs efficiently and two-year colleges cannot collaborate to balance capacity across the system and address the issue of faculty turnover.

- Affordability
 - Affordability is inextricably linked to efficiency. The more efficiently our two-year colleges operate, the more affordably we can provide opportunities for students. Each of the two-year providers works conscientiously to achieve that balance *as a campus*. Where Montana fails is in the level of collaboration and coordination for efficiency. In the name of institutional autonomy, we fail to balance capacity, share resources, and diminish duplication as a state. As a result, the cost of two-year education in Montana is becoming unaffordable for students and, increasingly, for the state.

Coordination and collaboration are essential to achieving the efficiencies needed to advance the two-year education productivity agenda.

Addressing Differences

Montana's two-year colleges, like its four-year colleges, are experiencing dramatically different trends. When considering efficiency, it is vitally important to understand how different each campus's circumstances and options are and how those circumstances affect efficiency. While this observation would appear to be true as well about the tribal colleges, as independent and separately governed institutions, the finance and administration factors that affect efficiency are beyond the scope of state-level policy, although the inclusion of tribal colleges in finding solutions is highly desirable. This section focuses on the 8 two-year colleges affiliated with the Montana University System and funded in substantial part by the state.

- Enrollments at 4 of the 8 colleges are flattening or declining while enrollments at the other 4 campuses are significantly increasing. When campuses operate significantly under capacity, their costs per student are high. When they operate significantly over capacity, quality is threatened.
- The mix of academic programming on a campus affects cost per degree. When campuses focus almost entirely on workforce development programs, as the co-located campuses do, they are unable to offset the higher costs of these programs with less resource-intensive transfer and general education courses. This balance has been achieved at MSU-Great Falls and UM-Helena through expansion of their transfer mission, an important factor in mitigating their costs per degree.
- Campuses collaborating with other campuses for information technology infrastructure, HR and legal resources, and student services are able to operate at a lower cost per student. The co-located colleges of technology rely extensively on their merged campus for these resources; the "stand-alone" colleges of technology, less so; and the community and tribal colleges, very little if at all.

Notice how the blend of these factors affects cost per student at 6 system-affiliated campuses. (Because the budgets of the colleges of technology in Butte and Billings are so embedded in the operations of their co-located campuses, it is difficult to include them in this analysis with any degree of precision.)

Direct and Indirect Costs of Education per Student (FY 09 Operating Budgets)						
COSTS	Integrated COT	Stand Alone COTs		Community Colleges		
	UM Missoula COT	UM Helena COT	MSU Great Falls COT	Dawson CC	Flathead Valley CC	Miles CC
Direct	\$3,984	\$4,952	\$5,507	\$6,060	\$4,475	\$5,839
Indirect	1,694	2,725	2,401	3,887	3,733	5,511
Total	\$5,678	\$7,677	\$7,908	\$9,948	\$8,208	\$11,350

Source: MUS Operating Budgets, UM Office of Planning, Budget, and Analysis

Note: direct costs = instruction, academic support, & fee waivers; indirect costs = student support, institutional support, & O&M

As a “merged” campus, the UM-Missoula College of Technology has a significantly lower cost per student than the “stand-alone” COTs and the community colleges, due primarily to the fact that a significant portion of its direct and indirect costs are blended into the operations of the co-located four-year campus, creating efficiencies that the autonomous campuses do not accrue. The lower indirect costs of the two “stand-alone” campuses reflect their reliance on their respective flagship universities for some services, such as information technology services. The primary factor affecting the cost per student at all campuses, however, is enrollment. The two community colleges in eastern Montana have operated significantly under capacity for several years, driving their costs per student upward. The remaining four campuses have all experienced significant enrollment growth in recent years, driving costs per student downward.

With these contexts in mind, these specific concerns about efficiency are advanced:

- **Funding Protocols**
 - Folded into the restructuring processes, the funding for the two-year college mission at the merged colleges of technology and, to a lesser extent, at the “stand-alone” COTs, is not visible enough for regents, the legislature, and the governor to strategize to accrue efficiencies among the two-year colleges as a system. Instead, the budgets for the colleges of technology are developed and revised to accrue efficiencies within the merged institution or within the restructured system. While such prioritization and revision is necessary as a final step, with the colleges of technology, particularly the co-located colleges of technology, this step happens too early in the process for comparable, as well as unique, needs and interests across two-year colleges to be reviewed, analyzed, and prioritized by the regents, the governor, and the legislature.
 - The statutory funding formula for community colleges, which is based primarily on averages of costs of education and projected enrollments at the three community colleges, does not reflect the dramatically different enrollments and costs our community colleges are experiencing. As a result, the legislature funds all three colleges at an “in-between” level that does not reflect the actual conditions at any individual community college. The formula does not include an inflationary factor, which over time will require the state share to increase. (In fact, over the two legislative sessions since the formula was adopted, the state share has increased.) Additionally, the formula is a completely different model from that used for the colleges of technology. As a result, the state’s share for the cost of education at the colleges of technology, which are supposed to be administered entirely by the state, is not significantly greater than the state’s share for the cost of education at the community colleges. Whereas taxpayers in community college districts assume a significant share (20% - 25%) of the cost per

student to keep opportunity affordable for community college students, at the colleges of technology the cost not funded by the state must be assumed by students.

- **Local Revenue Sources**

- As noted above, the community college districts rely on local levies for approximately 20%-25% of their operational budgets and the vast majority of their capital construction, adult education, health insurance, and retirement costs. This revenue source is extremely important to manage tuition levels on those campuses.
- A mandatory levy of 1.5 mills in each of the communities with a college of technology, once part of their funding as part of their local school districts, now goes directly to the state's general fund. Devoting those revenues, however small, to the communities that generate them provides the colleges of technology with a mechanism to address local budget issues and may provide a vehicle for generating greater community support in the future.

- **Infrastructure**

- Certain kinds of personnel are crucial, no matter how small the campus. Such personnel as legal counsel, human resources personnel, and facilities managers protect the campus from potentially huge expenses, but retaining these positions adds significantly to campus budgets. Staff with such specialized expertise as institutional research, web maintenance, and information technology are also important, regardless of campus size. Sharing staff or centralizing certain functions in the commissioner's office to reduce expenses has not been sufficiently explored.
- Information systems are also crucial to effective operations on each campus and to efficiency statewide. The potential of these systems, if integrated, to increase resource-sharing, access, and consistency is extraordinary. Unfortunately, Montana's two-year colleges have not integrated their systems. As with so many other things, each has made this substantial investment independently and the result is a variety of systems that cannot and do not connect with one another. Even the colleges of technology using the Banner system have not connected these systems in ways that would increase efficiency.

Efficiency Policy Framework and Montana's MOA Productivity Goals

- By treating all campuses the same in spite of their extreme differences affecting efficiency, Montana's funding mechanisms do not reward efficiency.
- The inefficiencies accruing from the lack of an integrated system for all two-year colleges in Montana, including tribal colleges, is an impediment to efficiency in the two-year sector that is crucial to address. While this lack of integration need not include governance, without a more systematic approach to two-year education programming and funding, the current inefficiencies will continue. An integrated information system would allow two-year colleges to share resources, expand access to programming, balance capacity across the state, establish consistent business practices and thereby reduce costs for colleges and for students.
- The predisposition to duplicate courses and programs, rather than to coordinate and collaborate to bring courses and programs that aren't "ours" to our students, can be both expensive and inefficient. For instance (but not the only instance), the number of courses and programs duplicated online is disconcerting.

- The failure to align transfer and career/technical programs offered by two-year colleges, as noted above, does not efficiently serve students, institutions, industry, the Montana University System, or the state.
- Funding requests to the legislature are separately advanced from colleges of technology, community colleges, and tribal colleges. Although every request has an impact on the efficiency of our collective efforts, there is no mechanism in the policy framework to coordinate these requests. The community colleges advocate for their funding requests to the legislature as a single lobby that does not effectively include the coordinator of community colleges designated by regental policy. The tribal colleges advocate for their needs without the coordinated support of Montana's two-year colleges. The colleges of technology rely on the flagship universities and the commissioner's office to advance their interests – if they “make it through” the campus process.

RECOMMENDATIONS

In order to ensure our competitive edge as a state in a global economy, Montana must tap the potential of our two-year colleges to increase enrollments and degree production at the two-year and four-year levels – and we must do so efficiently and effectively. To achieve that goal, Montana must deploy the following three strategies and support them in our policy framework for two-year education.

Strategy I. Coordinate. Montana must coordinate key elements of the two-year education policy framework sufficiently to:

A. Create and continually reinforce a consistent understanding of the opportunities and advantages of two-year education

Recommendations:

1. Bring the same full two-year college mission – adult basic education, transition, workforce preparation, transfer, and personal/community development – to all two-year campuses in Montana.*
2. In partnership with the Office of Public Instruction and the Board of Public Education, create a shared description of the skills, abilities, and knowledge indicating readiness for career/technical programs and for lower-division baccalaureate studies.
3. In partnership with the Office of Public Instruction, community college districts and school districts, identify ways to provide effective adult basic education programs at no cost to students on all two-year campuses.*
4. In partnership with the Office of Public Instruction and the Board of Public Education, align protocols and practices for dual enrollment to ensure that all Montana high school students have affordable, high-quality opportunities to begin college studies while in still high school, when appropriate.*
5. In partnership with the Department of Labor and Industry and the State Workforce Investment Board, create common pathways from high school through two-year college to family-sustaining work, as well as common pathways from employment/unemployment to better employment for novice, transitioning, or dislocated workers.*
6. In concert with community college and tribal college boards, as well as the Montana legislature and governor, establish a single two-year college tuition and a standard “flat spot” among MUS-affiliated campuses.*
7. Establish articulation agreements with Montana’s tribal colleges to ensure that their transferable course work is recognized and included in matrices of equivalent courses.*

B. Facilitate students’ entry into Montana’s two-year colleges, progress through degree, and success beyond degree in high-wage, high-demand jobs and/or four-year degree programs

Recommendations:

1. Create an explicit open admissions policy welcoming all students of all ages, ethnicities, and abilities to enroll in Montana’s two-year programs, but clearly explaining the levels of preparedness – and the programs available for preparation – related to each prong of the two-year education mission.¹

**The significance of the asterisk after various recommendations is explained and becomes fully apparent in Recommendation III.A(1).*

2. Revisit the policies on developmental education to ensure that two-year colleges design, provide, and assess transitional programming in Montana and that providers employ a comprehensive, data-driven approach to transitioning under-prepared students to college degrees. *
3. Develop a certificate program for a common “two-year college transfer core” with common assessments to ensure that students are well-prepared for and optimally received by four-year colleges.*
4. Collaborate to develop “shared articulations” between associate degree and baccalaureate programs in high-demand majors.*
5. Align curriculum requirements for career/technical programs to facilitate high school students’ preparation for/early access to certificates and AAS degrees.*
6. Develop, implement, assess, and improve statewide strategies specifically designed to recruit, retain and graduate nontraditional students.*
7. Led by Montana’s tribal colleges, develop, implement, assess, and improve statewide strategies specifically designed to recruit, retain and graduate Montana’s American Indians.*
8. Identify and implement student success metrics and funding incentives at the state level to promote and reward high school diploma completion, college preparatory core completion, rigorous core completion, certificate completion, and degree completion.*

Goal II. Promote. To advance the two-year education productivity agenda, Montana must:

A. Brand Montana two-year education in ways that advance the productivity agenda

Recommendations:

1. Track affordability, cost-effectiveness, and student success in consistent and compelling ways and use these data as the primary means of branding two-year education in Montana.
2. Examine and improve upon the policies identified in this report that send an ambiguous/negative message about choosing a two-year college.
3. Identify how messages reinforcing the problematic perceptions about two-year colleges are conveyed within the Montana University System and among Montanans in general; then devise and implement strategies to re-message.
4. Rename the colleges of technology just plain “colleges,” emphasizing their local responsiveness and regional commitment, as the community and tribal colleges do, with place-evocative designations (e.g., Silver Bow College, Sleeping Giant College, Yellowstone College).
5. Re-title the chief executive/chief operating officers of the colleges of technology to enhance the colleges’ prestige in their communities, their ability to recruit for senior management positions in a national market, and the potential of their senior management to be appointed to influential national/international boards, task forces, and committees.

B. Use affordability more effectively to promote two-year college enrollments and degree completions

Recommendations:

1. Increase Montana’s need-based aid.*

2. Stretch need-based dollars farther by limiting some need-based aid to two-year colleges.*
3. Identify potential local and industry-specific revenue streams for two-year colleges to support such particular needs as adult basic education, faculty lines, equipment, etc.
4. Ensure that the comprehensive two-year college mission is provided on all state-funded sites at a standard two-year college rate.*
5. Create tuition and scholarship incentives for continuous enrollment, low credits-toward-degree, and degree completion with improved affordability for students.*
6. Develop strategies to make going to college more affordable and more appealing for adults in Montana.*

Goal III: Join Hands and Reach Out. Montana’s two-year colleges must collaborate and innovate to serve “their own” students better and to extend programs and services to students and communities we are not currently reaching. Only in this way can we make every town (indeed, every kitchen table) a “college town” and every Montanan throughout his/her life, a “college kid.”

A. Integrate information systems in order to maximize access to the two-year college mission statewide and increase efficiencies at the campus and system levels

Recommendations:

1. Beginning with a subset of Montana’s two-year colleges and the funding provided by HB645, create a single portal to all the programs and services indicated with asterisks in the recommendations above.
2. Through a single, unified, and web-based enrollment system, provide distance-delivered coursework from participating two-year colleges to students throughout Montana in a cost-effective, efficient, affordable manner.
3. Develop consistent business practices across institutions.

B. Collaborate to bring comprehensive programming to target populations and underserved areas

Recommendations:

1. Establish two-year degree providers as “hubs” for regional partnerships with K-12, workforce centers, and economic development groups in order to maximize access to two-year credit, non-credit, and rapid response offerings.
2. Develop “high-access” two-year credit and non-credit programming that can be made available through compressed schedules, portable equipment, etc.
3. Using the offerings of the regional hub and the portal provided by the unified, web-based enrollment system, bring comprehensive programs and services to high-population areas currently underserved by two-year education.
4. Create task forces dedicated to connecting the regional hub, the portal, and/or high-access programs to high school students, Montana’s American Indians, working adults, low-income students, and under-prepared students.

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