



MONTANA UNIVERSITY SYSTEM
OFFICE OF THE COMMISSIONER OF HIGHER EDUCATION

2500 Broadway – PO Box 203201 – Helena, Montana 59620-3201
(406) 444-6570 – FAX (406) 444-1469

Dual Enrollment Program Update

Report for the Montana University System Board of Regents

May 2018

The Montana University System (MUS) is driving and delivering growth in dual enrollment opportunities for high school students across the state by working to address *access and affordability*. Strategic program improvements and active management of a system-wide campus-based team of dual enrollment program staff yielded many dividends in the past year. This rise in concurrent enrollment participation, in particular, is the result of several years of work and multiple initiatives to increase the number and type of courses offered, to grow the pool of qualified instructors, and to decrease the cost of courses for Montana families.

Dual Enrollment: Value to Students and Montana

Students benefit from the rigorous, accelerated academics found in dual enrollment *and* learn college lingo, procedures, and timelines; all skills integral to success in college. Montana and national data show clear benefits from participation. Dual enrollment also helps connect Montana students with Montana colleges, building a relationship that helps keep our students here in Montana. Dual enrollment courses can also save students time and money in pursuing a degree or credential.

Student Success:

Compared to students who do not participate in dual enrollment, dual enrollment students outperform their peers in key success areas.

- Higher rate of first year retention (77%/84% DE, 70%/68% non-DE)
- Higher freshman GPA (3.1 DE, 2.8 non-DE)
- Earn more credits in their first year of college (27.5 DE, 23.8 cr.)
- The benefits are independent of high school GPA, and often “B” and “C” students make larger gains than “A” students when compared to non-participating peers.
- Pell-eligible dual enrollment participants perform substantially better in college than Pell-eligible non-dual enrollment participants.
 - 18% higher first year retention rate (80% Pell-DE, 62% for Pell non-DE)
 - Higher freshman GPA (2.8 Pell-DE, 2.6 Pell non-DE)
 - Earn more credits as a freshman (31 cr. Pell-DE, 24.1 Pell non-DE)

Montana data is on trend with research from large longitudinal studies published by a variety of research groups and programs.

MONTANA STATE UNIVERSITY ~ Campuses at Billings, Bozeman, Great Falls, and Havre

THE UNIVERSITY OF MONTANA ~ Campuses at Butte, Dillon, Helena, and Missoula

Dawson Community College (Glendive) ~ Flathead Valley Community College (Kalispell) ~ Miles Community College (Miles City)

- Several national, longitudinal studies have demonstrated that dual enrollment students have higher high school graduation rates, higher rates of college enrollment, higher rates of persistence to degree, better academic performance while in a postsecondary program, and markedly higher rates of degree attainment than their non-dual enrolled peers (Adelman, 2006; Allen et. al., 2008; Karp et. al., 2007; Morrison, 2008; Swanson, 2008; Wang et. al., 2015).
- Dual enrollment positively influences all student persistence and completion but has been shown to particularly impact low socioeconomic and first-generation students, those who are more likely to be intimidated by the hidden language and rules in higher education (An, 2013).

Attracting Students to the MUS:

Dual Enrollment helps keep Montana Talent in Montana.

- 63% of high school students earning dual enrollment credit enter the MUS as college students. In comparison, approximately 40% of public high school graduates attend a MUS campus within 16 months of graduation.
- Montana resident, first time freshmen, overwhelmingly choose to work in Montana upon completing their degrees/certificates.
 - 75% of MUS graduates from 4-year programs are employed in Montana within one year of receiving a degree.
 - 85% MUS graduates from 2-year programs are employed in Montana within one year of receiving a degree.

Cost Savings:

Dual enrollment can decrease the cost of pursuing a postsecondary degree or certificate.

Dual enrollment courses are offered at a significant discount. Students pay 50% of the two-year college tuition rate and no fees. As a result, dual enrollment courses cost about one quarter their cost to a traditional student at a four-year campus in the system. Montana's Common Course Numbering system ensures transferability within the state, and courses are widely accepted at other accredited postsecondary institutions outside of Montana. During the 2016-17 academic year Montana dual enrollment students saved about five million dollars in future tuition costs.

Enrollment Trends

Colleges across Montana continue to expand high school student engagement with dual enrollment courses. Students are taking classes on campus, online, and in their high schools. Since 2014 MUS two-year institutions and Community Colleges saw continued growth in headcount, significant increases in the portion of dual enrollment offerings in Career and Technical Education subjects (CTE), and an expansion of the percent of Montana high schools offering concurrent enrollment, including strong gains in class A, B, and C schools (Figures 1-4).

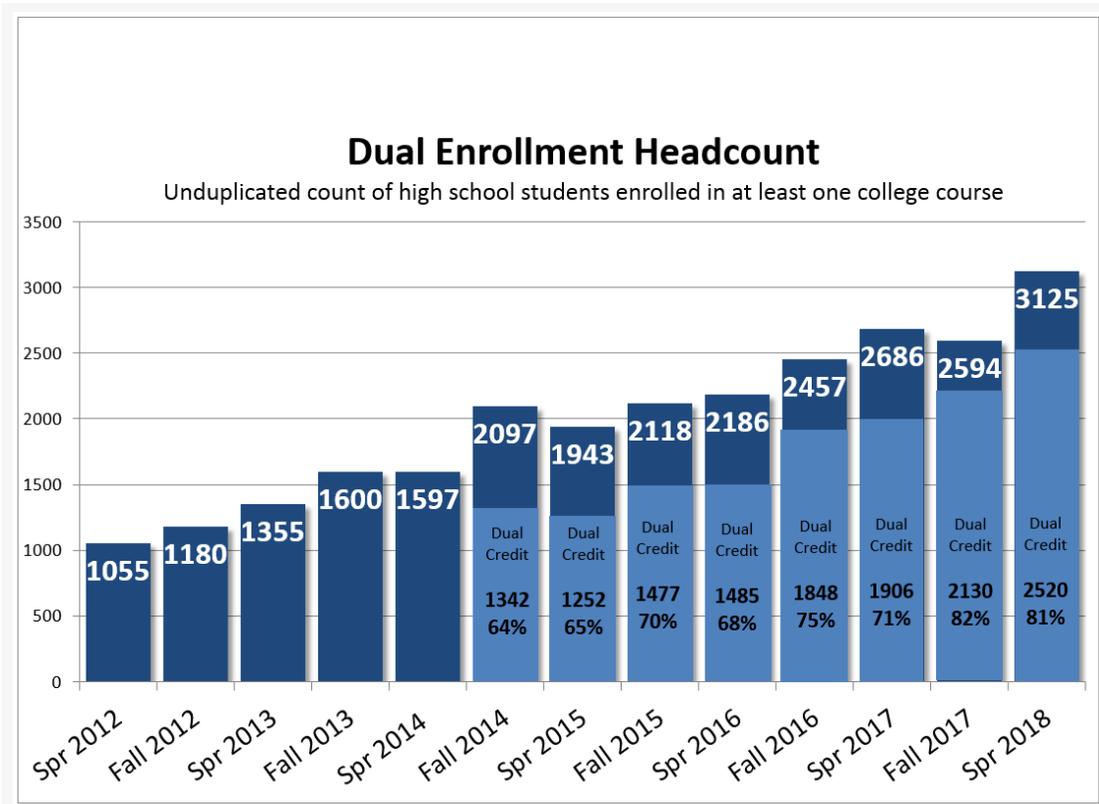


Figure 1: Dual Enrollment Headcount Sp2012-Sp2018
(Enrollments are reported as EOT-End of Term except Spring 2018 which is census).*

Dual Enrollment Headcount -- Semester Report

Unduplicated count of high school students enrolled in at least one college course

EOT/Census Report
(updated 4/19/18)

Dual Credit

Students concurrently enrolled in high school and college
(a subset of Dual Enrollment)

CAMPUS	# Enrolled (total Dual Enrollment headcount)														Dual Credit Headcount															
	Spr 2012		Fall 2012		Spr 2013		Fall 2013		Spr 2014		Fall 2014		Spr 2015		Fall 2015		Spr 2016		Fall 2016		Spr 2017		Fall 2017		Spr 2018*					
	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total	#	% of total				
City College	100	138	169	164	191	222	230	243	262	359	409	465	611	56	25%	60	26%	82	34%	99	38%	245	68%	272	67%	353	76%	502	82%	
Great Falls College	134	103	177	166	217	230	313	201	342	313	400	379	448	103	45%	192	61%	75	37%	205	60%	155	50%	252	63%	206	54%	296	66%	
Gallatin College	12	32	23	51	88	102	106	66	159	81	261	155	355	84	82%	95	90%	57	86%	156	98%	79	98%	258	99%	136	88%	336	95%	
MSU Northern	68	1	36	24	54	9	40	39	78	16	80	60	103							1	6%		0%	13	22%	61	59%			
MSU Bozeman	5	5	6	7	4	3	1	9	10	11	11																			
Helena College	151	164	253	252	130	403	242	386	239	357	309	404	262	388	96%	216	89%	371	96%	221	92%	334	94%	286	93%	386	96%	247	94%	
UM Missoula	10	22	17	27	20	26	27	30	29	14	7							2	7%	2	7%	1	7%							
Highlands College	185	216	252	273	242	276	239	298	265	297	220	308	266	289	105%	227	95%	295	99%	261	98%	289	97%	215	98%	303	98%	261	98%	
Missoula College	43	305	86	394	164	412	93	398	194	474	223	269	190	266	65%	135	145%	332	83%	165	85%	436	92%	171	77%	212	79%	150	79%	
UM Western	2	1	1	1	29	30	13	38	6	32	16	42	38	27		9	69%	36	95%	6	100%	32	100%	16	100%	41	98%	37	97%	
MT Tech	0	0	1	0	0	0	0	0	0	0	0																			
MSU Billings	0	0	0	0	0	0	0	0	0	0	0																			
Dawson CC	9	0	0	7	31	12	7	42	5	75	29	119						8	19%		0%			19	66%	112	94%			
Flathead CC	269	187	239	218	292	318	417	379	443	463	510	462	488	129	41%	196	47%	227	60%	255	58%	276	60%	309	61%	461	100%	305	63%	
Miles CC	67	3	86	2	112	21	134	14	117	35	165	21	245			122	91%	107	91%	0	0%	127	77%	0	0%	213	87%			
Bitterroot College		3	9	14	47	14	76	10	**	**	**	**	**																	
TOTAL	1055	1180	1355	1600	1597	2097	1943	2118	2186	2457	2686	2594	3125	1342	64%	1252	64%	1477	70%	1485	68%	1848	75%	1906	71%	2130	82%	2520	81%	

*represents "census" not EOT count
note: EOT enrollment count, STUD_TYPE = "H", based on student_campus code

**included in Msla College counts

Headcount for 4yr campuses included in 2yr

Figure 2: Dual Enrollment Headcount by Institution and Semester.

Increasing Access & Affordability

Expanding Access:

The MUS has been working aggressively to grow the number of high schools offering dual enrollment onsite (concurrent enrollment). Ongoing, overlapping initiatives have contributed to an expansion in these courses' availability across the state (Figure 2). Over the past three years we have seen strong growth in concurrent enrollment due to growth in small and rural schools, increased diversity in offerings due to growth in CTE courses and increases in the number of qualified instructors resulting from multiple efforts. We anticipate this trend will continue.

Since 2014, the number of schools offering concurrent enrollment has grown 47%, there are more than 100 new concurrent enrollment teachers, and the number of small schools (Class C) offering these courses has more than doubled. Last academic year, approximately 78% of Montana high school students had access to concurrent enrollment. While we are making notable progress, there is still work to be done. Despite the recent gains, just 20% of Class C schools offer concurrent enrollment and a little more than half Class B schools (53%) have these courses in place (Figure 2). However, we anticipate continued increases in smaller schools due to the efforts underway with Perkins Reserve and Title IIa Grants (discussed below).

Concurrent Enrollment Expansion and Availability by MESA School Size (AY 14-15 to AY 16-17)

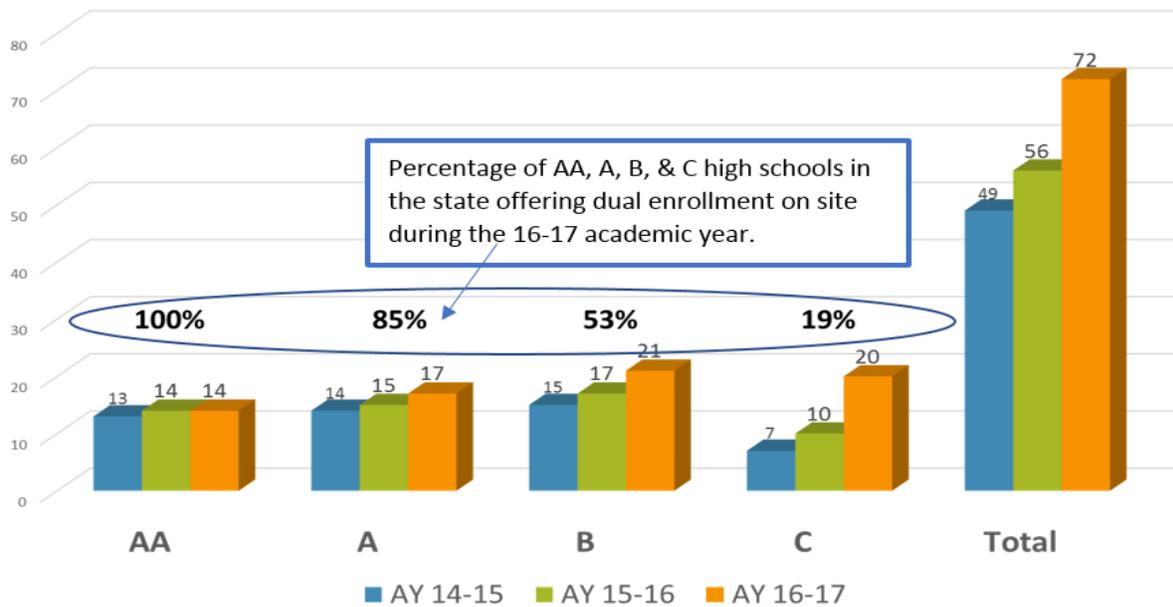


Figure 3: Gains in Concurrent Enrollment in Montana Schools by MESA size.

Expanding Options:

The prioritization of dual enrollment in Montana's Career Pathways program is yielding results. The system saw progressive increases in the number of CTE concurrent enrollment offerings as well as the percentage of student enrollments in CTE courses.

- In addition to increasing the number of students taking all dual enrollment courses, the proportion of those enrollments in career exploration courses (CTE-Career & Technical Education) has grown steadily from 25% to 32% over the past three academic years (Figures 4 & 5).
- Between AY 2014-15 and 2016-17 the number of CTE dual credit courses offered in high schools nearly doubled (from 109 sections to 215, last academic year).
- Areas of CTE course expansion are aligned with workforce needs and include health care, manufacturing, IT/computing, and business.

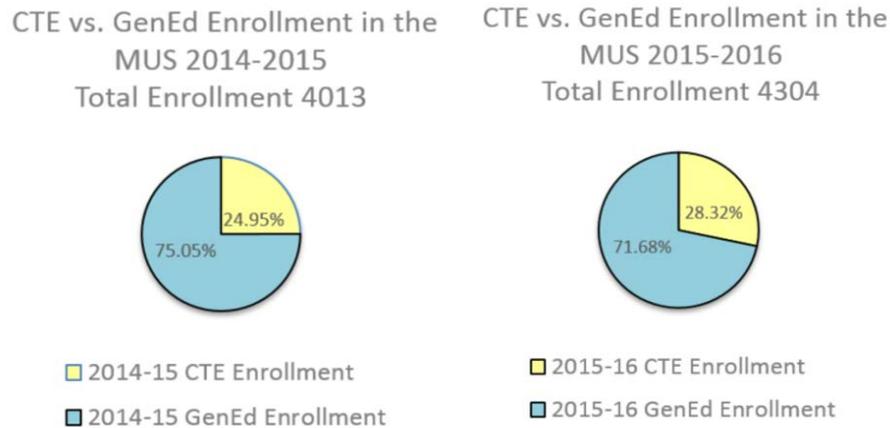


Figure 4: Portion of enrollments by course type (CTE vs GenEd)

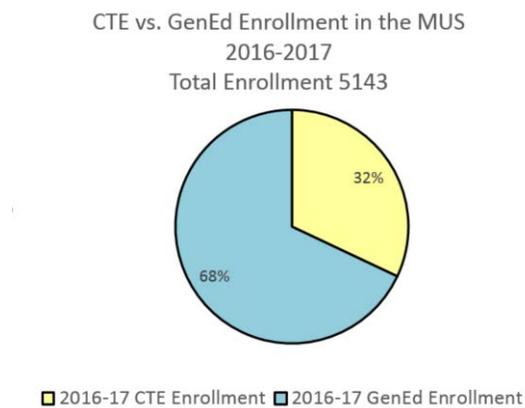


Figure 5: Portion of enrollments by course type, 2016-17.

Addressing Access: Growing the Pool of Qualified Instructors

Over the past four years the MUS has worked to increase the number of teachers offering high-quality college courses within their classrooms. This has included increased outreach to secondary teachers and administrators, a targeted incentive program (Credit-for-Credit), and the creation of graduate courses and technical training needed to teach concurrent enrollment.

Credit for Credit:

- Nearly 2000 credits issued to over 220 teachers across the state over the two-year pilot (F14-Sp16).
 - Over the life of the program ~60% of the C4C's were redeemed for a total value of \$217,646.
 - About 20% of redeemed C4C's were used by the receiving teacher, 80% were assigned to a student, colleague, child or spouse.

Supporting CTE Educators via Rural Reserve Funds:

- \$500k in Perkins Rural Reserve funds awarded via competitive application process for colleges to grow CTE dual enrollment and integrate dual credit into cohesive postsecondary planning with students.
- The Perkins Rural Reserve grants assist campuses in increasing CTE dual enrollment in partner high schools by developing technical training for CTE teachers.
 - Teacher trainings proposed for this grant year cover a wide range of subject areas including: Advanced manufacturing, welding/fabrication, culinary, automotive, construction, agriculture, education/early childhood ed., health sciences, IT/computing, and technical math and writing.

Training Teachers via Title II-A¹ Funds:

- Utilized to grow the pool of qualified dual enrollment instructors by increasing the availability of free/low cost online and summer face-to-face graduate credits for current and aspiring DE instructors.
- Four campuses (UM, Tech, MSU, MSUB) received awards to offer graduate courses to prepare teachers to offer concurrent enrollment via graduate courses at low/no cost to teachers.
 - Advanced Visual Arts
 - Creative and Expository Writing
 - Advanced Political Science
 - Introduction to Teaching and Learning
 - Nine different online math courses
- Initial information indicates a strong potential impact on Montana’s concurrent enrollment program (Table 1). We will evaluate which schools added concurrent enrollment courses at the end of the 2017-18 academic year.

TABLE 1: Title IIa Participating Schools*			
Class AA	Class A	Class B	Class C
Skyview High School	Sidney	Anaconda	Opheim
Billings Senior	Havre	Ronan	Saco
Great Falls High School	Hardin High School	Corvallis	Savage
Sentinel High School	Stevensville	Columbus	Big Sandy
Capital High School	Belgrade High School		Lambert
Billings West	Laurel		Lima High School
			Charlo high school
			Lavina Public School
			Highwood Public School
			Heart Butte
			Park City
			Chinook
6 class AA schools	6 class A schools	4 class B schools	12 class C schools

*Reported to OCHE as of 11/8/17, some schools had more than one participant.

¹ NCLB-Preparing, Training, and Recruiting Highly Qualified Teachers

Addressing Affordability

Last year Montana families saved **nearly five million dollars** in tuition and fees through dual enrollment courses. Dual enrollment students pay 50% the two-year college tuition rate, no mandatory or non-mandatory fees, cost savings is in comparison to average four-year tuition rate including fees. Add to this the fact that DE students are better prepared for college and tend to complete degrees at a higher rate and faster rate, the potential for cost savings continues well after high school graduation. *Despite the substantial cost savings, tuition is still a barrier for some students.* Therefore, several campuses have developed **tuition free options**, and several have seen enrollments grow as a result.

Free Tuition Programs in Montana

City College-MSU Billings

Students taking concurrent enrollment (dual enrollment courses on-site at their high school) through City College MSUB have their tuition waived. This is a one-year pilot that has been extended an additional year.

Partner schools:

- SD2 (West, Senior, Skyview, Career Center), Billings Central, Columbus, Hardin, Park City, and Laurel.

Resulting Growth:

- Fall 2016: 198% growth in headcount (+163 students over previous fall) 257% growth number of credit hours taken (+657 credit hours). In Fall 2017: Additional 44% growth in headcount (over previous year) (+109 students), 26% growth in credit hours taken (+237 credit hours).

Miles Community College

Students taking concurrent enrollment (dual enrollment courses on-site at their high school) through Miles CC have their tuition waived.

- A three-year pilot (in second year) allows Custer Co. and Sidney high school students to take concurrent enrollment courses offered on-site at their high school tuition free.

Resulting Growth:

- Nearly doubled dual enrollment headcount from partner high schools in first year (2015-16 51 students, 2016-17, 93 students).

Flathead Valley Community College

Long-standing policy for FVCC Running Start students in Lake and Flathead Counties take their first 6 credits for free as dual enrollment students. Also offers a free “summer experience” for summer classes.

- FVCC reported nearly doubling enrollment in the first year of the program.

Dawson Community College

Students taking concurrent enrollment (dual enrollment courses on-site at their high school) through DCC have their tuition waived. This is the first year of a pilot, partner high schools: Sidney, Dawson County HS, and Glasgow.

Bitterroot College

The Greater Ravalli Foundation pays tuition, textbook, and other associated costs for students in need.

MSUN and UM Western

Both campuses have set their dual enrollment tuition at \$50/credit to mitigate the impact of recent tuition increases that would have increased dual enrollment tuition 30%, to around \$90/credit.

Maintaining Growth in High-Quality Dual Enrollment

The coordinated strategic efforts to grow dual enrollment in Montana since 2014 have yielded impressive results; however, there is still an urgent need across the state to expand access, address affordability, optimize course options, and increase the pool of qualified teachers. In addition to continued support for existing efforts, there are several efforts to facilitate continued growth in dual enrollment.

Leveraging Perkins Reserve Funds

The Montana University System uses its Perkins Reserve fund as a tool to facilitate collaboration between colleges, high schools, and industry around CTE education statewide. These funds are awarded to Perkins eligible post-secondary institutions annually through a competitive RFP process. The RFP allows our State Executive Leadership Team to prioritize areas of focus each year. A recent RFP focus has been on the integration of CTE dual enrollment courses into career pathways and increasing its availability in schools, particularly rural schools. It was an intentional choice to move applicants towards this work, and we were eager to assess impact. We've had strong results in growing access to CTE dual enrollment as a result:

- Since 2014-15, the proportion of all dual enrollment students participating in a CTE dual enrollment class has increased from 25% to 32%, and the number of sections of CTE dual enrollment courses available in schools have nearly doubled (Figures 4 & 5).
- The number of our smallest rural high schools (<100 students) offering dual enrollment onsite doubled from 2015-16 to 2016-17 and is on track to potentially double again for the 2017-18 academic year (Figure 3).
- All of this is in addition to strong growth in dual enrollment headcount, about 20% growth on average per year over the past four years.

The RFP for our Reserve funds has proven an impactful tool for adding value to a student's high school career and particularly for helping level the playing field between high schools whether they are large or small, rural or urban. Last year OPI and OCHE embarked on an ambitious overhaul of our previous career pathways program, Big Sky Pathways, to reorganize and rebrand it as Montana Career Pathways (MCP) <http://mus.edu/mcp/>. We leveraged our Reserve fund grants to help support the roll out of the upgraded career pathways program.

Adding a new layer to a Reserve Fund applicant's "to do" list can help incentivize building, expanding, and/or improving programs and in a way that provides impact across the state. [This year's RFP](#) challenges applicants to work on pre-apprenticeships that support a Montana Career Pathway, particularly options that integrate dual enrollment and work-based learning experiences. To prepare for this new direction, over the last year the MCP program provided three different training sessions to build staff knowledge on work-based learning and increase campus capacity to integrate high-quality work-based learning into secondary and postsecondary education. These trainings developed collaborative relationships between college staff and Montana Department of Labor and Industry's Registered Apprenticeship Office and built a sample framework for dual enrollment-embedded pre-apprenticeships that can be utilized as a model statewide. By pulling together work-based learning and dual enrollment into a pre-apprenticeship, colleges are leveraging their existing work with high schools and industry to build valuable options for students that yield dividends for the students and Montana economy well after high school.

Partnerships

Capacity building through collaborative partnerships has also been an area of focus in the past year. These efforts have included Montana-based partners (Reach Higher Montana and the Montana Digital Academy) as well as national collaborations (Education Commission of the States, ACT, Advance CTE, and the National Alliance of Concurrent Enrollment Partnerships). Such coalition building benefits dual enrollment across the state and the country.

Reach High Montana (RHM) has become an outstanding partner in supporting students and parents in exploring Montana Career Pathways as well as advocating for and promoting dual enrollment statewide. OCHE and RHM have a shared vision for increasing students access to and success in postsecondary education, making this an easy and natural partnership to cross-promote programs. The past year had several opportunities for cross training dual enrollment and RHM staff, including a joint workshop covering the new Montana Career Pathways program. RHM staff have also received training on dual enrollment to be more knowledgeable about common questions and misperceptions among students, parents and educators, as well as increasing RHM collaboration with dual enrollment staff. Lastly, RHM produced the state's first statewide dual enrollment marketing. [RHM promotional materials](#) now highlight dual enrollment as a great option to "Get a Jump College."

The Montana Digital Academy (MTDA) has worked with OCHE and Montana colleges on dual enrollment for several years. Efforts are underway to increase the accessibility of online dual enrollment courses via the MTDA's broad network of high school connections. Preliminary discussions between Helena College and MTDA have targeted math courses serving both STEM and non-STEM degrees to maximize student access to courses that help circumvent math remediation in higher education. Additionally, there are plans to look at the viability of offerings in course areas with high demand in the Montana workforce and high value to students in exploring a field or program of study. Both these options have clear benefits for students, parents, and high schools and great alignment with the Montana Career Pathways program.

OCHE has worked with several national organizations in the past year to promote the innovative work that is being done by our office and campuses across the state. Education Commission of the States 2017 National Forum on Education Policy highlighted MUS approaches to addressing barriers to dual enrollment for a special roundtable session. In addition to lending expertise at the National Forum, OCHE has assisted ECS with policy briefs on dual enrollment and Perkins. A partnership with ACT has yielded an increased interest in utilizing MUS data for a possible future study on dual enrollment program impact. Advance CTE has closely followed the new approach to CTE found in Montana Career Pathways, and leveraged OCHE staff to review a recent publication on high-quality CTE in rural environments. The National Alliance of Concurrent Enrollment Partnerships (NACEP) continues to highlight Montana's systemic approach to growing high-quality dual enrollment featuring different program components on national webinars, at their annual conference, and in regional conferences. Partnerships with these organizations has increased the profile of the high-quality work that occurs in the system and positioned the MUS as a state to watch in dual enrollment and secondary/postsecondary Career and Technical Education.