

THE WYOMING COMMUNITY COLLEGE COMMISSION and THE UNIVERSITY OF WYOMING

Report on Higher Education Remediation, Retention and Graduation Rates

To the Joint Education and Appropriations Interim Committees

October 31, 2011

[Pursuant to W.S. 21-16-1304 Section 3 and
2011 Session Laws, Chapter 88, Section 67, Footnote 5]

Introduction

In two pieces of legislation, the legislature directed the Wyoming Community College Commission (WCCC) and the University of Wyoming (UW) to develop a joint report concerning remediation, as well as retention and graduation rates of students who graduated from Wyoming high schools and entered one of the state's community colleges or UW. The two reporting requirements are similar, but not identical.

Section 3 of Senate Enrolled Act 63 (SEA 63) directs UW and the WCCC, in conjunction with the colleges, to report jointly about remedial, retention and graduation rates, and student support services for Hathaway Scholarship recipients. The footnote in the 2011 session's supplemental budget bill requests information about academic support services, as well as retention and graduation rates for all students. This report fulfills both directives for UW and is divided into the following sections:

- Hathaway Scholarship Program
- Remediation
- Student Support Services
- Retention and Graduation
- Recommendations

Hathaway Scholarship Program

The Hathaway Scholarship Program, created by the Wyoming Legislature in 2006, has come of age. In the fall semester of 2011, the first Wyoming high school graduates who have completed the entire Hathaway "success curriculum" entered college.

The Hathaway Scholarship Program is a testament to Wyoming's commitment to education. Through it, the state offers the financial means for Wyoming resident high school graduates to continue their education at Wyoming community colleges and the University of Wyoming. The value of Hathaway scholarships is linked to students' records of academic accomplishment in high school. The scholarship provides a powerful requirement for students to take the Hathaway success curriculum, which plays an important role in preparing for success in college.

Wyoming faces two challenges in providing its students a pathway to accessing sustainable and quality employment. First, more K-12 students need to prepare for and enter college. Only 44% of Wyoming's ninth-graders enter college anywhere in the U.S. upon graduation from high school. Further, only 36% of Wyoming's residents hold an associate's degree or higher, yet the percentage of Wyoming jobs requiring postsecondary education continues to rise. It is expected to reach 63% by 2018. Wyoming's population is projected to continue to lag the nation in the proportion of adults with postsecondary education.

Second, students who enter Wyoming's community colleges and university need to persist and graduate. Of the students who enter UW, 53% complete baccalaureate degrees within six years. UW is committed to improving this record and helping Wyoming residents reach their higher education goals.

Wyoming has a strong tradition of making higher education as accessible and affordable as possible for its residents. The Wyoming constitution stipulates that education at UW must be as free as possible. Due to substantial funding from the state legislature, tuition at UW is the lowest in the nation among the nation's public doctoral-granting institutions. Anyone with a high school diploma or GED can enter one of the state's community colleges, and the minimum admission standard at UW is a high school diploma, a GPA of 2.25 and a 20 ACT score. Likewise, the 2010-2011 tuition and fees paid by Wyoming community college students were 34% below the average paid in other WICHE states.

These minimal barriers to entry and the support of the Hathaway Scholarship Program make higher education accessible to a large majority of high school graduates in the state each year. However, that does not necessarily mean that the incoming students are prepared to be successful at a college or UW the day they walk through the door. This report provides information about the remedial needs of many students, the support services the colleges and UW have in place to help them in their academic endeavors and the associated retention and graduation rates.

There are a few recommendations at the conclusion of the report regarding how retention and graduation rates can be increased. It is worth pointing out that the easiest course of action is not among these recommendations. If the community colleges or UW want to increase graduation rates, a fairly easy avenue would be to implement a specific admission standard that requires high academic performance in high school and substantially increase tuition. These actions have been shown to attract only those students who are prepared and highly motivated to succeed when they arrive at a college or university. However, no Wyoming community college or UW is proposing this, for it would undermine the future of many of our state's residents and run counter to the education tradition of this state.

In August, the University of Wyoming welcomed 859 Wyoming high school graduates, 90% of whom have completed the Hathaway success curriculum. And over the past three years, as the success curriculum has been phased in, the average ACT scores of Wyoming's 11th-graders have risen steadily. As increasing numbers of high school students take rigorous coursework and achieve higher GPA and ACT scores, there is reason to expect higher levels of college completion in our state. At the same time, UW is committed to assisting those students whose

high school transcripts, GPA and ACT scores suggest that they may require additional support to succeed in college.

Remediation

W.S. 21-16-1304 Section 3(a)(i) – Under this provision, the legislature directed WCCC and UW to report on the “standardization of remediation requirements for Wyoming high school graduates awarded a Hathaway student scholarship and enrolling in the university of a community college.”

Wyoming Community Colleges

Community College students who test into more than one developmental course are considered to be more at-risk of not completing college. More than half of Wyoming’s first-time community college students must enroll in a developmental/remedial course. Wyoming community colleges use nationally recognized ACT scores or COMPASS testing for course placement in reading, writing, and mathematics. During the past two years, through the efforts of dedicated community college faculty and administrators, the following have been accomplished.

- Developmental math courses have been consolidated into two sequential courses, each with a standard course number that incorporate a revised skill acquisition sequence.
- ACT and COMPASS transition scores for initial placement into developmental math courses and for college level math courses were standardized for the 2010-2011 academic year.
- Developmental composition/English courses exist as a two course sequence, each with a standard course number.
- Initial course placement into developmental and college level composition courses using ACT and COMPASS transition scores has been standardized. Additional discussion of the ACT English transition scores is ongoing on some of the community college campuses.

TABLE 1: 2011-2012 Transition Scored Required for Placement in College Level Classes

Placement Test	Math Score	English Score
ACT	21	21
COMPASS	64	75

- The seven WY public community colleges have begun a task force charged with setting COMPASS reading transition scores and ACT transitions scores. A task force comprised of Community College academic vice presidents, faculty, and reading contact people began the process of fact finding in June, 2011. That task force has set a goal to make recommendations for change to the Community Colleges Academic Affairs Council during the 2011-2012 academic year.

University of Wyoming

Approximately 90% of incoming UW first-year students from Wyoming are supported by a Hathaway scholarship. Therefore, the data for Hathaway scholars is essentially identical to that for Wyoming resident students. In this report, the data for Wyoming residents is provided to indicate the performance of Hathaway scholarship recipients.

The colleges and UW use the same ACT scores (21 or higher) to determine placement in college-level math courses. UW does not test for remedial needs in English/language arts but offers various support services for students who need assistance (details in the next section of this report). UW will submit its data on remedial math in a format that will permit straight-forward comparison with information from the colleges.

For the past 3 years, approximately 23% of incoming UW students were considered eligible for remedial mathematics because they have an ACT math score of less than 21 or SAT math score of less than 600 (Table 2).

**Table 2. University of Wyoming
Wyoming New First-time Freshmen
Graduating within the Previous Year
Percent of Students Eligible for Remedial Mathematics***

<i>Entering in....</i>	<i># of Wyoming first-time students graduating within previous year</i>	<i>% Eligible for Remedial Mathematics</i>	<i># Eligible for Remedial Mathematics</i>
2001-02	866	28.2%	244
2002-03	868	26.3%	228
2003-04	822	27.3%	224
2004-05	824	26.9%	222
2005-06	726	24.1%	175
2006-07	881	22.7%	200
2007-08	821	19.9%	163
2008-09	873	20.7%	181
2009-10	797	23.0%	183
2010-11	765	23.4%	179
<i>Fall 2011-Preliminary</i>	772	23.1%	178

*Students with an ACT Math Score less than 21
SAT Math less than 600.

Source: UW's WDE679 report.

Students can also take the COMPASS Math Placement Exam for two reasons. First, if they score low on the ACT, students can take the COMPASS and score a 40 or more on the algebra portion of the test to take a college-level course in math problem solving or 66 or more to take college level algebra. Second, the COMPASS can help better determine how much remedial work students require and what course (or courses) they should take.

The score from the ACT or the online COMPASS Math Placement Exam determines the math class for which students may register and eligibility for biology (ACT Math 21), chemistry (ACT Math 23), and the nursing major (ACT Math 23). Remedial math courses are offered through Wyoming community colleges; no UW credit is given for these courses. If students with a Hathaway scholarship take a remedial math course at the 0900 level, they must also take 12 hours of credit at the for-credit level (total of 15 hours) to maintain the scholarship. UW offers a recommendation regarding this issue at the conclusion of the report.

In most instances, remedial courses prepare students to be successful in college-level math instruction. Before the advent of this assistance, the failure rate in many first-year college math classes was as high as 60%. UW also offers a math lab and tutoring for all students, but with a focus on those taking first and second year math classes. The services are available throughout the week for eight to ten hours most days.

Student Support Services

W.S. 21-16-1304 Section 3(a)(iii) of SEA 63 and Budget Bill Footnote – Under these amendments, the legislature directed WCCC and UW to describe the support services available to students requiring remediation, together with data on program effectiveness and recommendations for improvement.

Wyoming Community Colleges

The Wyoming community colleges recommend using diagnostics of student skill levels beyond guidance provided by ACT and COMPASS transition scores. These recommendations were developed while the community colleges in collaboration with UW and WCCC assembled Governor Mead's application for a Complete College America (CCA) grant.

Award of this grant would have allowed the Wyoming community colleges to develop methods to utilize diagnostics in order to implement the appropriate student success interventions, however it was not awarded. Students who test into more than one developmental course are considered to be more at-risk of not completing college. Wyoming community colleges use the nationally recognized ACT scores or COMPASS testing for course placement in reading, writing, and mathematics. COMPASS testing contains diagnostic capabilities that have not been widely utilized by the colleges. These diagnostic capabilities include determining which skill sets need to be mastered in order to achieve a score that is sufficient to enter into the next level of developmental or college-level course. Other instruments may be used to gather more detailed diagnostics of student skills including the statewide Proficiency Assessment for Wyoming Students (PAWS), SAT Plan, Accuplacer, or the Test of Adult Basic Education (TABE).

Methods of analyzing and using these various diagnostics would be developed through a statewide effort to ensure that students will be properly placed into developmental courses. Determination of student specific skill gaps so that appropriate interventions may be developed will help each student reach the appropriate college-level course in a more timely fashion.

Students would be identified who are at risk of not succeeding in developmental course work as it now exists and providing alternative pathways to success in their required college level English and college level math courses. Students targeted for intrusive advisement and supportive interventions would be identified using their need for developmental coursework and at least one of the following secondary factors:

- First Generation
- GED recipient
- Ethnic minority
- Low ACT score (composite score of less than 18)
- Hathaway Opportunity Scholarship qualifiers or non-qualifiers for Hathaway scholarship program
- Transferring into community colleges with fewer than 20 credit hours and/or a low GPA
- Low income (Pell-grant eligible)

The WCCC Statewide Strategic plan identifies the following action steps associated with reaching this objective:

- *1.3b. Adopt common placement thresholds for reading, writing and mathematics COMPASS Assessments and ACT across the seven community colleges. (Math has been addressed, common English thresholds are in place for fall 2011, and reading dialog will begin this summer.)*
- *1.6a. Enable all community college students to develop a personal pathway allowing them to maximize the use of community college resources in pursuing their goals.*
- *1.7a. Implement a student success component within the Wyoming community college funding formula. Award 10 % of variable costs within the formula based on course completion. (A definition of completer success rate has been developed to facilitate this action step.)*

Additionally, the community colleges, in May 2011, also committed to the following goals in order to decrease the time to degree or certificate for at-risk students, if Complete College America funding became available:

- Establish infrastructure to provide high risk students a customized pathway to successful completion of college level math, English, and reading intensive courses, within one year.
- Increase the completer success rate in college level math, English and reading intensive courses for high risk students by 5% by the end of two years.
- Increase the degree and certificate completion rate for high risk students by 5% by the end of three years.

University of Wyoming

The student support services provided through the University of Wyoming are listed in Table 3. They focus on the following areas of support:

- College access, particularly for low-income and first-generation college students;
- Academic support services, such as Synergy, the writing center, math lab, oral communication center, and freshman interest groups;
- Career placement services;
- Transition to college, through orientation programs;
- Access for students with disabilities;
- Mentoring and engagement programs for minority and non-traditional students and veterans;
- Personal development and wellness programs;
- Retention and graduation programs, particularly for academically underprepared, low-income, first-generation students and students with disabilities.

Some programs are mostly or entirely federally funded, such as TRIO and GEAR UP. UW funds others, including most of the mentoring and engagement, retention and graduation, academic success, and workforce placement programs. The cost of each program on a per student basis varies widely from the modest cost of academic success services that are provided to all students to the higher cost of some of the federal college access programs.

Table 3: UW Student Support Services

FOCUS	PROGRAM	TARGET POPULATION	SERVED	COST	COST/ STUDENT	UW FUNDING	FEDERAL FUNDING	OTHER FUNDING (PRIVATE, REVENUE, SCHOLARSHIP, CHARGES, OTHER)	DEPT
<i>COLLEGE ACCESS</i>	Statewide TRiO Programs	Low-income, first generation high school students and adults	2,650	\$1.92M	\$725	\$44K	\$1.5M		Student Educational Opportunity
	Statewide GEAR UP Program and College Scholarships	Low-income high school students	2,000	\$7.2M	\$3600		\$3.6M	\$3.6M	Student Educational Opportunity
	College Access and “Pipeline” Services web site	Middle school and high school students with a focus on low-income families	(new)	\$15K			\$15K		Student Affairs
	Wyoming College Advising Corps	Low-income and other high school students	1,700	\$210K	\$124		\$210K		Student Affairs
	Wyoming Challenge Grant and Need-based scholarships	Low-income high school seniors	660	\$660K	\$1000		\$660K		Student Affairs
<i>TRANSITION TO COLLEGE</i>	New Student Orientation	Freshmen and transfers	1,650	\$205K	\$124	\$56K		\$149K	Admissions
	Freshman Summit	Freshmen and transfers / parents	1,500	\$66K	\$44	\$66K			Student Affairs
<i>ACCESS TO PROGRAMS & SERVICES</i>	Disability Support Services	Students with disabilities	375	\$219K	\$584	\$219K			Student Educational Opportunity
<i>MENTORING & ENGAGEMENT</i>	Multicultural Resource Center	Ethnic minority	1,200	\$38K	\$32	\$38K			Dean of Students
	Multicultural Student Leadership Initiative	Ethnic minority	20	\$4K	\$200	\$4K			Dean of Students
	Rainbow Resource Center	LGBTQQ	300	\$5K	\$17	\$5K			Dean of Students
	Non-traditional Student Center and Women’s Center	Non-traditional and women <i>(Student counts reflect usage of centers, not number of unique students served)</i>	≈4,000 ≈400	\$12K	\$3	\$12K			Dean of Students
	Veteran’s Center	Veterans	350	\$36K	\$103		\$36K		Dean of Students

FOCUS	PROGRAM	TARGET POPULATION	SERVED	COST	COST/ STUDENT	UW FUNDING	FEDERAL FUNDING	OTHER FUNDING (PRIVATE, REVENUE, SCHOLARSHIP, CHARGES, OTHER)	DEPT
<i>PERSONAL DEVELOPMENT & WELLNESS</i>	Counseling Center	All	600	\$300K	\$500	\$300K			Counseling Center
	AWARE Program	All	325	\$121K	\$37	\$121K			Counseling Center
	SLCE	Undergrads	68	\$5K	\$74	\$4K		\$1K	Union
	Greek Life	Undergrads	500	\$59K	\$118	\$59K			Dean of Students
<i>RETENTION & GRADUATION</i>	Behavioral Health Admission and transition to campus	Students at risk of withdrawing	27	\$0		Regular staff			Dean of Students
	Early Alert	Students at risk of withdrawing	19	\$0		Regular staff			Dean of Students
	Synergy	Academically underprepared	150	\$70K	\$467	\$70K			LeaRN
	McNair Scholars Program	Low-income, first generation, ethnic minority	32	\$279K	\$8719	\$8K	\$279K		Student Educational Opportunity
	Student Success Services	Low-income, first generation, students with disabilities	230	\$374K	\$1626	\$12K	\$374K		Student Educational Opportunity
	Mandatory Advising – Center for Advising and Career Services	Undeclared and reinstated	750	\$279K	\$372	\$279K			Center for Advising and Career Services
MAP-Works	Freshmen	1,500	\$27K	\$18		\$27K		Student Affairs	

FOCUS	PROGRAM	TARGET POPULATION	SERVED	COST	COST/ STUDENT	UW FUNDING	FEDERAL FUNDING	OTHER FUNDING (PRIVATE, REVENUE, SCHOLARSHIP, CHARGES, OTHER)	DEPT
ACADEMIC SUCCESS	Writing Center	All	2,500	\$80K	\$32	\$80K			LeaRN
	Office of Academic Support – Athletics	Student athletes	400	\$1.3M	\$3250	\$578K		\$722K	Athletics
	College of Engineering Orientation and Power Groups	Freshman Engineering majors	130	\$0		<i>Regular staff/faculty</i>			College of Engineering
	Oral Communication Center	All	1,400	\$1K	\$1	<i>\$1K + \$14K as student intern credit and faculty release time</i>			Communication
	Math Lab	All	1,250	\$37K	\$30	\$22K		\$15K	Mathematics
	eTutoring (*new Feb 2011)	All	125*	\$3K	\$24	\$3K			Outreach School
	Student Learning Center	All	350	\$9K	\$26	<i>\$9K + RA hours</i>			Residence Life
	FIGs/SEEDs	Freshmen	250	\$10K	\$40	\$10K			LeaRN/Res Life
	Supplemental Instruction	Undergrads	1,500	\$19K	\$13	\$19K			LeaRN
BetterGrades resource web site	All	300	\$0					LeaRN	
WORKFORCE PLACEMENT & TRANSITION	Career Services	All	1,900	\$168K	\$88	\$168K			Center for Advising and Career Services
	Job Fairs x 6 per year	All plus alumni(ae)	3,000	\$20K	\$7			\$20K	Center for Advising and Career Services
	Johnson Career Center	Business majors (undergrad + grad)	1,100	\$132K	\$120	\$68K		\$64K	College of Business

As noted in some detail below, all of these programs offer supports that have a positive impact on learning. Below are more detailed descriptions of some of these programs, including some recommendations for future actions.

Synergy

Perhaps the most important program is Synergy. It is a first-year, course-based learning community for conditionally-admitted students at UW. These are students who need additional academic support when they are admitted to UW. Wyoming high school graduates in Synergy have a GPA between 2.5 and 2.74 regardless of ACT score or a GPA between 2.25 and 2.40 with an ACT of 20. They also have not taken course work equal to four years of language arts, and three years of math, science and social studies. By featuring small cohort groups based around academic courses, Synergy seeks to promote social and academic integration. Approximately 150 students participate in Synergy each fall.

- **Cohort-model Courses**

The Synergy learning community includes four general education courses in the first year: College Composition and Rhetoric, U.S. and Wyoming Government, Introduction to Public Speaking, and Critical Reflection in Intellectual Communities (a reading and research-focused course). Students are organized into cohorts to encourage connections among students and faculty in the groups. Synergy's writing and reading class sizes are smaller than regular courses—18 students vs. 23 for regular classes. The program intentionally includes general education courses that convey fundamental skills commonly underdeveloped in at-risk students: reading, writing, speaking, and test and study skills integral to large lecture courses.

- **Pre-semester Seminar**

Students meet with their peers and faculty for several hours over the weekend before classes begin in order to build community, discuss the transition to college expectations, and be introduced to course themes.

- **Collaborative Faculty Planning**

Instructors who teach for Synergy meet in the summer and twice during fall semester to plan the courses and develop thematic and text-based connections. Synergy encourages professional development among participating instructors and has a small budget to support conference participation and invited speakers.

- **Peer Mentors**

Past Synergy participants are hired and trained to act as mentors to incoming students. The mentors attend the composition course, organize extracurricular activities, and offer study and coursework assistance.

- **Supplemental Instruction for POLS 1000**

To help students develop exam preparation and note-taking skills, Synergy sponsors weekly out-of-class sessions for the U.S. and Wyoming government course.

Compared to conditionally admitted students not participating in Synergy, students in this program demonstrate:

- Higher first semester GPA (2.14 vs. 1.78)
- Lower probation rates (40% vs. 60%)
- Higher freshman to sophomore fall-to-fall retention rates (55.6% vs. 51.8%)

Recommendation: With a better understanding of the skills and knowledge students should possess upon admission, UW will be better able to determine and individualize academic support for those students who need it. This will likely result in additional enrollment for Synergy, from 150 students to 300 by the fall of 2013. UW will re-prioritize funds within its block grant to ensure that Synergy has the resources to accommodate this increase.

Transition to College

Transition programming is designed to serve new students at UW and meet the need for incoming students to strengthen academic and social integration upon entering college.

Recommendation: As UW prepares to revise its general education curriculum, there is an opportunity to enhance transition services to first-time, first-year students by offering a required introduction to college through a first year experience credit-bearing course.

Mentoring and Engagement

Research shows that engaging students both inside and outside the classroom results in increased persistence. By connecting with smaller communities in resource centers, student organizations, and mentoring programs, students build both academic confidence and the skills necessary to succeed in the workplace.

Personal Development and Wellness:

In order to encourage students to make healthy lifestyle choices, we offer access to resources and programs that promote both physical and mental health as well as personal growth. Students accessing these programs demonstrate increased ability to manage the rigors of college and balance physical and mental well-being. In addition, participants develop skills related to leadership, civic engagement, volunteerism, and organizational effectiveness. The positive effects of this skill development transfer to greater success in the classroom as well as persistence in college.

Retention and Graduation

Services that promote retention and graduation are designed to target student populations who show increased risk of withdrawing or falling into poor academic standing. Programs aim to foster students' intellectual engagement with academics, promote successful habits for social and course-based transitions, and connect students with high quality advising and academic resources on campus.

Recommendation: UW should explore services that address the unique issues that sophomore students experience, such as adjusting to increased academic rigor, settling into a major and career choice, and managing increased responsibilities.

Academic Success

Academic success services and programming are delivered in a variety of settings ranging from themed residence hall floors to course-specific support. These programs focus on enhancing a range of transferrable skills including critical thinking, writing, math and communication. In addition to helping students master core skills, these experiences help prepare students for the demands of their career paths.

Workforce Placement and Transition

The goal of workforce placement and transition is to prepare students to move from college to career and includes the opportunity for students to prepare for full-time employment upon graduation by engaging in internships, student employment, and individual résumé development and interviewing skills. These programs offer major and career assessments and advising as well as access to regional and national employers.

Overall Impact of Support Services

First-generation or low-income students or those with disabilities who are served by UW's Student Support Services have much higher 6-year graduation rates than the students eligible for these programs but who chose not to participate (Chart 1).

Student Success Services Six-year Graduation Rate

(SSS-eligible = first generation student and/or low-income student and/or student with a disability + ACT Composite Score <21)

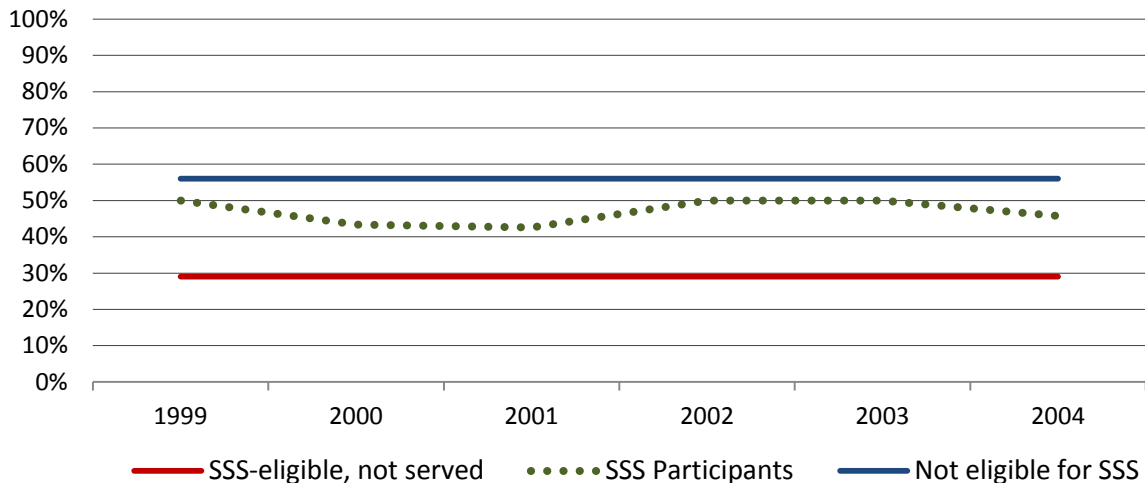


Chart 1. Six-year graduation rates for Student Success Services (SSS)-eligible students compared to those students who are not eligible. Data from UW Office of Institutional Analysis.

Likewise, the McNair Scholars program, which involves first-generation and low-income or Hispanic/Latino, African-American, or Native American students in undergraduate research with

UW faculty members, results in 69% of participating students continuing to graduate school as opposed to just 16-23% of students in these eligibility categories nationwide (Chart 2).

UW McNair Scholars Enrolling in Graduate School

McNair-eligible = First Generation and Low-income student
or Eligible Ethnic Minority Student: Hispanic/Latino(a),
African-American, or Native American

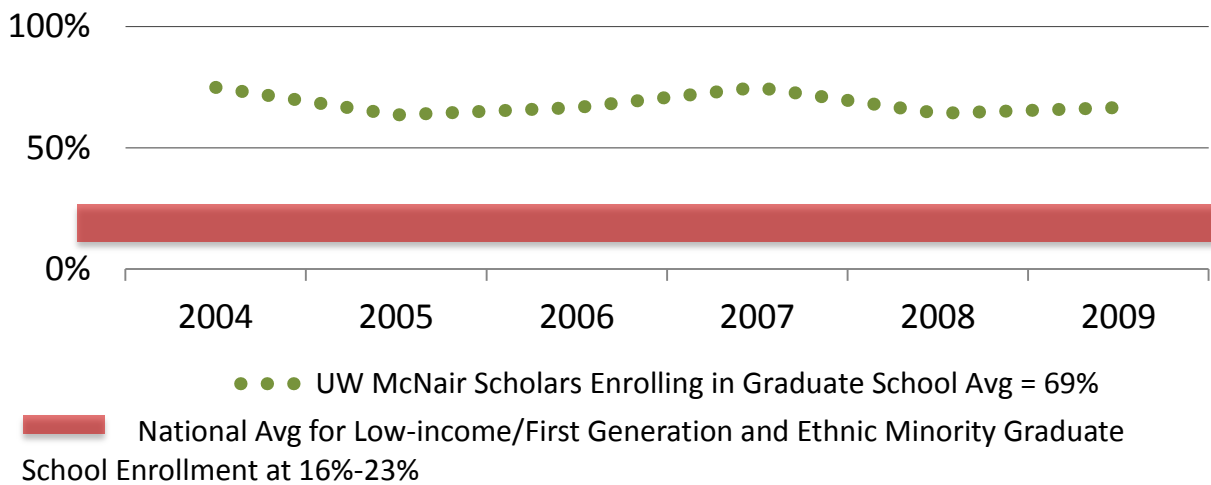


Chart 2. Percentage of UW students participating in the McNair Scholars program who go on to graduate school compared to first-generation, low-income or eligible minority students nationally. Data from UW Office of Institutional Analysis.

Another example of the positive effect of student support services is provided by the UW Freshman Interest Group (FIG) initiative. Students choose an academic area of interest share a floor in a residence hall and take three or four classes together. These students have much higher first to second year retention rates than students who do not participate (Chart 3).

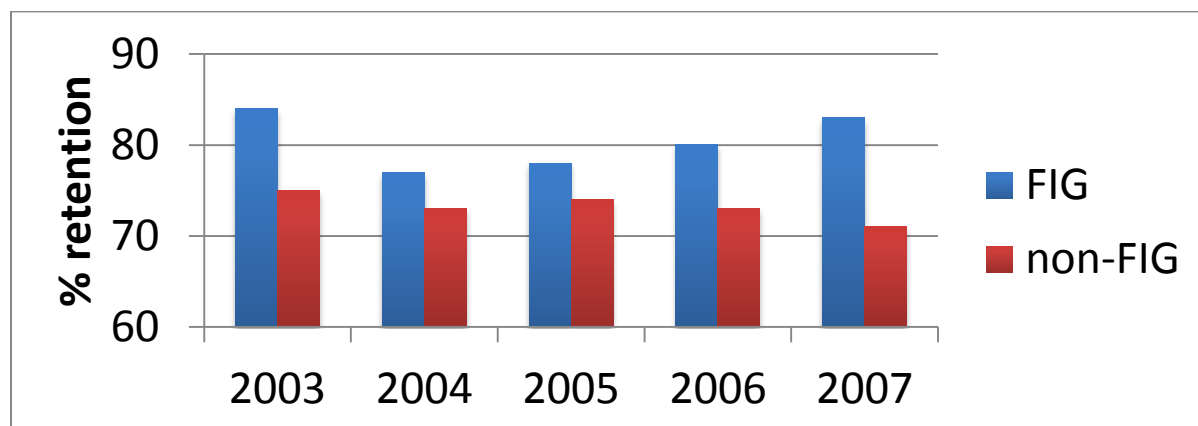


Chart 3. Percentage of students in Freshman Interest Groups (FIGs) who remain at UW and register for their sophomore year compared to the retention of students who do not participate in FIGs. UW Data

Retention and Graduation

W.S. 21-16-1304 Section 3(a)(ii) of SEA 63 and Budget Bill Footnote – Under these provisions, the WCCC and UW are asked to provide recommendations for improving student completion data, including comparisons between Hathaway scholarship recipients and the general student population, and improvement targets for all student completion and retention rates.

Chart #4 documents the loss of eligibility among recipients of Hathaway scholarships for the four years since the inception of the program. The Wyoming Department of Education will soon release information that includes this past academic year, 2010-11. As the chart demonstrates, there is a direct relationship between the academic preparation of students as they exit high school and their ability to retain their scholarships at a Wyoming community college and UW. The following narrative will build on this information in discussing retention and graduation rates in Wyoming’s higher education.

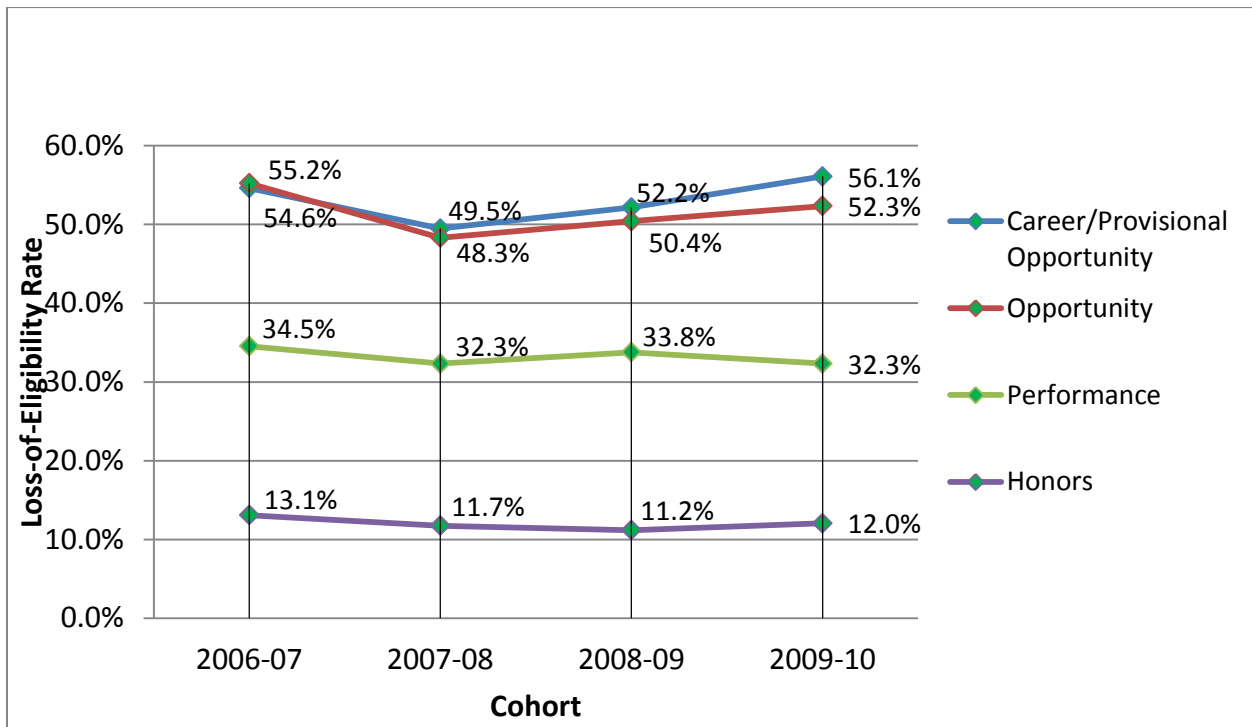


Chart 4: Percent of Hathaway Scholarship recipients losing eligibility after their first year. Source: WDE

Wyoming Community Colleges

Wyoming community colleges provide advisement, tutoring, staffed learning centers, and two levels of developmental courses for students requiring skills development in order to be successful in college level English and college level mathematics. The seven Community Colleges also provide services beyond the four listed above. Below are three recently initiated projects designed to improve student course success and to decrease “time to degree or certificate”:

1) MAP – Works

Northern Wyoming Community College District now utilizes MAP-Works (Making Achievement Possible) as a tool to increase student success. During the Fall Transition 2011, 73.2% of first year students completed the survey. This program was developed by Educational Benchmarking Incorporated and is the most comprehensive student success and retention platform. MAP-Works is grounded in student development theory and uses tested and proven algorithms to identify at-risk students. This retention platform allows professionals to identify at-risk students, gather the proper information about students from their reports and motivate students to address the areas where they need support. NWCCD will be able to measure its impacts on student success and retention, as well as allow for all NWCCD employees to have easy continuous communication. This campus-wide solution is visual and easy to navigate for both students and campus professionals. Further, the custom student reports, alerts, and notes engage and motivate users to utilize the system.

2) Academic “Bridge” program

Central Wyoming College and Western Wyoming Community College, through a College Access Challenge Grant conducted special campaigns to recruit, select, and enroll 15-20 academically underprepared students into a summer bridge “boot-camp” program. This project helped these students move into higher level courses at the college. CWC directed their marketing efforts in their local service area, which includes the Wind River Indian Reservation, Shoshoni, Lander, and Riverton communities.

The WWCC College Studies Institute mini seminar was planned for the first hour of each day and included the following:

Time/ Stress Management	ADA/accommodation process
Using Mustang Cruiser	Campus Tour
MBTI Personality Test	Financial Aid
Test Anxiety	Library Tour/Electronic Research

The math class used the software “My Math Lab” which served two purposes. The structure of the software allowed students to move quickly through content that they already knew and to focus on areas where they needed to refresh their skills or learn new material. Using the software that is currently used in the Math Department for classes had the additional benefit of allowing the students to learn to use the software before entering their fall math class.

Eligible students enrolled in two of the following three remedial classes: 1) Developmental Math/Developmental English or 2) Reading/Developmental English combinations for 2-3 weeks, 5 days per week, 8:30 – 3:30, in 50 min class periods. Classes were held August 8-26, 2011. New student Orientation helped students fully integrate with other college programs and services, such as Peer Tutor Center and how to use SmartThinking, an online tutorial program. Student tutors were provided during class times. Group activities were included and lunches were served to all participants in

order to create a stronger sense of camaraderie among the faculty and students. Math classes were held in the Computerized Assisted Learning Lab (CAL Lab) using MyMathLab, composition classes were held in the library computer lab, reading classes were in the library, and COMPASS testing was conducted before and after the August bridge session.

CWC's bridge program results include:

- 21 students passed (95%), success rate for courses 27/28 (96%)
- 20 students enrolled for 2011FA (91%)
17 of those 20 enrolled in the next level course (85% of the 20 enrolled)

WWCC's bridge program results include:

- 100% of the students increased their proficiency in at least one skill area (reading, writing or math) as documented by COMPASS Test score comparisons. 97% of enrolled students completed the College Studies Institute (29/30).
- 19 students increased their reading score.
- 10 students had a reading score that required them to take a reading class, six of those 10 tested out of reading when the COMPASS Test was repeated.
- 21 students increased their writing score.
- Four students tested out of developmental studies and into English 1010. Six tested out of Basic English I (950) and into Basic English II (955).
- 20 students increased their math score with eight moving to a higher level math class.

3) Western Wyoming Community College's initiatives and modifications designed to improve completion/retention:

- Revamped developmental math to a lab-based, instructor-assisted methodology to try to increase success rates in lower-level math
- Added a step up scholarship to encourage students to return who are within 12 hours of completing their degree or certificate program
- Revised the advising system to become the ACE-IT Center (Advising, Careers, Employment, Internship and Transfer) in an attempt to consolidate services and better address the planning and support needs of students
- Focused efforts of the Building Student Connection Team on student engagement and retention, including utilizing one of our AQIP projects
- First three-week initiative whereby everyone focuses on actions that help to connect students to the institution and take responsibility for their education
- Reduced the add period to 3 days for full-semester classes so that we don't have students starting classes long after their peers
- Added a freshman experience class for all first-year student athletes

Table 4 compares program completion rates of Wyoming community college students that are Hathaway scholarship recipients and the completion rates of the entire student population.

Table 4: Completion Rates for First-Time, Full-Time Community College Students

	Fall 2006 Cohort		Fall 2007 Cohort	
	All Students	*Hathaway Recipients	**All Students	***Hathaway Recipients
Number of First-Time, Full-Time Students	2244	825	2368	957
Completion Rates	34.2%	41.2%	30.4%	38.9%
*100%	397	192	429	241
*150%	654	307	720	372
*200%	767	340	****	****

Source: Integrated Postsecondary Education Data System (IPEDS)

*Percentage of normal completion time (for example 200% represents 4 years for an Associate of Science degree that normally takes 2 years to complete.)

**First-time, full-time students

***Number of first-time, full-time students that are Hathaway recipients

****200% completion rates for the 2007 cohort not yet available

Table 5 shows the number of first-time Wyoming community college students that were required to enroll in remedial courses.

Table 5: Enrollment in Remedial Courses

Fall 2006 Cohort								
All Students	Students Enrolling in Remedial Math Only		Students Enrolling in Remedial English Only		Students Enrolling in Both Remedial Math and English		Total Students Enrolling in Remedial Courses	
	Number	%	Number	%	Number	%	Number	%
2960	987	33.3%	216	7.3%	460	15.5%	1663	56.2%

Source: Complete College America Grant

Table 6 shows the number of 2006 first -time Wyoming community college students that went on to successfully complete the remedial courses.

Table 6: Success in Remedial Courses

Fall 2006 Cohort							
Students Completing Remedial Courses (Math Only)		Students Completing Remedial Courses (English Only)		Students Completing Remedial Courses (Math and English)		Total Students Completing Remedial Courses	
Number	%	Number	%	Number	%	Number	%
572	58.00%	149	69.00%	198	43.00%	919	55.3%

Source: Complete College America Grant

Table 7 shows the number of 2006 first-time students (who successfully completed a remedial course) that completed a college-level course in the same subject within two academic years.

Table 7: Successful Completion of College-Level Course in the Same Subject

Fall 2006 Cohort							
Students Completing Remedial Courses (Math Only)		Students Completing Remedial Courses (English Only)		Students Completing Remedial Courses (Math and English)		Total Students Completing Remedial Courses	
Number	%	Number	%	Number	%	Number	%
239	41.8%	84	56.4%	66	33.3%	389	42.3%

Source: Complete College America Grant

389 of the original 987 first-time fall 2006 student represents a college level course completion rate of 39.4% by those students starting in developmental education.

University of Wyoming

Over the past decade, the average ACT scores of incoming first-time full-time first year students has risen from 23.0 to 24.2. However, the fall-to-fall retention rate has fallen slightly, from 77% for students entering in 2001 to just over 73% for students entering in 2009. The retention rate for Wyoming residents is slightly higher than for the general student population (see Table 8). Nationally, the fall-to-fall retention rate for students entering college in Fall 2008 was 76.0% (www.HigherEdInfo.org, accessed Oct 3, 2011).

Table 8: Retention for First-Time First-year Students 2001-2010*Source: Banner Student Information System*

Year	Total # of students	Mean ACT score for all students	Fall-to-fall retention rate for all students	# of Wyoming Students	Mean ACT score for Wyoming students	Fall-to-fall retention rate for Wyoming students
2001	1422	23	77.0%	905	23.2	79.3%
2002	1451	23	74.1%	932	23.3	77.0%
2003	1397	23	76.9%	871	23.3	79.8%
2004	1503	23	73.8%	872	23.3	77.1%
2005	1407	23.1	74.6%	778	23.4	76.2%
2006	1552	23.4	74.0%	885	23.8	77.4%
2007	1627	24	72.5%	836	24.2	76.1%
2008	1681	23.9	72.1%	882	24.2	77.2%
2009	1576	23.9	73.1%	829	24	74.3%
2010	1458	24.2		792	24.3	

Four to six-year graduation rates are listed in Table 9. Only around a quarter of all UW students complete the baccalaureate degree within four years, but approximately half graduate within 5 years, and the 6-year graduation rate is 52.8% for students entering UW in 2004. The 6-year graduation rate matches the national average (www.HigherEdInfo.org, accessed Oct 3, 2011). The graduation rates for Wyoming students are higher.

Table 9. Four, Five, and Six-year Completion Rates for UW Students 2001-2010*Source: Banner Student Information System*

Year	Total # of students	% graduating in 4 years	% graduating in 5 years	% graduating in 6 years	# of Wyoming students	% graduating in 4 years	% graduating in 5 years	% graduating in 6 years
2001	1422	25.9	49.6%	55.3%	905	28.2	51.2	57.3%
2002	1451	22.7	43.8%	52.3%	932	23.9	47.1	57.1%
2003	1397	22.3	45.1%	54.9%	871	24.8	47	58.0%
2004	1503	22.3	45.1%	52.8%	872	24.7	47.2	56.4%
2005	1407	22.8	46.3%		778	24.9	50	
2006	1552	23.1			885	24.2		
2007	1627				836			

Factors that control college retention and completion rates include:

- Rigorous high school curriculum to ensure good preparation for college coursework;
- Financial aid in support of college attendance, tied to student performance;
- Student engagement in the university community, academically and socially;
- Student support programs, both federally and state-funded;
- Well-articulated transfer policies from community colleges to the university; and
- Streamlined, meaningful general education and major coursework.

Rigorous high school preparation. The most important factor in college persistence and graduation is high school preparation. In 1999, Clifford Adelman produced data to show the rational correlation between the highest level of math taken in high school with the rate of completion of the baccalaureate degree (Chart 5).

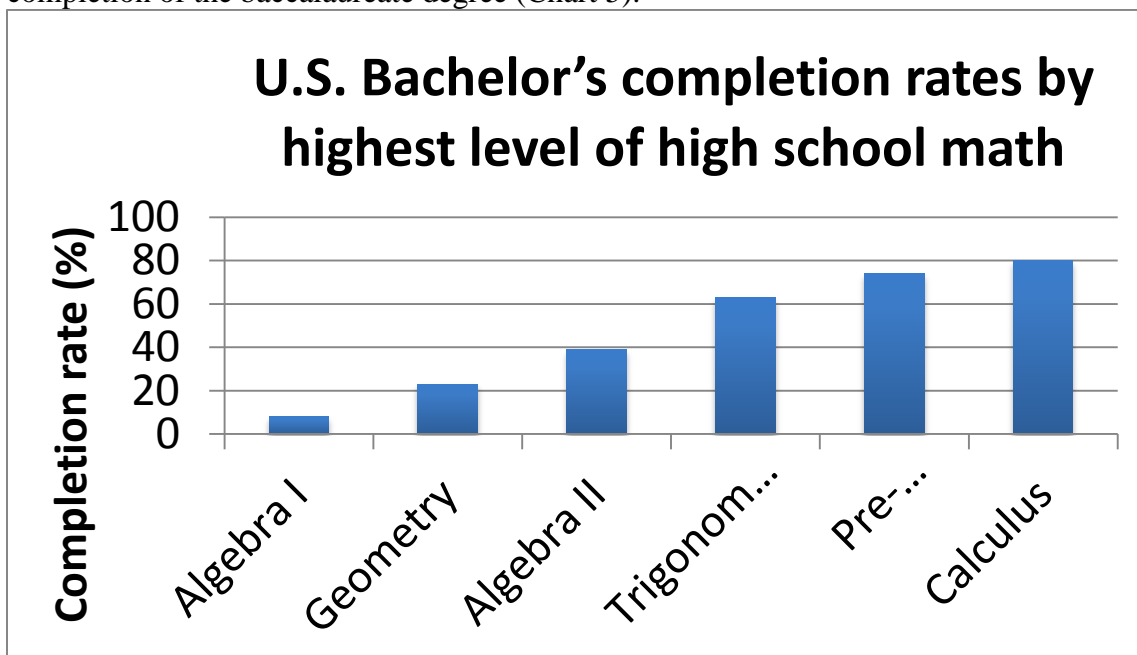


Chart 5. The percentage of students completing a bachelor's degree correlated with the highest level of math taken in high school. Source: Clifford Adelman (1999), *Answers in the Toolbox*.

UW data demonstrates a correlation between the highest level of high school math and college GPA at the University. An examination of high school transcripts for Wyoming high school students entering UW in 2010 showed that the higher level math students took in high school, the higher their GPA at the end of their first year at UW (Chart 6).

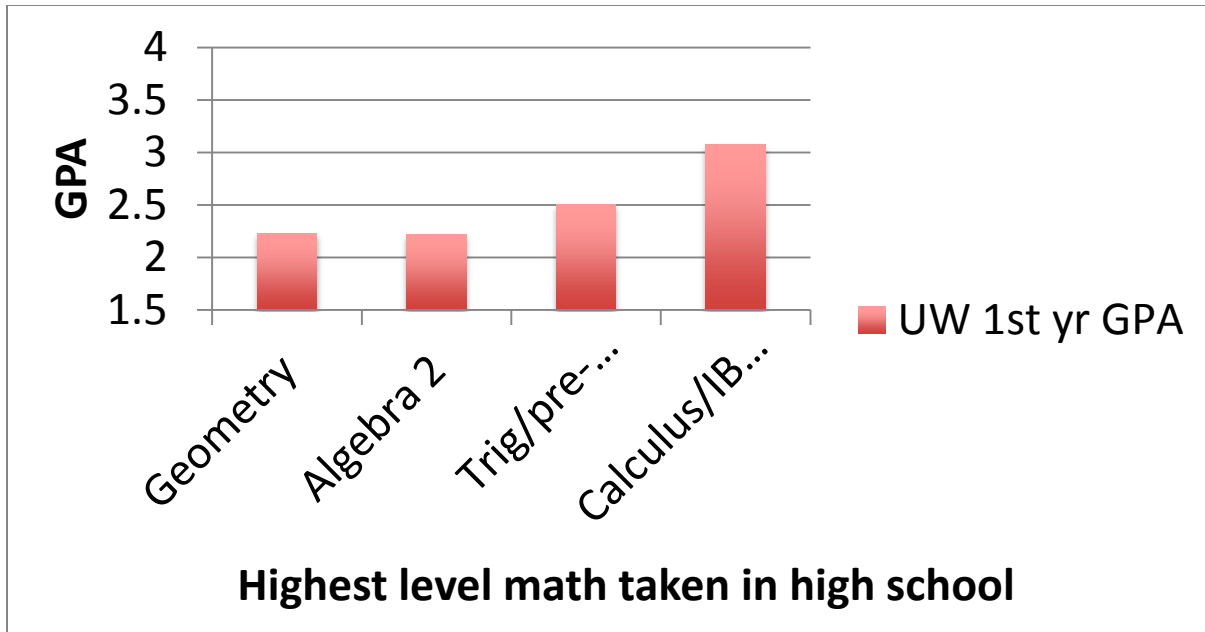


Chart 6. Students taking more than the Wyoming high school graduation requirements of Algebra 1, Geometry, and Algebra 2, earn higher first year GPAs at UW. Data from WDE and UW.

ACT college readiness reports show that ACT scores are correlated with the rigor of high school coursework; students who take a rigorous core curriculum score on average 3 points higher than students who do not take a strong set of courses (“The Condition of College and Career Readiness 2010”, ACT). UW students’ first semester academic performance is correlated with ACT scores (Chart 7). Students with lower ACT scores are more likely to be on academic probation after their first semester than are students with higher ones.

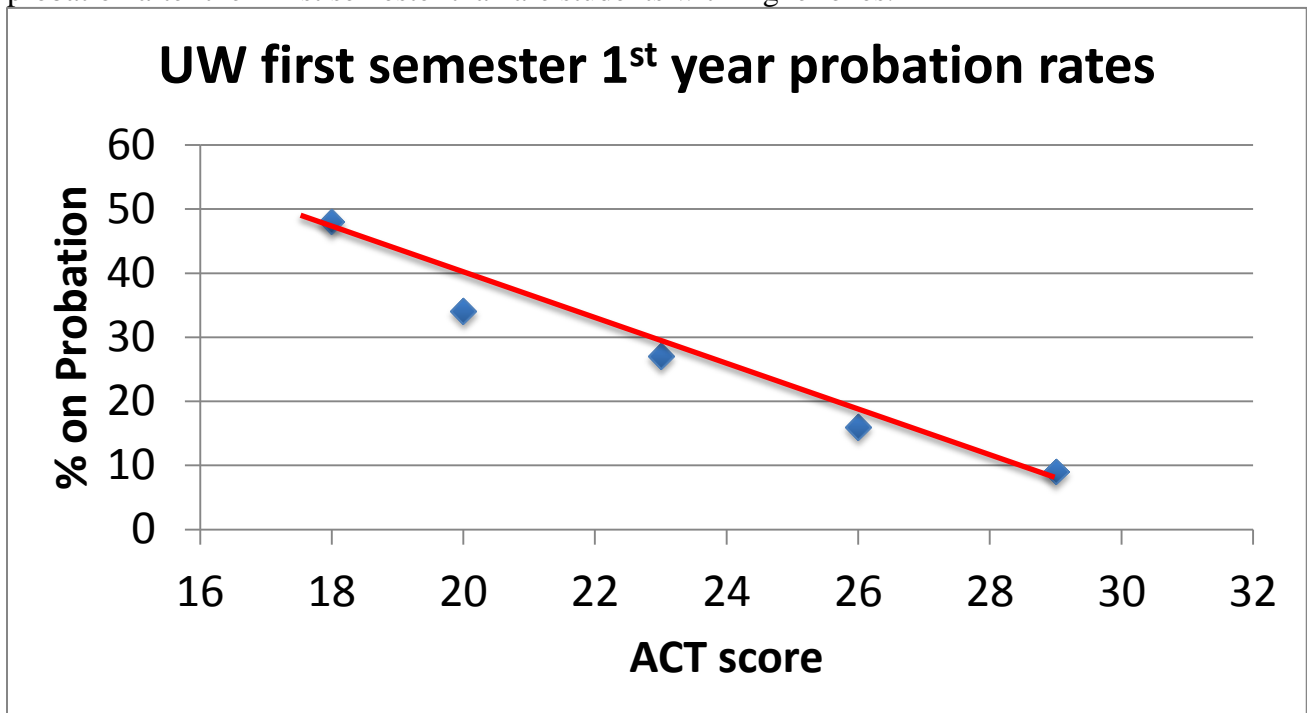


Chart 7. UW first semester, first year academic probation rates as a function of ACT score. Students are on

probation if they fail to achieve a GPA of 2.0 or greater. Data from UW Office of Institutional Analysis.

Financial aid tied to academic performance. Hathaway scholarships, along with other financial aid, make it possible for students to afford higher education. The ACT score is one component that determines the level of these scholarships. UW data shows that students with Performance and Honors scholarships earn higher GPAs during their first year at UW and are more likely to retain their scholarships than are Opportunity scholars (Chart 8). This again underscores the role of high school preparation in college success.

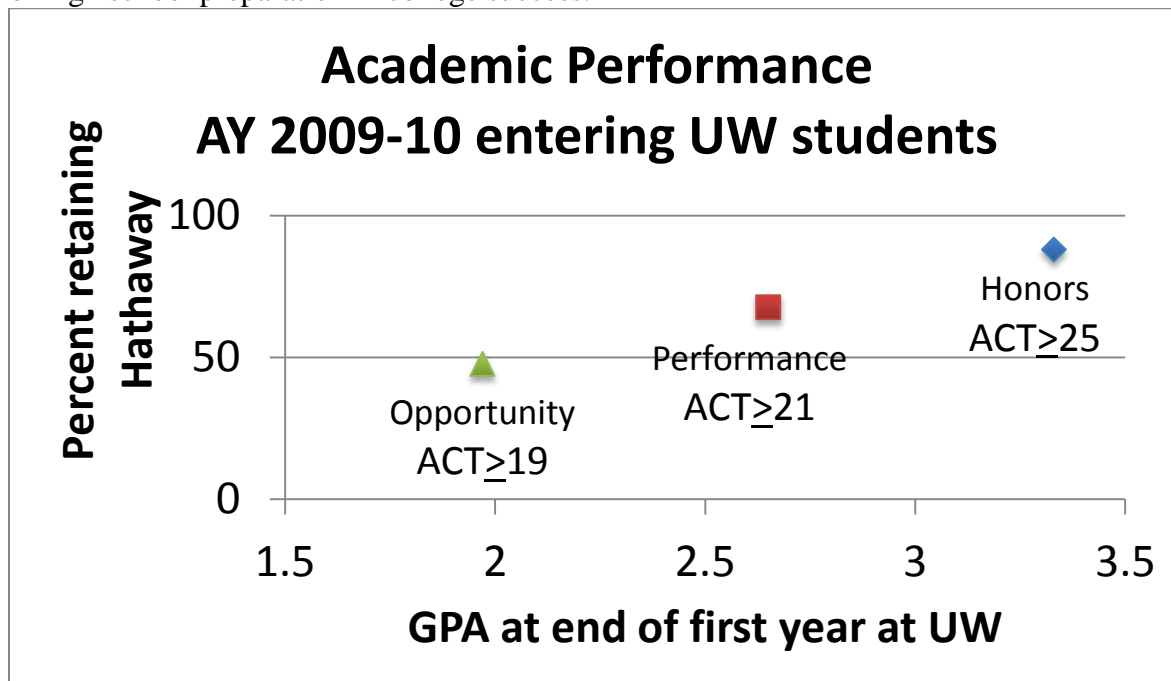


Chart 8. Academic performance of students holding different levels of Hathaway scholarships. Data from Wyoming Department of Education and UW Office of Institutional Analysis.

Student engagement. When students build community with faculty and their fellow students, they are more likely to persist in college and graduate. The McNair Program, in which eligible low-income, first-generation, or ethnic minority students engage in undergraduate research with a faculty member, is one example of a program that promotes academic engagement. Its success is measured by the unusually high number of participants that continue to graduate school - 69% of participants at UW as opposed to 16-23% of participants nationally who would be eligible for program services. (Chart 5 in the previous section).

Social engagement is also important, and UW has expanded its first-year orientation program to help new students make connections as they start their college careers. Something as simple as living in a residence hall has a positive impact on student retention (Chart 9).

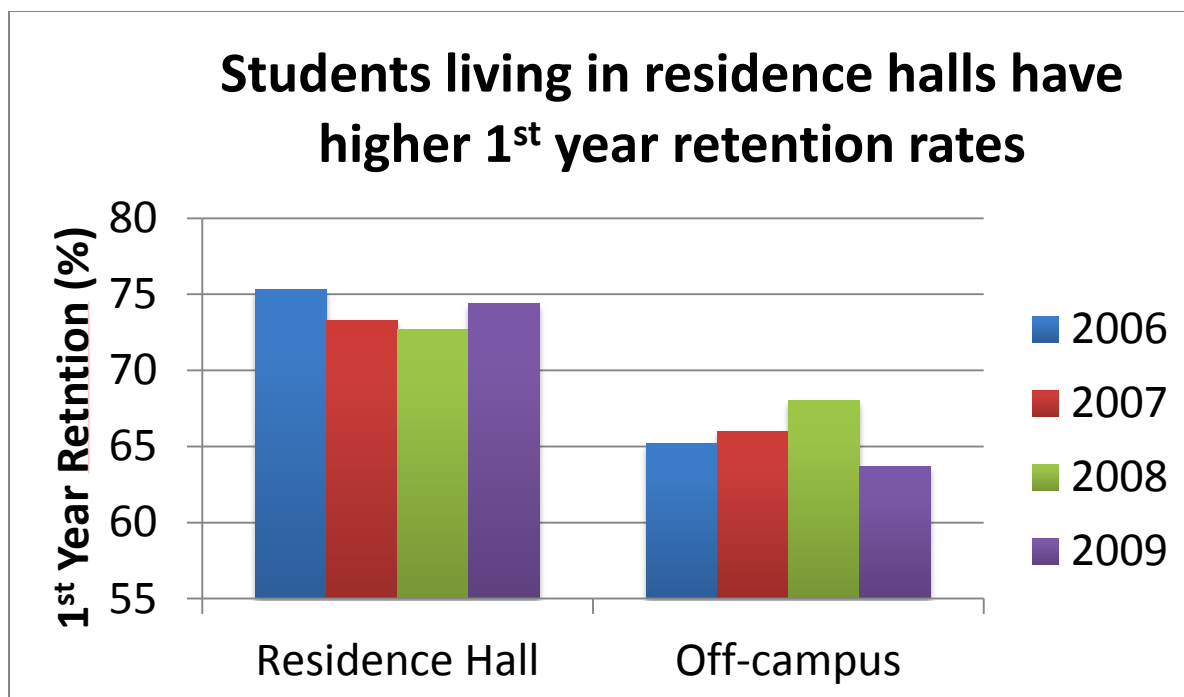


Chart 9. First-year retention rates for UW students living in the residence halls compared to those living off campus. Data from UW Office of Institutional Analysis.

Student support programs. These services are an important part of helping to retain students so they can complete college. These are described in detail in the previous section.

Well-articulated transfer policies. Ease of transferring from two-year to four-year institutions is an important factor in promoting baccalaureate degree completion. UW and Wyoming community colleges work together on articulation policies that facilitate transfer from one institution to another. Representatives from the Offices of Academic Affairs, Student Affairs, advising staff and others meet annually to review and update the Articulation Agreement between UW and the Wyoming community colleges. An important component of the agreement is the definition of a common general education core for all Wyoming state-funded institutions of higher education. This enables students to complete their general education requirements at a community college and transfer all those courses to UW.

Streamlined, meaningful general education and major coursework. UW is dedicated to the premise that the baccalaureate is a four-year degree, and that general education requirements should promote desired learning outcomes. UW is reviewing its current general education requirements with a view to proposing changes that streamline the curriculum, reduce the number of constraints on undergraduates (such as scheduling problems and lack of adequate choice in fulfilling requirements), and increase the simplicity and clarity of the system for students and their advisors. The first year of a two-year review has been completed; the second is underway and proposals will be submitted to the Office of Academic Affairs at the end of the current academic year.

Recommendations

Wyoming Community Colleges

The *Wyoming Community College Commission staff recommendation* is to implement the following three strategies that were committed to in the May 2011 Complete College America grant application:

1. **Using Diagnostics of Student Skill Levels beyond ACT or COMPASS Transition Scores** (See 21-16-1304, 2. (a), (i) above)

2. **Intrusive advisement**

Intrusive advising means intensive, frequent, regular, and intentional interaction to support students. Intrusive advising works primarily because of:

- more frequent contact with an advisor
- lessened financial worries as students and advisors explore all resources
- facilitated connections to retention services
- attention and interaction through referrals to student services

Specific activities would include creating an academic plan, developing individualized activities designed to enhance student success by eliminating barriers, proactively seeking appropriate resources, and identifying skills deficiencies and encouraging participation in appropriate intervention strategies. Students who attend Wyoming community colleges may share risk factors which can hinder their ability to be successful in college-level work. The primary consideration includes:

3. **Creating Programs, Interventions, and Initiatives to Address Specific Skills Deficit Areas**

The third area of focus develops a variety of strategies that are considered best practices to improve student retention and persistence to graduation. Wyoming community colleges have limited experience with some of these and would systemize implementation of the practices statewide.

- Bridge programs have a number of benefits including helping with the high school to college transition. Most Bridge programs have components of developmental skill attainment, learning the language of college, developing coping mechanisms, becoming aware of support services, and engaging in healthy social activities.
- Early alert systems which help advisors and others determine the level of risk for student retention and success will be further enhanced. Some colleges use MAP-Works (Making Achievement Possible) or similar programs which serve as early intervention tools, facilitate communication between faculty and staff, and help encourage positive behaviors.

- Pre-testing, developing, and utilizing study modules or study guides for specific skill gaps. These study modules would be taught in learning centers at the colleges and are designed as quick, intensive refreshers intended to help students brush up on “forgotten” concepts so that retesting could occur in a short amount of time.
- Developing personal pathways for all community college students must begin with the end in mind. Working closely with students in the advising process would include career and interest inventories, meaningful conversations, and ultimately creating productive life plans that include reasonable steps along the way coupled with the flexibility to encourage students to achieve their goals.
- Orientations and short topical seminars help students become aware of and access the available student and community support resources, and develop coping strategies and positive responses to bumps along their educational journeys.
- First-year courses, or freshman college success courses, facilitate a transition for students who may represent recent high school graduates, GED recipients, or returning adult students.
- Mentoring of students by not only their advisors, but peers and other college employees has been shown to improve students’ sense of “belongingness” to a college.

These best practice programs, interventions, and initiatives enhance the likelihood of students being retained in school, persisting to graduation, and following pathways that enhance their own personal and professional successes.

These strategies were developed in the process of assembling a grant proposal for the Complete College America competition mentioned earlier in this report .These three recommended success strategies form a framework for improving “time-to-degree” and course success rates for “at risk” Wyoming Community College students.

University of Wyoming

As noted previously in this report, adequate preparation for college is the most important factor in determining future success at UW. The University is presently holding town hall meetings around the state and talking with members of the state’s educational community about the knowledge and skills students should acquire in high school to be successful in higher education. These provide good opportunities to discuss the challenge facing the state – more students need to enter college (or a trade school or the military) and be successful in their academic pursuits in order to access good jobs. UW is also proposing to use these college readiness criteria (which is the success curriculum plus a 3.0 GPA and a 21 ACT score) to redefine its categories of admission, not only to highlight their importance, but to better identify those students entering UW who may need additional academic support to be successful.

If the Board of Trustees approves the proposal, no student who can enter UW now would be turned away. Instead, the University will have a better tool in determining which students

admitted to the University may require additional academic assistance. UW will match the student's individual needs with the appropriate support program, with many students likely getting the additional academic support from the Synergy program.

UW will re-prioritize funding within its block grant to provide the additional resources the Synergy program will need, as well as additional resources for tutoring, the writing center, math lab, oral communication center and other student supports noted in this report. The key is to reduce remedial rates by encouraging better preparation before entering a college or UW and increase retention and graduation rates by better identifying the academic needs of students when they enter UW.