ENHANCING STUDENT ENGAGEMENT: PROPOSED RECOMMENDATIONS TO IMPROVE STUDENT SUCCESS

Submitted by the Working Group to Improve Student Academic Success

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I. INTRODUCTION

A. Project Overview

In fall 2016, Colorado Mesa University (CMU) welcomed approximately 2,700 new undergraduates either as first-time-to-college or entering transfers, most of whom come with the intent of completing a degree or certificate. Most plan to pursue a baccalaureate degree, enroll full-time, and are 24 years old or younger. A significant proportion of each entering class possesses many, if not all, of the following attributes: a focus on a major that doesn't change after matriculation; academic preparation to enroll in collegiate-level courses; the desire to engage in the learning process both in and outside the classroom; an understanding of how to navigate institutional processes; support from family and/or friends who have experience with higher education; the motivation to stay on track toward degree completion; and the financial resources for full-time study.

For a substantial number of the University's students, however, one or several of the attributes of successful students in the above profile are missing. About half of incoming first-year students lack adequate academic preparation to undertake collegiate-level courses, undercutting their success in foundational courses. A lack of motivation, coupled with the erroneous assumption that the irregular study habits and extra-credit classroom practices that worked in high school will lead to success in a University environment, are major hurdles for some. For others, the ability to identify a major that leads to a desired career is a challenge, confounded by the many options from which they can select.

As a sub-population, first-generation students exemplify a group that often faces challenges placing them at greater risk for dropping out before achieving their academic goals. They need a clearly marked pathway to a degree/certificate and a connection to an advisor who can counsel them on accessing campus resources and discuss what a "normal" college experience is. They also can benefit from a fuller understanding of the value of participating in campus activities and the impact of their academic and financial decisions on their long-term success. Addressing many of these issues in the first year is key to a student's persistence and future success.

CMU's retention rate for first-time, full-time, baccalaureate-seeking students has shown significant improvement in recent years, exceeding the University's strategic planning goal of three percentage points over the five-year planning timeframe. For the Fall 2009 entering class, the rate was 65.9% and improved to 73.3% for the Fall 2015 cohort. Similarly, six-year graduation rates increased by 14 percentage points in that period, growing from 24% for the Fall 2005 students to 38.3% for Fall 2010 first-time, full-time entrants.

Notable as these gains were, the University seeks to continue improving rates that meet or exceed the national averages over the next five years, building on a sustained commitment to student success that began in 2010. The retention goal, reaching the national average for baccalaureate students at four-year public institutions, is 80% according to the National Center for Education Statistics. Because the national average six-year graduation rate of 58% is an unrealistic goal, CMU will pursue a graduation goal of 45% by the end of the five-year planning period.

At the community college, an increase of 14 percentage points has been set for first-year student success students pursuing an associate degree or technical certificate, in order to reach the national average of 61%. accompanied by raising the graduation rate from its current level of 12% to reach a goal of 22%, which is the national average for the 150% timeframe after entry.[1]

While much of this report focuses on first-time students, it should be noted that the University has given considerable attention and conducted extensive analyses of the short- and long-term success of other student subpopulations with the expectation that all will attain the overall level of success. Examples of analyses of these groups include students from under-represented groups, gender, first-time vs. transfers, degree type/level, with summary results in the tables found in Appendix A. It is noteworthy that the Colorado Commission on Higher Education recently recognized CMU as one of four institutions that have made significant gains in reducing the equity gap among underrepresented groups:

> When looking at individual institutions, some had much smaller or no
> equity gaps for specific subpopulations. . . . Among four-year institutions,
> CSU, CMU, UCCS, and Mines are selective or highly selective, which is
> described in the literature as being positively associated with graduation
> completion for Black and Hispanic students.[2]

When the Working Group to Improve Student Academic Success (WGISAS) 3.0 convened in August 2015, the characteristics/behaviors that students bring to their college experience dominated the discussions. As conversations evolved, however, a more holistic view of the student led to the discussion of factors such as motivation, commitment to their education, self-advocacy, and connectedness to others on campus as contributors to student success. Among the non-cognitive factors affecting a student's engagement in their education, however, one emerged as the over-arching variable for whether or not a student succeeds: student motivation.

The importance placed on motivation as part of student engagement and success was not only the product of the group-think but also was the result of reviews of research at other institutions, and a parallel data mining project by staff in the Office of Institutional Research on first-time, entering undergraduate characteristics and actions that predict the likelihood of a student being retained. The project's analyses resulted in a decision tree documenting that the motivation scale on the Learning and Study Strategies Inventory (LASSI) was the strongest predictor of success. So dominant was motivation that it had to be removed from many subsequent retention analyses in order to identify those that were less influential on predicting success.

This finding is hardly surprising. Motivation relates to how well-prepared students are in high school to undertake and complete college-level courses; how much commitment or tenacity, they

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[1] "Undergraduate Retention and Graduation Rates," *The Condition of Education*, (Washington, D.C.: National Center for Education Statistics, April 2017) 4 April 2017 https://nces.ed.gov/programs/coe/indicator_ctr.asp.

[2] Michael Vente, Sophia Laderman, and Melanie HeHerrera, "Student Capstone Research on Master Plan Goals," CCHE June Agenda, June 1, 2017, Agenda Item IV, A, p. 63) 30 May 2017 http://highered.colorado.gov/CCHE/Meetings/2017/june/June17_book.pdf.

have to learning and attainment their educational goal(s); how well they process choices and make decisions regarding courses, academic major, and finances; how willing they are to take advantage of the opportunities and support the institution offers; and how much they become involved in campus life and develop relationships with faculty and staff members and their peers that contribute to a sense of belonging to a community of learners and the desire to succeed.

Looking at these issues from the institution's perspective, the Working Group wrestled with the challenge of what steps CMU could take to improve the motivation and engagement of its students. As students balance the pursuit of their education with the demands of family and work, the process of engaging in a learning process, both in and outside the classroom, too often gives way for many students to the goal of acquiring a credential, much like one consumes a product. These changes are well-documented and illustrated by observations from Crone and MacKay:[3]

> While these students' frenzied schedules may create the impression that they are highly engaged in their college experience, in fact some students have created a rigid compartmentalization of many seemingly disconnected experiences. Rather than expend the time necessary to encounter new ideas, reflect, and make connections with their existing worldview, many of our students carefully budget the minimum amount of time necessary to allow them to achieve the grades they desire while fitting in as many other activities as they possibly can. As a result, students sometimes end up overwhelmed when something in their schedules shifts unexpectedly. But we can help students be more sensitive to how they use their time, and in turn, help them use their time to immerse themselves more fully in the experience of learning.

The Working Group recognized this shift in student priorities and declining motivation over the past several decades as context for the changes it recommended for the University to undertake. The challenge to WGISAS members, then, was how to expand opportunities for engaging CMU students and guiding their decision-making, all with the goal of increasing a student's chance of success. So. . . how might that be best pursued?

Over the past few decades, colleges and universities have created retention offices – most commonly named the Office of Student Success, Office of Student Engagement, or Retention Office – for the purpose of supporting students who were at risk of either stopping out from their studies for a while or withdrawing entirely. While well-intentioned, this approach gives the impression that retaining students is the responsibility of one or a few individuals on the campus. Undoubtedly, some students at those institutions have benefited from this assistance, but the overall impact of the one-office approach on student engagement or success has usually fallen far short of expectations.

Colorado Mesa's approach has followed a different pathway. It is built on a philosophy that student success is the institution's highest priority and the belief that it is everyone's responsibility to contribute to that goal. There is growing support nationally to shift from the one-office concept to

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[3] Ian Crone and Kathy MacKay, "Motivating Today's College Students," *Peer Review* (Winter 2007) 12 August 2016 <https://www.aacu.org/publications-research/periodicals/motivating-todays-college-students>.

one more similar to CMU's where student success results from collective efforts by faculty, staff, and students to work as partners in solving problems. This transition, perhaps, was best summarized in 2016 by Felten, Gardner, and others in *The Undergraduate Experience: Focusing Institutions on What Matters*:[4]

> Isolated actions, no matter how effective or purposeful, are not enough. Instead, a college needs a shared, aspirational vision for both student learning and for the institution's future. . . . That may seem a straightforward question for faculty and staff, yet it often goes unspoken on many campuses. And for some at our institutions, such as employees in the accounting office or in the building and grounds department, that question might seem bewildering. Colleagues might ask, how could I contribute to the educational mission of the institution if I only talk to students about their tuition bills or take care of campus facilities? From a student's perspective, however, everyone at the institution matters. If a student is worried about whether her tuition check has cleared or if the leak in her residence hall room is fixed, she may struggle to concentrate in the classroom. Our students' education is a shared responsibility for all of us on campus.

Colorado Mesa University is served by faculty and staff members who care deeply about helping students succeed, continually strive to better support undergraduates through effective interventions, and look for new and innovative ways to retain and graduate them. Yet much remains to be done. It is useful to periodically step back from day-to-day activities and give thought to what is working, what needs changing, and what steps should be taken to improve. Consider the following results based on CMU respondents to the 2016 National Survey of Student Engagement (NSSE) who were classified as seniors:

- 74% indicated that the University offered quite a bit or very much support to help students succeed academically;
- 77% responded that the University provided very little or some help managing non-academic responsibilities (work, family, etc.); and
- 44% talked about career plans with a faculty member either often or very often.

Results from the first-year NSSE participants showed similar perceptions: 83% thought the University provided help in academic areas but 68% found non-academic support in need of improvement. Meanwhile, only 29% had discussions about their career plans with a faculty member. Clearly there are opportunities in the area of educational planning that need further development to support student success.

Over the past 20 months, the Working Group of nearly 30 faculty and staff members from Colorado Mesa University and Western Colorado Community College met for the purpose of enhancing student success through two interrelated projects:

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[4] Peter Felten, et al., *The Undergraduate Experience: Focusing Institutions on What Matters.* (San Francisco: Wiley/Jossey-Bass, 2016) 10.

- reconsideration of various CMU policies, procedures, and processes that group members identified as having a bearing on student engagement and success based on questions such as:
    - What processes need updating?
    - Do changing student demographics require that some processes/activities be adapted?
    - How are external factors affecting institutional policies?
    - Does technology offer solutions that didn't exist five years ago?

- development of a software product, Ellucian's CRM Advise (initially named Pilot), that can 1) aid in identifying students at greater risk of dropping out of school; 2) support a more integrated approach to advising; and 3) develop more personalized communications with all students. Specifics related to this component of the WGISAS project are found later in this report.

With these project goals in mind, the initial WGISAS task was to respond to two sets of questions:

1. From your vantage point, what are the student characteristics/behaviors that affect student retention and graduation, either positively or negatively?"

2. "What University initiatives/activities/processes/policies (or whatever else) are having a positive or negative effect on student retention and graduation?"

That approach was based on an underlying basic assumption that success, measured as retention and/or degree/certificate completion, is a function of a two-part relationship between a student and Colorado Mesa University (CMU). Each brings resources and expectations to the relationship, and both have obligations to fulfill if a student is to succeed in reaching his/her educational goals. Obviously, though, to increase the likelihood that a student will be successful, a holistic approach to student development is required, one that takes into account a complex set of interrelated cognitive and non-cognitive variables.

Like any successful relationship that results in degree completion, both partners – the institution and the student – have to be committed to the same outcome. Intrinsic characteristics of students and some personal circumstances clearly are beyond the control of an institution, but others are factors that educators can influence. Control of the teaching/learning processes and supporting students with high quality advising, however, are the two top priorities of the University that it can influence. Institutions can adjust policies and practices as needed to improve students' decision-making affecting their success. It also can expand advising tools - such as Ellucian CRM Advise - that aid in identifying those more at risk of not succeeding and supporting intensive, continuous communication and interventions. The results of the Working Group's four-semester reviews and deliberations are now being distributed to the broader campus community for feedback before the proposed recommendations are forwarded to the President.

B. Proposed Recommendations
What follows is a list of the proposed recommendations for improvement from the Working Group, organized around four key themes that emerged from the discussions on student motivation, engagement and success. The four points serve as the organizing structure for the review of research on student success in Section IV as well as the proposed improvements in Section V.

1. **Preparing academically and psychologically for college-level coursework.**
   a. Educate incoming students during student orientation on the differences between high school and university expectations.
   b. Encourage faculty to provide students with specific recommendations on *how much* study time they need to spend outside of class on a particular course and on *how to use their study time* most effectively to succeed in the course.
   c. Ensure that students have taken the appropriate prerequisites for their courses
      1) Close any loopholes that enable them to stay in a course when they have not received passing grades for the associated prerequisite.
      2) Create reports for academic departments to respond to student demand for course offerings using the unduplicated number of students on the waitlist.
   d. Encourage faculty to communicate with their students at strategic points during the semester to help students self-assess their success in learning as well as their learning needs.
   e. Explore the viability of creating a math studio for students that is similar to the writing studio.
   f. Develop and pilot a MATC topics course to assist students in progressing more quickly from 090 to 091.
   g. Restrict students from developmental education courses online and all online courses in their first semester except for those students who are enrolled fully online.
2. **Encouraging use of campus resources that support developing tenacity in students to persist and succeed.**
   a. Require one significant assignment or test which is graded and given back to students before four weeks into the semester.
   b. Reconfigure the current five- and eight-week Early Alert System.
   c. More fully integrate the services available from Tomlinson Library staff that support development of skills that enhance students' academic success into courses at all levels.
3. **Guiding student decision-making through structured choices and better communication.**
   a. Offer educational planning resources and tools early in a student's academic career to assist them in moving forward with selecting a major.
   b. Make faculty contact information available more broadly.
   c. Create a MAVzone self-serve channel for students to request a change of their degree, major, or minor.
   d. Email all waitlisted students the day before the term starts with instructions to encourage enrollment in alternative classes that are still open.
   e. Add a MAVzone channel for academic standing to help students on probation and suspension understand their academic status.
   f. Create interventions for students on probation to help them avoid being suspended.
   g. Adjust the text in the probation/suspension section of the CMU catalog to reflect the current appeal process.
   h. Communicate with students who submit a suspension appeal giving more information on the timeline and processes.
   i. Develop a metric for inclusion in the Ellucian CRM Advise student profile that monitors the percentage of hours earned toward a baccalaureate degree and the proportion of disbursed financial aid.

   j. Develop a metric for inclusion in the Ellucian CRM Advise student profile that is

a calculation of the proportion of the 24 most recently earned credit hours that apply to the student's declared major.

   4. Building a network of relationships that contribute to a student's sense of belonging on campus.
      a. Pilot a Holistic Student Engagement Program.

VI. Recommendations for Faculty Professional Development Related to WGISAS Proposals and Faculty Discussions on Program-specific Issues Potentially Affecting Retention

   A. Professional Development
      1. Offer faculty development "Best Practices" sessions for faculty that focus on feedback on student performance.
      2. Offer training sessions for faculty and staff members on the use of Ellucian CRM Advise.
      3. Offer faculty library services sessions focusing on incorporation of information literacy across the curriculum for faculty professional development.
   B. Faculty Conversations
      4. Increase communication among developmental education stakeholders.
         a. Increase articulation and communication between developmental stakeholders.
         b. Provide in-service and education for instructors, advisors, and students on the place and point of developmental education at the University.
         c. Redesign the English studio course to fit more in line with current pedagogical scholarship and the writing studio model.
      5. Request that academic programs review requirements for the possibility of freeing up three elective credits that could be fulfilled by UNIV courses.
      6. Review all courses with in-person vs. online delivery formats for pass rate differentials of more than 20%.
      7. Regularly assess the number and breadth of online Essential Learning courses to ensure sufficient offerings (particularly in summer).

II. METHODOLOGY

The current WGISAS effort began in August 2015 as an extension of the work begun in 2010 by the earlier Working Group to Improve Academic Student Success. The recommendations made in WGISAS 1.0 focused largely on a set of academic issues faced by first-time undergraduates that were implemented over the following year as part of WGISAS 2.0. These changes focused particularly on the need for placement in the basic skills areas and have been major contributors to CMU's steadily improving retention and graduation rates described in the next section of this report.

The proposal that most likely had the greatest far-reaching effect on improving retention rates, however, was the creation of the Office of Student Success (OSS) in 2013. Its staff members enforced broad curricular boundaries, developed by WGISAS faculty members and Academic Department Heads, and implemented intrusive advising for students admitted with a provisional baccalaureate (PB) status.[5] The positive outcomes of this initiative are shown in the data found in Table 1.

Table 1. COMPARISON OF CMU STUDENTS' SUCCESS FOR BACCALAUREATE- OR PROVISIONAL BACCALAUREATE-SEEKING ENROLLEES IN FALL 2010 - 2015

Note: All terms for classifying provisional baccalaureates were based for consistency of comparison on the fall 2013 index range of 80 - 91.

a. Fall to Spring Retention Rates

Admission Status	Students Enrolled in Fall -					
	2010	2011	2012	2013	2014	2015
Provisional	82%	78%	80%	81%	86%	86%
Baccalaureate	89%	88%	85%	87%	87%	88%

b. Term-by-term Retention

Admission Status	Entering Fall Term	Initial #	1st Spring	2nd Fall	2nd Spring	3rd Fall	3rd Spring	4th Fall	4th Spring
Provisional	2010	305	82%	47%	44%	35%	32%	31%	29%
	2011	378	78%	52%	43%	39%	36%	32%	29%
	2012	367	80%	48%	43%	35%	32%	30%	29%
	2013	397	81%	54%	44%	37%	35%	29%	
	2014	321	86%	60%	53%	40%			
	2015	382	86%	62%					
Baccalaureate	2010	904	89%	67%	62%	54%	53%	48%	45%
	2011	1059	88%	66%	61%	54%	50%	46%	43%
	2012	1003	85%	67%	64%	56%	54%	50%	49%
	2013	1127	87%	66%	62%	56%	54%	50%	
	2014	1069	87%	69%	65%	58%			
	2015	1222	88%	73%					

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[5] CMU students were admitted provisionally beginning in 2010, but limited academic support was targeted for this admission group. Participation in mandatory course material aiding with the transition to college, study skills, exploring careers and majors, and managing time and finances were coupled with restrictions on the number of hours in which a student could enroll and with meetings with staff and peer advisors.

Note: All terms for classifying provisional baccalaureates were based for consistency of comparison
 on the fall 2013 index range of 80 - 91.

c. Average First Term GPA

Admission Status	Students Enrolled in Fall -					
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Provisional	1.86	1.83	2.14	2.14	2.20	2.26
Baccalaureate	2.66	2.71	2.77	2.81	2.78	2.89

d. Term-by-term Cumulative GPA

Admission Status	Entering Fall Term	1st Fall	1st Spring	2nd Fall	2nd Spring	3rd Fall	3rd Spring	4th Fall	4th Spring
Provisional	2010	1.88	1.93	2.37	2.36	2.53	2.59	2.63	2.68
	2011	1.86	1.97	2.27	2.46	2.38	2.49	2.52	2.63
	2012	2.19	2.19	2.35	2.44	2.49	2.58	2.65	2.69
	2013	2.23	2.27	2.45	2.49	2.53	2.65		
	2014	2.32	2.28	2.45	2.52				
	2015	2.36	2.37						
Baccalaureate	2010	2.70	2.76	2.95	3.02	3.09	3.12	3.18	3.20
	2011	2.74	2.78	3.00	3.05	3.11	3.15	3.18	3.21
	2012	2.82	2.93	3.08	3.12	3.18	3.21	3.23	3.25
	2013	2.86	2.96	3.11	3.13	3.19	3.21		
	2014	2.83	2.94	3.14	3.16				
	2015	2.94	3.01						

e. Average Percent Hours Passed First Term (C or better)

Admission Status	Students Enrolled in Fall -					
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
Provisional	57%	56%	67%	70%	68%	74%
Baccalaureate	78%	79%	81%	82%	81%	84%

f. Term-by-term Credit Hours Accumulated

Admission Status	Entering Fall Term	1st Fall	1st Spring	2nd Fall	2nd Spring	3rd Fall	3rd Spring	4th Fall	4th Spring
Provisional	2010	13.6	25.7	39.0	49.0	62.1	74.6	85.3	98.6
	2011	13.5	26.2	38.3	49.2	58.4	70.0	80.8	94.1
	2012	13.5	26.3	38.9	49.5	61.0	72.8	84.3	96.4
	2013	12.7	24.6	37.8	49.5	61.4	72.9		
	2014	12.7	24.3	37.4	47.7				
	2015	13.2	25.6						
Baccalaureate	2010	17.5	31.4	45.6	59.0	72.2	84.8	98.5	109.9
	2011	17.3	30.7	45.5	58.4	72.4	85.7	98.8	111.6
	2012	17.3	31.4	46.2	59.2	73.2	86.6	99.9	111.2
	2013	18.0	32.3	47.3	60.9	74.6	87.8		
	2014	18.2	32.4	47.3	60.3				
	2015	18.3	32.9						

Cohorts entering since fall 2013 now reflect a fall-to-spring retention rate within two percentage points of that for fully-admitted baccalaureate students. For the timeframe that the provisionally-admitted students are associated with the OSS staff, improvements are seen in retention. Once these students are moved out of the program, the data do not reflect the same gains. Beyond retention metrics, however, the PB students are earning higher grade point averages and passing a larger proportion of their courses with a grade of 'C' or higher. Because there are limits on the number of hours in which PB students can enroll while they are in the program, they do not accumulate earned credit hours as quickly as baccalaureate-seeking students, but they are within a year of completing their degree by their fourth spring term.

Fast forward to August 2015 when the twenty-five member WGISAS 3.0. began meeting twice monthly for two interrelated purposes: 1) recommending changes to policies and procedures that would improve student success; and 2) developing the software product Ellucian CRM Advise described later in this report. This cross-functional group was comprised of faculty members and staff representatives from Academic Affairs, Academic Departments, Information Technology, Student Services, Advising, Student Success, Institutional Research, Financial Aid, Registrar, Finance and Administration, Intercollegiate Athletics, and Western Colorado Community College. Along the way, a few members left the institution and others joined at the mid-point.

As noted earlier, the group began with responses to the two questions noted above:
1: "From your vantage point, what are the student characteristics/behaviors that affect student retention and graduation, either positively or negatively?"
Responses identified as increasing the likelihood of students being more at-risk clustered into four major groups, with some appearing in multiple categories. Also noted are examples of the negatives that the Working Group believed could be addressed by the University:

- Student Background/Preparation (e.g., unmotivated/apathetic/passive; poor academic performance; lack of career/major direction; lack of understanding the difference between college level and high school expectations);
- Study Habits/Commitment to Education (e.g., need to develop resiliency; lack of self-discipline; poor attitude toward learning; disorganized/no planning or time management skills);
- Accesses Support Services/Asks for Help (e.g., difficulty with self-advocacy; lacks connection with major; fails prep or gateway courses; inability to cope or solve problems on their own; not meeting with advisor regularly; intimidated by FAFSA and financial aid);
- Campus Involvement/Connectedness (e.g., fail to connect with professors and peers; need for get involved in campus clubs/activities).

2: "What University initiatives/activities/processes/policies (or whatever else) are having a positive or negative effect on student retention and graduation?"
For each entry, members noted if the item targeted a specific student group, what were indications of success, what were indications of issues/need for change, and if the effort could be improved, how? In no particular order, the responses were initially grouped around functional areas or activities:

- Student Success
- Early Alert
- Instruction-related
- FYI/SUPP 100
- Advising/Tutoring/Career Services

- Advising and Athletics
- Student Orientation
- Financial-related/Employment
- Student Services
- WCCC/Developmental Education

A perusal of the more detailed responses in Appendix B shows they were many and varied, and while they could have been grouped in other ways, the categorization was simply a means of organizing the "group-think." Working Group member perceptions were balanced with data analyses to clarify factors that were predictors of student retention at CMU. Two decision trees guided the group's work and the scoring plan used as part of the software development. While the group examined an extensive amount of quantitative and qualitative data, only a few of the tables are included in this report.

The Working Group was also guided by the University's learning outcomes, information on best practices, as well as supplementary data and information from research by other institutions. The first round of discussions yielded 43 potential recommendations; for a few, the group could not reach agreement and they were dismissed. During WGISAS 4.0 (Academic Year 2016-17), the group reevaluated and refined the remaining recommendations in terms of how these ideas could/should be implemented by CMU, again leading to a culling of the proposals that were unlikely to be so. It also considered the implications of a change on an existing policy or procedure, in addition to potential effects on staffing and budgets, before making the final recommendations.

III. AN OVERVIEW OF CMU STUDENT SUCCESS

Approximately one-third of CMU's first-time students are beginning an academic pathway not experienced by their parents which, as noted earlier, can be a disadvantage to their ability to navigate college processes and understand expectations. Others are the primary wage-earners in their household who try to balance school with work and family demands. And none of these issues speak to social pressures, mental health issues, and other distractions that can delay, if not derail, students from progress to degree completion. Few students deal with only one of these issues, but rather, many students, like those on other campuses, are coping with a mix of life issues that can reduce the likelihood of earning a college degree. Table 2 presents examples that illustrate how much of an effect some of these scenarios have on CMU first-time undergraduates[6] continuing from their first fall semester to the next spring.

Table 2. HOW SPECIFIC VARIABLES AFFECT CMU STUDENT SUCCESS:
PREDICTING RETENTION FOR STUDENTS ENTERING IN
FALL 2013, 2014, OR 2015 TO THE FOLLOWING SPRING SEMESTER

Variable	Response by Headcount	Success 2nd Term				Difference
		No		Yes		
		#	%	#	%	
In Developmental	No	504	14.3%	3,013	85.7%	
Educ Courses	Yes	600	22.8%	2,032	77.2%	**-8.47%**
First Generation	Not First Gen	414	13.9%	2,568	86.1%	
	First Generation	654	21.5%	2,383	78.5%	**-7.65%**
	Unknown	36	27.7%	94	72.3%	
Rec'd Academic	No	1,041	20.2%	4,114	79.8%	
Scholarship	Yes	63	6.3%	931	93.7%	13.86%
Rec'd Scholarship	No	872	22.2%	3,050	77.8%	
	Yes	232	10.4%	1,995	89.6%	11.82%
Rec'd Pell Grant	No	654	17.0%	3,186	83.0%	
	Yes	450	19.5%	1,859	80.5%	**-2.46%**
Rec'd Work-	No	1,068	18.9%	4,579	81.1%	
Study	Yes	36	7.2%	466	92.8%	11.74%
Rec'd Fin Aid	No	305	28.4%	768	71.6%	
	Yes	799	15.7%	4,277	84.3%	12.68%

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[6] Based on the total number of first-time CMU entering undergraduates in Fall 2013, 2014, and 2015.

Colorado Mesa University's situation is far from unique. A 2016 report from the National Student Clearinghouse Research Center[7] reported the following:

> In fact, the Complete College America (2014) report revealed that less than 50 percent of full-time students graduate within four years at public four-year institutions. The proportion of "on time" graduation at community colleges was even lower, with only 5 percent of students who started out with full-time course loads graduating with an associate degree within two years.

University faculty and staff members share a deep commitment to continuously identify ways to improve student success, reflected in efforts to enhance student learning, engagement, retention, and/or graduation. Below is a list of steps taken in recent years that illustrate the University's on-going commitment to student success:

- Virtually every academic department offers a variety of opportunities for students to apply their learning through experiences such as capstone projects, undergraduate research, and/or internships.
- A transition-to-college course has been a student option for several decades.
- Academic departments have implemented retention strategies that, in general, fall into at least one of the following categories: strengthening advising; clarifying pathways to graduation; enhancing connections with faculty and staff; making connections with other students; accessing academic and student support services; communicating with students through the use of technology; expanding student engagement; and understanding more about students.
- Academic program overviews document and explain curriculum to students to expand an understanding that programs of study are intentional, coherent, and cumulative.
- Program sheets for all majors are available online and convey clear pathways, recommend course sequencing, and describe what can be done with a major.
- Degree Works software was implemented to strengthen advising and better communicate a student's progress to degree.
- More intrusive advising was initiated by the Office of Student Success for students admitted as provisional baccalaureates. More recently, the community college division has implemented a parallel program for those pursuing two-year degrees or certificates.
- Options for course placement in Mathematics and English were implemented and a Writing Studio was implemented that reduces students' investments of time and money in developmental education coursework.
- Most baccalaureate majors can be completed in 120 credit hours, with exceptions where program accreditation requires additional hours.
- Guaranteed transfer (i.e., gtPathways) courses are clearly designated in the CMU Catalog so students know which courses are accepted by other Colorado public institutions of higher education.

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[7] D. Shapiro, et al., *Time to Degree: A National View of the Time Enrolled and Elapsed for Associate and Bachelor's Degree Earners, Signature Report No. 11* (Herndon, VA: National Student Clearinghouse Research Center, 2016) 3.

- Statewide articulation agreements coordinated through the Colorado Commission on Higher Education (CCHE), in addition to those negotiated with other institutions, are in place.
- Transfer equivalency software informs potential incoming transfer students of the acceptance of their credits by CMU; and
- Financial aid and financial literacy counseling is available.

Because of these collective efforts, CMU has made significant gains in improving the retention of students as measured by the federal cohort definition of first-time, full-time, baccalaureate-seeking students. The University has seen the proportion of its entering cohort that returned for a second year steadily climb from 53.6% for the Fall 2004 entering class to an all-time high rate of 73.5% for those who began in Fall 2015 (Figure 1).

Figure 1. FIRST-YEAR RETENTION RATE FOR FIRST-TIME, FULL-TIME, BACCALAUREATE-SEEKING STUDENTS ENTERING FALL 2004 THROUGH FALL 2015

Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015
56.2%	53.6%	60.4%	61.0%	63.1%	65.9%	64.4%	64.6%	65.2%	66.1%	70.0%	73.3%
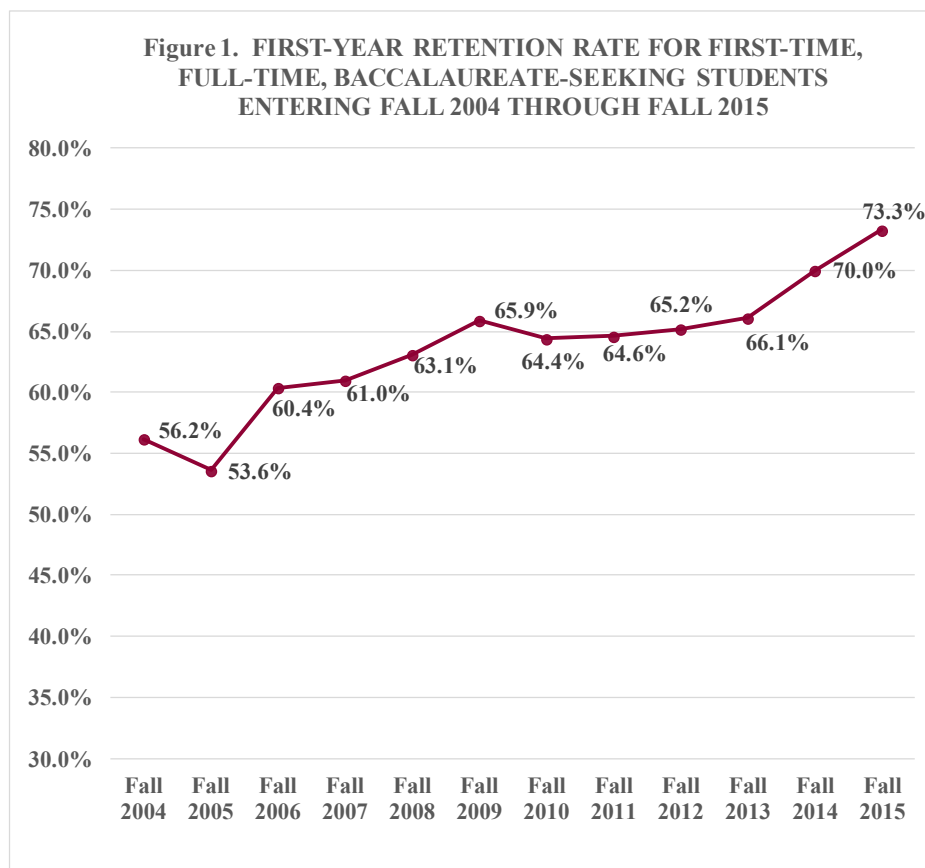
The first-year success rates for students classified for admissions purposes at the sub-baccalaureate level reflect a mix of increases and decreases over time (Figure 2). Success for these students is measured by either being enrolled or having completed an award one year after entry. Certificate-seeking students showed the greatest overall improvement except for those entering in Fall 2013. Rates for students pursuing either the Associate of Applied Science, Associate of Arts, or Associate of Science degrees showed the greatest inconsistency over the six cohorts. Finally, with the implementation in 2013 of the Office of Student Success providing more intrusive support to provisional baccalaureate students, that group has showed a steady improvement in retention rates.

Figure 2. FIRST-YEAR SUCCESS RATES OF FIRST-TIME, FULL-TIME, CERTIFICATE- AND ASSOCIATE-SEEKING STUDENTS ENTERING IN FALL 2010 THROUGH FALL 2015
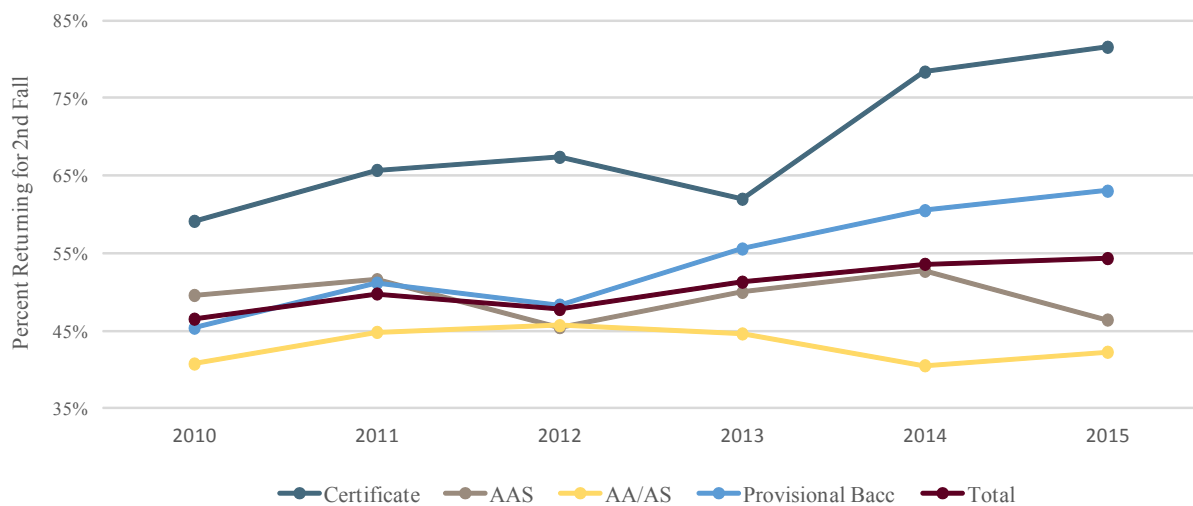
Students are counted as retained if they returned for the subsequent fall or completed their degree/certificate by the end of the subsequent fall.

The generally upward trend in retention is largely due to on-going commitment of the University's faculty and staff to student success as the institution's top priority. The longer-term effects of stronger first-year retention are extending to an increase in continuing students and having a positive impact on graduation rates (Figure 3). Four years after beginning, as an example, only 15.4% of the Fall 2009 entering cohort earned a baccalaureate degree. With the addition of those who completed over the two subsequent years, the six-year graduation rate for those earning baccalaureate degree rose to 37.2%. Overall, there has been an upward gain in six-year rates from a low of 24.9% for the Fall 2005 cohort to 35.8% for the most recent cohort completing six years.

Figure 3. SIX-YEAR GRADUATION RATE FOR FIRST-TIME, FULL-TIME, BACCALAUREATE-SEEKING STUDENTS ENTERING FALL 2004 THROUGH FALL 2010
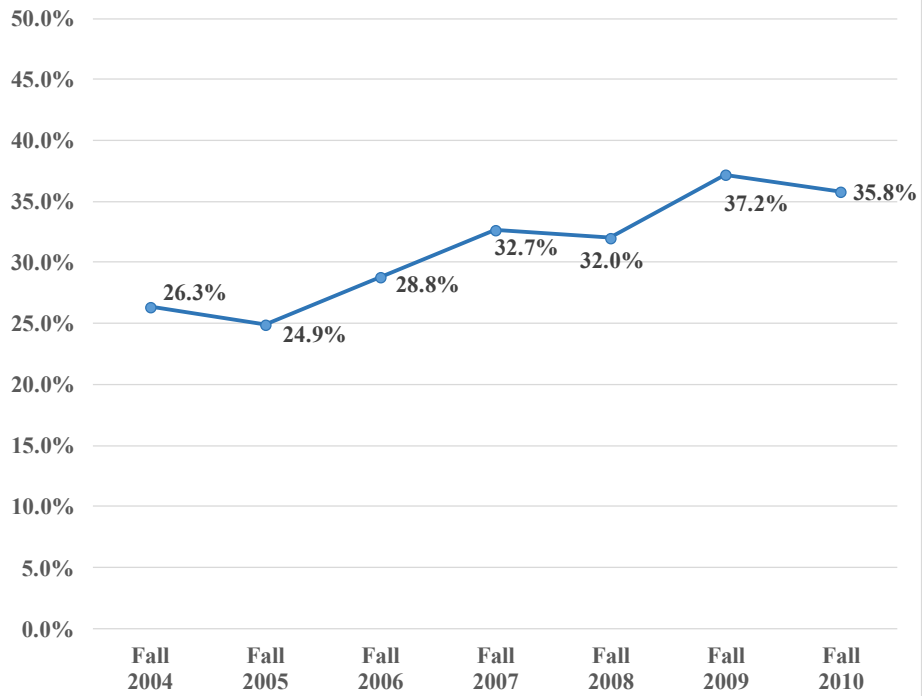
IV. A BROADER PERSPECTIVE ON STUDENT SUCCESS

By using a holistic view of student development, the Working Group's discussions included both cognitive and non-cognitive factors for a fuller understanding of student engagement and its effects on success. Further, this approach also meant taking into account curricular and co-curricular activities that can lessen a student's risk level for dropping out of school.

As observations about CMU students were shared, the question posed periodically by individual members was one of how consistent the University's experiences were with those at other institutions. A brief review of higher education research, literature and reports documented that there are many similarities in students' behaviors between CMU and those at other public colleges and universities that can positively or negatively affect the likelihood of student persistence to degree completion. Coupling the findings of those reviews with WGISAS discussions led to this section's organization around four broad, recurring themes related to student engagement and success.

A. The Need for Student Preparation and Motivation

Clearly academic preparation (or the lack thereof) plays a significant role in the success of a student, but the ability to succeed in college-level courses can be greatly enhanced by adopting new habits appropriate to college coursework and addressing academic deficiencies. In a 2016 interview, Anton Reece from the University of Tennessee succinctly captured the challenges of underpreparation as a roadblock to student success.

> Three of the most significant roadblocks to overcome include an honest assessment and awareness of their level of college readiness, underestimating the significance of effective study strategies and time management, and seeking and accessing academic assistance in a timely manner.
>
> Some incoming first-year students assume that their high school study habits and academic success equates to similar success in college. However, the increased rigor and depth of college level work, the amount of reading, math and writing expectations, are among the roadblocks students face during the college transition. Because students tend to rely on their prior study routine and habits, they are often less likely to see the need or seek out timely academic assistance. Ultimately they wait until it is too late to reach out and this negates successful intervention. . . . I can confidently state that student expectations and their habits they bring to college do not always align. . . .[8]

Colorado Mesa faculty members concur with Reece, based on their responses from the 2016 Faculty Survey of Student Engagement (FSSE) and the National Survey of Student Engagement (NSSE).[9] Among the FSSE and NSSE questions, responses to several items are relevant to the current

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[8] Anton Reece, "Improving Pathways to Persistence and Success," *Evolllution* 28 June 2016 <Evolllution.com/attracting-students/retention/improving-pathways-to-persistence-and-success/>.

[9] Note that faculty members and students at Western Colorado Community College did not participate in this survey, but rather participated in the Community College Survey of Student Engagement.

discussion on the need for preparation, both in high school and for courses in which they enrolled in college. The results are summarized in the following table. One of the biggest classroom challenges facing faculty members today is student underpreparation. Whether it is because materials have not been reviewed prior to class meeting, and/or students lack the high school preparation to do college-level work, and/or have yet to develop their non-cognitive skills, faculty members and students perceive preparation very differently.

Table 3. CMU FACULTY AND STUDENT RESPONSES TO SELECTED QUESTIONS FROM THE FACULTY SURVEY OF STUDENT ENGAGEMENT AND THE NATIONAL SURVEY OF STUDENT ENGAGEMENT

Item A:								
FSSE Item: Course Engagement	*Class Level*	*% Very Imp. or Important*	*NSSE Item: Course Engagement*	*Class*	*% Very Often*	*% Often*	*% Sometimes*	*% Never*
Percentage of faculty who reported that it is important that the typical student do the following in their selected course section:			**Distribution of student responses to:** *About how often have you done the following during the current school year?*					
22c. Come to class having completed readings or assignments	LD	92	1c. Come to class without completing readings or assignments	FY	7	10	47	36
	UD	97		SR	5	8	57	29
Item B:								
FSSE Item" Time Spent by Students	*Class*	*% 16 or more hours*	*NSSE Item: Time Spent by Students*	*Class*	*0-5 hours %*	*% 6-15 hours*	*% 16-25 hours*	*% 26 or more hours*
Percentage of faculty who think the typical student in their selected course section spends 16 hours or more on each of the following in an average 7-day week:			**Distribution of student responses to:** *About how many hours do you spend in a typical 7-day week doing the following?*					
20a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	LD	5	15a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	FY	8	46	33	13
	UD	4		SR	12	40	30	18

Source: FSSE-NSSE Combined Report, Colorado Mesa University, 2016

Regardless of class level being upper or lower division, nearly all CMU faculty members indicated that students should come to class prepared. Only 36% of first-year students and 29% of seniors answered that they always came prepared though the amount of time invested in their studies varied. More concerning were the 17% of the first-year students and 13% of seniors who responded that they came to class often or very often without having completed the assignments beforehand, hardly a surprise when one considers the limited time spent on preparation. As Lambert and Felten have observed more generally about the second group, a sizable proportion of CMU students are content to "sit in the balcony" and not engage in meaningful learning with others.[10]

Placement and instruction in developmental education are both a marker for at-risk students and an opportunity to increase student success at Colorado Mesa University. Approximately one-half of all entering freshmen will take one or more developmental courses, and in 2014-15, nearly 2,000 students at all levels were assigned to a developmental math, reading, or writing course. Almost all of these students receive individualized instruction in addition to assistance offered via WCCC Student Services and the Tutorial Learning Center.

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[10] Leo Lambert and Peter Felten, "Making College Matter," *The Conversation* 15 August 2016 <https://theconversation.com/making-college-matter-63480>.

The problems that students face in developmental coursework are clear. The courses slow progress to a degree or certificate and often are coincident with other problems affecting student progress. Students have trouble seeing the usefulness of the courses and struggle with motivation in completing them. The courses create a distance between students in their desired major and the larger, more successful student body. The courses cost money but do not produce credits toward graduation, and often the courses must be repeated.

Both the University and higher education at large have addressed the problems and opportunities of developmental education. CMU implemented the English Studio course (ENGL 092) as part of WGISAS 2.0 to streamline students into credit-bearing English composition courses. Mathematics implemented an emporium delivery of courses to speed progress through developmental courses though its success has been less than originally hoped for.

Beyond CMU, one need not go far to confirm how widespread the problem is in higher education than to peruse the results of other faculty surveys. As just one illustration, Faculty Focus conducted its fourth annual survey of its readership, and not surprisingly, it reported that the biggest teaching challenge faculty dealt with on a day-to-day basis was students who come to class unprepared, with students who are not prepared for the rigors of college ranking a close second (Table 4).[11] While scoring in fourth place, nearly half of the respondents also indicated that student motivation was very or moderately problematic. This was the first time in the four survey administrations where lack of motivation did not appear in the top three factors. So dominant was the lack of motivation among CMU entering undergraduates that it had to be removed from some of the data mining in order to identify other factors influencing student success.

Table 4. FACULTY RATING OF BIGGEST DAY-TO-DAY TEACHING CHALLENGES
(N = 1,065)

	Not a Problem	Slightly Problematic	Moderately Problematic	Very Problematic
Students who come to class unprepared	6.08%	30.49%	37.74%	25.69%
	57	266	354	241
Students who are not prepared for the rigors of college	8.86%	31.48%	34.58%	25.08%
	83	295	324	235
Institutional budget	20.99%	30.30%	25.37%	23.34%
	196	283	237	218
Student motivation	15.72%	35.31%	35.41%	13.56%
	146	328	329	126
Technology distractions	18.35%	36.27%	29.18%	16.20%
	171	338	272	151

Source: Bart, Faculty Focus

[11] Mary Bart, "Reader Survey Finds Unprepared Students a Persistent Problem" *Faculty Focus* 3 October 2016 <http://www.facultyfocus.com/articles/teaching-and-learning/reader-survey-finds-unprepared-students-persistent-problem/>.

So how can the University's faculty and staff members better assist those students who accept that college will be harder but believe that if they just do more of what they did in high school, they will succeed? Maryellen Weimer of *Faculty Focus* offers a series of ideas in Suggested Activity 1.

**Suggested Activity 1. SUPPORTING THE TRANSITION
TO COLLEGE-LEVEL COURSEWORK**

- Be sure that the first graded activity occurs early in the course, and design the assignment sequence so there's a way for students to recover from dismal results on the first test or assignment.
- Consider authentic assignments . . . where students engage in a number of activities that require them to use effective test preparation strategies. . . .
- Let students deliver the "how to succeed in this course" messages. On the course website, post comments from former students who can provide effective strategies and approaches. . . .
- Talk about learning strategies in contexts larger than the course. This isn't just about what's needed to do well in this course. It's about learning strategies for life.
- Let students know that you believe they can do what needs to be done.[12]

Members of the Working Group drew similar conclusions as reflected in the proposed recommendations on clarifying the different expectations of high school and college as well as requiring a graded activity early in the semester so students can gauge their own performance. Whether it's because they could wait until the end of the semester and do all of the out-of-class work in a matter of days while a high school student, whether it's because their new-found freedom with its many distractions carries over to their commitment to coursework, or as Reece noted earlier, they haven't an honest appraisal of their preparation to do college-level material.

B. The Need to Develop Academic Tenacity, or Grit, to Persist and Succeed
Another topic that was discussed extensively by WGISAS revolved around the role of academic tenacity, or grit, in student success. According to Dweck, Walton, and Cohen:

The non-cognitive factors that promote long-term learning and achievement can be brought together under the label *academic tenacity*. At its most basic level, academic tenacity is about working hard, and working smart, for a long time. More specifically, academic tenacity is about the mindsets and skills that allow students to:

- look beyond short-term concerns to longer-term or higher-order goals, and
- withstand challenges and setbacks to persevere toward these goals. . . .

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[12] Maryellen Weimer, "A Dose of Reality for First-Year Students and How We Can Help," 14 September 2013 <http://www.facultyfocus.com/articles/teaching-professor-blog/a-dose-of-reality-for-first-year-students-how-we-can-help/>.

What does academic tenacity look like? Key characteristics and behaviors of academically tenacious students include:

- Belong academically and socially.
- See school as relevant to their future.
- Work hard and can postpone immediate pleasures.
- Not derailed by intellectual or social difficulties.
- Seek out challenges.
- Remain engaged over the long haul.

Some students bring these mindsets and skills with them to school, but these mindsets and skills can also be taught. . . .[13]

Duckworth and others similarly define grit as "perseverance and passion for long-term goals. Grit entails working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress."[14] Meanwhile, Lambert and Felten have simplified what they believe matters most to college students to two goals:

1. "Take responsibility for learning. Real learning – that is, learning that makes a significant and lasting change in what a person knows or can do – emerges from what the student, not the professor, does. . . . Whether students choose to take the stage or sit in the balcony matters immensely. . . .

2. Develop meaningful relationships. . . . Finding friends and cohort groups can be reassuring, but scholars have found that students who interact frequently with peers who are different in significant ways (racially, ethnically, religiously, socioeconomically and so on) show more intellectual and social growth in college than those who don't. Again, as with learning, students need to move beyond the familiar to find meaning.[15]

Two monographs researchers from the behavioral economics group, ideas42, illustrate the challenge of developing academic tenacity in the following manner:

Adjusting to college life is inarguably a challenge for all students, and the reasons for this high dropout rate are varied. Looking at the potential causes from the student perspective, however, sheds light on two under-appreciated contributors to low retention rates: mindset and self-perception. For many first-time college students, the combination of academic rigor and administrative hassles, fears of not fitting in, and a lack of positive feedback in a new and

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[13] Carol S. Dweck, et al. *Academic Tenacity: Mindsets and Skills that Promote Long-Term Learning* (Seattle: Bill & Melinda Gates Foundation, 2014) 4.

[14] Angela L. Duckworth, et al. "Grit: Perseverance and Passion for Long-Term Goals," 92 *Journal of Personality and Social Psychology* (2007) 1087–1101.

[15] Lambert and Felten.

unstructured social environment can trigger feelings of self-doubt and negative self-identities.[16]

Students' abilities to develop tenacity is highly varied. At a minimum, however, it requires that they take seriously the feedback provided by faculty members from classroom activities and the Early Alert System and make use of support services that can help them improve.

> Certain groups of students (e.g., low-income, minority or first-generation students) may have low expectations of themselves and their ability to attend a postsecondary program despite high aspirations to attend. In one study, although 90 percent of students from low-income families aspired to attend college, only 54 percent actually expected to attend college (Elliott, 2009). In several instances, these low expectations may be based on inaccurate perceptions that become self-fulfilling prophecies.[17]

Given the above, the questions then become: "Since it can be learned, how do we help to develop academic tenacity in CMU students? How do we move students beyond high school habits and recognize that college learning is different? How can they be motivated to take greater responsibility for their learning and make use of support services? Can the University implement activities that facilitate building more on-campus relationships?" How can activities be "customized" for the diversity of CMU's students?

Developing academic tenacity or grit makes assumptions about why a student is struggling and feedback should take a specific form. As part of a blog posted by *The Teaching Professor*, the summary in Table 5 distinguishes reasons for why a student is unsuccessful, noting that feedback for building self-confidence, as part of tenacity, is focused and makes the tasks manageable.[18]

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[16] ideas42, *Nudging for Success: Using Behavioral Science to Improve the Postsecondary Student Journey* (Washington, D.C.: ideas42, 2016) 31.

[17] Rebecca Ross, Shannon White, Josh Wright, Lori Knapp, *Using Behavioral Economics for Postsecondary Success.*   Washington, D.C.: ideas42, 2013, p. 22.

[18] Mary Ellen Weimer, "What Kind of Feedback Helps Students Who Are Doing Poorly?" The Teaching Professor Blog. http://www.facultyfocus.com/articles/teaching-professor-blog/what-kind-of-feedback-helps-students-who-are-doing-poorly. Downloaded 8/9/15.

Table 5. FEEDBACK TYPE BASED ON CAUSE OF POOR PERFORMANCE

The student who's doing poorly because:	Approaches to Feedback
he isn't trying.	. . . something that might interest the student, even if that meant offering different assignment features or alternative assignments. "What would make this assignment more interesting to you?" "Is there an assignment that would motivate you to do your best work?"
because she has no self-confidence.	. . . need is specific and descriptive, not vague and certainly not evaluative. "Here's what you need to learn or do next." And what needs to happen next is a bite-size chunk. . . . It's focused feedback, and the focus is on the task at hand. It's also feedback about progress, . . . which the learner needs to note and celebrate.
he doesn't have the necessary knowledge or skills.	. . . needs a clear (but not overwhelming) delineation of what he's missing, and where that knowledge can be found or how those skills can be acquired. Here, too, it's descriptive feedback, not evaluative.
she isn't getting a certain concept.	needs teacher feedback about persevering. . . . how understanding sometimes descends unexpectedly—while taking a walk, when falling asleep at night, or perhaps a day or two later. She needs feedback, but not an overwhelming amount.

C. The Need for Structured Choices and Better Communication that Guide Students to Better Decision-making

A relatively new research paradigm on how to better understand student decision-making, and more specifically its application to their success, comes from the emerging field of behavioral economics, described in a white paper by Ross and others as "a new way to help us understand why we arrive at these suboptimal outcomes by providing insight into how people behave and make decisions. And when we are better able to understand and diagnose the "behavioral bottlenecks" people are experiencing as they navigate programs and policies, we can design more effective solutions."[19]

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[19] Ross, et al., 6.

Everyone suffers, at times, from being overwhelmed by too much information which, when lacking any organizational structure, can lead to frustration, mental exhaustion, and potentially bad decisions.

> Choice is most often viewed as a good thing; the more choice the better. Increasing options is considered a good way to make a product or service more attractive. But behavioral economics suggests that too much choice is cognitively taxing, and giving people too many choices may actually overwhelm them. . . . Providing more options can actually make it less likely that any of them is chosen. We also know that not just the number of choices but also how options and complex choices are presented can have a big effect on people's actions.[20]

As examples, consider the questions a student must consider in building a schedule:

- Will the course count for his/her major (if one is declared)?
- Since I don't like course X and since I had difficulty with this subject in high school, why don't I delay taking it as long as I can?
- What if I don't like the instructor's approach?
- Do the times the courses are offered fit with my other obligations (e.g., work; athletic practice; child care arrangements)?
- Can course expectations be met when I carry full load?
- Can I keep my scholarship if I enroll for fewer than 15 hours?
- And what if? And what if? Etc.

Psychologist Barry Schwartz argues the effects of too many choices in "The Paradox of Choice and College Success" as part of a 2014 monograph from Complete College America: *Four-Year Myth: Make College Affordable. Restore the Promise of Graduating on Time*[21]:

> . . . Though choice is good, there can be too much of a good thing. And when there is, it leads to paralysis, to bad decisions, to a loss of self-control, and to dissatisfaction with even good decisions. . . . [I]t is easy to see how current low college completion rates are exacerbated by the amount of freedom of choice that college students have. . . . There is no question that options for college students have exploded in recent years. Core requirements have diminished, the number of possible majors has increased, and the variety of paths through those majors has increased as well. What can we expect all this "liberation" to produce? First, paralysis. . . . [W]hen students are offered many topics for an extra-credit essay, they are less likely to write one than when they are offered only a few. Second, bad decisions. . . . [T]hose college students writing extra-credit essays write worse essays when they have many topics to choose from than when they have only a few. . . .

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[20] Ross, et al., 32.

[21] Barry Schwartz, "The Paradox of Choice and College Success," *Four-Year Myth: Make College Affordable. Restore the Promise of Graduating on Time* (Indianapolis: Complete College America, 2014) 12.

> For decades, American higher education has worked to expand choices for
> students: hundreds, if not thousands, of course offerings at our institutions;
> classes at all hours of the day and on weekends; majors in every possible
> discipline. The goal behind these efforts was to give students options. But this
> process of unguided exploration and discovery too often means that students
> wander the curriculum and rarely graduate on time. . . .

Thus it is easy to understand why many students struggle to persist when an over-riding context in the form of a career plan is missing. Laudable as it may be to arrive at college with an openness to explore any and all programs of study, the lack of direction for some students is a key reason they are lost by the institution before degree completion. That scenario is exacerbated when coupled with a dynamic work environment whose educational requirements are constantly evolving. So while most students have preferences and interests, a greater depth of knowledge in some subjects than others, and differing skills, it is crucial that faculty and staff members engage students in educational planning at the start of their college experience, based on the intersection of their career goals, individual strengths, and academic fields of study.

Evidence of the need for greater educational planning is found in a variety of sources. The 2016 *National Freshman Motivation to Complete College Report* by Ruffalo Noel Levitz found that:

> . . . while students are coming into college with strong indications of their career
> directions, they are hungry for help with developing an educational plan to
> realize their goals for career, life, and degree(s). This points to the critical
> importance of . . . helping students develop a big-picture plan and then execute
> that plan to ensure timely college completion.

In response to the statement "I would like some help selecting an educational plan that will prepare me to get a good job," 72.6% of first-generation students and 68.3% of non-first-generation students indicated agreement.[22]

A second report from Ruffalo Noel Levitz offers additional justification for expanding educational planning. As part of a national survey, entering first-year students identified twenty-four areas for which they needed assistance at the beginning of their first semester. A follow-up survey inquired about their needs at the end of the term. Table 6 summarizes the results reported for students enrolled in four-year public institutions. Assistance with career decision-making was requested by more than 60% of respondents at both the start and end of their first term, in some cases increasing between the two survey administrations.[23]

Students, particularly those who are first generation to college, need additional structures and guidance necessary to successfully navigate the higher education environment and to make choices that aid them in being successful. Academic advising is second only to teaching and learning for reasonable student progress, and part of the University's obligation to the relationship is to expand

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[22] Ruffalo Noel Levitz, *National Freshman Motivation to Complete College Report (*Cedar Rapids, Iowa: Ruffalo Noel Levitz, 2016) 5 - 6.

[23] Ruffalo Noel Levitz, *Changes in Freshman Attitudes Following a Semester of Classes and Interventions Report (*Cedar Rapids, Iowa: Ruffalo Noel Levitz, 2014) 7.

its advising tools that help students "connect the dots", such as between careers and majors, to broaden advising sessions, as appropriate, beyond schedule-building to educational planning, and underscore the need to access relevant, available support services that the University offers and are valuable to their long-term success. Several pieces of evidence point to the need to expand career guidance to much earlier in the student's academic career. An analysis, by the Office of Institutional Research, of students from a ten-year period who began at CMU and earned a baccalaureate degree found that they were enrolled for an average of 11.1 terms, and earned an average of 140 credit hours.

Thus, more than a year and the cost of an average of 20 credit hours were added to the "normal" degree completion expectations. Some of this was undoubtedly due to changing majors, but it should be noted that some students intentionally choose to take credits beyond those required for their degree that include completing a double major or a minor or electing to enroll in courses for their own educational enrichment.

Table 6. CAREER SERVICES NEEDS IDENTIFIED BY
FIRST-TERM UNDERGRADUATES
AT PUBLIC, FOUR-YEAR INSTITUTIONS

Requested Career Services Needs	Requests for help at start of classes	Requests for (further) help at end of semester
I would like to discuss salaries and future outlook for various occupations.	62.1%	67.5%
I would like to receive help with an educational plan to get a good job.	73.8%	67.2%
I would like to discuss qualifications needed for certain occupations.	73.2%	66.1%
I would like to discuss advantages and disadvantages of various occupations.	57.2%	66.1%
I would like to receive help selecting an occupation well suited to my interests and abilities.	51.6%	61.6%

Source: Ruffalo Noel Levitz, Changes in Freshman Attitudes Following a Semester of Classes and Interventions Report, p. 7

Suggested Activity 3. IDEAS FOR GIVING STUDENTS GUIDANCE AND STRUCTURE

These three examples illustrate relatively basic ideas to help students from becoming overwhelmed by their college experience and find ways in which to succeed.

1. One suggestion is to have more frequent communication with an advisor, particularly when made more personalized through use of technologies. Messaging of simple reminders to take a specific action can be very helpful to students, especially early in their academic career. CMU's development of Ellucian CRM Advise offers great potential to aid in this need.

2. Another suggestion comes from behavioral scientists is to ". . . require students to attend a mandatory "study session" of a few hours a week would remove at least some of the tradeoff decisions students must make about when to study."[24]

3. Yet a third idea for identifying where students are struggling is for the instructor to request that students submit a brief email identifying what the hardest thing about starting college has been. In fall 2016, this activity by a CMU faculty member resulted in two-thirds of the class citing two, interrelated factors - time management and amount of homework/assignments - as most difficult. The responses to this solicitation gave the opportunity for the faculty member to offer specific suggestions for being successful in a course.

A recent study of baccalaureate degree completers in AY 2015-16 documented that only 27% had declared a single major before graduating from CMU (Table 7). Additionally, the results of the 2016 Student Satisfaction Survey (SSI) completed by CMU students documented an insightful perspective.[25] For the survey item:

- There are adequate services to help me decide upon a career: Importance = 6.15
                                                                 Satisfaction = 5.64

- My academic advisor helps me set goals to work toward: Importance = 6.14
                                                             Satisfaction = 5.23

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[24] Ross, et al., 35.

[25] SSI responses are based on a seven-point scale, with 7 indicating either greatest importance or highest satisfaction.

**Table 7. NUMBER OF MAJORS
DECLARED BY CMU BACCALAUREATE
DEGREE RECIPIENTS, AY 2015-16**

Number of Different First Majors	#	%
1	261	26.9
2	431	44.4
3	195	20.1
4	59	6.1
5	16	1.6
6	6	.6
7	2	.2
Total	**970**	**100.0**

Average number of majors = 2.14

Two cautions should be kept in mind. The satisfaction scores were well above average, with the adequacy of services item statistically significantly different from the national four-year public peer institutions who participated in the survey. Second, academic advising is not differentiated between that offered by faculty members and that by professional staff advisors. That said, the University's investment in Degree Works has been a positive step in expanding support for advising activities, and the development of Ellucian CRM Advise offers equal potential for monitoring student success and enhancing the advising process.

D. The Need to Build Relationships that Lead to a Sense of Belonging, or Connectedness, to the University

Many students arrive on campus without a network of support and struggle to build a network of connections with others on campus, yet research findings indicate that the lack of participation in co- and extra-curricular activities is a characteristic of an at-risk student. Relationships with faculty members, through activities that include mentoring and research opportunities, staff members offering academic support and student life activities, and involvement with peers informally and formally in organizations build a series of support networks to assist students in handling the challenges of college life. Crone and MacKay's research on students at Elmhurst college concluded:

> Respecting the power of relationships is critical to student motivation. Today's students appear to be the recipients of a great deal of family involvement and attention, and it is not unusual for the expectation of this involvement to continue after they enroll in college. Many students continue to have regular, sometimes daily contact with their parents, calling to provide updates or seek consultation on even minor decisions. . . . Finally, we have, on more than one occasion, wondered if students transfer the expectation of involvement with their parents to the college. Are they expecting the same kind of support or parenting from faculty and staff?[26]

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[26] Crone and MacKay.

The ideas42 group has similarly documented the importance of students making connections on the college campus to student success.[27]

> For all students, a connection to campus life and sense of belonging in their new academic communities are paramount for college persistence. Finding effective ways to increase student involvement on campus, such as work-study programs or campus clubs, and intentionally reinforcing messages at key points in the semester can help students both develop positive relationships and also recognize that college is challenging for everyone and not just them.
>
> Flipping the narrative from personal failure and lack of belonging to a common sense of struggle shared by everyone on campus can help students see their struggles as normal in their environment, and keep them in school. Through our work tackling this often ignored area, . . . these strategies appear to increase the efficacy of existing support programs and to have particular influence among first-generation, underrepresented minority students from low-income backgrounds. These interventions are elegant – they don't require intensive counseling or institutional staff time. Instead, a few intentional tweaks to the student experience can have outsized impact on students' connections to their campuses.

At CMU, the effect that on-campus connections with others has on student success is found in various examples. While other variables can also play a role, a basic comparison of the success of students where there are opportunities to make identifiable campus relationships, in contrast with those missing those relationships, produces some significant variation in a student's persistence from the fall term in which they enter to the following spring. Consider the comparisons in Table 8 which reflect that the retention rates for those working on campus are nearly 12 percentage points higher than for those who don't, while student-athletes and students who enrolled in FYI/UNIV (formerly SUPP) 101 also were retained at a higher rate.

Finally, staff in the Office of Student Success tracked student performance as a function of the number of contacts a student had with a peer coach. Provisional baccalaureate students who had three or more contacts in their first semester with their peer coach had an average grade point average of 2.52 whereas those with two or fewer sessions averaged 1.52.

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[27] ideas42, *Nudging for Success: Using Behavioral Science to Improve the Postsecondary Student Journey*, 32.

**Table 8. CAMPUS CONNECTIONS AND CMU STUDENT SUCCESS:
PREDICTING RETENTION FOR STUDENTS ENTERING IN
FALL 2013, 2014, OR 2015 TO THE FOLLOWING SPRING SEMESTER**

| Variable | Response by Headcount | Success 2nd Term | | | | Difference |
| | | No | | Yes | | |
		#	%	#	%	
In SUPP 101	No	648	20.5%	2,515	79.5%	
	Yes	456	15.3%	2,530	84.7%	5.22%
Student-Athlete	No	1,034	18.7%	4,501	81.3%	
	Yes	70	11.4%	544	88.6%	7.28%
Rec'd Work-Study	No	1,068	18.9%	4,579	81.1%	
	Yes	36	7.2%	466	92.8%	11.74%

V. PROPOSED RECOMMENDATIONS

The Working Group proposes the following 21 recommendations to enhance student engagement and success, organized here into four categories but recognizing that some items fit in more than one group. A fifth section addresses program-specific (vs. institution-wide) issues for faculty members to discuss that are affecting student retention, as well as seven additional recommendations for faculty professional development to support implementation of some of the WGISAS proposals.

A. Preparing academically and psychologically for college-level coursework.

Recommendation 1: **Educate incoming students during student orientation on the differences between high school and university expectations.**

Rationale and Proposed Implementation: As mentioned in Gardner et al. in *The Undergraduate Experience*, incoming students rarely receive information on "academic rigor" and how much harder they have to work in college than in high school to achieve success in learning.[28] Yet, this has been identified by faculty and staff members as one of the key pieces the information that students need to understand in order to be successful in university courses. By conveying this information before they start their academic careers at CMU, students may have a better chance of meeting the expectations of their university courses.

Implementation involves three activities. First is to encourage FYI faculty offering UNIV 101 to discuss the difference in expectations between high school and university. The second is to offer information at the University's orientation, either as a special or existing session, on how to achieve academic success. The orientation confirmation email would be adjusted to include links to the Advising Center with class scheduling tips and college expectations by adding two bullets to the current email (see Appendix C):
- The Advising Center can assist you with course selection and registration, major exploration and identifying strategies for academic success at Orientation. The "Pre-Advising" session at Student Orientation also will cover the topics of registration and advising tips.
- High school is very different than college. Our HS vs. College comparison will help you know what to expect, including the expectations regarding make-up work.

This high school versus college link could also be used by the FYI program or sent to all first-time freshman in the first week of class. The third activity is an update to the current CMU/WCCC attachment on student success tips that is included with course syllabi or used in introductory class meetings (Appendix D). This information also can be initially distributed/disseminated during the orientation sessions for students and their families to carry away from the session.

Both the "Differences Between HS & College" and the "Tips for Success at CMU or WCCC" links can be found in the MAVzone on the Student Academics tab in the Advising Services section as shown in Figure 4.

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[28] Felten, et al., 71.

Figure 4. ADVISING RESOURCES ON MAVZONE STUDENT ACADEMICS TAB
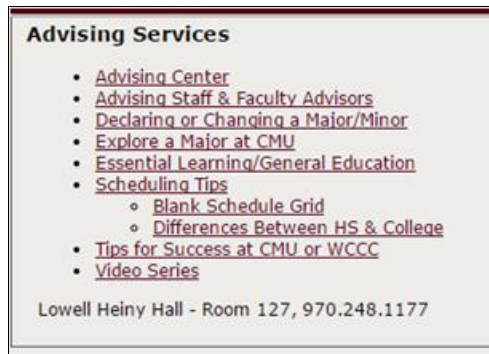
Recommendation 2*: **Encourage faculty to provide students with specific recommendations on** how much **study time they need to spend outside of class on a particular course and on** how **to use their study time most effectively to succeed in the course.***

Rationale and Proposed Implementation: Faculty members are subject matter experts and in the best position to guide students on-specific actions that will lead to a student's success in a course. As an example, rather than stating that two hours outside of class is required for every hour in class, give concrete suggestions on what to do in the two hours. While a general guideline on *how much* time students need to spend on the course outside of the classroom is useful to know, many students are unaware of *how* they need to use that time. Specific suggestions from the faculty for each of their courses can help students understand how much time they need to spend for a particular course and how to use their study time more productively. This can contribute to greater learning success and retention.

Implementation of this recommendation involves one or more of the following options: (1) providing specific recommendations in the syllabus for each course; (2) providing the specific recommendations in the D2L shell for each course; and (3) providing the information to the Tutorial Learning Center so that tutors can be aware of the recommendations when they advise students.

Recommendation 3*: **Ensure that students have taken the appropriate prerequisites for their courses.***
> ***Recommendation 3a****: **Close any loopholes that enable them to stay in a course when they have not received passing grades for the associated prerequisites.***
> ***Recommendation 3b****: **Create reports for academic departments to respond to student demand for course offerings using the unduplicated number of students on the waitlist.***

Rationale and Proposed Implementation: Students are more likely to succeed and be retained in rigorous and challenging courses when they are academically prepared for the courses in terms of the skills and information that they need. A vital component of this academic preparation is the completion of prerequisites with a passing grade. With this foundational set of information and skills, students are much more likely to be successful in the courses and be retained at CMU.

Students who lack the prerequisites for a course are prevented from enrolling in it during student registration. However, there is a loophole. Most students who register for a course while they are

taking the prerequisite are allowed to remain in the course even if they do not pass the prerequisite. Ideally, this loophole needs to be closed to prevent students from staying in a course if they do not pass the prerequisite. The exception will be from spring to summer as grades are not available before summer classes start.

To close the loophole, the following steps are proposed as part of the Registrar's Office grade roll process at the end of a semester. The Registrar's Office will run a report showing the student email, course department, department head email, instructor, instructor email, with a special permission override flag added. This report identifies all students with registration errors that occurred after the student initially registered. The list will be pared down to students with prerequisite errors that aren't due to a recent curriculum change The result is a list of students who failed the prerequisites to be enrolled in a particular course, including those with a special permission override. In addition, the process for which an instructor may grant a special permission override would be modified to be primarily online through MAVzone.

The identified students will be notified by email (from CRM Advise) that they don't meet the prerequisite, instruct the student to drop the course, and refer the student to their advisor for course selection advice. Each academic department will receive the list of students within two days of the Registrar's Office completing the grade roll process at the end of a semester. Students will be given appropriate time to adjust their schedules on their own, after which academic departments will submit a list of students to the Registrar's Office to be dropped and notified. ENGL 111, 112, MATC 091, and MATH 110 and 113 drops will be processed by staff in the Advising Center and Registrar's Office prior to classes beginning.

__Recommendation 4__: __Encourage faculty to communicate with their students at strategic points during the semester to help students self-assess their success in learning as well as their learning needs.__

Rationale and Proposed Implementation: Increased engagement between professors and their students has been shown to aid in student success and retention. However, engagement outside of the classroom is typically limited. By communicating with their students electronically and helping them assess their successes and their needs at strategic points during the semester, the level of engagement outside of the classroom can be increased and the focus on academic success can be strengthened. See the Personal Assessment example used by some English faculty members that follows.

To implement this recommendation, faculty members are encouraged to set up e-cohorts in Ellucian CRM Advise, or to use their D2L shells, to send messages to their students efficiently at strategic points during the semester to help students assess their own successes and their needs. Because D2L is already used by most faculty members, this can be implemented in fall 2017. Implementation using Ellucian CRM Advise will include training for faculty members on its use during Academic Year 2017-18.

Suggested Activity 4. PERSONAL ASSESSMENT SURVEY

Name:
Major:
Goal for the English Studio:

For each item identified below, circle the number
to the right that best fits your level of agreement or disagreement.

Attitudes Towards Writing Please rate your level of agreement or disagreement to the following statements. There are not correct answers. We just want to get a sense of your experiences with and attitudes toward writing.	**Scale**				
	A g r e e				**D i s a g r e e**
1. Generally, I don't read when I don't have to	1	2	3	4	5
2. In high school, I did not do much writing	1	2	3	4	5
3. My high school GPA was about average	1	2	3	4	5
4. I'm unsure about the rules of writing—commas, sentences, etc.	1	2	3	4	5
5. I am uncomfortable with the idea of writing as a process	1	2	3	4	5
6. My ACT-English score was below 20	1	2	3	4	5
7. I approach all writing assignments with the same strategy	1	2	3	4	5
8. I do not think of myself as a strong writer	1	2	3	4	5
9. I do not think of myself as an independent learner	1	2	3	4	5
10. I am not looking forward to the English Studio course	1	2	3	4	5

TOTAL

Scores: 10-20 This course will help you develop confidence in approaching writing assignments.
    21-30 This course will help you succeed in meeting the variety of writing demands in English 111.
    31-40 This course will help you to look at writing/reading expectations across the university.
    41-50 This course will help you to anticipate and develop writing plans both in and out of school.

Please write a 500-800 word essay in response to the prompt below. The essay should demonstrate your ability to plan, draft, revise, and edit. Please read through your essay and write a note about how well the essay employs the following: focus, purpose, organization, development, audience, language. Meet with your English Studio Instructor/Tutor.

What are your goals in college? What challenges do you expect to face in achieving those goals? What strategies will you employ to achieve those goals? And how can English 111 and 092 help you?

Recommendation 5*: *Explore the viability of creating a math studio for students that is similar to the writing studio.

Rationale and Proposed Implementation: Currently an open lab is available every Friday in Houston Hall to help students with math problems and questions. To date, however, a math studio has not been created because the Tutorial Learning Center has tutors in math. The next step is to meet with the TLC director to better understand students' needs for developmental math. That information will build on what has been gathered through informal and formal meetings with staff members in Academic Advising, Registrar's Office and Student Services as part of developing the GOALS program.

Recommendation 6*: *Develop and pilot a MATC topics course to assist students in progressing more quickly from 090 to 091.

Rationale and Proposed Implementation: We have developed a Math 096; three-week review for students below the index of 75, following the model developed by the Mathematics faculty. If the students pass they move on to Math 090. If they do not, they receive counseling and maybe set another path for college. Ten students were in the first course and nine were able to move on to Math 090. One student chose Math 107 and Associate of Applied Science degree path. This course was created for the redirect/ GOALS program.

Recommendation 7*: *Restrict students from developmental education courses online and all online courses in their first semester except for those students who are enrolled fully online.

Rationale and Proposed Implementation: Developmental education and freshman pass rates are significantly lower for sections delivered via distance technologies. Current, on-campus, pass rates for all students other than freshman are within 1.5% of freshman pass rates. However, on-line delivery shows a 10% decrease in pass rates compared to in-person delivery (Table 9). Furthermore, freshman in many cases have not established relationships with the various support services on campus as well as faculty within their disciplines. In these cases, the online medium may serve as a further deterrent to adaptation to university academics. Likewise, data have consistently shown that one of the best determinants of student success is engagement, yet engagement between peers and a faculty member is the one item most difficult to achieve in the online environment. The effect of this recommendation will be to push those students who are most at risk into more in-person connection with the rest of the CMU community.

Table 9. PASS RATES FOR COURSES THAT HAVE BOTH ONLINE AND ON CAMPUS SECTIONS AND HAVE ENROLLED FRESHMEN, 2013 - 2015

Department	On Campus Other	On Campus Freshmen	Online Other	Online Freshmen	On Campus Other % Pass	On Campus FR % Pass	Online Other % Pass	Online FR % Pass
Art & Design	915	477	1,089	108	83.7%	82.2%	77.7%	57.4%
Biological Sci	4,255	1,210	941	13	75.3%	83.5%	68.3%	15.4%
Business	4,222	622	547	12	82.0%	79.9%	75.0%	41.7%
Comp Sci, Math, Stat	5,359	1,614	812	27	71.4%	70.2%	47.4%	44.4%
Kinesiology	5,591	2,649	2,254	369	82.8%	79.9%	79.6%	65.6%
Lang, Lit, Mass Comm	9,420	4,115	1,720	129	78.2%	78.4%	65.2%	58.9%
Music	904	296	292	24	79.4%	69.9%	73.6%	66.7%
Phys & Env Sci	1,258	376	753	45	76.4%	73.4%	67.1%	51.1%
Soc & Beh Sci	9,780	3,455	3,333	277	75.9%	74.8%	68.5%	57.0%
Theatre Arts	1,141	383	999	82	84.0%	83.8%	67.3%	72.0%
WCCC	547	137	310	41	80.6%	61.3%	65.8%	51.2%
WCCC - Dev Educ	3,561	5,211	670	129	61.2%	69.4%	46.4%	43.4%
TOTAL	**46,953**	**20,545**	**13,720**	**1,256**	**76.5%**	**75.3%**	**68.4%**	**58.3%**

B. Encouraging use of campus resources that support developing tenacity in students to persist and succeed.

Recommendation 1: Require students to complete one significant assignment or test which is graded and returned to them by four weeks into the semester.

Rationale and Proposed Implementation: Data from the Early Alert System show that it can have a positive effect on student success. In order for it to work well, students need to have feedback on an assignment early in the semester in order to gauge how well they are doing in the class. Faculty are asked to build in to their classes one significant graded item prior to four weeks into the semester in order to give general feedback on the four-week Early Alert System and more detailed responses at seven weeks. (See following recommendation on revising EAS.) There will be some courses for which this is not easy to do, but particularly for courses with a large number of first-year students, this feedback is an early gauge of student success.

Recommendation 2. Reconfigure the current five- and eight-week Early Alert System (EAS) by:
d. replacing it with four- and seven-week administrations;
e. strengthening the messaging language on the availability of campus resources and the likelihood of passing the course at seven weeks into the term;
f. placing an advising hold on accounts of selected at-risk students at the seven-week point;
d. using Ellucian CRM Advise's communication system as a more efficient and effective means of sending students more personalized messaging.

Rationale and Proposed Implementation: Data from the Early Alert System document that it positively affects retention. In order for EAS to be more effective, however, it needs to require that students see their advisor if they are not doing well so they can make a plan to improve their grade in the 2nd half of the semester or drop the class. After much discussion, the Working Group

concluded that students benefit from faculty comments early in the term, rather than allowing more than one-third of the semester to pass before submitting feedback. Recognizing that it can be difficult to have sufficient student material in some courses on which to report so early, the four-week mandatory EAS cycle would be limited to three criteria and not include an overall evaluation.

By contrast, the eight-week EAS administration was viewed as too late in the semester to make changes to student schedules, since they could no longer add a second mod class by the time the time students received feedback. With a seven-week cycle, students have time to withdraw from a course and add another if appropriate (see sample schedule).

7 Week Early Alert: Sample Schedule for Spring 2017

Friday of Week 6 to Thursday of Week 7: Early Alert notice (Early Alert roster are available) goes out to faculty Feb. 24 and they can post until March 2.

Friday of Week 7: IT processes the data on March 3

Week 8 – March 6th: Students get Early Alert notification

2nd mod or Fall 2017: If students receive one or more D's or F's they will be notified that a hold is on their account so they cannot register.

Day 3 of Second Mod: If students act quickly, they could drop a class and add a 2nd mod class. The recommendation is to extend the withdraw date for full term classes from March 13 to March 15.

Second mod starts March 13 – students can add second mod classes without instructor signature through March 15. (Day 3 of Second Mod)

Additionally, the fact that too many students do not respond to contacts from faculty and staff members later in the term, led the Working Group members to believe that the even-week EAS needed 'teeth' to get more students to meet with their advisors. There appears to be great reluctance by students to accept the results of this new reality as documented through the low levels of EAS follow-up, and to change their habits, thereby enhancing their likelihood of success. National research on Early Alert Systems found this to be a common scenario with less than a 50% student follow-up.[29] After evaluating the effectiveness of the institution's EAS administrations, recommendations encouraging earlier-in-the-semester activities and communicating more candidly with students about necessary steps to improve are proposed.

To implement the revised system, faculty members will report on the same mix of students for both EAS administrations that is already in use. Once the EAS closes, the feedback distribution to the student and advisor is the same as in previous years. Reporting for the two cycles, however, will differ. The four-week administration would ask only one question:

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[29] Hanover Research, *Early Alert Systems in Higher Education* (Washington, D.C.: Hanover Research, 2014) 4.

Proposed Four-Week Early Alert System Item

> "At this point in the semester, this student is meeting the course's expectations for:
> 1) attendance;
> 2) preparation for class/class assignments; and
> 3) participation in class."
>
> Note: Radio buttons for each of three items would be a choice of yes or no, and faculty members would have the option of providing written comments in a text box if they so choose. This cycle does not ask for an overall assessment of the student's work.

The seven-week system would involve three drop-down boxes, the first of which identifies the area(s) on which the student needs to focus. The second indicates the student's current grade as of the seven-week point, and the third box indicates the recommended follow-up action expected of the student. Note that the language in the final box is more pointed in terms of the student's likelihood of passing the course. Faculty members will continue to have a text box available if additional comments are helpful.

Data that the committee examined last semester showed that increased student engagement, living on campus, and interaction with mentors and advisors increased retention. EAS is one means by which to create earlier and more influential contact with students earlier in their career, particularly those who are at-risk academically. Based on these observations, students receiving poor Early Alert grades at seven weeks (i.e., receiving a 'D' or 'F' in one or more classes) will have an EAS hold placed on their account and not be able to register for next semester's classes until they meet with their advisor. Further, students on probation already are included in the EAS student mix, so no additional reporting is needed, but this recommendation also includes the expectation that CMU should make advising mandatory also for students with a grade point average of 2.00 or lower. These students will also get an email from the Registrar's Office sent through the Advise software notifying them of the EAS hold:

> Recommended language for message:
> "An EAS hold that prevents you from registering for next semester has been placed on your account because you have a 'D' or 'F' in one or more of your current classes. You must see your advisor to remove this hold."

An Information Technology staff member will create a Faculty Advisor roster of students with holds, similar to that for Early Alert roster, except that it will only have the applicable student advisees' names and a check box for each. Once the student has been advised, the advisor checks the box next to the student name which releases the EAS hold, and an automatic time stamp of when the advising hold was removed is recorded in Banner. An email communicating the hold's release will be sent to students using CRM Advise. The EAS hold will automatically be removed from a student's account on the Monday of finals week for those students who have not met with their advisor.

Finally, to make the fullest use of Ellucian CRM Advise as a support for student success, faculty members will need training in the software. Sessions will be offered at the beginning of fall 2017 to assist faculty members in the initial use of the product.

Proposed Seven-Week Early Alert System Items

Item 1: Select from the following areas where student improvement is desirable:
o More timely completion of assignments
o Attendance
o Participation
o Performance on tests and quizzes

Item 2: Indicate the grade for this course that the student has earned as of today: A, B, C, D, or F.

Item 3: If you wish, select one of the following messages for the student:
o Visit your instructor for help with the material.
o Visit the Tutorial Learning Center, which would be a useful resource for your success in this class.
o With some effort that addresses the items above, you should still be able to raise your grade in the class.
o Visit your academic advisor and course instructor as soon as possible to determine whether withdrawal from the class is your best option for future success.

Note on Messaging: The above information would be inserted into an e-mail to the student that says, as an example: "You are receiving this e-mail due to your instructor's concern about your performance in [Name of Course]. The faculty member indicated the need to improve in [e.g., more timely completion of assignments] and that you should, "[e.g., With some effort, still be able to raise your grade in the course]."

Recommendation 3: More fully integrate the services available from Tomlinson Library staff that support development of skills that enhance students' academic success into courses at all levels.

Rationale and Proposed Implementation: The staff of Tomlinson Library offer numerous instructional services that can enhance a student's likelihood of course success, and by extension, retention to subsequent terms. Among the opportunities that should be reviewed are:
• Evaluate the need for a Writing Center, hosted in a designated Library space, that addresses academic writing ability across a variety of skill-levels and disciplines.
• Incorporation a library orientation module that encourages students to interact with library staff, services, and resources, particularly for developmental courses, and made available for faculty to embed in online courses.
• Encourage faculty to connect relevant academic support personnel (e.g., Librarians, TLC staff) to coursework that aids in skills development and coursework performance.
• Schedule Ted Talks throughout the term in the Library that motivate students to persist when as they encounter challenging situations during their college career.

C. Guiding student decision-making through structured choices and better communication.

Recommendation 1: Offer educational planning resources and tools early in a student's academic career to assist them in moving forward with selecting a major.

Rationale and Proposed Implementation: Some students need guidance in how to determine what major may best fit their desired career path. Below are possible resources and tools to assist students in this decision that we may consider pursuing. To help increase student participation, some of the following activities could be included in the 15 and 15 component.

1. Implement "Choosing a Major" workshops, organized by Career Services staff in collaboration with faculty members and professionals in fields of study, that utilizes various self-assessments tools and discusses major and career exploration resources. The 90-minute workshops would complement the Major Fair held in the fall semester but scheduled during the first ten-weeks of the semester (prior to the registration period) as program clusters (or meta-majors) rather than individual disciplines (e.g., Sciences and Mathematics; Arts and Humanities). Similarly, academic departments are encouraged to offer "open drop-in advising" sessions several times each term for potential students interested in a major in that department.

2. Offer group and individual Strong Interest Inventory interpretations by Career Services staff to review results to help students identify their interest areas and what major is needed to be follow that desired career path.

3. Explore the possibility of a one-credit course to discuss major clusters and career exploration. The review would be organized through the Office of Academic Affairs and include a revision of the Sophomore Year Experience curriculum.

4. Strengthen the discussions on major clusters and career exploration in FYI/UNIV 101 classes.

Recommendation 2. Make faculty contact information available more broadly.

Rationale and Proposed Implementation: Students have a greater likelihood of being successful if they have early and repeated connections with others on campus. This recommendation requests that faculty information establish contact with their advisees each semester by posting their office hours online, sending an email to their advisees with information about office hours, contact information, when they should meet, etc.

An ePortfolio for their advisees, such as the illustration below, would provide:
- links for both advisee and advisor training (including schedules and in-service videos and reflection);
- connects to the Ellucian CRM Advise and D2L platforms;
- allows for advisor personalization of ePortfolio page, including contact info and office hours; and
- allows easy access to students including those who may be considering the faculty member as a future advisor (pre-majors).

Using an ePortfolio also provides a different/supplemental service than the Banner upgrade advising tab on an existing platform.

Figure 5. SAMPLE FACULTY CONTACT PAGE
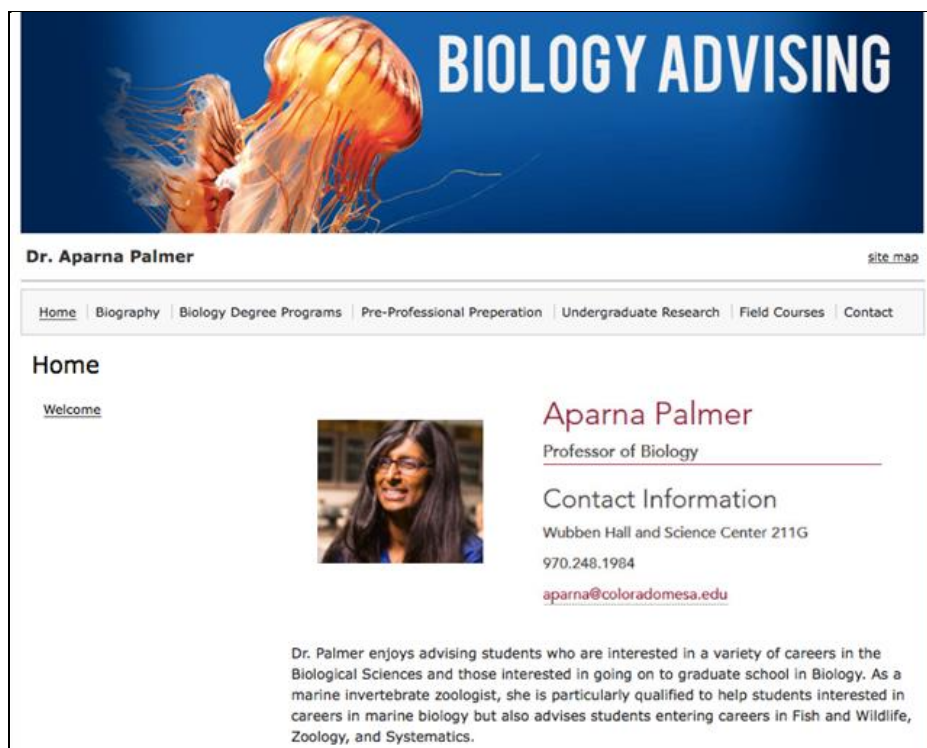
Posting material on motivation, such as http://www.wikihow.com/Get-Motivated-to-Do-Well-at-School could be added, along with drop boxes to post very informal progress reports on how they are doing. Opening some voluntary threads at strategic points in the semester (how are you settling in, what is and isn't working, what questions do you have, what have you learned) could be helpful in building an electronic cohort. And finally, a modified version of the following activity could help students both to think about what they are doing in the semester and how to love and inspire Essential Learning. Additional examples of possible links to college success that can be added to the page are found in Appendix E.

Recommendation 3: **Create a MAVzone self-serve channel for students to request a change of their degree, major, or minor.**

Rationale and Implementation: Currently, students who want to change their degree or major or add a minor must contact the department housing the major or minor. In today's society, students expect many services available electronically, and a self-serve option in the MAVzone would enable students to send an email request to the appropriate department to make these modifications.

To implement this change, a new MAVzone Channel will be created on the Student Academics tab. The degree program options displayed in the channel will list only degrees, majors, or minors for which the student is eligible to declare, based on the current degree-level. For example, students in programs at the certificate or associate degree levels have a different list of majors from which to choose than do the students at the baccalaureate level. This format eliminates students from selecting programs which do not align with their degree level.

The Administrative Assistant in the department housing the major or minor will receive the email
request to modify the student's information to reflect the selected academic program. The
Academic Department Head and/or Program Coordinator will then review the request to determine
if the student is eligible to make the change or refer them to the Registrar's Office, Admissions
Office, or Advising Center. If the department approves the change, the Administrative Assistant
will send an email to the student informing them that the change was made and provide the contact
information for their new faculty advisor.

At the bottom of the channel, there will be a statement directing students with questions to contact
the Advising Center. For example, students declared in an associate degree may wonder why they
cannot choose a bachelor's degree. To minimize this potential confusion, the Registrar's Office
will create a new webpage outlining the steps for transitioning to a baccalaureate program.

The Provisional Baccalaureate (PB) student's channel lists only PB majors. The major change
request for these students will be sent to the Office of Student Success (OSS) email account as
academic major changes for PB students are not done in the departments. OSS staff will contact the
student informing them that the major was changed, and the statement at the bottom of the channel
will direct them to contact OSS with questions.

Below are sample channels for the students in baccalaureate, provisional baccalaureate, and
associate degrees. The channels will be displayed in the MAVzone on the Student Academics tab.
The degree and major fields will auto-fill based on the student's current degree information, but if
not applicable, will be left blank.

Figure 6. EXAMPLES OF MAVZONE CHANNELS BY DEGREE LEVELS

Recommendation 4: Email all waitlisted students the day before the term starts with instructions to encourage enrollment in alternative classes that are still open.

Rationale and Proposed Implementation: Students who miss course in the first week of class are at a disadvantage. Send an email to all students who are still on the waitlist with registration alternatives. The plan is to implement in August 2017.

Recommendation 5: Add a MAVzone channel for academic standing to help students on probation and suspension understand their academic status.

Rationale and Proposed Implementation: Members of the registration subcommittee noted students cannot easily see their academic standing in MAVzone. Students must specifically click into the unofficial transcript or the Degree Works degree audit. If students don't read their end of term letter or email, they may not be aware of their status. The recommendation is to add the channel close to the top of the Student Academics page near the links to register for classes. Included in the channel will be the applicable academic standing, a short description on the meaning of the status, and links to informational webpages. The plan is to implement by the end of Spring 2017.

Recommendation 6: ***Create interventions for students on probation to help them avoid being suspended.***

Rationale and Proposed Implementation: Students on probation currently have minimal intervention if they are not part of the Office of Student Success or the GOALS program. The ideal scenario would be to help students during the term they are on probation rather than push additional resources after they were suspended. The proposed recommendations are as follows:

- o Students who are on probation for the first time would receive a hold that would require the student to watch a success video. The student would be required to take a quiz at the end of the video to show successful completion. A hold blocking registration would be placed on the students account until the video quiz was successfully completed.
- o Utilize Ellucian Advise to create a communication plan with the student that will help them navigate their next steps.
- o Students who are on probation for multiple semesters would not be required to retake the video quiz and would likely need an alternative communication plan in Ellucian Advise.
- o Create a webpage that would include a tips, videos, and resources that could be included in the MAVzone channel and other emails.
- o The plan is to review these in Summer 2017 for Fall 2017 implementation.

Recommendation 7: ***Adjust the text in the probation/suspension section of the CMU catalog to reflect the current appeal process.***

Rationale and Proposed Implementation: Add text to the CMU probation/suspension section stating students with extenuating circumstances may appeal sitting out one or more terms, that appealing does not guarantee approval, and list the required documents needed from the student with where to submit them. It will include a statement that late appeals will not be considered. This will be implemented in the next CMU catalog.

Recommendation 8: ***Communicate with students who submit a suspension appeal giving more information on the timeline and processes.***

Rationale and Proposed Implementation: The suspension appeal subgroup and mentoring subgroup noted that there was a short window after the summer and fall semester for suspensions appeals. This tight window makes it difficult for an academically struggling student to reenroll quickly with intervention steps enforced. Discussion on adjusting the timeline concluded the best option is to email students who appeal more details on the timeline and processes. This will be implemented in May 2017.

Recommendation 9*: *Develop a metric for inclusion in the Ellucian CRM Advise student profile that monitors the percentage of hours earned toward a baccalaureate degree and the proportion of disbursed financial aid.

Rationale and Implementation: Too often, the use of financial aid by a student outpaces their rate of academic progress toward a degree. As a result, aid falls short of what is needed as the student moves closer to degree completion, potentially causing the student to drop out of school. This scenario generally is caused by a student withdrawing from or failing classes but using aid to pay for these unsuccessful attempts. The challenge is to identify this imbalance of hours and aid early in a student's academic career early, preferably in their first four semesters of enrollment so that their aid rate stays within what is allowable under federal regulations. Recipients of Pell and Subsidized Loans are allowed up to 150% of the degree: six years for a four-year degree, three years for a two-year degree, etc.

In order to better monitor the progress of students, the Financial Aid Office will work with to develop an alert within Advise. This will enable the financial aid department to assist with monitoring students that are not progressing at the proper rate and be able to provide information to academic advisors and guidance to students. Students who have reached 100% or more of total attempted credits, including transfer credits, toward their degree program will be put on Financial Aid Alert. This notifies the student that they are getting close to their maximum time frame. It is recommended that they meet with their Academic Advisor to ensure that they are on track to complete their program before they become ineligible for financial aid funds. Students become ineligible for financial aid funds once they have met 150% attempted credit hours for the degree program. Students are eligible to receive financial aid funds while in alert status. Alerts can be developed in Ellucian CRM Advise that advises the student that s/he may be in danger of losing their financial aid eligibility and should contact the Office of Financial Aid for assistance.

Recommendation 10*: *Develop a metric for inclusion in the Ellucian CRM Advise student profile that is a calculation of the proportion of the 24 most recently earned credit hours that apply to the student's declared major.

Rationale and Implementation: Academic records often identify a major that is no longer the current one being pursued by a student. Because most educational planning is based on the accuracy of a student's major, and by extension, the assignment of an advisor in the declared field of study, it is crucial that the major be as accurate as possible. Inaccurate majors also result in students missing out on information distributed by faculty about a major and/or activities in a program. Further, verification of progress toward degree by student-athletes is also a requirement for NCAA compliance.

By showing this calculation based on data in Degree Works, an advisor can easily see if a student's course enrollments align with the recorded major. Inclusion of this metric in Ellucian CRM Advise would indicate if a student is taking a significant number of courses unrelated to his/her program. If not, this likely reflects that the student has changed majors and should be directed to update their information and be assigned a different advisor.

D. Building a network of relationships that contribute to a student's sense of belonging on campus.

Recommendation 1: Pilot a holistic student engagement program.

Rationale and Proposed Implementation: Beginning the Fall 2017, students' engagement levels will be tracked and incentivized as part of a program that encourages first-time entering students to participate in 15 campus-based activities in their first 15 weeks on campus. In an attempt to provide a variety of options that span the student experience, students will be required to participate in at least three different events from each of three categories: Academics, Student Engagement, and Self-Development. The number of events has yet to be finalized, as it may be more or less than 15, and will be approved by the affected functional offices or departments. The purpose common to all of the activities, however, is to provide and encourage deliberately different types of student engagement throughout the semester that lead to students making connections with others on campus and developing an early sense of belonging at CMU.

A pilot program, with a defined population (i.e., a specific residence hall), will be implemented in the fall semester, with staff from Student Life office accumulating participation metrics. They will track the participation of an experimental population (e.g., Garfield Hall residents) versus a control group. Students will be incentivized through prizes/rewards that could be experiential, monetary, or tangible items.

VI. RECOMMENDATIONS FOR FACULTY PROFESSIONAL DEVELOPMENT RELATED TO WGISAS PROPOSALS AND FACULTY DISCUSSIONS ON PROGRAM-SPECIFIC ISSUES POTENTIALLY AFFECTING RETENTION

A. Professional Development

__Recommendation 1__: Offer faculty development "Best Practices" sessions for faculty that focus on feedback on student performance.

Rationale and Proposed Implementation: CMU already offers a variety of opportunities for reflection on best practices in teaching. These include regular faculty development seminars with experts from around the country, monthly faculty fora, training in D2L and ePortfolios, discussions on the Maverick Milestone course, all of which encourage collaboration and adaptation, contribute to annual reviews and faculty awards, and lead to profiles of outstanding teachers and instruction in student and alumni publications. The following recommendations focus on best practices in addressing student performance and reflection.

The implementation of early alert programs has helped to inform students, faculty, and advisors about students in need of additional attention and motivation. The persistent problem with that program is that too few students identified as at-risk go on to pass the courses. Attention to flipped and blended classrooms has increased both the need and opportunities for students to reflect on their performance in both graded and content work as well as professional student performance and motivation. Attention on the part of both faculty and students to student performance can help to publicize best practices. Scholarship in early intervention,[30] blended classrooms,[31] and experiential learning also support attention to student reflection.[32] Examples of varied and useful reflection are available across campus. In FYI courses and in introductory courses to the disciplines, students reflect on how to professionalize themselves in the field. In some English 111 and 112 courses, students anonymously identify the peers they have found most professional and helpful.

In collaboration with the Vice President for Academic Affairs, Drs. Bridge and Wright will develop and present the first Best Practice Sessions on student feedback. These sessions can take the form of stand-alone faculty seminars; reports to the Faculty Senate, Academic Department Heads, Academic Affairs, and student organizations; publications on best practices; and public recognition of success in retention and student reflection. Training in ePortfolios and Ellucian CRM Advise

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[30] Yi Zhang, et al, "An Examination of the Impact of Early Intervention on Learning Outcomes of At-Risk Students," *Research in Higher Education Journal* 26 (October 2014): 1-9.

[31] Orly Calderon, et al, "Multidimensional Assessment of Pilot Blended Learning Programs: Maximizing Program Effectiveness Base on Student and Faculty Feedback," *Journal of Asynchronous Learning Networks* 16.3 (2012): 23-37.

[32] Thomas Yates, et al., "Surveying Assessment in Experiential Learning: A Single Campus Study." *The Canadian Journal for the Scholarship of Teaching and Learning* 6.3 (2015): 1-25.

might include methods for including reflections on performance. Inclusion of practical reflection methods in current or future publications, emails, or as a link on D2L would provide permanent advice and opportunities to faculty concerned with encouraging student reflection and remediation of academic performance. Presentations at faculty colloquia, in-service meetings, and new faculty orientation would be particularly useful. Follow-up might include informal reports in annual reviews and an invitation to reflect on how faculty have encouraged students to reflect on their performance and motivation.

Drs. Bridge and Wright will survey current resources for student feedback, survey faculty about useful practices, and design a short, stand-along in-service session and PowerPoint for faculty. A best practices in feedback session can piggyback on the new faculty and instructors workshops in August and as a short reminder in both the emails and presentations during outside faculty development workshops in August, October, and January. Departments can also include reminders and electronic handouts at departmental meetings and in reminders regarding advising, graduate petitions, and as an unofficial part of evaluations. A stand-alone best practices workshop could be scheduled for contrasting times if there is interest. That seminar would include whole-group discussion of the problems with feedback, the expectations of students, and the options available for improving both methods of feedback and student uptake, including self-assessment surveys.

Recommendation 2: ***Offer training sessions for faculty and staff members on the use of Ellucian CRM Advise.***

Rationale and Proposed Implementation: In order for CMU and WCCC faculty and staff members to make use of the advising software, training sessions focused on specific uses and limitations of Ellucian CRM Advise will be scheduled during Academic Year 2017-18. As users become more familiar with how the product identifies at-risk students and how its functions can be used for communicating with all students that are more personalized – be they at risk or not – they can move beyond use of the "canned" programs being developed in the software into other applications.

Recommendation 3: ***Offer faculty library services sessions focusing on incorporation of information literacy across the curriculum for faculty professional development.***

Rationale and Proposed Implementation: As implementation of University-wide student learning outcomes (SLOs) continue, conversations related to the developing SLO on information literacy can be facilitated by workshops offered by Tomlinson Library staff.

B. Faculty Conversations

Recommendation 4: ***Increase communication among developmental education stakeholders.***

CMU offers developmental writing and mathematics courses to approximately a third of incoming students, and the need for developmental courses are markers of risk in terms of success and retention. Since its first incarnation, WGISAS has explored and addressed developmental courses and programs as sites for increasing student success. For example, one of the recommendations of the first WGISAS was to reconfigure the three-unit traditional English 090 course into English 092,

a one-unit studio course often taken concurrently with English 111 on a pass/fail basis. In that course, students meet together with a tutor instructor one hour a week. Students who pass that course are very likely to pass English 111 and avoid what can become a lengthy list of developmental courses.

Developmental education both nationally and locally continues to evolve. Federal financial aid and other strictures have forced a reconfiguration of developmental courses below the 090 level. State legislatures are becoming directly involved in mandating program articulations and improvements. CMU is implementing/piloting an opt-out path for developmental English courses that will include tracking, registration, and staffing changes. Our developmental programs face opportunities and challenges in terms of staffing, marketing, evaluation, and pedagogical and technological upkeep.

Based on those challenges in mind, three recommendations are proposed:

> *<u>Recommendation 4a</u>: Increase articulation and communication between developmental education stakeholders.*
>
> **Rationale and Proposed Implementation:** Those stakeholders include the departments of CSMS and LLMC, the Tutorial Learning Center, Student Services, Advising, the Registrar's Office, Developmental Education faculty members, faculty advisors, and administrators. The recommendation is that the following people meet at least once a semester to report on and discuss the logistics, challenges, changes, and opportunities in developmental education at CMU: the WCCC Coordinator of Student Services, WCCC Director of Instruction (who also has oversight of developmental education), the Head of the CSMS Department, the Director of the Tutorial Learning Center, and the LLMC Director of Composition. That group will ask for assistance from the Office of Institutional Research. Those meetings should likely result in a short report on developmental education to be submitted to the committee, to stakeholders identified by the Developmental Education Sub-committee, the WGISAS group, the Vice President for Academic Affairs, and the Vice President for Community College Affairs.
>
> *<u>Recommendation 4b</u>: Provide in-service and education for instructors, advisors, and students on the place and point of developmental education at the University.*
>
> **Rationale and Proposed Implementation:** This in-service will be delivered via a dedicated D2L shell for developmental English instructors and students, consistent information and instruction to advisors about placement and purpose in developmental education, and methods for informal advising on student success for developmental faculty and administrators in addition to regular staff meetings.
>
> The Composition program has adapted the English 092 D2L master shell to serve the students in using developmental courses to increase success and to serve instructors in English 092 in order to broaden and strengthen instruction methods and provide strategies for advising developmental students on how best to pursue success. Dr. Wright has taught an English Studio course and met with developmental faculty and will likely teach an English Studio course in Fall 2017. He will also consult with the WGISAS Developmental Education Sub-committee on how best to revise the mandate and strategies for the Writing Studio. Materials for advisors will be produced for dispersal at orientation sessions and at key points in the semester to place and

assist developmental students. Professors Murphy, Payne, and Wright will meet to discuss hiring practices and other training/in-service methods.

Recommendation 4c: Redesign the English studio course to fit more in line with current pedagogical scholarship on the writing studio model.

Rationale and Proposed Implementation: This redesign will work from the studio model articulated in Rhonda Grego and Nancy Thompson's *Teaching/Writing in Thirdspaces: The Studio Approach*,[33] which encourages whole class workshops, regular discussion of academic work across the curriculum, and collaborative meetings of the studio instructors. A review of that book from the National Council of Teachers of English (NCTE) has this to say about the model:

> The studio model emphasizes individual participation in a small group that allows students to present work they are preparing for outside classes, discuss their challenges, and refine their ideas with other students and staff facilitators. This "interactional inquiry" is replicated and reinforced by the facilitators, who meet in their own small groups to analyze larger patterns, possibilities, and needs as they arise in their studios. (NCTE)

Developmental education programs are a charge of colleges generally and state institutions across the country. CMU's opt-out option will demand that we provide a successful, thoughtful, and worthwhile experience to students. Here is the 2014 legislative statement for the Texas State Legislature on developmental education goals and improvements quoted from an article in the Journal of Developmental Education:

> By fall 2017, Texas will significantly improve the success of underprepared students by addressing their individualized needs through reliable diagnostic assessment, comprehensive support services and non-traditional interventions, to include modular, mainstreaming, non-course competency-based, technologically-based, and integrated instructional models.[34]

These categories will be addressed and are being addressed here at CMU. Meetings have been held between the Coordinator of Student Services, the WCCC director of Instruction, the Head of the Math Department, and the Director of Composition. The studio course as it stands, and as it will be adapted, provides the recommended individualized attention, integrated and comprehensive support service, non-traditional, mainstream intervention, and regular diagnostic assessment. We can foresee adapting it as a model for Writing-in-Disciplines (WiD) and Writing-Across-the-Curriculum (WAC), and the Director of Composition has been in conversation with faculty in Biological Sciences and Engineering about how to adapt that model.

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[33] Rhonda Grego and Nancy Thompson, *Teaching/Writing in Thirdspaces: The Studio Approach*, Carbondale: Southern Illinois University Press, 2008, Web. 3 February 2017.

[34] Texas Higher Education Coordinating Board, "Transforming Developmental Education in Texas," *The Journal of Developmental Education* 38.1 (2014): 32.

***Recommendation 5**: Request that academic programs review requirements for the possibility of freeing up three elective credits that could be fulfilled by UNIV courses.*

Rationale and Proposed Implementation: CMU enrolls hundreds of new Provisional Baccalaureate and GOALS students each year who are required to take three credit hours of UNIV coursework. Hundreds of first-year students choose to participate in FYI or take UNIV 101 to assist them in being better prepared for college coursework. Whether required or optional, UNIV courses often don't count toward graduation credits for students due to lack of elective space on program sheets. For the many students who change majors or just want to explore major options, lack of elective space may increase time to graduation and discourage persistence when students realize they can't use credits they have already taken when they change majors. Providing more elective space would give students flexibility in their first year to take UNIV courses to develop the skills they need to be successful and would allow for more opportunity to explore majors.

***Recommendation 6**: Review all courses with in-person vs. online delivery formats for pass rate differentials of more than 20%.*

Rationale and Proposed Implementation: Some courses show distinct differences in pass rates between online and distance formats (Table 11). In some cases, the N size is too small to clearly determine if the issue is due to the nature of the student or the course. It is also possible that differences are due to instructor, or student level. In some courses, the material may simply not be conducive to online instruction. In other courses, the difference may be one of the course's position within a program's sequencing.

As a general finding, those courses taken at the upper division level have smaller pass rate differentials that those at the lower levels, suggesting that once a student has learned a certain base level of knowledge, online instruction is more successful. It may also be accurate that some instructors are simply not as effective as others in the online environment. Due to these many possible variables, there can be no one overall solution; however, Academic Department Heads should review those courses with large pass rate differentials (>20%) for possible needed changes. Upon review, the Department Head may decide to no longer offer the course online, to change the instructor of the online course, to make changes to the online course in conjunction with the instructor, or that no changes are needed. Academic Department Heads should submit a summary of their findings, along with a description of any accompanying actions, to the Assistant Vice President for Academic Affairs by March 31, 2018.

***Recommendation 7**: Regularly assess the number and breadth of online Essential Learning courses to ensure sufficient offerings (particularly in summer).*

Rationale and Proposed Implementation: Solely online students tend to be more non-traditional and need to have more robust offerings, particularly of ESSL courses, during times not typically associated with high overall student demand (summer). Non-traditional online students also tend to repeatedly "step-out" and "step-in" to school as life and work demands dictate. This leads to needing courses that are not sequenced and weighted down by multiple prerequisites. As the number of fully online programs increases, more sections of ESSL offerings will be needed

throughout all the whole academic year. To date, no comprehensive analysis of the timing of Essential Learning offerings in the online environment has occurred and this analysis will be crucial as the number of solely online students grows. This will also be important for those students who attend a mix of online and in-person classes, now the majority of CMU students.

Table 10. PASS RATES FOR COURSES THAT HAVE BOTH ONLINE AND ON-CAMPUS SECTIONS, Fall 2013 - Fall 2015

Department	Subject	Course	% On campus	% Online	Differential
Theatre Arts	THEA	331	100%	50%	50%
Kinesiology	KINE	335	94%	48%	45%
WCCC - Dev Ed	READ	092	80%	36%	44%
Lang, Lit, Mass Comm	ENGL	343	99%	63%	36%
Biological Sciences	BIOL	210L	84%	49%	34%
Biological Sciences	BIOL	209L	76%	43%	33%
Comp Sci,, Math, Stat	STAT	200	74%	45%	29%
Business	MANG	341	84%	56%	28%
Comp Sci,, Math, Stat	MATH	110	71%	44%	27%
Comp Sci,, Math, Stat	MATH	113	69%	43%	26%
Kinesiology	KINE	309	85%	60%	25%
Lang, Lit, Mass Comm	ENGL	451	97%	72%	25%
Lang, Lit, Mass Comm	ENGL	436	100%	75%	25%
Biological Sciences	BIOL	209	70%	46%	24%
Kinesiology	KINE	301	84%	60%	24%
WCCC - Early Childhood	EDEC	250	86%	63%	24%
Social & Behavioral Sci	PSYC	410	97%	74%	23%
Kinesiology	KINE	360	80%	59%	21%
Lang, Lit, Mass Comm	ENGL	112	81%	60%	21%
Theatre Arts	THEA	332	100%	80%	20%
Kinesiology	KINE	260	94%	74%	20%

VII. IMPROVEMENTS ALREADY IMPLEMENTED

As the WGISAS review process evolved, 11 recommendations were obvious changes that had no broad, institutional effect. Because most of these adjustments were mostly operational in nature and usually specific to an office, they are listed below by administrative function.

A. Academic Advising
*__Improvement 1__: **Change the prefix and title of SUPP and developmental education courses.***

Rationale and Action: Students often feel the course labels "Supplemental" and "Developmental" have negative connotations and that the prefixes made it difficult for students to find them when searching in MAVzone. Four adjustments were made to enhance the perception of these courses and aid in finding them in the MAVzone:
   a. Prefixes for all SUPP (Supplemental) courses were changed to UNIV (University);
   b. Titles of the former SUPP 100 (Higher Education Success Skills) and SUPP 101 (Introduction to Higher Education) courses were renamed UNIV 100 (College Success Skills) and UNIV 101 (First Year College Success).
   c.   Course subject categories in the Catalog and in MAVzone were modified from English: Developmental (ENGC) to English: Basic Writing (ENGC) and from Mathematics: Developmental (MATC) to Math: Foundations (MATC).
   d. The lookup screen showing course listings on the Student Academics tab of MAVzone added the course prefixes to each entry (Figures 7 and 8).

Figure 7. FORMER LOOKUP SCREEN WITHOUT COURSE SUBJECT
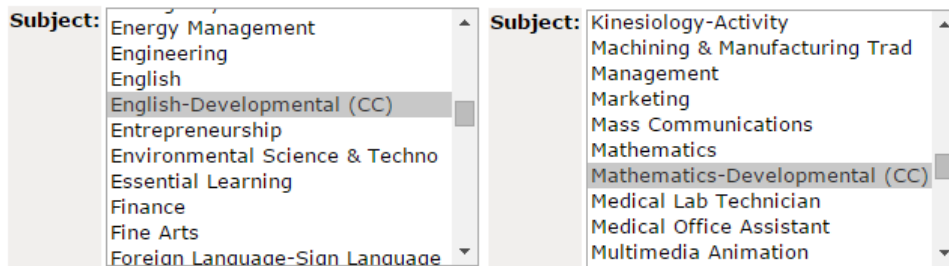
Figure 8. REVISED LOOKUP SCREEN WITH COURSE SUBJECT
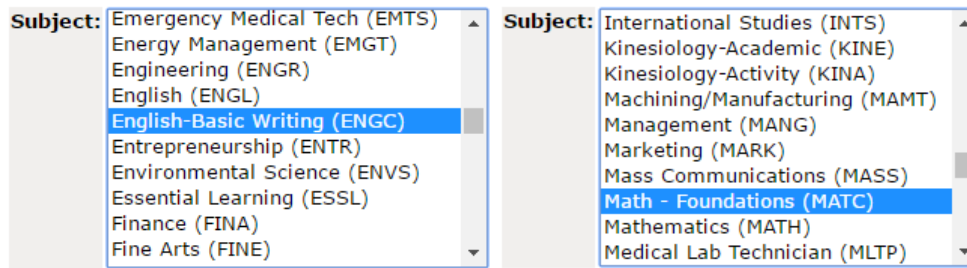
Improvement 2: Automate the process to assign faculty advisors.

Rationale and Action: The former process for assigning faculty advisors required that staff members in the Advising Center or academic departments run a manual search to identify the students who either needed a faculty advisor or had an advisor but not in the student's major. The new automated process now in place runs every Thursday morning. An email is sent to each department advising them that there are students who need a faculty advisor assignment.   Students will continue to appear on the department list until they have a faculty advisor correctly assigned.

Improvement 3: Require all first-time freshmen to take the LASSI assessment.

Rationale and Action: Only first-time freshmen admitted in summer or fall were required to take the LASSI assessment. Because the LASSI assessment is key predictor of student success in the early stage of their program, all first-time students, beginning in spring 2017, are required to take the LASSI assessment before they can register for their second semester.

Improvement 4: Create an electronic version of the Tutorial Learning Center's evaluation survey.

Rationale and Action: Every semester, during the second or third week of October or April, tutors ask each student they are tutoring to complete an evaluation, though students can fill out an evaluation any time throughout the semester. To reach more students, the TLC implemented an electronic version of the evaluation in Spring 2016 through Survey Monkey that was emailed to all students who had used TLC services by that point in the semester. The electronic version is emailed to the students at the same time each semester that the paper version begins.

Improvement 5: Place an advising hold on transfer students admitted on probation and revise the acceptance letter from the Admissions Office.

Rationale and Proposed Implementation: Currently, transfer students that are admitted on probation are not required to meet with an advisor prior to registering for classes. Most of these students do not understand CMU policies (probation/suspension), how their transfer credits will transfer into their program requirements, or what services are available to assist them in being successful. These students should have an advising hold placed on their account until they meet

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with the Advising Center and then the hold is removed. See below for the number of transfer students this would affect and their academic standing and retention in the first two semesters. Note the small number of entering transfers in some terms.

Transfer students admitted on probation receive an acceptance letter outlining their academic status. See sample letter in Appendix F. If the transfer students have the advising hold put on their account, it is recommended that these sentences be added to the end of the second paragraph of the letter:

> *"An Advising Center Hold has been placed on your account. You will need to meet with an advisor to discuss your academic plans to help support your future success before registering for classes. It is expected that you will visit the Tutorial Learning Center when necessary for additional support to be successful."*

Table 11. NUMBER OF TRANSFER APPLICANTS BY TERM WHO WERE ADMITTED ON PROBATION, Fall 2013 - Fall 2016 (preliminary)

Term	Total	Enrolled
201301	8	3
201302	28	20
201304	5	4
201401	4	1
201402	26	21
201404	16	8
201501	4	2
201502	36	30
201504	17	13
201601	1	1
201602 *	16	12
201604 *	5	--

* as of 12/06/2016

**Table 12. ACADEMIC STANDING AT END OF FIRST TERM
FOR TRANSFER STUDENTS ADMITTED ON PROBATION**

Term	Enrolled	Good Standing	Probation	Suspension	% Good Standing
201301	3	3	0	0	100%
201302	20	10	0	10	50%
201304	4	2	1	1	50%
201401	1	1	0	0	100%
201402	21	14	1	6	67%
201404	8	6	1	1	75%
201501	2	2	0	0	100%
201502	30	22	2	6	73%
201504	13	5	2	6	38%
201601	1	1	0	0	100%
201602	12	9	0	3	75%

**Table 13. RETENTION RATES OF TRANSFER STUDENTS
ADMITTED ON PROBATION, Fall 2013 - Fall 2015**

Term	Enrolled	Retained to 1st subsequent term		Retained to 2nd subsequent term	
		Retained	% Retained	Retained	% Retained
201301	3	2	67%	2	67%
201302	20	9	45%	13	65%
201304	4	3	75%	3	75%
201401	1	1	100%	1	100%
201402	21	13	62%	9	43%
201404	8	3	38%	3	38%
201501	2	2	100%	1	50%
201502	30	23	77%	17	57%
201504	13	8	62%	6	46%
201601	1	1	100%	1	100%
201602	12	6	50%		

B. Academic Affairs

Improvement 6: Schedule FYI, UNIV (formerly SUPP), and MVP faculty meeting to discuss the content of the classes and student retention.

Rationale and Action: FYI (UNIV 101) is designed specifically for students just graduating high school and entering college for the first time. Taught by Colorado Mesa University full-time faculty, the FYI Program is designed to give students a better understanding of the skills needed to be successful in college including study skills, test-taking strategies, and time management techniques. FYI is a one-week course, usually offered the week before classes start in August, but also is offered as UNIV 101 during the semester.

Provisional baccalaureate (PB) students are required to enroll in one of two course combinations. The one-credit MVP begins during the week before school starts followed by UNIV 101 in the following term as either a single mod course. PB students also have the option of enrolling in UNIV 100 and UNIV 101 pairing during the semester.

An FYI/MVP Faculty Advisory Committee was formed in fall 2015. Since then, the committee has made two significant changes to FYI preparation for faculty. First, the faculty development session in May has been changed from being a presentation by the textbook company to a peer-led discussion of best practices in the FYI/MVP classes. The faculty who teach FYI, SUPP, and MVP have discussed course content in the context of data reflecting the relationship of retention to enrollment in these transition courses. Course topics are being reviewed to identify existing and/or new content that may aid in retention. Additionally, the group has piloted supplementary readings for the course, so that students have opportunities to practice reading and note-taking strategies with actual college-level texts.

C. Registrar's Office

Improvement 7: Adjust the "Registration for <next term> begins …" email from the Registrar's Office in October/March with specialized text for enrolled freshman who will be transitioning to the second semester at CMU.

Rationale and Action: Emails will be sent from Advise and exclude the PB and GOALS students who will get a customized email from either the Office of Student Success or the WCCC Student Services Office. The primary goal of the second term email is to outline the expected advising and registration checklist. The link will have a simplified list of steps along with a link similar to the details at: http://www.coloradomesa.edu/advising/to-do-list-schedule-planning-20163.pdf. An example of a message piloted in Ellucian CRM Advise in October 2016 (below) generated a much stronger response than that in prior terms.

<div align="center">

**Email sent in October from the Registrar's Office
with subject line: Registration Hold – Action Required!**

</div>

Dear Heather,

The Registrar's Office recently sent out reminders that it is time to start planning for Spring 2017 Semester as your registration will begin soon. One important planning step is to check your student account for any holds that will block your registration. At any time, you can determine if you have any holds by checking out "View Holds" or "Registration Status" on the MAVzone Student Academics tab. To assist you with registration we have listed your current holds below:

LA: LASSI Assessment Hold
MI: Medical Incomplete

Please visit the Holds page on the CMU registration website for information on the hold and how to clear it.

If you have other questions regarding holds or preregistration, please contact the Registrar's Office at 970-248-1555.

Improvement 8: Increase course waitlist sizes to better identify student interest in courses and assist them in enrolling in the courses they need.

Rationale and Action: A course waitlist means that when an opening occurs, the first student on the waitlist has the option to enroll in the course. Historically the maximum waitlist was set at 10 students. Based on the recommendation from WGISAS and review by Academic Council, the waitlist size was increased to the capacity of the course, up to a maximum of 30 students. This was piloted only for courses once the waitlist filled and the waitlist was reduced to 15 students three weeks prior to the beginning of the Spring 2017 term. Full implementation is expected for Fall 2017 courses.

Improvement 9: Adjust the text in the suspension letters and emails regarding the suspension appeal process for extenuating circumstances.

Rationale and Action: Members of the suspension appeal subgroup and mentoring subgroup discussed the issue that suspended students often ask many questions about how the appeal process works. The subgroups reviewed the suspension email/letter and suggested that the language change slightly by adapting the terminology to more student friendly terms. While it was not possible to change the steps to a bulleted list in order to keep the letter on one page, all other suggested wording modifications were made to the letter and email.

Improvement 10: Modify the email to students who have an approved suspension appeal to clarify the next steps for advising and mentoring interventions.

Rationale and Action: Students who have an approved suspension appeal may return the next semester without the required stop-out time. They have "tasks" to complete, associated with the Advising Hold, Mentoring Hold, a possible Financial Aid appeal, and they are encouraged to use the Tutorial Learning Center. The suspension approval email has been adjusted to better outline the students' next steps.

D. Student Services
Improvement 11: Fund an emergency grant program.

Rationale and Action: According to a recent study, 31% of students drop out of school due to financial reasons, while over 50% of students report "having enough money to last the semester"

causes stress.[35] Obviously lower income families face greater financial instability, and nontraditional families have numerous financial obligations that require constant juggling. The toll that these financial pressures take on a student, particularly when they are due to unexpected emergencies, can spill over and undermine a student's ability to complete school.

In fall 2016, CMU implemented a hardship program to assist students with unforeseen financial emergencies (e.g., medical, childcare, transportation) for up to $1,000 on a one-time basis in order to lessen the likelihood of withdrawing from the University. The hardship must be documented, and students must meet specific criteria available at: http://www.coloradomesa.edu/student-services/financial-hardship-assistance.html. A short-term, 30-day interest-free hardship loan of up to $2,000 also is available to qualifying students.

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[35] ideas42, *Mapping Critical Student Decisions Through College* (Washington, D.C.: ideas42, 2013), 75.

VIII. DEVELOPMENT AND IMPLEMENTATION OF ELLUCIAN CRM ADVISE

As part of the University's ongoing commitment to assist student achieve their academic goals, CMU invested in Ellucian's student success customer relationship management (CRM) application: CRM Advise.[36] Purchased by CMU in March 2015, CRM Advise was developed to aid in the improvement of student retention by:
1. providing a holistic view of each student that combines academic, cognitive, and non-cognitive student data from disparate data sources;
2. identifying students at risk of not persisting in their education to a degree through scoring plans;
3. improving communication with students that is relevant, timely and personal; and
4. providing insights into the effectiveness of student success programs.

This section describes the work completed by CMU staff members to develop processes for identify at-risk students and configuring student intervention strategies that use a combination of success scoring, alerts and engagement plans.

A. Project Background

The need for a platform, such as CRM Advise, stemmed in part from observing how staff members in the Office of Student Success (OSS) used three unrelated applications provided by the institution to view student information, communicate with students; log student contact, and coordinate meetings. The approach did not offer an integrated picture of students served by OSS staff and was cumbersome due to the need to shift from one application screen to another to view information and communicate with advisees.

The early development of CRM Advise began by configuring the application for the OSS staff members as part of their teaching and intrusive advising of admitted, first-time students classified as provisional baccalaureates (PB). Because OSS staff members interact closely with PB students, they have key insights about this specific group of CMU students. Their insights on this subpopulation were critical to the data integration process and the development of the first intervention strategy for the purpose by verifying that the initial results were correct. A project of this magnitude, from software installation to training, takes considerable time to ensure the end solution is manageable, effective, and successful.

The installation of the server components including Ellucian CRM Advise, Microsoft Dynamics CRM, email router, and Banner integration software was largely completed by August 2015. CRM Advise is developed on a world-leading platform Microsoft Dynamics CRM which provides tools that enable organizations to create custom solutions that work with CRM Advise, including dashboards, tables, fields, workflows and security rules. By building on top of Microsoft Dynamics CRM, the University will be able to keep up to date with future communication platforms. The Working Group attended an onsite, two-day CRM Advise discovery workshop facilitated by an

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[36] CRM Advise was initially known as Ellucian Pilot. CMU became an early adopter of the CRM platform in 2015 when the University was approached by Ellucian to partner in helping to define a self-service user interface for entering manual alerts and test future D2L integration with the student success CRM.

Ellucian consultant in September 2015 which provided an overview of CRM Advise and kicked off group discussions of intervention strategies—scoring plans, success scores, alerts and engagement planning. See the list below for brief definitions for some key components of the software.

Table 14. TERMINOLOGY IN ELLUCIAN CRM ADVISE

Term	Definition
Alert	Criteria of circumstance used as a variable to notify appropriate staff of a potential retention risk associated with a specific student.
Condition	Criterion or circumstance used as a variable in a risk calculation; a data element.
Course Score	Each student's individual score with a course section which may or may not contribute to an overall success score.
Engagement Plan	A structured, automated communication plan for which a student may qualify.
Scoring Plan	Overall weighted calculation of a student's risk based on the different groupings of the above variables.
Scoring Rule	Grouping of the variables, criteria, or circumstances defined within those conditions.
Success Score	An individual student's score that results from the scoring plan calculation.

As a follow-up to the discovery workshop, the Working Group met throughout Fall 2015 to, in part, develop a list of characteristics affecting student success, particularly first-time undergraduates, and continue analysis of institutional data variables affecting retention that ultimately would be configured in CRM Advise.

In January 2016, an Ellucian consultant delivered additional onsite training to configure CMU's first intervention strategy. Starting in February 2016, a Technical Subgroup of WGISAS began meeting weekly to build on the consultant's work to develop CRM Advise, focusing initially on building a preliminary first semester PB Scoring Plan that later was expanded to encompass all entering, first semester undergraduates. The spring and summer months were spent correcting data integration issues, tailoring advising views and dashboards, and importing the previous three years of advising records from department databases. During this same time, the Technical Subgroup also addressed extended advisor roles to appropriately assign access to professional and student peer coaches.

CRM Advise went live in August 2016 on a limited basis for selected staff members in the Offices of Student Success and Academic Advising. Subsequently, the Technical Subgroup began configuring CRM Advise for the staff in Intercollegiate Athletics. Presently, CRM Advise views and reports are being designed, with input from the Faculty Subgroup of WGISAS, that will be available for university-wide faculty use in Fall 2017. Future phases of the project will expand the use of CRM Advise to other offices, such as the GOALS program at WCCC.

In contrast with applications used in the past, the student success CRM streamlines communication between academic departments and support offices and can assist with coordinating student intervention activities across the University. The use of CRM Advise will help ensure students are participating in academic programs, utilizing student-service software such as Degree Works, and contacting support offices like Tutoring Services when appropriate.

B. Customer Relationship Management (CRM) Technologies

Customer Relationship Management (CRM) technologies are tools that track and manage relationships with constituents. One way the University is leveraging this technology is to aggregate data from unconnected databases and automate advising processes and student communication, in order to ultimately improve the effectiveness and personalize intervention efforts in a timely manner that support student success. The development of CRM Advise requires the configuration of student success intervention strategies that encompass student engagement lists, scoring plans, alerts, and engagement plans, all of which are based on extensive work in the following areas:

- **Data Integration**: Combining information about students from various data systems to provide advisors a comprehensive view of a student's background, academic and non-academic, is critical to understanding student needs and challenges. As part of the data integration process, developing safeguards that protect a student's privacy while collecting and using the data is equally important.
- **Identifying At-risk Students**: Developing a plan to identify students who are at-risk, or who might become at risk, based on institutional data and insights as to why students leave the institution or stop attending college completely. Data from Banner, student information system, advising databases, student surveys, LASSI results, and Learning Management System are important in the identification of at-risk students.
- **Student Engagement**: Improving communication using multiple communication channels and automating the process of monitoring and alerting students who are identified as being at-risk is the core of student success CRM development. Meaningful student engagement that is personalized and timely is key to improving student success outcomes.
- **Measuring the Effectiveness of Student Engagement Efforts**: Determining the effectiveness of student engagement efforts to continually improve advising initiatives and student outreach programs should be evaluated as the product and intervention strategies evolve to more departments and student populations at the University.

The following sections elaborate on each of these elements.

C. Data Integration

A major challenge with implementing CRM Advise was the integration of data from various databases and systems and ensuring the data were accurate. Student data identified by the Working Group to be useful in understanding a student's background, academic preparation and academic tenacity were all maintained in disparate databases and information systems, some centrally-managed, while others were maintained in departmental databases. This approach was not only inefficient at the department level, but other departments and academic advisors could not reference this information easily, when appropriate, to assist students. Viewing information from the student information system and other individual department applications made it difficult to know the true status of where a student really was in terms of their academic preparation and progress and any roadblocks to moving forward that they may be realizing at any given time.

Building on the Working Group's discussions of what cognitive and non-cognitive factors influence a student's likelihood that they persist to graduation, the Technical Subgroup began looking at sources for the data though necessary to create effective intervention strategies, as well as institutional data necessary to create engagement plans such as advisor information. In addition, with an emphasis on starting with PB students advised by OSS staff, the integration of the academic

advising databases into CRM Advise for maintaining historical information was included in the initial implementation phase.

Included with CRM Advise was Ellucian's standard integration with Banner, Student Information System. The standard integration required Information Technology staff members to install Ellucian's Messaging Service components on the Banner Event Publisher which enabled data stored in Banner can be imported into CRM Advise. Other Banner data fields that were not included in the standard integration were configured in Banner Event Publisher by IT staff. The following key data fields were imported into CRM Advise:

- Major and Minor Codes;
- Student Holds;
- Campus codes;
- Academic Standing;
- High School GPA;
- Transfer; and
- Course History.

As part of evaluating the information to be used for calculating success scores, advising students, assigning extended advising roles, and grouping students, the Technical Subgroup identified additional data fields not included in the Banner standard integration or stored in other data systems that would be required for CRM Advise. IT staff developed a strategy for creating custom integrations to CRM Advise from non-Banner systems using Microsoft SQL Server Integration Services and data transformation tools. Custom fields were added to CRM Advise and custom integration scripts were developed to import the following data fields into CRM Advise:

- Institutional GPA;
- Student "MAVcard" Photographs;
- Early Alert information;
- LASSI Test Scores;
- Class meeting times;
- On- and Off-campus flag;
- First generation indicator; and
- Consolidated Registration Holds.

As an early institutional adopter of CRM Advise, CMU provided instructions to Ellucian on how to develop an automated way to import student photos into Microsoft Dynamics CRM from image files stored on network drives. Learning management system, Desire2Learn, data was also identified as important in the process of identifying students that might be at-risk of dropping out. The integration of Desire2Learn with CRM Advise is being developed between the two vendors, and CMU is waiting for the learning management system integration to be provided as part of the base product.

Information Technology staff members extended the functionality of CRM Advise by providing a process for Academic Advising and OSS staff to enter advising session information directly into the database by using Microsoft Dynamics CRM customization tools to create a new table storing advising session documentation. Academic Advising then created a custom advising form in CRM

Advise. To provide continuity for these offices, historical data stored in office-developed databases were imported into the customized CRM Advise solution. Further, dashboards and views of information needed to advise students were developed for Academic Advising and OSS. Security roles and permissions were established to allow student peer advisors to see information about only the students they advise. These customizations created efficiencies in both offices by removing the need to perform double entry of data and student notes.

Equally important to the integration was the cleanup of data to ensure the accuracy of information used for student interventions and to enable the automation of processes to occur. The Technical Subgroup took on several data clean-up and process improvement projects to ensure the data imported in CRM Advise was usable. Two examples of data clean-up projects were the first-generation student flag and advisor assignments:

- First generation student data is collected on two separate online forms, the financial aid FAFSA form and admissions application in Recruiter. The challenge is both forms use different definitions of a first generation student. Approximately 70% of students fill out a FAFSA but the data collected on the form is stored in Banner. Further, the first-generation question on the Admissions application is not required and is not pushed to Banner. Past practices for Institutional Research is to look at both data to determine if a student is first generation. The Technical Subgroup determined the first-generation flag should be pulled from the Admissions application. Admissions agreed to make the first-generation question required on the admissions form, and Information Technology modified the Recruiter data export process so the first-generation data could be imported into Banner and subsequently developed the process to pull the first-generation flag into CRM Advise. The first-generation flag was used for the All Freshman First Term scoring plan (described below).

- The faculty advisor assigned to a student has not been well maintained in Banner. In addition, students may be assigned to more than one advisor, and it's not clear who is the student's primary advisor in most cases. In order to help manage advisor-advisee contacts and send more personalized email messages to students from CRM Advise, it is important to clean up the Banner advisor assignments and assign a primary advisor to each student. The Registrar's Office and Academic Advising started cleaning up advisor assignments in Banner by removing faculty advisors in Banner that were no longer with the institution and second and third advisors assigned to students that were no longer required. Second, an audit of student advisor assignments in Banner was undertaken to ensure students had a faculty advisor in their major, Academic Advising for undeclared or OSS for PB students as appropriate. This step required adding a field to assign faculty to a department in Banner. Last, a process to maintain advisor assignments was developed by Academic Advising and Information Technology to create a faculty assignment and approval process for which new and returning students are assigned an advisor in their major in Banner.

Other examples of data clean-up project were the Active/Inactive student indicator and college entrance exam super-scoring definitions that are unique to CMU.

As data were collected and viewed in CRM Advise, it was important to the Technical Subgroup to protect student privacy by ensuring only appropriate persons can view and edit a student record based on their role at the University. In certain circumstances, a student may be assigned more than one advisor in CRM Advise. For example, a PB student is assigned a professional and a peer coach

within the Office of Student Success. Another example would be a student athlete's academic progress may be monitored by their faculty advisor as well as an assistant director in Athletics responsible for student success. The Technical Subgroup developed extended advisor roles in CRM Advise to appropriately protect student privacy. With extended advisor roles, the information that peer coaches can see is far more limited than the student's Academic Success Coach.

D. Identifying At-risk Students

Proactively identifying students who are at-risk, or who might become at-risk, based on collected academic and non-academic data points is important to student retention efforts. The development of scoring plans and student success scores enables the institution to create alerts to initiate timely messaging to help students get assistance and potentially keep them from dropping out. Identifying first generation students who are not connecting with campus or show a lack of involvement is an example of proactively identifying at-risk student and intervening through support services to help the student persist.

All students in CRM Advise are assigned to a scoring plan. Scoring plans are an overall weighted calculation of scoring rules and associated student risk conditions. A student risk condition is a criteria or variable built on data collected about the student. A low high school GPA would be an example risk condition for an incoming freshman student. A scoring rule is a grouping of risk conditions. A scoring rule for academic preparation could encompass high school GPA and college readiness test scores, and other data points indicating how ready a student is for starting college-level work.

The development of scoring plans at CMU began with PB students. The Technical Subgroup developed an initial scoring plan for First Semester PB Students (Appendix G). It was decided to score first-term PB students differently from those in their second term by placing a greater emphasis on academic preparation of entering students. A second scoring plan for Continuing PB Students was also created focusing less on academic preparation and assigning more weight to a student's work during their first semester. Risk conditions for both scoring plans were based on the student characteristics affecting success as identified by the Working Group and retention data from Institutional Research staff. The following scoring rule criteria were developed:

- Academic Preparedness;
- Commitment to Education;
- Financial;
- Classroom Progress; and
- Campus Life.

A major criterion of the PB scoring plan – commitment to education – was measured by the number of required peer and professional coach meetings that a student met. At this point, each student is assigned an individual success score based on the result of the scoring plan calculation which places the student in either a low, medium or high risk category. Alert Rules can then be developed that trigger from the overall success score or group of risk conditions and notify advisors. Initially, an alert rule was to be configured to notify students and coaches of missed meetings based a drop in a student's success score. Ultimately, it was decided to use CRM Advise to keep track of student meetings with coaches but not to use meetings in the student's overall success score. At this time, the risk conditions of missing meetings with peer and professional coaches were removed from the First semester PB Student scoring plan, commitment to education criteria, and replaced with

additional LASSI indicator levels, early alerts, not-fulltime flag, and non FYI/SUPP 101 participation.

Following the February 2016 onsite training session, and after removing peer and professional coach meetings from the First Semester PB Student scoring plan, the Technical Subgroup modified the PB scoring plan to one for all first-time entering undergraduates that included the following scoring rule criteria:
- Academic Preparation;
- Commitment to Education;
- Financial;
- Class Progress; and
- Demographics.

Further, expanding the Continuing PB Student scoring plan to all students with <60 credit hours with potentially creating a third scoring plan for juniors and seniors was discussed. The Technical Subgroup also discussed the need to create, in the future, a separate scoring plan for transfer students with less than <60 credit hours. Ultimately, after further analysis by Institutional Research staff, the Technical Subgroup decided to create a second general undergraduate scoring plan for continuing students that would not differentiate between second semester freshman, sophomores, juniors, and seniors (Appendix H).

The scoring rules for the General Undergraduate scoring plan removed conditions for Academic Preparation (e.g. High School GPA), Commitment to Education (e.g. LASSI Motivation scores), and Class Progress (e.g. Early Alerts), with an increased emphasis on institutional GPA, credit hours taken per term, and class standing. This work coincided with data integration efforts.

E. Student Engagement
Engaging students in relevant conversations about success is an important part of student retention. Meaningful student engagement not only requires faculty advisors and professional staff to have timely access to information, but also access to an efficient, stream-lined process for advisors to communicate and interact with students in a more direct and personalized way. In addition, a multi-channel approach to connecting with students is increasingly important.

An example of this is expanding student engagement from phone calls and emails to texting general notices or calls to action. The development of texting students for the purpose of retention is discussed in the Moving Forward section below. However, the content of the communication, limitations on the amount of information that can be texted, and student privacy issues will continue to drive the importance of students checking emails to be successful, not only in college, but as they move forward into the work force.

To streamline communication with students, CRM Advise provides a tool to improve efficiency by automating the monitoring, triggering, alerting, and communicating with students in two ways: Engagement Plans and Quick Engagements.

- **Engagement Plans**. Engagement Plans used with dynamic student engagement lists enable more targeted communication to a defined group of students and eliminate the need for excessive blast communications such as emails that students become numb to over time. Plans require the use of predefined engagement activity templates (i.e. email, mobile notification,

phone notification, general alert/comment) but allow for the messaging to be personalized and include content specific to each individual student.

The Technical Subgroup is working on a Continuing Student Registration Engagement Plan as part of automating communication with students throughout the entire academic year. Other engagement plans being considered include:

o Degree Plan Reminder: send to students with 30 or more credit hours who have not yet declared a major recommending that they meet with their advisor for degree and career counseling.
o LMS Activity Reminder: Remind students to use D2L and provide information that tells them how to access the LMS. This will require future development of the D2L integration.
o Scholarship Renewal Reminder: Remind students to re-apply for scholarships.

- **Quick Engagements**. Another way to improve efficiency in effective communication is the use of Quick Engagements through advanced finds or reports. Unlike Engagement Plans, Quick Engagements are not tied to engagement lists or activity templates and can be used for ad-hoc student communication. Quick Engagements may use message templates to help personalize student communication, especially when used for sending notices to a group of students.

The concept of a report dashboard was first developed by the Coordinator of CMU's Office of Student Success when a report dashboard was created to help coaches identify students with at-risk conditions, such as those not registered for the next term or with holds on their accounts. Rather than running an advanced find to search for students, use of a dashboard allowed for more time to communicate with the PB students. Reports, displayed as lists, can be filtered and or sorted on data fields. Advisors can communicate with students through quick engagements or engagement plans by using communication templates that allow the correspondence to be personalized using data fields such as student first name and advisor information, or *ad hoc* messaging.

The Technical Group tested an engagement plan by emailing all students with a registration hold prior to the time for course registration for the upcoming term. The email message was personalized with the student's name, a list of holds on their student account, and a link to instructions on how to address each hold. The students were encouraged to take care of holds before registration opened. Student response from the email to the appropriate office was noticed by traffic to those offices and proof that students respond to timely calls to action that are pertinent to them.

With input from the Faculty Subgroup, a Faculty Advisor Report Dashboard was developed that built on the report dashboard created by the Office of Student Success. The reports are advanced finds to generate focused list of students for sending Quick Engagements. Examples of these reports include:

- Early Alerts for My Advisees;
- My High-risk Advisees;
- My Advisees Not Registered for Next Semester;
- My New Advisees; and
- Advisees with Term 3-3.49 GPA.

The CRM Advise Technical Subgroup also recognized that using the platform to provide encouragement at times when appropriate was equally important to when a student was flagged as having a negative event. The recommendation of sending advisees that are making good academic progress but are not at the top their class is just one example of this type of student engagement. The advisee report of students with a term GPA of 3-3.49 is one way in which faculty advisors may quickly identify their advisees making good progress and send an encouraging note. Other examples include:

- New student/advisee;
- Follow-up with a student I've been working with;
- Student close to graduation;
- Early Alerts;
- When class schedules are available; and
- Registration open and need to meet with my advisee.

Further, the tracking of student interactions and their follow-up is also an important part of advising students. CRM Advise allows advisors and professional staff to monitor and manage student interactions from one screen and not require extensive email and note searches.

F. Measuring the Effectiveness of Student Engagement Efforts

As student success tools, such as CRM Advise, continue development to support retention programs, it will be equally important to measure the successes and challenges of those programs and associated services, as well as make necessary changes to ensure they are effective in assisting students in persisting to degree completion. As changes in student experiences, college preparation trends, cultural shifts and even technology uses occur, predictors of student success will inevitably change as well. Similarly, academic and non-academic data elements used to identify at-risk students will need to be updated and evaluated to ensure systems and programs are helping students in the way they were intended. As new trends in student backgrounds, behaviors, and success indicators are identified, modifications to student success intervention strategies must be made to keep student engagement efforts relevant and effective.

Further, how the institution defines meaningful engagement must also evolve as technology and student behaviors change. The current generation of students is different than previous ones, and it is obvious that they react to different forms of communication and messaging than just a few years ago. It will be important for the institution to keep up with communication trends and reach students in ways that are meaningful to them. CRM technologies can assist in measuring effectiveness of current student engagement efforts and by using the data from CRM Advise, assist with analyzing trends and the effectiveness of CMU programs.

G. Going Forward

In addition to continually measuring the effectiveness of student success intervention strategies, CMU must plan for future enhancements in the use of CRM Advise by adding communication channels with students, interfacing other campus applications with CRM Advise, and expanding the use of the platform to reach more students.

The University is currently developing student engagement plans using communication channels such as in-person meetings, phone calls, and emails. CMU plans to add communication channels

such as texting, student and faculty portals, and mobile notifications. The University has identified a text messaging service, Twilio, with API integration with CRM Advise as an opportunity to expand communication with students. The service will allow student service offices and advisors to use non-personal cell phone numbers to send text message announcements and notifications to students from CRM Advise and track student communications. A pilot with Twilio is planned to start this fall.

Future releases of CRM Advise are to include a new faculty and student portal. The faculty portal is to allow instructors to create ad-hoc or manual alerts regarding a student outside of the CRM interface. A feature identified by Ellucian for the student portal is an interface to communicate early alerts that then enable a student to select meeting times with their advisor. CMU is already licensed for Ellucian Mobile platform and will continue to develop use of student mobile notifications through both of these Ellucian supported and integrated products.

In addition to adding communication channels, CMU is interested in interfacing CRM Advise with other campus applications that provide valuable insight into a student's academic progress or campus involvement to help identify if a student is at risk of dropping out. First, the current release of CRM Advise provides a direct link to each student's program sheet in Degree Works to provide advisors with information about their degree plan in addition to the student's current and future term information. This functionality will be available with the latest upgrade to Degree Works.

Second, Ellucian identified CMU as an early adopter of CRM Advise in part due to its learning management system subscription with Desire2Learn. Once Ellucian provides the Desire2Learn integration, additional data points about student course grades and course participation tracked in Desire2Learn will be made available through Ellucian's standard product integration which can be used with student scoring plans and alerts. Last, as the University implements its new campus card solution, the intent is to pull data points from this application as an indicator for campus event participation outside of the classroom. This data would also be utilized in CRM Advise for student scoring plans and alerts.

Finally, CMU plans to move forward with the development of CRM Advise for other at-risk student populations and general student engagement efforts. One student group mentioned above, is the GOALS program at WCCC. The GOALS program is like the main campus initiative of the Office of Student Success and the PB student cohort but for students redirected to the community college. The development of CRM Advise for the GOALS program will require a way to identify those students and develop student success intervention strategies pertinent to this group of students. To expand the use of CRM Advise, it is important that the University develop documentation and properly train academic advisors in its effective use for student engagement and the protection of student privacy.

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APPENDICES

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Cohort Size

Fall -	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total	829	721	689	731	964	1108	1288	1215	1125	1063	1198
Male	364	334	303	341	465	555	611	554	490	491	538
Female	465	387	386	390	499	553	677	661	635	572	660
Black	19	17	17	13	26	15	29	21	25	19	25
Hispanic	70	75	61	78	65	147	177	173	152	167	202
Asian	30	38	35	23	38	35	12	14	17	18	28
Pacific Islander	0	0	0	0	0	0	12	5	5	3	4
American indian	15	8	17	7	22	25	10	8	8	3	9
White	665	545	528	575	715	852	960	911	854	793	869
Multi-racial	0	0	0	0	0	0	58	58	51	47	46
Non-resident Alien	0	1	1	2	2	0	0	0	3	3	
Not reported	30	37	30	33	96	34	30	25	10	10	15

Retained to Second Year

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total	53.6	60.6	61.0	63.2	65.9	64.4	64.6	65.2	66.1	70.4	73.5
Male	49.6	55.3	57.1	54.5	64.7	61.3	61.6	61.7	61.0	65.6	69.0
Female	56.8	65.1	64.0	70.9	66.9	67.6	67.4	68.1	70.1	74.5	77.1
Black	63.2	56.3	70.6	61.5	61.5	73.3	44.8	61.9	60.0	63.2	56.0
Hispanic	50.0	54.7	63.9	61.5	64.6	61.9	57.1	58.4	68.4	74.9	71.3
Asian	56.7	57.9	60.0	65.2	68.4	82.9	75.0	92.9	76.5	88.9	75.0
Pacific Islander							41.7	80.0	60.0	100.0	75.0
American indian	40.0	87.5	52.9	28.6	40.9	60.0	70.0	50.0	62.5	33.3	66.7
White	53.8	61.1	61.4	63.7	66.2	64.1	66.3	65.8	65.7	68.6	74.6
Multi-racial							60.3	65.5	66.7	83.0	67.4
Non-resident Alien		0	0	100.0	50.0				100.0	66.7	
Not reported	56.7	64.9	50.0	63.6	70.8	64.7	86.7	80.0	60.0	60.0	86.7

Graduated with Baccalaureate Degree within Four Years

	2005	2006	2007	2008	2009	2010	2011
Total	9.4	13.2	13.3	15.9	15.4	14.0	15.5
Male	6.9	8.7	10.0	10.6	11.0	11.4	12.8
Female	11.4	17.1	15.8	20.6	19.4	16.7	18.0
Black	0.0	0.0	12.5	7.7	7.7	6.7	0.0
Hispanic	4.3	5.3	9.8	14.1	12.3	12.9	7.3
Asian	17.2	10.5	8.6	8.7	10.5	22.9	16.7
Pacific Islander							8.3
American indian	6.7	25.0	5.9	14.3	4.5	16.0	30.0
White	10.1	14.5	14.6	16.8	15.4	13.5	17.3
Multi-racial							12.1
Non-resident Alien		0	0	50.0	50.0		
Not reported	6.7	16.2	6.7	12.1	22.9	24.2	26.7

Graduated with Baccalaureate Degree within Six Years

	2005	2006	2007	2008	2009
Total	24.9	28.8	32.7	32.0	37.2
Male	21.5	24.1	28.7	24.6	31.2
Female	27.5	32.9	35.8	38.4	42.9
Black	15.8	12.5	50.0	15.4	19.2
Hispanic	17.1	20.0	23.0	34.6	32.3
Asian	34.5	31.6	31.4	34.8	36.8
Pacific Islander					
American indian	13.3	50.0	17.6	14.3	22.7
White	25.8	30.0	34.6	31.9	37.9
Multi-racial					
Non-resident Alien		0	0	50.0	50.0
Not reported	26.7	29.7	20.0	33.3	43.8

Graduated with Any Undergraduate Credential within Six Years

	2005	2006	2007	2008	2009
Total	28.4	32.5	36.3	35.9	39.8
Male	23.5	27.1	31.3	28.7	34.6
Female	32.3	37.0	40.2	42.3	44.7
Black	26.3	12.5	56.3	23.1	19.2
Hispanic	18.6	21.3	27.9	38.5	36.9
Asian	34.5	34.2	37.1	39.1	42.1
Pacific Islander					
American indian	13.3	50.0	23.5	14.3	27.3
White	29.2	34.4	37.3	35.8	40.1
Multi-racial					
Non-resident Alien		0	0	50.0	50.0
Not reported	36.7	29.7	33.3	39.4	46.9

WCCC First-time, Full-time Entering Community College Freshmen Cohorts

Retention to Second Year

Cohort	Degree Type		Freshmen Entering in Fall of:				
			2011	2012	2013	2014	2015
2-year	CTE 2-yr	# in cohort	145	173	151	104	117
		# retained	81	87	85	68	74
		% retained	56%	50%	56%	65%	63%
	CMU 2-yr	# in cohort	286	261	257	155	154
		# retained	143	131	127	68	69
		% retained	50%	50%	50%	44%	45%
	Redirect/GOALS	# in cohort	71	77	155	129	182
		# retained	23	25	59	51	70
		% retained	32%	32%	38%	40%	39%

		2011	2012	2013	2014	2015
Subtotal CTE 2-yr and CMU 2-yr	# in cohort	431	434	408	259	271
	# retained	224	218	212	136	143
	% retained	52%	50%	52%	53%	53%

		2011	2012	2013	2014	2015
Subtotal CTE 2-yr, CMU 2-yr, and Redirect	# in cohort	502	511	563	388	453
	# retained	247	243	271	187	213
	% retained	49%	48%	48%	48%	47%

Graduation within 150% of Normal Time to Completion

Cohort			Freshmen Entering in Fall of:		
			2011	2012	2013
2-year	CTE 2-yr	# in cohort	145	173	151
		# graduated	42	50	53
		% graduated	29%	29%	35%
	CMU 2-yr	# in cohort	286	261	257
		# graduated	32	15	11
		% graduated	11%	6%	4%
	Redirect/GOALS *	# in cohort	71	77	155
		# graduated	1	2	3
		% graduated	1%	3%	2%

		2011	2012	2013
Subtotal CTE 2-yr and CMU 2-yr	# in cohort	431	434	408
	# graduated	74	65	64
	% graduated	17%	15%	16%

		2011	2012	2013
Subtotal CTE 2-yr, CMU 2-yr, and Redirect	# in cohort	502	511	563
	# graduated	75	67	67
	% graduated	15%	13%	12%

Appendix B.

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 1. Student Background/Preparation

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
Part A: Positive Effects				
1	Educational preparation/effort	X		
3	Student has realistic expectations of college/university	X		
8	Attitude/Mindset	X		Relationships - Can CMU develop a program of volunteers that are dedicated to a handful of students to act as their Coach? A person who can encourage them, assist them with barriers and be there for them emotionally? Why not look to the general community who value post-secondary education and recruit them? Like the Guardian Scholar program but without the scholarship
9	Cultural academic identity	X		
12	Critical Thinking/problem solving skills	X		
14	Good study habits	X		
32	Student has strong work-ethic	X		
33	Motivation	X		Identify students from LASSI and offer additional services to meet their specific needs
35	"Real world" understanding	X		
41	Attitude toward learning	X		
42	Willingness to work	X		Perhaps offer study hall work environment 6through TLC or for specific courses
43	Curiosity/want to learn	X		Campus Presentations to students, like with the robots or other inherently interesting topics "Beyond" classes – grab attention
45	Time management skills	X		
47	Strong motivation	X		
55	Ability to form connections	X		Essential Learning courses might help – advertise and inform on the connecting disciplines
59	Drive to succeed	X		
61	Self-discipline	X		
Part B: Negative Effects				
1	Difficulty with technology		X	
6	Attitude/Mindset		X	Relationships - Can CMU develop a program of volunteers that are dedicated to a handful of students to act as their Coach? A person who can encourage them, assist them with barriers and be there for them emotionally? Why not look to the general community who value post-secondary

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Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
				education and recruit them? Like the Guardian Scholar program but without the scholarship
10	Unrealistic college expectations		X	
11	Non-Traditional Students		X	Non-Trads may have needs that traditional students don't e.g., needing childcare. CMU might be able to assist by providing childcare (if that is even possible) or perhaps other types of support such as an opportunity for non-trads to get together and meet each other.
12	Sense of Entitlement		X	Peer mentoring programs
13	Lack of study skills		X	
15	Difficulty with math		X	Jump Start for Accuplacer scores that fall below the MATC 090. If a student places in the 030-060 range then CMU should provide additional support for these students otherwise the 090 math will be too difficult. This will be an expensive investment. Maybe CMU identifies students after taking the Accuplacer recommending they enroll in either Jump Start or a math refresher course to get them ready for 090.
17	Millennials tend not be concerned with hard deadlines for courses or assignments ("I can just take it again if I fail")		X	Create more consistent "late work" policies across campus.
20	Failing a course, especially prep courses like math		X	
23	Student lacks motivation		X	During orientation/FYI/Intro to higher education, offer instruction of how to deal with a lack of motivation in a class or in general—diagnosis and problem solving should be included in the session
24	Resiliency		X	
27	Poor academic performance and need for remediation		X	I think we already provide support for PBs that help to make the student more successful.
28	Only reason for attending college is their sport		X	Coaches and administrators should stress using the sport participation to gain the end all goal of a college degree and not "just trying to stay eligible.
30	Academically ineligible to complete in a colligate sport or do not make the team.		X	
31	Self-discipline		X	
34	Low ACT/SAT/ACCU		X	Limit coursework – 6 or 12 cr hrs
37	Attitude toward learning		X	Keep enhancing the classroom experience; be hands-on, use technology to engage students.
39	Not researching career and majors choices early in the process.		X	Beyond undeclared hold, if students aren't in classes going toward their major, send announcement before the major fair and other

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 1. Student Background/Preparation

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
				possible interventions.
40	Underprepared		X	WGISAS
41	Lack of career/major direction		X	
42	Unmotivated/apathetic/passive		X	I give up - pun intended! Their fields can have former students involved with lower level students; try to encourage/excite them. Talk about how important each class is to where they are headed – somewhat built into discussion of program SLOS.
47	Low ACT/SAT/ACCU		X	No overrides!
48	Educational preparation/effort		X	Continue to offer college readiness courses (SUPP 101), maybe consider making it mandatory for freshman.
49	Motivation		X	Identify students from LASSI and offer additional services to meet their specific needs
50	Many students are academically unprepared for MATC 090		X	Offer a low cost preparatory class at WCCC to help build the math skills of students who test far below MATC 090
53	Racial/ethnic minority		X	TRiO, mentoring, CDB, Student Life
59	Lack of understanding difference between college and high school expectations		X	FYI – but another big thing might be if Freshmen level profs do not allow students to continue such habits (continual late work, sloppy work, poor attendance). We need a consistent message.
60	Out-of-town students who spend little time on campus tend to not be retained		X	??
61	Re-Entry (30 yrs and up)		X	"Classes" on library/research/usage.
65	Re-Entry (30 yrs and up)		X	Limit credit hours in coursework at onset.
68	Scared/fearful		X	FYI series – address their concerns, sharing all the ways they can get help. But more, address why they should start classes where they need to, not rush ahead thinking it will be cheaper. Perhaps share statistics/apocryphal data on students who try to rush through prerequisite classes, and the effect of poor grades in their early semesters. Discuss the differences between taking classes in K-12 education vs. now as an adult gives them a big edge.
70	Students of color		X	Better recruiting so there are more students of color. More student clubs related to this perhaps.
71	First-generation		X	TRiO, mentoring, CDB, Student Life
80	Lacking in technology skills		X	More quiet floors in dorms; enforcement of quiet hours
81	1st generation		X	I would guess a lot of PBs are 1st generation – don't know if that gets addressed in the support they get

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 2. Support/Human Resources/Stability

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
Part A: Positive Effects				
10	Projects in conjunction with faculty	X		
13	Family support	X		
19	Financial security	X		Offer more FA options for all students.
20	Having work-study funds	X		
22	Coping skills	X		
24	Early intervention	X		
30	Student has strong family support (emotionally and otherwise)	X		
36	Working less than 20 hours a week	X		
60	Stable housing	X		
Part B: Negative Effects				
2	Some students never meet with their advisor		X	Mandatory advising
7	Mental health		X	Contractor for mental health can provide workshops
9	Coping skills		X	The inability to cope or solve problems on their own is certainly a factor in retention. Many students struggle to make the transition to adulthood. Again, classes like SUPP 101 are helpful in getting them connected, as are resources like student services and mentors. It would be nice to have easy access to counseling services on campus. I don't know that referring them off campus is ideal and if someone is already feeling overwhelmed, this only adds to the problem. We need an on-campus destination, with counselors available to work exclusively with our students.
11	Non-Traditional Students		X	Non-Trads may have needs that traditional students don't e.g., needing childcare. CMU might be able to assist by providing childcare (if that is even possible) or perhaps other types of support such as an opportunity for non-trads to get together and meet each other.
15	Difficulty with math		X	Jump Start for Accuplacer scores that fall below the MATC 090. If a student places in the 030-060 range then CMU should provide additional support for these students otherwise the 090 math will be too difficult. This will be an expensive investment. Maybe CMU identifies students after taking the

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Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 2. Support/Human Resources/Stability

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
				Accuplacer recommending they enroll in either Jump Start or a math refresher course to get them ready for 090.
21	Not meeting with advisor on a regular semester basis		X	After first semester, require advising at least once a year (A-M fall and N-Z spring).
25	Institution integrity		X	Create a Transfer Student Center because transfer students are bounced around between offices. They have difference needs and their financial aid is more complicated and less is available.
29	Financial issues		X	-offer scholarships for continuing students who didn't qualify for any initial CMU scholarships but are doing well -make housing/meal plans more affordable for students; it is sometimes more expensive than tuition -financial aid policies communicated more consistently and clearly to students
32	Student experiences depression & stops attending class or performing well		X	Educate professors on the protocol and the resources available for depressed students (Faculty Senate can play a role in educating the faculty)
33	Students seem to most likely have difficulty at given stress points (inflection points) in the semester		X	Use data to identify those points and then suggest causes that might be addressed.
36	Limited income		X	FAFSA and financial aid can be very intimidating. How can CMU reach out to students to provide more one on one tutorials for accessing aid?
43	Students w/ disabilities		X	EAS does a great job
44	Lack of family support		X	Relationships - Can CMU develop a program of volunteers that are dedicated to a handful of students to act as their Coach? A person who can encourage them, assist them with barriers and be there for them emotionally? Why not look to the general community who value post-secondary education and recruit them? Like the Guardian Scholar program but without the scholarship
51	Financial Support – lack of		X	We already help out in this area
55	Financial security		X	Offer more FA options for all students.
56	Stress		X	Contractor for mental health can provide workshops
62	Family distractions		X	
64	Lack of coping skills		X	
70	Students of color		X	Better recruiting so there are more students of color. More student clubs related to this perhaps.
71	First-generation		X	TRiO, mentoring, CDB, Student Life
72	Living on campus		X	Living on campus and paying for a meal plan is very expensive
75	Under-resourced		X	Evidence-based FA packaging for student success

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 2. Support/Human Resources/Stability

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
78	Unexpected work hours		X	Encourage employers in community to work with student employees to let them attend classes
81	1st generation		X	I would guess a lot of PBs are 1st generation – don't know if that gets addressed in the support they get

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 3. Accesses Support Services/Asks for Help

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
Part A: Positive Effects				
2	Students who receive tutoring show clear improvements	X		How do we get more students to use the tutoring system? How do we get more classes covered by tutors?
11	Willingness to ask for help	X		
16	Students being open to tutoring. Continue to removing the stigma.	X		
22	Coping skills	X		
23	Seek tutorial Assistance	X		Availability of/awareness of assistance
24	Early intervention	X		
27	Asking for help when needed; using campus resources	X		
38	Utilization of campus resources	X		
44	Self-advocates when needed	X		
48	Utilizing both health and mental health services when needed	X		
54	Visiting a Mentor as Needed	X		
62	Peer mentors	X		
Part B: Negative Effects				
5	Student from underrepresented group has cultural biases that prevent success (such as not asking for help or feeling generally uncomfortable because s/he is not used to interacting with people outside of her/his cultural group)		X	Train members of Cultural Diversity Board to provide opportunities/sessions for specific underrepresented groups on such issues such as asking for help from their peers and professors and connecting more effectively with a student population that is very different from him/her culturally. Be sure that this is done in the freshman year.
7	Mental health		X	Contractor for mental health can provide workshops
15	Difficulty with math		X	Jump Start for Accuplacer scores below the MATC 090. If a student places in the 030-060 range then CMU should provide additional support for these students as 090 math will be too difficult. This will be an expensive investment. Maybe CMU identifies students after taking the Accuplacer recommending they enroll in either Jump Start or a math refresher course to get them ready for 090.
20	Failing a course, especially prep courses like math		X	

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 3. Accesses Support Services/Asks for Help

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
21	Not meeting with advisor on a regular semester basis		X	After first semester, require advising at least once a year (A-M fall and N-Z spring).
27	Poor academic performance and need for remediation		X	I think we already provide support for PBs that help to make the student more successful.
32	Student experiences depression & stops attending class or performing well		X	Educate professors on the protocol and the resources available for depressed students (Faculty Senate can play a role in educating the faculty)
33	Students seem to most likely have difficulty at given stress points (inflection points) in the semester		X	Use data to identify those points and then suggest causes that might be addressed.
35	Student fails to ask for help because s/he feels that s/he has to be completely independent when it comes to learning		X	During orientation/FYI/Intro to Higher Education, reinforce the idea that successful people ask for help. They do not try to go it alone when it comes to education or life. Include that as part of the digital messaging all over campus—that asking for help is a strength, not a weakness.
46	Incorrect advisor for major (institutional issue, not student characteristic)		X	We have some students who primary advisor isn't in their major. Example, returning students get their major fixed, but there is no report that goes to the department to fix their advisor. Another example is an advisor who is no longer at CMU. Develop correction process.
56	Stress		X	Contractor for mental health can provide workshops
58	Student lacks support system in Department/Major (professors & peers)		X	Offer student multiple opportunities to connect with professors in his/her major and with peers both within and outside of his/her major using Department Socials (which not all departments have) and pairing him/her with a peer academic coach/mentor in his/her discipline using the advising office as soon as possible.
63	Difficulty with self-advocacy		X	Avoid just passing student on to another department
68	Scared/fearful		X	FYI series – address their concerns, sharing all the ways they can get help. But more, address why they should start classes where they need to, not rush ahead thinking it will be cheaper. Perhaps share statistics/apocryphal data on students who try to rush through prerequisite classes, and the effect of poor grades in their early semesters. Discuss the differences between taking classes in K-12 education vs. now as an adult gives them a big edge.
69	Failing gateway classes in specific majors such as ENGR 101, BUGB 105		X	Redirect student to another major or to TLC.
77	Students re-taking failed courses seem unlikely to do better the second time around		X	Create some type of intervention before a course can be re-taken

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 4. Study Habits/Commitment to Education

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
Part A: Positive Effects				
4	Resiliency	X		
6	Class attendance	X		
7	Attending Regularly	X		Attendance checks?
8	Attitude/Mindset	X		Relationships - Can CMU develop a program of volunteers that are dedicated to a handful of students to act as their Coach? A person who can encourage them, assist them with barriers and be there for them emotionally? Why not look to the general community who value post-secondary education and recruit them? Like the Guardian Scholar program but without the scholarship
10	Projects in conjunction with faculty	X		
12	Critical Thinking/problem solving skills	X		
14	Good study habits	X		
15	Self Disciplined	X		
16	Students being open to tutoring. Continue to removing the stigma.	X		
17	Interacting in class	X		Can a faculty member who isn't interacting or staying up-to-date submit something to Pilot?
21	Organization	X		CMU can provide workshops
22	Coping skills	X		
27	Asking for help when needed; using campus resources	X		
28	Staying up-to-date with homework and reading	X		
31	Study Habits	X		When good
32	Student has strong work-ethic	X		
33	Motivation	X		Identify students from LASSI and offer additional services to meet their specific needs
36	Working less than 20 hours a week	X		
40	Registering for class before the start of the semester	X		Once classes start, no late admits.
41	Attitude toward learning	X		
42	Willingness to work	X		Perhaps offer study hall work environment 6through TLC or for specific courses
43	Curiosity/want to learn	X		Campus Presentations to students, like with the robots or other inherently interesting topics "Beyond" classes – grab attention
44	Self-advocates when needed	X		
45	Time management skills	X		
47	Strong motivation	X		

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Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 4. Study Habits/Commitment to Education

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
49	Good school/work/life balance	X		
51	Recognition of achievement	X		
52	Preparation for graduate school	X		
58	Starting class on-time	X		
59	Drive to succeed	X		
61	Self-discipline	X		
Part B: Negative Effects				
4	Student does poorly on exam in a majors class due to poor study skills		X	Immediate intervention by professor to advise student directly or to see his/her academic advisor immediately; also, have the Tutorial Center work purely on study skills with the student, in cooperation with a peer academic coach/mentor or peer tutor who has taken the class and knows how to study for that particular class
6	Attitude/Mindset		X	Relationships - Can CMU develop a program of volunteers that are dedicated to a handful of students to act as their Coach? A person who can encourage them, assist them with barriers and be there for them emotionally? Why not look to the general community who value post-secondary education and recruit them? Like the Guardian Scholar program but without the scholarship
8	Not declaring a major as they change		X	Create an online method for students to change their major and get an advisor assigned.
12	Sense of Entitlement		X	Peer mentoring programs
13	Lack of study skills		X	
16	Students who are on their cell phones during class		X	?
17	Millennials tend not be concerned with hard deadlines for courses or assignments ("I can just take it again if I fail")		X	Create more consistent "late work" policies across campus.
18	Non attendance		X	Require attendance be taken
20	Failing a course, especially prep courses like math		X	
21	Not Meeting with advisor on a regular semester basis		X	After first semester, require advising at least once a year (A-M fall and N-Z spring).
22	Study Habits		X	Coaching/Peer Counselors?
23	Student lacks motivation		X	During orientation/FYI/Intro to higher education, offer instruction of how to deal with a lack of

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 4. Study Habits/Commitment to Education

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
				motivation in a class or in general—diagnosis and problem solving should be included in the session
24	Resiliency		X	
26	Not taking classes toward degree		X	Utilize DegreeWorks to see if the classes a student is taken is making progress toward degree. Send notice to either change major or require advisor visit.
27	Poor academic Performance and need for remediation		X	I think we already provide support for PBs that help to make the student more successful.
28	Only reason for attending college is their sport		X	Coaches and administrators should stress using the sport participation to gain the end all goal of a college degree and not "just trying to stay eligible.
30	Academically ineligible to complete in a colligate sport or do not make the team.		X	
31	Self-discipline		X	
33	Students seem to most likely have difficulty at given stress points (inflection points) in the semester		X	Use data to identify those points and then suggest causes that might be addressed.
37	Attitude toward learning		X	Keep enhancing the classroom experience; be hands-on, use technology to engage students.
38	Inability to decide on appropriate major/career		X	Students' lack of knowledge on the world of work and family pressure to pursue certain careers can make students select a path that isn't a good fit. It would be nice to see classrooms incorporate some aspect of career education for that field/major in their classes. As they're learning about "Human Resource Management", they're also talking about where you can apply those skills and what jobs are related to their learning. I don't think this should necessarily fall on Career Services. Instructors should be able to speak to the industry they are working in and share their knowledge of different opportunities. Too many students pursue a degree and have no idea what to do with it. There should be discussions throughout their classes about where they can apply their learning so they aren't left with a piece of paper and no direction.
39	Not researching career and majors choices early in the process.		X	Beyond undeclared hold, if students aren't in classes going toward their major, send announcement before the major fair and other possible interventions.
41	Lack of career/major direction		X	
42	Unmotivated/apathetic/passive		X	I give up - pun intended! Their fields can have former students involved with lower level students; try to encourage/excite them. Talk about how important each class is to where they are headed –

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 4. Study Habits/Commitment to Education

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
				somewhat built into discussion of program SLOS.
49	Motivation		X	Identify students from LASSI and offer additional services to meet their specific needs
52	Students don't check their email		X	Need another way to communicate with students about upcoming events and important deadlines, maybe text messaging?
54	Unmotivated		X	n/a
57	Student has poor rime management skills		X	Have professors talk about time management strategies during the first day of class along with syllabus; also, direct them more assertively to Microsoft Outlook's Calendar using digital messaging on campus
63	Difficulty with self-advocacy		X	Avoid just passing student on to another department
64	Lack of coping skills		X	
66	Students stop attending ESSL courses before major professors are aware of problems		X	If all grades were entered by d2l, faculty advisors could have real-time access to performance
69	Failing gateway classes in specific majors such as ENGR 101, BUGB 105		X	Redirect student to another major or to TLC.
73	Organization		X	CMU can provide workshops
76	Excessive dropping or withdraw from classes		X	Identify students using drop or withdraw codes during certain time frames to identify students that may need intervention.
77	Students re-taking failed courses seem unlikely to do better the second time around		X	Create some type of intervention before a course can be re-taken
79	Disorganized/no planning skills		X	FYI series helps a lot, perhaps having identified freshmen class profs emphasize how to plan, give reminders??

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 5. Campus Involvement/Connectedness

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
Part A: Positive Effects				
10	Projects in conjunction with faculty	X		
17	Interacting in Class	X		Can a faculty member who isn't interacting or staying up-to-date submit something to Pilot?
18	Students involved in an activity other that classes at CMU seem more likely to retain	X		Monitor members of all clubs and extracurriculars and provide that information to advisors
21	Organization	X		CMU can provide workshops
25	Institutional ritual entrance and closing ceremonies	X		
26	School engagement	X		Relationships - Can CMU develop a program of volunteers that are dedicated to a handful of students to act as their Coach? A person who can encourage them, assist them with barriers and be there for them emotionally? Why not look to the general community who value post-secondary education and recruit them? Like the Guardian Scholar program but without the scholarship
27	Asking for help when needed; using campus resources	X		
29	Chance to share expertise, to feel they have something valuable to offer the campus community	X		Set up simple Knowledge Management System (KMS) for interested students/staff/faculty – example have pointers so an individual who is an expert on fly fishing, a student who is an expert on genealogies, a student who has a passion for cross country skiing, … campus constituents can see who feels they are expert at what as part of the community
34	Living on campus	X		Students get connected to people and campus more quickly
36	Working less than 20 hours a week	X		
37	Alumni relationships development	X		
38	Utilization of campus resources	X		
39	Involvement in clubs and organizations	X		Can we pull from OrgSync to give positive points for engagement?
46	Involvement in campus community	X		
50	Impact experience such as study aboard, capstone projects, and leadership opportunities	X		
53	Participation in extracurricular activities	X		

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Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 5. Campus Involvement/Connectedness

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
55	Ability to form connections	X		Essential Learning courses might help – advertise and inform on the connecting disciplines
56	Connected to campus by a professor, advisor, club, sport, etc.	X		
57	Social involvement	X		
62	Peer mentors	X		
63	Millennials tend to be extremely concerned with being part of a group of friends	X		Leverage the behavior by creating official "study groups" through TLC for specific classes
Part B: Negative Effects				
2	Some students never meet with their advisor		X	Mandatory advising
3	Off – campus housing		X	More social/academic on-campus activities, organizations
8	Not declaring a major as they change		X	Create an online method for students to change their major and get an advisor assigned.
14	Failure to be admitted into a desired program such as Nursing, ME CU-Boulder, Teaching, etc.		X	Redirect student to another major.
19	PB students never form a relationships with major faculty		X	Assign PB students advisees in Center and at major level
30	Academically ineligible to complete in a colligate sport or do not make the team.		X	
45	Student fails to connect with professors and peers in his/her major		X	Have each department establish a 1-credit course that would be taken during the student's first semester to introduce the student to the professors in the department, department resources, course eXpectations of different courses, and past student successes. Make it a fun course that is hands-on if possible.
46	Incorrect advisor for major (institutional issue, not student characteristic)		X	We have some students who primary advisor isn't in their major. Example, returning students get their major fixed, but there is no report that goes to the department to fix their advisor. Another example is an advisor who is no longer at CMU. Develop correction process.
52	Students don't check their		X	Need another way to communicate with students

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 5. Campus Involvement/Connectedness

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
	email			about upcoming events and important deadlines, maybe text messaging?
53	Racial/ethnic minority		X	TRiO, mentoring, CDB, Student Life
58	Student lacks support system in Department/Major (professors & peers)		X	Offer student multiple opportunities to connect with professors in his/her major and with peers both within and outside of his/her major using Department Socials (which not all departments have) and pairing him/her with a peer academic coach/mentor in his/her discipline using the advising office as soon as possible.
60	Out-of-town students who spend little time on campus tend to not be retained		X	??
66	Students stop attending ESSL courses before major professors are aware of problems		X	If all grades were entered by d2l, faculty advisors could have real-time access to performance
67	School engagement		X	Relationships - Can CMU develop a program of volunteers that are dedicated to a handful of students to act as their Coach? A person who can encourage them, assist them with barriers and be there for them emotionally? Why not look to the general community who value post-secondary education and recruit them? Like the Guardian Scholar program but without the scholarship
72	Living on campus		X	Living on campus and paying for a meal plan is very expensive
74	First-year students are unsure how to get involved in campus clubs and other groups		X	Hold a club fair the weekend before classes start.

Table 1. STUDENT CHARACTERISTICS/BEHAVIORS
Cluster 6. Other

Item #	Student Characteristic or Behavior	Positive Effect	Negative Effect	If the University can have an effect on a negative entry, what might CMU consider doing?
Part A: Positive Effects				
5	Institution integrity	X		Create a Transfer Student Center because transfer students are bounced around between offices. They have difference needs and their financial aid is more complicated and less is available.
23	Seek tutorial assistance	X		Availability of/awareness of assistance
25	Institutional ritual entrance and closing ceremonies	X		
40	Registering for class before the start of the semester	X		Once classes start, no late admits.
51	Recognition of achievement	X		
52	Preparation for graduate school	X		
58	Starting class on-time	X		
Part B: Negative Effects				
14	Failure to be admitted into a desired program such as Nursing, ME CU-Boulder, Teaching, etc.		X	Redirect student to another major.
25	Institution integrity		X	Create a Transfer Student Center because transfer students are bounced around between offices. They have difference needs and their financial aid is more complicated and less is available.
28	Only reason for attending college is their sport		X	Coaches and administrators should stress using the sport participation to gain the end all goal of a college degree and not "just trying to stay eligible.
30	Academically ineligible to complete in a colligate sport or do not make the team.		X	
33	Students seem to most likely have difficulty at given stress points (inflection points) in the semester		X	Use data to identify those points and then suggest causes that might be addressed.
46	Incorrect advisor for major (institutional issue, not student characteristic)		X	We have some students who primary advisor isn't in their major. Example, returning students get their major fixed, but there is no report that goes to the department to fix their advisor. Another example is an advisor who is no longer at CMU. Develop correction process.
78	Unexpected work hours		X	Encourage employers in community to work with student employees to let them attend classes

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Hi {!Contact:First Name;},

Congratulations on your decision to attend Colorado Mesa University! You are now registered for Student Orientation your next step towards an exciting and fulfilling college experience! Your attendance has been confirmed for (orientation date).

At Student Orientation you will have the opportunity to meet with an advisor, register for classes, obtain your student ID card, meet with current students, and receive a campus tour. We also have great sessions and activities planned for you and your family members and/or guests.

In order for a successful registration, here are some helpful tips and tricks to prepare you for your upcoming Orientation:

- Preparing for Orientation is crucial. Make sure you are up-to-date with what to bring.

- Check- in will be from 8:00am-8:45am in the [University Center](#) on the day of your session. The session will conclude around 3:00pm. Please plan on stay for the entire session.
- Not sure if you need to test prior to Orientation? Visit our [testing](#) page to view criteria and/or to make appointments.
- [Academic programs and program sheets](#) can help guide your conversations about which classes to register for when you attend Orientation.
- [The CMU Catalog](#) can assist you in choosing the program of study that best fits your aspirations and goals.
- [The Advising Center](#) can assist you with course selection and registration, major exploration and identifying strategies for academic success at Orientation.
- High school is very different than college. Our HS vs. College List will help you know what to expect.

Please note that there is a cost of $20 for you and $15 for any guests that will be attending with you. These costs are automatically billed to your student account, so no need to pay online or in person.

If you have any questions, comments, concerns or need to change your Orientation date, please visit our [FAQ](#) page or contact KayRae Little at 970.248.1514 or at krlittle@coloradomesa.edu.

@ColoradoMesaU

Colorado Mesa University
1100 North Avenue
Grand Junction, CO 81501-3122

970.248.1875 | 800.982.6372

Differences Between High School and College

High School	College
• Learning support staff and/or parent(s) act as advocates for the student.	• You act as your own advocate.
• Services are delivered to the student.	• You must seek out and initiate services.
• The student's time is usually structured by others and teachers often remind you of deadlines and due dates.	• You must manage your own time and balance your responsibilities.
• Guidance counselors pick students' classes each term.	• Academic advisors make recommendations about class selection, but leave the final decision to you.
• High school is mandatory and usually free.	• College is voluntary and often expensive. You are responsible for applying for financial aid and paying tuition, fees, books, and any other costs.

Responsibility

⇒ You are expected to take responsibility for what you do and don't do, as well as, for the consequences of your actions.

⇒ Make sure you are familiar with your rights and responsibilities as a student by familiarizing yourself with **CMU's policies** and reading your course syllabus. Your course syllabus spells out exactly what is expected of you, when it is due, and how you will be graded.

⇒ Use a **weekly schedule** to help manage your time —include your class schedule, study time, workout time, family time, etc.

⇒ Check out the Time Management Calculator under the Student Academics tab in MAVzone to help you understand how your time is being spent.

⇒ At the beginning of the semester, enter due dates and exams from your syllabus onto a monthly calendar or planner.

High School	College
• Grades are given for most assigned work.	• Assigned work is given for the benefit of the student but graded at the discretion of the professor.
• Extra credit, late work, makeup tests, and retake tests are often an option.	• Extra credit, late work, makeup tests, and retake tests are rarely an option.
• Teachers use many homework assignments, tests, projects, etc. to assign you a grade.	• Professors often assign grades based on a few major tests or papers which may cover large amounts of material.
• Students may graduate if they pass all required courses with a grade of D or higher.	• You may be able to use a grade of D or higher for some Essential Learning courses, but many programs require a grade of C or higher for major courses. You are responsible for knowing your **degree's requirements.**

Grades

⇒ Use assigned homework as a study tool. Practice answering questions without using your notes to quiz yourself.

⇒ Use your syllabus to determine the dates and worth of assignments, exams, projects, etc. and start preparing for them in advance.

Teachers

High School

- Teachers write out information for you to copy into your notes.

- Teachers often review materials you need to study for tests.

- Teachers let you know if they are concerned about your class performance and give you frequent feedback about your grade.

- Teachers take attendance.

College

- Professors may lecture throughout class, expecting you to identify the important points in your notes.

- Professors don't review as much and expect you to come prepared to ask questions before exams.

- Professors expect you to keep track of your own grades and ask them if you need help.

- Professors may not take attendance.

⇒ You are responsible for learning and applying course material. Preview assigned readings before class and review your notes shortly after class to see if you missed any material or need to add more information.

⇒ Review notes from previous lectures once a week, so it remains fresh in your memory.

⇒ Take advantage of your professor's office hours. Professors are usually open and helpful, but most expect you to initiate contact if you need assistance.

⇒ If you know you are going to miss a class, contact the professor ahead of time to explain the situation. You will be responsible for any missed assignments and getting the notes you missed from a classmate.

Studying

High School

- Spend a great deal of time in class, less time on homework.

- May not have needed to study much outside of class.

- Students are expected to reproduce what they have been taught.

- Careful note-taking during lectures is often unnecessary.

- Reading assignments are usually reviewed in class.

College

- You may spend 12-15 hours in class, but much more time on homework. For every hour you are in class, plan to spend at least 2 hours studying.

- You will need to review class notes and read textbooks.

- You will be expected to be able to apply what you have learned to new situations, solve new types of problems, and synthesize information.

- **Note-taking strategies** should be learned and used for every lecture.

- Reading assignments are done on your own and class lectures assume you have read the materials.

⇒ Break up studying into 30 minute to 1 hour sessions, then take a short break. Review course material early and often—try to do a little every day!

⇒ Try out some reading strategies, like **SQ3R**, to make reading assigned materials faster and more efficient.

⇒ Use **active study methods** and don't be afraid to try out new study strategies.

⇒ Work with a tutor at the **Tutorial Learning Center** or Librarian to further develop your study skills and research strategies.

Appendix D.

**YOUR SUCCESS AT COLORADO MESA UNIVERSITY
OR WESTERN COLORADO COMMUNITY COLLEGE**

The faculty and staff are glad you have chosen to attend Colorado Mesa University or Western Colorado Community College and want you to succeed in achieving your academic goals. The following information is shared with you to enhance the likelihood that you will be successful.

1. **Attend class.**
    Institutional research shows that class attendance and participation are closely linked to your success as a student (i.e., the better your attendance, the better your grade is likely to be). When you are always present, you will understand the course content and how it contributes to your growth as a college student. You are required to attend this class regularly, adhering to the attendance policy established in this course syllabus by your instructor. Additionally, you should review the Attendance Policy of the institution's **Catalog** for further details on expectations. For online courses, check with your instructor and/or class syllabus for expectations delivered in that format.

2. **Prepare for and participate in class.**
    It takes more than showing up for class to succeed. You need to be prepared to actively participate in class. Your instructor has given you a schedule of course topics for the semester, along with readings and/or activities that should be completed prior to coming to class. If you aren't clear about these expectations, talk with your instructor. In general, you should follow the 2:1 rule: two hours of study/homework time for every 1 hour of classroom time. By meeting deadlines and managing your time wisely, you will get much more from the class and earn higher grades. This can vary from week to week, but on average, most instructors will assume you are putting in the time and keeping pace with the class. So make the effort to stay current and don't leave everything to the end of the term.

    Please turn off cellphones or set them to silent when you are in class. Text messaging, checking email, working on social networking sites, and performing non-class related activities on any electronic device (cell phone, laptop, iPad, etc.) is disruptive and not acceptable behavior during the class session. Check your course syllabus for the consequence of using these devices during class time.

3. **Take advantage of campus resources.**
    We offer numerous academic support resources to help you. The staff of **Tomlinson Library** can assist you with finding information resources either in person or online. The **Tutorial Learning Center** offers *free, walk-in* tutoring for a wide variety of subjects. Get help before a small problem becomes a big one! If your semester gets a little overwhelming, contact the **Office of Student Services** for assistance. Need to engage in some activity outside of classes? Stop by the **Maverick Center** for a good workout, or find students with some similar interests by joining a **student club**.

4. **Build relationships with your instructors, advisor, and other students.**
    a. Your best guidance for success will come from your instructors, and research tells us that your interactions with faculty members are the most important determinate in college success. Instructors genuinely want you to be successful and will do what they can to help you reach your goals. Locate their contact information on the syllabus and store that information in your phone. Each instructor keeps office hours that they set aside to meet with students. If you cannot meet during their office hours, schedule an appointment in advance.

    b. Plan to meet with your advisor at least once a semester. At a minimum, consult with your advisor on your schedule for the next semester before registration opens. Popular required courses fill quickly, so if you delay registration, you might not get your preferred courses and could possibly delay your graduation. Advisors provide valuable assistance in determining which courses you need to take for

your degree and the best order to take courses. Advisors can also direct you to the most appropriate networks when you are in need of assistance.

If you do not know the name of your advisor, log into the MAVzone campus portal: https://cas.coloradomesa.edu/mavzone and click on the Student Academics tab. Scroll down the Academic Profile column to View Major and Advisor in Degreeworks to gain their name and contact information for them.

c. Connect with other students in all your classes. You and your peers have similar goals and will face similar challenges; this can help you feel less alone in solving problems. Being active in a study group can enrich your understanding of course materials and can provide extra motivation and support to succeed. Learn more about the value of creating a study group at *Fight for First Year in College: Form Study Groups* at: http://www.academictips.org/acad/first_y_i_c/formstudygroups.html.

5. **Use financial aid wisely.**
Be aware that your decisions about attending class and considering whether to add or drop a class can affect your financial aid. Discuss potential changes with your advisor before making them. You must complete at least 12 credit hours each semester to be considered full-time, often a requirement to receive financial aid. Part-time students should check with the **Office of Financial Aid** for credit hour requirements. Audited classes do not count for enrollment purposes.

To retain your aid for the next term, you are required to make satisfactory academic progress toward your degree and maintain the following minimum grade point averages below. **If you receive all F's for one term, you will be suspended from financial aid and must repay all Title IV funds.**

Cumulative Credit Hours Earned	Minimum GPA
1 to 15	1.70
16 to 30	1.80
31 to 45	1.90
46+	2.00

To remain eligible to receive financial aid, students must be successfully completing 75% of classes attempted. Aid will be suspended until the student successfully increases the completion rate to 75%. Be sure to report any changes in your enrollment, residency status, or receipt of additional resources in writing to the Office of Financial Aid. Financial aid is not available if you have not graduated from your program but exceed the total undergraduate cumulative hours as show below.

Baccalaureate degree:	170 hours
Associate degree:	80 hours
One-year certificate:	40 hours

Appendix E. EXAMPLES OF LINKS TO COLLEGE SUCCESS RESOURCES

Source: http://www.wikihow.com/Be-a-Successful-College-Student

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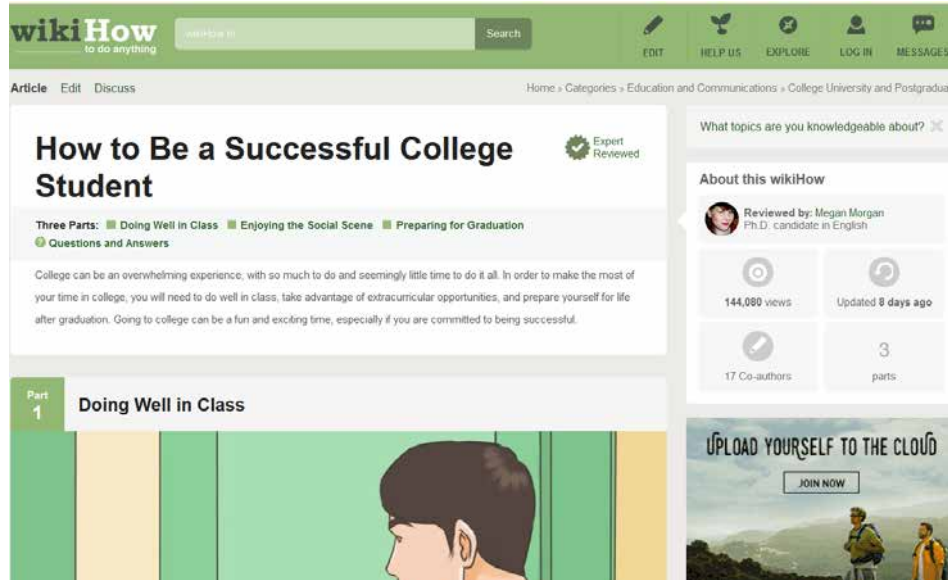
Quintessential Careers:
Making a Successful Transition from College to Career:
Time for a Reality Check

by Randall S. Hansen, Ph.D. and Katharine Hansen, Ph.D.

- **Reprint Guidelines**
- **Free Newsletter Subscription**
- **Main Articles Page**

Search Quintessential Careers:

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> *"[The real world] is a big change, more then you can ever imagine when you are sitting in the classroom thinking about the outside world!"*
> -- Anonymous business-school grad

For many seniors, the time leading up to college graduation and the start of a first job is often chaotic and stressful. You are trying to complete your college career without too much of a senioritis meltdown while dealing with the demands of job-hunting, interviewing, and facing the reality of the end of schooling (at least for the foreseeable future).

In all our discussions with college seniors and recent college graduates, eight issues arise time and time again as the keys to making a successful transition from life as a student to life as a productive employee. Understanding these issues and being prepared for them before they occur should help you make a smoother transition.

Are you ready for a reality check? Here are the eight critical issues facing you in the near future.

1. Time-Related Factors
Some students are very adept at planning their college schedules so they have only afternoon classes or classes only on certain days of the week, and it's these students that have a hard time facing the reality of going to work every day, five days a week, from as early as 6 or 7 in the morning to 6 or 7 in the evening. And it's not like the 8 a.m. class that you often skipped when you hit the snooze button too many times on your alarm clock; show up late one too many times and you'll find yourself unemployed.

Another time-related harsh reality is free time and vacation time. In college, you get used to taking long weekends away from campus -- on top of extremely long winter and summer breaks. Most colleges also have mid-semester breaks. Unfortunately, most employers are not that generous with time off. You may be lucky to get two weeks of vacation in your first job - but even with those two weeks, because you are one of the newest employees, you may not have much choice as to when you can take your vacation.

The final time factor is time management. You may have thought it was tough managing various group projects, tests, and other activities while in college, but it will be even more of a struggle to manage your time once you are working -- and your future with your employer depends on how well you can manage your time. "There is a huge difference in time management when you have to work 40+ hours and try to have a life on the side," a 2001 general-business grad told us. "I find myself scheduling dinner with people four weeks in advance. College didn't teach me working 40 hours. College didn't teach me a bedtime... but those are all things you learn with necessity. I think if I had worked during my college career... I would have learned that."

On the other hand, some students worked so hard in college that they actually find the working world -- where homework is not necessarily required -- a welcome relief. "I was very busy in college," said Anne Johnson, senior corporate relations coordinator for the U.S. Chamber of Commerce, ♦so when I started working full-time, without homework and studying, I felt that I had a lot of free time. I tell people that I have had more fun since I graduated college than I did in all four years of college. I have gotten involved in many activities too," said Johnson, a 2002 economics grad from the University of Dallas.

Source: http://www.quintcareers.com/printable/college-to-career.html

Appendix F. ACCEPTANCE LETTER FOR TRANSFER STUDENTS
ADMITTED ON PROBATION

June 14, 2016

Dear Steven,

Congratulations! On behalf of the Colorado Mesa University faculty, staff and administration, I am pleased to announce that you have been admitted to Colorado Mesa University into the Bachelor of Science: Computer Science degree program for the Fall 2016 semester. Let me be the first to welcome you!

Upon review of your academic records, the Admissions Review Committee chose to provide you the opportunity to work on your educational endeavors on a probationary basis. Therefore, you must maintain a minimum first semester grade point average of a 2.0 in order to avoid being placed on academic suspension.

For tuition purposes, you are classified as an out-of-state student. If you believe this to be incorrect, please contact us at (970) 248-1875. Now that you've been admitted you can begin using the admitted student portal, MAVzone. In MAVzone you can work on the next steps, access your CMU e-mail account and learn about the many ways to get involved on campus. You will receive an e-mail containing a link to set up your account. Once established, you can access this account through the MAVzone link on our home page.

We hope you will join us in the perfect setting for higher learning. Our strong academic programs are complemented by an array of opportunities for leadership outlets, athletics, incredible outdoor recreation and top-quality living options. Congratulations once more on your acceptance to Colorado Mesa University!

Warmest regards,

Michael Poll, Vice President for Enrollment Management

IMPORTANT INFORMATION: Your 9-digit Colorado Mesa ID, which you will need in order to conduct student business, is   Your "next steps" instructions are located online at www.coloradomesa.edu/nextsteps, just waiting for you to complete.

Appendix G. FIRST SEMESTER PB STUDENT SCORING PLAN

Success Score Scoring Plan - First Semester PB Students			
Criteria	**Value**	**Weight**	**Weight Total**
Rule 1	**Academic Preparedness**	**30.00%**	
High School GPA	< 2.8	30.00%	30.00%
High School GPA	< 2.5	50.00%	80.00%
Dev Ed Math & English	= Yes	20.00%	100.00%
			100.00%
Rule 2	**Commitment to Education**	**25.00%**	
Meeting with Peer Advisor in 1st 2 weeks	<1	10.00%	10.00%
Meeting with Peer Advisor in 1st 4 weeks	<2	10.00%	20.00%
Meeting with Peer Advisor in 1st 6 weeks	<3	10.00%	30.00%
Meeting with Peer Advisor in 1st 8 weeks	<4	10.00%	40.00%
Meeting with Peer Advisor in 1st 10 weeks	<5	10.00%	50.00%
Registration Meeting with Professional Coach	<1	25.00%	75.00%
LASS Motivation Score	<30	25.00%	100.00%
			100.00%
Rule 3	**Financial**	**15.00%**	
Business Office Hold	>0	75.00%	75.00%
EFC Value	between 5198 and 7797	25.00%	100.00%
			100.00%
Rule 4	**Classroom Progress**	**20.00%**	
Early Alert @ 5 weeks = unsatisfactory	=1	25.00%	25.00%
Early Alert @ 5 weeks = unsatisfactory	>1	25.00%	50.00%
Early Alert @ 8 week =D or F	=1	25.00%	75.00%
Early Alert @ 8 week =D or F	>1	25.00%	100.00%
			100.00%
Rule 5	**Campus Life**	**10.00%**	
Living Off Campus	= Yes	100.00%	100.00%
			100.00%
Total Weight of Rules			100.00%

Success Score Scoring Plan - General Undergraduate			
Criteria	Value	Weight	Weight Total
Institutional Cumulative GPA	<2.0	16.00%	16.00%
Institutional Cumulative GPA	< 2.4	16.00%	32.00%
Institutional Cumulative GPA	<3.0	16.00%	48.00%
Term Credit Hours	<12	14.00%	62.00%
Term Credit Hours	<=6	14.00%	76.00%
Class Standing	=Junior	3.00%	79.00%
Class Standing	=Sophomore	4.00%	83.00%
Class Standing	=Freshman	4.00%	87.00%
Age	>=25	1.00%	88.00%
Academic Standing	=On Probation or Suspension	4.00%	92.00%
Financial Aid: EFC Value	<6300	2.00%	94.00%
Academic Program	=Certificate	3.00%	97.00%
Academic Program	=AAS, AS or AA	3.00%	100.00%
			100.00%
Total Weight			100.00%