What do we need to know about how our learners arrive?

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Executive Summary

Whether students come to SOU directly from high school, from other institutions, or from a variety of nontraditional backgrounds, their past experiences—as learners and as human beings—affect their academic readiness, their sense of purposefulness, and ultimately their success in college. For traditional students, high school experiences strongly influence readiness, purposefulness, and success. For nontraditional students, employment, family responsibilities, and/or military service may be more influential. For transfer students, experiences at other campuses provide competing paradigms. For all students, two key issues—health and wellness, and finances—are central to success.

Traditional Students Coming from High Schools

Current methodologies and policies in K-12 schools may foster an instrumental sense of purposefulness that students may perceive to be at odds with the broader goals of a liberal arts education (including the 'soft skills' valued by employers) when they arrive on the SOU campus. These K-12 methodologies include proficiency assessment, little or no emphasis on homework, and the implementation of skills-based Common Core standards. In addition, service learning and multiple teaching modalities have become the norm in many schools; lecture-based classes are rare.

Shifting demographics in Oregon schools is another factor affecting students' experiences: 37% of Oregon students are culturally or linguistically diverse, in contrast with just 10% of the state's teachers. Students of color and English language learners are not likely to have had teachers from their rapidly-growing demographic as role models. This clear disparity between student and teacher demographics will continue to grow if we don't create pathways for diverse students to attend college and to go on to become teachers who mentor their culturally diverse K-12 students and prepare them for college. In this respect, SOU stands to play an important role in ensuring the success of southern Oregon's K-16 system, as its demographics continue to shift.

Nontraditional and Transfer Students

Nontraditional students come from a wide range of backgrounds. They may have delayed college, be over age 24 (and financially independent), work while in college, have dependents other than a spouse, or be single parents. Veterans in particular have extensive life/work experience and valuable strengths fostered in military environments. However, accustomed to structure, orders, and a 'one-stop-shop' information system, veterans often experience higher education as disorganized and confusing.

Students who transfer from community college experience challenges ranging from the increased rigor of the curriculum (and related drops in GPA), to unforeseen major pre-requisites. Transfer students tend to arrive with a better understanding of the advising, financial aid, and scholarship processes, yet they also tend to arrive without a clear understanding of how credits transfer and classes articulate. Both nontraditional and transfer students often experience "transfer shock" in a college environment that tends to target student-life activities to traditional students.

SOU might better support these students with initiatives such as a separate transfer-student orientation, publications outlining credit-articulation agreements, scholarships for students who serve as peer mentors, and an auxiliary student council.

Health and Wellness, and Financial Means

Nationally, only 51.2% of students describe their health as *very good* or *excellent,* and mental health needs on college campuses are increasing. Data at SOU bear out these national trends: between July 2015 and June 2016, 1,626 students visited Student Health Services (4,266 visits) for general health services, and 621 students visited for mental health services (2,722 visits). SOU could respond by expanding mental health services, and embracing a campus-wide "culture of wellness."

The majority of SOU students need to borrow money for their education, yet many don't have sufficient financial literacy, including budgeting skills, to avoid running out of funding before

they finish their degree. Entering students are often caught off guard by the high cost of living on the SOU campus and in Ashland, yet a relatively low number of students apply for scholarships through the SOSA. Veterans face particular challenges, as their benefits can be time-based. Ways to address these concerns might include re-thinking housing costs and requirements, creating programs centered on financial literacy, and targeting financial aid programs to specific student populations.

Inspiration: Best practices to improve student success

SOU already does many of the things Engle and Tinto (2008) identify as effective in *Moving beyond access: College success for low-income, first-generation students.* Other research-based best practices that would address some of the above issues include partnerships with K-12 institutions; co-requisite courses that provide concurrent academic support (rather than isolated remedial coursework), especially in math; and requiring the first-year seminar of all incoming students. In addition to these promising practices, this report identifies several "inspirations" worth exploring. These include:

- Strong, intentional leadership around student support that efficiently and meaningfully engages collaboration among campus resources;

- Systematic collection of data on why students leave SOU before graduating;

- Financial literacy support, including a handbook of resources;

- Mentorship programs to provide academic and social supports;

- The creation of pathways to college and teaching careers, for culturally and linguistically diverse K-12 students; and,

- Increased opportunities for service learning, internships, and career connections.

A better understanding of who our students are — how they arrive at SOU —will help us meet students' needs and support their success, which ultimately is a measure of the success of the university.

I.   Introduction

Our professional learning community (PLC) began with the core question *What do we need to know about how our learners arrive at SOU?* To unpack that question, we considered several related questions: Who are our learners? What prior experiences do they bring with them that will affect their success at SOU? What gaps in service exist that reduce student success? What kinds of best practices exist that could inspire us?

We considered the range of diverse experiences that our students bring to our campus and how those experiences affect their academic readiness, sense of purposefulness, and success. For traditional students, recent high school experiences strongly influence readiness, purposefulness, and success. For nontraditional students, high school may be a distant memory, but more recent experiences, such as employment, family responsibilities, or military service, may be influential. For transfer students, experiences at other campuses may provide competing paradigms. For all students, two key issues—health and wellness and financial means—are central to academic readiness, purposefulness, and success.

In this paper, we focus first on the current high school classroom and recent shifts in pedagogical methodologies that affect how our students arrive at SOU. Next, we focus on how the diverse experiences of nontraditional and transfer students affect college readiness. We then consider how health and wellness and financial means affect student success. Finally, we review a range of best practices that could provide inspiration as we seek new ways to improve student success at SOU.

II.   Traditional Students and Today's High Schools

There is a distinct and important relationship between academic readiness and students' sense of purposefulness, particularly for the population of students we serve at SOU. Many of our students are culturally and linguistically diverse, come from low socioeconomic backgrounds, and may be the first in their families to attend college. Students who attend public regional institutions like SOU tend to focus on how their education will serve their future career. This purpose is not necessarily in conflict with the goals and values of a liberal arts education, but it may be perceived that way. Ideally, the purpose of a liberal arts education is to broaden, not narrow, students' perspectives; this includes the development of transferable skills valued by the business community, such as critical thinking, communications skills, curiosity, and the ability to take responsibility for one's learning in experiential situations (Educational Advisory Board, 2016; "Learning and earning," 2017). Part of the business community's critique of higher education focuses on a "soft-skills gap" among college graduates – even though at the K-12 level, there is a strong focus on state standards associated with job and career skills and with service learning (Partnership for 21st Century).

Current K-12 Methodologies and Policies

Students in public high schools may have experienced teaching methodologies and expectations that are different from those practiced in many of our college courses. Most recent high school graduates arriving at SOU will have shared several key k-12 experiences, including an emphasis on purposefulness, service learning, minimal emphasis on homework, the implementation of skills-based Common Core State standards across content areas, and proficiency assessment. In many schools, these

experiences have been shaped by a proficiency assessment model. Adopted by the

state of Oregon shortly after the statewide implementation of the Common Core State

Standards in 2010-11, proficiency assessment is intended to support student-centered

learning by employing "authentic indicators of student success" (Kunkel, 2016).

Implemented effectively, proficiency assessment in some states and districts has been

shown to have a positive effect on student achievement and on students' attitudes and

dispositions (e.g., Posner, 2011).

However, proficiency-based assessment has been unevenly implemented in

Oregon, with each district coming up with its own assessment process. Anecdotal

evidence collected from teachers and students from a large school district in southern

Oregon suggests that the impact on students has been mixed, and proficiency

assessment may have a substantial negative effect on students' attitudes and

dispositions – particularly their sense of purposefulness as learners and citizens beyond

an instrumental career-focused purpose. On the one hand, teachers and students report

benefits from the clear and specific expectations associated with proficiency

assessment: students have multiple opportunities to demonstrate mastery of specific

skills, and teachers are able to "clearly identify students who are ready to move on"

(teacher quote, 2017). On the other hand, teachers report that students are

"unmotivated to practice" when practice does not factor into a grade. As one Oregon

high school teacher observed,

> If students are held only to proficiency the way many schools are
>
> using it – graded only on the work without penalty despite turning it in
>
> after the due-date, able to retake assignments numerous times, etc.

– students quickly learn studying is not important and deadlines are

irrelevant. While focusing on ability and skill, far too many students

have lost the behaviors needed to succeed in the real world. Clear

expectations are needed, but the system as it's currently used is

completely ruining students' odds of becoming functional adults.

In other words, the skills-focus in K-12 is potentially narrowing students' sense of

purposefulness, creating a challenge for higher education to help students meet the

"soft-skills" valued by employers. At the same time, this narrowing of purposefulness is

reflected in the current political context at the level of the state legislature and the

Higher Education Coordinating Commission (HECC), where we are seeing a push for

access and affordability in higher education, to simplify pathways between high school

dual-credit, community colleges, and four-year colleges (for example, SB 138, SB 207,

and the HECC Transfer Policy Vision Statement).

Standards-Based Instruction

There are a variety of current high school classroom practices that shape the

expectations of recent graduates. For example, standards-based instruction and

assessment have become the norm for public schools in the past decade. Students

come to SOU familiar with classrooms where the competencies expected of them are

explicitly explained to them at the beginning of each class. Their teachers have been

trained to organize classes, units, and courses around Common Core State Standards

and state-specific standards. These standards are primarily skills-based (though linked

to subject area content). Students may expect to have the "learning target" or "learning

goal" explained at the beginning of each class. These are often phrased as "I can"

statements, such as "I can analyze an argument and form an opinion based on evidence."

Multiple Teaching Modalities

Another classroom practice that shapes students' expectations is that, over the past 15-20 years, teachers have increasingly adopted theories of multiple intelligences (Gardner, 1999) and multiple learning styles. Students are familiar with classrooms in which teachers use multiple modalities of instruction. These may include group work, student conversation leveraged for learning, student choice in activities, use of technology and video, and non-traditional assessments. Lecture-based classes are rare. Students come to college with less familiarity and patience for a class in which the only teaching modality used is direct instruction by PowerPoint lectures.

Little or No Emphasis on Homework

Many middle and high schools, particularly those serving low-income students, have moved away from the practice of assigning homework. Some schools have explicit "no homework" policies, some have de facto policies to that effect, and others assign homework only in AP classes. The move away from homework is both philosophical and a reflection of the reality of student lives. Critiques of homework (Cooper, Robinson, & Patall, 2006; Kohn, 2006) have raised questions about how equitable and effective homework is. There is also the reality that students are just less likely to complete homework in a proficiency model, if homework does not factor into a final grade.

Authentic Learning

Many recent graduates come from schools that value service learning. The emphasis on service learning in K-12 education is driven by research on authentic

learning: learning that unites knowledge and practice through an emphasis on relevant, real world contexts (Lindeman, 2015). Research suggests that adult learners, too, need to believe that what they are learning is relevant: they want to know how it relates to authentic situations and provides real solutions to problems (Knowles, Holton, Swanson, 2014). Authentic learning is not a new way of teaching effectively or motivating students. As early as the mid 1980s, a Study Group on the Conditions of Excellence in Undergraduate Education produced *Involvement in Learning*, the first in a series of reports on undergraduate education (Bennett, 1984; Association of American Colleges, 1985; Newman, 1985; Boyer, 1987). This work resulted in *Principles for Good Practice in Undergraduate Education*, which is used by many institutions of higher education to guide decisions that support student learning (Hatfield, 1995). The report emphasized the value of seven practices: student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations, and respect for diverse talents and ways of learning.

Authentic learning, and service-learning in particular, results in academic gains and non-cognitive gains in attitudes towards self, learning, engagement, and "soft skills" (Celio, Durlak, & Dymnicki, 2011; Conway, Amel, & Gerwien, 2009; Kunkel, 2016). Yet despite evidence that authentic learning is effective in promoting higher-order learning and the development of "soft skills," there appears to be a paucity of authentic learning opportunities in higher education courses, especially in the first two years. Although it has been long highlighted as best practice (Herrington et al., 2008; Huba & Freed, 2000; Kuh et al, 2005), authentic learning remains under-utilized in higher education.

Opportunities to Make Skills and Proficiency Relevant in our Current Context

Approximately 37% of Oregon's student population comprises racially and linguistically diverse students; by contrast, just over 10% of Oregon teachers are from racially and linguistically diverse backgrounds (ODE, 2016), and the percentage of racially and ethnically diverse teacher candidates enrolled in university-based teacher preparation was just 8.5% in 2015-16. This gap is significant in light of ODE projections that the percentage of culturally diverse students in Oregon schools will rise sharply over the next decade. Regardless of the pedagogical methods employed in schools, or the assessment policies that districts adopt, the clear disparity between the diversity of students and teachers negatively affects these students' high school success, the likelihood that they will attend college, and the likelihood that they will complete graduate teacher-preparation program.

This disparity, coupled with the instrumental sense of purposefulness that the current K-12 context may foster, may actually represent a unique opportunity for SOU and the students we serve. The state of Oregon has prioritized the recruitment, preparation, hiring, and retention of teachers of color (ODE, 2016). This state priority represents an opportunity, for both SOU and our K-12 regional partners, to create pathways to teaching for racially and culturally diverse students (see, for example, WOU's Bilingual Teacher Scholars Program, now in its second year). These pathways would include mentoring and an explicit focus on the "soft skills" that employers seek in graduates. We may be able to engender a new *cycle* of learning that supports students in their K-12 education and through higher education, as they become teachers and mentors to a growing population of culturally diverse Oregonians. In this respect, SOU

stands to play an important role in ensuring the success of southern Oregon's K-16 system, as its demographics continue to shift.

III. Experiences of Nontraditional and Transfer Students

It is also important to consider the different experiences that nontraditional students bring as they arrive at SOU. The National Center for Education Statistics defines nontraditional students as having at least one of seven characteristics: delayed enrollment into postsecondary education; part-time college attendance; full time employment; financial independence for financial aid purposes (over 24 or classified as homeless youth); supporting dependents other than a spouse; status as a single parent; or lack of a high school diploma.

Veterans comprise one significant group of nontraditional students: most veterans are over 25 years of age, all have lived independently, and all come to college with extensive life and work experience. Navigating college is often difficult for veterans, as they typically need extensive help in negotiating the myriad challenges involved in college admission and persistence. For example, they need help accessing prior college transcripts and military credits. Military credits often transfer as vocational credits, increasing a student's overall number of credits but not necessarily applying to a degree or program. To veterans, the system of higher educational sometimes appears disorganized, in contrast with the military's emphasis on structure and orders. Coming from the military's "one stop shop" information system, many veterans find our college departments to be overwhelming. At the same time, veterans share common strengths as students. For example, due to their experience in following instructions and meeting deadlines, they often excel at seeking information and following through with

instructions. This can be a strength during the college application process, the financial aid process, and advising. Veterans are also often focused during group activities, which can help with keeping group members on-task. Overall, veterans have the potential to contribute significantly to campus leadership.

Like veterans, transfer students often have a hard time acclimating to the university system. Defined as anyone who has completed at least one year's full-time enrollment at a post-secondary education, transfer students often experience "transfer shock" when they arrive at the university. At SOU, transfer students encounter a system that tends to be more hands-off in its intervention than community college [CC]. SOU tends to target its student-life activities to traditional students, making non-traditional and transfer students feel less engaged in college culture. Transfer students may experience challenges in the rigor of curriculum, with corresponding drops in their GPA. If they are from an Oregon CC, there is often little consistency in meeting the prerequisite coursework for majors, which can create frustration for a student who—although holding junior standing—must take lower-division credits to fulfill prerequisites, costing additional time and money. Students tend not to fully understand the articulation of classes, the 1:1 credit transfer system, or vocational credits. At the same time, transfer students tend to arrive with their higher-education habits already established, and they tend to have a more advanced understanding of the advising, financial aid, and scholarship processes. They also tend to be more skilled at handling deadlines and have a broader understanding of the degree process.

To effectively gauge how the university responds to incoming transfer students and their needs, a voluntary qualitative assessment could be given to students at the conclusion of their first term; this feedback could help inform SOU's practices.

Although all new students have the opportunity to attend orientation events at the beginning of fall term each year, these events tend to attract fewer transfer students and non-traditional students, leaving them to try to adapt to SOU without crucial guidance. To address the academic needs of these students, introductory coursework such as mathematics requirements, could be explained at an orientation especially for transfer students, or as part of a peer-to-peer mentoring program. To help transfer students better understand the transfer process, SOU could produce an accessible document explaining articulation agreements and academic class schedules for the entire year to help students and advisors figure out when classes will be offered; this would help students to prepare for timely degree completion. Other colleges models for exemplary practices that support transfer students. For example, Saint Louis University's TRANSFERmation Program provides new student orientation specifically targeted to transfer/non-traditional students, including the use of mentors, and the University of Michigan's Transfer Connections Program uses peer-to-peer support during the transfer orientation process.

SOU's participation in the Phi Theta Kappa (PTK) Honor Society provides one example of an exemplary program that supports higher-achieving transfer. Generally, students who are in this program have strong campus involvement and academic performance, making them ideal students to recruit as mentors. SOU's large feeder schools for transfer students (Rogue Community College, Umpqua Community College,

Southwestern Oregon Community College, Klamath Community College, Lane Community College, Central Oregon Community College) offer programs for PTK. One way to better support transfer students might be through a peer-to-peer mentor program for transfer students. SOU could follow the lead of other four-year institutions by offering scholarships to select members of PTK students, who could then serve as peer-to-peer transfer student mentors.

Finally, if SOU were to establish an auxiliary student council for transfer and nontraditional students, to be represented through ASSOU, these students might feel more engaged. Clemson University has had success with this model. Such a program might be housed where transfer students tend to work/reside: Madrone Apartments, McLoughlin Hall, Family/Student Housing, or SOU's Medford HEC building.

IV. Health and Wellness, and Financial Means

Student wellness is an important part of success in college. In a national study of over 95,000 college students in 2016, only 51.2% described their health as "very good" or "excellent." There has also been an uptick in mental health needs on college campuses nationwide; the most-reported needs include anxiety, depression, relationship problems, stress, and academic performance. Student health and wellness is an essential component to overall student success. From July 2015 to June 2016, 1,626 patients visited SOU's Student Health Services for general health services (4,266 total visits), and 621 students visited specifically for mental health services (2,722 total visits). In addition, 136 SOU students currently use the resources provided by Disability Resources.

Traditional and transfer students are generally offered basic health classes in high school as an elective, but many students lack a depth of knowledge about health and wellness, particularly if they come from families that have limited knowledge of these issues. At today's k-12 schools, vending machines, unhealthy school lunches, and limited physical education options significantly influence student health and wellness.

Currently at SOU we facilitate a variety of health education activities that are communicated at ROAR, during Week of Welcome, in the Residence Halls, and at special events on campus. Many academic classes also have a focus on health, and health topics are discussed in some University Seminar (USem) sections.

However, SOU is not meeting existing demand for mental health services, and an expansion of existing services would benefit students. For example, an expansion of mental health counseling through the Student Health and Wellness Center and an expansion of case management through the Office of Student Support and Intervention, would benefit students. And while health education opportunities are offered through the Health Promotion Office, the reach of these efforts is limited by financial constraints. The small student fee budget allocated for health promotion activities is beneficial but too-limited to meet the existing needs.

Finally, due to the influence of technology, we are seeing students struggle with sleep, stress, and authentic social connections, all of which has a profound influence on mental health. One solution may be to open up a dialogue that addresses the notion that technology is inherently good, perhaps through a campus theme focused on a health and wellness topic. Other approaches for fostering a culture of health and

wellness may be through additional workshops and/or training; support for work/life balance; integrating health themes into existing course content; and discussing sleep, stress, and time management at certain times of the year when most needed.

Financial Aid Literacy and Education

Financial literacy has been, and will continue to be, an issue for incoming college students. Student loan debt is rising, in tandem with annual average increases of 2.4% in the cost of public universities (NCES, "Fast Facts", 2016). At SOU, while almost 38% of our students remain eligible for the full Pell grants, the majority of Pell grants are secured by first-year students. Student participation in the FAFSA program declines over the course of students' time on SOU's campus; as a result, approximately 60% of seniors with a balance at SOU who have failed to file their FAFSA.

The majority of current SOU students need to borrow funds for their education, yet an overwhelming number of these students do not adjust their loan amounts to their respective need-based levels, largely due to a lack of budgeting knowledge. Although students are encouraged to seek aid through loans, scholarships, and grants, many student arriving at the university have limited understanding of financial aid, particularly in the areas of financial education and personal budget development. This gap in financial literacy means that many students borrow in excess of their needs, with devastating consequences for their long-term debt.

Students also seem to have difficulty accessing and applying for scholarships available through SOU. This may be because many of these scholarships are relatively small, sometimes less than $500, and students with weaker financial planning skills may not understand the process or benefits of scholarship application. SOU offers the

Southern Online Scholarship Application [SOSA] annually, which provides access to over 80 individual scholarships, some of which have multiple awards. This one-stop application is open from September to March. During the most recent round of SOSA applications, we received only 930 total applications, SOU has thousands of eligible students, including hundreds of newly-admitted, incoming students. The low participation may be due to students equating *scholarship eligibility* to *financial need*, the Estimated Family Contribution (EFC) indicator assigned by the FAFSA, or it may simply be that students assume that they will not qualify for any additional financial aid beyond their FAFSA Student Aid Report.

Another negative factor for SOU students regarding financial well-being is directly intertwined with the cost of housing, both on and off-campus. SOU stands as one of the state's most expensive campuses to live on or near, far exceeding many incoming students' expectations. Adding to this complication is the continuous increase of campus housing costs, approximately 4-6% every academic cycle. If SOU offered more affordable options for on-campus housing or expanded options for off-campus residency, SOU would likely see an increase in first-year retention. For example, students from Jackson and Josephine counties might opt to live at home as freshmen.

The Office of Financial Aid at SOU is under new leadership and incorporating new financial education programs that will benefit SOU students. Programs centered around financial literacy, best practices for borrowers, and scholarship acquisition are being designed that will increase students' financial literacy and support students in advocating for their own financial well-being. These programs will teach students to

properly submit the FAFSA, apply to merit and need-based aid (especially the SOSA), and understand the complexities of student loan debt repayment.

Localized financial aid concerns, such as those common among a particular demographic, are evident at SOU, but not without notice. For example, students who identify as Native American are often eligible for tuition adjustments under the Aboriginal Rights Initiative at SOU; a newly-assigned Native Nations Liaison will promote these benefits. In terms of veterans, the Veterans' Resource Center is a valuable resource for helping veteran students in understanding how best to use their VA benefits. Nonetheless, SOU has the opportunity to better meet the needs of its nontraditional student population through targeted financial aid programs. For example, veterans face unique challenges, especially if they are transfer students, because their benefits are typically time-limited; a veteran may receive four years of funding, rather than a flat amount like $60,000. As a result, without sound understanding of student finance issues, our veterans may exhaust their financial aid early, resulting in early departure without having attained their educational goals. Similarly, without sound financial literacy, transfer students may exhaust the majority of the aggregate loan limits set through the FAFSA program before graduation.

The National Association of Student Financial Aid Administrators (NASFAA) provides an overview of the current policy environment for financial aid; they also advocate for a range of financial aid tools that are intended to benefit students. Among these are the following suggestions to benefit students in need of federal loans. For example, they encourage universities to provide loan education workshops. They also advocate for policy shifts at the federal level, such as eliminating means barriers to

federal aid by simplifying the FAFSA to automatically include all students and families

eligible for federal means-tested benefits (such as the Supplemental Nutrition

Assistance Program and Supplemental Security Income). Other barriers that they

identify—and would like to see eliminated—are federal requirements that prevent

certain students from receiving federal aid, including students with prior drug convictions

and male students who have not registered for the Selective Service. These policies

would benefit SOU by increasing the funds available to students and increasing student

financial literacy.

V. Inspiration: Best Practices to Improve Student Success

There are many best practices for improving student success that might be worth

considering at SOU. These include co-requisite and concurrent academic support

classes, partnerships between k-12 and higher education, and strategies such as first-

year seminar and integrated support that that can help underprepared students to be

more successful and persist in earning a degree.

A brief review of the literature addressing best practices, policies, and

pedagogies for addressing gaps in academic readiness provides many inspirations for

areas where SOU might improve services to newly-arriving students.

A strong proponent of corequisite academic support, Bruce Vandal (2014) of

Complete College America argues that remedial education course sequences can be a

barrier to student persistence. Other researchers agree, arguing that there is "little

indication that remediation improves academic or labor market outcomes" (Martorell and

McFarlin, 2011, pg. 436). However, it's important to recognize that there may be

potential flaws in the research on which these arguments are based. In "Addressing Flawed Research in Developmental Education," Goudas and Boylan (2012) caution against hastily eliminating remediation; rather, they conclude that, "meeting underprepared students where they are academically affords them the chance to begin their higher education on a firm and equal footing" (pg. 12). Goudas and Boylan recognize that corequisite courses, rather than decontextualized remedial courses, might be used as part of a "multifaceted approach" in meeting the needs of underprepared students. More research is needed; however, SOU may want to consider corequisites that provide support to students while they are enrolled in classes for which they are underprepared.

At the heart of this issue of remediation is the issue of student persistence and success in the labor market. Bettinger and Long (2006) of Case Western and Harvard show that "students in remediation are more likely to persist in college in comparison to students with similar test scores and backgrounds who were not required to take the courses . . . and to complete a bachelor's degree" (pg. 736). Interestingly, more current research on the connection between developmental education and labor markets shows that "developmental reading and writing credits led to an increase in [student] earnings, which is primarily attributed to an increased likelihood of employment. These findings suggest that earning developmental English credits may represent an improvement in academic literacy skills that are valuable in the labor market and improve individuals' employability. In contrast . . . developmental math credits had negative impacts on earnings. . . . The negative impact of developmental math coursework on wages provides support for nationwide efforts to shorten the long-sequence structure of

developmental mathematics, and to teach math skills that are applicable to students' real-world needs" (Hodara and Xu, 2014). For example, researchers at CUNY found that "most students can pass a college-level quantitative course without recently demonstrating knowledge of elementary algebra (Logue 2016).

Other practices to consider might be concurrent enrollment programs that partner universities with high schools to offer at-risk high-school seniors an opportunity to earn college math credit that satisfies remediation requirements (Cevallos, L., Cevallos, P., & Webster, 2016).   Mindful of our limited funding and increased student debt, "in the midst of the worst fiscal crisis since the Great Depression, it is imperative that these efforts move beyond superficial discussions and engage education stakeholders in concrete inter-level reforms that can improve student readiness for college, student transitions into college, and college completion rates" (Kirst and Usdan, 2009). In "Developmental Education: Challenges and Strategies for Reform," the U.S. Department of Education suggests that colleges consider the following strategies for reform: (1) use multiple measures to assess readiness, (2) work with high schools to assess students and implement interventions, (3) compress or mainstream developmental education, (4) consider co-requisites that offer additional support for students, and (3) provide long-lasting support programs that are comprehensive and integrated (Department of Education, 2017).

A practice that does appear to improve student retention is requiring a first-year seminar. In their quantitative review of first-year seminars, Permzadian and Crede (2016) suggest that first-year seminars can increase retention and improve academic performance, especially if the first-year seminars offer information and assistance to

reduce stress associated with transition to college and to increase motivation and

academic success (pg. 285). Even though the data showed only a small positive effect

on retention, this effect nevertheless can have significant positive consequences in net

revenue (pg. 303-4). The authors offer four steps to increase retention rates through

first-year seminars: (1) use the seminar to help students adjust academically and

socially (rather than focus solely on academic competencies); (2) select instructors from

the ranks of faculty and administrative staff; (3) target all incoming students, regardless

of proficiency level; and (4) offer the first-year seminar as a stand-alone course (p. 305).

Improving student success and persistence is important to each member of our

PLC: we engaged in over fourteen hours of discussion during our seven meetings, as

well as countless hours of research and writing. It is important to note that SOU already

does many of the things Engle and Tinto (2008) identify as effective in *Moving beyond*

access: College success for low-income, first-generation students: offering bridge and

orientation programs, advising and tutoring; focusing on the first year, monitoring

student progress, and providing additional support for students. During our last PLC

meeting. we brainstormed one last list of inspirations for improving student success and

persistence at SOU:

- Strong, intentional leadership around student support that efficiently and
  meaningfully engages cooperation and collaboration among campus
  resources;

- Data collection on why students leave SOU (perhaps an automatic survey
  to the student and advisor);

- For incoming students, financial literacy and a handbook of resources;

- Carefully designed mentorship programs that provide support in academics, stress management, and relationships;

- The creation of pathways to college and teaching careers, for culturally and linguistically diverse K-12 students;

- Opportunities for service learning, internships, work studies with community mentors, career connections;

- Professional development for faculty and accountability at the program level for authentic learning.

We offer this list as part of SOU's effort to create what Engle and Tinto call a "culture of success" (2008, p. 4), one that values campus-wide collaboration and contributions to work not just for student retention for the benefit of SOU, but for student persistence in completing a degree that benefits the student as well as employers and the larger community.

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Appendix A: SOU Student Demographic Information as of Fall 2016

In fall 2016, SOU enrolled 6,088 students, for an FTE of 4,295; this includes 3,534 full-time undergraduates and 749 less-than-full-time undergraduate degree-seeking students. Of the total enrolled freshman class of 691 (fall 2016), 326 were in-state and 365 were from out of state. Incoming Freshman had an average ACT score of 22; average SAT (Pre-2016) was 1030 (CR+M); and average GPA was 3.30. Students transferring from post-secondary institutions in Oregon accounted for 322 students with out of state numbers standing at 224. Non-traditional Students (25+ years old) accounted for 25.9% (1051) of the undergraduate population (SOU Institutional Research). Currently we have 111 undergraduate degree-seeking veterans on campus.

Health and Wellness: 468 of our current students access Disability Resources which accounts for approximately 5% of our current students. The national average is 11% (NCES). For students requiring other health services: Medical Services: 1626 patients with 4266 visits. Mental Health Services: 621 clients for 2722 visits.

Financial Aid: For the 2016/ 2017 Academic year the breakdown for financial aid students was as follows:

1895 students received Pell grant aid

415 students received Institutional aid **ONLY** (scholarship/remission)

906 students received Institutional aid **AND** Loans

2918 students received Institutional aid **OR** loans

1597 Students received Loans **ONLY**

The average aid package was $11,131

111 Undergraduate Veterans students receive education benefits totaling $665,015

Appendix B: Annotated Bibliography

Amaro-Jiménez, C. A., Hungerford-Kresser, H., & Pole, K. (2016). Teaching with a
        technological twist: Exit tickets via Twitter in literacy classrooms. *Journal of
        Adolescent & Adult Literacy*, *60*(3), 305-313. http://dx.doi.org/10.1002/jaal.572
        Presents evidence from a study on using Twitter for student reflections on
        learning in three courses for future teachers that focused on theories, research,
        and practice as they relate to working with English learners. The purpose of the
        study was to encourage new thinking about student engagement using
        technology and social media blended with the traditional strategy of the exit
        ticket. The use of Twitter brought an immediacy to classroom interaction beyond
        the scope of traditional *exit tickets* - ie. short reflections that students submit at
        the end of a class session that provide students with opportunities to think about
        what they learned, how they learned it, what they need to find out next, and how
        they will use what they have learned.

Baker, R. B. (2015). *The student experience: How competency-based education
        providers serve students*. AEI series on competency-based higher education*.
        American Enterprise Institute for Public Policy Research. Retrieved from
        https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/18265
        30610?accountid=26242 (ED566654) This paper from the conservative
        American Enterprise Institute examines the competency-based model of
        education in relation to student success and completion rate with an eye to
        reducing time in an institution and increasing students' marketable skills. This
        places the emphasis on career relevance. The Competency-Based Education
        (CBE) schools emphasize marketing to students who are often a disenfranchised
        segment of the population, focusing on alternative ways to earn credits and
        technology-based learning. CBE school also offer credit for prior learning beyond
        that offered by a traditional university. The report concludes that CBE fills an
        important gap for non-traditional students. The author points out that CBE
        schools are more rigid in choice of major, course schedules and learning
        objectives but provide less structure in terms of materials, scheduling and timing
        of classes and need to improve to the overall student experience.

Betts, J. R., & Tang, E. Y. (2016). *A meta-analysis of the literature on the effect of
        charter schools on student achievement.* Society for Research on Educational
        Effectiveness. Retrieved from
        https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/18265
        33379?accountid=26242   This meta-analysis looked at literature pertaining to
        charter schools and student achievement dating from 2014 to 2013 and
        concluded that: "Overall, for the limited set of charter schools, locations, and
        years that have been studied to date, charter schools are producing higher
        achievement gains in math relative to traditional public schools in most grade
        groupings. No significant differences emerged for reading achievement.
        However, for both math and reading the bulk of estimates are positive. Estimated
        charter school effects are highly variable, which likely reflects variations in the
        quality of education provided both at charter schools and at comparison schools,
        namely, local traditional public schools." The authors emphasize that the freedom

for innovation and experimentation comes at the price of charter authorizers choosing to shut down schools that fail to meet academic standards or maintain financial viability.

Bird, K., & Castleman, B. L. (2016). Here today, gone tomorrow? Investigating rates and patterns of financial aid renewal among college freshmen. *Research in higher education*, *57* (4), 395-422. http://dx.doi.org/10.1007/s11162-015-9390-y Main point made in this study is the unreliability of student effort and persistence in filing and re-filing the Free Application for Financial Aid (FAFSA) from year to year. As many as 10% of low income students do not refile, forfeiting approximately $3,550 per student. Interventions to increase the possibility of FAFSA filing may increase student retention and student success.

Blikstein, P., Kabayadondo, Z., Martin, A., & Fields, D. (2017). An assessment instrument of technological literacies in Makerspaces and FabLabs. *Journal of Engineering Education*, *106*(1), 149-175. http://dx.doi.org/10.1002/jee.20156 An assessment conducted in five schools in three countries shows a clear differentiation between digital literacy competencies needed for exploration and fabrication technology (EFT) and information and communication technology. EFT is a relatively new field that directly relates to engineering and STEM competencies. The authors champion the early introduction and use of these fabrication technologies led by experienced peers and teachers to prepare students for the future.

Brown, P. A., & Gross, C. (2011). "Serving those who have served: Managing veteran and military student best practices." *The Journal of Continuing Higher Education*, *59*, 45–49. http://dx.doi.org/10.1080/07377363.2011.544982 Offers suggestions on how to support veterans as they adjust to being university students. The article focuses on the barriers experienced by veterans such as the move from the very structured military environment to a loosely structured college environment, entry into an unfamiliar post-secondary environment, and need to connect with peer veterans to legitimize their experience. Solutions offered vary from having a veteran's resource center on campus to encouraging faculty to familiarize themselves with the military experience in order to understand veteran needs and provide supportive advising.

Castleman, B.L., & Long, B.T. (2013) Looking beyond enrollment: The causal effect of need-based grants on college access, persistence, and graduation. NCPR working paper. National Center for Postsecondary Research. Retrieved from http://files.eric.ed.gov/fulltext/ED549167.pdf   Examining results of a study involving the Florida Student Access Grant the study found that eligibility for a renewable grant of $1000 or more in aid increased the potential of a student's retention and bachelor degree attainment especially if the student excelled academically in high school.

Celio, C. I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. *Journal of Experiential Education*, *34*(2), 164-181. Retrieved from http://journals.sagepub.com/doi/pdf/10.1177/105382591103400205 This meta-analysis examines 62 studies involving 11,387 students. The analysis showed that students participating in service-learning programs showed increased gains

in attitude towards self, attitudes towards school and learning, civic engagement, social skills, and academic performance. The author suggests that SL programs can help schools improve students' academic proficiency and discusses four elements that should be emphasized in SL programs: linking to curriculum, voice, community involvement, and reflection.

"Common Core State Standards - District Resources." Oregon Department of Education. Retrieved from http://www.ode.state.or.us/search/page/?=3254. Outlines the Common Core Standards for Oregon and provides implementation tools, materials for parents, and a variety of timeline information and discipline-specific documents.

Conway, J. M., Amel, E. L., & Gerwien, D. P. (2009). Teaching and learning in the social context: A meta-analysis of service learning's effects on academic, personal, social, and citizenship outcomes. *Teaching of Psychology*, *36*(4), 233-245. Retrieved from http://stgwww.stjohns.edu/sites/default/files/documents/adminoffices/asl-social-context.pdf This meta-analysis of service learning's effects on student outcomes summarizes the evidence on extent and types of change in participants in SL programs, specific program elements that affect the amount of change in participants, and generalizability of results across educational levels, and curricular versus non-curricular service. The analysis supported the authors' hypothesis that they would find positive change in all outcome categories with the largest changes being found in academic and social outcomes and the smallest being found in personal and citizenship outcomes. The analysis also indicated that effects generalized across K-12 and higher education for personal and social outcomes, but did not generalize to adult or mixed participants. They found that there was some evidence that non curricular service had smaller effects.

Cox, K. B. (2011). Putting classroom grading on the table: A reform in progress. American secondary education, 40(1), 67-87. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/964182635?accountid=26242   This case study examines the responses of two groups of high school teachers during a district wide reform of grading practices. The first group consisted of advocates for non-traditional grading practices; the second group was randomly selected from across the district. The results of the case study showed that the teacher's current grading practices are based on a combination of achievement and effort. To assess achievement, most teachers relied on multiple-choice exams that are quickly developed and graded and are modeled after high-stakes annual exams. The authors imply that their study shows a need for alternative assessment methods, prerequisites for district grading reform, teachers to build a strong knowledge base and philosophical foundation for assessment, and a revision of report cards.

Erickson, J. A. (2011). How grading reform changed our school. *Educational Leadership*, 69(3), 66-70. Retrieved from https://www.ocps.net/lc/southwest/mso/parents/Documents/How%20Grading%20Reform%20Changed%20Our%20School.pdf This article explores the ways that one Minnesota school reformed their grading system. Parents called for more transparency and consistency, teachers reported a variety of purposes for

grading. The school decided that grades should reflect only what a student knows and is able to do. Factors such as attendance, behavior, effort, extra credit, and participation were clouding the actual achievement of the student. The school adopted a requirement for teachers to use two forms of assessment – formative and summative – as well as an increased focus on professional development and reflective practice. The results of this reform in grading included an increase in ACT scores, the number of students enrolling in AP courses, and increases in scores on the Minnesota Comprehensive Reading Exam.

Felder, P. P., & Arleth, M. T. (2016). Exploring the role of accreditation in supporting transfer and student mobility. *International Journal of Higher Education, 5*(1), 97-110. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/182652 1313?accountid=26242   Through a comparison case study of mobility and student transfer data, findings highlight value in acknowledging the importance of facilitating mobility and student transfer in accreditation policies and practices.

 Finn, C. E., J.R., Kahlenberg, R. D., & Kress, S. (2015). Rethinking the high school diploma. *The Education Digest, 81*(2), 29-37. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/171829 0610?accountid=26242 This opinion article features three people involved in education policy. They debate the necessity for states to adopt a two-tiered diploma; a college- and career-ready 'academic' diploma and a 'basic' diploma. Finn, Jr. argues that college readiness is not the high school goal of every student and so there should be an avenue of completion that reflects their educational values. Kahlenberg argues that holding every student to CCSS assessment standards will never meet the needs of all students. He also argues that students should be held accountable just as teachers are. High expectations of students will beget high levels of achievement. Lastly, he argues that a multi-tiered diploma system could shed further light on disparities that are linked to opportunity gaps. Kress argues that adopting a two-tiered diploma system would increase the value of college-ready diplomas as well as facilitate graduation for all students.

Frydenberg, M., VanderClock, W. (2016). Acclimating students to technology in the first-year college experience, *Information Systems Education Journal, 14* (1), 28-34. Retrieved from http://isedj.org/2016-14/n1/ISEDJv14n1p28.pdf An example of a mandatory peer-led JumpStart session for incoming students for required technology information so that students will be able to set up laptops and other devices with required software, malware, virus detection software, permissions and an introduction to the university's learning management system.

Gerstein, M., Friedman, H.H., (2016). Rethinking higher education: Focusing on skills and competencies. *Psychosociological Issues in Human Resource Management. 4* (2), 104-121. Retrieved from http://go.galegroup.com/ps/i.do?p=AONE&sw=w&u=s8391082&v=2.1&it=r&id=G ALE%7CA470161322&asid=4668b52c67ecfce5b1c4cee04574b35c This article focuses on competency-based education, emphasizing the acquisition of skills and measurement of learning aptitudes in an accounting course. The authors discuss how the acquisition of basic job-related skills, complemented by an

understanding of communication techniques, critical thinking abilities, creative thinking and ethical reasoning prepares a student for a career in accounting.

Goldrick-Rab, S., Kelchen, R., Harris, D.N., & Benson, J. (2016). Reducing income inequality in educational attainment: Experimental evidence on the impact of financial aid on college completion. *American Journal of Sociology.121* (6) 1762-1817. Retrieved from http://wihopelab.wceruw.org/publications/Goldrick-Rab-etal-Reducing-Income-Inequality-in-Educational-Attainment.pdf Discusses results of a randomized experiment estimating the impact of a private need-based grant program on college persistence and degree completion. This study looks at both student characteristics and institutional factors, concluding that need-based grant aid is an effective approach to retention and reduces inequality in college graduation. The extra grant funds contributed to a 7% increase in graduation rates.

Harper, B., & Milman, N. B. (2016). One-to-one technology in K-12 classrooms: A review of the literature from 2004 through 2014. *Journal of Research on Technology in Education, 48*(2), 129-142. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/1826523161?accountid=26242 This literature review examined empirical research conducted between 2004 and 2014 regarding 1:1 technologies in K-12 and focusing on laptops and/or tablets. Three major themes related to student learning emerged from analysis: (a) student achievement, (b) changes to the classroom environment, and (c) student motivation and engagement. Some indicators were that use of technology contributed slightly to student achievement. At the high school level, students generally had less interest in technology implementation; technology use was mostly driven by curricular need and tended to be limited to word processing and web browsing.

Kena, G., Hussar, W., McFarland, J., Wang, X., Rathbun, A., Dilberti, M., … Velez, E.D. (2016). *The condition of education 2016. NCES 2016-144.* National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2016/2016144.pdf This report is valuable for some basic statistics on education trends. Some highlights that stand out that may be significant for SOU are: Increase in public charter school enrollment (over ten years 2003-2013) from .8 million to 2.5 million representing an almost 4% increase overall; Static public school enrollment between 2013 and 2014; Private school enrollment declining; Racial and ethnic make-up changing significantly with Hispanic enrollment standing at 25%, up from 19%; Increase in English Language Learner (ELL) enrollment, especially in the western U.S.; Post-baccalaureate enrollment projected to increase by 21% by 2025.

Kirchner, M.J., MS (2015). "Supporting student veteran transition to college and academic success." *Adult Learning, 26* (3), 116-123. http://dx.doi.org/10.1177/1045159515583813 The article emphasizes the difficulty of transition for student veterans and the importance of establishing a safe environment where veterans can thrive as fully engaged students. Kirchner identifies various areas of essential support such as special orientation sessions, advisors trained to understand veteran issues, and faculty with an understanding of the needs of active-duty and veteran students.

Kirst, M.W., Usdan, M.D., (2009). The historical context of the divide between K-12 and higher education. In *States, schools, and colleges: Policies to improve student readiness for college and strengthen coordination between schools and colleges. (Ch. 1*) National Center for Public Policy and Higher Education (NCPPHE)*.* Retrieved from http://www.highereducation.org/reports/ssc/index.shtml Examines the relationship between K-12 and higher education and concludes that there should be an effort to consider both on a continuum (K-16) when determining financing, curriculum, testing standards, and overall accountability.

Knox, H. (2017). Teaching creativity through inquiry science. *Gifted Child Today, 40*(1), 29-47. DOI: https://doi.org/10.1177/1076217516675863 Explores the concept of teaching creative thinking in the context of a science curriculum. The author posits that the same merging of content and creativity in any subject area is essential.

Kostaris, C., Sergis, S., Sampson, D., Giannakos, M., & Pelliccione, L. (2017). Investigating the potential of the flipped classroom model in K-12 ICT teaching and learning: An action research study. *Journal of Educational Technology & Society*, *20*(1), 261-273. Retrieved from https://login.glacier.sou.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eft&AN=120706119&site=ehost-live Explores the use of flipped classroom model to teach information and communication technology in the lower grades, highlighting the benefit to student motivation and engagement.

Kunkel, C. D. (2016). An investigation of indicators of success in graduates of a progressive, urban, public high school. Critical Questions in Education, 7(2), 146-167. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/1826541141?accountid=26242 This article discusses service-learning experiences, but also touches on standardized testing and project based learning. It examines more authentic indicators of student success, rather than standardized test scores, through a survey of alumni from one progressive, urban school and how the school may have contributed to that success. The author aims to offer alternatives for assessing student success and curriculum that can foster this success. This study supports the assertion of many scholars that standardized test scores are not an appropriate measurement of student success. The author suggests that an authentically valid assessment of student performance must begin with an analysis of the student's' personal situation; since all people come with school reformed their grading system. Parents called for more transparency and consistency, teachers reported a variety of purposes for grading. The school decided that grades should reflect only what a student knows and is able to do. Factors such as attendance, behavior, effort, extra credit, and participation were clouding the actual achievement of the student. The school adopted a requirement for teachers to use two forms of assessment – formative and summative – as well as an increased focus on professional development and reflective practice. The results of this reform in grading included an increase in ACT scores, the number of students enrolling in AP courses, and increases in scores on the Minnesota Comprehensive Reading Exam.

LaSota, R. R., & Zumeta, W. (2016). What matters in increasing community college students' upward transfer to the baccalaureate degree: Findings from the beginning postsecondary study 2003-2009. *Research in Higher Education, 57*(2), 152-189. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/1826519311?accountid=26242 This study, based on a large national survey, concludes that articulation of clear policies for transfer and encouragement of pre-planning for students who intend to achieve a bachelor's degree greatly affects the probability of upward transfer success. The study includes groups such as first generation college students and those with low-income status.

"Making Financial Aid Work for All: NASFAA Priorities for 2017 and Beyond." National Association of Student Financial Aid Administrators. NASFAA. https://www.nasfaa.org/uploads/documents/NASFAA_2017_Policy_Priorities.pdf. This report lays out the current policy environment and proposes a wide range of policy changes.

Martorell, P., & McFarlin Jr, I. (2011). Help or hindrance? The effects of college remediation on academic and labor market outcomes. *The Review of Economics and Statistics*, *93*(2), 436-454. Retrieved from http://www.jstor.org/stable/23015946 Discusses the pros and cons of remedial education for low-performing students upon admission to college. The study concludes that remediation such as tutoring and special classes had little effect on a group of Texas college students in proportion to the high cost of the programs and may at times have acted as a hindrance, discouraging students from moving on to more challenging classes.

Mihailidis, P. (2014). A tethered generation: Exploring the role of mobile phones in the daily life of young people. *Mobile Media and Communication, 2* (1), 58-72. http://dx.doi.org/10.1177/2050157913505558 This study investigates the dispositions of an international population of college students towards the mobile phone for communication and information purposes. Findings suggest that students are peer-reliant, tethered to their devices via social media apps that increase sense of self-worth by facilitating connectivity to a community of peers upon whom they depend for information. There is less tendency to use these devices for information seeking outside of social networks. The authors suggest that mobile phones have potential for civic engagement, inclusiveness and positive social participation in daily life if formal institutions integrate the use of this technology into daily routine.

Mooring, R. D., & Mooring, S. R. (2016). Predictors of timely baccalaureate attainment for underrepresented minority community college transfer students. *Community College Journal of Research and Practice, 40*(8), 681-694. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/1826539642?accountid=26242   In this study, "results from a suite of logistic regression models indicated that the factors that predict timely graduation for underrepresented minority transfers were not the same for each ethnicity. The most predictive factor for African-American transfers was enrollment in a 4-year transfer program at the community college. For Hispanic transfers, obtaining some type of credential before transferring was most predictive of timely

graduating with a baccalaureate degree. On the other hand, the Grade Point Average (GPA) at the receiving 4-year institution was most predictive of timely graduation for Asian transfer students. The study was not able to conclusively determine the types of institutions that were the most successful graduating minority community college transfers."

Morris, C. R. (2016). The inequality of self-efficacy between junior college and traditional university students. *Current Issues in Education, 19*(2), 17. Retrieved from https://cie.asu.edu/ojs/index.php/cieatasu/article/viewFile/1565/717 Examines self-efficacy difference between traditional and nontraditional students and concludes that, although, all students come into a college program with an inflated sense of academic self-efficacy, community college students who are juggling jobs and other responsibility lose their innate self-efficacy more quickly. This carries over when they transfer to a baccalaureate program. It can create a structural inequality between the two sets of students so that the transfer or non-traditional students experience marginalization (due to class, ethnic difference etc.), and loss of empowerment.

Park, T., Woods, C.S., Richard, K., Tandberg, D., Hu, S. & Jones, T.B. (2016). When developmental education is optional, what will students do? A preliminary analysis of survey data on student course enrollment decisions in an environment of increased choice. *Innovative Higher Education, 41* (3)*,* 221-236. http://dx.doi.org/10.1007/s10755-015-9343-6 This survey examines two Florida colleges for outcomes after the implementation of a state law making developmental education (DE) optional for students. Findings indicated that students do not always exercise their options but some do and when they opted into college-level courses, it was often the right choice. Students also considered the time factor in opting against developmental courses. Low income students tended to opt out of any core courses. The authors suggest that advisors could take advantage of the fact that career goals and time to degree are closely related to DE enrollment by helping students to map a full pathway to success from the start.

Permzadian, V., & Credé, M. (2016). Do first-year seminars improve college grades and retention? A quantitative review of their overall effectiveness and an examination of moderators of effectiveness. *Review of Educational Research*, *86*(1), 277-316. http://dx.doi.org/10.3102/0034654315584955 This article reviews the literature and examines outcomes (specifically grades and retention) to test the effectiveness of first-year seminar programs and concludes that most programs are ineffective and more research is warranted, possibly to target more specific student populations.

Posner, M. A. (2011). The impact of a proficiency-based assessment and reassessment of learning outcomes system on student achievement and attitudes. *Statistics Education Research Journal*, *10* (1), 3-14. Retrieved from https://pdfs.semanticscholar.org/acec/0981c13eb5750bdbe4bedfdd2fd075d5c8e 4.pdf   This study compared the results of two assessment models on two groups of students; a student-centered, proficiency-based assessment and reassessment system and a traditional system. Results showed that students

with higher resubmission rates scored better on the final exam and those who re-submitted achieved proficiency similarly to those who achieved proficiency with the first submission. The authors argue that the current assessment system used in high school and college is designed for teacher efficiency rather than student learning. They explain that defining learning outcomes is integral for this type of assessment system and that evaluation based on learning outcomes better enabled both students and teachers to assess learning.

Ryan, Shawn W., Carlstrom, A.H., Hughey, K.F., Harris, B.S. (2011). "From Boots to Books: Applying Schlossberg's Model to Transitioning American Veterans." *NACADA Journal*, 31(1), 55-63. http://dx.doi.org/10.12930/0271-9517-31.1.5 The Schlossberg Model stresses four areas of transition: *situation, self, support and strategies.* The article suggests using this model to support the transition of veterans to the campus environment, emphasizing the importance of advisers who encourage the student to self-motivate by examining reasons for choosing to matriculate. The authors suggest that acknowledgement by campus personnel of former military roles and strengths, support groups, special orientations, encouragement of family connections, and awareness of physical and mental health issues all help to create a safe space for veterans to adjust to the campus environment.

Smith, J.K., Given, L.M., Julien, H.,Ouellette, D., & DeLong, K. (2013). Information literacy proficiency: Assessing the gap in high school students' readiness for undergraduate academic work. *Library and Information Science Research, 35,* 88-96. http://dx.doi.org/10.1016/j.lisr.2012.12.001 The main conclusion of this study conducted at James Madison University in Canada, is that libraries must increase initiatives to teach information literacy, that students express a need for the help and yet librarians are only able to reach about 50% of first year students. Much of this is due to the dramatic shift students make from high school to college as they are expected to manage their own learning when moving from highly structured tasks provided by high school teachers to a significantly less structured experience in college. Students at the college level are not always required to take formal instruction in information literacy although some benefit from individual encounters with librarians. There is clear evidence that students are not graduating from high school with adequate information literacy skills and academic librarians must target specific gaps in knowledge and areas of improvement.

Tang, C. M., & Chaw, L. Y. (2016). Digital literacy: A prerequisite for effective learning in a blended learning environment? *Electronic Journal of E-Learning, 14*(1), 54-65. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/1792596736?accountid=26242 This study examines the needs for digital literacy at the college level. The authors define digital literacy as not only the ability to operate of the technology involved but also an understanding of efficient information management skills and proper online behavior.

Valentine, J. C., Konstantopoulos, S., & Goldrick-Rab, S. (2016). A Meta-Analysis of Regression Discontinuity Studies Investigating the Effects of Placement into Developmental Education. *Wisconsin Hope Lab.* Retrieved from

http://wihopelab.com/publications/Valentine-2016-Investigating-Effects-of-Placement.pdf Argues against the traditional use of remedial courses that seem to derail student success. Instead posits that a combination of gateway courses with corequisites can get students off to a better start and allow them to feel supported while accelerating their journey to a degree.

Vandal, B. (2014). Promoting Gateway Course Success: Scaling Corequisite Academic Support. *Complete College America*. Retrieved from https://eric.ed.gov/?id=ED558791 (ED558791). Champions a co-requisite model of offering remedial education to students to improve student success in completing university gateway curriculum.

Womack, A. (2017). Teaching Is Accommodation: Universally Designing Composition Classrooms and Syllabi, *College Composition and Communication*, 68(3, 494-525. Retrieved from https://login.glacier.sou.edu/login?url=http://search.proquest.com/docview/1872591037?accountid=26242 Main points include, "moving from accommodation as the exception to accommodation as the rule . . . creating accessible document design . . . engaging students with cooperative language . . . empowering students through flexible course plans." With the variety of skills, abilities, and experiences SOU students bring, such "accommodations" can improve student success.