

# LITERATURE REVIEW

Compiled by UMD Student Success Work Team

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## Improving Graduation Rates at the University of Minnesota Duluth

This document represents some of the factors affecting college student retention, but is not an exhaustive review of all the literature available on retention. It reflects many of the articles, studies, theories, and books that have come to the attention of the SSW group during the summer and fall of 2006 as well as more recent findings. Please consider this a “living” document, one that will grow and expand as new information becomes available. This chart is sorted by primary core process area.

Factors that Impact Retention and Graduation Rates	Source Information	Core Process Area
<b><i>FIT: Interests and educational goals of students are aligned with UMD, its programs, and regional setting.</i></b>		
<p>FIT 1</p> <p>UMD students cited a mismatch between themselves and the institution – either its programs (no nursing or dental program, or example) or its culture (its “feel”) – as a factor in their decision to leave.</p>	<p>Survey of drop-outs and stop-outs at UMD, conducted summer of 2006 (SSW group).</p>	<p><b>Fit</b> Culture Support Learning</p>
<p>FIT 2</p> <p>Students with high institutional commitment upon entry were more likely to graduate within 6 years.</p> <p>Institutional commitment – the level of confidence in and satisfaction with institutional choice – is found to have a moderate relationship with college retention. (ACT Policy Report)</p>	<p>Graunke Steve S., Woosley, Sherry A., &amp; Helms, Laura L. (2006). <u>How do their initial goals impact students’ chances to Graduate? An exploration of three types of commitment.</u> NACADA Journal, 26 (1), 13-18.</p> <p>Lotkowski, Veronica A., Robbins, Steven B., and Noeth, Richard J. (2004). <u>The Role of Academic and Non-Academic Factors in Improving College Retention – ACT Policy Report</u></p>	<p><b>Fit</b> Culture</p>
<p>FIT 3</p> <p>Greatest loss of students at UMD happens in the first year, followed by the second greatest loss in the third year.</p>	<p><i>Graduation Rate Study.</i> Graduation Rate Committee, UMD. Diane Dorland, Chair, November 1993</p>	<p><b>Fit</b> Culture Learning Support Financial</p>

<p>FIT 4</p> <p>Students' attitude about attachment to the institution is important for retention. (A sense of fitting in with others at a college, and commitment to a specific institution).</p> <p>"A student is likely to fit in if that student shares values with other students. The values in question could be social (we're here to party), academic (we're here to study), or any other area of interest (we're here to become lawyers or actors) or activity (we're here to play basketball)." (John P. Bean)</p>	<p><u>College Student Retention: Formula For Student Success</u>          Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT          page 219, Chapter author: John P. Bean</p>	<p><b>Fit</b>          Culture</p>
<p>FIT 5</p> <p>Students with a commitment to an educational goal upon entry were more likely to graduate within 6 years (education goal does not mean a specific major or career, but in general to goal of obtaining a degree)</p>	<p>Graunke Steve S., Woosley, Sherry A., &amp; Helms, Laura L. (2006). <u>How do their initial goals impact students' chances to Graduate? An exploration of three types of commitment.</u> NACADA Journal, 26 (1), 13-18.</p>	<p><b>Fit</b>          Learning          Support</p>
<p>FIT 6</p> <p>In UM-TC study, differences between the genders and ethnic groups were few, except for the following: (1) men more likely to be in a degree program than women, and (2) more women cite personal or family problem as a significant reason for not returning to campus. Students of color were twice as likely as other students to cite personal or family issues as extremely important in their decision to leave.</p>	<p>Matross Ronald and Huesman, Ronald. <i>Why Do They Leave? A Study of Student Departure from the University of Minnesota.</i> U of M: Minneapolis</p>	<p><b>Fit</b>          Culture          Learning          Support</p>
<p>FIT 7</p> <p>Academic self-confidence – the level of being successful in the academic environment – is shown to have a strong relationship with college retention.</p>	<p>Lotkowski, Veronica A., Robbins, Steven B., and Noeth, Richard J. (2004). <u>The Role of Academic and Non-Academic Factors in Improving College Retention – ACT Policy Report</u></p>	<p><b>FIT</b>          Support</p>
<p>FIT 8</p> <p>Academic related skills -- time management, study skills, and study habits (taking notes, meeting deadlines, using information resources) is shown to have a strong relationship with college retention.</p>	<p>Lotkowski, Veronica A., Robbins, Steven B., and Noeth, Richard J. (2004). <u>The Role of Academic and Non-Academic Factors in Improving College Retention – ACT Policy Report</u></p>	<p><b>FIT</b>          Support</p>
<p>FIT 9 L2</p> <p>Based on data collected by ACT, institutional persistence rates from Freshman to Sophomore year are directly related to the academic selectivity of the institution.</p> <p>"Institutions enrolling students with the highest academic achievements</p>	<p><u>College Student Retention: Formula For Student Success</u>          Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT          pages 38 and 39, chapter 8 (chapter author John P. Bean).</p>	<p><b>Fit</b>          Learning</p>

<p>have the highest rates of retention". (Bean)</p> <p>"The admissions office is particularly important because it often marks the first formal interchange between the student and the college. Admissions policies are working well when they yield large numbers of graduates, not large numbers of first-year students." Page 230</p>	<p><i>Graduation Rate Study</i>. Graduation Rate Committee, UMD. Diane Dorland, Chair, November 1993 p.2.</p>	
<p>FIT 10 L3</p> <p>An institution should evaluate its success in retaining and graduating students by comparing its actual graduation rate with its projected graduation rates. Projected graduation rates account for the academic selectivity of an institution, and the academic preparedness of its incoming students.</p>	<p>Alexander W. Astin, "<u>To Use Graduation Rates to Measure Excellence, You Have to Do Your Homework.</u>" The Chronicle of Higher Education, October 22, 2004</p>	<p><b>Fit</b> Learning</p>
<p>FIT 11 L6</p> <p>Low educational aspirations were found to have the strongest negative effect on student retention in the first year. Students were less likely to persist at their first institution if their educational goals did not include earning a bachelor's degree.</p>	<p><u>College Student Retention: Formula For Student Success</u> Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT page 135</p>	<p><b>Fit</b> Learning Culture</p>

Factors that Impact Retention and Graduation Rates	Source Information	Core Process Area
<b><i>FINANCIAL: Students have access to sufficient resources and knowledge to plan for and invest in their education.</i></b>		
<p>FIN 1</p> <p>A student's ability to pay and the student's perceptions of the costs of his or her education influence persistence.</p>	<p><u>College Student Retention: Formula For Student Success</u>            Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT page 62</p>	<p><b>Financial</b></p>
<p>FIN 2</p> <p>UMD students cited financial/tuition issues most often as a factor in their decision to leave UMD. In fact, 35% of surveyed students received no financial help from family/parents.</p>	<p>Survey of drop-outs and stop-outs at UMD, conducted summer of 2006 (SSW group).</p>	<p><b>Financial</b></p>
<p>FIN 3</p> <p>At UM-TC, the majority of stop-outs and a plurality of drop-outs said that their parents contributed nothing to their college expenses, or less than a quarter of their expenses.</p>	<p>Matross Ronald and Huesman, Ronald. <i>Why Do They Leave? A Study of Student Departure from the University of Minnesota.</i> U of M: Minneapolis</p>	<p><b>Financial</b></p>
<p>FIN 4</p> <p>Research on student persistence has indicated that finances play a major role in student withdrawal decisions. Students are twice as likely to persist between the second and third years if they receive financial aid. Receiving financial aid reduced the risk of attrition the most in the third year.</p> <p>The ACT Policy shows that there is a moderate relationship between the extent to which students receive financial aid and college retention.</p>	<p><u>College Student Retention: Formula For Student Success</u>            Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT pages 134 to 135</p> <p>Lotkowski, Veronica A., Robbins, Steven B., and Noeth, Richard J. (2004). <u>The Role of Academic and Non-Academic Factors in Improving College Retention – ACT Policy Report</u></p>	<p><b>Financial</b></p>
<p>FIN 5</p> <p>Tuition and other college-related expenses have been found to affect both student academic performance &amp; retention decisions (such as paying in-state tuition versus out-of-state tuition). Tuition-exempt students had the highest persistence rates.</p>	<p><u>College Student Retention: Formula For Student Success</u>            Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT            page 141</p>	<p><b>Financial</b></p>

<p>FIN 6</p> <p>A modest amount of work while enrolled seems to enhance retention, but excess of work (particularly off-campus) is negatively related to persistence. And students with off-campus jobs seem to work more than students with on-campus jobs.</p>	<p>Graduation and Retention Subcommittee of the Council of Undergraduate Deans. (2001), <i>Improving our Graduation Rates</i>. U of M: Minneapolis</p>	<p><b>Financial</b></p>
<p>FIN 7</p> <p>Legislative support for higher education has declined historically in the state of Minnesota, and MN has slipped below the U.S. average in state and local support for public higher education per student. Students now bear a greater share of the burden of tuition than they have in the past. Tuition, simultaneously, has increased dramatically.</p>	<p>MnSCU Chancellor James H. McCormick, "State of the System" speech delivered September 22, 2004.</p> <p>MnSCU Chancellor James McCormick, "State of the System Address," September 20, 2006.</p>	<p><b>Financial</b></p>
<p>FIN 8</p> <p>Factors that pull students away from college such as commuting, living off campus, and working off campus were found to push students into deciding not to return to college.</p>	<p><u>College Student Retention: Formula For Student Success</u>  Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT</p> <p>page 136</p>	<p><b>Financial Support</b></p>
<p>FIN 9</p> <p>Students with on-campus jobs, which permitted the students to remain in close proximity to faculty and an academic environment, were more likely to persist well beyond the first year.</p>	<p><u>College Student Retention: Formula For Student Success</u>  Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT</p> <p>page 136</p>	<p><b>Financial Support Learning Culture</b></p>
<p>FIN 10</p> <p>"The right amount and kind of money matters to student success; too little can make it impossible for students to pay college bills, while too much loan debt can discourage students from persisting."</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Financial</p>
<p>FIN 11</p> <p>"Create small pockets of emergency funds to address real student needs in "real" time." Providing even small amounts of money at key times can mean the difference between some students staying in school or leaving."</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Financial</p>

Factors that Impact Retention and Graduation Rates	Source Information	Core Process Area
<b><i>LEARNING: Students are engaged in challenging learning activities leading to timely degree completion.</i></b>		
<p>L1</p> <p>Surveyed UMD students cited academic difficulties and poor academic performance as a factor in their decision to leave UMD.</p>	<p>Survey of drop-outs and stop-outs at UMD, conducted summer of 2006 (SSW group).</p>	<p><b>Learning</b> Support Fit</p>
<p>L4</p> <p>Tinto postulates that the higher the student's level of academic integration, the higher likelihood the student will persist through graduation.</p>	<p><u>College Student Retention: Formula For Student Success</u> Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT page 67.</p>	<p><b>Learning</b> Fit Support</p>
<p>L8</p> <p>Students who graduated within 6 years had an average GPA of 2.82 at the end of their first semester compared to an average of 1.98 for non graduates.</p>	<p><u>College Student Retention: Formula For Student Success</u> Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT page 140</p>	<p><b>Learning</b> Support</p>
<p>L10</p> <p>Student attitude about being a student is important for retention. (satisfaction with being a student, feeling a sense of self-efficacy as a student, knowing the value of one's education, and feeling stress as a student).</p> <p>"Students who are self-efficacious believe in their ability to survive and adapt in an academic environment. They believe that they can perform in a way to achieve goals they set for themselves, and as a result they increase their self-confidence as students and their aspirations for academic success and finishing college"</p>	<p><u>College Student Retention: Formula For Student Success</u> Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT chapter 8, author John P. Bean</p>	<p><b>Learning</b> Support Culture</p>
<p>L14</p> <p>"Doing interesting things," like travel abroad, do not delay and perhaps are positively related to retention and graduation rates.</p>	<p>Graduation and Retention Subcommittee of the Council of Undergraduate Deans. (2001), <i>Improving our Graduation Rates</i>. U of M: Minneapolis</p> <p><i>Transforming the University of Minnesota</i>. Task Force on Undergraduate Reform. (2005). U of M: Minneapolis</p>	<p><b>Learning</b> Fit Support</p>

<p>L15</p> <p>Time on task is low. Students aren't spending nearly enough time studying.</p>	<p><u>College Student Retention: Formula For Student Success</u>          Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT          Epilogue</p>	<p><b>Learning</b></p>
<p>L16</p> <p>Shift the focus from faculty teaching to student learning. "Widely disseminated papers (Barr and Tagg, 1995; Chickering and Gamson, 1987, 1991; Cross, 1998, 1999; Guskin, 1994, '997; Hutchings, 1996) describe the value of restructuring the teaching and learning environment to shift the emphasis from faculty teaching to student learning. This shift promises to have profound implications for setting higher expectations for students, for raising academic standards, for asking students to take more responsibility for their learning, for demonstrating competency through assessment, and for emphasizing and validating alternative ways of knowing, interdisciplinary methods, and problem-focused learning." (Kuh, et al, 2007, p. 90).</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Learning, Culture, Support</p>
<p>L17</p> <p>Pedagogical Approaches          "Institutions that adopt educational philosophies valuing undergraduate student learning also tend to encourage the use of such engaging pedagogies as active and collaborative learning, classroom-based problem solving, peer teaching, service learning, and various forms of electronic technologies" (Kuh, et al, 2007, p. 92).          "Faculty who are well prepared for class and design assignments that students consider meaningful have consistently positive effects on students' academic achievement and cognitive growth (Pascarella, 2001; Volkwin and others , 2000)" (Kuh, et al, 2007, p. 92).</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Learning, Culture</p>

<p>L18</p> <p>Active &amp; Collaborative Learning</p> <p>“Active learning experiences also are positively associated with increased frequency of student contacts with faculty members . . . and more positive view of the campus environment, which are probably mediated by getting to know classmates better through the collaborative exercises – all of which positively influence student integration and persistence (Braxton, Milem, and Sullivan, 2000)” (Kuh, et al, 2007, p. 94).</p> <p>“Most of the scholarship on teaching and learning indicates that the passive lecture, where faculty do most of the talking and students listen, is contrary to almost every principle of an optimal learning environment (Barr and Tagg, 1995; Guskin, 1997; Tagg, 2003). Active and collaborative learning typically is more effective because students learn more when they are intensely involved in their education and are asked to think about and apply what they are learning in different settings” (Kuh, et al, 2007, p. 94).</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Learning</p>
<p>L19</p> <p>Peer Interactions That Foster Learning</p> <p>“Discussing course content with other students</p> <p>Working on group projects for classes</p> <p>Tutoring other students</p> <p>Participating in Intramural Sports</p> <p>Being a member of a social fraternity or sorority</p> <p>Discussing racial or ethnic issues</p> <p>Socializing with someone from a different racial or ethnic group</p> <p>Being elected to a student office</p> <p>Spending time each week socializing or in student clubs or organizations.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5. Page 58.</p>	

<p>L20</p> <p>Learning Communities</p> <p>“ . . . participation in a learning community was associate with student retention, student academic performance (GPA), credit hours earned, and student satisfaction. “</p> <p>“Further evidence of the theoretical connections between learning communities and student engagement, self-reported gains in learning, and persistence have been fairly well documented.”</p> <p>“Learning communities, programs that enroll groups of students in a common set of courses usually organized around a theme and frequently linked with residence life experiences, continue to be adopted at all types of colleges and universities as promising approaches to enrich student learning and student success.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Learning, Support, Culture</p>
<p>L21</p> <p>Partnerships To Support Learning</p> <p>“Effective partnerships among those who have the most contact with students – faculty and student affairs* professionals – are important to creating a campus culture that supports student success. Institutions that have established a sense of shared responsibility for student success are characterized by a high degree of respect and collaboration among community members and have made student success important to everyone.”</p> <p>*Note: The term “student affairs” in the field of higher education is usually used to refer to all student development and student services personnel on campus collectively. UMD is the only university that uses this term narrowly to mean academic advising.</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Learning, Support</p>
<p>L22</p> <p>Instructional Technology</p> <p>“Faculty report that the use of technology in redesigned courses helped to create a more open, inclusive learning environment.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Learning</p>

<p>L23</p> <p>In designing learning environments for sophomore students, we can borrow from McCleeny's (Kay McCleeny, AAHE) suggestions for ways to engage students, including expecting students to be responsible for their learning, using active and collaborative learning experiences, and working with students to design individual learning plans.</p>	<p>Schaller, Molly A. <u>Wandering and Wondering: Traversing the Uneven Terrain of the Second College Year</u>. About Campus. July-August 2005, 17-24.</p>	<p><b>Learning Support Fit</b></p>
<p>L24</p> <p>Sophomores need encouragement to take on responsibility for their learning. To optimize learning, we can design environments to guide sophomores in ongoing, structured exploration of the world and of themselves. Sophomores can be taught to engage in self-reflection and then be required to do so in curricular and co-curricular activities. All of these things require intentional planning by educators.</p>	<p>Schaller, Molly A. <u>Wandering and Wondering: Traversing the Uneven Terrain of the Second College Year</u>. About Campus. July-August 2005, 17-24.</p>	<p><b>Learning Support Fit</b></p>
<p>L25</p> <p>Key learning opportunities during the sophomore year:</p> <ul style="list-style-type: none"> <li>• Require reflection - "get to know myself"; identify external pressures and internal desires</li> <li>• Expect new relationship building - desire less superficial relationships</li> <li>• Opportunities for exploration – study abroad, service learning, cooperative learning experiences, internships</li> <li>• Provide support – may see peaks in counseling center during sophomore year due to exploration of self</li> </ul>	<p>Schaller, Molly A. <u>Wandering and Wondering: Traversing the Uneven Terrain of the Second College Year</u>. About Campus. July-August 2005, 17-24.</p>	<p><b>Learning Support Fit</b></p>

Factors that Impact Retention and Graduation Rates	Source Information	Core Process Area
<b><i>SUPPORT: Students are connected to a strong network of caring faculty, staff, and students.</i></b>		
<p>S1</p> <p>Surveyed UMD students cited family, children, marriage or homesickness as factors in their decision to leave. They also cited work/school conflicts.</p>	<p>Survey of drop-outs and stop-outs at UMD, conducted summer of 2006 (SSW group).</p>	<p><b>Support</b> Financial Culture</p>
<p>S2</p> <p>Surveyed students cited LEAST often dissatisfaction with departments, with faculty advising, and general classroom instruction as their reason for leaving UMD.</p>	<p>Survey of drop-outs and stop-outs at UMD, conducted summer of 2006 (SSW group).</p>	<p><b>Support</b> Learning Culture</p>
<p>S3</p> <p>According to a national survey, colleges and Universities with high measures of student engagement provide rich opportunities for active and collaborative learning (learning from peers, learning in communities, service learning opportunities, responding to diverse learning styles).</p>	<p><i>Transforming the University of Minnesota</i>. Task Force on Undergraduate Reform. (2005). U of M: Minneapolis Appendix 4.</p>	<p><b>Support</b> Culture</p>
<p>S4</p> <p>“Students with an internal locus of control are more likely to participate in beneficial activities because they believe that they are potent actors in the world they inhabit, and not acted upon by others.” (good grades are the result of good study habits).</p> <p>“Students with an external locus of control believe that they get good grades due to good luck or a beneficent teacher.”</p> <p>“When an institution acts in such a way that the student’s locus of control shifts from external to internal, the result will usually be increased attachment to the school and increased retention.”</p>	<p><u>College Student Retention: Formula For Student Success</u> Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT chapter 8, author John P. Bean</p>	<p><b>Support</b> Culture Fit</p>
<p>S5</p> <p>The ACT Policy Report shows that there is a moderate relationship between the level of social support a student feels that the institution provides and college retention.</p>	<p>Lotkowski, Veronica A., Robbins, Steven B., and Noeth, Richard J. (2004). <u>The Role of Academic and Non-Academic Factors in Improving College Retention – ACT Policy Report</u></p>	<p><b>Support</b> Culture Fit</p>

S6 Risk Factors That Threaten Persistence and Graduation from College 1. Being academically under-prepared for college-level work.	Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i> . ASHE Higher Education Report, vol. 32, 5.	Support
S7 Risk Factors That Threaten Persistence and Graduation from College 2. Not entering college directly after high school	Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i> . ASHE Higher Education Report, vol. 32, 5.	Support
S8 Risk Factors That Threaten Persistence and Graduation from College 3. Attending college part-time	Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i> . ASHE Higher Education Report, vol. 32, 5.	Support
S9 Risk Factors That Threaten Persistence and Graduation from College 4. Being a single parent	Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i> . ASHE Higher Education Report, vol. 32, 5.	Support
S10 Risk Factors That Threaten Persistence and Graduation from College 5. Being financially independent (students who rely on their own income or savings and whose parents are not sources of income for meeting college costs).	Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i> . ASHE Higher Education Report, vol. 32, 5.	Support, Financial
S11 Risk Factors That Threaten Persistence and Graduation from College 6. Caring for children at home	Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i> . ASHE Higher Education Report, vol. 32, 5.	Support, Financial
S12 Risk Factors That Threaten Persistence and Graduation from College 7. Working more than thirty hours per week	Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i> . ASHE Higher Education Report, vol. 32, 5.	Support, Financial

<p>S13</p> <p>Risk Factors That Threaten Persistence and Graduation from College</p> <p>8. Being a first-generation college student</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Support</p>
<p>S14</p> <p>New Student Adjustment</p> <p>“Coherent first-year experience programs, which include pre-college and ongoing orientation programs, first-year seminars, and other new student advising and study group experiences, appear to be linked to a variety of positive outcomes for first-year students.”</p> <p>“For example, the Pell Institute (2004) found that institutions with high graduation rates had more programs that eased new students’ entry and adjustment to college, including bridge programs, learning communities, study group0s, block registration of students, and tutoring. In addition, creating clear pathways to show students what to expect and what success looks and feels like helps students bring meaning to their educational experiences and helps acculturate them to the institution.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Support, Learning, Culture</p>
<p>S15</p> <p>Orientation</p> <p>“ . . . institutions that provided the most extensive orientation and advising programs had higher graduation rates.”</p> <p>“ . . . direct effects on persistence were found to be associated with longer comprehensive orientation programs, while even short summer orientation programs exert and indirect influence on students’ persistence.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Support, Culture, Learning</p>

<p>S16</p> <p>First-Year Seminars</p> <p>“Controlling for a variety of student and institutional characteristics, findings show that those in a freshman-year seminar:</p> <ul style="list-style-type: none"> <li>• Were more challenged academically,</li> <li>• Reported more active and collaborative learning activities</li> <li>• Interacted more frequently with faculty,</li> <li>• Perceived the campus environment as being more supportive,</li> <li>• Gained more from their first year of college, and</li> <li>• Made greater use of campus services.”</li> </ul> <p>“Carstens (2000) found that students who completed a first-semester orientation course earned more credit hours per semester and expended greater effort toward academic tasks three years after enrollment than their peers in a matched sample who had not taken the course. After controlling for student characteristics, the least academically prepared students earned more credit hours per term, had higher grades, and reenrolled at significantly higher rates than did their peers who did not take the orientation course; even students with higher entering ability had more positive acad3emic outcomes than their no-course counterparts.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Support, Learning</p>
<p>S17</p> <p>Living On Campus</p> <p>“Living on campus has long been associated with persistence and student success. Students who live on campus generally interact more with faculty and peers and are more satisfied with their undergraduate experience. “</p> <p>“ . . . living on campus had a direct, positive effect on learning outcomes and the greatest total effect (combination of direct and indirect effects)O on learning outcomes of any institutional characteristics. Living-learning centers and residentially based freshman interest groups have even strong effects on average than living on campus.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Support</p>
<p>S 18 L5</p> <p>“It is estimated that among four-year college students nearly two-thirds either begin undecided or change their majors at least once during college.”</p>	<p><u>College Student Retention: Formula For Student Success</u>  Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT</p>	<p><b>Support Learning</b></p>

<p>S 19 L7</p> <p>Early commitment to an academic major (specifically upon entry into the institution) was negatively associated with the probabilities of degree completion</p>	<p>Graunke Steve S., Woosley, Sherry A., &amp; Helms, Laura L. (2006). <u>How do their initial goals impact students' chances to Graduate? An exploration of three types of commitment.</u> NACADA Journal, 26 (1), 13-18.</p>	<p><b>Support</b> Learning Fit</p>
<p>S 20 L9</p> <p>Findings suggest that students who were undecided regarding a career choice upon entry were more likely to persist in the institution and receive higher grades than students who were decided.</p>	<p>Graunke Steve S., Woosley, Sherry A., &amp; Helms, Laura L. (2006). <u>How do their initial goals impact students' chances to Graduate? An exploration of three types of commitment.</u> NACADA Journal, 26 (1), 13-18.</p>	<p><b>Support</b></p>
<p>S 21 L11</p> <p>Continuous enrollment is the single most important behavioral predictor of ultimate attainment of baccalaureate degree.</p>	<p>Graduation and Retention Subcommittee of the Council of Undergraduate Deans. (2001), <i>Improving our Graduation Rates.</i> U of M: Minneapolis</p>	<p><b>Support</b></p>
<p>S22 L12</p> <p>Part-time students or students enrolled with fewer than 12 credit hours were less likely than full-time students to be retained to the second and third years.</p>	<p><u>College Student Retention: Formula For Student Success</u> Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT page 141.</p> <p>Graduation and Retention Subcommittee of the Council of Undergraduate Deans. (2001), <i>Improving our Graduation Rates.</i> U of M: Minneapolis</p>	<p><b>Support</b> Learning Financial</p>
<p>S 23 L13</p> <p>The “disenchanted” student who does not re-enroll cited course availability, inadequate advising, and an unfriendly environment as primary reasons for leaving. This group is less likely to live on campus and be involved in campus activities than students in general.</p> <p>66% of the stop-outs and 52% of the dropouts at UM-TC said that they were not at all involved in college extra-curricular activities.</p>	<p>Graduation and Retention Subcommittee of the Council of Undergraduate Deans. (2001), <i>Improving our Graduation Rates.</i> U of M: Minneapolis</p> <p>Matross Ronald and Huesman, Ronald. <i>Why Do They Leave? A Study of Student Departure from the University of Minnesota.</i> U of M: Minneapolis</p>	<p><b>Support</b> Learning</p>
<p>S24</p> <p>While the sophomore year is a unique experience, it fits into the larger context of becoming an adult. Many sophomores comment on the impact that turning twenty had on their view of themselves as adults.</p>	<p>Schaller, Molly A. <u>Wandering and Wondering: Traversing the Uneven Terrain of the Second College Year.</u> About Campus. July-August 2005, 17-24.</p>	<p><b>Support</b></p>

<p>S25</p> <p>In moving beyond adolescence (sophomore year), individuals develop a psychological life that includes the tools to make choices and respond to the expectations of others in relationships.</p> <p>Baxter Magolda's findings suggest that nearly half of the sophomore students in her study were in the stage she calls "transitional knowing." For these students, truly understanding what is happening in the classroom and in life becomes important. This parallels the sophomores' experience of focused exploration, when they seek meaning and direction in life.</p>	<p>Schaller, Molly A. <u>Wandering and Wondering: Traversing the Uneven Terrain of the Second College Year</u>. About Campus. July-August 2005, 17-24.</p>	<p><b>Support</b> Learning Fit</p>
<p>S26</p> <p>Sophomore attrition is often linked to issues related to the sophomore slump:</p> <ul style="list-style-type: none"> <li>• Lack of sense of purpose</li> <li>• Uncertainty about major and/or career plans</li> <li>• Dissatisfaction with experiences at the university and/or personal relationships</li> <li>• Reduced motivation</li> <li>• Declining academic performance</li> </ul>	<p>Finning, Shannon. <i>Clemson University Sophomore Year Experience</i>. Presented at NASULGC Annual Meeting, Chicago, IL, November 10, 2008.</p>	<p><b>Support</b> Learning Fit</p>
<p>S27</p> <p>Successful Interventions:</p> <p>Design learning environments that guide students in ongoing, structured exploration of themselves and the world – provide opportunity for self-exploration and reflection</p> <p>Address sophomore academic and career needs – connect coursework to major, career, and life goals; developmental advising and career planning</p> <p>Provide opportunities to enhance social and academic interactions – improve relationships with faculty; solidify existing relationships and/or create new relationships with peers</p>	<p>Finning, Shannon. <i>Clemson University Sophomore Year Experience</i>. Presented at NASULGC Annual Meeting, Chicago, IL, November 10, 2008.</p>	<p><b>Support</b> Learning Fit</p>
<p>S28</p> <p>Instead of helping students navigate the college campus sophomore programs often focus on serious decisions about majors and careers.</p>	<p>Toosi, Nahal. <u>Second-year programs aim to provide helping hand to college's wise fools</u>. JS Online. Retrieved January 8, 2009, <a href="http://www2.jsonline.com/story/index.aspx?id+259630">www2.jsonline.com/story/index.aspx?id+259630</a>.</p>	<p><b>Support</b></p>

<p>S29</p> <p>Assessment in higher education primarily responds to two forces: 1) external demands for accountability and 2) internal commitments to improvement.</p> <p>Regarding #2: a commitment among educators and administrators within colleges and universities to do good work, promote student success, use resources effectively, provide a sound student experience, and serve the public good.</p>	<p>Keeling, Richard P., Andrew F. Wall, Ric Underhile, and Gwendolyn J. Dungy. (2008). <i>Assessment Reconsidered: Institutional Effectiveness for Student Success</i>. ICSSIA, <a href="http://bookstore.naspa.org">http://bookstore.naspa.org</a>.</p>	<p><b>Support Learning</b></p>
<p>S30</p> <p>The assessment of learning explores how effectively engagement with the institution increased students' ability, skill, or competency in various domains as a result of various learning experiences – a curriculum, academic major, certificate program, course, specific classroom activity, student development experience, or experiential learning activity.</p>	<p>Keeling, Richard P., Andrew F. Wall, Ric Underhile, and Gwendolyn J. Dungy. (2008). <i>Assessment Reconsidered: Institutional Effectiveness for Student Success</i>. ICSSIA, <a href="http://bookstore.naspa.org">http://bookstore.naspa.org</a>.</p>	<p><b>Support Learning</b></p>
<p>S31</p> <p>The acquisition, synthesis, and application of knowledge (learning or education) and student development (personal and social maturation) are integrated at their core; students develop and mature as they learn about the world and themselves, which they do simultaneously.</p>	<p>Keeling, Richard P., Andrew F. Wall, Ric Underhile, and Gwendolyn J. Dungy. (2008). <i>Assessment Reconsidered: Institutional Effectiveness for Student Success</i>. ICSSIA, <a href="http://bookstore.naspa.org">http://bookstore.naspa.org</a>.</p>	<p><b>Support Learning</b></p>
<p>S32</p> <p>DEEP = Documenting Effective Educational Practices</p> <ul style="list-style-type: none"> <li>• DEEP schools are confident enough of what they are and of their values and aspirations to question whether their performance matches their potential.</li> <li>• DEEP schools are inclined toward innovation</li> <li>• Curricular innovation at many DEEP schools is driven by faculty members with a desire to provide a responsive, challenging undergraduate curriculum</li> <li>• Most DDP school systematically collect information about various aspects of student performance and use it to inform policy and decision making.</li> <li>• Efforts to improve and innovate are grounded in DEEP institutions' missions and values.</li> </ul>	<p>Kuh, G., J. Kinzie, J. Schuh, E. Whitt and Associates. (2005) <i>Student Success in College: Crating Conditions that Matter</i>. San Francisco: Jossey-Bass.</p>	

Factors that Impact Retention and Graduation Rates	Source Information	Core Process Area
<b><i>CULTURE: Students, faculty, and staff are valued participants in, and contributors to, a diverse and inclusive community that is educationally purposeful.</i></b>		
<p>C1</p> <p>There is a strong connection between social integration and retention.</p> <p>Many student-persistence studies – of different student groups at a variety of higher education institutions – find a direct correlation between a student’s social integration and their ability to persist at an institution through graduation.</p>	<p>College Student Retention: <u>Formula For Student Success</u>  Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT  page 67, 135;</p> <p>John M. Braxton, Amy S. Hirschy, and Shedrick A. McClendon. <i>Understanding and Reducing College Student Departure</i>. ASHE-ERIC Higher Education Report, Vol. 30, No. 3. San Francisco: Jossey-Bass, 2004.</p>	<p><b>Culture</b> Fit</p>
<p>C2</p> <p>“Any interaction between students and an institution’s faculty and other employees that increases the students’ sense of self-efficacy is likely to improve their attitudes toward school and increase their likelihood of remaining enrolled.”</p>	<p>College Student Retention: <u>Formula For Student Success</u>  Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT  chapter 8, author John P. Bean</p>	<p><b>Culture</b> Support</p>
<p>C3</p> <p>Among factors found to impact student persistence are formal and informal academic and social experiences of students. The engagement of the student in classroom discussion, collaborative learning experiences, student organizations, and contact with faculty are examples.</p>	<p>College Student Retention: <u>Formula For Student Success</u>  Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT  page 136</p>	<p><b>Culture</b> Academic Support Fit</p>
<p>C4</p> <p>“Faculty members, more than any other group of employees at the university, shape the psychological processes and attitudes that have the greatest effect on retention. Faculty members’ in-class and out-of-class contacts with students affect the students’ sense of fitting in, loyalty, institutional quality, satisfaction, sense of self-development, self-confidence, and self-efficacy, and the connection between course work and later employment.”</p>	<p>College Student Retention: <u>Formula For Student Success</u>  Edited by Alan Seidman (2005) Praeger Publishers, Westport, CT  chapter 8, author John P. Bean</p>	<p><b>Culture</b> Support Learning Fit</p>

<p>C5</p> <p>A study of twelve public four-year colleges and universities with higher than expected retention/graduation rates showed that these schools did not have a direct focus on retention and graduation rates, but that their higher rates were a by-product of creating a high quality learning environment and a campus culture committed to supporting and nurturing students.</p>	<p><u>Student Success in State Colleges and Universities: A Matter of Culture and Leadership.</u> A report of the graduation outcomes study. Article published by AASCU. Pages 8 and 9.</p>	<p><b>Culture</b> Support Learning</p>
<p>C6</p> <p>High Expectations Successful campuses hold high expectations of all students.</p> <p>“But what really distinguishes many of these campuses is the pervasive belief that demography is not destiny; all of the students they admit have the potential to graduate, and they should all be held to high levels of expectation.”</p> <p>“Although faculty and staff are very nurturing, they also emphasized student responsibility for solving their own problems . . . (faculty and staff) characterized their approach as a scaffolding approach where students were gradually given more responsibilities as their academic careers progressed.”</p>	<p><u>Student Success in State Colleges and Universities: A Matter of Culture and Leadership.</u> A report of the graduation outcomes study. Article published by AASCU. Pages 9 – 16.</p>	<p><b>Culture</b> Support Fit Learning</p>
<p>C7</p> <p>Belonging Study institutions found ways to build a sense of engagement with students (characterized as “students consistently involved in a close and mutually-reinforcing network of campus ties that include residence life, frequent student-faculty contact and a rich range of extracurricular activities”).</p> <p>“Part of treating students as members of a “family” involves unusual faculty and staff efforts directed toward getting to know them (students) personally and toward making them feel physically and emotionally welcome. It also involves trying to determine their own aspirations and goals for attending college --- seeing college through the student eyes.”</p>	<p><u>Student Success in State Colleges and Universities: A Matter of Culture and Leadership.</u> A report of the graduation outcomes study. Article published by AASCU. pages 12 - 13</p>	<p><b>Culture</b> Fit Support</p>

<p>C8</p> <p>Purpose and Place Successful institutions in the study had a campus culture and sense of purpose focused on student learning.</p> <p>“ . . . the institution’s mission was seen less as a written document than as a shared belief system and a code of conduct embraced by faculty and staff. Central to both is a sense of purpose focused on fostering student learning.”</p> <p>“Faculty universally talked about having ownership of student success . . . one administrator commented that they are all quasi-counselors . . . none of the faculty we interviewed talked about this extra workload as a burden.”</p> <p>“Cultures of student success also are fostered deliberately through consistent actions and visible allocations of scarce resources. At Montclair State University, the visiting team was impressed with the sheer number of staff dedicated to providing advisement and student support services.”</p>	<p><u>Student Success in State Colleges and Universities: A Matter of Culture and Leadership.</u> A report of the graduation outcomes study. Article published by AASCU. Pages 14 - 16</p>	<p><b>Culture Support Fit</b></p>
<p>C9</p> <p>No Silos Organizational processes at study institutions frequently exhibited these qualities: Flattened or matrix organizations, rather than hierarchical. All processes on campus connect and coordinate. One of the study schools had a cross-cutting unit responsible for first-year student success that collaborates with offices and departments across the campus to improve recruitment and retention efforts. The visiting team noted that there is “ . . . a pervasive spirit of cooperation among various offices in the Student Affairs and Academic Affairs divisions.” “ . . . service personnel at University of Wisconsin La Crosse see their job as educators not service providers.”</p>	<p><u>Student Success in State Colleges and Universities: A Matter of Culture and Leadership.</u> A report of the graduation outcomes study. Article published by AASCU.</p>	<p>Culture</p>

<p>C10          “It is also the case that most institutions do not align their reward systems to the goal of enhanced student retention. It is one thing to talk about the importance of increasing student retention, it is another to invest scarce resources and adopt institutional faculty and staff reward systems that promote the behaviors that would reinforce that goal. It is little wonder then that while many faculty are willing to publicly proclaim the importance of retaining each and every student, they are in private the first to argue, on university campuses at least, that they will not get promoted and tenured unless they get research grants and publish. Unless the education and retention of students is rewarded, in particular through promotion and tenure systems, many faculty will only give it lip service.”</p>	<p>Tinto, Vincent (2006). <u>Research and Practice of Student Retention: What Next?</u> <i>Journal of College Student Retention</i>, 8 (1), 1-19.</p>	<p>Culture</p>
<p>C11          The ACT Policy Report shows a moderate relationships between social involvement (extent to which a student feels connected to the college environment, peers, faculty, and others in college, and is involved in campus activities) and college retention.</p>	<p>Lotkowski, Veronica A., Robbins, Steven B., and Noeth, Richard J. (2004). <u>The Role of Academic and Non-Academic Factors in Improving College Retention – ACT Policy Report</u></p>	<p><b>Culture</b>          Support          Fit</p>
<p>C12          Physical Campus Environment          “. . . students’ commitment in terms of persistence and loyalty to the institution can be strengthened by intentionally creating a strong ‘sense of place’ through connecting campus architecture and design to meaningful experiences and memories of activities” (Kuh, et al, 2007. p 98).          “For example, institutions can encourage student-faculty interaction and peer interaction before and after class by placing benches and comfortable seating areas near classrooms or support student-faculty interaction by creating well-equipped group study space near faculty offices, thereby increasing the likelihood of spontaneous interactions between students and faculty” (Kuh, et al, 2007, p 98).</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p><b>Culture</b>          Support</p>

<p>C13</p> <p>Partnership to Support Learning  “Effective partnerships among those who have the most contact with students – faculty and student affairs* professionals – are important to creating a campus culture that supports student success. Institutions that have established a sense of shared responsibility for student success are characterized by a high degree of respect and collaboration among community members and have made student success important to everyone” (Kuh, et al, 2007, p 99).</p> <p>*The term “student affairs” at most institutions of higher education (and in the research literature) refers to offices and personnel such as residence life, career services, first-year experience, student activities, counseling, admissions, recreation, financial aid, and others that support students outside of the classroom. UMD is unique in using this term to strictly mean academic advising.</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p><b>Culture</b> Learning Support</p>
<p>C14</p> <p>Institutional Ethic of Improvement  “Institutions focused on improving student success use information to assess their performance, pinpoint where improvement is necessary, inform change strategies, and monitor their effectiveness” (Kuh, et al, 2007, p 101).</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Culture</p>
<p>C15</p> <p>Institutional Mission  “Organizational theory suggests that institutional mission, which is generally denoted by sector difference or institutional type, is related to student success because colleges and universities that align their mission with their educational policies and programs generally are more effective and efficient (Birnbaum, 1991; Bolman and Deal, 1991; Ewell, 1989)” (Kuh, et al, 2007, p. 75).</p> <p>“Clear and consistent objectives, stated in terms of desired outcomes for learning and personal development, are critically important in creating an educationally powerful institution” (Chickering and Reisser, 1993, p. 287).</p> <p>“For example, the extent to which a campus has an enacted mission that makes an explicit commitment to the success of all students appears to be related to graduation rates, persistence and student engagement” (Kuh,</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p><b>Culture</b> learning</p>

<p>et al, 2007, p 76).</p>		
<p>C16</p> <p>WHO IS ENGAGED ON CAMPUS Student engagement is linked to persistence and graduation.</p> <p>Women. Full-time students. Students living on campus. Students who start at and graduate from the same school. Learning community students International students. Students with diversity experiences.</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p><b>Culture</b> Support</p>
<p>C17</p> <p>FACULTY-STUDENT CONTACT “ . . . numerous studies and reports point to the salutary effects associate with student contact with faculty members.”</p> <p>“ . . . relationships with faculty predicted development of academic competence among new students in the first year of college, and sophomore success (in terms of GPA and satisfaction) was related to high-quality student-faculty interaction.”</p> <p>“Informal student-faculty interaction activities – being a guest in a professor’s home, working on a research project with a faculty member, talking with instructors outside of class, and serving on committees with faculty – are positively correlated with student learning and development.”</p> <p>“First-generation students who reported positive interactions with faculty and other college personnel were more likely to experience academic success (satisfactory GPA and persistence) and were more satisfied with their academic experience.”</p> <p>“Mentoring activities, including faculty interaction outside class and contact with advisors, are positively related to African American student persistence at PWIs and HBCUs.”</p> <p>PWI = Predominantly White Institution HBCU = Historically Black Colleges and Universities.</p> <p>“Similarly, strong relationships with faculty and staff appear to contribute to Latino students’ sense of belonging and their feeling that they are valued and “matter” in the community.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p><b>Culture</b> Learning Support</p>

<p>“Likewise, among the distinctive strengths attributed to tribal colleges are high-quality student-faculty interactions that provide students personal attention and opportunities to integrate traditional values into the learning environment.”</p> <p>“Out-of-class contacts appear to positively shape students’ perceptions of the campus environment and seem to positively influence educational aspirations.”</p> <p>“In the final analysis, student-faculty interaction is important because it encourages students to devote greater effort to other educationally purposeful activities.”</p>		
<p>C18</p> <p>Cohesion of peer environment</p> <p>“Obtaining the bachelor’s degree was positively influenced by attending a college with a high level of cohesion in the peer environment (the number of peers whom the student regarded as close friends) or where students frequently participated in college-sponsored activities and there was a high level of personal involvement with and concern for the individual students.”</p>	<p>Pascarella, E. T., and Terenzini, P. T. (1991). <i>How college affects students: Findings and insights from twenty years of research</i>. San Francisco: Jossey-Bass. p. 384.</p>	<p>Culture</p>
<p>C19</p> <p>Co-curricular Activities</p> <p>“Participation in co-curricular activities is positively related to persistence.”</p> <p>“ . . . involvement in co-curricular activities may influence persistence in two ways: (1) students are connected psychologically and socially to an affinity group that is achievement oriented, which reinforces the desire to graduate, and (2) students engage in activities that help them develop skills and competencies that enable them to succeed in college (for example interpersonal skills, self-confidence).”</p> <p>“Although involvement in co-curricular activities is positively associated with persistence and other desirable outcomes, more than two-fifths of students at four-year colleges . . . spend <i>no time</i> on these activities.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p><b>Culture Support</b></p>
<p>C20</p> <p>Student Satisfaction</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Culture</p>

<p>“Student satisfaction with the institution is an important but sometimes overlooked variable in determining the quality of the undergraduate experience. Satisfaction represents a sense that the student feels he or she belongs at, and is loyal to, the institution and is highly correlated with engagement, persistence, and academic performance.”</p> <p>“Generally, the more interaction students have with their peers and with faculty, the more satisfied they are overall with the college experience.”</p>		
<p>C21</p> <p>Enacted University Mission</p> <p>“ . . . the extent to which a campus has an enacted mission that makes an explicit commitment to the success of all students appears to be related to graduation rates, persistence, and student engagement.”</p>	<p>Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., and Hayek J.C. (2007). <i>Piecing Together the Student Success Puzzle</i>. ASHE Higher Education Report, vol. 32, 5.</p>	<p>Culture</p>
<p>C22</p> <p>A New Waive of Immigration</p> <p>Since the 1970s, the number of foreign-born persons in the United States has tripled to more than 33 million people or about 12 percent of the total population: 25% from Asia, and approx. 50% from Latin America.</p> <p>Census Bureau data for 2003 shows that Asian immigrants reach higher levels of education than the host population – 50% of the Asian immigrant population in the US holds a bachelor’s degree or more compared to 27% of the native-born population.</p> <p>Latin American immigrants attain lower levels of education: 49% graduated from high school compared to 88% of the native-born population.</p> <p>Latinos who finish high school pursue postsecondary studies at the same rate as whites (82% by age 26); only Asian Americans enroll at a higher rate (95%).</p>	<p><u>Declining by Degrees: Higher Education at Risk</u>. Edited by Richard H. Hersh and John Merrow. (2005) Palgrave MacMillan, New York. Chapter 12, authors Roberto Suro and Richard Fry.</p>	<p><b>Culture Support</b></p>
<p>C23</p> <p>“The headwinds confronting Latino college students also involve a constellation of factors related to economic status, family structure, and cultural dynamics. In short, Hispanic students are much more likely than any others to be working fulltime while studying, going to college part time, and contending with family responsibilities while they strive to attain a postsecondary degree. No one of these factors explains the whole</p>	<p><u>Declining by Degrees: Higher Education at Risk</u>. Edited by Richard H. Hersh and John Merrow. (2005) Palgrave MacMillan, New York. Chapter 12, authors Roberto Suro and Richard Fry.</p>	<p><b>Culture Support</b></p>

college achievement gap, but each adds to the likelihood that a students will fail to graduate.”		
<p>C24</p> <p>“Gaps in achieved relate directly to disparate student experiences on college campuses. Minority students’ expressions of alienation, exclusion, and discrimination on predominately white campuses remain an issue. A perceived lack of support by administration, faculty and staff; stereotyping by faculty and peers; social segregation – all have contributed to such feelings. Black, Latino, and Native American students have repeatedly reported that they feel excluded from campus activities and student organizations. In addition, they report that they are more likely to experience difficulty in getting acquainted with other racial and ethnic groups because of their racial and ethnic background. Colleges and universities must take greater measures to build inclusive campuses that value individuals and individual difference.”</p>	<p><u>Declining by Degrees: Higher Education at Risk.</u>          Edited by Richard H. Hersh and John Merrow. (2005)          Palgrave MacMillan, New York. Chapter 13, author          Heather D. Wathington.</p>	<p><b>Culture Support</b></p>
<p>C25</p> <p>“The white population of Minnesota is aging, while communities of color are growing rapidly. These demographic shifts have major implication for all Minnesotans... Unless we improve the pathways to higher education and increase college access, persistence, and success among all students, and especially students of color, within ten years we will not produce enough college graduates to replace retirees and continue to fuel economic growth.”</p>	<p><i>College Access Matters: The Opportunity for College Access Programs in Minnesota.</i> Minnesota Minority Education Partnership Inc.  <a href="http://www.mmep.net/College_Access_Matters">www.mmep.net/College_Access_Matters</a></p>	<p>Culture</p>