

Undergraduate Student Success

Submitted by
NC State Task Force on Undergraduate Student Success

Overview

The charge to the NC State Task Force on Undergraduate Student Success was to propose between two to five "game changers," i.e., initiatives that would have a significant impact on the success of NC State's undergraduate students. We were told to "be bold." The task force believes that the initiatives proposed in this report are not only bold, but are also achievable.

Our work was guided by two overarching goals:

1. Students should graduate in a timely manner (as measured by completion rates, time to degree, etc.).
2. Students should have quality academic and nonacademic experiences that prepare them to become leaders in their fields and prepare them for life (as measured by internal and external program reviews; admission to graduate schools and professional schools; employer, student, and alumni surveys, etc.).

Because the scope of our charge was large, we considered a wide variety of issues. In the end we chose five initiatives that are grounded in scholarly research, and are therefore bold, achievable, and likely to produce meaningful change.

To select these initiatives, we examined the literature on undergraduate student success and also reviewed internal data, data from NC State's designated peer institutions, and data from our UNC sister institutions. We considered recommendations from previous internal reports (for example, the 2008 Undergraduate Student Transition Task Force report, "The First Year Experience at NC State: Moving from a University of Strengths to a University of Excellence," the 2004 "The State of Advising at North Carolina State University" report, the 2003 task force report on undergraduate retention and graduation rates at NC State, and the 2002 task force report on living and learning at NC State) and from external sources (for example, Penn State's 2009-10 through 2013-14 strategic plan and Texas A&M's 2009-10 strategic plan). In addition, we solicited and received suggestions from faculty, students, and staff from across campus, from alumni and business leaders, and from leaders at other academic institutions. We have integrated many of their ideas and suggestions in our initiatives and have listed others as issues for further consideration.

The five initiatives we recommend are described in detail in this report, including context, goals, specific recommendations, and metrics associated with each. Although each one may be considered in isolation, we felt it important to provide an integrated set of recommendations.

Thus the initiatives we present target issues related to academics as well as advising, and students' first semester on campus as well as throughout their undergraduate careers. We strongly believe that the total impact of our recommendations is greater than the sum of the individual parts, and we recommend that they be viewed, and adopted, as a comprehensive package.

- **Initiative 1. Proactive/intrusive academic advising**

The task force recommends a model that uses professional advisors for first-year students in order to provide proactive, hands-on advising the "minute" they step onto campus, and to provide the support they need to find their best academic fit and best career fit as quickly as possible. These professional advisors will receive basic, as well as cross-curricular, training and would be expected to coordinate with the undergraduate director or faculty advisor of the student's intended department (if one is indicated) to best meet each student's advising needs. We recommend a 120:1 student to advisor ratio model currently used in the Division of Undergraduate Academic Programs.

- **Initiative 2. The First-Year Inquiry program**

First-Year Inquiry (FYI) courses provide students with a small class setting that enables them to develop a connection with a faculty member and a group of peers, connections that are vitally important during the first year of the college experience. These courses focus on the development of critical thinking skills and communication skills and help students make the transition from dualistic thinkers to independent learners. NC State data and national data document the positive impact of such programs on first-year students. Currently about 10 percent of our incoming first-year students take an FYI course. We recommend that the figure be increased to 100 percent, i.e., that all incoming first-year students be required to take an FYI course. Our existing FYI approach is easily adapted to introduce students to the fundamentals of creating knowledge in the discipline or the field, what our Office of Undergraduate Research refers to as a "little r" (for research) process and we recommend that we inject the "little r" process into each FYI course we offer. Finally, we encourage the university to use the First-Year Inquiry program, assuming it is expanded to include all new freshmen, as a key component in our next SACS Quality Enhancement Plan.

- **Initiative 3. Living and learning villages**

Currently, about 75-80 percent of our incoming first-year students live on campus and approximately 25 percent of our incoming first-year students live in one of NC State's nine residential villages. We have compelling data that describe the impact of these living and learning communities on the retention rates and academic performance of our first-year students. We therefore recommend that the participation rate of incoming first-year students in living and learning villages be increased to 50 percent through the development of three to four new villages and the expansion of existing villages as appropriate.

- **Initiative 4. High-impact educational practices**

George Kuh identified 10 educational practices that have a significant impact on students' educational and personal growth, particularly for those from underrepresented populations (see Kuh 2008). Several of these practices (first-year seminars and experiences, common intellectual experiences, learning communities) are addressed in the First-Year Inquiry program and living and learning villages initiatives and others (writing-intensive courses, collaborative assignments and projects) are already integrated within our curricula across campus. The task force's initiative on high-impact educational practices focuses on the remaining five categories by recommending that all undergraduate students be required to participate in at least one of the following: study abroad, service learning/community-based learning, internships/co-ops, capstone courses and projects, and undergraduate research.

- **Initiative 5. First-year transition**

The heart of this initiative is the expansion of the summer START Program, a program that was first piloted in summer 2010. Students in the summer START Program get a jumpstart on their undergraduate careers by taking academic courses as well as workshops on skills that are critical for success.

In addition to these five initiatives, the task force has identified intracampus transfer as an issue that required immediate attention. NC State has already begun to take steps to address the problem. Our multi-pronged approach is described below. We note that our proactive/intrusive academic advising initiative is an integral part of our proposed approach.

The task force intends to meet in spring 2011 to review the university's strategic plan and to identify ways in which task force members can assist in the implementation of strategic initiatives focused on undergraduate student success. In addition, we will reconvene in spring 2012 to review the progress made in the implementation of the initiatives proposed in this report.

Intracampus transfer

Intracampus transfer at NC State is an issue that needs immediate attention. The Task Force on Undergraduate Student Success supports the university's long-range goals of expanding the size of the faculty, decreasing the undergraduate student population, and increasing the portion of new undergraduate students who come in as external transfer students relative to those who enter as new freshmen. Such strategies should help ease capacity problems in existing programs across campus.

However, the task force believes that additional strategies are required, and recommends that the university take a multi-pronged approach that includes:

1. Revision of the Intracampus Transfers Regulation, including an examination of transfer procedures

2. Centralization of the undergraduate internal transfer process to facilitate dissemination of internal transfer requirements to students and advisors, reduce manual processing, and help quantify demand for specific majors
3. Establishment of a procedure that ensures that resources follow transferring students to ensure that they can be adequately served by the program into which they transfer
4. Establishment of an academically sound university-wide multidisciplinary degree based upon the use of minors and/or the establishment of college-specific multidisciplinary degrees
5. Direction of additional resources to provide "hands-on" advising for new freshmen and students in transition to enable them to quickly determine their best academic fit and best career fit (see initiative 1, below.)

We note that the establishment of new multidisciplinary degrees, whether college-specific or university-wide, will require additional resources.

The task force has already taken steps to implement recommendations 1 and 4 above. We have recommended that the Council of Academic Associate Deans establish two committees:

- A working subcommittee, including members of the academic policy committee of the Faculty Senate, to revise the Intracampus Transfers Regulation
- A committee consisting of faculty and students from across campus charged with exploring the academic merits of a multidisciplinary degree based upon on-campus minors, with ascertaining student and employer demand, and with developing a proposal for the curriculum and administrative structure of the degree program if appropriate.

Both committees will begin their work at the start of the 2011 spring semester.

Initiative 1: Proactive/intrusive academic advising

"Intrusive advising" is a term used in the literature to describe a proactive approach to establishing a meaningful connection between advisors and advisees. As defined by Jennifer Varney, "intrusive advising involves intentional contact with students with the goal of developing a caring and beneficial relationship that leads to increased academic motivation and persistence" (see http://www.nacada.ksu.edu/AAT/NW30_3.htm#10).

The Task Force on Undergraduate Student Success has identified academic advising as a critical issue impacting the academic success and student experience at NC State University. Feedback from students on the sophomore and senior surveys suggests there are inconsistencies between advising support across campus.

According to the Division of Undergraduate Academic Programs advisory committee: "The impact of advising on student success has been recognized and substantiated by many researchers since the early 1990s. Student development and career development research studies show that students are retained and persist at higher rates when they have access to sound advising to guide them through their college experience."

In "Academic Advising for Student Success: A System of Shared Responsibility," Susan Frost recommends the following framework for planning and creating an advising system that is based on shared responsibility:

1. Consider advising as an institution-wide system centered around students' involvement and positive college outcomes.
2. Promote concepts of shared responsibility for both students and the institution.
3. Begin the advising relationship with an awareness of the larger purpose of advising and move to an awareness of details.
4. Plan for success. All participants in advising should be involved in an ongoing, strategic effort to center advising around a meaningful mission.
5. Evaluate the overall program and individual contributors; results can provide direction for change.
6. Collaborate. A shared advising relationship leads students to contact many members of the college community for answers to questions that arise in academic planning.

(See <http://www.ntlf.com/html/lib/bib/91-11dig.htm>).

Challenges

- Inconsistent advising support across campus
- Shortage of professional advisors
- Student-to-advisor ratio, particularly during the first-year experience
- Early engagement of students in the career planning process
- Advising for students in transition between colleges.

NC State's intracampus transfer process is complex and constantly changing. Students trying to leave a college to pursue another major need strong advising to successfully matriculate in a timely fashion. However, faculty advisors should not be expected to serve as cross-curricular advisors.

Goals

The main goals are to provide students with proactive, hands-on advising the minute they step onto campus and to provide them with the support they need to find their best academic fit and best career fit as quickly as possible.

Specific recommendations

1. Provide an appropriate number of professional advisors in each department/college and in the Division of Undergraduate Academic Programs (DUAP). DUAP is currently using a 120:1 student to advisor ratio model based upon recommendations of the National Academic Advising Association (NACADA). We would suggest continuing with that ratio when allocating additional advising positions.

- a. The primary focus of these advisors would be on first-year students (and, as appropriate, on more advanced students).
 - b. Professional advisors of first-year students would serve as the advisor of record and would be expected to establish a relationship with their students very early in the semester.
 - c. Ideally, professional advisors would teach sections of freshman orientation courses, sections consisting of their advisees (thereby enhancing the advisor/advisee connection).
 - d. The undergraduate director or faculty advisor of the student's intended department, if one is indicated, should also interact with the student during this first year and should coordinate with the professional advisor to best meet student advising needs.
 - e. This approach allows for hands-on advising during the critical first year.
2. Establish a common document outlining what students should expect from their advising experience and what advisors should expect of students.
 - a. This document should be reviewed not only during new student orientation but also during the student's first-year orientation course if available.
 - b. Document content should be developed based on feedback from student representatives, professional advisors, and faculty advisors.
 3. Training should be made available for all advisors, both professional and faculty advisors.
 - a. Require that all professional advisors receive basic and cross-curricular training. In order to enhance efficiency and effectiveness, we recommend that the Division of Undergraduate Academic Programs provide this training.
 - b. Departments would be responsible for providing training for new faculty advisors and refresher workshops for seasoned faculty advisors. We would encourage departments to make use of relevant training modules currently offered by the Office of Advising Support, Information, and Services (OASIS).
 - c. Encourage/provide incentives for all advisors to obtain training.
 4. When units on campus hire additional academic advisors, consideration should be given to having advisors' offices housed in, or near, relevant living and learning communities.
 5. Create an additional code for students who are unable to matriculate or who are having difficulty transferring between colleges and/or departments. Students would be housed in the Division of Undergraduate Academic Programs, but would also remain as majors or as unmatriculated students in their original department or college until they have successfully transferred or matriculated.
 - a. This model provides a higher level of support to the student by connecting him or her with a cross-curricular advisor. In addition, this model creates a mechanism for implementing the Progress toward Degree policy for students with 60 hours or greater who are not yet in a designated degree program.

- b. More accurate enrollment data can be gathered by tracking the "paths" of students. The university should evaluate this data annually and determine resource allocations appropriately.
6. Explore the use of an advising dashboard in SIS (Student Information System) that will allow advisors to quickly ascertain the progress of a student and allow for more informed advising meetings. This might include GPA trends, flags indicating progress reports or academic warning status, hours remaining in the degree, etc.
7. Require annual evaluations of all advisors, similar to end-of-course evaluations that are currently required (See Appendix F for a draft survey instrument from the College of Agriculture and Life Sciences and for the current advising evaluation instrument used in the Department of Chemical and Biomolecular Engineering.)
8. Include advising as a component of faculty Reappointment, Promotion, and Tenure portfolios.
9. Make explicit to students the connection between their academic preparation and the need for step-by-step professional development from freshman to senior year by linking a student success career path plan to each student's plan of study/degree audit. Such a plan should include specific steps based on the student's year at NC State. (See, for example, the career path checklist at: <http://ncsu.edu/career/students/explore/checklist.php>.)
10. Develop an online student success career path timeline that uses student voices to explain each step along the way to student users, including success stories, ideas of how to utilize career services in new ways to find internships, develop employer contacts, find out about careers of interest, learn how to get one's foot in the door, etc.

Additional professional advisor positions will be needed to achieve the desired student-to-advisor ratio in departments and colleges across campus. Resources will be needed to develop an online version of the student success career path timeline. Finally, additional personnel may be needed in the Office of Advising Support, Information, and Services.

Metrics

- Student satisfaction with their NC State experience based on sophomore and senior surveys
- Number of nondegree courses taken by students in transition
- Retention rates
- Graduation rates
- Improvement in data collection for the purpose of enrollment management.

Initiative 2: The First-Year Inquiry program

As first postulated by W.G. Perry (1970), students typically arrive at college as dualistic thinkers, believing that all questions can be answered and problems solved and that their job is simply to find the correct answers or solutions. Many become frustrated when it seems as though the "right" answer is elusive at best, or unknowable at worst. What they do not understand is that the instructor is likely asking them to make their own judgments regarding "ill-structured" problems by using good reasoning. This requires, according to Perry, the intellectual maturity to see complexity, accept uncertainty, and ultimately use evidence to reach and support one's own conclusions.

It is important that universities help new students make this transition to being independent learners, able to frame their own questions and seek out alternative points of view. The Boyer Commission addressed this issue in its 1998 report, *Reinventing Undergraduate Education: Blueprint for America's Research Universities*. According to the commission:

The experience of most undergraduates at most research universities is that of receiving what is served out to them. In one course after another they listen, transcribe, absorb, and repeat, essentially as undergraduates have done for centuries. The ideal embodied in this report would turn the prevailing undergraduate culture of receivers into a culture of inquirers, a culture in which faculty, graduate students, and undergraduates share an adventure of discovery (p. 16).

The Boyer Commission recommended that universities "construct an inquiry-based freshman year," one that provides a "firm grounding in inquiry-based learning and communication of information and ideas" (p. 19).

This recommendation is reaffirmed in George Kuh's work on high-impact educational practices (2008). According to Kuh, "On almost all campuses, utilization of active learning practices is unsystematic, to the detriment of student learning. ... The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies (p.9). Kuh notes as well that "the effects of participating in high-impact practices are positive for all types of students. But, historically underserved students tend to benefit more from engaging in educational purposeful activities than majority students" (p.17).

NC State responded to the recommendations made by the Boyer Commission and others by developing its First-Year Inquiry (FYI) program. The program was a grass-roots initiative rather than a top-down directive, one that evolved out of a multi-year faculty development program funded by the Hewlett Foundation. The FYI program offered its first courses in 1999.

Faculty in the FYI program use inquiry-guided learning techniques to help students strengthen their critical thinking skills and become independent learners. Currently, section size in the program is capped at twenty-two to enable students to establish close contact with faculty

members and to give students the opportunity to participate in small group interactions with other students in the class. All FYI courses are part of the general education program, thereby enabling students to make progress toward meeting graduation requirements. Instructors who are new to the program, that is, instructors who are teaching FYI sections for the first or second time, are expected to attend orientation meetings, workshops, and monthly faculty meetings.

As noted by Louis Hunt, vice provost for enrollment management and services, the variable that strengthens every predictive model of student success, whether it is graduation rates or retention, is how students perform in their first year and specifically in their first semester. Data provided by Allen Dupont, director of assessment in the division of undergraduate academic programs, provides evidence that FYI courses make positive contributions to student success. For example, data collected from the 2007 and 2008 freshman cohorts indicate that taking an FYI course has a significant and positive impact on grade point average, even after controlling for high school GPA and SAT as well as gender.

Few faculty members begin their teaching appointments with significant training in how to teach, let alone how to teach their dualistic-thinking students. Thus, it is not surprising that they too become frustrated when their efforts appear unsuccessful. However, faculty-learning communities, which provide both support and instruction, have been shown to improve both faculty effectiveness and satisfaction.

We have local data that provides evidence that participation in the First-Year Inquiry program has positive effects on instructors. Amy McClure, Maxine Atkinson, and Jeremiah Wills wrote about those effects in their 2008 article "Transferring Teaching Skills: Faculty Development Effects from a First-Year Inquiry Program." They describe their research and findings as follows:

In this study, focus groups were conducted with 20 faculty members who teach first-year seminars at North Carolina State University, a large, public research university. The goal was to investigate how participating in a first-year program influences how faculty members teach their other courses. Faculty reported positive transfer effects in four areas of teaching: (a) reflecting on teaching methods, (b) using formal measures to assess critical thinking, (c) devoting class time to discussions about critical thinking, and (d) reevaluating how they see themselves as instructors. These findings highlight ways that structural elements of first-year programs, such as faculty training, peer mentoring, and involved membership in a teaching community, benefit participating faculty and the students they teach (abstract).

Goals

NC State's primary goal should be to enhance the success of our undergraduate students by strengthening their critical thinking and communication skills and by helping them make the transition from being dualistic thinkers to becoming independent learners through the expansion of our First-Year Inquiry program. Note that the existing FYI approach is easily adapted to introduce students to the fundamentals of creating knowledge in the discipline or the field, what our Office of Undergraduate Research refers to as a "little r" (for "research") process. Therefore this initiative would also provide students with some of the fundamental

skills necessary to begin to think like disciplinary scholars, facilitating the transition to engaging in original research projects later on in their academic careers. Finally, given campus data and national data, we expect that an expansion of the First-Year Inquiry program will result in increased retention and graduation rates as well.

Specific recommendations

1. Budget cuts have significantly reduced the number of students who are currently served by the First-Year Inquiry program. At present, about 10 percent of our incoming freshmen take an FYI course during their freshman year. By fall 2016 that figure should be raised to 100 percent, i.e., that we should require all incoming freshmen to take a FYI course during the freshman year. Section size should be capped at nineteen rather than at twenty-two, and the "little r" process should be injected into each FYI course we offer.
2. In order to implement the recommendation for a campuswide requirement, NC State will need large-scale development of new FYI courses (coupled with a large-scale faculty development effort) and resources to teach the additional FYI courses. To address the teaching of the courses, NC State should develop a funding model that will allocate within the next five years a significant proportion of new faculty positions to departments that are willing to offer FYI courses. Departments receiving those positions will be required to teach a specified number of students in FYI courses per new position. UNC-Chapel Hill has had remarkable success using this approach. Such an approach has other positive ramifications as well. Departments that have not traditionally offered general education courses will be encouraged to do so. (For example, many departments can contribute to the university's general education program by offering interdisciplinary FYI courses.) We will need to offer for small stipends for faculty who participate in the faculty development workshops and complete the program's required end of semester assessment.
3. NC State should consider teaching some FYI courses in classrooms in the residence halls and, in particular, classrooms located in the residence halls that house living and learning villages. Such an integration of academic and residential life serves to enhance the experience and performance of our students.
4. As part of reaffirmation of accreditation by SACS, every university is required to develop a quality enhancement plan that is tied to student learning. Assuming that the FYI program is expanded to include all new freshmen, NC State should consider using the this program as a key component in our next quality enhancement plan.

Metrics

- Percentage of new freshmen enrolled in an FYI course
- Retention rates
- First and second semester GPAs of incoming students

- Graduation rates
- Assessment of critical thinking skills
- Assessment of communication skills
- Total hours passed (at the end of the first year, second year).

The First-Year Inquiry program has a strong tradition of assessment. Assessment of the expanded program will not be as challenging as it might be with a program in which we have little or no history.

Initiative 3: Living and learning villages

NC State's incoming students come from highly structured high schools that often have a total population less than half the size of our incoming freshman class. NC State offers these students the rich advantages of a major, public research university. But in order to help our incoming students succeed in that environment, it is important that they have a firm grounding in small, supportive academic and social communities.

That need has been identified in the literature and in data that we have collected. Indeed, studies over the last several decades consistently support the importance of student involvement (Astin 1999), academic engagement (Tinto 1975), and social and academic integration (Bean 2005) in the retention of students.

Data from the spring 2010 Sophomore Survey administered by NC State's University Planning and Analysis provides further evidence for the need for a more intrusive first-year experience.

- 30.7 percent of sophomore students were dissatisfied with the sense of community at NC State.
- 23.1 percent of sophomore students who were dissatisfied with the sense of community at NC State reported that they had seriously considered leaving or had left and then returned, as compared to 13.6 percent of those who were satisfied with the sense of community.

Kay Moore, former dean of the College of Education, chaired a 2002 task force on living and learning at NC State that identified the need for the development of residential learning communities that would provide, in the words of task force member and former basketball coach Kay Yow, "villages" centered around a common theme where students would live, learn, eat and play. Prior to 2003, NC State had four residential programs that were open to first-year students: University Scholars, University Honors, First-Year College, and the Alexander Global Village. Since that time, NC State has developed five additional villages open to first-year students: the Women in Science and Engineering (WISE) Village, the Students Advocating for Youth (SAY) Village, the Impact Leadership Village, the Arts Village, and the Women of Welch (WOW) Village. A tenth village, the Entrepreneurial Village for upperclassmen, is currently in the development stage.

We have data that provides evidence of the success of NC State's existing villages on retention and academic performance. For example, women who participate in the WISE Village matriculate into engineering disciplines at the end of two semesters at significantly higher rates than women entering engineering not in WISE and than men in engineering. (Note that the benchmark data for the two-semester matriculation rates for women and men in engineering were 38 percent and 45 percent, respectively. Two-semester matriculation rates for women who participate in WISE have remained consistently in the 50+ percent range, but have varied between 42.1 percent and 59.3 percent.)

The Division of Undergraduate Academic Programs has collected comparison data on the development of soft skills in First-Year College students who reside in the First-Year College village and those who don't. Among the findings are that students who reside in the village are more likely to interact with faculty outside of class and are more likely to engage with other students in discussions of importance (for example, discussions about diversity and societal issues/current events) than First-Year College students living outside of the village.

More generally, according to data provided by Trey Standish, assistant director for enrollment planning in University Planning and Analysis, when students with identical preparation are compared, participants in living and learning communities are retained at higher rates and have higher GPAs than nonparticipants. For the 2005 and 2006 cohorts:

- The average first-year retention rate among students who participated in living and learning communities was 92.3 percent as compared to 88 percent for nonparticipants.
- The average fall and spring GPAs for participants in living and learning communities were 2.89 and 2.85, respectively, compared to 2.74 and 2.54, respectively, for nonparticipants.

Goals

NC State's overall goals should be to increase the two-semester matriculation rates, retention rates, and graduation rates of undergraduate students through the expansion of opportunities to participate in living and learning villages or in other small communities that integrate social and academic experiences.

Currently, between 75 percent and 80 percent of incoming freshmen live in NC State residence halls and approximately 25 percent of incoming freshmen participate in one of the nine existing residential villages. By 2015, NC State should increase the participation rate of incoming freshmen in living and learning villages to 50 percent through the development of three to four new villages and the expansion of existing villages as appropriate.

Specific recommendations

1. NC State should develop three to four additional living and learning communities with a combined capacity for approximately 1,000 incoming freshmen to raise current participation rates from approximately 25 percent to 50 percent. We propose that new

- villages and existing villages consider additional capacity for the "neglected" generation, i.e., for second-year students as well. We further recommend that
- a. When units on campus hire additional academic advisors, consideration should be given to having advisors' offices housed in, or near, relevant living and learning communities
 - b. When First-Year Inquiry (FYI) courses are scheduled, consideration should be given to scheduling some FYI courses in classrooms that are located within residence halls associated with living and learning communities.
2. In the recent past, NC State began a planning process for an environmental/sustainability village, but those plans were abandoned due to cost considerations. As a first step, NC State should renew those planning efforts.
 3. To gauge demand for other villages (such as a health village or a technology village), NC State should immediately convene a small task force consisting of faculty and staff from the academic colleges and the Division of Student Affairs and student members of the Inter-Residence Council to investigate successful programs across the country and to ascertain student interests (through surveys, focus groups, town hall meetings, etc.). This task force would be charged with making recommendations to the Council of Academic Associate Deans and to the Division of Student Affairs on the development of additional villages and the expansion of existing villages. Those two groups would then be responsible for making a joint recommendation to the provost and for identifying faculty, students, and staff to work on all approved individual projects.
 4. The structure of each new village will depend upon the theme, and costs will therefore vary by village. We recommend that each village have a director (and possibly an assistant director) as well as upper-class mentors for all incoming first-year students (with a target of fifteen incoming students per mentor) and that the budget for each village include flexible programming money. We estimate that the average cost for each new village with capacity for 300 students would be on the order of \$150,000/year (for salary, mentor stipends, operating costs, office rental costs, etc.) + benefits (for the director and assistant director) + flexible programming money.
 5. All first-year students (including incoming transfer students, first-year students who commute, and first-year students who would prefer not to participate in living and learning villages) need to be connected as well. NC State has many department, college and university-based student clubs, in addition to programs on campus such as the Park Scholars program, the Caldwell Scholars program, and the Leadership in Action program, that help connect students with professors and staff and with other students who share common interests. NC State should consider a further expansion of opportunities for all incoming students, for example, the development of living and learning villages that target incoming sophomore transfer students. This is the next logical step after the development of additional living and learning communities for our incoming freshmen.

Metrics

- Retention rates
- Two-semester matriculation rates for students who enter the university in undesignated categories (for example, Engineering, First-Year College, PAMS Undeclared, etc.)
- First and second semester GPAs of incoming students
- Total hours passed (at the end of the first year, second year)
- Metrics associated with soft skills (for example, student/faculty interactions, student/student discussions of importance, etc.)
- Total percentage of incoming freshmen who live in living and learning villages.

Initiative 4: High-impact educational practices

In the introduction to the 2008 Association of American Colleges and Universities (AAC&U) publication *High-Impact Educational Practices, What They Are, Who Has Access to Them, and Why They Matter*, Carol Geary Schneider notes that "the long-term 'college success' question encompasses not only whether students have earned a degree, but also whether graduates are in fact achieving the level or preparation-in terms of knowledge, capabilities, and personal qualities-that will enable them to both thrive and contribute in a fast-changing economy and in turbulent, highly demanding global, societal and often personal contexts" (p. 2).

Through the Great Expectations initiative (2000-2006) and, currently, the Liberal Education and America's Promise (LEAP) project, AAC&U spent ten years engaged in discussions with faculty, employers and accrediting agencies to define a set of "essential" student learning outcomes.

1. Knowledge of Human Cultures and the Physical and Natural World, through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts
2. Intellectual and Practical Skills, including inquiry and analysis, critical and creative thinking, written and oral communication, quantitative literacy, information literacy and teamwork and problem solving
3. Personal and Social Responsibilities, including civic knowledge and engagement (local and global), intercultural knowledge and competence, ethical reasoning and action, foundations and skills for lifelong learning
4. Integrative and Applied Learning, including synthesis and advanced accomplishment across general and specialized studies (p. 4).

Subsequently, through his work with the National Survey for Student Engagement (NSSE), George Kuh (2008) has identified ten "high-impact educational practices" that map directly to the AAC&U LEAP outcomes and "according to a growing array of research studies, are correlated with positive educational results for students from widely varying backgrounds" (see Schneider 2008, p 1). Kuh notes as well that "the effects of participating in high-impact practices are positive for all types of students. But, historically underserved students tend to benefit more from engaging in educational purposeful activities than majority students" (p. 17).

The ten high-impact educational practices identified by Kuh are:

- First-year seminars and experiences
- Common intellectual experiences
- Learning communities
- Writing-intensive courses
- Collaborative assignments and projects
- Diversity/global learning
- Undergraduate research
- Service learning/community-based learning
- Internships
- Capstone courses and projects (pp. 9-11).

The first three of these practices (first-year seminars, common intellectual experiences, and learning communities) are addressed in the First-Year Inquiry program and living and learning villages initiatives proposed elsewhere in this report. Intensive writing is already part of NC State's general education program, and collaborative assignments and projects are integrated in many of the courses that NC State students take. Consequently, this initiative focuses on the last five high-impact activities: diversity/global learning, undergraduate research, service learning/community-based learning, internships, capstone courses and projects.

According to Kuh, diversity/global learning, undergraduate research, service learning/community-based learning, and capstone courses/projects are positively correlated with constructs regarding "deep learning, self-reported gains, and clusters of effective educational practices" in graduating seniors (p. 15). We also have on-campus data that provides evidence of the impact of participation in co-op experiences (and internships) on future careers. For example, according to Arnold Bell, Director of Cooperative Education at NC State, "UPA analysis of the 2006 NC State Baccalaureate Alumni Survey indicated that co-op participants were significantly more likely than nonparticipants to be employed in a position directly related to their degree from NC State. Likewise, co-op participants reported significantly higher yearly earnings than nonparticipants in their first and current jobs." Therefore, the task force believes that the increased availability of, and therefore the opportunity to engage in, these high-impact educational practices will make NC State more attractive to students, faculty and potential employers.

Goals

NC State's goal should be to provide high-quality learning experiences that enable our students to gain the knowledge and skills needed to successfully complete their education and become productive members of society.

According to Schneider, George Kuh reminded the leaders of the LEAP project that as educators we must intentionally structure our educational practices to meet our goals: "...if the essential learning outcomes are goals, then our curricular, co-curricular and pedagogical practices need

to be recognized as the means to achieving these larger educational ends. We can help our students improve by making these kinds of practices the norm, rather than the exception (p. 7).

In order to achieve these larger educational ends, NC State should provide adequate opportunities for students to engage in high-impact educational practices and, in fact, to require that students take advantage of the opportunities so that they are able to "reap the full benefits-economic, civic and personal-of their studies in college" (Schneider, p. 1.)

Kuh does not privilege one type of high-impact activity over another, and we too believe that students should be able to choose among the options rather than requiring one specific category for all. As Richard Felder and Rebecca Brent note in "Understanding Student Differences" (2005), "Opportunities to exercise responsible choice in the content and method of study encourage a deep approach [to learning by students]" (see also Biggs, J. 2003; Ramsden, P. 2003; and Prosser, M. and Trigwell, K. 1999).

Specific recommendations

1. Before the start of the 2016 fall semester, NC State should develop a common set of assessable student learning outcomes for the following activities: study abroad, service learning/community-based learning, internships/co-ops, capstone courses and projects, and undergraduate research.
2. Starting with the 2016 freshman cohort, all undergraduate students should be required to participate in at least one high-impact educational practice from the above list.
3. Each activity should include a formal educational intervention that includes a pre/post reflection with prompts to guide the students' reflection and to create a structure around which assessment can occur.
4. All activities should be preapproved by the student's undergraduate program and intentionally designed to meet the student learning outcomes identified in step 1. Note that these approvals will "transfer" with the student, i.e., if a student has one or more preapproved activities and subsequently changes major, those activities will be transferred into his or her new degree program.
5. NC State should create a task force to study and address implementation issues. This group should provide regular updates to the Council of Academic Associate Deans. We recommend that the following groups be included in the task force or serve as consultants during the development of outcomes and other stages of implementation: all colleges, the Study Abroad Office, the Office of Undergraduate Research, the First-Year Inquiry program, the Center for Leadership, Ethics and Public Service, the Co-op Office, the University Career Center, and the Department of Registration and Records.
6. NC State should not impose these requirements without a corresponding reduction in existing requirements. Therefore we recommend that consideration be given to

dropping the "additional breadth" requirement of the general education program (GEP) to allow for the addition of a high-impact educational practices requirement without extending time toward graduation. We note that in adding another dimension to the undergraduate experience, the activities included in the proposed initiative are in the spirit of the additional breadth requirement of the GEP. We note as well that the task force's First-Year Inquiry program initiative provides another avenue to add breadth can to the undergraduate experience.

Implementation issues

1. Before the initiative is implemented, NC State must earmark the following resources:
 - a. Funding to expand offerings to meet demand, in particular, to expand study abroad and undergraduate research opportunities. (Resources for the University Career Center may be needed once we know the demand for access to internship and co-op opportunities.)
 - b. Funding for faculty development workshops and programs focused on the development of capstone courses and service learning courses.
2. High-impact educational practices must be infused into the curriculum by the academic departments. Some departments will already have activities in place that meet the outcomes; some will only need to make minor adjustments to current courses or activities; and others will need to start from scratch.
3. Common outcomes must be developed. (We note as a starting point that many are in the Kuh document.)
4. NC State must develop a tracking system for the preapproval of student activities and subsequent successful completion of those activities.
5. In the future, NC State should consider adding a second high-impact educational practice requirement.
6. In the future, NC State should consider structuring other out-of-class activities (for example, leadership activities, entrepreneurial experiences, and job experiences that are not technically internships or co-ops) to meet the requirements.

Metrics

- National Survey of Student Engagement data (trend analysis)
- Graduation rates
- Critical thinking skills measures
- Student satisfaction as measured by the senior survey.

Initiative 5: First-year transition

If we accept the notion that the vast majority of students admitted to NC State are capable of earning a degree, and we accept the literature suggesting that student success is highly correlated with meaningful social and academic integration to the university (see the literature cited above in the living and learning villages initiative), then it is appropriate to look carefully at the period when students transition to the university. A successful transition to the university provides the following outcomes:

- Affinity to the university, major, community
- Identification of social networks and support groups
- A foundation for future academic success
- Timely selection and matriculation to a major
- Early experiences, even prior to matriculation, that contribute to the formation of positive perceptions of the university
- Positive interactions with faculty, staff, and students.

This initiative focuses on the period before admission and continues through the beginning of the student's second fall term. According to Louis Hunt, vice provost for enrollment management and services, data suggest that successful transition in the first year is an excellent predictor of eventual graduation.

Responsibility for the transition of a student at NC State is currently distributed across numerous administrative and academic units. This transition needs to be managed as a seamless, integrated process addressing the whole person (social, academic, financial, psychological).

Goals

Communications to prospective students and their families should reflect the values of NC State. Students who apply and matriculate to the university should experience a seamless and holistic set of communications and business processes that support a successful transition to the university and address the multidimensional needs of each student.

Specific recommendations

1. In 2007, the undergraduate student transition task force (USTT) was given the charge to "identify opportunities and structures for improving or enhancing the transition process" in a way that would "contribute to the persistence and successful completion of the undergraduate degree for each admitted student." The resulting USTT report "The First-Year Experience at NC State: Moving from a University of Strengths to a University of Excellence" (2008), provides analyses and recommendations related to first-year transition issues. NC State should carefully consider the USTT task force report and continue to implement its recommendations. The first-year experience committee recommended by the USTT should be elevated, report directly to the provost, and provide an annual report to the NC State Board of Trustees on the state of undergraduate student success. This report should address metrics listed below and others commonly associated with student success.
2. Summer orientation at NC State was traditionally a "one-shot" experience occurring across two days during July. In recent years, it has been expanded through the addition of Wolfpack Welcome Week and the Common Reading program. Student orientation and transition to NC State should be thought of as a process, rather than an event, and that process should continue beyond the start of classes in the fall. Building upon the

USTT report, "orientation" should be elongated—beginning before admission and extending into the first few weeks of the semester and, in some sense, throughout the entire first year. Social networking tools, such as Facebook, should be used in the period prior to the start of the fall semester to link students and raise their level of comfort.

3. Many incoming students enroll in the fall semester unprepared to fully matriculate into their core curriculum or with backgrounds that put them at risk and jeopardize their likelihood of success. A pilot program developed in 2010, Summer START, provides a mechanism to enroll students in the second summer session prior to their first fall semester. This program allows students to acclimate to the campus environment, earn course credits, address academic deficiencies, and improve study habits and time-management skills. Summer START is being expanded for 2011 and needs to become a major strategy in the future. As this program expands, we also recommend that high-achieving students be included in a similar enrichment summer program to allow them to get a jump start on their academic careers.

Metrics

- Improved first- and second-year retention rates
- Improved two-semester matriculation rates for students who enter the university in undesignated categories (for example, engineering, First-Year College, PAMS, undeclared, etc.)
- Improved first- and second-semester GPAs of incoming students
- Reduced number of students in academic difficulty after their first semester
- Increased number of total hours passed at the end of the first year
- Improved results on relevant portions of the Sophomore Survey (e.g. those associated with student transition).

Ideas for further consideration

The Task Force for Undergraduate Student Success received thoughtful input from faculty, students, staff, alumni, business leaders, and many others. We have integrated a great number of their suggestions in one or more of our five main initiatives, but were not able to include all of the wonderful ideas we received. We strongly believe that the campuswide conversation that has been generated as a result of the strategic planning effort should not stop with the end of the committee process, but rather that many ideas not included in our initiatives should be considered further.

Below is a partial list of ideas for further consideration by departments, colleges and the university.

1. Financial aid. As the chancellor has said many times, we need to greatly increase the scholarship support available for our students. Efforts to raise those funds will most likely take many years. In the short run as well as in the long run, NC State should consider expanding the availability of work-study opportunities.

2. Distance education. Full-time, on-campus, degree-seeking undergraduate students should not be charged additional tuition for taking an additional course that happens to be a distance education course. More generally, tuition for on-campus students should not depend upon mode of delivery. NC State should consider changes in the distance education tuition structure, compensation model, and resource-allocation model.
3. Admissions. We looked closely at our institutional peers and found two main models (along with several hybrid models): the one currently used by NC State (and many of our peers), and an alternative model in which students are admitted directly into college undesignated categories (such as the practice used by the College of Management). Some peers that use these models also have strands within their general colleges, for example, a humanities strand, a social sciences strand, a physical sciences strand, etc. NC State should further explore targeted admissions options (with attention given to the alignment of enrollment targets with application demand, resources, and university priorities such as selectivity, in-state/out of state mix, diversity, etc.).
4. Structure of colleges. Several faculty members have raised concerns about the college structure and its effect on intracampus transfer. Some have proposed a College of Arts and Sciences, arguing that if we simply admitted most students into this college and allowed them to stay in this college as long as they made progress toward a degree, students would face fewer obstacles to changing majors. Others have proposed a College of Science (similar to the Eberly College of Science at Penn State). There is enough interest in these types of options to warrant a review of why we are structured as we are and the feasibility of restructuring.
5. Alcohol use and academic performance. According to Chris Austin, assistant director of health promotion, substance abuse prevention (Student Health Services):
Research indicates the association between alcohol use and academic performance (<http://www.higheredcenter.org/research/109>). Lower-risk drinkers are more apt to succeed academically where higher-risk drinkers aren't as apt. National as well as local data point out that college students who drink typically do so on Thursdays, Fridays, and Saturdays when compared to other days of the week. In the last several years one of the ways several universities have addressed the issue of reducing high-risk drinking among its students is to offer routine student activities between the hours of 10 p.m.-2 a.m. on Thursdays-Saturdays, which are thought to be main times when students may choose to drink.
NC State should further consider Dr. Austin's recommendation to offer routine student activities during targeted times.
6. Professional mentoring. We would encourage departments and colleges to consider engaging alumni and other "friends" as mentors for undergraduate students.

7. Community colleges. We should continue to explore opportunities with the community colleges to enhance the success of our incoming students. For example, students who are not able to participate in NC State's Summer START Program should be encouraged to take fundamental courses such as ENG 100 and CH 111 in area community colleges during the summer prior to the start of their freshman year.
8. Expansion of opportunities for undergraduate research. NC State's departments and colleges, and the university itself should consider expanding the availability of undergraduate research projects:
 - by encouraging faculty to include undergraduate research opportunities in grant proposals
 - by encouraging departments, colleges, and the university to use mentoring of undergraduate research projects in the yearly evaluation of faculty as well as in the evaluation of faculty for promotion, tenure, and reappointment
 - by encouraging departments to use retired faculty and other professionals to mentor undergraduate research projects.

We included the need for expanded undergraduate research opportunities in our high-impact educational practices initiative, but thought it was important to include some key strategies in this section as well.

9. Targeted analyses. NC State should conduct a careful analysis of the key factors that enhance success as well as those that inhibit success of students from underrepresented populations. Consideration should be given to coordinating student support services across all units.
10. Approval routing for undergraduate regulations. The Faculty Senate academic policy committee brought an important issue to the task force, namely, that there is no clear pathway for approving modifications of existing undergraduate academic regulations, nor for proposing new regulations. NC State should identify the appropriate pathway as quickly as possible.
11. The role of extension offices and other university resources. As pointed out by Joe Zublena (interim director of cooperative extension) in the October 26, 2010 town hall meeting, NC State should expand opportunities for students through the use of all campus resources, not just the traditional ones:

When we are looking at different ideas, we can consider all of the resources at NC State, including the offices we have in every county. What might a new model of education look like? We have opportunities for freshmen to go back home at the end of the summer to do internships through the local offices that could be coordinated with campus departments or colleges. We work with county commissioners across the entire state, and political science students could be working at local governments. Extension can help make that happen.

12. Seminars for undergraduate students. Often, external speakers give talks for graduate students in addition to their seminar talks. NC State departments should ask external speakers to interact with undergraduates, either in formal ways by giving talks on research, career opportunities, etc. to undergraduate clubs, or in informal settings (lunch, teas, etc.).
13. Archiving of task force reports. Our task force found it difficult to locate reports from previous relevant task forces. NC State should archive reports so that they can be easily retrieved.

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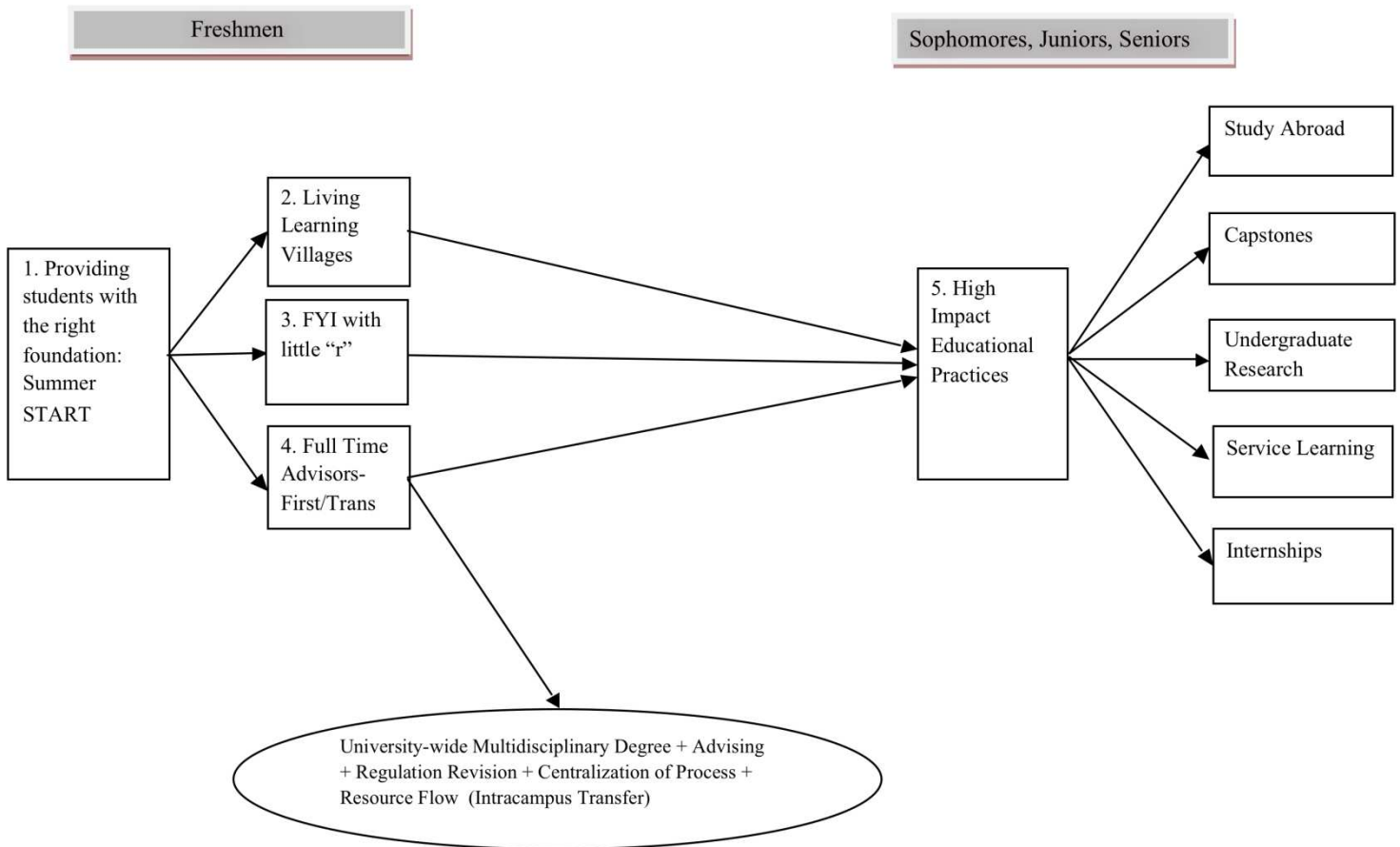
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Appendix A. Undergraduate student success integrated plan



Appendix B. Admissions processes for NC State peer institutions

| Institution | First-Year Student Major Declaration | Allows Equivalent of an "Undeclared" Major Generally or within College? (Y/N) | First-Year-Specific Programs? | Has an Inclusive, Formal Program for All First-Year Students? (Y/N) | Other Details |
|---------------------------------|--|---|---|---|--|
| Cornell University | Admits into colleges (students choose a major within the college during sophomore year) | Yes. | Has a "resource center" explicitly for first-year students, called the "Carol Tatkon Center" | Yes. | All first-year students also required to participate in a "first-year writing seminar" |
| Georgia Institute of Technology | Admits into majors, students in the "Ivan Allen College" of liberal arts permitted to enter with "undecided" option. Students in the College of Engineering and the College of Sciences may enter in an undeclared option. | Yes. | Has a "First Year Honors Program" for honors students | No. | |
| Iowa State University | Admits into majors, but offers "Open Options" as a special program if students have not chosen a college and offers an "undeclared option" within a college for students who have not chosen a major. | Yes. | No formal program for first-year students but resources available within the college and for the general Honors program | No. | |
| Michigan State University | Admits into colleges as pre-majors with "no preference" option (Ex. a chemistry pre-major would be admitted into the College of Natural Science.) | Yes. | Has "First Year Experience" program for first-year students. | Yes. | |
| Ohio State University | Qualified students are admitted directly into majors; pre-majors are admitted directly into the appropriate degree-granting college; has an option called University Exploration (students must choose major by end of sophomore year) | Yes. | Has "First Year Experience" program for first-year students. | Yes. | |

| | | | | | |
|-------------------------------------|--|------|--|------|--|
| Penn State University - Main Campus | Most students select a major when they apply, but are not admitted directly into those programs- they are admitted to the academic college that houses that major. Students may be admitted into the Division of Undergraduate Studies. There are some majors in which students are directly admitted (-ex. Science BS/MBA program). | Yes. | No formal program for first-year students but has first-year-catered information on college Web sites | No. | |
| Purdue University - Main Campus | Admits into majors. Has an Undergraduate Studies program option. Engineering students have a common curriculum during freshman year. | Yes. | Has "Undergraduate Studies Program" and series of programs for first year students, but does not house them under one, formal first-year program | No. | Has a "First Year Engineering Program" that seems the most advertised. |
| Texas A&M University | Admits into majors or into General Studies. | Yes. | Has "First Year Experience" program for first-year students. | Yes. | |
| University of California - Davis | Admits into majors, but allows students to enter as "undeclared/exploratory" within their college | Yes. | Has "Freshman Seminar Program (FSP)" open to all and a "Davis Honors College" program, but not a distinct all-inclusive program like the others | No. | |
| University of Florida | Do not apply to a particular college or declare a major formally upon admittance. May declare a major informally but may also enter as "undeclared/undecided." | Yes. | "First-Year Florida" offers undergraduate major counseling, first-year adjustment seminars, etc. | Yes. | First-year students who are undecided on a major also have the option to declare an "exploratory" major for the first three semesters in one of the following three fields: "humanities and letters"; "social and behavioral sciences"; or "science and engineering" |

| | | | | |
|---|--|------|---|------|
| University of Georgia | Applicants specify an intended major and are admitted to the University. Students are enrolled immediately into majors for most majors. Some majors have pre-requisites that must be met (for example, business majors) before a student can enroll. | Yes. | Does not appear to have a distinct, overarching program for first-year students but has a Web site directing them to resources, offers first-year orientation, etc. | No. |
| University of Illinois Urbana/Champaign | Admits into majors with option to apply as "undeclared" to the Division of General Studies | Yes. | Has "First Generation College Student" program, but not a formal all-inclusive first-year program | No. |
| University of Maryland-College Park | Admits into majors with option to go into Letters and Sciences. (Note that Letters and Sciences is not a college.) | Yes. | Has general "new student programs" listed but they are not organized under a formal program. | No. |
| University of Minnesota | Admits into colleges, application asks for first choice (college & major) and second choices for both and allows for "undeclared" option | Yes. | Has "First-Year Orientation" Web site and a "First Year Writing" program, but not organized under one formal organization | No. |
| University of Wisconsin-Madison | Admits to University. Some students enter majors immediately by filling out a declaration form. Some majors have prerequisites and require an application process. Has an Exploration Center for those wanting to explore majors or careers. | Yes. | Has "Center for the First-Year Experience" | Yes. |
| Virginia Polytechnic Institute | Admits into majors, allows for "undeclared" option | Yes. | Has a formal "Office of First Year Experiences" | Yes. |

Source: Admissions Web sites, first-year student-specific Web sites for each university and calls to admissions officers

Appendix C. Peer data: 2001 cohort

| Institution | One Year Retention | Graduation Rates | | In Top 10% of High School Class | SAT Verbal Quartile | | SAT Math Quartile | | ACT Quartile | |
|--------------------|--------------------|------------------|--------|---------------------------------|---------------------|------|-------------------|------|--------------|------|
| | | 4 Year | 6 Year | | 25th | 75th | 25th | 75th | 25th | 75th |
| California - Davis | 92% | 47% | 81% | 100% | 520 | 640 | 560 | 680 | 24 | 30 |
| Cornell | 96% | 87% | 92% | 86% | 630 | 730 | 660 | 770 | 29 | 33 |
| Georgia Tech | 93% | 31% | 79% | 81% | 580 | 680 | 650 | 750 | 27 | 31 |
| Florida | 96% | 56% | 82% | 77% | 560 | 670 | 580 | 690 | 26 | 31 |
| Maryland | 93% | 63% | 82% | 71% | 580 | 680 | 620 | 710 | 0 | 0 |
| Illinois | 93% | 64% | 82% | 58% | 540 | 660 | 660 | 770 | 26 | 31 |
| Wisconsin | 94% | 50% | 82% | 57% | 550 | 670 | 620 | 720 | 26 | 30 |
| Georgia | 94% | 50% | 81% | 54% | 560 | 660 | 570 | 670 | 25 | 29 |
| Texas A&M | 93% | 64% | 82% | 50% | 530 | 640 | 570 | 670 | 24 | 30 |
| Penn State | 93% | 60% | 85% | 50% | 530 | 630 | 560 | 670 | 0 | 0 |
| Ohio State | 93% | 42% | 75% | 49% | 540 | 650 | 580 | 690 | 25 | 30 |
| Minnesota | 90% | 41% | 66% | 43% | 520 | 670 | 600 | 710 | 24 | 29 |
| NC State | 91% | 39% | 70% | 41% | 520 | 620 | 560 | 660 | 23 | 28 |
| Michigan State | 90% | 47% | 74% | 36% | 500 | 630 | 530 | 660 | 22 | 27 |
| Purdue | 87% | 38% | 70% | 35% | 500 | 610 | 540 | 670 | 23 | 29 |
| Iowa State | 85% | 34% | 66% | 26% | 510 | 640 | 530 | 680 | 22 | 27 |
| Virginia Tech | 91% | 52% | 80% | 44% | 540 | 640 | 570 | 670 | 0 | 0 |

Source: Common Data Sets

Created by University Planning & Analysis
November 2, 2010

Appendix D. UNC institutions: first-time full-time freshman-to-sophomore retention rates, targets, and performance

| Institution | Fall 2003-2007 Cohorts | | | 2008 (2009) | | | |
|-------------|------------------------|---------|-------|--------------------------------|-------|-------|-------|
| | Total N Retn % | | | Cohort N Goal Predicted Actual | | | |
| ASU | 12,965 | 11,095 | 85.6% | 2,773 | 86.0% | 87.4% | 86.4% |
| ECU | 18,129 | 14,004 | 77.2% | 4,522 | 79.0% | 76.4% | 78.8% |
| ECSU | 2,751 | 2,087 | 75.9% | 636 | 76.0% | 76.1% | 76.3% |
| FSU | 4,143 | 2,989 | 72.1% | 579 | 74.0% | 73.7% | 73.6% |
| NCA&T | 10,315 | 7,412 | 71.9% | 1,592 | 72.0% | 73.5% | 77.1% |
| NCCU | 5,572 | 4,156 | 74.6% | 1,026 | 76.0% | 77.0% | 77.0% |
| NCSU | 21,238 | 19,030 | 89.6% | 4,660 | 90.5% | 90.2% | 90.9% |
| UNCA | 2,903 | 2,269 | 78.2% | 586 | 80.0% | 80.4% | 81.9% |
| UNC-CH | 18,529 | 17,838 | 96.3% | 3,852 | 96.5% | 96.7% | 95.7% |
| UNCC | 13,638 | 10,592 | 77.7% | 3,060 | 78.0% | 78.6% | 77.9% |
| UNCG | 11,435 | 8,748 | 76.5% | 2,472 | 76.6% | 77.0% | 76.6% |
| UNCP | 4,526 | 3,122 | 69.0% | 1,057 | 70.8% | 72.6% | 67.5% |
| UNCW | 9,496 | 8,011 | 84.4% | 2,069 | 86.0% | 81.9% | 84.7% |
| UNCSA | 728 | 564 | 77.5% | 164 | 76.0% | 77.6% | 77.4% |
| WCU | 7,441 | 5,265 | 70.8% | 1,219 | 69.0% | 74.5% | 76.2% |
| WSSU | 4,762 | 3,493 | 73.4% | 1,353 | 71.0% | 72.8% | 77.8% |
| UNC-Total | 148,571 | 120,487 | 81.1% | 31,620 | | | 82.7% |

Appendix E. UNC institutions: first-time full-time freshman six-year graduation rates, targets, and performance

| Institution | 1998-2002 Cohorts | | | 2003-(2009) six-year rate | | |
|-------------|-------------------|--------|-----------|---------------------------|-------|--------|
| | Total N | Grads | 6-yr Rate | Cohort N | Goal | Actual |
| ASU | 11,782 | 7,357 | 62.4% | 2,465 | 64.0% | 64.4% |
| ECU | 15,913 | 8,684 | 54.6% | 3,462 | 56.5% | 56.8% |
| ECSU | 2,039 | 965 | 47.3% | 459 | 43.0% | 45.8% |
| FSU | 3,350 | 1,267 | 37.8% | 794 | 40.0% | 31.5% |
| NCA&T | 8,341 | 3,308 | 39.7% | 2,221 | 43.0% | 37.2% |
| NCCU | 3,602 | 1,739 | 48.3% | 1,025 | 50.0% | 44.4% |
| NCSU | 18,300 | 12,766 | 69.8% | 3,839 | 72.0% | 73.2% |
| UNCA | 2,294 | 1,241 | 54.1% | 593 | 56.0% | 58.7% |
| UNC-CH | 17,364 | 14,514 | 83.6% | 3,511 | 83.5% | 84.9% |
| UNCC | 11,044 | 5,444 | 49.3% | 2,473 | 50.0% | 53.9% |
| UNCG | 9,548 | 4,884 | 51.2% | 2,039 | 51.8% | 51.6% |
| UNCP | 2,904 | 1,043 | 35.9% | 794 | 36.0% | 34.1% |
| UNCW | 8,614 | 5,542 | 64.3% | 1,768 | 67.0% | 68.5% |
| UNCSA | 722 | 387 | 53.6% | 121 | 53.0% | 61.2% |
| WCU | 5,858 | 2,777 | 47.4% | 1,494 | 48.5% | 48.8% |
| WSSU | 2,783 | 1,219 | 43.8% | 883 | 46.0% | 36.5% |
| UNC-Total | 124,458 | 73,132 | 58.8% | 27,941 | | 58.8% |

Appendix F. Sample academic advising evaluation instruments

(1) College of Agriculture and Life Sciences

Draft of Revised Academic Advising Evaluation

Please note that the evaluation instrument would be administered online and would not appear exactly as it does below.

The purpose of this evaluation is to provide feedback about your academic advising experience in the College. This confidential evaluation will be used to recognize, improve, and reward academic advising. Written comments are especially helpful. If you have more than one academic advisor, please be sure to complete an evaluation for each one.

The academic advisor you are currently evaluating is:

I. Extent of Contact with Advisor

1. Approximately how many times have you interacted with this advisor for any reason in the current academic year?

Face-to-face

meetings: 0 1-2 3-4 5-7 8 or more

E-mail: 0 1-2 3-4 5-7 8 or more

Phone conversations: 0 1-2 3-4 5-7 8 or more

2a. In addition to your academic advisor(s) for your major(s), are there other individuals that have served you in an advisory capacity during the current academic year?

Yes

No

2b. If you answered yes, please specify who those individuals are or the programs and centers to which they belong. Select all that apply.

Research or teaching mentor(s)

Professional advising centers such as Health PAC or Vet PAC

Office of Advising, Support, Information and Services (OASIS)

An advisor in an intended major

Athletic advisors

Career services offices such as CALS Career Services or University Career Center

Minor advisor

Undergraduate peer mentors such as Bio PALS

Peers and family members

Other:

3. If you did not meet in person with your academic advisor for registration advising, please select all of the reasons why you did not do so.

- Not applicable. I met with this advisor.
- I have more than one major and primarily interact with my other academic advisor(s).
- Advising is effectively handled over e-mail, by phone, or a combination of both.
- My advising hold was automatically released by this advisor.
- I am usually self-sufficient and do not need additional help with selecting classes.
- Other. Please explain:

II. Evaluation of Specific Advising Services.

Please evaluate your advisor based on your experiences so far. If you have had limited interactions with your advisor and cannot evaluate a specific item, please choose "Not able to evaluate at this time". (Scale: 4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree.)

| My advisor: | 4 | 3 | 2 | 1 | Not able to evaluate at this time. | Comments |
|--|-----------------------|-----------------------|-----------------------|-----------------------|--|----------|
| 1. Is available for appointments. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 2. Keeps scheduled appointments. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 3. Schedules sufficient time for effective advising. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 4. Is approachable and creates a positive environment. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 5. Shows an interest in me and my needs and concerns. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 6. Is responsive to my questions and concerns. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| 7. Provides appropriate encouragement and constructive criticism. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |
| My advisor is knowledgeable about and gives appropriate advice concerning: | | | | | | |
| 8. Curriculum information (course content, relevance to major, etc.). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | |

| | |
|--|---|
| 9. Academic policies, procedures, and deadlines. | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| 10. Campus resources, services, and programs (for example, Counseling Center, Tutorial Center, etc.). | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| 11. Career/professional opportunities (for example, internships, research experiences relevant to the major, departmental clubs and activities). | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| Overall: | |
| 12. My advisor is effective. | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |
| 13. My advisor should be considered for an advising award. | <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> |

III. Written Comments

Please provide your written feedback to the following.

1. Attitude and helpfulness of your academic advisor.

2. Is there any additional feedback or information about your advising experiences that you wish to share?

**(2) EVALUATION OF THE ADVISING SYSTEM
DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING
SPRING 2010**

Grad Date _____

Major(s) _____

Current ASSIGNED CHE Advisor's Name _____

Strongly agree agree no vote disagree strongly disagree

The STRONGEST ASPECTS of the CBE advising PROCESS are:

| | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Limited number of students to each advisor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Individual advising as opposed to group advising | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advisors are concerned with each student | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Availability of help from the Undergraduate Director (Dr. Bullard) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The large number of faculty available for consulting and questions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Other strong points of the CBE Advising Process:

Strongly agree agree no vote disagree strongly disagree

The WEAKEST ASPECTS of the CHE advising process are:

| | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| No weaknesses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advisor not available when I want advice | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Some advisors are apathetic | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advisors are not familiar with details of CHE courses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advisors are not familiar with details of humanities requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advisors are not familiar with details of graduation requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Too many students for each advisor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Would rather have group advising instead of individual | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Other weak points of the CBE Advising Process:

Strongly agree agree no vote disagree strongly disagree

The things I LIKED BEST about MY ADVISOR are:

| | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Concerned with me and how I was doing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Very congenial | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Easy to communicate with advisor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Very informative | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Displays a good example of professionalism | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Easily contacted and keeps appointment | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Makes best effort to know or find answers to my questions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Other things I liked about my advisor:

Strongly agree agree no vote disagree strongly disagree

The things I DID NOT LIKE about MY ADVISOR are:

| | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Not a thing. No complaints about my advisor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Not available when I wanted to ask questions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Not available when I had made appointments | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hard to communicate with advisor | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Not knowledgeable about CHE courses | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Not knowledgeable about humanities requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Not knowledgeable about graduation requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Does not care about me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Other things I did not like about my advisor:

If you had another faculty member (not your assigned advisor) who served as a mentor, please share their name and any comments you have about your interactions with him or her.

Other things you suggest be done to improve the advising process and/or the individual advising experience:

Appendix G. High-impact educational practices: Survey data

2009 National Survey of Student Engagement

| | | First-Year Students | | | Seniors | | |
|--|-------------------|-----------------------|----------------------------|----------------------------------|---------------------|----------------------------|-----------------------------------|
| | | NC State (n=1,030) | UNC SYSTEM (n=4,697) | RU/VH LG PUBLIC* (n=9,457) | NC State (n=942) | UNC SYSTEM (n=4,986) | RU/VH LG PUBLIC* (n=11,816) |
| Practicum, internship, field exp, co-op exp, or clinical assignment | Have not decided | 9% | 10% | 11% | 5% | 7% | 7% |
| | Do not plan to do | 3% | 3% | 3% | 16% | 14% | 16% |
| | Plan to do | 83% | 79% | 79% | 11% | 24% | 23% |
| | Done | 6% | 8% | 7% | 68% | 54% | 54% |
| Community service or volunteer work | Have not decided | 10% | 8% | 11% | 5% | 7% | 8% |
| | Do not plan to do | 5% | 4% | 6% | 14% | 11% | 15% |
| | Plan to do | 40% | 40% | 41% | 10% | 15% | 13% |
| | Done | 45% | 48% | 43% | 71% | 67% | 64% |
| Participate in a learning community/formal program | Have not decided | 34% | 29% | 26% | 8% | 13% | 11% |
| | Do not plan to do | 24% | 24% | 29% | 59% | 49% | 54% |
| | Plan to do | 24% | 29% | 20% | 4% | 10% | 6% |
| | Done | 18% | 18% | 25% | 28% | 29% | 28% |
| Work on a research project w/ faculty member outside of course/prog reqs | Have not decided | 37% | 37% | 35% | 10% | 17% | 14% |
| | Do not plan to do | 17% | 19% | 22% | 51% | 47% | 49% |
| | Plan to do | 41% | 37% | 37% | 9% | 13% | 13% |
| | Done | 4% | 7% | 6% | 30% | 22% | 23% |
| Study abroad | Have not decided | 30% | 27% | 27% | 7% | 14% | 11% |
| | Do not plan to do | 22% | 19% | 20% | 70% | 61% | 61% |
| | Plan to do | 48% | 50% | 50% | 6% | 10% | 9% |
| | Done | 0% | 3% | 3% | 17% | 15% | 19% |
| Culminating senior experience (capstone course, senior project/thesis, comp exam, etc.) | Have not decided | 41% | 39% | 41% | 7% | 12% | 10% |
| | Do not plan to do | 12% | 11% | 13% | 31% | 31% | 32% |
| | Plan to do | 47% | 47% | 45% | 20% | 28% | 28% |
| | Done | 1% | 3% | 2% | 43% | 28% | 31% |

*Peer Group consisting of the 18 participating large (i.e., 20,000+ undergrads), public, 'very high research activity' Research Universities. (*Colorado State Univ., Indiana Univ-Bloomington, Iowa State Univ., Louisiana State Univ., Texas A&M Univ., Univ. of Arizona, Univ of Tennessee-Knoxville, Univ. of Texas-Austin, Univ. of Cincinnati, Univ. of Colorado-Boulder, Univ. of Maryland-College Park, Univ. of Michigan-Ann Arbor, Univ. of Minnesota-Twin Cities, Univ. of Missouri-Columbia, Univ. of South Florida, Univ. of Utah, Univ. of Washington-Seattle, Wayne State Univ.*)

**Student Perceptions of Growth Related to Research & Extension/Public Service Experiences
2010 Graduating Senior & Sophomore Surveys**

| | Yes, had experience | Experience's Contribution to Personal/Professional Growth* (<i>among those with experience</i>) | | | | |
|---|---------------------|---|-----------------|---------|-------------|---------------|
| | | Mean | 4: A Great Deal | 3: Some | 2: A Little | 1: Not at All |
| Worked on a research project w/ faculty outside of course/prog reqs | | | | | | |
| 2010 Graduating Senior Survey (n = 2,001) | 19.8% | 3.63 | 70.6% | 22.5% | 6.4% | 0.5% |
| 2010 Sophomore Survey (n=953) | 6.9% | 3.33 | 49.2% | 34.4% | 16.4% | 0.0% |
| Worked on an extension/pub svc proj w/ faculty outside of course/prog reqs | | | | | | |
| 2010 Graduating Senior Survey (n=2,000) | 10.0% | 3.61 | 67.2% | 27.6% | 4.0% | 1.1% |
| 2010 Sophomore Survey (n=955) | 7.1% | 3.28 | 34.4% | 59.0% | 6.6% | 0.0% |

**Response options for the 2010 Sophomore Survey were "Very Much," "Somewhat," "Very Little," and "Not at All"*

**Student Perceptions of Growth Related to Field Experience in Their Major
2010 Graduating Senior Survey**

| | Yes - Had experience | Evaluation of field experience in terms of contribution to personal/professional growth (<i>among those with experience</i>) | | | | | Yes - Received job offer from experience (<i>among those with experience</i>) |
|---|----------------------|--|--------------|---------|---------|---------|---|
| | | Mean | 4: Excellent | 3: Good | 2: Fair | 1: Poor | |
| Major included co-op, internship, practicum, student teaching, or other field experience (n=2,079) | 40.1% | 3.66 | 72.1% | 22.7% | 4.3% | 1.0% | 26.5% |

**Work-Related Experience and Assistance in Securing Current Position
2009 Alumni Survey (summer 2003 through spring 2006 graduates; n=2,933)**

| | Yes — Had Experience | Yes — Experience Was Helpful in Securing Current Position (among those with <u>any</u> such experience, n=1,620) |
|-------------------------------|----------------------|--|
| Internship | 32.7% | 74.7% |
| Research with faculty | 16.7% | |
| Student Teaching | 10.6% | |
| Cooperative Education Program | 7.3% | |
| Practicum | 2.3% | |

Rating of Skills/Perspectives Developed Through Undergraduate Experiences (Among alumni who had such experiences)

2009 Alumni Survey (summer 2003 through spring 2006 graduates)

| | Mean Rating | 5: Excellent | 4: Good | 3: Average | 2: Fair | 1: Poor |
|---|-------------|--------------|---------|------------|---------|---------|
| Study abroad experience (N=714) | 4.11 | 45.9% | 30.2% | 16.2% | 4.5% | 3.2% |
| Research/internship/co-op/student teaching (N=2,119*) | 4.01 | 37.2% | 38.3% | 16.0% | 5.6% | 2.9% |
| Community service/service learning(N=1,680) | 3.84 | 28.2% | 39.4% | 23.0% | 7.2% | 2.3% |

**Note: The N-size is higher than in other similar questions about such experiences because of missing data in other questions.*

Perceived Importance of Undergraduate Opportunities to Current Job/School/Etc. (Among alumni who had such experiences)

2009 Alumni Survey (summer 2003 through spring 2006 graduates)

| | Mean Rating | 5: Very Important | 4: Important | 3: Moderately Important | 2: Limited Importance | 1: Not Important |
|--|-------------|-------------------|--------------|-------------------------|-----------------------|------------------|
| Research/internship/co-op/student teaching (N=2,119) | 4.09 | 46.6% | 28.8% | 14.2% | 7.6% | 2.7% |
| Study abroad experience (N=714) | 3.71 | 37.0% | 25.9% | 16.7% | 12.0% | 8.4% |
| Community service/service learning (N=1,680) | 3.67 | 26.6% | 33.5% | 23.9% | 12.6% | 3.3% |

**Note: The N-size is higher than in other similar questions about such experiences because of missing data in other questions*

Impact of Study Abroad Experience (Among those saying they had such an experience; n=434)
2009 Alumni Survey (summer 2003 through spring 2006 graduates)

| | Mean Rating | 4: A Great Deal | 3: Some | 2: A Little | 1: Not at All |
|--|-------------|-----------------|---------|-------------|---------------|
| Positive impact on work attitudes and skills | 3.69 | 74.9% | 19.5% | 5.1% | 0.5% |
| Better understanding of problems and issues facing the world | 3.67 | 76.7% | 14.9% | 7.2% | 1.2% |
| Improved problem-solving skills | 3.31 | 52.7% | 30.5% | 11.4% | 5.4% |

Note: all tables in Appendix G were created for the task force by NC State University Planning and Analysis.