



CASE

CASE WESTERN RESERVE UNIVERSITY

REPORT OF THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

Prepared as part of the Self-Study supporting the application of
CASE WESTERN RESERVE UNIVERSITY
for continued accreditation

HIGHER LEARNING COMMISSION

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SCHOOLS

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TABLE OF CONTENTS

Introduction	3	Departmental and Disciplinary Education	21
Preamble.	3	Introduction.	21
Curricular Overview.	3	The College of Arts and Sciences	21
Overall Measures of Student Satisfaction and Student Success	3	Humanities and Arts.	22
Student Services: Support Structures, Campus Environment, Athletics	5	Social and Behavioral Sciences	24
The University Office of Student Affairs	5	Summary of the State of the Humanities, Arts, and Social Sciences.	25
The Undergraduate Experience Model.	7	Natural Sciences and Mathematics: General Comments	26
Examples of Some Future Initiatives.	8	Undergraduate Development in the Sciences.	27
Challenges	9	Research Experiences in the Sciences	28
Undergraduate Academic Affairs and Advising	11	Integration, Socialization, Communication	29
Overview	11	Case School of Engineering	30
Innovations During the Last Decennium.	12	Weatherhead School of Management	32
Fellowships and Scholarships.	12	Frances Payne Bolton School of Nursing	33
International Exchanges	12	Conclusion.	34
Advising	13	Subcommittee on Undergraduate Student Development	36
Supporting Second-Year Students	14	Bibliography	37
Academic Integrity Initiative.	14	Addendum A: North Residential Village Project.	38
Summary	14	Addendum B: Student Affairs Programs and Services	39
General Education of the Case Undergraduate	15	Addendum C: Mission of the Office of Student Affairs.	41
Background	15	Addendum D: New Vision Investment Summary	42
The PCUEL Report (2001)	16		
Curriculum Committee Deliberations (1999-2001)	17		
The SAGES Pilot Program (2002-05)	18		

INTRODUCTION

Preamble

Case Western Reserve University was created in 1967 by the federation of the hitherto independent Case Institute of Technology (founded in 1880) and Western Reserve University (founded as a college in 1826). Case is among the nation's finest research universities, and is the only major private research university in the State of Ohio. The university ranks 17th among private institutions in total research expenditures, and 16th in federal research expenditures. By contrast, Case is 29th among private universities in the latest U.S. News and World Report overall ranking of "national universities." The difference between these numbers is traceable to multiple factors, including the university's small size and its low national name recognition and profile. But the difference is probably also related to the failure of the university in the nearly forty years of its existence to fully unite its formerly disparate predecessor institutions, and to create a national reputation for offering a distinctive and high-quality undergraduate experience. Case is now engaged in a variety of initiatives to do exactly that.

In this subcommittee report, we have chosen to use an existing model of cognitive change in undergraduates as a framework, namely Patricia King's work on the development of "reflective judgment," based on William Perry's theory of intellectual and ethical development. On this basis, and using the Student Affairs Department's Undergraduate Experience Model as a foundation—as outlined below—we seek to look at the range of activities at the university that help students develop as whole individuals. The university's goal is to foster the development of graduates who are life-long scholars, ethical leaders, and active citizens. The subcommittee is also interested in activities that contribute to the goals of "experiential education" outlined in the Report of the President's Commission on Undergraduate Education and Life of 2001 (see section below). Each of those characteristics has several dimensions related in various degrees to students' intellectual, social, and physical development.

Faculty, staff, administration, and students at this university now feel a rapid pace of change in how we are

structuring the institution to serve our undergraduates. This report will endeavor to provide an interpretive summary of what has happened since our last decennial re-accreditation, where we are today, and what kind of future we are trying to create for ourselves and our students.

Curricular Overview

Case's approximately 3,500 undergraduate students choose among 75 degree programs in the humanities and arts, social and behavioral sciences, natural sciences and mathematics, engineering, accounting, management, nursing, and nutrition, administered by more than 30 academic departments. There are 222 regular teaching faculty in the College of Arts and Sciences at the rank of instructor and above, and another 115 in the Case School of Engineering engaged with undergraduate teaching and advising. In addition, substantial undergraduate teaching is provided within the Weatherhead School of Management (accounting, economics, management), the School of Medicine (biochemistry, nutrition), and the Frances Payne Bolton School of Nursing. Case also offers music education and art education degrees through joint programs with the Cleveland Institute of Music and the Cleveland Institute of Art, respectively. After satisfying general education and core curricula, many students choose double majors, and some even complete three for the B.A. degree. In all, the university graduates about 700-725 students per year from undergraduate programs.

Case is both a major private research university and a small, carefully focused undergraduate institution. Most classes past the introductory level are small, and teaching is highly valued. A major goal of the university is to have undergraduates enjoy the advantages of a college atmosphere while at the same time reaping the benefits of learning in the presence of world-class research and the extraordinary cultural richness of University Circle's institutions.

Overall Measures of Student Satisfaction and Student Success

Among the most closely-watched indicators of student satisfaction and student success are five-year graduation rates, and retention figures. The most recent five-year graduation rate for Case Western Reserve (for the class entering fall 1998, as of 2003) is 77.4 percent, which

is up from the previous two years (around 73 percent), but lower than many of our peer institutions. To place this in perspective, in 1988 our five-year graduation rate was 65 percent, and then-Provost Herman Stein set 80 percent as our long-term goal. The latest first- to second-year retention figure (2002-2003 to 2003-2004) is 92.8 percent; again, this needs to be higher, but it is at least up from the average of the previous six years (90.7 percent). In the mid-1980s, this number was hovering around 85 percent.

Since 2001 Case has participated in the National Survey of Student Engagement (NSSE), a survey that assesses the extent to which students engage in educational practices associated with high levels of learning and development. Administered to a sample of freshmen and seniors, the survey also measures students' satisfaction with their undergraduate experience and the campus environment. Among the areas in which results for Case students are better than those for other participating universities are:

- Working with faculty members on activities outside of course work
- Working with faculty on research outside of course or program requirements
- Having had serious conversations with students who differed from themselves
- Developing analytical and critical thinking
- Analyzing quantitative problems
- Using computers and information technology
- Time spent preparing for class and studying
- Tutoring or peer instruction (paid or unpaid)
- Time spent participating in co-curricular activities
- Having had a senior capstone experience.

Approximately three-fourths of Case seniors said that their course work often emphasizes the synthesis of ideas, information, or experiences into more complex interpretations and relationships. More than 60 percent of seniors said their course work often involves making

judgments about the value of information, arguments, or methods. At the same time, both freshmen and seniors at Case are less likely than students at other NSSE universities to say that their course work involves memorization and repetition of facts and methods.

NSSE results also provide further indicators of areas for improvement. Among the areas in which results for Case students are lower compared to those of other NSSE participants are:

- Acquiring a broad general education
- Writing clearly and effectively
- Working effectively with others
- Working with other students on projects during class (though students report that they often work together outside of class)
- Contributing to the welfare of the community, voting
- Developing a personal code of values and ethics
- Including diverse perspectives in class discussions or writing assignments.

The NSSE results have also been aggregated into five benchmarked areas, and Case's benchmark scores compared to those for other NSSE participants in the same Carnegie class. Case does well in this comparative sense on measures for the level of academic challenge, student participation in enriching educational experiences, and student interactions with faculty; benchmark scores on interaction with faculty are above the 80th percentile for freshmen and the 90th percentile for seniors. The university does less well, however, on measures of student engagement in active and collaborative learning, and it scores especially poorly on the benchmark for providing a supportive campus environment. Case students are much less likely than their peers to say that their institution provides the support they need to thrive socially or encourages them to attend campus events and activities.

Some of the points from NSSE are also reflected in the results of Case's own senior survey, given annually to

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

students just before graduation. Among the class of 2003, 87 percent were generally or very satisfied with their education at Case. Other highlights of the most recent senior survey include:

- High satisfaction with academic instruction
- High satisfaction with faculty availability and faculty interaction with students
- High satisfaction with advising, in both the first year and the major
- Strong self-reported gains in thinking analytically, using technology, and acquiring new skills and knowledge
- Lower satisfaction with social life, athletic facilities, food services, and the sense of community on campus
- Lower self-reported gains in improving writing and oral communication
- Lower gains on understanding moral and ethical issues and on placing problems in historical, cultural, or philosophical perspective.

This report documents the university's attempt to address problem areas indicated by these data. In particular, Case is working toward creating an undergraduate experience that shows improvements in analytical thinking, writing, ethics, diversity, campus environment, and community engagement.

STUDENT SERVICES: SUPPORT STRUCTURES, CAMPUS ENVIRONMENT, ATHLETICS

The University Office of Student Affairs

A salient characteristic of this university is its compactness; our centralized student services enable staff to coordinate easily with other offices and across disciplinary and administrative lines. In particular, there is regular intensive collaboration between key staff members of the offices of student services and of undergraduate academic affairs. This section of the report will concentrate on the former functions, while the next section will treat the latter.

Directed by a University Vice President reporting to the University Provost, the University Office of Student Affairs consists of 13 departments with approximately 115 professional and 45 support staff in offices which include:

- Access/TRIO Programs
- Career Center
- Educational Enhancement Programs; Orientation and Parents Programs
- Educational Services for Students; Disability Services
- Housing, Residence Life, and Greek Life
- International Student Services
- Multicultural Affairs
- Physical Education and Athletics
- Squire Valleevue Farms
- Student Community Service
- Thwing Student Center and Student Activities
- University Counseling Services and the Center for Collegiate Behavioral Health
- University Health Services.

Of these departments, University Counseling and Physical Education include a number of faculty, and University Counseling also has professional staff who hold faculty appointments.

In collaboration with the departments listed above, Student Affairs promotes student advocacy and the protection of student rights. It is also responsible for communicating and enforcing many of the university's non-academic policies and procedures which are often intervention- and prevention-based, e.g., judicial/disciplinary boards, sexual assault and harassment, computing and network ethics, alcohol and other drug use, and the physical/mental health crisis intervention procedures. Advocating for students and their rights is at the center of the work of this office.

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

Over the past ten years, the staff of the university Office of Student Affairs has grown and redefined itself to meet the changing needs of our student body and trends in higher education. Since the university's last re-accreditation in 1995, Student Affairs has established:

- The Office of Community Service, to provide students with a service-learning experiences (including volunteer, work study, curricular, and national service opportunities) in the greater Cleveland community
- The Office of Disability Services within Educational Support Services, to provide students with accommodations and individualized learning plans for students with disabilities
- The Center for Collegiate Behavioral Health with its Health Education Fund designed to provide grants to students, faculty, and staff who collaborate on programs, lectures and experiences that promote health and wellness activities on our campus
- Educational Enhancement Programs created as an administrative cluster of services including Educational Support Services, the Office of Student Community Service, Orientation, and the Share the Vision Campaign
- The Share the Vision program, originated in 1990 as a fall orientation program for new undergraduate students, evolved into a year-round campaign promoting our "vision of a just and humane campus community." The Share the Vision committee, composed of staff, faculty, and students, plans activities that focus on building community and providing opportunities for dialogue and interaction outside of the classroom. Share the Vision-sponsored activities now include a weekly email calendar sent to all undergraduates; panel-led open fora on topics that are timely and controversial; a weekly web-based Vision Poll on current events; once-a-semester Saturday College (SatCo) "classes" offering students, faculty, staff, alumni and community members the opportunity

for a variety of programs, workshops, and field trips; an annual Share the Vision Student Leadership Award; and a common reading assignment distributed to all new undergraduates over the summer leading to discussions during Orientation, the author's visit on campus, and incorporation in various curricula.

Student Affairs (frequently in collaboration with Undergraduate Studies) has also implemented important initiatives in existing departments, including:

- The Office of Multicultural Affairs, to assist a broader array of individuals and groups representing our culturally and ethnically diverse students;
- New programs and staff positions to promote student leadership through Student Activities and Student Affairs;
- New and improved physical education and athletic facilities for intercollegiate sports, intramural and club activities, and associated recreational activities in the new Veale Athletic Center;
- Improvements to Thwing Center (the university's student center), while plans for a new student center are in progress;
- Enhancements to the University Counseling Services for additional professionals and support staff;
- Renovations to the Commuter Lounge (Thwing Center) and associated programming enhancements, such as the Commuter Appreciation Day designed to encourage commuters and resident students to become better acquainted;
- Significant program enhancements and facility improvements in the Office of Housing, Residence Life, and Greek Life with new professional-level positions, and new responsibilities, e.g., North Residential Village development (see below, section on examples of future initiatives), creation of Residential Colleges for first-year students,

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

addition of an Associate Director for Campus Living, First- and Second-Year Coordinators, and a new Greek Life Coordinator; and

- Establishment of summer Orientation sessions (summer 2004) for all new first-year students to provide in-person academic advising, an early opportunity to become acclimated to the campus, and enhancement of programming for parents and families.

The Undergraduate Experience Model

Over the past ten years, The university Office of Student Affairs has strengthened its commitment to developmental approaches to student life and has implemented significant changes based upon theory and practice. Assessment data from surveys, including NSSE and the Higher Education Data Sharing (HEDS) Consortium Senior Survey continues to influence our beliefs, as we attempt to meet the needs of our students and to reflect current trends in higher education.

Traditional theories of human development recognize that individuals develop across successive life experiences. Erik Erikson, the respected psychoanalyst and social psychologist, viewed development as the product of the interaction of biological maturation and intellectual growth. In related theories of cognitive development, Jean Piaget described an appreciation for the cognitive disequilibrium that occurs in the process of learning. He viewed this to be essential in order to stimulate perspective-making reasoning abilities in students. Nevitt Sanford, a contemporary of Piaget and Erikson, contributed to these perspectives by focusing on the effects of higher education on the college student. Well known for his belief that universities should strive to become “developmental communities” that “challenge and support” students, Sanford laid the foundation for respected theories of college student development today.

Case is committed to the creation of “Developmental Communities” as an essential element of an exceptional undergraduate experience, and seeks to engage the faculty, staff and students in this endeavor. To achieve this goal, the university’s Office of Student Affairs has developed an “Undergraduate Experience Model,” which we hope

will have a profound impact on student life, and which has been endorsed by the president of the university. This model was developed as a result of intensive study by Student Affairs staff, sparked initially by an all-campus review process that also resulted in the detailed white paper of the President’s Commission on Undergraduate Education and Life and the SAGES general education initiative (see section on the PCUEL Report).

The model provides a framework within which faculty, staff, and students work together to implement a plan for all undergraduate students that is “developmental, intentional and comprehensive.” In addition to the influence of Sanford, it is also based on William Perry’s theory of intellectual and ethical development and on Patricia King’s emphasis on “reflective judgment.” We believe that it is unique to Case.

The Case residential experience program was created to help students make good decisions and guide them along their undergraduate experience. Because learning is a continuous process that extends beyond the classroom, our students are viewed as total individuals with many needs and interests along a developmental continuum. Programs and activities within each of the residence halls are coordinated and implemented by our staff in order to contribute to this broad view of learning.

This comprehensive experience transcends campus life, and works in symmetry with the undergraduate faculty and the Case community to foster a well-rounded living and learning environment for all undergraduate students. Unlike the residential programming models of some other universities, Case is seeking to foster the university experience of its undergraduate students continuously, from beginning to end. Focused and intentional programs are aimed at building foundations and addressing the challenges and developmental stages of each year individually, from the first-year student to the graduating senior.

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

Developmental Themes by Years	
First -year Students	<ul style="list-style-type: none"> • Making Transitions • Building Foundations • Making Connections
Second-year Students	<ul style="list-style-type: none"> • Exploration • Engagement • Personal Vision
Upperclass Students	<ul style="list-style-type: none"> • Focused Experiences • Application • Future Preparation
Graduating Seniors	<ul style="list-style-type: none"> • Reflections • Transitions • Connections • Celebration

To sustain our developmental residential model, students are provided housing options that support their need as a first-year student to live in a more structured housing environment, while offering a more autonomous living opportunity to upperclass students. The model below reflects the options available to each cohort.

Housing Options	
First-year Students	<ul style="list-style-type: none"> • Residential College • Commuter Student
Second-year Students	<ul style="list-style-type: none"> • Block Housing (suites, doubles, and singles) • Theme Housing • Greek Housing • Leadership Position within Residential College
Upperclass Students	<ul style="list-style-type: none"> • On-Campus Apartment • Block Housing • Theme Housing/ Learning Communities • Greek Housing • Leadership Position with Residential College • Off-campus Housing

Further illustrations of this model and some current programs and services emanating from Student Affairs are attached (see Addenda A and B). The mission of the University Office of Student Affairs is also attached (see Addendum C).

Currently, the major thrust within Student Affairs is implementation of the Undergraduate Experience Model. Based on the developmental perspective of providing the appropriate support and challenge to students as they make the various transitions from matriculation through graduation to become life-long scholars, ethical leaders, and active citizens, the Undergraduate Experience Model is intentional and comprehensive. To implement the model, Student Affairs (in collaboration with the Office of Undergraduate Studies) has organized three Cohort Committees composed of faculty, staff, and students charged with assessing needs, making recommendations, and planning programs specifically for the targeted groups: first-year students, second-year students, and upperclass students. Funding for the Cohort Committees has been appropriated through Presidential Initiative Funding to enhance the undergraduate experience at Case. Presidential Initiative Funding will also expand and enhance services for commuting students and students with disabilities, will allow the development of a true residential living/learning community, and will support staffing for the Office of Student Community Service.

Examples of Current and Future Initiatives

There are many new initiatives planned for the future; some have been identified and some have already begun. The North Residential Village (NRV), College Town, and a new student center are in various stages of construction, implementation or development. Student Affairs’ Undergraduate Experience Model is fundamental in guiding the NRV project. It will encourage students to develop and learn fluidly both in and outside the classroom and will promote graduates who are “life-long scholars, ethical leaders, and active citizens.” Undergraduate Studies has already opened a satellite advising office in the north residences, and this will continue in the new NRV. Addenda A and B provide additional details.

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

The Office of Student Community Service (OSCS) provides opportunities for Case students to engage in community service through volunteer experiences, work study and campus job placements in the non-profit sector (including the Cleveland Municipal Schools), AmeriCorps membership sponsored by the Corporation for National and Community Service, and curricular service learning. Launched in 1994, OSCS has developed over the past ten years largely through outside funding including state, federal, foundation, and corporate support. Staffing has grown from a full-time director with student help to current staffing of a director, four assistant directors, and graduate and undergraduate student interns and employees. Though OSCS continues to operate without clerical support, recent Presidential Initiative funding has provided the requisite matching funds to continue professional staffing and to allow OSCS to redefine its focus and priorities.

Service learning is a current priority for OSCS. Since its inception in 1994, OSCS has assisted faculty with service learning opportunities in coursework in psychology, education, engineering, sociology, English, Spanish, nursing, and history. OSCS has also used outside funding to sponsor Faculty Learning Circles, designed to encourage and support the incorporation of service learning into existing courses, and OSCS has provided both on and off-campus opportunities for faculty and students to investigate models of service learning. This past year, service learning has gained new momentum. Case's renewed interest in experiential learning has brought attention to expanding learning beyond the classroom. In addition, a Committee on Experiences brought together various offices that provide both curricular and extracurricular opportunities for experiential learning. A new partnership with the Tulane Consortium, a group of colleges and universities headed by Tulane University and funded by Learn and Serve America, serves as a catalyst for expansion of curricular service learning. Supplemented generously by funding from the College of Arts and Sciences, the Tulane Consortium grant will support and encourage faculty members in the arts and sciences to include service learning components in their courses.

Most models of student development focus on personal growth based upon a certain degree of health and personal resilience, but for a small number of college students special assistance is needed to bring them along into the developmental model. Programs and services originating from Disability Services (in the Office of Educational Services for Students) and the University Counseling Services demonstrate Case's commitment to assisting students with special learning and personal health needs. These two offices offer a full spectrum of support for students with learning and physical disabilities, and the UCS offers learning disability testing and neuropsychological assessment without a fee; the scope of the latter service is not often found among our peer institutions.

One new initiative that began in August 2004 is Case's Recovery House, a residence for up to six students who want to reside in a substance-free recovery-based community. With a focus on sobriety, prevention of relapse, and retention, Recovery House includes individualized treatment plans, educational support, counseling, and a resident coordinator to assist the residence with their personal and educational goals. Recovery House is open to eligible undergraduate, graduate and professional school students from Case. It is a collaborative effort by the University Counseling Services, the Center for Collegiate Behavioral Health, Housing & Residence Life, and several community organizations.

Other important initiatives from Student Affairs include a Student Affairs Assessment Process, which will measure and evaluate the impact of the initiatives coming from Student Affairs; the Second-Year Institute; and a series of related upper-class programs.

Challenges

Challenges still exist for Student Affairs. Essential to the success of the Undergraduate Experience Model is the commitment of Undergraduate Studies to a group approach. Without a seamless blending between Student Affairs and Academic Affairs, progress will be slow; the ability to collaborate is the core of student development. In addition, communicating and marketing the "developmental, intentional and comprehensive" model for the undergraduate experience will be crucial to the

future of the university. Student involvement in the implementation of this process will also be vital. As we focus on newly funded high-profile initiatives, it will be important to support all of the services delivered by departments within the university Office of Student Affairs. Funding for new projects and ideas, large or small, will help the division balance its energies and resources in the years to come.

Another issue is the need to provide a safe and healthy living environment for our students, which has long been a priority for this and every university. We need further to promote collaboration among faculty, staff, and students, and especially all the allied health-promoting services on our campus. Initiatives to help reduce alcohol and drug abuse, life-threatening illnesses, sexually transmitted diseases, depression, suicide, sexual assault, and violence of all kinds should gain the attention of the entire university community.

An additional challenge for Student Affairs is athletics and the sports programs at Case, which are often undervalued by faculty, administrators and students. Student athletes are some of the most enthusiastic promoters of the university on and off campus, yet they rarely receive the respect and consideration they deserve. School spirit can be galvanized by a strong athletic program. Consequently, athletics has the potential to play an integral role in university efforts to improve the satisfaction with social life, and the sense of community on campus.

Case has identified a need for change in the athletic facilities and has made welcome improvements over the past several years to the Veale Center. The President's Initiative Fund provided the means to update the weight room with much needed replacement machines and weights. The upcoming national vice presidential debate will allow for the remodeling and installation of air conditioning in Horsburgh Gymnasium as well as in the weight room. These changes, in addition to the stadium and the NRV project, represent a very visible effort to improve athletic facilities. These improvements have been wonderful for the Case community. However, some are concerned about the future of athletics here.

With current and future construction projects underway, attention to creating and preserving areas for recreation and common usage should remain a high priority. While the NRV project is incorporating the football and soccer stadium into its planning, thereby bringing the undergraduate residences closer to the athletic facilities, it has meant in the short run the loss of an athletic field. Plans are also in the works to build an academic building on one of the two existing intramural fields. This recent depletion of green space makes it advisable that Case focus greater attention on creating and preserving areas for athletics and recreation. Future phases of the NRV call for the creation of two new intramural fields, and it is important that the plans be implemented. Furthermore, consideration should be given to installing a synthetic surface on Van Horn Field, a step that would significantly increase field availability.

Between the academic course load and the time demands on athletes, student athletes have the added challenge of budgeting their time to maximize their undergraduate experience. In an effort to encourage balance in students' lives, some universities, such as Carnegie Mellon, have imposed a two-hour moratorium on classes in the late afternoon. This moratorium allows students time to focus on endeavors outside the classroom, which provides overworked students time to exercise at the recreation center, and allows athletic teams to have all members present at practice. Due to class scheduling, Case teams are not presently able to achieve full attendance at practice. Athletics build character, accountability, understanding of teamwork, and dedication to a common goal, and if practices are missed then these ideals fall short. Moreover, athletes are not the only group of students on campus who would benefit from a campus-wide moratorium on classes. Throughout campus, students would be encouraged to participate in extracurricular activities of all kinds, enriching the undergraduate experience.

At a school as academically focused as Case, the coaches and student athletes realize the role sports play within the realm of the undergraduate experience. However, the athletic department believes that academics and athletics go hand in hand, rather than playing primary

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

and secondary roles on campus. When playing fields are eliminated, when resources are inadequate, or when professors do not support the efforts of the athletes, students are sent the message that athletics are unimportant to the school.

Case is missing an opportunity to excel in collegiate areas other than academics. Washington University and the University of Chicago are examples of top academic institutions that also enjoy rich athletic traditions. Both schools have had numerous national titles in multiple sports, and have not diminished their academic standards while doing so. This is a clear indication that athletics at Case can be a value-added experience, rather than one that detracts from academics. If Case had the opportunity to be known for multifaceted excellence, it would help to increase national name recognition and recruit the type of undergraduate students who could further academic and athletic achievement at Case.

Promoting and celebrating the student athlete within the Case community is needed to provide a supportive athletic environment. Encouragement from administration, professors, and the surrounding community would raise athletics to a standard on par with peer institutions. New marketing initiatives to promote the full potential of Case student athletes are needed, and would help the campus community embrace the positive effects of varsity sports as a value-added activity.

The Office of Commuter Services has been able to initiate new programs with additional funding from the president's office and anticipates support from Student Affairs to continue their efforts in the future. Enhancements to these programs and services are important to our commuter students. Also, as Case begins to realize plans for a new student center, it is essential for commuter students to have a well-designed multipurpose lounge and more office space (for staff and peers) in a more prominent and visible location. (The current space is located in the basement of Hitchcock House of Thwing Center.)

Finally, the spiritual and religious needs of our students, though addressed through independent denominational ministries and affiliated university student organizations

and groups, have no identified office nor dedicated spokesperson on this campus. Creating a position within Student Affairs that embraces religious diversity would help students not only in their individual searches for meaning and purpose but would also help promote and celebrate the rich religious, cultural, and spiritual diversity of the campus.

UNDERGRADUATE ACADEMIC AFFAIRS AND ADVISING

Overview

Case's Office of Undergraduate Studies administers a wide variety of functions that assist undergraduates in their course through the university. It is a centralized office for all undergraduate students, regardless of school (thus embracing students from nursing, the engineering school, and so on); this is an unusual but also (we believe) an effective system. The office has responsibility for functions that on other campuses may be decentralized and covered by a registrar's office (transfer credit evaluation, degree audit and certification, course evaluations for all undergraduate courses, negotiating with faculty for class sizes and times, reminding faculty of academic policies and procedures, publishing an instructor's manual, organizing then undergraduate commencement), an advising office (overseeing and coordinating first year and departmental academic advising, providing pre-professional advising), an Institutional Research office (retention, migration, graduation statistics), a fellowships office (advising for Rhodes, Fulbright, etc.), and a study abroad office (initiating and negotiating exchanges with overseas universities, advising for study abroad). In addition, the office plays a role in the administration of the academic integrity policy. The Office of Undergraduate Studies will soon add undergraduate research to its portfolio, thanks to a sizable undergraduate initiatives grant to promote a campus wide undergraduate research program.

The Undergraduate Studies staff of 13 consists of a dean, an associate dean, two assistant deans, two directors, two part-time advisors for pre-law and for health professions (both are faculty members), and five support staff. The

staff will expand by at least three in 2004-2005 in order to manage increased international programs and the undergraduate research initiative, and to support advising of first year students. Much actual advising takes place in Undergraduate Studies; much also happens in individual offices of faculty members who serve as first year and departmental advisors.

Comparative student satisfaction data on advising at Case suggests that there are no obvious major problems, but also that there is room for improvement. In the NSSE surveys, Case freshmen and seniors rated the quality of academic advising about as highly as freshmen and seniors at other doctoral/research universities. Our separate senior surveys show significantly higher satisfaction with both first-year and departmental advising, compared to students at peer universities with which Case shares senior survey data. Nonetheless, our continuing concern with lower than desired overall retention and satisfaction measures suggest that we must continue to assess and enhance our student advising and mentoring, and our programs that are designed to connect undergraduates with significant opportunities for intellectual and personal growth.

Innovations During the Last Decennium

Fellowships and Scholarships: Both the number of applications and the success rate have risen substantially over the last ten years, due partly to a concerted effort on the part of the Dean of Undergraduate Studies to publicize national scholarships and fellowships to high-achieving students, to provide links to scholarship program web sites, to establish on-campus screening processes, and to provide intensive, individual advising to candidates. Prior to 1995, among Case undergraduates there had been one Rhodes Scholar (in 1978), one Truman Scholar, one Goldwater Scholar, two Churchill Scholars, one Fulbright Scholar, six USA Today All USA Academic First Team recognitions and a handful of NSF graduate research fellowship recipients. Over the past ten years, Case undergraduates have garnered 103 national scholarships including Rhodes (1), who was also named a reserve Marshall Scholar, Mitchell (2), Churchill (3), Beinecke (3), Goldwater (9), Udall(2), Mellon (1), Javits (1), Hertz (1), Fulbright (19), Boren-NSEP (12),

National Defense Science and Engineering Fellowships (11), and NSF Graduate Research Fellowships (38).

The challenge in this area is to encourage students' interest early in their college careers, develop a program to help students be better informed about current issues, and see relationships between those issues and their studies and goals. NSSE data indicate that Case students have a much higher than average academic workload, and, as a consequence, sometimes lack perspective and knowledge of world and national political and cultural issues. The advising responsibility is now being carried by a few people: the dean (for Rhodes, Marshall, Mitchell, Fulbright, NSEP, Churchill) and her colleagues (Truman, Udall, Goldwater). Faculty are active as interviewers in the on-campus screening processes; we hope to engage faculty in both the program to develop more "worldly awareness" and the intensive advising of applicants as they prepare their applications.

International Exchanges: Overseas study is another area in which there has been significant progress in the decennium, but in which there is room for greater expansion. Of the juniors, only about eight percent participate in semester- or year-long study abroad in overseas universities. This places Case well below its peers in terms of overseas study. Summer programs organized by the Department of Modern Languages and Literatures, and an innovative three-week culture/language/industrial laboratory exchange program of the Case School of Engineering and Waseda University have increased the number of students with overseas experience. Having sent students overseas for four decades, in 1998 Case revived an exchange agreement with Lancaster University, and since then has entered into bilateral exchange agreements with eight overseas universities, and has joined the multinational IIE-sponsored Global Engineering Education Exchange. Under the current structure, the majority of students studying abroad are not in exchange programs; they use their Case scholarships and aid to pay overseas universities or U.S. programs directly. To increase participation in study abroad, the Office of Undergraduate Studies seeks to increase the number of exchange partners and to restructure the financing

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

of study abroad so that increased student participation will not drain university resources, as presently occurs. A new position, yet to be filled, will focus on expanding exchange opportunities for Case undergraduates, and on assisting faculty in the development of short-term overseas programs.

Advising: In our use of technology and in our development of advising models in PCUEL and SAGES, we have continually sought to support and improve academic advising at Case. In 1996-1997, real-time on-line registration, known as SOLAR (Student On-Line Academic Registration) was implemented through a collaborative effort of the university registrar, school registrars, undergraduate studies, and IT. To address problems that resulted from inconsistency in advising and faculty advisors' lack of confidence and knowledge regarding requirements outside their discipline, and to give students a tool that would enable them to be knowledgeable about and responsible for meeting degree requirements, the Office of Undergraduate Studies invested the following year in software and revised staff positions in order to implement DARS, a robust computerized degree audit reporting system developed and licensed by Miami University. In the five years since DARS was fully implemented across all undergraduate degree programs and majors, a collaborative effort of IT, the registrar, and Undergraduate Studies has put weekly updated Degree Progress Reports (DPRs) on the web, so that a student may access and print out a DPR and know exactly where he/she stands in relation to degree requirements. Providing DPRs via the web to students' advisors is one goal of the 2003-2004 "Students First" initiative, a collaboration of IT, the registrar, undergraduate studies, admissions, and financial aid aimed at bringing more and better information to students and advisors. DPRs have quickly become widely used and trusted; they are now part of the academic advising culture at Case.

Faculty advising is deeply rooted at Case; the majority of first year advisors are faculty members (some administrators also serve as first year advisors), and with only one exception (management), students with declared majors are advised by faculty members in those

majors. When SOLAR was introduced, there was strong support in Undergraduate Studies and among faculty for maintaining a means of promoting advisor-advisee conversation as we moved from paper and a required advisor's signature to on-line registration; we adopted a system in which a student must obtain from his/her advisor the PIN number that is needed to register on-line. Each semester, before the registration period, a student is expected to have an advising conversation with his/her advisor, and obtain the PIN. When a student registers or changes his/her schedule, a copy of the schedule is automatically sent via email to the student's advisor(s). With DPRs serving as checklists of unfulfilled requirements, and SOLAR giving access to registration from a student's in-room computer, the challenge now is to move advising to a new level, where advisors spend time discussing long-term goals, careers, and opportunities available to advisees in both the short and long term. Many advisors have embraced the new role, but others have not, and have simply used the technologies to free themselves from the obligation to meet with students prior to registration. Without conversation in person or by email, they distribute PINs on demand, and only occasionally check the emailed schedule that is generated when a student registers.

We have continually sought improvements in our advising structure. In 2001, for example, both the PCUEL report and the SAGES pilot program called for a much more intensive advising program than what we have hitherto offered (discussed in the next section of this report). In the first two years of the SAGES pilot, First Seminar instructors/advisors were given a one-course release in the spring semester to compensate for what were to have been weekly or biweekly meetings with each first-year advisee. However, this advising pattern failed to materialize, due (it would seem) primarily though not entirely to advisee resistance to such frequent sessions. In the third year of the pilot (2004-2005), the model was dropped. Instead, First Seminar instructors were given additional advising training, and the first-year advising department of the Office of Undergraduate Studies is slated to be supplemented. These measures were instituted not only to compensate for the termination of the "intensive" model, but also because

SAGES first-year advisors were not generally as proficient in departmentally-oriented advice than regular first-year advisors, who traditionally have been closely matched with incoming students' intended future majors. In other words, SAGES faculty are generalist advisors, just as they are generalist instructors. We must reap the advantages of this circumstance, while we also attempt to ameliorate the disadvantages.

Responding to what it perceived as a need generally, and particularly under SAGES, the Undergraduate Student Government has initiated a pilot for a student peer advising program, called CaseFAM (First-year Advising and Mentoring), which is designed to supplement the continuing first-year advising by faculty and staff. In the pilot phase (2004-2005), 200 new first-year students will be paired with about 30 more experienced volunteer undergraduate advisors, who will themselves report to three CaseFAM student managers. The hope is that peer advising will provide an important and helpful new dimension to advising and mentoring during the critical first year and help first-year students connect to faculty, programs, and opportunities in their areas of interest. The Office of Undergraduate Studies is delighted not only by the substance of the new program, but by the fact that it was entirely student-initiated, and will be entirely student-run, with training and guidance provided by the undergraduate studies deans.

Supporting Second-Year Students: Attrition from the second to the third year has ranged from 6 to 9.6 percent over the past 6 years. Rates of 9.6 percent in 2001 and 8 percent in 2002, and a concern that many of those who remained at Case did not fully engage and take advantage of opportunities for educational and personal growth, prompted the Office of Undergraduate Studies to redirect some resources towards a new assistant dean position with a focus on second-year students. The assistant dean joined the staff in February 2003, and immediately began to reach out to underachievers of all ability levels. While it is too early to assess the long-term effect of the effort, the early signs are good: attrition from the second to the third year in 2003 was at its second lowest level (6.2 percent) in the decennium. Co-chairing the Second-year Cohort Committee with

the Associate Director for Campus Living from Student Affairs, the Assistant Dean has played a collaborative role in developing programs that introduce second-year students to faculty, to research, study abroad, internship, and service opportunities.

Academic Integrity Initiative: Another recent modification is in Case's academic integrity policy. Between 1997 and 1999, then-Assistant Dean Timothy Dodd supervised a review process; this resulted in a fully revised university policy that took effect in 2002 (Dean Dodd is currently President of the Center for Academic Integrity, a consortium of institutions affiliated with the Kenan Institute for Ethics at Duke University). The result of this AI policy renovation has been to place the administration and adjudication of AI policy much more in the hands of students, whereas formerly it had been essentially a faculty/administration matter. Faculty still have a major role in deciding sanctions for first offenses, and have a strong role in all adjudications, but undergraduate students constitute a majority of the voting members of the Academic Integrity Board. In addition, students set the agenda for the 20-member AI Board, which conducts programs for both students and faculty to promote discussion about issues of integrity on campus. Faculty had not been aware of how much information was being exchanged among students; they now realize how important students think academic integrity is.

Summary: Over the last ten years one notable trend, evident in much of what has just been discussed, is the greater initiative that our students have taken toward their own collective affairs. Some additional specific examples of student-initiated measures and programs include an annual Springfest, Halloween at the Farm, teaching awards, and a variety of community service activities. More broadly, students have repeatedly called for greater transparency, availability of information, and communication, to which the Office of Undergraduate Studies and the University Registrar have tried to respond (we call this our "Student-First Initiative"). As discussed above, we now have online course registration, online degree progress reports, regular online advising newsletters, and online reports of the paper-based student

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

course evaluations (required for every course above an enrollment of 5). We are also exploring the establishment of optional electronic portfolios (e-portfolios) created by each student, which take advantage of all of the possibilities of web-based technology. These would not only be useful after graduation for career placement purposes, but would be valuable pedagogical tools in themselves.

We recognize areas of continuing concern in student advising and advocacy at Case that require attention in the future. While smaller departments tend to adopt entrepreneurial “customer-friendly” attitudes toward undergraduates, some departments that have always had large numbers of majors have not always been as welcoming or nurturing as we would like to see. We would also like to see our students feel even more of a sense that they are stakeholders in their own education. Part of the solution is to work toward further integration of undergraduates into departmental activities in their major fields, which we are attempting to do through collection and dissemination of “best practices” among the departments. We do not believe that the university’s communications with students have always been as full and timely as they should be, for instance when athletic programs such as fencing or cheerleading were suddenly eliminated, or when an academic program such as communication studies was canceled without notice. And the Office of Undergraduate Studies constantly struggles against limitations of human resources and budgets.

In general, what we have been striving for in recent years can be summarized by the three words that have appeared repeatedly in this report. First, intentionality: not just signing registration forms and certifying degrees, but designing innovative and effective programs that will truly benefit undergraduates. Second, a developmental approach: recognizing that students proceed through their four years of college with different needs at different times. And third, comprehensiveness: working towards a more holistic vision of academic advising, mentoring, and advocacy.

GENERAL EDUCATION OF THE CASE UNDERGRADUATE

Background

At the time of federation in 1967, undergraduate teaching was gathered into constituent faculties that spanned the previously independent Case Institute of Technology and Western Reserve College. This model proved cumbersome, however: to take only one telling example, prospective students had to choose to direct their applications either to CIT or to Western Reserve College. In 1993 a new College of Arts and Sciences and a distinct Case School of Engineering were formed, by nearly universal acclamation of faculty and administration. Case Western Reserve then became, for the first time, a truly unified undergraduate campus. For the next few years Case was fortunate to have, among other fine administrators, Agnar Pytte as university president and John Bassett as the first dean of the College of Arts and Sciences (where the majority of undergraduate teaching occurs)—both of whom were dynamic and creative leaders. The sense of optimism and accomplishment that pervades our last decennial re-accreditation self-study (1995) derives substantially from the influence of that good leadership. Pytte and Bassett placed important new emphasis, *inter alia*, on the quality of undergraduate teaching (Pytte having created, for instance, the vigorously active University Center for Innovation in Teaching and Education—UCITE). Our undergraduate student body grew substantially, and the quality of those students increased steadily.

In the late 1990s the university could be seen to have prospered by many measures during the twelve years of the Pytte presidency: number and quality of students, quality of faculty research and teaching, growth of external grants, size and recent rate of growth of endowment, increase in alumni support, and campus environment. However, it became ever clearer that there were major challenges in undergraduate education that had remained unmet. Institutional research indicated that students were coming to Case largely because of favorable financial aid packages rather than because they were attracted by its reputation. Case did not have a distinctive national profile nor any well-

differentiated product in the educational marketplace. The undergraduate student body remained far too homogeneous—there were too few minorities and too few students from out of state, as well as historic imbalances favoring men over women, and engineering students over humanities, arts, and social sciences. Our selectivity, admissions yield, student retention, and five-year graduation rate lagged significantly behind our peer institutions, and our students expressed dissatisfaction with work loads and social environments. We were not sufficiently taking advantage of the cultural resources of our neighbors in University Circle, nor were we sufficiently integrating our world-class research into the undergraduate experience. Although a high percentage of graduating seniors expressed satisfaction with their undergraduate education, fewer said they would be likely to recommend Case to a high school senior, indicating dissatisfaction with some aspects of student life outside the classroom.

The arrival of a new president in 1999, David Auston, and of a new provost in 2000, James Wagner, provided a context for re-evaluation, and the sudden departure of President Auston in April 2001 gave the university another occasion for searching self-examination. In the meantime, the National Commission on Educating Undergraduates in the Research University, led by Ernest Boyer of the Carnegie Foundation for the Advancement of Teaching, had issued a far-reaching and incisive analysis. The Boyer Commission report, *Reinventing Undergraduate Education: A Blueprint for America's Research Universities* (April 1998), argued that in spite of their good intentions, American research universities were too often treating undergraduate education as subservient to their research mission. The Commission urged leading universities to develop a more integrated and holistic strategy for undergraduate education, an approach that would take better advantage of the unique resources available at research universities. The report advocated, among much else, “inquiry-based learning,” a new focus on interdisciplinary and collaborative approaches, and effective experiences at both entry- (freshman) and exit- (senior) points.

The PCUEL Report (2001)

In response to these converging incentives for self-examination and on the urging of a group of concerned faculty, Auston impaneled a President’s Commission on Undergraduate Education and Life in October 2000; this commission delivered a tightly-argued and broad-ranging (50,000-word) white paper to acting president Wagner in September 2001. True to their charge and to the title of their commission, the PCUEL team examined not only undergraduate education in terms of curriculum and administration, but also the social and physical campus environment, in order to provide guidance towards a more vibrant total undergraduate experience. To do this, they solicited advice from current students, faculty, staff, administration, selected parents of current undergraduates, and 25,000 alumni. They carefully studied the Boyer Commission report, examined our internal and external institutional research, and looked at models that other universities had explored.

PCUEL recommended that Case undergraduate education be organized around the five educational objectives of “disciplinary literacy, educational breadth, creativity, leadership, and societal engagement,” all pursued in an environment conducive to personal growth, to the creation of strong interpersonal and communal ties, and to the development of ethical skills. These objectives, the commission averred, could best be achieved if Case Western Reserve University were to adopt and thoroughly implement a distinctive educational philosophy of “experiential learning.” Experiential education embraces a wide range of activities, including (but not limited to) laboratory courses, seminar discussions, co ops and internships, service learning, integration into research teams, and artistic, musical, or theatrical performance. The didactic experience of listening to lectures was not to be ignored or devalued, but this more traditional and familiar college practice was to be aggressively supplemented by more active and performative modes of learning, often taking place in groups.

The PCUEL commission offered three overlapping and reinforcing rationales for this proposal. Certainly the most important reason was that there is a considerable

and growing body of evidence that (*ceteris paribus*) “active learning” is a distinctly more effective strategy than more passive modes of instruction. The Boyer Commission report alone provided much evidence along these lines. A second reason to support experiential education as an explicit educational philosophy for Case undergraduates was that, to a large but insufficiently recognized extent, this was what we were already doing; however, we could be and should be doing much more along these lines (the white paper argued). The superb opportunities at Case for incorporation of undergraduates into research teams, and the resources available in University Circle, are only the two most obvious opportunities for “experiences.” Their point, then, is that we were already well-positioned to implement this strategy, but that it needed reinforcement and a kind of self-consciousness about the task that we had not yet developed. The commission’s third argument was that our own institutional research indicated—surprisingly strongly and clearly—that such an educational philosophy, if made explicit and pursued aggressively, would be distinctly attractive to prospective student clienteles. This move could, therefore, allow us to gain a well-differentiated profile among peer institutions, increasing our attractiveness to applicants and hence enhancing applications, selectivity, and yield. And this, in turn, would enable us either to dial down our current unsustainable degree of tuition discounting or to gradually raise tuition to the levels that are charged by our peer institutions, providing new revenue for further pursuit of our goals.

In 2002, as a continuation of the PCUEL initiative, the provost’s office convened a group first called the “Connections Group,” now working under the name, “Student Experiences Working Group.” Composed of members of offices that administer student curricular and extra-curricular experiences, the Dean of Undergraduate Studies, and representatives from The College of Arts and Sciences and The Case School of Engineering, this group initially focused on producing a central web site, “Case’s Worlds of Experience,” through which undergraduate students could access the many offices offering programs such as co op, practica, internships, study abroad, undergraduate

research, service learning, and community service. (See www.case.edu/experience.) In 2004, the provost’s office designated several millions of dollars to support student development in the areas of student leadership, expansion of SPUR (Summer Program of Undergraduate Research), the institutionalization of student community service support, and significantly, the centralized coordination of undergraduate research in the Office of Undergraduate Studies. This money will go a long way towards providing the administrative support necessary to encourage a thriving and pervasive undergraduate research program, as well as institutionalizing the university’s commitment to community service and service learning. A summary of these new investments is provided in Addendum D.

Curriculum Committee Deliberations (1999-2002)

Curriculum outside the major is central to producing the kind of education for which we strive. Engineering students have always needed a specialized core sequence of courses in science and mathematics; this engineering core will be discussed below, in Section E3. As far as general education for non-engineering students is concerned, after seventeen years of indifferent results with a mix-and-match approach called the Western Reserve Core, an extensive review by a new committee (the Committee on Educational Programs—CEP) in a new college (the College of Arts and Sciences—CAS) resulted in 1995 in a revamped program called the General Education Requirements of the CAS (the GER, for short). The CEP stipulated that the GER should be carefully assessed after it had been in effect for a full undergraduate cycle of four years.

Consequently, two subcommittees of the CEP worked throughout academic year 1999-2000 and the fall semester of 2000—the first to review the degree of success of the GER, and the second to broadly consider the inclusion of new elements, such as freshman seminars, senior projects, writing across the curriculum, oral communication, and greater attention to teaching critical thinking. Some of these proposed new elements were influenced by the Boyer Commission report, which had recently been released. The two subcommittees reported to the CEP in December 2000, and the CEP

promulgated their resulting recommendations to the College and university community in January 2001. The CEP found substantial dissatisfaction with the existing GER, both among faculty and students. They proposed a thoroughgoing restructuring of general education in the College, including a common first-year seminar, three additional interdisciplinary seminars in subsequent semesters, a new senior capstone requirement, and new emphasis on fundamental skills such as writing and analytical thinking.

In the spring of 2001, Interim Dean Samuel Savin appointed a five-member task force to fill in details of the CEP proposal and to explore implementation of their recommendations. This task force did substantial additional research over the summer, especially in exploring how other peer universities had responded to the new challenges posed (inter alia) by the Boyer Commission, and they conducted numerous informational forums in the fall. Their final report was issued in late fall 2001, just two months after PCUEL had reported. There was remarkable congruence between these two essentially independent initiatives (the PCUEL embraced the entire undergraduate experience, while the CEP/task force proposal was limited originally to the general education curriculum in the College of Arts and Sciences). The striking commonalities in the two reports were doubtless due both to the ferment of discussion and debate over educational goals that had been enlivening the entire university over the previous two years, and also to the stimulation provided by the Boyer report.

At a special CAS meeting on 31 January 2002, the faculty approved a three-year pilot version of the proposed new general education program (now named the Seminar Approach to General Education and Scholarship—SAGES) by a vote of 101 to 7. Faculty in the Case School of Engineering, the Bolton School of Nursing, and the Weatherhead School of Management subsequently voted also to include their new undergraduate students in this pilot program, making the program now a university-wide rather than just a College initiative. President Edward Hundert arrived on campus that summer, and was enthusiastic about the prospects for SAGES. In his inaugural address

(January 2003), Hundert urged the faculty to accelerate SAGES so that it could be implemented for the entire undergraduate student body upon conclusion of the three-year pilot—that is, beginning in the fall of 2005. In June 2003 Hundert appointed an implementation task force to plan for and oversee this process, assuming final faculty approval of the program. The program was indeed overwhelmingly approved by faculty votes in March and April of 2004.

The SAGES Pilot Program (2002-05)

The SAGES pilot began in the fall of 2002 with a first-year cohort of 140 students. About a third of the Case entering class had volunteered to be considered for this program, from whom the SAGES cohort was selected by a stratified random sampling to match, as closely as possible, the overall characteristics of the 836 students in the first-year class. In the fall of 2003, a second entering class of 190 SAGES students began their college experience, and a similar number will be accepted for the fall of 2004. Outcome assessment of this pilot program has been carefully designed and is highly robust.

The proposed full SAGES program consists of:

- a common first-semester generalist seminar course taught in multiple sections, named “First Seminar: The Life of the Mind”
- two additional University Seminars chosen by the student from a list of options, taken respectively in the second semester of the first year and the first semester of the second year
- a Departmental Seminar, usually taken in the junior year, normally but not necessarily taught by the department that offers the student’s major
- a required Writing Portfolio, submitted at the end of the second year, which certifies the student’s writing competency and satisfies the university’s writing requirement
- a breadth requirement of six courses, consisting of two of any of the university’s courses in each of the areas of natural sciences, humanities and arts, and social and behavioral sciences

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

- a Capstone Project, carried out in the senior year and administered by the student's major department

In the pilot phase, all sections of First Seminar worked from a common syllabus template, while permitting variations chosen by individual instructors. The commonality was intended to enable students to talk with each other about the course across sections outside of class times, and to make it easier to ensure uniform standards in the ambitious pedagogical goals of the course. The full implementation of SAGES starting in 2005 will modify this pattern, by creating several (probably four) "modules" for the 55-60 sections of the course, each module consisting therefore of about 14 sections. This is intended to allow a more topical approach to the teaching of First Seminar, a quality desired by a majority of both the prospective teachers and prospective students.

By contrast to First Seminar, each University Seminar is a unique offering, chosen and designed by the instructor, but these courses are likewise interdisciplinary in style and accessible in level. *Every FS and US section has a maximum of 17 students, and each is taught by a university faculty member paired with a writing co-instructor (usually a graduate teaching assistant from the English Department). All seminars are discussion-intensive and writing-intensive.* For First Seminar, the university faculty member leading the section is the first-year advisor for all 17 students in the class. This means that the students in the section get to know their advisor very well, and vice versa.

The goals of the SAGES program include:

- critical reading, analytical thinking, and effective discussion skills
- intensive writing instruction, both across the curriculum and within disciplines
- a framework for high-quality advising and mentoring of undergraduates
- skills in oral presentations and information literacy
- substantial exposure to issues involving ethical decision-making and diversity

Elements of the SAGES program have been implemented at other colleges and universities, but we believe that the SAGES program at Case, taken in its entirety, is distinctive, even unique. Many institutions have freshman seminars, but it is unusual to have multiple sections work from common or carefully coordinated syllabi, especially at research universities. Research universities have sometimes established what amount to SAGES-like honors colleges for select students, but our model expands that "honors college" idea to *all* students. The endorsement of SAGES and the program plan for the Undergraduate Experience Model creates a seamless connection between the classroom and the out-of-classroom educational experience. Both initiatives share a developmental, intentional, and comprehensive philosophy, and the result is a distinctive approach to undergraduate education.

Although SAGES began life as a general education initiative in CAS, it has developed in such a way as to integrate all four undergraduate years throughout the university, and to build through those years rationally and coherently. The Departmental Seminar and the Senior Capstone will be largely in the hands of departments. As a consequence, we believe that this program will provide much more than just general "breadth" education. The philosophy and pedagogical patterns of SAGES will also have penetrated disciplinary education in all departments of all colleges that teach Case undergraduates. President Hundert has accordingly expressed his hope that SAGES will provide "a new liberal learning paradigm for the American research university."

SAGES arose independently of the process that led to the PCUEL report, but with its strong emphasis on experiential education it has much in common with the report. The central element of SAGES—the seminar ideal of intensely engaged but respectful group inquiry—is fully in PCUEL's experiential spirit. The First Seminar incorporates a variety of experiential activities in a fourth-credit-hour free period: class visits to University Circle museums, information-literacy exercises at the University Library, oral communication exercises, group projects, the viewing of movies, concerts, or plays, etc., all integrated into the course planning. These kinds of activities extend through the other seminars, as well.

The Senior Capstone Project will in most cases constitute a piece of significant research or creative endeavor carried out by the student, with careful mentoring by faculty. And it would not be difficult to multiply these examples. The fact that SAGES grew organically and independently towards many elements in the PCUEL report gives us confidence that both proposals are on a solid track. In the opinion of the Implementation Task Force (Phase I report, September 2003):

A truly effective SAGES program will enhance all aspects of the University's mission. We envision undergraduates who in their first few years are so well trained in critical thinking, problem solving, and analysis of ideas that they are sought out by faculty members to join their research teams or creative groups as effective contributors. Moreover, we expect that students who have experienced SAGES seminars will be better prepared for their majors courses. Finally, we expect the SAGES experience to be enriching both to the faculty and the students who participate in it.

However, SAGES is very much a work in progress. The program is expensive, and will need substantial subsidies at first. Staffing the fully implemented program will be a major challenge. For the necessary sections of First Seminar, a "Dean's Fellows" program has been announced in order to tap the skills of well qualified but non-tenure-track Ph.D.s. This new program follows the model of President Hundert's "Presidential Fellows" initiative of 2003, which draws graduate and professional school faculty as well as distinguished community leaders to supplement the number of instructors offering University Seminars. Both of these initiatives help to further broaden SAGES from a college to a university venture. Paralleling the challenge of putting qualified faculty members into these small seminar classes is the challenge of finding a sufficient supply of qualified graduate teaching assistants to supply all seminar sections with a writing co-instructor. Providing office space for all of these instructors is another complicating issue.

Many of these are issues for the future, but the extensive assessments that have accompanied the program have already resulted in adjustments even within the pilot period. For instance, a relatively rigid universal template for the First Seminar syllabus was loosened in the second pilot year. The pattern of University Circle activities

in First Seminar was also changed for 2003, to make it easier to incorporate these events into individual section planning. The enrollments of University Seminars, set at first at 25 for budgetary reasons, were reduced when it became clear that discussions are less effective with class sizes larger than about 15 to 17 students. And what would have been a third University Seminar has been replaced by the Departmental Seminar idea.

Some goals have proven harder to reach than others. The difficulties of teaching ethics and diversity issues, and oral communication and information literacy skills, appear to have been underestimated. Providing skilled seminar instructors and writing co-instructors has been somewhat challenging even in the pilot phase. Relatively few college teachers have had experience conducting effective discussion-intensive seminars, and it is a skill that is difficult to teach; certain seminars have been faulted by some students who complained either of instructors who more or less lectured at them, or of others who abandoned the students to their own rambling conversations. All SAGES seminar instructors have undergone orientation or training, but early indications suggest that our current practices may not be sufficient. Finally, some worry about what might be considered structural deficiencies in the SAGES program. Not every student benefits equally from the seminar approach, and some students who learn better from the more traditional "didactic" approach might suffer. Moreover, the undirected character of the "breadth" courses means that there is no assurance that every student takes a math course or a foreign language course. However, the fully implemented SAGES program was approved in spring 2004 only with the specific proviso that such issues will continue to be debated and addressed. SAGES will continue into the indefinite future to be adjusted and improved.

Assessment data from the SAGES courses in 2002-03 are on the whole encouraging. Students rated the initial offering of First Seminar in fall 2002 slightly less positively than all CAS courses and all 100-level courses, but instructor ratings were slightly higher than either comparison, and the score for "critical thinking" was significantly higher. Retention (percent of 2002

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

first-years returning for fall 2003) was distinctly higher for SAGES (97.2 percent) than for non-SAGES (91.9 percent) students, and the cumulated grade-point average was slightly higher (3.32 versus 3.25). NSSE over sampling provided additional intriguing data. NSSE items were summed to form four scales representing SAGES goals: foundational academic skills, degree of faculty contact, diversity, and ethical reasoning. Student reporting showed no significant SAGES/non-SAGES differences in the diversity and ethics categories, but statistically significant higher scores on foundational academic skills and faculty contact. *These SAGES scores were not only higher than non-SAGES cohorts at Case, but also higher than the NSSE benchmark data for universities in the same Carnegie class, whereas the non-SAGES cohorts scored below the benchmarks on these items.* And the differences were statistically significant.

The faculty who are administering and working within SAGES are optimistic that all difficulties can be overcome, and that the fully implemented regime that will provide a substantially improved education for our students. One positive but difficult-to-measure aspect of SAGES is what it has done already for *faculty* development. Most of the faculty working in the program feel that it has dramatically increased their contacts across departments and across schools. Even in the pilot phase, SAGES has made participants feel like they were in a stimulating small college environment, even while remaining in a major research university.

DEPARTMENTAL AND DISCIPLINARY EDUCATION

Introduction

Academic departments organized by discipline are key centers of intellectual development for undergraduates. The departments are also largely responsible for socializing students into the various disciplines and preparing students for graduate work and careers. This socialization is accomplished not only through required and elective course work, but also through such means as discipline-based honor societies, clubs, extramural endeavors, and performance ensembles, not to mention everyday contact with and mentoring

by faculty and more experienced students. Every department regards undergraduate education as integral to departmental missions. Especially given the context of the university's spotlight on undergraduate development, many departments are reviewing both curriculum and departmental activities with an eye towards strengthening undergraduate programs. The discussion that follows seeks to illuminate the kinds of activities that contribute to and augment undergraduate intellectual, professional, and social development. The information provided here gives evidence for coherence with the university mission with its emphasis on experiential learning, community engagement, partnerships, ethics, and diversity.

The College of Arts and Sciences

The College of Arts and Sciences (CAS) is the principal curricular locus for undergraduate development at Case; 66 percent of the undergraduate credit hours are taken in the CAS, and 45 percent of the bachelor's degrees are awarded there. The College has three departments in the arts, seven in the humanities, five in the social sciences, and seven in mathematics and the natural sciences. There are also five interdisciplinary centers, and 23 interdisciplinary programs that offer majors and minors. In addition to crossing disciplinary lines, many of the interdisciplinary centers and programs also cross over into other management centers at the university.

One example is the **College Scholars Program**, which is designed for a small group of outstanding undergraduates (approximately 20 are accepted each year) in the arts, humanities, sciences, or engineering who are interested in exploring how academic learning can address larger world concerns. The program emphasizes broad interdisciplinary learning and the moral demands of leadership—both on the Case campus and beyond—and promotes self-discovery and community building by students. Students selected as College Scholars enroll together in the fall of their sophomore year and move as a cohort through the program. They have the option to live together in a common residence (a historic former private home on the campus) in order to enhance their experience in the program. Each class year emphasizes a different set of experiences, including opportunities to

develop communications and leadership skills, sessions with renowned leaders and experts, and the design, conduct, and presentation of a senior project that applies individual expertise to a social or significant issue important to the surrounding community.

The CAS also supports extra-departmental initiatives that promise to contribute to university goals. In 2003-2004, the CAS pledged to participate in a collaborative Service Learning Initiative with the Office of Student Community Service, funded by the Corporation for National and Community Service and the College of Arts and Sciences, and spearheaded by Tulane University (see above). The initial goal is to train thirty senior faculty in developing discipline-based service learning curricula with a view to institutionalizing service learning as a defining pedagogy of the CAS. Service learning helps students become active, responsible citizens, exposes them to the needs of the larger society, and connects what they learn in the classroom with real-world conditions, all of which articulates well with President Hundert's mission and vision for the university.

Humanities and Arts

Humanities and arts students have access to a diverse array of lectures, presentations, and performances by world-renowned scholars and performers throughout the year, and enjoy the benefits from interacting with an eminent faculty that is actively engaged in research. The CAS prides itself on providing the intimacy and intellectual grounding of a small liberal arts college within the enriched community of a vibrant research institution. This is enhanced by its location among the University Circle institutions, with which many faculty and departments have close working relationships. Moreover, many of the university's interdisciplinary centers are anchored in the humanities, arts, and social sciences, such as the Baker-Nord Center for the Humanities, the Samuel Rosenthal Center for Judaic Studies, and the Schubert Center for Child Development. Most of these centers have been founded since the last decennial re-accreditation.

The arts departments offer a wide range of participatory experiences for students that are performance- or practice-based. For example, the **Art History and Art**

department offers three minors through the art studio program: art studio, photography, and pre-architecture (pre-architecture is also available as a second major for the BA). Students can also earn a BS degree in Art Education, a joint program with the Cleveland Institute of Art. The CAS opened a new art studio facility in Spring 2002 in a renovated building that now provides a gallery, as well as purpose-built spaces that support the increasingly popular courses in studio art. The art education program, which prepares candidates for state licensure, is based on strong partnerships with the Cleveland Institute of Art where students complete their studio courses, and community school districts, including the Cleveland Municipal School District and the Cleveland School of the Arts.

The **Department of Music** is nationally recognized, especially for its programs in early music. It is distinguished by a joint program with the Cleveland Institute of Music; additional collaborations include those with the Cleveland Museum of Art and the Cleveland Orchestra. The department has an exceptionally strong undergraduate program, and it continues to grow (in 2002-2003, undergraduate acceptances more than doubled over the previous year). This trend will only accelerate, given the 15 new scholarships for incoming music majors that were first offered in 2003. The undergraduate program is marked by a energetic schedule of individual recitals and ensemble concerts. In 2002-2003 the music curriculum was overhauled to create more intensive seminar courses. Facilities remain a problem for the department, despite the recent renovation of Harkness Chapel; Haydn Hall, the department's home, and Amasa Stone Chapel are both slated for future renovation. Suitable performance spaces are too few. One indication of this came when a patron attended a concert at which students were unable to all fit on the stage and then anonymously donated funds for a highly successful Case/University Circle Orchestra performance at Severance Hall in 2003.

The **Department of Theater and Dance** also has a strong performance-based curriculum. Productions allow for an uncommon degree of interaction between undergraduates and graduate students. Discussions are ongoing with the

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

Cleveland Play House and the Cleveland Institute of Art for a design BFA. Faculty are intensively engaged with the undergraduate program, and instructional standards are high. As is the case for music, facilities are a serious problem for the theater and dance program.

In the humanities, the departments of classics, philosophy, and religion do not have graduate programs. Modern languages and literatures has small master's programs in French, German, and Spanish, but nearly all of its students are undergraduates. Consequentially, these departments direct their full teaching efforts towards the undergraduate program and have active undergraduate student organizations and programming. For example, **Classics** holds a "Classics Day" on campus and at the Cleveland Museum of Art for area high school teachers and students. This not only engages the community, but serves as a potential recruitment fair for future Case students. The department also won a grant to send students to Greece and Italy. Undergraduate enrollments are at an all-time high. **Philosophy**, too, reports all-time high enrollments, particularly in its introductory courses, as well as a 26 percent increase in number of majors. Philosophy faculty have been active in SAGES, offering three seminars in 2002/2003. **Religion** notes that seven of its majors won prestigious achievement awards through the department and the university. Faculty in both the philosophy and religion departments are active in SAGES and in a variety of interdisciplinary programs.

Modern Languages and Literatures sponsors seven language clubs in addition to the foreign language honor society. Other activities include foreign language "tables" and "houses," performances, lectures, field trips, language immersion days, and a department cookout. Modern Languages and Literatures is also one of the campus leaders in service learning, with its courses that take Spanish students into the largely Hispanic Buhner Elementary School. Case students have worked on oral history projects with the young students and their families, sharpening language skills while working with the community. The department has refined its curriculum in a number of ways. For example, a new curriculum in Spanish will offer a more coherent group of courses to students.

History, Art History, and English are the humanities departments that also have graduate programs, offering both the MA and the Ph.D. The **Department of English** can serve as a representative example of these three departments, with its dual missions of undergraduate and graduate education. As in all departments, the Department of English serves several undergraduate populations—general education and writing programs, different tracks and career goals within the major, participation in interdisciplinary programs, and so on. There are close to seventy majors. Full and part-time lecturers and graduate students augment the regular faculty in order to service the major, the general education writing requirement (ENGL 150), the professional communication course required for engineers, ENGL 200 (the introductory literature course), and the SAGES pilot. The department envisions using temporary workers to address near-term needs which will increase now that SAGES has been adopted by the faculty and will be the general education curriculum for the entire entering class of 2005.

The department places great emphasis on undergraduate education and development. There is an English honor society, and the department also sponsors an awards banquet each spring. The students produce the *Case Reserve Review*, an anthology of poetry and fiction. The success of the honor society and departmental activities depend on the energy of the students, which can wax or wane with cohorts. The department views good and effective teaching as an integral part of its mission. A proposed departmental Director of Undergraduate Studies will receive one course release per semester to have time to support the undergraduate program, and undergraduate curricular reforms are being studied. These actions are meant to address a previously haphazard approach, and should result in more organization and better student service.

The department assesses students through a writing portfolio that includes a paper from ENGL 150, ENGL 200, and a senior seminar. Students also write an essay about their experience as an English major. Students can choose to include any papers that span a period of time, with the goal of being able to track the student's

development through the undergraduate years. The portfolios are not meant to evaluate students; rather, they serve the department as a means to assess teaching and learning, a process by which to monitor the department. Anecdotal evidence suggests that the current general education offerings work adequately, but department faculty are convinced that SAGES will provide improved general education. However, at 13 FTE faculty plus 4 full-time lecturers, the department needs more faculty. Some faculty members work on computers that are as much as seven years old; this problem will be addressed shortly through the CAS's new computer refresh program.

The English faculty take undergraduate development very seriously. Classroom teaching is a major priority. All hires must be an asset in the classroom; research potential is not enough. Evidence for this dedication can be found in the department's involvement in SAGES, the UCITE teaching fellows program, and the number of nominations for teaching awards.

Social and Behavioral Sciences

Each of the five departments in the social and behavioral sciences offers both graduate and undergraduate instruction. These are popular majors, and some departments, such as sociology, psychology, and political science, are enjoying all-time high enrollments and numbers of majors. As with other departments in the CAS, the social sciences departments have structures in place to advise students, ensure a developmental program, engage students in disciplinary activities, and prepare students for graduate work and careers. Each of these departments is involved in interdisciplinary initiatives, and many of the departments offer exceptional opportunities for undergraduate research, cross-disciplinary and inter-institutional experiences, and socialization.

This report will look at the **Department of Psychology** in depth as representative of the social sciences. As with the majority of the other departments, the psychology department does not have an articulated mission statement, but recognizes and serves multiple audiences. In particular, many pre-professional students seek a psychology major in preparation for entry into professional schools. The department

regards the undergraduate program as fundamental, and the department now has a committee looking at its undergraduate development. It will review the curriculum, which has not changed substantially in thirty years, despite changes in both the discipline and the faculty over that time. The curriculum is now geared primarily towards preparing students for psychology graduate work, but will seek in the future to better articulate paths to career choices in law, medicine, experimental psychology, and clinical psychology. This is currently done informally through advising, which is distributed among the faculty.

The department has enjoyed steady increase in majors in each of the last two years; there were 164 in 2003, the highest of any humanities, arts, or social science department. The chair attributes this both to good teaching, and the fact that psychology intersects with fields as diverse as neuroscience, philosophy, and cognitive science. There is a psychology club that has regular meetings two or three times a semester, and an honorary society. There is good interaction between undergraduate and graduate students. The undergraduate psychology program is also distinguished by an active undergraduate research curriculum. Students are introduced to psychology research in PSCL 101, where they volunteer as both research assistants and subjects. Students find work-study positions in laboratories, and they can design their own research or work with faculty through independent study.

As with English and many other CAS departments, psychology is strained by the small number of faculty (12) and the large enrollments and number of majors. The department offers only three courses with fewer than 25 students enrolled. When the department is required by SAGES to offer seminars with 17 students, it will further strain the faculty's ability to offer an adequate undergraduate program. Part-time lecturers teach many key courses, and the department offers many fewer courses than optimal, resulting in a program that is perhaps too lean. The department has already exploited the community as much as possible for quality lecturers, and faces a competitive market for them with neuroscience. In terms of material resources, laboratory space will become

a problem when the faculty is back to full strength. Smaller classrooms are dilapidated, and larger spaces are inconveniently located. Finally, the department does not have an undergraduate experimental laboratory.

One final note regarding the social sciences: in the spring of 2004 the dean's office made the decision to close the Communication Studies program in the Department of Communication Sciences. Efforts will ensure that current majors will be able to complete their majors. The dean's office plans to redistribute the instruction of communication among appropriate departments in the CAS.

Summary of the State of the Humanities, Arts, and Social Sciences

For many years, entering first-year students at Case have predominantly been interested in majors in engineering and the sciences (around 70-75 percent), rather than the humanities, arts, and social sciences (only about 7 percent). Facilities for undergraduate education in engineering and the natural sciences are limited by capacity factors (such as laboratories and equipment) that are difficult and expensive to expand, and this university finds itself close to or even exceeding many of these capacities. Such factors are less limiting for upper-level courses in the humanities, arts, and social sciences, which suggests that there is real room for growth in these disciplines at Case. Such growth would not only provide greater diversity of fields of interest among the undergraduates, but also provide other kinds of diversity increments, such as a better gender balance (given the empirical association of engineering in particular with male students).

Moreover, the presence in University Circle of such world-class institutions as the Cleveland Orchestra, the Cleveland Institute of Music, the Cleveland Institute of Art, the Cleveland Museum of Art, the Cleveland Museum of Natural History, the Western Reserve Historical Society, and many others ought to make the prospect of studying arts and humanities at Case very attractive. The discussion in the previous two sections of this report illustrate how many connections we already have to UCI institutions, and how many opportunities our students currently take advantage of for educational

and cultural experiences there. However, faculty and administration are collectively convinced that we could do much more along these lines. To put it bluntly, until now we have failed to fully capitalize on such unique assets to achieve a better balance and greater diversity in our undergraduate student body. This is an important task for the future.

President Hundert has pointed to such opportunities in arguing that we have the prospect of creating "the most powerful learning environment in the world," and he and the Board of Trustees have already sought to promote them by strategic investments in the form of Presidential Initiative funds. In June 2003 then-Interim Dean Sandra Russ designated \$3.2 million for new investments in the Baker-Nord Center, music initiatives, theater and dance initiatives, enhancement of interdisciplinary programs, and a new Undergraduate Student Project Fund. Even more money is being set aside for University Centers of Excellence, and the so-called "New Vision" initiatives in the CAS, including SAGES.

In summary, **commonalities among the humanities, arts, and social science departments** include, on the positive side:

- An active research faculty, and a concern to integrate undergraduates into their programs
- Hence, considerable opportunities for undergraduate research
- Continuing re-assessment of undergraduate curricula
- Attention to the developmental character of the majors
- Structural programming for socialization and professionalization
- Serious regard for excellent teaching
- High numbers of awards signifying student achievement.

And on the negative side:

- A serious concern over human resources—especially, too few faculty to serve majors, engage in interdisciplinary programs, and contribute to SAGES
- Inadequate space for faculty offices and laboratories
- Inadequate teaching facilities, especially classrooms
- Imbalances in student populations, harming diversity initiatives.

Natural Sciences and Mathematics:

General Comments

Striking similarities are apparent in the approaches of the Departments of Biology, Chemistry, Physics, Mathematics, Statistics, Geology, Astronomy, Biochemistry, and Nutrition to their undergraduate majors, although there are also important differences. All of these departments have designed their majors progressively to involve their students in the profession and to increase their sophistication in the field. All encourage their majors to participate in research, and they provide those opportunities by accommodating undergraduates in their research groups. Most programs explicitly include scientific writing in their courses. Undergraduate research and small advanced classes provide the means for establishing good faculty-student relationships, providing a platform for informal discussions about science, careers, graduate school, and other topics.

Here are some descriptive examples. The **Physics Department** has six undergraduate major programs, all of which involve building problem-solving skills: engineering physics, BS physics, BA physics for pre-professional students, biological physics, and mathematical physics. The third-year laboratories are designed so that students can select from a menu of experiments that accommodate the requirements of their major. The department also provides summer research opportunities to freshmen and sophomores. Case is among the few institutions in the country that offer an undergraduate major in **astronomy**.

The orientation of the field is overwhelmingly focused on Ph.D. preparation. The undergraduate **geology** major takes core geology courses and also performs research and field work. The required spring break field trip involves making a geological map at Death Valley. Majors must also take a summer field camp offered by another institution. Geology, like astronomy, has only a few majors, and so these students get much individualized attention. Of the 97 current **chemistry** majors, 50 are women. Most of the majors are pre-med, and follow the BA curriculum. The majors in the BS curriculum take courses that are largely determined by the requirements of the American Chemical Society's accreditation program.

Mathematics has only a modest majors program, for the focus of the department is on service teaching. Consequently, faculty make few efforts to recruit majors, relying on students to self-select by interest and ability. Many of the majors are second majors, in part because the mathematics requirements of their chosen field nearly fulfill the requirements of the major. There are five degree options, which allow the student to tailor the degree program to their end goals. Undergraduate degrees in **biochemistry** and **nutrition** are offered through the CAS, although the departments are part of the Medical School. Biochemistry has about 60 majors and nutrition about 30. Both majors are designed primarily to prepare students for a future as professionals. **Biochemistry** majors are encouraged to take advantage of research opportunities in the high-powered research programs in the medical school. Students who do well in the program are competitive nationally for acceptance to graduate and medical schools. The **nutrition department** is accredited by the American Dietetic Association, and has, therefore, met the standards required for entrance into this field. In addition, many students have had internships in various nutrition related community organizations (such as the Healthspace Museum) to encourage first-hand exposure to professionals working in the field, and to provide opportunity to enhance classroom learning. A nutrition major typically uses this major as the initial step for professional schools such as medical school, dental school, dietetic internships, graduate school; research, or industry.

Undergraduate Development in the Sciences

“Development” is not organized as an intentional and explicit goal in many majors, but occurs as a byproduct of other initiatives, for instance in research mentoring. Faculty in the sciences, as elsewhere in the academy, vary in the extent to which they are comfortable in dealing with students as developing individuals, rather than simply as vessels for knowledge and skills. Consequently, the amount of personal attention given to students varies considerably. On the other hand, it is fair to say that most research groups provide a supportive personal environment. The focus of most departments is the preparation of majors for admission to graduate school or professional school. Some programs need to meet accreditation criteria of national organizations, and are, therefore, constrained in what they must offer.

However, some departments have taken a deliberate approach to student development. For example, the **physics department** has developed an intentional process to develop students to act as independent learners and researchers. In the first year, students are already taught to write laboratory reports in a professional style, and are also introduced to ethics and other aspects of good laboratory practice. In the second year, students take courses that are designed to teach them the tools of physics. In the third year, the laboratory instruction consists of a one-paragraph description of the laboratory exercise. No manual is provided; the student must find the equipment to perform the experiment, write the computer programs to acquire the data and do whatever else is necessary to design and carry out the experiment. The course is designed to provide a realistic cutting-edge research environment, and the expectation for output is independent work reported in a professional research report. There is also further training in writing, oral presentation skills, and scientific ethics. The students enjoy the challenge of this regime, and often spend time in the labs beyond what is strictly necessary for performing the experiments. The fourth year involves an independent research project—this year 25 majors are involved in such senior projects.

There is no explicit student development plan in **geology**, but recent curricular changes as well as those

under consideration are designed to enhance student development. There is a deliberate consideration of the skill sets appropriate for each year of the curriculum. The Geology department uses endowment funds to subsidize student field trips. These trips offer opportunities for integration as well as increasing students’ excitement about the field.

The first course in **astronomy**, “On Being an Astronomer,” is a seminar course for freshmen. The second year of the curriculum is a two-semester introduction to the science. Four upper-level astronomy courses complete the major. Astronomy is math- and physics-intensive; all majors get a physics minor. A significant fraction of the majors also fulfill the requirements of the major in another field, sometimes in physics, but also in a diverse range of other fields.

Students in the B.S. program in **chemistry** become well acquainted with the faculty who teach the upper level courses. The atmosphere for learning has been dramatically enhanced by the recent thorough renovation of chemical facilities. The department is planning for the formal requirement of capstone research projects (part of the SAGES proposal), and they are carefully re-evaluating their curriculum. A web site for more effective communication with majors is nearing completion.

The **biology** department has a deep commitment to experiential learning, but efforts to increase experiential learning opportunities have been hindered by the large number of students who choose biology as a major (there were approximately 200 biology majors in spring 2004). The department is running out of space to accommodate these students, and is looking for the first time at enrollment limits. (The university’s failure to achieve a balance in student interests has contributed to this situation; small experiential programs are why students come, and imbalance in the student interests is counterproductive.) However, planning in the department has been fostered by a grant from the Howard Hughes Medical Institute, which has had a transformative effect on the department, leading to the current effort to build an integrated curriculum. The key features are a redesigned core curriculum with increased emphasis on earlier laboratory experiences that encourage

collaboration among the students, more emphasis on quantitative training, and the integration of ethics into the curriculum. This curriculum is intentionally designed for the progressive development of skills. For example, as with physics, the expectations for laboratory write-ups become progressively less “cookbook”-style as students move through the courses. However, the developmental plan is not so obvious to the students, apparently, because they complain about abrupt transitions and changes in instructors as the courses progress—so more work needs to be done.

For the B.S. **mathematics** major with a serious interest in pursuing an academic math career, the progression of courses is structured intentionally to provide developmental steps to gaining the tools of the profession: first, mathematics from a mathematician’s point of view; second, abstract algebra; and third, introduction to real analysis which provides concepts critical to the field, or the techniques of the profession. Students who complete these and the follow-on courses are well equipped for graduate school. The few extraordinary students who seek to be statistics majors are assimilated into and supported by the graduate students.

The **biochemistry** curriculum is designed to provide students with the fundamentals as well as an intermediate understanding of the tools of the field, as well as a state-of-the-art knowledge of nucleic acids, proteins, and enzymes. A senior seminar course reinforces critical thinking and analysis of the literature. Undergraduate research across many medical school laboratories rounds out the student experience. **Nutrition** faculty get to know their students well, hence are able to provide appropriate mentoring. This mentoring includes discussing opportunities for a variety of pursuits within the department, the university setting, and the broader Cleveland and national communities. These exposures allow for interaction with other professionals in the field, access to professional meetings, and attendance at various lecture series and poster presentations. Collectively, all of these function to introduce the student to the realm of the professional world of clinical nutrition, research nutrition, metabolic studies in nutrition, and public health nutrition.

Research Experiences in the Sciences

Original research is a vital part of the development of undergraduate science majors. Many such experiences have been mentioned already, but other examples can be cited. A three semester sequence culminating in a senior thesis is required for all **geology** majors. In the spring of the junior year students are introduced to research, generate a research proposal, and begin to perform the research. The process culminates in a presentation on Senior Project Day in April. The emphasis on research in **biology and biochemistry** is exemplified by SPUR (Summer Program in Undergraduate Research), funded by Howard Hughes Medical Institute. Minority and women students are well represented in the summer cohorts. The students participate in mandatory group activities including ethics training; they work on research projects in academic laboratories across the campus and get together at the end of the summer to present their results.

Astronomy students are active in the REU program (Research Experience for Undergraduates) of NSF, traveling to other institutions for summer research experiences. Paid for-credit research opportunities are available during the academic year, and most undergraduates work in the department. Undergraduates often attend meetings of the American Astronomical Society, sometimes with sponsorship of their REU mentor. Students may have opportunities to go observing off-site with the faculty. These experiences allow the students to meet other astronomers and begin to forge their professional contacts. Case undergraduates frequently publish co-authored papers with faculty members.

The new integrated core laboratories provide exceptional preparation for careers in **chemistry**. The laboratory sections are small—no more than 10 students—with a correspondingly high level of personal attention from the teaching assistant and/or faculty supervisor, and the equipment is up to date. The hallmark of each of the core laboratories is their emphasis on experiential learning: the students define their own projects, perform the literature review, create a laboratory plan for each experiment, and then do the experiments. Teaching assistants provide feedback and final approval for the laboratory design. Students who complete the core laboratories have an excellent grounding for independent research in chemistry.

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

Mathematics research is fundamentally different from bench-based research, requiring a more extensive background than the sciences do. Hence, undergraduate math majors participate in local and national problem-solving contests as individuals and in teams, rather than perform research. In **nutrition**, undergraduate students have the opportunity to contact any of the faculty and become involved with either laboratory or clinical research. Summer nutrition fellowships provide supportive funds for a number of undergraduate nutrition students to engage in research. Every major who has ever sought research experience has had the opportunity to participate.

Students in **physics** are integrated into lab work earlier at Case than at any other institution known to the faculty. The equipment is up to date, to the point that researchers sometimes borrow equipment from the labs, rather than the reverse. The program is interactive, with faculty giving serious attention to undergraduate education. The faculty have open-door policies, providing easy student access. Similarly, students have open access to faculty in **mathematics, astronomy, geology, biochemistry, and nutrition**. Informal discussions about careers and the profession arise in the context of teaching, mentoring research, and/or advising.

Most **chemistry** faculty advise undergraduate students. Two faculty members advise first-year students. Three faculty advisors are assigned to each class during their second year, two for BA majors and one for the BS majors. Each advisor retains their advisees until they graduate, providing an environment in which students and advisors can get to know each other. Each advisor has 12-16 students. Undergraduate majors are invited to departmental picnics, seminars and colloquia (although few attended). Career advice is provided on an individual basis by the academic advisor or by the research advisor.

Integration, Socialization, and Communication

In addition to research experiences, many science departments seek intentional means to integrate and socialize their students. The **physics department** runs a non-SAGES first-year seminar for 1 credit where faculty talk about their research and where the students hear from outside physicists who talk about what it's like to be

a physicist. Physics also supports undergraduate life in a variety of ways. Students are members of departmental committees that relate to undergraduate education, and are invited to departmental events and seminars. Occasional special lunches are hosted to elicit student feedback and comments on programs.

Socialization of **astronomy** students is facilitated by the small number of majors, and by the fact that the department's upper level courses are taught every other year. Juniors and seniors take the upper level courses together and get to know each other and the faculty. The upperclass students have open access to the department, its facilities, and its faculty. This is reinforced by the seminar course required in the senior year, a discussion-intensive seminar series that is run by the faculty and attended by the entire department.

Social interactions among students are promoted by the activities of the **chemistry** fraternity, Alpha Chi Sigma. Undergraduate student achievement is recognized each year at an honors banquet. This is a white-tablecloth catered lunch with a head table, a visiting speaker, and more awards than any other department in the university. Students are recognized for overall academic achievement, achievement in specific areas, and achievement in research. Prizes include cash, books, and software. Students in **biology and nutrition**, as in chemistry, often find their best opportunities for integration and socialization in their fields while they are engaged in research. The students become active participants of laboratory groups and benefit from the social and professional support these groups provide.

Communication skills are an important part of undergraduate student development, and science departments pay attention to them. Written and oral reports are embedded in the undergraduate laboratory courses, in the semester-end reports of undergraduate research for credit, in qualifying for honors, and a host of other activities pervasive in the science disciplines. Faculty recognize that communication is an essential attribute of life as a professional scientist, and fostering the requisite skills is embedded in most curricula.

Geology takes this a step further. Many geology classes require papers, even classes with a quantitative orientation. Integration of the material is facilitated by research, which counters the tendency of students to segregate the material by course. Without research, students have difficulty appreciating the relevance of math, physics and chemistry to geology. This is facilitated by the *ad hoc* inclusion of writing and mathematics across the curriculum. The importance of written communication for geology majors is also reinforced as part of the spring field trip. After a week doing field work, the student prepares a report on the experience. After the student submits an initial report and receives feedback, he then submits the final report. The work on writing skills is repeated in the follow-up to the summer field experience.

Communication has a special meaning in the context of **mathematics**: it is a language at the core of the culture of mathematics. The students need to learn the correct way to express mathematical thought, both verbally and in writing. Writing is a rigorously precise process, where terms are used carefully. Students cannot do mathematical research until they become proficient in the “language.” Thus, mathematical communication skills are intrinsic parts of the core mathematics courses.

In summary, many effective approaches to the various dimensions of student development may be discerned in the undergraduate science and math programs of the College of Arts and Sciences and the medical school. Research experiences abound, and the degree of intentionality in these programs is gratifying. However, there is more to be done. One of our continuing problems includes outdated laboratories and equipment in certain departments. Another is connected with imbalances in numbers of majors. Certain science departments that have small numbers of majors are able to provide satisfying individual attention and small upper level classes. Other departments, especially biology and chemistry, have so many majors that it becomes more challenging to provide all students what they want and need. This issue will become acute when the SAGES regime is implemented in the fall of 2005, with its mandate for small departmental seminars and individualized senior research capstones.

Case School of Engineering

About 45 percent of the first-year students at Case Western Reserve begin the fall semester with the intention of majoring in engineering, and around 40 percent graduate as engineers. Engineering students can choose from among 12 accredited degree programs in the Case School of Engineering (CSE), administered by seven academic departments. Recognizing that students graduate from high schools with little basis for selecting a college major, much less a specific degree program within engineering, the curriculum and advising in CSE are set up to make it possible for engineering majors to assess their initial intentions and delay the declaration of a major into the sophomore year without significant penalty.

The first year for engineering majors is virtually universal. The Case core requirements common to all B.S. degree majors (courses in physics, chemistry, mathematics, English, natural science, humanities, arts and social science electives) and the Engineering Core requirements common to all B.S. degree programs in engineering at CSE (Chemistry of Materials, Computer Programming, Introduction to Applied Mechanics, Introduction to Fluid and Thermal Science, and Electronic Circuits) leave nominally only one elective choice in the first year and three in the second. Students are encouraged to rethink their initial major intentions based on advising from engineering faculty from the departments in which initial interest was expressed, and on the introduction of the engineering subjects, computer programming and materials, along with physics (mechanics, and electricity and magnetism), chemistry, and mathematics in the first year. This reconsideration can be as minor as a slight engineering major change, for example from aerospace to mechanical, or a more significant major change such as engineering to physics or even from a bachelor of science degree program to a bachelor of arts degree program. An open elective in the first year encourages students to take an exploratory course such as introduction to biomedical engineering or humanities, arts or a social science course which may be the beginning course of a sequence in humanities, arts or social sciences.

Although this first year B.S. in engineering course sequence appears inflexible, it provides the foundation

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

upon which virtually any major at Case can be constructed and permits the greatest flexibility for B.S. engineering majors. The full implementation of SAGES will further enhance the students' experience in their first two years, by encouraging them to reflect and question their expectations of college.

The Office of Undergraduate Studies encourages first-year students to declare a major by the midpoint of the spring of the first year, which for many students is too early for a confident decision. The rationale for such an early declaration of major is based on the belief that students have a significantly higher chance of success when assigned a faculty advisor in the field of choice early. It is, therefore, imperative that the courses scheduled for the sophomore year continue to be, as much as possible, foundational and universal, so that students can still make a switch as late as spring of the sophomore year with little or no penalty.

In the junior year, courses required to complete a major accredited by the Accreditation Board for Engineering and Technology (ABET) begin in earnest. During the junior and senior year each major field includes two to four technical electives that are chosen by the student to emphasize a specific technical interest, and one open elective that can be chosen in any way the student wishes (this could be another technical course or another course in a social science or humanities sequence to complete a minor requirement). With the exception of biomedical engineering, technical electives can be selected by the student with no restrictions other than that the courses must be technical. Biomedical engineering majors select from several tracks: biomechanics (tissue and prosthetics), biomaterials (orthopedic and polymeric), biomedical computing and imaging, biomedical systems and control, biomedical instrumentation (devices and sensors), clinical engineering. Each of these tracks requires seven courses with no choice, other than one open elective.

Student development beyond the primary issue of major field declaration takes place both inside and outside the curriculum throughout the undergraduate experience. During the sophomore year, students are encouraged to apply for membership in student chapters of professional societies. Some of these are broadly applicable to all

fields of engineering, such as the National Society of Black Engineers, the Society of Women Engineers, or the National Society of Professional Engineers. Others are discipline-specific, such as the American Society of ___ Engineers, AS_E, (fill in the blank with Biomedical, Chemical, Civil, Mechanical, and Polymer). Other societies are by invitation only, such as the engineering honor society, Tau Beta Pi. Student chapters operate outside the curriculum, but have faculty advisors and department affiliations where appropriate. Societies help develop student awareness of professionalism and ethical standards of conduct in the practice of engineering. The student chapters of societies participate in local, regional and national events such as student conferences, and paper and design competitions. The design competitions, such as SAE's Formula SAE and Mini-Baja, ASCE's Concrete Canoe Race, AIAA's Design Build and Fly, and ASME's Human Powered Vehicle, offer opportunities for students to develop team work in many cases across departmental boundaries. CSE also has its own competitions, such as the "egg drop" event.

CSE's Office of Curricular Enhancements and External Assessment (OCEEA) offers development opportunities to students outside the classroom, through three programs aimed at undergraduates: cooperative education, global exchange, and research experiences. OCEEA also administers a graduate student cooperative education program. The decision point for these undergraduate development opportunities comes at the midpoint of the junior year. The cooperative (Co op) education program affords the undergraduate engineering major the opportunity for one or two seven-month industrial internships. Each internship combines either the preceding spring semester or the following fall semester with the intervening summer. The graduation date is delayed either half a year or one year depending on the whether one or two semesters were missed. The Co op experience is popular and in some departments 30 to 40 percent of the graduating class has had at least one industrial co op, and in survey data and exit interviews rate their experience at Case significantly higher than students with no co op experience, specifically attributing their growth and development to their industrial co op.

The research experience for undergraduates (REU) matches undergrads with ongoing research projects in the student's department on campus. For many students this exposure to a research laboratory environment stimulates an interest in continuing study beyond the baccalaureate degree either at Case in the BS/MS program, an accelerated five-year master's program; which allows for double counting of three graduate classes for technical elective requirements in the undergraduate program of study; or at other top graduate engineering schools.

In addition to co op and BS/MS five-year alternatives, there is a third five-year experience for CSE undergraduates, The Institute for the Integration of Management and Engineering, TIME. This program results in a B.S. engineering degree and a Master of Engineering and Management, M.E.M., at the end of the five-year experience. This program is attractive for mid-year juniors who find, after the first intensive immersion into the engineering fundamentals of their chosen major, that they are more interested in engineering project management than engineering research or design.

The last stages of student development take place within the curriculum during the last three semesters of the B.S. degree program, through junior year independent laboratory courses, engineering design courses, senior project design experiences, and a required communications course, in which engineering students develop communication skills utilizing current computer-based software (PowerPoint, Excel, and Adobe). The senior project presentations held before the faculty of each department are the final coalescence of the CSE developmental experience for engineering majors. The successful student will demonstrate the integration of technical competence, independent research and design, with teamwork and communication skills in presenting both orally and in writing the results of their semester-long project.

From the student's first year through the four- or five-year developmental steps, the successful undergraduate engineering major is encouraged to make informed decisions concerning a major field selection, continuing education and/or experience, as well as being encouraged to develop professionally and ethically into fully

functional citizen engineers. For those students who leave CSE to join the work force directly with a B.S. in engineering, the Career Center provides opportunities for students to develop resumes, portfolios and practice with placement interviews, as well as arranging campus visits by nationally recognized engineering corporations.

Weatherhead School of Management (WSOM)

The school of management graduates about 80 students per year in its accounting and management majors (with concentrations in banking and finance, and in information systems). It is currently in the process of implementing significant curricular changes in its undergraduate programs. These reforms were triggered by the PCUEL report of 2001, and are intended to enhance experiential learning, leadership, and social engagement. Faculty invested considerable time in assessing changes that might be beneficial in the undergraduate core curriculum. Out of that effort came a number of proposed changes, including:

- Creating a two-semester sophomore sequence, Managing Organizations and People (MGMT 250-51), required for management and accounting majors, and stressing responsibility, leadership, social engagement, and ethical practices in business
- Retaining the Capstone Strategy course requirement, and investing effort into ensuring that this course is an integrative capstone
- Expanding the number of courses that make up a concentration sequence from three to five courses, to require students to pursue their area of expertise in more depth and rigor
- Creating several 1-credit SAGES-style research seminar courses, MGMT 395 (similar to University Seminars, but intended for juniors and seniors), and requiring management and accounting majors to complete three such courses as part of their major.

The WSOM is currently implementing these changes.

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

The economics department (which graduates an additional 40 majors per year) has engaged in a separate but parallel effort, resulting in the creation of groups of electives within the major and in the expansion of capstone options. The effect of these changes, within management and accounting as well as within economics, is that greater emphasis is being placed on rigor in disciplinary learning. Because students will pursue a more narrowly defined area of their discipline in more depth, faculty will be better able to focus on developing students' reflective judgment.

Another benefit of the changes is that they reinforce the efforts being made in the first-year experience through SAGES to connect students with faculty more intensively and over longer time periods. For example, to complement the intensive relationship that is made possible by having First Seminar professors serve as first-year student advisors, all management and accounting majors will take MGMT 250-51 during their second year, and will have a year-long relationship with the faculty instructing that course. Similarly, to build on the critical thinking skills developed in the seminars that make up SAGES, management and accounting majors will participate in research-oriented seminars (MGMT 395s) during their junior and senior years.

In addition to these curricular changes, the WSOM has also made changes in advising and mentoring practices that are intended to improve the experience of our undergraduate students. The number of faculty involved in freshman advising has significantly expanded over the last few years. In addition, a new mentoring program was piloted in 2002-2003 and expanded in 2003-2004, that offers first-year undergraduates the opportunity to explore an area of research interest with a faculty mentor. The response from participants in the pilot was very favorable. Similarly, in the economics department, faculty are making greater efforts to support the activities of the Omicron Delta Epsilon honors society, helping students to develop events that connect with current events and student interests in the field of economics. The department is also focusing on strengthening advising relationships through activities such as a faculty-student gathering soon after the major-minor fair, a spring event

for juniors in collaboration with the Career Center, and an exit event/celebration with graduating seniors.

The management and accounting students are benefiting from recent investments in physical space, since 30-40 percent of courses are offered within the Peter B. Lewis Building, and there is space for student groups and for administrative support within the newly renovated Wolstein Hall. The large introductory economics courses are still offered at many different locations on campus, and would benefit from an initiative to create more desirable north side classroom space.

Frances Payne Bolton School of Nursing

The nursing school admits about 75 undergraduate students per year in its BSN program, whose goal is to prepare nursing professionals. Clinical education begins in the freshman year; this is in contrast to many peer programs, where clinical work begins as late as the junior year. The BSN program now also incorporates community experience, requiring students to spend 12 hours per semester in the Cleveland public schools. It incorporates an intentional developmental model, with specific learning objectives for each level: freshmen may teach elementary students the importance of basic hygiene, while advanced nursing students work with parents on more complex health care issues – care of the asthmatic child, for example. The BSN program is also adding a public lecture series (with attendance required for BSN students) dealing with the growing disparity in health care outcomes.

The curriculum grows in complexity into the senior year, when students have two synthesizing experiences. Fourth-year students have a required immersion experience in the delivery of community-based health care, either in Cleveland, elsewhere in the U.S. (in a migrant worker camp in Florida, for example), or in several international sites (Australia, Chile, Uganda, Denmark, and Eastern Europe). The ten-week cross-cultural experience complements the students' clinical experience in more traditional hospital settings. About half the students complete their community placement in Cleveland, and the rest elsewhere. BSN students are constrained by their tightly packed curriculum from participating in regular study abroad programs, so the

community health care requirement gives them a chance to have an international experience. The second synthesis experience in the senior year is an acute or critical care preceptorship in one of the major Cleveland hospitals. In this experience, students select an area of specialization and then work intensively with a preceptor in that area for a full semester. This experience is designed to hone the students' acute care knowledge and skills and provide a transition into the work world. Students may select from adult or pediatric acute and critical care, gerontology, obstetrics, or emergency nursing.

The school of nursing also helps students with their emotional development, since nursing students must deal with emotionally difficult issues – chronic illness, critical care, death of a patient – from the outset of the program. Seminars in the first year help students reflect on their feelings about working with seriously ill and dying patients. As students progress in both emotional and intellectual development, the program content becomes more theoretical, and students begin to incorporate research-based practices into their clinical experience.

The demanding clinical schedule for the BSN program makes it more difficult for nursing students to take part in co-curricular aspects of student life, though the school encourages them to do so. Nursing students can participate in SAGES, and the school is trying to eliminate special class sections for nursing students so that they take more courses with students in other majors.

In summary, the Frances Payne Bolton School of Nursing has long structured the bachelor's nursing program in a carefully designed developmental model that also incorporates service learning. The program is highly successful, but faculty and administrators sometimes struggle with the highly scheduled character of the program in trying to create for their students a full college experience.

CONCLUSION

Case Western Reserve University has engaged in a serious effort during the last decennium to explore innumerable ways to improve the undergraduate experience, and to design relevant programs in a developmental, intentional, comprehensive fashion. On the academic side, the SAGES program is a leading example of these related initiatives. Although still in the pilot stage (but scheduled for full implementation in fall 2005), SAGES has evolved from a general education program within the College of Arts and Sciences to an all-university program that embraces all four undergraduate years. Our hope is that this program, in addition to its intrinsic merits, will help address some of the areas which assessment surveys suggest could be further improved at Case: writing, oral communication, collaborative work, development of values and ethics, and engagement in local, national and world affairs.

On the student affairs side, other leading examples of our engagement for the future are the Undergraduate Experience Model of the Office of Student Affairs, the campus master plan that includes plans for the North Residential Village, the new student center, College Town, and much else detailed in this report. These initiatives are designed to dramatically improve social life, campus environment, and sense of community for our students.

For these and other reasons evident from this report, the faculty, staff, and administration of Case Western Reserve feel a palpable sense of progress and look confidently to the future. However, this subcommittee has also identified problem areas, and proposes the following recommendations:

- In arts, humanities, and social sciences there is both room and need for growth in student (and faculty) numbers, and elevation of our national profile (success in this endeavor would also contribute to some of our diversity goals, attracting—for instance—a higher percentage of women).

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

- In the performing arts, there is a need for more and better performance spaces.
- We must continue to strive for better coordination and interaction with the magnificent resources of University Circle.
- We should continue to create meaningful partnerships with schools, neighborhoods, and agencies in the City of Cleveland to provide opportunities for undergraduates to engage in productive community service (volunteer, curricular, and work study), contribute to the local community, and develop life-long patterns of civic engagement.
- In certain departments there is still need for better facilities such as classrooms, offices, and laboratories.
- We should continue to work aggressively and collaboratively to provide a safe and healthy living environment for our students.
- We must also redress the perceived undervaluing of athletics on our campus, including creating and preserving areas for recreation and common usage, finding ways to create time in weekly course grids for athletic and other extracurricular activities, and explicitly recognizing (and financially supporting) athletics as a value-added activity vital to the college experience.
- We recommend creating a spokesperson/advocate within Student Affairs for the religious needs of our students.
- Although major progress has already been made, we must aggressively continue to assess and enhance our student advising and mentoring.
- We should seek ways, wherever feasible and appropriate, to reduce the heavy curricular workload that we require for our students.
- We need to enhance our study abroad and overseas exchange programs.
- We also must continue to work for greater transparency, availability of information, and timeliness and clarity of communication, as part of our “Student-First Initiative.”
- Finally, more broadly, we should work toward helping students feel even more a welcoming sense that they are stakeholders in their own education, especially in larger departments that have always counted on large numbers of majors.

University administrators, faculty, and staff are well aware of how much we still have to accomplish, but we are resolved to build on our history of excellence, and continue to strive toward President Hundert’s vision of creating “the most powerful learning environment in the world.”

MEMBERS OF THE SUBCOMMITTEE ON
UNDERGRADUATE STUDENT DEVELOPMENT

Alan Rocke, *Chair*
Bourne Professor of History

James Sellers, *Vice-chair*
Director, University Counseling Services,

Jean Gubbins
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Molly Berger
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Mayo Bulloch
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ADDENDUM A

NORTH RESIDENTIAL VILLAGE PROJECT

A new living, learning environment, promoting social and academic interaction... and growing green

The North Residential Village (NRV) is a four-phase project to replace existing dormitories with a new living-learning environment for Case students, faculty and neighbors.

Phase I Focus:

- To provide independent apartment living for third- and fourth-year students, within an academic community
- To promote interaction between students, faculty and neighbors
- To integrate sustainable architecture into a comfortable and beautiful campus
- To develop new technologies integral to student life and academics
- To advance environmentally responsible practices in planning, design, construction, living, and learning.

Future Building Phases:

Future phases will include first- and second-year housing as well as communal dining and living areas to foster collegiate living, and a new field house and fitness center.

Residential Program Philosophy:

The Case residential experience program was created to help students make good decisions and guide them along their undergraduate experience. Because learning is a continuous process that extends beyond the classroom, our students are viewed as total individuals with many needs and interests along a developmental continuum. Programs and activities within each of the residence halls are coordinated and implemented by our staff in order to contribute to this broad view of learning.

This comprehensive experience transcends campus life, and works in symmetry with the undergraduate faculty and the Case community to foster a well-rounded living and learning environment for all undergraduate students. Unlike the residential programming models of some other universities, Case strives to foster the university experience of its undergraduate students continuously, from beginning to end. Focused and intentional programs are aimed at building foundations and addressing the challenges and developmental stages of each year individually, from the first-year student to the graduating senior.

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

ADDENDUM B

Intellectual and ethical development includes the ability to respect new ideas, to value critical thinking, to reflect upon moral and ethical decisions and their implications, and to be aware of one's own thoughts, feelings, and behaviors. From orientation through commencement and beyond, Case strives to sustain an intentional and developmental effort to stimulate reflective judgment, informed decision-making, and life-long learning for all our undergraduates, whether they reside on or off campus. Here are some highlights:

Orientation begins the intellectual and ethical development through:

- Seminars and activities facilitated by faculty, staff, and student leaders
- An interactive ethics program designed and facilitated by the Academic Integrity student board
- A social education program (often with an outside speaker) on making informed decisions
- Promoting diversity and a just and humane campus community through programs which include the Student Affairs "Share the Vision" campaign
- A Common Reading program for all entering first-year students.

Ethical Education throughout the Undergraduate Experience:

- Academic Integrity Board overseen by Student Affairs and Undergraduate Studies
- Training in ethics for student leaders through Student Activities, Greek Life, Residence Life, and Student Affairs
- Ethics counseling for students through Undergraduate Studies

- "Share the Vision" programming to promote dialogue on issues of local, national, and international importance
- Personal decision-making guidance by peers, faculty, and staff through formal and informal advising, mentoring, and/or counseling.

Service Learning opportunities:

- Annual Orientation Class Community Service Project takes new students into the Cleveland community
- College Scholars Program service learning requirement as part of the curriculum
- Office of Student Community Service provides curricular, work study, national service, and volunteer opportunities for involvement.

Student/Faculty collaboration to promote academic enrichment beyond the classroom:

- Supplemental Instruction (SI) leaders in introductory mathematics, chemistry, biology, physics, and engineering courses
- TUBA (tutoring by appointment, with on-line scheduling) tutors in all high-demand courses
- Learning Assistants within all first year student residence halls
- Judicial boards to review academic (and social) infractions
- 110 recognized student organizations advised by faculty and staff

ADDENDUM B (CONT.)

The physical, emotional, and spiritual development of our students includes programs and experiences that enhance a student's social skills, including effective communication and leadership; cooperation, collaboration, and healthy competition; respect for others; and participation in efforts to improve and enhance community.

Support:

- Office of Multicultural Affairs - "Home Away from Home"
- Refuge in the residence halls
- Community of Scholars/College Scholars Program
- Memorial Plaque Program
- Counseling, psychotherapy, neuropsychological screening and psychological testing, psychiatric services, 24 hour crisis intervention
- Health services

Awareness/Education/Prevention:

- Physical education, wellness
- Risk management training
- Women's health advocate
- University Health Service interactive website
- Physical Education requirement
- Sexual Assault Prevention parent letter
- Peer Helper network
- Collaborative Inter-Religious Council programs
- Student Affairs/UGS student concern meetings

- UHS Advocates for Personal Health Philosophy
- The Health Education Fund of the Collegiate Behavioral Health Advisory Council
- Recovery House, an alternative housing option for students in recovery from substance abuse
- International student programs, i.e., groups and social gatherings
- Support groups for students through counseling services.

Social development can occur through opportunities that include physical and mental health components; making healthy choices in nutrition, recreation, sexual health, and in the prevention of disease.

Leadership:

- Leadershape
- Greek Life leadership conferences
- Office of Multicultural Affairs' leadership conference
- Student Activities Leadership awards
- Educational Support Services' leadership paraprofessional positions (Learning Assistants, Supplemental Instruction, Commuter Assistants, Plain Dealer Electronic Learning Center assistants, TUBA)
- Share the Vision recognition ceremony

THE SUBCOMMITTEE ON STUDENT DEVELOPMENT - UNDERGRADUATE

Fostering Fellowship/Community Development:

- Kosher BBQ (Inter Religious Council events)
- College Scholars Program
- Fraternity Leadership Matrix
- Hall of the Year/RHA program
- Intramural program
- Residential colleges
- 110 Recognized student organizations
- Halloween at the Farm
- Hudson Relays/Spring Fest
- International Dinners

Community Connection:

- Ticket Raffle program/Orchestra/Playhouse
- Free Access program
- First Year Playhouse Square outing
- “Cruising Crew” Orientation activities
- Office of Multicultural Affairs Turkey Drive
- Office of Multicultural Affairs mentoring program
- CASEone Card
- Case Community Card
- Saturday College (SatCo).

ADDENDUM C

The mission of the University Office of Student Affairs of Case Western Reserve University reflects this endeavor to provide programs, facilities, and services designed to extend and enhance the student experience at Case. In all of its activities the University Office of Students Affairs staff seeks to:

1. Collaborate actively with students, faculty, and staff to develop and provide programs and services that enhance the quality of life at the university and foster a just and humane community
2. Design opportunities that enable students to develop ethically, intellectually, socially, and physically
3. Educate students to act as responsible members of the campus community and encourage leadership and involvement in the local, national, and world community.

ADDENDUM D

**New Vision Investments Summary
Student Experiences**

The following summarizes New Vision Investments in the “Student Experiences” portion of the plan. Although this area represents only a small percentage of the entire plan, it is the portion most directly related to “undergraduate development.” The other areas are outlined in the “star chart” which may be found at: <http://www.case.edu/vision/starchart.htm>

The “NVI FY 0406” column reflects the total three-year investment of New Vision funds. In addition, significant reallocations of existing funds will be applied to priority programs. In most cases, after the initial three-year investment period the funding will continue, less the prescribed reallocations.

Activity	Responsible	NVI FY 04-06
Undergraduate Research	Undergraduate Studies	\$447,000
Undergraduate Research	Case School of Engineering	\$17,000
Sophomore Dean Support	Undergraduate Studies	\$52,000
College Scholars Support	College of Arts & Sciences	\$120,000
Education/Life Program	Student Affairs	\$652,400
CaseCORPS	Student Community Service	\$525,000
Student Leadership Programs	Thwing – Student Activities	\$123,450
Parent/Family Programs	Student Affairs/Thwing	\$106,500
Traditions & Diversity Programs	Thwing – Student Activities	\$40,500
Services for Commuters	Educational Enhancement Programs	\$69,000
Disability Services staff	Educational Enhancement Programs	\$98,625
Marching Spartans	Student Affairs	\$40,400
Free Access to Museums	Student Affairs	\$45,000
Capital Improvements		
Weight Room Upgrade	Physical Education & Athletics	\$500,000
Plasma Screens for Information	Student Affairs/Information Services	\$60,000
Student Organization Space	Thwing – Student Activities	\$100,000
In Development		
Multicultural Program	Student Affairs/Enrollment Management	A significant investment will be made in this program once an integrated proposal has been developed