



## **Final Report**

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# **The University of Michigan**

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Visit Dates: October 20-23, 2002 and March 17-18, 2003

Report Date: October 31, 2003

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# Documenting Effective Educational Practice (Project DEEP)

## FINAL REPORT

University of Michigan

### Table of Contents

Introduction.....	4
Purpose and Overview.....	4
Methods.....	4
Guiding Principles.....	6
Overview of Report.....	6
Institutional History and General Characteristics.....	6
General Themes.....	8
Academic Challenge.....	11
Overview of University of Michigan Results.....	12
“This is Michigan!”.....	12
Innovative Pedagogical Practices.....	14
Peer Culture.....	14
Administrative Encouragement to Innovate.....	15
Academic Support Services.....	16
Active and Collaborative Learning.....	17
Overview of University of Michigan Results.....	18
Complementary Blend of Lecture and Small Group Discussion.....	19
Students Learning From Other Students.....	20
Technology in Support of Collaboration.....	22
Living-Learning Environments.....	23
Student-Faculty Interaction.....	23
Overview of University of Michigan Results.....	23
Out-of-Classroom Contacts.....	24
Mentoring.....	26
Faculty Accessibility and Support.....	27
Learning Communities and Small Classes.....	28
Enriching Educational Experiences.....	30
Overview of University of Michigan Results.....	30
Intentional Efforts to Promote Diversity.....	31
Computers and Information Technology.....	33
Social and Community Service Issue.....	33
A Wellspring of Co-curricular Experiences.....	35
Exposure to the Creative Arts.....	36

Opportunity-Rich.....	36
Supportive Campus Environment .....	37
Overview of University of Michigan Results.....	38
Welcoming and Orienting Newcomers.....	38
Shrinking the Psychological Size of the Campus.....	40
Multicultural and Retention Initiatives.....	41
Final Thoughts.....	44
Appendix A: NSSE Information.....	46
Appendix B: Team Member Biographies.....	49

## INTRODUCTION

### Purpose and Overview

The National Survey of Student Engagement (NSSE) and the American Association for Higher Education (AAHE) are working together on an initiative to identify and describe the policies, practices, and cultures of colleges and universities that are unusually effective in promoting student success. With support from Lumina Foundation for Education and the Wabash College Center of Inquiry in the Liberal Arts, the Documenting Effective Educational Practice project (DEEP) features case studies of about twenty colleges and universities that have higher-than-predicted scores on five clusters or “benchmarks” of effective educational practice and higher-than-expected graduation rates. The benchmarks are based on how students respond to the questions on the National Survey of Student Engagement. The benchmarks are academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment. Appendix A contains more information about the benchmarks and the NSSE project.

The institutions selected for the DEEP project reflect the diversity of four-year institutions in the United States, including large universities, small colleges, urban universities, and special mission institutions. Our aim is to discover and document what these institutions do, and to the extent feasible, how they have become effective in engaging their students. We plan to share with other colleges and universities the educational practices that seem to work in a variety of different settings with different groups of learners and to further our understanding of how institutions of higher education can modify their policies and practices to promote student success. The major findings from the project will be reported in a monograph and other vehicles by NSSE and AAHE. Additional information is available at: <http://www.iub.edu/~nsse>.

### Methods

The conceptual framework guiding our work is anchored by a concept called “student engagement.” Although the importance of student engagement has been known for years, many colleges and universities have not had sufficient information about their own students’ engagement to redirect institutional resources and energy to improve undergraduate education. Since 2000, more than 730 different four-year colleges and universities have turned to the National Survey of Student Engagement to learn more about this important dimension of the undergraduate experience.

Student engagement comprises two elements. The first is the amount of time and effort students put into their studies and other educationally purposeful activities. The second is the ways in which an institution allocates its resources, and organizes the curriculum, other learning opportunities, and support services to encourage and persuade students to participate in activities that lead to student success (learning, persistence,

satisfaction, and graduation). The latter feature is of particular interest to colleges and universities, as it represents the margin of educational quality that institutions contribute – a measure of value added to students’ experiences – and something that a college or university can influence. Although NSSE benchmark results were used to help us identify Project DEEP schools and your NSSE data provide a useful structure for our work, they are not the only topics of interest in this study.

A time-honored approach to improving productivity is the identification and adaptation of qualities that characterize high-performing organizations. In a similar way, virtually all institutions of higher education can learn valuable lessons from educationally effective colleges. Toward this end, we used a case study approach to learn as much as possible about your school and the other DEEP colleges and universities. We visited the University of Michigan twice. The first visit was October 20-23, 2002 and the second visit was March 17-18, 2003. Prior to and during the site visits, team members reviewed many pertinent print and web documents about Michigan. In all, we met individually or in focus groups with a diverse group of about 90 students, faculty, administrators, and others. Most of these people were identified for us prior to the visit by Dr. Gretchen Weir, Assistant to the Senior Vice Provost, as being able to represent informative and diverse perspectives on the quality of the undergraduate experience at the University. We added to our interview list people we met while on campus. In addition, we reviewed many print and web documents. All interviews were tape recorded. The team also conducted observations and talked informally with a number of students in public settings.

Following the first visit, the team prepared an Interim Report. The report was distributed widely prior to our second visit to the campus. Our primary goal for the second visit was to further our understanding of the University of Michigan and to correct factual errors and questionable interpretations in the Interim Report. To do this, we met with small groups to discuss the report with an eye toward better understanding aspects of the undergraduate experience that were not adequately depicted in the Interim Report. We also met with some additional people who helped clarify particular elements of institutional policies and practices. We then revised the Michigan Report to incorporate these additional insights and findings. Information about the DEEP researchers who participated in the visits is provided in Appendix B.

We submit this Final Report with three caveats. First, while we hope that the Final Report is a more accurate picture of the University of Michigan, we are certain we have still not learned or described everything worth knowing about Michigan. Second, we know that, at best, this Report provides a snapshot of a moving target; what were issues at one point in time might now be settled, and new issues are likely to have emerged. And finally, despite our best efforts, it is possible that the document still contains some factual errors or is missing some important insights about the quality of the undergraduate experience at U of M. We want to correct factual errors and make the report as accurate and useful as possible. Toward those ends, we welcome additional corrections and comments.

## Guiding Principles

Three principles guided our visits to the U of M campus and the preparation of this Final Report. First, the goal of Project DEEP is to document and describe effective educational practice. Because we are interested in identifying and understanding what works well in engaging different types of students at different types of institutions, we did not focus on institutional weaknesses, though we realize that even high performing schools can improve in certain areas. Therefore, our report emphasizes descriptive statements about Michigan, not evaluation.

Second, we attempted to be inclusive in our collection of data and tried to learn the views of as many different individuals and groups as time would allow. During both campus visits, we sought to meet with people who held different or divergent views about students' experiences and institutional policies and practices.

Third, we sought to understand from the perspectives of "insiders" – students, faculty, staff and others – and to describe their experiences and stories of life and learning at U of M. We prepared this Final Report so that the Michigan community can determine whether we have portrayed the University faithfully and accurately.

We are grateful for the cooperation of the University of Michigan students, faculty, staff and others who shared their time and insights during our first visit. The team is indebted to Dr. Gretchen Weir for serving as the campus visit coordinator. Thanks to Dr. Weir, the DEEP team had very stimulating and productive site visits.

## Overview of the Report

This Report is organized into four main sections. First, relevant aspects of Michigan's history, mission, academic programs, and students are summarized. Second, we discuss general themes at Michigan salient to student success. Third, the substance of the Report comprises descriptions and discussions of educational practices. We identify themes using the NSSE benchmarks as an organizing framework: (1) level of academic challenge; (2) active and collaborative learning; (3) student-faculty interaction; (4) supportive campus environment; and (5) enriching educational experiences. Fourth, we discuss impressions of factors influencing the NSSE benchmark scores and highlight effective programs and practices at the University of Michigan.

### **INSTITUTIONAL HISTORY AND GENERAL CHARACTERISTICS**

The University of Michigan is one of the premier public research universities in the United States. Founded in 1817, the University's mission is "to serve the people of Michigan and the world through preeminence in creating, communicating, preserving and applying knowledge, art and academic values and in developing leaders and citizens who will challenge the present and enrich the future" (<http://www.umich.edu/pres/mission>). In pursuing its mission the University has evolved into a national model of a complex,

diverse, and comprehensive public institution of higher learning that supports excellence in research; provides outstanding undergraduate, graduate, and professional education; and demonstrates commitment to service through partnerships and collaboration that extend to the community, region, state, nation and around the world. Many of its academic units are ranked at or near the top in various national surveys, in large part because of the research productivity of its faculty. With research expenditures increasing for the past 20 years, Michigan has been the leading university in the level of sponsored research.

While enjoying its well-earned position as a preeminent research institution, the University of Michigan also seeks to provide the very best learning opportunities for undergraduate students. Twelve of its 19 schools and colleges enroll undergraduates. To enact this important aspect of its educational mission, the University is committed to preparing undergraduate students for social participation, civic engagement and productive contribution in an increasingly diverse multi-cultural society.

Of the University's 38,000+ students, 24,500 are undergraduates. About two-thirds of the undergraduates are Michigan residents with the remainder coming from all 50 States and 129 countries. Students are very bright, highly motivated and diverse in terms of race and ethnicity. Almost one-quarter of the 5,500 entering first-year students in 2002 earned a 4.00 GPA in high school; 84% had at least a 3.50 GPA. Most students (87%) graduated in the top 10% of their high school class, with 24% in the top 1%. Scores on college entrance exams are equally impressive.

Under the leadership of President James Duderstadt (1989-1995) the University made significant efforts in advancing diversity initiatives and increasing the number of students and faculty of color on campus, culminating in the "Michigan mandate" – a clear, consistent and unequivocal commitment to creating a diverse, pluralistic, multicultural campus community. Of the undergraduates, 64% are White/Caucasian; 12% Asian American; 8% Black/African American; 4% Hispanic/Latino American; 4% International; and 1% Native American. Worthy of note is that 92% of entering White students attended all-White high schools.

Once enrolled, Michigan undergraduates succeed at levels predicted by their high school achievements. Ninety-five percent of first-year students return for their sophomore year; 82% graduate within five years. Almost 90% who apply to law school are offered admission, while the medical school (SAS) acceptance rate exceeds the national average by 9%. Three-quarters of all Michigan graduates looking for work secure employment within nine months of graduation.

During the past 20 years, the University increased its emphasis on improving both the education and student experience for undergraduates. Even before the call of the Boyer commission, Dr. Edie Goldenberg, Former Dean of the College of Literature, Science and the Arts, convened, in 1989-90, a Planning Committee on the Undergraduate Experience. This commission founded a number of integrated undergraduate education

programs, including the First-Year Seminar Program, the Undergraduate Research Opportunity Program (UROP), and the Sweetland Writing Center. Additional undergraduate education reports were subsequently issued, including:

- (a) the 1998 Rackham Summer Institute report;
- (b) report of the Subcommittee of the Integration of Teaching, Research and Practice (March 1999);
- (c) Report of the Subcommittee on Interdisciplinary (March 1999);
- (d) “The Faculty Lives, Institutional Flexibility, and The Revitalization Of Intellectual Community: Faculty Discussions On The Future Direction Of The College Of Literature, Science and The Arts” (April 1999);
- (e) “New Openings for the Research University: Advancing Collaborative, Integrative and Interdisciplinary Research and Learning” (Self-Study Report for Institutional Reaccreditation, 2000);
- (f) The University of Michigan AAC&U Greater Expectations Initiative on “Improving the Learning of all Undergraduates” (2000); and most recently,
- (g) “The Second Chapter of Change: Renewing Undergraduate Education at the University of Michigan” (Report of the President’s Commission on the Undergraduate Experience, 2002).

All of these reports provide candid and open appraisals of the current state of undergraduate education at the University and they offer innovative and responsive strategies for improving the overall undergraduate experience. The primary findings and recommendations from the three most recent reports are highlighted in the next section.

### **GENERAL THEMES**

Seven themes seem to capture and explain Michigan’s success in engaging students at high levels and supporting persistence and graduation.

1. Though a large, complex, and decentralized public research university, Michigan is committed to excellence in all of its endeavors including undergraduate education. This “commitment to excellence” permeates the campus culture and is frequently mentioned with pride by students, faculty, staff, alumni and significant external stakeholders. The continuous “quest for excellence” is reflected in: high-achieving faculty and staff; a unique “intensity of effort;” a strong sense of independence and freedom; and, tremendous loyalty. Faculty members are the keys to everything Michigan is and accomplishes. In addition to teaching and grading student work, they set the tone, leading by example through their own commitment to compete and excel in their career. Faculty members are expected to be internationally competitive and to be leaders beyond campus in teaching and research excellence.

They model this behavior through their hard work. Three quotes from faculty suffice to illustrate this point: "The University of Michigan is a workaholic paradise," "It's not really work," and "We just love to come to work." Moreover, faculty members expect students to do likewise. The high academic challenge that is so pervasive at the University of Michigan is primarily due to the faculty who, by their own internal motivation to do well and be competitive, have a strong influence on the campus climate as we have just described. But many external forces reinforce the strong press for high standards and achievement. As noted earlier, students do speak up, and similar to the faculty, since they are also "driven" and goal oriented, they wish to be noticed and academically challenged. This drive for achievement may be mostly intrinsic, but is also a real pressure felt by many students at Michigan. Another force is the parents who not only expect high performance from their own children but also communicate their desire to the administration. Parents are taking a more active role in the Orientation programs, and the administration recognizes them as important partners in the support students need as they progress at the University.

2. Many of the University's strengths – size, complexity, specialized research units, decentralization, autonomy, and so forth – can be distractions and work against a high quality undergraduate experience. To counter the impersonal, bureaucratic and neglectful characteristics of large universities, Michigan has taken seriously the recommendations made in numerous institutional reports to provide students with better "maps" and guides for navigating the bountiful opportunities provided by its rich learning environment. The reports also call for greater integration, through weaving together all parts of a student's experience at the University and by better connecting North and Central Campuses, forging stronger linkages between undergraduate, educational, and residential experiences and facilitating important connections between classrooms and communities. Nationally there is renewed interest in the undergraduate experience. U of M faculty and administration are well aware of this trend and see themselves as leaders. One commented that he thought Michigan was doing a better job at a) keeping grades that accurately reflect student achievement and b) at undergraduate research experience than Harvard. The School of Engineering has responded to some of the press to improve the undergraduate program, evident in fulfilling ABET's (accrediting agency) requirements of offering learning experiences that include team building.
3. The University has invested substantial resources to create innovative, responsive and effective undergraduate education support programs. Chief among these are: the Undergraduate Research Opportunity Program (UROP); the Sweetland Writing Center; the First-Year Seminar Program; the newly adopted College of Engineering Curriculum 2000; the Ginsberg Center for Community Service and Learning; the Arts of Citizenship Program; the Intergroup Relations, Conflict and Community Program; the Michigan Learning Communities (11 residential living-learning centers/programs); Women in Science and Engineering Residential (WISE) program; various undergraduate life science initiatives; the University Mentorship

Program; the Center for Research on Learning and Teaching (CRLT); the Comprehensive Studies Program (CSP), and numerous highly-effective diversity initiatives. These programs are associated in various ways with three major foundations for an undergraduate education articulated by prior Provost and Executive Vice President, Nancy Cantor: Diversity and Civic Engagement; Inquiry and New Tools for Research; and Collaboration and Integration. In the past three years alone, the University has committed one million dollars a year to develop new interdisciplinary courses for undergraduate and graduate students. In addition, the Provost has a \$10 M discretionary fund to support innovative initiatives directed toward improving undergraduate education. It is also worth noting that various colleges and schools sponsor literally hundreds of smaller programs (too numerous to mention in this report) that support, in significant ways, high quality undergraduate education. As one academic dean stressed, “there are enough of these kinds of programs where students can find one or two they really enjoy”. Another faculty member stressed the importance of these small programs by saying, “To fully understand the city, you’ve got to go into the neighborhoods.”

4. The University of Michigan’s commitment to diversity is deep and wide. It is a national leader in this area among public research universities. The University’s on-going legal defense of its diversity policies related to admissions decisions has gained national attention. Numerous students, faculty and staff have publicly voiced their support and admiration for the University’s principled stand on this issue. Results of various institutional research studies including the comprehensive “Michigan Student Study: Student Expectations of and Experiences with Racial/Ethnic Diversity” clearly demonstrate that students feel that Michigan’s diversity initiatives have had a positive effect on their college experience and have contributed to students’ broader cultural understanding. The University’s commitment to diversity is pervasive and it is clear that the institution has “infused diversity” into all aspects of the student experience – residential living, the curriculum, community service initiatives, orientation programs and so forth. Indeed, “diversity” is often cited as a primary reason students are attracted to and matriculate at Michigan.
5. The University provides first-year students with a considerable amount of initial support through freshman orientation and opportunities to affiliate with Michigan learning communities, freshman seminars, and a mentoring program. It is quite obvious, however, that the institution communicates a clear expectation that students must “make the most of what is provided” by showing initiative and “figuring it out on your own.” Students, faculty, and staff often refer to this perspective as the “Michigan Way.” This phrase, however, has both positive and negative connotations. Positive because of the pride the students take in being independent, and negative because students have to be independent and may get lost in a system that, at worst, occasionally exhibits a “sink or swim” mentality.

6. The University is a “data rich environment” and considerable experimentation and innovation are data-driven. The institution maintains a “robust data warehouse” that provides easy access to timely and relevant data, particularly for academic administrators and faculty. Frequent assessment of the University’s programs provides opportunities to identify areas of improvement and to gauge effectiveness of their programs. The resources of the Center for Research on Teaching and Learning and other college-based offices help to conduct assessment studies in order to learn how to become more effective in providing a positive learning environment.
7. Nancy Cantor, the previous Provost and Executive Vice President, championed many current undergraduate education initiatives. The blue print for future improvements in undergraduate education is the President’s Commission Report on the Undergraduate Experience. The Commission’s vision of the undergraduate experience at Michigan is reflected in a set of six goals:

Goal 1 - Make the campus more interconnected, integrated, and permeable.

Goal 2 - Connect students to the community and the world.

Goal 3 - Treat the undergraduate career as a life-course journey, both intellectually and socially.

Goal 4 - Equip undergraduates with good maps and good guides for their journey.

Goal 5 - Create a student community that is diverse, inclusive, adventurous and self-reflective.

Goal 6 - Provide resources and nurture practices that renew the faculty commitment to undergraduate education and enhance faculty-student interaction.

Achieving these goals is now being championed by the Provost and President and overseen by the Senior Vice Provost.

In the next section of the Report, we detail aspects of the undergraduate program reflective of effective educational practice. The five NSSE benchmarks serve as a framework for organizing our findings. The benchmark sections open with the identification of practices and policies, what we have labeled “promising practices,” that promote undergraduate student success.

## ACADEMIC CHALLENGE

*Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance.*

The items included in this benchmark are:

1. Preparing for class (studying, reading, writing, rehearsing, and other activities related to your academic program)

2. Worked harder than you thought you could to meet an instructor's standards or expectations
3. Number of assigned textbooks, or book-length packs of course readings
4. Number of written pages or reports of 20 pages or more
5. Number of written pages or reports between 5 and 19 pages
6. Number of written pages or reports fewer than 5 pages
7. Coursework emphasizes: Analyzing the basic elements of an idea, experience, or theory
8. Coursework emphasizes: Synthesizing and organizing ideas, information, or experiences
9. Coursework emphasizes: Making judgments about the value of information, arguments, or methods
10. Coursework emphasizes: Applying theories or concepts to practical problems or in new situations
11. Campus environment emphasizes spending significant amounts of time studying and on academic work

### **Overview of University of Michigan Results**

According to NSSE results, University of Michigan first-years and seniors reported a higher degree of academic challenge than their peers at other Doctoral/Research Extensive Universities. Both first-year students and seniors spent significantly more time studying and on academic work, read more assigned books, and took classes that emphasized the use of higher level, problem solving and critical thinking skills.

Interviews with students, faculty, staff, and administrators; information about policies, practices and programs; and reports on undergraduate education pointed to multiple reasons to account for why Michigan is able to maintain a strong press of academic challenge. Expectations that students perform at high levels of academic performance are both implicit and explicit. We identified the following themes to organize our findings related to academic challenge: "This is Michigan," faculty as mentor and model, pedagogical practices and innovations, student expectations and peer pressure, central administration as provider and supporter, academic support services, and responsiveness to external influences.

### **"This is Michigan!"**

#### Promising Practices:

- Commitment to excellence permeates the campus.
- Faculty members resist grade inflation.

As mentioned earlier, a commitment to excellence permeates the campus. The atmosphere on campus is intense and competitive, yet a collective sense of purpose is also palpable. One VP simply said, "It's in the air." All members of the UM community –

faculty, staff, and students – refer to the University’s high performance standards. This message is unmistakable in the admissions materials, and emphasized at summer orientation meetings and during Welcome Week – all before the first day of class. An Associate Dean in the College of Engineering described the climate in the University as a “boot camp” atmosphere. He, among others, noted that they view student success as “dependent on their will to succeed – to go beyond their limits.” More than one student referred to the “work ethic” at Michigan. The faculty noted that this press for high performance is often done informally, for example, when students are involved in the Undergraduate Research Opportunity Program (UROP) or enrolled in one of the Freshmen Seminar courses.

The President and Provost, as leaders, publicly demonstrated a commitment to the institution’s desire to develop and maintain a high quality undergraduate program in a research university. Former President Lee Bollinger, in his introduction to the Report of the President’s Commission on the Undergraduate Experience, summarized the “Michigan Way” of desiring academic excellence in all that they do:

“(It is) my belief that the very health of a university, broadly speaking, is connected to how it cares for its students, and perhaps especially its undergraduate student because of their special vulnerability to being neglected...even the character and quality of the research emanating from the institution will depend upon the degree to which we feel a desire to nurture, educationally, students into the life of the mind.”

The commitment to excellence is buttressed with self-confidence – one senior academic administrator called it “arrogance” – that the University of Michigan is world class but desires to become even better. As the Provost stated, “We are just good.” Faculty and administration continuously measure themselves with others at comparable universities with the desire to become even more competitive and to improve the institution’s status and excellence. The mode of operation can be characterized as one of high expectations but not high control over faculty and deans, of high standards without standardization. This culture is one of respecting the potential of each individual – students, staff and faculty – and assisting them to develop to meet their career and life goals.

Faculty members have resisted grade inflation. Instead, they reward students who show exceptional achievement. Faculty members by and large remain committed to grading on the curve in the introductory courses. With so many students having such a high GPA in high school, this practice clearly gets the attention of all the first-years. Student respondents attributed some the academic intensity they experienced at Michigan to the faculty’s commitment to grading on a curve. As one Associate Dean commented, “every student is challenged here.”

## **Innovative Pedagogical Practices**

### Promising Practices:

- Resources are directed to achieving high academic achievement. Investment in academic support services demonstrates the commitment to wanting students to learn.
- Introductory courses are designed to challenge the students' ability to problem-solve and develop the higher and critical thinking skills of the students.
- Instructional strategies like the small classes offered through the First-Year Seminar Program, the Michigan Learning Communities, and the non-residential learning communities (including the Undergraduate Research Opportunities Program with 900 students annually) encourage students to become active learners and challenge them to develop critical thinking skills and independence in carrying out research-oriented projects.

Michigan also prides itself on wanting to become even better – to improve upon its excellence. The University has invested many resources to learn what is working effectively and what can be improved. With the assistance of the Center for Research on Teaching and Learning and other college based offices, assessment studies are continuously being conducted to learn how to become more effective in providing a challenging and productive learning environment. One example is the sequence of courses in calculus, in which the course now requires students to work in groups and solve problem sets. Another is the change in the teaching strategies in the introductory courses in biology, with the faculty changing its predominantly lecture based and multiple-choice exams to a more problem-oriented course with essay exams and problem solving situations. The labs are more integrated with the lectures and require students to problem solve rather than follow a recipe. The revision of the biology course can be linked to student feedback about the instructional quality of the course and the professors' interests in designing courses that maximize student learning particularly higher order learning and critical thinking skills. Faculty respondents described these innovations for their courses, however, they acknowledged that while this sort of reform was enjoying more support at the institution, they could not comment on whether the reform was widespread.

### **Peer Culture**

#### Promising Practice:

- Students assist and educate their fellow students both informally and through formal means such as the Peer Advising Program about academic demands.

Students come to Michigan with high expectations. The expectations are reasonable because two important conditions exist at the University. First, the students are talented academically. Although 25,000 students apply, only 5200 students enroll. One

administrator noted that 35% of the students come to Michigan as premed. And another faculty member noted that these students are “gunners.” Of the 1000 new first-year students who enroll in the College of Engineering, more than half have a GPA of 3.95 or higher.

Second, students know much about the expectations and standards of the University before they arrive. Many have relatives and friends who have graduated from Michigan, and the reputation of the University is widely known by the citizens of Michigan and those who come from out of state. A senior described the University as a “legacy school” and added, “I think I have been getting mail from here since I was a little kid.” Students are intentional in their personal and academic goals. One administrator stated they have the attitude of “don’t waste my time” with non-productive classroom activities. Several administrators noted that 80 percent of the students plan to continue their education once they graduate. The Associate Provost for Undergraduate Education stated, “Students come in looking at the other side of their degree.” A senior in the process of applying to graduate schools described the students at Michigan as “demanding.” She credited her classmates for helping make her a better student. “The level of competitiveness here is intense...it’s cutthroat, but the competition really enriches the classroom. I worked harder because I had to.”

The clear message for students is for them “to learn how to navigate through the campus and the quicker the better.” Faculty members equate the University of Michigan as a metropolis, a confusing, chaotic, and challenging place. One senior faculty member stated, “University of Michigan is the city,” a place that is diverse and rich in its intellectual and social opportunities. It is a place that if students can master navigating they will have learned much and will leave with a self confidence that they can live and excel in almost any setting. One administrator stated this perspective this way. He likes to tell students, “You’re smart and you are here to get the most out of your Michigan experience.” The support is not expected to come primarily from the faculty. That is not their focus – their goal is to be the best scholars they can be. Support does come from staff, but older students also take an active role in helping students adjust. They are “advisors” – one student stated the informal peer advice is the “best advice.”

### **Administrative Encouragement to Innovate**

#### Promising Practices:

- Faculty are reinforced and supported by the central administration for proposing innovative curricular changes and teaching strategies.
- Central administrators do not try to control the academic environment; rather, they give faculty the freedom to develop and implement the learning environment.

In the past two decades the central administration – from the President to the Deans – has made a public commitment to enhance the undergraduate experience. The University of Michigan desires to be world class in every aspect of the University, and

thus undergraduate education needs to be equal in excellence with the graduate and professional programs.

The centrality of academic affairs and the decentralization of decision-making and power are universally accepted and praised as the way they do business. The central administration sees its role as setting the overall direction of the University and to reinforce a set of values around academic excellence and achievement of the students and faculty, with staff in the student affairs and other administrative areas serving primarily a support function. The President, Provost and their staff make a deliberate attempt to not control centrally, but instead to provide financial resources for faculty-developed and -created initiatives. It is by design that the Provost is both the chief academic and financial officer, giving him/her the ability to distribute the resources that reflect the centrality of the academic focus of the University. Central administration is to serve the colleges and to stay out of the way of teaching and research. The administration trusts the faculty at the college and department level to excel, govern themselves, and have standards to remain highly competitive.

The organization of the University both reinforces and interferes in some ways with a press for students to excel. Michigan is particularly effective in instilling a high achievement climate, because it has a defined culture and respect for the individuality of each student. Through its wide acceptance and pride in being a decentralized campus, it tries to be nimble and responsive. One administrator in the Office of the Provost stated, "It is decentralized by design." The central administration by itself does not implement University policies and programs to address an issue they consider important, such as improving advising, or creating universal programs to support minority students' adjustment to college. Instead, schools and colleges are supported in their efforts to address important issues in the manner befitting their constituents.

### **Academic Support Services**

#### Promising Practice:

- Resources are directed to high academic achievement. Investment in academic support services demonstrates commitment to wanting students to learn.

Since Michigan—faculty, staff, and fellow students—wants students to succeed, the University has established many support services for students to succeed academically. Some notable services include the 24-7 service the Media Union provides. Students have around the clock access to this resource center and library and an impressive array of computers in a pleasant learning environment suited for both individual and group study. The support offices in the Colleges for students are other examples of the commitment in providing academic resources to assist students who need additional attention in order to succeed at Michigan. Although these support services are available to students, the dominant message still remains of students having to take the initiative to take advantage of a very rich array of resources for them to succeed academically. As one upperclassman,

a very productive, active and engaged student both academically and socially, stated, "You need to be aggressive here. They do not hold your hand."

Faculty members at Michigan have not only resisted grade inflation, they have refused to lower their expectations for academic rigor. However, to assist students rise to the challenge and succeed academically, the University has created a number of highly effective and well-utilized academic support centers. Two centers assist students with their math and science coursework. The Science Learning Center offers support to students and faculty in five natural science departments: astronomy, biology, chemistry, geology, and physics. The University of Michigan Mathematics Laboratory is a walk-in tutoring service available for free to all undergraduates.

Two other centers focus on writing and foreign language instruction. The Gayle Morris Sweetland Center oversees writing in the disciplines from the first year through the dissertation, bringing together tenure track faculty, lecturers, graduate students, and undergraduate peer counselors to discuss composition pedagogy, theory, and practice. By reaching out to individual departments, the Center can assist with the writing component in specific courses. The University's Language Resource Center supports the study and instruction of foreign languages, cultures and literatures. The Center offers numerous resources such as audio listening / recording stations, an audiovisual library, video stations and computing facilities. All of these centers are used extensively by Michigan students.

Increasingly the administration has begun to argue that a more personal and supportive environment is needed for all students to succeed. The Senior Vice Provost for Academic Affairs noted that Michigan provides a mentoring environment for the graduate students, and it is now time to do the same for undergraduates. He did, however, state "we do not tell them we are nurturing them." Another administrator involved in helping students adjust to campus life stated that the "sink or swim" attitude is disappearing. As support for this new approach, administrators point to the fact that the graduation rates of the White and Asian students exceed that of African American students by 20%, indicating a need for more focused support initiatives.

There have been difficult discussions over the past decade about the type of support that will best foster independence and high achievement. Some academic support services are intended to provide an environment so that all students can succeed. No one disagrees about the desired ends or outcomes—all seem to focus on the primacy of academic achievement. The "whole student" idea is largely shaped by the focus on the "life of the mind."

## ACTIVE AND COLLABORATIVE LEARNING

*Students learn more when they are intensely involved in their education and have opportunities to think about and apply what they are learning in different settings. In addition, when students collaborate with others in solving problems or mastering*

*difficult material they acquire valuable skills that prepare them to deal with the messy, unscripted problems they will encounter daily during and after college.*

The activities associated with active and collaborative learning include:

1. Asking questions in class
2. Making a class presentation
3. Working with other students on projects during class
4. Tutoring other students
5. Participating in community-based projects as part of a regular course
6. Discussing ideas from readings or classes with others outside of class (students, family members, co-workers, etc.)

### **Overview of University of Michigan Results**

The University of Michigan's scores on the active and collaborative learning benchmark are relatively strong. Scores for first-year students and seniors are higher than for most comparison groups. Individual item scores reflect a number of high points in students' academic experience including the frequency of students asking questions in class, working with other students on projects during and outside of class, and discussing ideas from readings or classes with faculty members or others outside of class. Close to 70% of the first-years and seniors surveyed "often" or "very often" asked questions in class or contributed to class discussions. More importantly, after statistically adjusting for the types of students that attend U of M, and other institutional characteristics, it is clear that students are more engaged in active and collaborative learning than might be expected.

That students are expected to take initiative and responsibility for their learning and actively participate in their education is clearly communicated at Orientation and via various University documents. A faculty respondent and a member of the staff at the Center for Research on Learning and Teaching (CRLT) felt that the University's ethos, as a place where students have the freedom to express themselves and where diversity is respected, supports active engagement in the classroom because students feel comfortable speaking out. Another staff member at the CRLT proclaimed, "Active learning, that's what we're peddling." The University explicitly aims to create an environment where students ask their own questions and search for their own answers. The Michigan Learning Communities were established in order to help students transition more easily from high school to university life.

Given the large enrollment classes typically found at universities the size of Michigan, it is somewhat surprising that students participate at such high levels in class and have so many opportunities to work with classmates during and outside of class. It is equally surprising that a University with such a high level of research activity could maintain a commitment to improving teaching and learning. We identified a number of promising active and collaborative learning practices at the University and have

categorized them in the following themes: complementary use of lectures and small discussion sections, students learning from and teaching other students, adoption of collaborative and problem-based approaches to learning, capitalizing on technology to increase student engagement in the classroom, and environments designed to optimize collaboration and active learning.

### **Complementary Blend of Lecture and Small Group Discussion**

#### Promising Practices:

- Effective use of complementary structures of large lecture and small discussion sections are enhanced, for example, in science courses when the discussion section leader is also the lab instructor.
- First-Year Seminars provide students with a small classroom environment to encourage interaction with faculty.
- The Global Intercultural Experience Program (GIEP) where students participate in numerous field trips with faculty.

Using a combination of large lecture and small discussion sections is now a fairly common approach to promote active learning and student-faculty interaction. Michigan employs this structure in many of its courses. Both students and faculty were quick to mention it as effective educational practice. A senior psychology major described her discussion sections as the best opportunity for getting to know other students and for asking questions. “My discussion sections have been small and everyone felt pretty comfortable asking questions and expressing their opinions,” she explained. She added that her discussion sections were beneficial because they were the site for “real world application of the ideas and theories we learned in the lecture.” She identified her discussion sections as the learning environment where she felt most comfortable engaging with her classmates and posing questions generated from the readings or lecture. Discussions also take place in study groups, some of which are assigned in classes such as Calculus 1. Students begin to learn the value of study groups because they are introduced to the concept in many of their introductory classes. Studying in groups then becomes a natural way of life for many students.

Science courses typically include both small and large lecture experiences. However, some faculty members have modified this structure. A faculty member in science reported that she reorganized her lab a few years ago based on student feedback and data from a learning assessment that indicated the need for greater connection between work in lab and lecture. She strengthened the linkages between lab and lecture via common assignments and presentations and also assigned the same Graduate Student Instructor (GSI) to the discussion section and lab to further reinforce the connections. She also added a level of authenticity to the collaborative laboratory work in her introductory courses by providing students the opportunity to design their own experiments. A senior chemistry major affirmed that his science class experience was better when the GSI leading

his discussion section also served as his lab instructor. He believed that this match bridged some of the gap between the science lecture and the lab experiments, encouraged him to get to know more of his classmates because they were in the same small classes together, and supported his active involvement in discussion. However, he also noted that most of the interaction in the seminar was still students asking questions of the GSI, and not necessarily a discussion among the students in the class.

The First-Year Seminar program provides a small class experience for all incoming students in the College of Literature, Science and the Arts. First-Year Seminars were implemented in 1994 as part of a widespread effort to improve undergraduate education. The seminar program was designed to “enable first-year students and faculty to interact in a small class experience (maximum enrollment of 20 students), introduce students to the demands of intellectual inquiry, engage students as participants in Michigan’s scholarly community, develop students’ communication skills, and help students discover the value of specialized academic knowledge” (<http://www.lsa.umich.edu/dean/ug/fys/FYSProgram.htm>). Prior to 1994, seminars were available to only a small percentage of first-year students. However, in 2002-2003, more than 125 seminars are offered. According to one administrator, about 80% of these seminars are taught by tenured faculty. He added, “first-year students have a great opportunity to interact with peers and faculty early in their academic career.”

Although small discussion sections and seminars such as the First-Year Seminar increase opportunities for students to ask questions and contribute to class discussions, student respondents indicated that they also felt comfortable participating in their larger classes. NSSE data indicate that Michigan students participated in class discussion more frequently than students at other similar doctoral extensive institutions. Student respondents explained quite simply that they knew participation was expected of them and that it was important to get involved in the class. Some respondents also acknowledged that instructors who posed questions to the class or got to know students’ names and called on them by name facilitated their participation.

### **Students Learning from Students**

#### Promising Practices:

- Study groups are facilitated through the Science Learning Center and instructors.
- Engineering adopted collaborative and problem solving approaches (encouraged via ABET – accrediting agency)
- Opportunities exist for undergraduates to collaborate with graduate students and faculty via the Undergraduate Research Opportunity Program.
- Students join co-curricular organizations with academic or career focus (e.g., students in NABA talking with Deloitte and Touche).

NSSE results show that Michigan students often work with other students on projects during class and outside of class to prepare class assignments. Although the amount of group assignments differs among departments and schools/colleges, most student respondents reinforced the view that Michigan students frequently work together on academic work. Observations conducted in the undergraduate library and the downstairs of the Union on a Monday evening provided ample evidence of students working with peers outside of class. In fact, the library almost exclusively featured group study. A group of biology students working on a lab report, five students in a psychology class constructing a group presentation, and three students in calculus working collaboratively on problem sets, offer a sense of the extent to which students work with their classmates on class projects. Two of these study groups reported that they formed their group on their own and met weekly to work on their class assignments.

Innovation and improvement in teaching is an important goal. A good example of Michigan's strength in employing innovative teaching can be seen in the College of Engineering. A combination of grants and expectations from the engineering accreditation board have coalesced to support ongoing improvements in teaching and learning and to extend the use of collaborative learning in courses in Engineering. According to a staff member in the CRLT, "Engineering has taken full advantage of the consultations and assessments offered by the CRLT." Engineering has shifted its curriculum to more collaborative learning so much so that a staff member at the CRLT joked that "the complaint about Engineering students is that they don't know how to work alone." Similar innovation was reported for women in science and engineering. Considerable data exists to support the use of gender-inclusive teaching, a supportive living-learning community, mentoring and meaningful laboratory work to retain women in science and engineering.

Expectations for the importance of forming study groups to discuss class readings and work collaboratively with classmates outside of class are communicated to new students during Orientation. Respondents who served as Orientation staff leaders reported that forming study groups is a strong emphasis. A senior admitted "my study group is also my social group." This student and other respondents affirmed the prevalence of study groups at the University. "We're probably extreme workers here, sometimes I'll work with my study group until midnight on Friday and then we might go out." A few respondents noted that it is sometimes challenging for students to create study groups in large classes where they have few occasions to get to know their classmates. However, they believed that the difficulty associated with joining a study group was lessened through the work of the Comprehensive Studies Program (CSP), a learning community that provides support services to more than 2,000 undergraduates, and offers "enriched classes" that meet an additional hour each week for group study, and the Science Learning Center where study groups and tutors are coordinated for students.

Group projects are a regular part of coursework in the Business School. However, student respondents described this group work as more competitive than collaborative. A junior responded that group projects actually discouraged cooperation, especially when

students had to assign grades to their group members. “I’ve had friends agree to assign certain grades and then change and assign people lower grades.” She described the environment as “cut-throat.” Although respondents striving to gain entry to or in the Business School reported that the intense level of competition among students discouraged collaboration, students found room for collaboration in academic co-curricular activities. Students involved in groups such as National Association of Black Accountants (NABA) and International Business Club reported that they enjoyed the opportunity to exercise cooperative leadership and programming in their academic co-curricular organizations.

The Undergraduate Research Opportunity Program (UROP) and UROP in Residence (UIR) take collaborative learning one step further by supporting collaboration among undergraduate and graduate students and faculty. A junior in the College of Literature, Science and the Arts described the extent to which her UROP experience fostered her interaction with faculty members and graduate students. She has presented papers with the faculty member, socialized with the graduate students, and played in a golf scramble with her faculty researcher.

### **Technology in Support of Collaboration**

#### Promising Practices:

- Use of pedagogical approaches such as group projects, the use of technology and availability of electronic copies of lecture notes facilitate active learning and collaboration.

Students at the University of Michigan frequently use e-mail to discuss or complete an assignment or to communicate with an instructor. Staff at the CRLT attribute high levels of student engagement in courses where faculty members use technology. “Students feel comfortable interacting with technology so they tend to respond when it’s used by faculty in their course.” The CRLT has compiled data from various teaching and learning assessments on students’ views about the use of technology in the classroom. An academic administrator reported, “Active learning has been encouraged by grants and particularly by web-based initiatives.” Faculty have created innovative web-based course projects that “pull students in” such as the English faculty member who created a website of a walk through Shakespearean England.

Student respondents indicated that in courses where faculty made their course notes or lecture outline available on the web, they felt more prepared to ask questions and to engage with the course material at higher levels. Students in a statistics course were observed making use of their lecture notes during the fast-paced lecture.

## Living-Learning Environments

### Promising Practices:

- Provision of environments conducive to active learning and collaboration such as the living learning centers, the Residential College and WISE-RP.

The living learning centers and Residential College (RC) create a small college feel for students inside a large university (Appendix D). These residential units were credited with fostering an environment that encourages collaboration among students and faculty and facilitates active learning. A student from the Residential College shared a number of stories about the close connections he's made with faculty at the RC via his small classes and a variety of co-curricular activities. The WISE-RP and UROP in Residence also offer students a unique opportunity to form collaborative relationships with peers and faculty and to participate in small classes and research opportunities in a close-knit, supportive environment.

### STUDENT-FACULTY INTERACTION

*Student learning is enhanced when students see first-hand how experts think about and solve practical problems by interacting with faculty members inside and outside the classroom. As a result, their teachers become role models, mentors, and guides for continuous, life-long learning.*

The items in this benchmark are measures of the frequency with which students:

1. Discussed grades or assignments with an instructor
2. Talked about career plans with a faculty member or advisor
3. Discussed ideas from readings or classes with faculty members outside of class
4. Worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)
5. Received prompt feedback from faculty
6. Worked or planned to work with a faculty member on a research project outside of course or program requirements

### Overview of University of Michigan Results

First-year and senior students reported high levels of student-faculty interaction. In fact, scores on the student-faculty interaction benchmark were higher than those reported for other NSSE schools in the AAUDE consortium as well as for other Doctoral/Research Extensive Universities. On one hand, Michigan's high scores on this benchmark are not surprising. Given the University's longstanding reputation as an excellent research institution where students participate in faculty research, one might have anticipated – perhaps even *expected* – Michigan to excel in this area. Certainly the above-average rate of student participation in faculty research tells a large part of the story (especially with first-

year students, of whom 38% had worked with faculty on a research project outside of class, as compared with only 25% of first-year students at comparable institutions). Yet, to stop with this statistic would overshadow a more remarkable point. On a campus that takes pride in decentralization and a find-your-own-way attitude requiring *students* to take the initiative if they desire faculty contact, first-year students and seniors alike reported talking about ideas from readings or classes with faculty members outside of class at a rate higher than that of other NSSE AAUDE or Doctoral/Research Extensive institutions and roughly equivalent of that of the mean score of all NSSE institutions (including schools of comparable size *as well as* smaller schools with smaller student/faculty ratios).

What accounts for this success? And why did Michigan score even higher than was statistically predicted? The short answer seems to be the University's careful thought to investing in a variety of programs (detailed below) that help students find a "niche" and meet faculty members early in the students' careers. The following themes provide elaboration on the quality of student-faculty interaction at Michigan: the culture surrounding out-of-classroom student-faculty interaction, mentorship opportunities, office hours and e-mail contact, learning communities and small class size, and other out-of-class contacts between students and faculty members.

### **Out-of-Class Contacts**

#### Promising Practices:

- Prior to coming to Michigan, students are informed about opportunities for student-faculty interaction.
- First-year student orientation emphasizes the importance of student initiative in getting to know faculty.
- Faculty model excellence in academic work.
- Early contact between faculty and students through small classes and research opportunities promotes student engagement in academics.
- Faculty members participate in special programs sponsored by student groups.
- Students and faculty join together in University-sponsored campus-wide discussions of "timely" topics, such as the nation's response to the attacks of September 11, 2001.
- Departments sponsor field trips by small groups of faculty and students.
- Some faculty members periodically visit student study groups in order to answer questions. Faculty members know where to go because the study groups are held in designated Learning Centers on campus.
- The WISE program maintains a list of women faculty who are willing to commit time to interacting with the program's (women) students.
- Faculty work together with students to develop campus policies.
- U-M sponsors programs to encourage students and faculty to eat meals together.
- Through the University's Global Intercultural Experience Program, groups of 6-10 students and faculty travel together for 3-4 weeks during the summer, the trip is

preceded by an intense seminar experience on campus to focus students on intercultural ideas.

A common theme at Michigan is that the richness of a student's educational experience (including the extent of student-faculty interaction outside the classroom) is contingent upon student initiative. As one student put it, Michigan provides "a very good quality of education, *should you pursue it.*" Administrators had similar words: "The burden is on the student. You've gotta find a home," and "[The NSSE scores reflect] the students who are proactive about their education." One administrator went so far as to say, "It's easy not to be engaged" with faculty, noting that student-faculty interactions were "much more variable beyond the classroom." Attempts to inform incoming students about how to become involved with faculty are thus an important part of the recruiting process. Applicants receive a compact disc describing the University experience, including opportunities for research with faculty or other kinds of faculty interactions. High school seniors are also introduced to the "Michigan Way" of student-initiated faculty contact as current students travel to area high schools to discuss the Undergraduate Research Opportunity Program discussed later.

The importance of seeking faculty contacts outside of class is again emphasized in the three day first year orientation, during which students meet with their academic advisors, learn of the University Mentorship Program (described below), and hear presentations by a core group of faculty described as being particularly interested in new students. Through these presentations and those of current students, incoming students learn early that developing faculty relationships is a central student responsibility.

Faculty members have individual contact with students early in the undergraduate program through small classes and research opportunities and informal settings. The desire and need to achieve are contagious. Everyone does it – it is the only way to live and work at Michigan. During the initial weeks of classes, the push to interact with faculty is supported with messages about the importance of diversity: Diversity is to be respected; doing research or interacting in other ways with faculty is "OK" socially; and freedom of expression in all interactions – including ones with faculty – is to be valued. The socially acceptable nature of working with faculty is no doubt enhanced by the pre-professional status of the majority of students, who are aware even as underclassmen that resumes and recommendation letters will be important for the next stage of their careers. Although some students develop enduring *personal* relationships with faculty, the concentration for many students and faculty appears to be on developing abiding *professional* relationships.

As former President Lee Bollinger wrote in his introduction to the Report of the President's Commission on the Undergraduate Experience, the University needs to "feel a desire to nurture, educationally, students into the life of the mind." The focus on professional versus personal student development was echoed by a faculty member: "It's [i.e., Talking with students about student growth in realms beyond academics is] too tangential. You sort of just hope everybody is whole."

## Mentoring

### Promising Practices:

- The University Mentorship Program matches first-year students with a peer advisor working in parallel with a faculty advisor.
- The Undergraduate Research Opportunity Program (UROP) and the Scholars Research Program enable first- and second-year students to participate in research with a faculty mentor, helping students to “plug in” early in their University tenure.

The University Mentorship Program “matches up groups of four first-year students with an older student and a faculty or staff member who all share the same academic interests. The goal is to provide students with mentoring relationships, networking opportunities, yearlong guidance and support, and in general to help ease the transition to college” (from <http://www.umich.edu/~mlcprogs/ump.html>). A faculty participant in the program glowed as she spoke of the close relationship she has developed with her co-mentor, a senior student. The faculty mentor takes the role seriously, commenting that it benefits her “to keep connected with what’s going on with students” and provides a ready means to interact with undergraduates informally – at plays, trips to a Detroit ballet, or just for coffee. The role also enables her to help students to be part of a smaller community within the large University and to learn more about faculty and their academic interests. From our conversation with this faculty mentor as well as students, the program is not used as often as it could be. However, another interviewee told us, “Everyone who wants one [faculty mentor] gets one,” suggesting that at least students are informed about the opportunity and can choose the resource if desired.

The Undergraduate Research Opportunity Program (UROP) was the most frequently mentioned program when students, faculty, or administrators were asked to explain Michigan’s high NSSE scores on the student-faculty interaction benchmark (This program also contributes to Michigan’s strong performance on the Enriching Educational Experiences benchmark discussed later). UROP now is a campus-wide initiative with 900 students and 600 faculty participants per year. The program’s historical roots focusing on providing research opportunities for students from historically under-represented groups are still evident. The experience is not limited to such students, though, and it continues to grow year by year in sheer number as well as student diversity. UROP’s popularity among faculty has also increased in recent years as faculty researchers, hearing administrators say, “Research at the U of M is to teach students,” have begun to view the program as a way to simultaneously accomplish research and interact with students.

As one faculty member and an LS&A administrator both individually described, UROP (for first-year students) and the Undergraduate Scholars Research Program (for second-year students) represent an intentional effort to increase the exposure of students to faculty. The faculty member described an “important atmospheric” condition that

happens in UROP, where faculty talk with students about multiple topics and status is not as prominent as it is in the classroom. Frequently students commented on their access to faculty expertise. “I can say I have this teacher here that knows everything because he wrote the book on it.” Students also explained that while faculty members are involved in research, they also have the ability to take the things they learn from their field and relay this information back to students.

Other students, faculty, and administrators listed additional benefits of the program: Funding to attend professional conferences, ability (and sometimes requirement) for the student researcher to present at the annual UROP symposium on campus, development of relationships with peer mentors (to be covered elsewhere in this report), etc. A junior student who participated in UROP for her first year on campus and continued to do research with her UROP mentor during the sophomore and junior years emphasized the networking potential of the program. Meeting her mentor in the UROP program as a new student snowballed into her meeting many other faculty members, as her mentor introduced her to faculty colleagues. Discussing the importance of the UROP experience in finding a niche at the University, she stated, “If I hadn’t gotten involved in UROP I’d have been pretty miserable.” She also spoke of how her position as a UROP researcher had positively influenced her performance in the classroom by helping her understand “where professors are coming from . . . Research is a key to understanding the whole system.” Another student (a senior who had participated in UROP) spoke of how she had grown close not only to her faculty research mentor but also to the graduate students in the lab – another example of the networking effect. Both students agreed that student initiative was extremely important.

The popularity of the UROP program is evident in the waiting list, and (even for those students who are accepted) getting one’s first choice project is contingent on making early contact with the faculty member of choice. Fortunately for those students who are not accepted into UROP as first-year students, the Junior/Senior Program exists as a way for rising upperclassmen to gain research experience. Students may also apply for summer research positions through the Sponsored Summer Fellowship Programs. In addition, students in the College of Engineering may participate with faculty in the Electrical Engineering and Computer Science Spring/Summer Undergraduate Research Program or in one of the College’s other research programs funded by the National Science Foundation. Such programs, noted a faculty member, are a “natural mechanism for [student] engagement” in a research-oriented undergraduate University.

### **Faculty Accessibility and Support**

#### Promising Practices:

- Faculty in each of the schools and colleges maintain regular office hours for student visitation.
- E-mail contact between students and faculty is extensive. Students can also join list- serves to receive information about departmental functions.

- Faculty office hours and contact outside of the classroom.
- Faculty focused on research, but also committed to improving teaching.

Through their contact with students in the classroom and outside of the classroom, faculty members play an important role in supporting the academic success of undergraduate students. Out of the classroom, professors hold regular office hours for students seeking additional help. Students are also encouraged by faculty to form study groups, work with a tutor, or attend special help sessions offered through various departments and offices on campus.

Faculty support is evident in other ways as well. For example, “faculty can leverage money from different places...even across colleges” to initiate creative programs. On a decentralized campus, there are many opportunities for faculty members to network with different individuals or groups who might each be willing to contribute to a common project.

From day one, students are encouraged by orientation leaders, faculty, and peers to take advantage of faculty members’ office hours. Faculty, likewise, are encouraged to keep a regular schedule of times when students can find them in their offices. As our student tour guide said, “Anyone who teaches has to hold office hours.” The office hours for each faculty member are posted on the internet’s faculty directory for easy access. Together, the combined expectation for students and faculty results in a culture where (in the words of a faculty member), “Students are very used to coming to office hours . . . expecting that faculty will answer e-mails . . .,” and faculty oblige. A number of students remarked about their reliance on their major department’s listserv as a source of information about academic programs and events. “There’s a lot going on all the time on campus. Like tonight, Madeleine Albright is speaking, and there is another lecture in the B-school I want to go to...they were both listed on the [departmental] e-mail,” a senior explained. Regular communication from students’ academic departments supports their participation in academic functions and increases opportunities for interaction with faculty outside the classroom.

### **Learning Communities and Small Classes**

#### Promising Practices:

- Many faculty offices are located in some of the Residential Colleges, facilitating more frequent student-faculty interaction.
- Residence communities are affiliated with courses specific for residents. Faculty interaction with students in these small classes builds relationships and prepares students to confidently approach other faculty during office hours.
- First-year students in LS&A participate in the First-Year seminar program, characterized by a smaller student: faculty ratio than is present in many other

courses. This ensures that each first-year student is known by at least one faculty member.

Michigan offers a variety of opportunities for students to participate in small, often theme-oriented classes. Examples include classes in the University Courses series, housed by the College of Literature, Arts, and Sciences (LS&A) and characterized by an interactive teaching style promoting closer student-faculty interaction in the classroom. The courses are generally limited to first-year students and participants in various residency programs. Courses such as these blur the lines between in-class and out-of-class. For example, many faculty have offices in the residential college, allowing more frequent student-faculty contact in the hallways as well as at meals or in evening discussion groups.

Student respondents who were participants in the University's Learning Communities spoke positively about their small class experiences in the Honors Program and the Residential College. A student in the Residential College (RC) shared a number of stories about the level of critical dialogue that he regularly enjoyed in his "RC classes." He talked easily about the various projects he was working on with peers and faculty in his classes. A first year student in the honors program disclosed, "The only reason I considered Michigan is because I could still have small classes at a big school." The availability of a small college academic experience is valued by students.

Holding faculty-led First-Year Seminars in the residence halls also helps students understand that faculty are approachable, thereby increasing students' confidence to venture out to instructors' offices in subsequent years. It is important to note, however, that some seminars were not scheduled in residence halls. Nonetheless, the First-Year Seminar experiences were highly regarded by the senior faculty we spoke with, who described increasing popularity of the program as small numbers of involved, tenured faculty began telling their colleagues, "It's kind of fun to talk with freshmen." This was a change from the situation several years ago when first-year students very rarely talked with senior faculty – a tribute to the University's intentionally setting up the seminar program to mix the two groups. Students also seemed to value the close student-faculty interactions resulting from the seminars. An administrator quoted a student (upon completing a small group experience) as exclaiming, "This is the way my education is supposed to be!"

The programs and practices described in this section work together to encourage a large percentage of students and faculty to develop one-on-one relationships through a variety of methods – in mentoring relationships, research collaborations, etc. In addition to these programs, there are other examples of student-faculty interaction that occur in "pockets" or that may happen more sporadically than, for example, an official mentor-student connection would warrant. Faculty may be found dropping in on student study sessions in the Science Learning Center, participating in University- or student-sponsored sessions on diversity or women's education, or taking a geology field trip with a small group of students. Thanks to a Student Affairs effort to help make food preparations easy,

students may also share meals in faculty members' homes, or faculty may partake of a free meal in a residence hall if accompanied by a student resident. Also, students and faculty may collaborate as co-members of Union Boards developing policies or working together to manage the policies of the Student Code. Students may join faculty in Global Education excursions for periods of three to four weeks during the summer, traveling together in small groups to explore other cultures. Combined, such opportunities build what one administrator described as net-like layers; a given student "falling" through the space of the large University might not be "caught" by one layer, but eventually almost all students will be captured by at least one layer – landing them safely in a niche with other students and faculty who will help them navigate the campus.

### **ENRICHING EDUCATIONAL EXPERIENCES**

*High performing institutions create opportunities and experiences for student to enrich their educational experiences through engagement in meaningful curricular and co-curricular programs and opportunities. Student engagement in such enriching experiences, whether they occur inside or outside the classroom, tend to complement the institutions' academic programs and students overall collegiate experiences – not to mention the impact it has on collegiate quality.*

The NSSE items that are associated with this benchmark are:

1. Participating in co-curricular activities (organizations, publications, student government, sports, etc.)
2. Practicum, internship, field experience, co-op experience, or clinical assignment
3. Community service or volunteer work
4. Foreign language coursework and study abroad
5. Independent study or self-designed major
6. Culminating senior experience (comprehensive exam, capstone course, thesis project, etc.)
7. Had serious conversations with students that have different religious beliefs, political opinions, or personal values
8. Had serious conversations with students of a different race or ethnicity
9. Used electronic technology (list-serve, chat group, internet, etc.) to discuss or complete an assignment
10. Campus environment encourages contact among students from different economic, social, and racial or ethnic backgrounds.

### **Overview of University of Michigan Results**

Overall, the enriching educational experiences benchmark scores demonstrate that students are highly engaged in various experiences and opportunities that complement the academic goals of the institution, though the University's scores on this benchmark are slightly lower than predicted. Nonetheless, there are individual items on this benchmark that warrant specific attention, such as:

- Conversations with peers of a different race or ethnicity;
- Conversations with peers from different religious beliefs, political opinions, or values;
- Contact among students from different economic, social, and racial or ethnic backgrounds; and
- Participation in internships, community service, volunteer work, co-curricular activities, study abroad, and independent study.

On each of these benchmarks, there were statistically significant differences between the University of Michigan and national comparison groups. Examining mean scores within this benchmark, student engagement on topics associated with diversity (i.e., “Had serious conversations with students of a different race or ethnicity than your own” and “Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values”) were not only statistically significant among all three comparison groups, but stand out. In general, both first-year and senior students are “often” engaged in diversity-related topics and conversations. For a campus that has an intentional emphasis on and commitment to diversity this is not surprising. This may explain why students at the University of Michigan reported statistically significant “gains” related to “understanding people of other racial and ethnic backgrounds.” A number of findings related to enriching educational experiences were identified and are categorized by the following themes: intentional efforts that promote diversity and pluralism, ubiquitous access to computers and information technology, centrality of student involvement in social and community service issues, a wellspring of co-curricular experiences, the creative arts as venues for expressing institutional values, and Michigan as an “opportunity-rich learning environment.”

### **Intentional Efforts to Promote Diversity**

Promising Practices:

- The ethos of the University of Michigan encourages conversations about diversity-related topics.
- Institutional diversity initiatives and concerns tend to address a multiplicity of perspectives.
- Strength of the University’s diversity commitments is its focus on the representation of students of color and on women in certain academic fields.

There are intentional and substantive practices in place that promote discussions and interactions between students from different backgrounds. These practices, which are formal and informal as well as institutional- and student-perpetuated, could help explain why first-years and seniors reported that they “often” engaged in diversity-related conversations and experiences.

The University has been steadfast in its commitment to promote diversity as an important educational outcome. One obvious example, as mentioned earlier, is the *Grutter v. Bollinger* case where the University has taken the stance that a diverse student population is a compelling state interest. As former president, Lee C. Bollinger, suggested, “people learn more and learn better in an environment where they are part of a mix of people where there are substantial differences with people like themselves” (*The Chronicle of Higher Education*, December 14, 2001). This sentiment undergirds the University’s current diversity emphasis.

It is important to point out that the *Grutter v. Bollinger* case was not the sole emphasis for initiatives aimed at better creating a diversified and pluralistic campus environment. Other than this, the Michigan Mandate, which was put into practice in 1987, and the Michigan Agenda for Women, which was launched nearly ten years ago, were both major catalysts for the University’s goal of becoming a national model for its commitment to diversity and pluralism. With regard to the present, a senior administrator stated, “We haven’t backed off with regard to diversity.”

Serious about creating a community that encourages respect for, and civil discourse on, diversity, the University commissioned the Michigan Student Study (MSS) to understand the impact of current diversity initiatives, particularly on matters of race and ethnicity. Throughout the country, initiatives and conversations about diversity typically emphasize these areas. At the University of Michigan, however, diversity initiatives appear to focus on creating a nurturing and welcoming environment for diverse peoples, cultural beliefs, worldviews, sexual orientations, values, and other areas.

The representation of students of color in the student body is an important core value of the University of Michigan, as is the case for women in certain underrepresented academic disciplines. Examples of programmatic commitments to this value are:

- Pathways to Student Success and Excellence (POSSE) Program
- Center for the Education of Women
- Minority Engineering Program Office (MEPO)
- Inter-Group Relations Team
- Women in Science and Engineering (WISE)

In addition, the Office of Academic Multicultural Initiatives (OAMI) reflects an important strategic initiative designed to help create an academically and socially supportive environment for students of color.

Some programs are designed to create enriching educational experiences for students of color, include OAMI Headquarters, King/Chavez/Parks College Clubs, Multi-Ethnic Student Affairs (MESA), Leaders and Best (LAB), Black Celebratory, and the Dr. Martin Luther King, Jr. Symposium. Previous keynote speakers include Cesar Chavez, Nikki Giovanni, and Edward James Olmos, and Benjamin Carson – high caliber, internationally renowned figures. It is not surprising for the University to invite highly

prominent individuals who help spark discussions on diversity, social justice, and pluralism, discussions that enrich the campus climate and augments student learning and development.

Taken together, these initiatives, programs, and services demonstrate the University of Michigan's commitment to diversity, but more importantly, help create an enriching educational climate for students, faculty, and staff who elect to participate in these experiences by fostering support for underrepresented students and stimulating discussions on multicultural topics. Last, while there was no direct discussion of it, the symbolic tribute to Dr. Martin Luther King, Jr. in Angell Hall – a tribute spearheaded by the University's Alpha Phi Alpha fraternity – is an intentional affirmation of and commitment to support of students of color; not to mention the conversations it engenders related to issues that derive out of the Civil Rights Movement and Dr. King himself.

### **Computers and Information Technology**

#### Promising Practice:

- The institution has a vast array of computer labs and stations, some of which are available 24 hours.

Some 2,550 computers are available on campus, allowing students access to departmental and student list-serves, internet-based resources, and other opportunities that could make it easier to “navigate” through the complexities of a large institution. Angell Hall, for example, houses an impressive state-of-the art computer lab open 24 hours for student use. The vast array of computers in Angell Hall and other locales make it possible for students to discuss and complete assignments and to communicate with peers and faculty members. In addition, the substantial availability of computers provides a venue for student-faculty discussions on a range of topics, including diversity issues, class assignments, career goals, and informal conversations that strengthen faculty-student interactions.

### **Social and Community Service**

#### Promising Practices:

- Michigan emphasizes student involvement in areas related to social justice and civic responsibility. This is manifested through student advocacy, activism, and service along a broad spectrum of issues and concerns. As a result, there are unusually rich curricular and co-curricular opportunities for students to expand their collegiate experiences through participation in and reflection on various social and community issues.
- Service learning is offered through a mix of curricular and co-curricular experiences and opportunities, which augments the already rich offerings for student learning and development.

- The University of Michigan’s physical space – the “M” – helps make visible its commitment to public discourse on various topics.

The University maintains a longstanding tradition of student advocacy, activism, and service on a broad range of topics, which could explain the number of student organizations, activities, and events that take on such mantras. According to an administrator, the University of Michigan has a “reputation for activism.” An example of this is the Office of Academic Multicultural Initiatives (OAMI), which was established as a result of student advocacy for such a place. Another example was a student movement for the establishment of a “fall break,” which was also created, giving students an extended weekend in the fall.

The “diag,” a confluence of many diagonal walkways, is where many co-curricular events are promoted and activist events take place, though the diag is not exclusively for that. This intersection, particularly near the “M” insignia located in front of Hatcher Graduate Library, helps make visible students’ passion for social issues, some of which are controversial and others benign. At this physical space, it is common for students to receive leaflets and other printed material, hear discussions and speeches, and to view billboards all related to various causes, programs, and events. During our visit, we observed leaflets being distributed concerning “National Take Affirmative Action Day,” a program co-sponsored by the University of Michigan’s Chapter of the National Association for the Advancement of Colored People and the United States Student Association.

Student advocacy, activism, and service occur elsewhere and are manifested in other ways. Community service and service learning are two prime examples of initiatives that greatly enhance the University’s emphasis on service and civic engagement.

The Ginsberg Center for Community Service and Learning is both a physical symbol of the University’s commitment to service and a dynamic locus for that aspect of the institution’s mission. The Center is named in honor of Edward Ginsberg – a 1938 graduate of Michigan – who was known for his humanitarian work. The Center’s rich array of curricular and co-curricular programs seeks to “engage students, faculty members, University staff, and community partners in a process which combines community service and academic learning in order to promote civic participation, build community capacity, and enhance the educational process” (<http://www.umich.edu/~mserve/MSERVE/html>).

Some programs associated with the Ginsberg Center are credit-bearing, such as Project Community, which began in 1961. This experience is tied to Sociology 389 or three credits of Education 317 and encourages students’ social and civic responsibilities through service in local and urban schools, correctional facilities, health care facilities, and women’s agencies. Consistent with the University’s smorgasbord-type of rich offerings of co-curricular experiences, the Ginsberg Center offers enriching curricular and co-

curricular programs such as Advocacy Day, Alternative Spring Breaks, the Detroit Initiative, Volunteers Involved Every Week (VIEW), and Lives of Urban Children and Youth (LUCY). Many of these programs are student or peer facilitated, creating opportunities for students to develop important leadership skills and other desirable competencies.

According to one administrator associated with the Center, many of the students who participate in the programs have participated in community service while in high school, but without integrating their experience with academic tasks. He added that the characteristics of students involved in the center's programs are becoming more diverse. That is, "participants have tended to be White women. This has changed within the last few years." As a final note, it should be noted that the Center itself has developed an international reputation for community service and learning, publishing the *Michigan Journal of Community Service Learning* which is another opportunity for students to gain valuable insights into service learning.

### **A Wellspring of Co-curricular Experiences**

#### Promising Practices:

- The University of Michigan provides unusually rich opportunities for student involvement in a wide variety of institutionally-sponsored clubs and organizations. Involvement in many of these special interests as well as social- and academic-oriented groups constitutes a strong co-curriculum for student learning and development.
- The involvement of students of color in certain of these co-curricular experiences helps create a staying environment—one that helps them persist to graduation.

"There's so many ways to get involved here." This statement represents a common theme we heard from students during our visit. To its credit, the University has a vast array of co-curricular experiences, programs, activities, and resources. The possibilities to become involved in such co-curricular experiences are enormous, as there are more than 700 clubs and organizations that focus on a wide spectrum of themes and interests. One student suggested that the University has "so much to offer" students, which could explain why another student commented that the "University is a mix of many different things."

We did not talk with as many students of color as we would have liked. However, the few we did talk with pinpointed certain co-curricular programs that helped them find their niche at the institution. The Comprehensive Study Program was one such program. Other niche opportunities and experiences for students of color included the Multicultural Greek Council and the Minority Engineering Program (MEPO). With regard to the latter, one administrator told us that MEPO helps "create community" for students of color who participate in its activities. The College of Engineering itself places a strong emphasis on students of color to get involved in the rich array of co-curricular programs available, such

as the American Indian Science and Engineering Society (AISES), Black Electrical Engineers and Computer Scientists (BEECS), Movement of Underrepresented Sisters in Engineering and Science (MUSES), National Society of Black Engineers (NSBE), Outstanding Multicultural Industrial Engineers (OMIE), the Society of Hispanic Professional Engineers (SHPE), the Unified Minority Mechanical Engineers (UMME). An achievement resulting from student involvement in these kinds of co-curricular experiences is evidenced through NSBE – the last three national presidents have been students from the University of Michigan.

Student involvement in the University's co-curricular programs not only stimulates leadership development, friendships, support mechanisms, and mentoring, but also enhances student persistence to graduation. Many of these experiences create student-faculty interactions outside the classroom, an important concept related to student persistence. That is, quality student-faculty interaction is a central determinant in student satisfaction with the institution, which tends to lead to student persistence. The University of Michigan's better than predicted graduation rates could be explained by such interactions that occur outside of classroom and laboratory settings.

### **Exposure to the Creative Arts**

#### Promising Practice:

- Students learn important institutional values through engagement in creative practices and programs. Creative programming, such as the "Live Theater Troupe," is designed to move students beyond theoretical and analytical understandings of difficult and incommensurable issues to a hands-on, interactive experience.

People at the University of Michigan are conscious about thinking creatively about addressing issues, particularly issues that are challenging and sometimes vexing to tackle. The "Live Theater Troupe," which performs monologues and other forms of expression during orientation and other events, is an example of this. The group has addressed difficult but nevertheless important topics like sexual orientation and the disparate treatment of women in some classroom environments and elsewhere. Programs like this stimulate conversations about a number of issues, bring students and faculty together, and challenges peoples' ways of thinking.

### **Opportunity-Rich**

#### Promising Practice:

- University of Michigan provides an abundance of opportunities and resources to its students in a variety of ways – academically, socially, artistically, and culturally.

A senior captured the views of many of the students we spoke with about the enriching experiences at the University of Michigan, "opportunity is definitely what

makes U of M different... it really doesn't matter if you're only here for academic opportunities, social opportunities, artistic opportunities, there's really something that can foster growth in just about anyone. And it doesn't matter what you're interested in academically or what kinds of organizations you'd like to be in." Another student agreed, indicating, "this school not only has so many different parts, but it excels in so many different things." It was evident throughout the interviews with faculty, staff, and students, that the University of Michigan provides an abundance of opportunities and resources to its students in a variety of ways – academically, socially, artistically, and culturally. "As far as arts goes, the opportunities are ample and diverse. They are readily available – plays, concerts, different displays from different cultures," a student explained. There is a sense that students work with U of M administrators and that staff are supportive of students' ideas, so long as students are taking the initiative to bring these ideas to staff. In the past year, \$15,000-30,000 was provided to support student conferences (including 3 to 4 regional and national conferences). The Michigan Union provides student groups with a convenient place for meetings and office space.

The Arts at Michigan Program is another very important "enrichment" initiative that is intended to integrate the arts into students' lives. This program supports events during summer orientation and during "Welcome to Michigan." It also sponsors "the Culture Bus" that takes students to the Detroit Museum of Arts, the opera, the Toledo Museum, etc. in order to increase students' appreciation of the arts.

In addition, students frequently described that this factor is what set Michigan apart from other schools as they decided on which college to attend. "I was afraid I was just going to be another number. But I think one of the great things about being a University of Michigan student is that it has so much to offer. For instance, the Royal Shakespeare Company performed here last year and is performing here again this year. These are types of opportunities you're not going to have at smaller schools or less prestigious schools." A large percentage of undergraduates also participate in numerous study abroad programs, such as trips to Germany to study the German culture and language. Programs such as these are sponsored by the Office of International Programs and the International Institute. The University has also made efforts to establish bases overseas to facilitate students' study in a different environment.

## **SUPPORTIVE CAMPUS ENVIRONMENT**

*Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relations among different groups of students.*

This benchmark is based on questions examining the following conditions of the campus environment:

1. Campus environment provides support students need to help them succeed academically

2. Campus environment helps students cope with non-academic responsibilities (work, family, etc.)
3. Campus environment provides support needed to thrive socially
4. Quality of relationships with other students
5. Quality of relationships with faculty members
6. Quality of relationships with administrative personnel and offices

## **Overview of University of Michigan Results**

The University of Michigan scores on the supportive campus environment benchmark are lower than the national average, though they are somewhat higher compared with other Doctoral/Research Extensive Universities. In addition, the actual scores for first-year students are somewhat lower than the predicted score. Interviews with Michigan students help explain these scores and some of the challenges that come with being at a large, research institution – size, complexity, and decentralized nature of the campus. Interviews with University administrators, as well as institutional documents, such as the Report on the President’s Commission on the Undergraduate Experience, reveal that the University is making steps to connect students with the institution’s resources.

It is apparent that the University of Michigan has an extensive number of programs and resources to support undergraduate students. The bigger challenge facing faculty and staff is how to connect students to these resources. Moving beyond the philosophy of “We’re big and you’re smart. You can figure things out,” the University is striving to provide more “navigational maps” so that students can be connected to the wealth of opportunities at Michigan.

This section of the report highlights the effective programs and practices contributing to a supportive campus environment and is organized around the following themes: welcoming and orienting newcomers, reducing the psychological size of the campus, faculty support, and multicultural and retention initiatives.

### **Welcoming and Orienting Newcomers**

#### Promising Practices:

- Student Orientation for New and Transfer Students
- The Welcome to Michigan Program
- The University Mentorship Program

Orientation is one of the first steps in the process of learning to navigate the University. The Office of New Student Programs facilitates the three major programs, which help new students and their families adjust and transition to the University: Student

Orientation for New and Transfer Students, the Welcome to Michigan Program, and the University Mentorship Program.

The main goal of the Student Orientation for New and Transfer Students is to help bridge the gap between high school and college and to provide an opportunity for transfer students to meet their peers in order to ease the transition into a large university. During both programs, students complete the necessary procedures for class registration, including placement exams and academic advising (with each individual school or college). Orientation is a required program for all students. The majority of first-year students attend the three-day summer orientation program. However, there is also a one-day fall Orientation program for students who did not attend the summer program. The fall program is generally one or two days, depending on the specific school or college and the number of students participating. Orientation for transfer students takes place during the summer. A fall orientation for transfer students is also an option.

Activities offered during Orientation introduce students to Michigan's history and traditions, as well as establish expectations for students, particularly faculty expectations of students. For example, a few faculty members explained, first-year students are repeatedly encouraged to attend office hours during the summer orientation and this encourages attendance during the upcoming semester.

Issues of diversity are also emphasized to new students through discussions and interactive theatre presentations. According to the Director of the Office of New Student programs, the overall messages communicated to students during orientation are the important roles that academic excellence, culture and the arts, and diversity will play in their experience as Michigan students. The summer Orientation program is an important socialization experience for incoming students. Many first-year students build friendships through Orientation and it is "about the only centralized program on the decentralized campus." As a result of the Orientation programs, web evaluations demonstrate that students feel more confident after participating in the summer orientation experience.

Another program offered through the Office of New Student Programs is the Welcome to Michigan Program, which has become a University tradition. The one-week program prior to the start of classes gives students the opportunity to explore the Michigan community through campus activities sponsored by student organizations, University departments, or community agencies. Examples of these events include: Community at Michigan, theatre presentations, New Student Convocation, Maize Craize, and Community Plunge.

At the start of the semester, students may participate in the University Mentorship Program. This program provides students the opportunity to connect with a mentor, either an upper-class peer mentor or a faculty/staff mentor. Mentors are volunteers who assist students in their academic, social, and personal transition to the University. Mentors and mentees are matched according to academic and co-curricular interests. The University has also invested more resources and placed a great emphasis on a range of advising

functions. Advising now takes place in a variety of settings including Residential Colleges, Living-Learning centers, LSA advising, departmental advising in the majors, and even the use of peer advisors. However, the “Michigan way” can sometimes affect the way students view advising, for, as one student stated, “I’m pretty secure in my direction...so, I don’t need advising.”

### **Shrinking the Psychological Size of the Campus**

#### Promising Practices:

- First-Year Seminars
- Campus neighborhoods
- Learning Communities
- Academic and personal support in each school, college, or residence hall
- Special services for students with disabilities

Several initiatives at the University of Michigan attempt to reduce the size of the large campus so that students feel more connected to the institution. As one Director mentioned, “We can give students a map, but we can’t change the terrain.”

Although many introductory classes are held in large lecture halls with as many as 600 students per class, First-Year Seminar classes are no larger than 20 students and provide students with a smaller classroom environment. As described in the earlier section on active and collaborative learning, the Seminars are focused on a specific topic and introduce students to the value of specialized academic knowledge to promote intellectual growth.

University Housing creates “campus neighborhoods” through its residential halls and learning communities. According to the Director of Housing, 98% of first-year students live in a residence hall on campus and 40% of these students return to the residence hall their sophomore year (an additional 40% live in a Greek house on campus their second year). Each residence hall has a library, an academic advisor, minority peer advisors, and technology assistance is available, providing students with easier access to support services. Team members observed first hand the value on one of these communities when they met with students in the Michigan Community Scholars Program (MCSP) in Couzens Residence Hall. Members of this group described their close relationships, with most of their “bonding” coming from their common interest in civic engagement. Relationships form early, as the students live together and take at least one MCSP course together each semester; these are typically small classes focused on the theme of civic engagement. Students’ academic success is facilitated by free access to academic tutors hired specifically to support MCSP participants. Members also benefit from an incredible support system largely contingent on their peers’ willingness to serve as a resident advisor, peer mentor or peer advisor. The MCSP is but one of the many types

of initiatives at Michigan that do not affect thousands of students but are extremely valuable for helping smaller numbers of students find a niche.

According to one administrator, the residence halls at Michigan play an important role in the transition process to help move first-year students towards their second year. Academic support can be found primarily through Learning Communities. In the administrator's opinion, the ideal model is to have all first-year students in living-learning communities, or to at least have a Living Learning Community in each building since research has found that students living in halls where such communities are located reap many of the same benefits as those students participating in the Living Learning Community.

University schools and colleges also help the effort to make a large campus feel small. There is an attitude that the duplication of programs and offices is acceptable and necessary in order to meet the needs of the number of students. For example, each school and college has various support offices with services ranging from career advising, financial aid, academic support programs, and multicultural affairs. In addition, the University has made great strides in addressing the needs of students with disabilities. As one student commented, "Michigan is really stepping up to the plate in providing high quality services in this area."

An Associate Dean for Undergraduate Education reported that in cases where the School or College may be more geographically isolated from the rest of campus (e.g. School of Engineering or the Music School) students tend to identify more with their own college. Whether it is a residence hall, a school or college, students capable of identifying with a particular group on campus are able to find their own niche and place on campus, while taking advantage of the opportunities of the extensive opportunities of the larger campus. As one student explained:

Being in the Music School is definitely a much smaller community. The Music School itself is not very large and I know pretty much everyone in it. Whenever it gets overwhelming, I have the opportunity to step outside of the Music School into the much larger University setting... it's just such a large community with so many different components and it's a really great mix for me personally.... For me, I love being able to be both a part of a small community, in which I feel very comfortable and familiar with my surroundings, as well as part of a much larger University community.

### **Multicultural and Retention Initiatives**

#### Promising Practices:

- Student Academic Multicultural Initiatives (SAMI)
- Comprehensive Studies Program (CSP)
- Pathways to Student Success and Excellence (POSSE)

- Women in Science and Engineering (WISE)
- Center for Research on Teaching and Learning (CRLT)
- Special orientation program for international students

There are several programs and practices at the University of Michigan with the goal of improving retention, specifically of underrepresented students. Student Academic Multicultural Initiatives (SAMI) was created by the Office of Multicultural Initiatives (OAMI) in 1993 to provide students and student organizations with funds for involvement in academic multicultural activities and programming, consistent with the goals of OAMI.

Another program that students are enthusiastic about is The Comprehensive Studies Program (CSP). An academic support program, its target population is underrepresented students of color (90% of the students served are students of color). The nearly 2,000 students participating in CSP include a cross-section of undergraduates in every University college or school. CSP is located in Angell Hall which is an easily accessible location for students and offers a range of programs including: intensive course sections, academic advising and personalized counseling, supplemental academic instruction, The Bridge Program, and CSP Mentorship Program. Several students commented that the CSP is their “home away from home” and find the staff and services making their experience at U of M more enjoyable and helping them to be successful academically by encouraging high expectations. One student referred to the CSP faculty and staff as “a second family” and said that programs like CSP and POSSE “keep you focused.” Another student wisely noted, “You can’t make a small university large, but you can make a large university small.”

POSSE, or Pathways to Student Success and Excellence, came out of the Diverse Democracy Research Team. One of its main goals is to increase the retention and graduation rates of academically and economically disadvantaged undergraduate students using approaches that encourage collaboration within the institution. The program informs students about the importance of faculty office hours and gives them study tips and connections to tutoring services. In addition, each student is assigned a POSSE counselor who makes sure the student does not “just feel like a number.” Although POSSE is viewed as a “transitional” program geared toward first- and second-year students, many participants maintain active contact with their POSSE peers and continue to rely heavily on their counselors for advice, friendship and perspectives even as juniors and seniors. As the team interviews revealed, POSSE is making a profound impact on program participants. As one student stated, “POSSE taught me how to survive the University of Michigan.” Another one commented, “POSSE taught me how to go and talk to professors...how to ask for help...go to the writing center.”

The Women in Science and Engineering (WISE) Program “works to increase the number of women students who choose majors, advanced degrees, and careers in science, engineering, and mathematics.” In addition to WISE, the Women in Engineering Office provides students with opportunities to interact with faculty, and to promote leadership

skills and student involvement within the college. Programs and resources are offered through these offices for students in grades K-12, undergraduate, and graduate students. There is also a living-learning community, called the WISE Residence Program. The staff of the WISE-RP strives to create an academically and socially supportive community for women pursuing majors and careers in the sciences, engineering, or mathematics. The WISE-RP provides students with an opportunity to build friendships with other students in the program, to establish connections, to explore their interests, and to be encouraged in their success in the classroom.

Similar to many other programs at Michigan, the WISE Program has employed several approaches to assessing its effectiveness. Its assessment and evaluation efforts are designed to identify whether the staff is meeting its goal of enhancing the retention of women in science, engineering, and mathematics. To date, WISE-RP alone has been involved with four research projects. One of the more recent issues that has been discussed is the lack of preparation given to women students for their lives after receiving their degrees (with the exception of encouraging students to pursue faculty careers and graduate school). A focus group of alumni was convened in the 2000-2001 school year through the Engineering Career Resource Center to learn in what ways the alumni did not feel prepared after graduation (i.e. not being prepared for the corporate culture). From this focus group, the WISE Program is creating a series of workshops to prepare students for the things they should know before they get to the workplace ("The Corporate Café: Information You Will Learn at the Water Cooler").

The University also provides an extensive orientation program for all incoming international students designed to help these students learn about specific cultural issues in the United States (how people often interact, where to live, how to find transportation, etc.) as well as on building a sense of community among international students. These students are also introduced to the International Center in the Michigan Union which serves as the "buffer zone" for international students, providing them with a nurturing environment to help ease their transitions to American life and life at the University.

The extensive number of programs and resources offered at the University of Michigan help students to succeed academically and thrive socially. Continual assessment and evaluation of the institution's programs allows the University of Michigan to identify areas of improvement. An understanding of how students are being supported (or not supported), as well as the knowledge of how students are utilizing the University's resources, enables the University to provide a more supportive campus environment.

The CRLT also enhances multiculturalism by helping faculty explore innovative approaches to teaching in a multicultural setting. A prime example is the "CRLT Players," a theatre troupe which performs stimulating and provocative skits. The CRLT Multicultural Teaching and Learning Services Program also provides workshops for faculty and GSI's to help them serve the needs of the University's diverse student body. The Center, for example, consults with instructors on topics such as controversial

discussions and managing group dynamics as well as offers guidance on course development and ways to assess the effectiveness of multicultural classroom initiatives.

## FINAL THOUGHTS

The University of Michigan is an excellent public research university. Our visits helped us to better understand why it performed so well on the NSSE survey and why its graduation rates are also better than predicted compared with other similar size universities. We very much appreciate the important insights we gained about the undergraduate experience at Michigan. Of course, two multiple-day visits are not adequate to develop a comprehensive and complete understanding of all aspects of that experience. With this limitation in mind, we are confident that student engagement at the University of Michigan is in large part promoted by a strong, cohesive student-centered campus culture rooted in the University's history, traditions, and leadership that affirms and shapes student involvement in the campus community to an unusual degree.

In the same way the Interim Report was made available to students, staff, faculty, and administration, this Final Report can also be distributed across campus. We encourage readers of the Report to contact us with any feedback or questions. While we did our best to answer questions from the Interim Report, there may still be areas within the Final Report we could describe more accurately. Feedback can be e-mailed to the campus coordinator, Dr. Gretchen Weir.

Along with welcoming your comments, we hope that you will be able to find ways to use findings from this project and NSSE results. To date, the University of Michigan has used NSSE data to help "sharpen the Commission's understanding of student attitudes toward undergraduate education at the University" (p. 31). Senior administrators in the past sponsored presentations on NSSE results for Deans and Directors and referenced NSSE data on pages 31-32 of the Report of the President's Commission on the Undergraduate Experience. We were told that student engagement data will continue to be used to pursue the goals and enact the strategies recommended in the President's Commission on the Undergraduate Experience report.

Our time on campus confirmed that we made a good choice by including Michigan in the DEEP project. Many other colleges and universities will benefit from learning about Michigan's policies and practices along with those at other schools in the DEEP project. At the same time, even educationally effective institutions such as Michigan have areas in which they can improve, and some of the schools in the DEEP project are using their Reports toward this end. Here are some examples:

- One institution included its DEEP Report as a part of their campus accreditation process.
- Faculty members at another DEEP school used the report to spark dialogue at a faculty retreat and generated recommendations for curriculum improvement and development.

- Governing board members and senior administrators at a third institution intend to combine the DEEP findings with NSSE and other institutional quantitative data to ignite discussion at their annual retreat. They believe this will give them a greater understanding of their students and how to best meet their needs.
- Another school plans to use its DEEP report to focus on inclusion strategies that will assist the institution in becoming a more diverse campus community and explore whether or not its institutional mission is clear and explicit in emphasizing diversity and whether or not the campus enacts a commitment to inclusion.

Perhaps Michigan can productively adapt one or more of these applications as it continues to monitor and enhance the quality of the student experience. We would be grateful if you would pass along to us the ways the institution uses this Report or its NSSE data, now and in the future.

The data collection portion of Project DEEP has concluded. We intend to share what we have learned from Michigan and the other 19 colleges and universities in national presentations and publications over the coming months. Again, we deeply appreciate the opportunity to visit and learn about effective educational practice at the University of Michigan and trust you will be pleased with the way in which we portray your fine institution.

## Appendix A: NSSE Information

### The National Survey of Student Engagement

The National Survey of Student Engagement (NSSE) is supported by a grant from The Pew Charitable Trusts and is cosponsored by The Carnegie Foundation for the Advancement of Teaching and The Pew Forum on Undergraduate Learning. The NSSE project provides colleges and universities with valuable information about students' views of collegiate quality by annually administering a specially designed survey, *The College Student Report*.

*The Report* is a versatile, research-based tool for gathering information that will focus local and national conversations on learning-centered indicators of quality in undergraduate education. *The Report* is useful in several ways:

- institutional improvement – as a diagnostic tool to identify areas in which a school can enhance students' educational experiences and student learning.
- benchmarking instrument – establishing regional and national norms of educational practices and performance by sector.
- public accountability – documenting and improving institutional effectiveness over time.

Designed by national experts, *The College Student Report* asks undergraduate students about their college experiences – how they spend their time, what they feel they've gained from their classes, their assessment of the quality of their interactions with faculty and friends, and other important indicators. Extensive research indicates that good educational practices in the classroom and interactions with others, such as faculty and peers, are directly related to high-quality student outcomes. *The Report* focuses on these practices.

*The Report* is administered each spring to random samples of first-year students and seniors at public and private four-year colleges and universities. It can be completed either via a traditional paper questionnaire or on the World Wide Web. A demonstration of the Web version and a copy of the paper version of *The Report* are available at [www.iub.edu/~nsse](http://www.iub.edu/~nsse).

The random sampling method ensures that the results are comparable, meaningful, credible, and usable for institutional self-study and improvement efforts as well as consortium comparisons and national benchmarking. After your institution provides a student data file and customized invitation letters, NSSE handles the sampling and all aspects of the data collection including mailing surveys directly to students, collecting, checking and scoring completed surveys, and conducting follow-ups with non-respondents. Guidance for the NSSE project is provided by a national advisory board comprised of distinguished educators and a technical advisory panel made up of experts in institutional research and assessment.

## Summary of the NSSE Benchmarks of Effective Education Practice

### **Level of Academic Challenge**

Challenging intellectual and creative work is central to student learning and collegiate quality. A number of questions from NSSE's instrument, *The College Student Report*, correspond to three integral components of academic challenge. Several questions represent the nature and amount of assigned academic work, some reflect the complexity of cognitive tasks presented to students, and several others ask about the standards faculty members use to evaluate student performance. Specifically these questions are related to:

- Preparing for class (studying, reading, writing, rehearsing)
- Reading and writing
- Using higher-order thinking skills
- Working harder than students thought they could to meet an instructor's standards
- An institutional environment that emphasizes studying and academic work

### **Active and Collaborative Learning**

Students learn more when they are intensely involved in their education and have opportunities to think about and apply what they are learning in different settings. And when students collaborate with others in solving problems or mastering difficult material they acquire valuable skills that prepare them to deal with the messy, unscripted problems they will encounter daily during and after college. Survey questions that contribute to this benchmark include:

- Asking questions in class or contributing to class discussions
- Making class presentations
- Working with other students on projects during class
- Working with classmates outside-of-class to prepare class assignments
- Tutoring or teaching other students
- Participating in community-based projects as part of a regular courses
- Discussing ideas from readings or classes with others

### **Student Interactions with Faculty Members**

In general, the more contact students have with their teachers the better. Working with a professor on a research project or serving with faculty members on a college committee or community organization lets students see first-hand how experts identify and solve practical problems. Through such interactions teachers become role models, mentors, and guides for continuous, life-long learning. Questions used in this benchmark include:

- Discussing grades or assignments with an instructor
- Talking about career plans with a faculty member or advisor
- Discussing ideas from readings or classes with faculty members outside-of-class
- Working with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.
- Getting prompt feedback on academic performance
- Working with a faculty member on a research project

### **Enriching Educational Experiences**

Educationally effective colleges and universities offer many different opportunities inside and outside the classroom that complement the goals of the academic program. One of the most important is exposure to diversity, from which students learn valuable things about themselves and gain an appreciation for other cultures. Technology is increasingly being used to facilitate the learning process and – when done appropriately – can increase collaboration between peers and instructors, which actively engages students in their learning. Other valuable educational experiences include internships, community service, and senior capstone courses that provide students with opportunities to synthesize, integrate, and apply their knowledge. As a result, learning is deeper, more meaningful, and ultimately more useful because what students know becomes a part of who they are. Questions from the survey representing these kinds of experiences include:

- Talking with students with different religious beliefs, political opinions, or values
- Talking with students of a different race or ethnicity
- An institutional climate that encourages contact among students from different economic, social, and racial or ethnic backgrounds
- Using electronic technology to discuss or complete assignments
- Participating in:
  - internships or field experiences
  - community service or volunteer work
  - foreign language coursework
  - study abroad
  - independent study or self-designed major
  - co-curricular activities
  - a culminating senior experience

### **Supportive Campus Environment**

Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relations among different groups on campus. Survey questions contributing to this benchmark describe a campus environment that:

- Helps students succeed academically
- Helps students cope with non-academic responsibilities (work, family, etc.)
- Helps students thrive socially
- Promotes supportive relations between students and their peers, faculty members, and administrative staff

## **Appendix B: Team Member Biographies**

### **Anne Bost**

After completing a Bachelors of Science degree in biology at Rhodes College in Memphis, TN, Anne Bost moved to Nashville, TN. There she received a Ph.D. in Microbiology and Immunology at Vanderbilt University, with a focus on respiratory and gastrointestinal viruses. During this time her interest in investigating human diseases was sparked by collaboration with the Centers for Disease Control. She subsequently joined the Infectious Diseases research team at Eli Lilly & Company in Indianapolis, IN, where she worked for two years before deciding to combine her scientific and liberal arts backgrounds for a new application: educational research. She currently serves as a Research Fellow at the Center of Inquiry in the Liberal Arts at Wabash College, where her particular interests include identifying different ways in which student/faculty research collaborations are structured at liberal arts colleges and whether these structures are correlated with different student gains, understanding which types of out-of-class interactions with faculty are most effective for individual types of students, and investigating the role of time-intensive extracurricular activities (such as athletics or laboratory research) in the successful education of undergraduates in a liberal arts environment.

### **Larry A. Braskamp**

Larry A. Braskamp received his B.A. from Central College in Pella, Iowa and M.A. and Ph.D. from the University of Iowa. In 1967, he joined the faculty at the University of Nebraska-Lincoln as a professor in the department of Educational Psychology. At Nebraska he was awarded the Distinguished Teacher Award in 1973-74. After serving as Assistant to the Chancellor at Nebraska, he came to the University of Illinois at Urbana-Champaign (UIUC) in 1976. At UIUC he held a number of administrative positions, including Associate Vice Chancellor for Academic Affairs, Director of the Office of Instructional and Management Services and in 1987-90, Acting Dean of the College of Applied Life Studies. He was Dean of the College of Education at the University of Illinois at Chicago (UIC) from 1989 until August 1996. During the 1996-97 academic year, he was on leave from UIC to serve as the Executive Director of the Council for Higher Education Accreditation. In 1997-87 he was professor of Policy Studies in the College of Education and a Faculty Fellow in the International Center for Health Leadership Development at UIC. Currently he is the Senior Vice President for Academic Affairs at Loyola University Chicago.

### **D. Jason De Sousa**

D. Jason De Sousa serves as assistant vice president for academic affairs at Morgan State University, where, as an undergraduate, he served as the student member of the university's Board of Regents. Prior to returning to his alma mater, he was vice president for student affairs and director of the Center for Leadership & Character Development at Savannah State University. De Sousa's other administrative experiences include serving as assistant vice president for student affairs at Alabama State and director of the Center for Career Development at Tuskegee University. He is president-elect of the National

Association of Students Affairs Professionals. De Sousa earned the M.A. degree in college student personnel from Bowling Green State University and the Ed.D. degree in higher education administration from Indiana University, Bloomington.

#### **Jillian Kinzie**

Jillian Kinzie is Assistant Director of the NSSE Institute for Effective Educational Practice and Project Manager of the Documenting Effective Educational Practices (DEEP) initiative. She earned her Ph.D. in Higher Education with a minor in Women's Studies at Indiana University Bloomington. Prior to this, she held a visiting faculty appointment in the Higher Education and Student Affairs department at Indiana University, and worked as assistant dean in an interdisciplinary residential college and as an administrator in student affairs. In 2001, she was awarded a *Student Choice Award for Outstanding Faculty* at Indiana University. Kinzie has co-authored a monograph on theories of teaching and learning, and has conducted research on women in undergraduate science, retention of underrepresented students, and college choice.

#### **Shaila Mulholland**

Shaila Mulholland is a former Project Associate with the NSSE Institute, and is currently pursuing her doctorate in higher education at New York University. In addition to working with NSSE, she has worked for the Office of Student Ethics and Anti-Harassment Programs at Indiana University, completed a practicum experience with the College Student Experiences Questionnaire, and conducted an internship at Columbia University in New York working with the Office of Academic Services and Intercultural Resources. She holds a B.A. (Biology) and a M.S. (Higher Education and Student Affairs) from Indiana University.

#### **Charles C. Schroeder**

Charles C. Schroeder received his B.A. and M.A. degrees from Austin College and his Doctorate (1972) from Oregon State University. During the past 23 years, he has served as the Chief Student Affairs Officer at Mercer University, Saint Louis University, Georgia Institute of Technology, and University of Missouri-Columbia. In 2001, he became a Professor of Higher Education in the Educational Leadership and Policy Analysis department at the University of Missouri-Columbia. He has assumed various leadership roles in the American College Personnel Association serving as President in 1986 and 1993 and as Executive Editor of *About Campus: Enriching the Student Learning Experience*. Dr. Schroeder has authored over 60 articles and published a book in 1994 with Phyllis Mable entitled *Realizing the Educational Potential of Residence Halls*.