

Developmental Education in the Big Ten

November, 2001

Cathrine Wambach

General College

University of Minnesota

During the 2000-2001 legislative session, the Minnesota State Legislature made it clear that the state would not support the University of Minnesota at the levels necessary to avoid significant tuition increases. As the university faces the strong likelihood that it will become a “high tuition/high aid” university, the issues of mission and access have again become salient. If the university is going to attract students who are willing to pay high tuition to attend, it must improve its national rankings. National rankings are highly influenced by the characteristics of the freshmen cohorts and graduation rates. A recent report on graduation rates prepared for the University Council of Deans (Improving our graduation rates, 2001) suggests that: graduation rates at the U of M are lower than they should be given our student population; the U of M admits more underprepared students than does other comparable universities and that these underprepared students tend to graduate at a significantly lower rate than other students; the belief that the causes of the low rates are out of the institutions control has led to a *laisse faire* attitude about the situation; and changes in university policies and procedures could make a difference in graduation rates (Improving Our Graduation Rates, 2001).

The purpose of this report is examine public information about the extent to which Big Ten universities admit students who can be considered underqualified or underprepared, and to describe the programs and services each school has designed to retain and graduate these students. These programs will be compared to the University of Minnesota General College, which provides access to the university for underqualified students. The information should be useful for decision makers who will need to consider whether the level of the universities commitment to access for underqualified students is appropriate and whether the structures and services provided for these students are as effective as they could be.

Introduction

Nearly every research university in the United States admits students who are underqualified or underprepared for the level of academic work expected of them at these institutions. Underqualified students are those who do not meet the college's stated entrance requirements. They have high school records and standardized test scores associated with a lower probability of retention and completion of degrees. While there is no category of high school rank or standardized test score that has a zero probability of completion, colleges with more applicants than they can serve prefer to admit those with qualifications suggesting a higher probability of success. However, as Boylan (1999) suggests, there are very few institutions that can afford to only admit students with the highest probabilities of success. The vast majority of colleges admit some students who are in higher risk groups.

While the notion of whether or not a student is qualified for college entrance is based on statistical predictions about groups of students, the idea of underpreparedness has to do with assumptions about a student's level of basic academic skills and academic knowledge. While standardized test scores, especially achievement test scores such as the ACT, used for admission can also be used to estimate students' level of preparation, most institutions use specific tests to determine academic skills and content preparation. Nearly all universities use mathematics placement tests, many use writing placement tests and a few use reading tests. In mathematics, more than any other area of the curriculum, there is consensus about what skills should be mastered by the time a student reaches college. In mathematics it is possible to say that a student is underprepared because the student cannot demonstrate mastery of an identifiable set of concepts and procedures. In all other fields the definition of what beginning college students should and should not know or be able to do is much more contentious.

Because there is consensus about what is and is not college level mathematics, there is also consensus about what students who cannot demonstrate college level proficiency should do - take classes. Nearly all universities offer pre-college level mathematics courses unless they are prohibited by law from doing so. In those cases the colleges arrange for students to take pre-college level mathematics from another institution. Because there is no consensus about what is or is not college level reading, writing or content knowledge, colleges vary considerably in how they address these issues.

Besides the need to maintain enrollments, another reason why even selective universities sometimes admit students from high-risk groups is related to diversity. When colleges draw their student body from a community that includes communities of people of color, or communities that are economically disadvantaged, the colleges often feel a social responsibility to make sure that students who represent these communities have access to the college. In situations where students from these communities are believed to face barriers to attaining the qualifications desired for admission to the college, students with academic promise are often admitted from at risk categories. These students are generally targeted for academic support not available to the general student population. This group also includes student athletes who receive academic support through services supported by athletic departments.

Curricula and services that are designed to support underprepared students are described as Developmental Education. The field of Developmental Education includes professionals in mathematics, writing, reading, learning assistance and academic support. It has been estimated that 29% of first time US freshmen enroll in at least one remedial course in reading, writing or mathematics and many more are involved in academic support programs. Remedial education and academic support have been a part of American education since the 17th century, when Harvard hired tutors for students underprepared in Greek and Latin (The Institute for Higher Education Policy, 1998).

Underqualified students in the Big Ten

Table 1 summarizes information about the characteristics of the new admits at Big Ten universities for the fall of 2000. Most of this information was compiled through a project called the Common Data Set. The Common Data Set was organized by the College Board, Peterson's - a Thomson Learning Company, U.S. News & World Report, and Wintergreen/Orchard House. These publishers have persuaded colleges that providing information in a standard form helps in the process of rating programs and gives the public comparable information. Information about colleges using this data set is available to the public at the US News web site and is also posted on some university web sites.

The Common Data Set provides two ways to estimate the numbers of underqualified students admitted to a college. The first is high school rank. It seems safe to assume that students from the lower half of the high school class are underqualified for university admission. This criterion is very conservative since most selective research universities prefer to admit students with high school ranks over the 75th percentile. Students from the upper quartile are considerably more likely than other students to graduate in four to six years. All Big Ten universities admitted at least a few students from the lower half of the high school class category. At four of the schools, the University of Illinois, Urbana-Champaign (Illinois), the University of Michigan at Ann Arbor (Michigan), Northwestern University and the University of Wisconsin at Madison (Wisconsin), less than 60 students were admitted from this category. Undoubtedly special circumstances surrounded each of these admissions decisions. At the remaining seven schools, the numbers of admitted students in the lower half of the high school class was quite large ranging from about 200 at Pennsylvania State University (Penn State) to over 500 at Michigan State. According to this data, Minnesota admitted about 480 students in this category.

If you eliminate Northwestern, a private school, and Minnesota from the group the average number of students from the lower half of the high school class at the remaining Big Ten Schools is about 290.

Table 1. Characteristic of new students admitted to Big Ten universities, Fall 2000; retention and graduation rates for the Fall 1996 cohort.

School	freshman admits	% from bottom half	% students of color	% ACT <24	% SATV <500	% SATM <500	freshman retention rate	6 yr grad rate
Illinois	6466	1%	26%	15%			91%	76%
Indiana	5751	8%	9%		25%	25%	87%	68%
Iowa	3736	10%	9%	29%			83%	64%
Michigan	5149	1%	26%	13%			95%	82%
Michigan State	6979	8%	15%	47%	37%	66%	89%	66%
Minnesota	4356	11%	15%	39%			81%	51%
Northwestern	1850	1%	29%	1%	1%	2%	96%	91%
Ohio State	6056	8%	15%	41%			83%	56%

Penn State	4310	5%	11%		14%	9%	92%	80%
Purdue	6186	6%	9%	34%	25%	17%	83%	64%
Wisconsin	5164	1%	14%	14%	10%	3%	97%	75%

The second way to identify underqualified students is to look at standardized test scores. The Common Data Set reports ACT scores by intervals. Table 1 presents the percent of admitted students whose scores were in the intervals below the score of 24. The score of 24 represents approximately the 75th percentile of students who took the test in 2000. Of the nine Big Ten universities that report ACT data, only Northwestern reported fewer than 1% admits with scores below 24. Of the other eight schools, the percent of admits in the under 24 category ranges from 13% at Michigan (about 670 students) to 47% at Michigan State (about 3,280 students). At Minnesota, about 39% of admitted students are in the below 24 category (about 1700 students). If we look at the subset of schools other than Minnesota that uses the ACT for admission (Illinois, Iowa, Michigan, Michigan State, Ohio State, Purdue, and Wisconsin) the average number of students with scores below 24 is 1570. Indiana and Penn State use the SAT for admissions. An SAT score of 500 is at roughly the 50th percentile. Indiana admitted about 1440 students with SAT scores below 500, Penn State admitted about 520.

Both High School Rank and ACT data suggest that Most Big Ten universities admit significant numbers of students who are underqualified.

Table 1 also presents data on the number of freshmen who are students of color, freshman to sophomore retention rates and six-year graduation rates. The data suggests that universities that admit more students of color do not tend have lower retention and graduation rates. In fact, Northwestern, Michigan and Illinois admit more students of color than the other schools, and have the highest retention and graduation rates.

Curricula designed for underprepared students

Information on developmental courses and academic support services available at Big Ten universities was found on the universities' web sites. The web site URLs are listed in appendix A. Since URLs change, the most reliable way of updating information about course offerings is to visit the school's registration web site. Information about academic support programs can be located by doing a search using academic support as a keyword.

According to the Fiske report, published on the US News web site, all of the Big Ten schools except for Northwestern, Michigan and Purdue reported offering remedial courses in mathematics, writing, reading and study skills. While this information is true for Northwestern, it is not completely true for Michigan, which offers a remedial mathematics course for students enrolled in a summer bridge program. Michigan also offers a two-credit preparation for freshman composition course that less than 2% of the student body is recommended for. Purdue reported no remedial courses, however, the school offers remedial courses in all areas. In fact, the Purdue mathematics department web site suggests that half of Purdue freshman are in remedial courses, that is courses they took in high school. This definition of remedial is interesting since it includes students who took advanced courses such as calculus in high school that they repeated in college.

While all Big Ten Universities prefer that admitted students are prepared to take calculus as their first college mathematics class, all offer courses in pre-calculus. All of the schools except Northwestern offer at least one, pre-college level, mathematics class. Most of the schools offer two courses and make recommendations for placement based on tests. In all cases, placement is not mandatory and students select appropriate courses while consulting with their advisors. All Big Ten universities also provide tutoring in mathematics.

All Big Ten universities except for Northwestern appear to have some type of writing placement process, though it is not always clear from web sites how placement decisions are made. Some schools such as Illinois, require placement essays, while others such as Wisconsin, look at standardized test scores and high school grades. In the past, Michigan used portfolio assessment, but has abandoned the practice and has gone to self-placement. Ohio State requires placement tests in writing only for students who score below 18 on the ACT English test. The schools vary considerably in the number and type of writing courses they offer, and who offers them. While most writing courses are offered through an English department, Iowa and Illinois offer these courses through Rhetoric, and Michigan State offers them through the department of American Thought and Language. At Minnesota the courses are offered in three places, Rhetoric in the College of Agriculture, Food, and Environmental Science, English in the College of Liberal Arts, and General College. Most schools require one semester of freshman composition, while some require two semesters. Schools, such as Iowa, that require two

semesters of composition typically combine writing with speaking courses.

Schools such as Iowa and Ohio State that place students into pre-college level writing courses typically do not give graduation credit for these courses. Since it is difficult to convince students to take zero credit courses, most Big Ten universities place all freshmen into credit bearing composition courses and then provide assistance through writing centers for students who need more help to reach university standards. Every Big Ten university has a writing center that provides tutorial help for students. Many also have online tutorial services.

None of the Big Ten universities require all students to take reading tests. Also, while the Fiske Guide at the US News web site suggests that most Big Ten schools offer remediation in reading, none of the schools have remedial reading courses of the type typically found in community colleges. Probably all schools make some attempt to address reading in the writing courses. For example, Illinois, Michigan and Wisconsin explicitly mention reading skill improvement in their description of freshman writing courses. Purdue, Indiana, Ohio State and Minnesota offer college level reading and study skills courses for graduation credit. Illinois, Ohio State, Michigan State and Minnesota offer reading and study skills workshops either for no fee or a minimal fee. Northwestern, Michigan and Indiana have large freshman seminar programs where students' reading skills are observed and referrals made for those who need tutoring in reading. Penn State, Purdue, Ohio State, Indiana, and Iowa feature academic assistance centers on their college web sites. These centers support a variety of workshop and individual tutoring activities. Penn State, Purdue, Indiana, Wisconsin and Illinois also offer supplemental instruction, an academic support program tied to difficult courses rather than at risk students.

Special Programs

Most Big Ten universities have special programs for students from higher-risk groups. Some of the programs target students with lower qualifications, some target students of color or other groups of students from demographic groups that are considered at-risk for social rather than academic reasons. Most of the programs have either not been evaluated, or the evaluations have not been made public on web sites or through presentations or publications accessible through academic indexes.

The Big Ten universities differ in the way they structure programs for freshmen. Minnesota, Michigan State, Ohio State, Indiana, Purdue, and Penn State have non-degree granting units that admit freshmen. At Minnesota the unit is the General College that offers its own courses and serves higher risk students. At the other schools the units provide undecided students with academic advising and support, but do not have a separate curriculum. The second model among Big Ten universities is to admit all students to degree granting colleges but provide special support programs for higher risk students. This structure is present at Michigan, Illinois, Wisconsin and Iowa. Northwestern is the only university in the group that does not have programs to address some aspect of risk.

University of Minnesota

At Minnesota, admissions decisions are made based on the AAR, a score calculated by multiplying the ACT composite score by two and adding it to high school rank. Each freshman admitting college has a different standard for admission. A student with a high school rank below the 70th percentile and an ACT composite score below 22 would be admitted to the General College. About 900 freshmen are admitted to GC each fall. GC is a non-degree granting college that offers traditional freshman survey courses in science, social science and humanities as well as freshman composition and pre-college level mathematics. Students who successfully complete a year of coursework are eligible to transfer to a degree granting college. The GC program offers courses that are smaller and often taught with innovative pedagogy. Student progress is monitored closely and students are expected to have frequent contact with faculty and advisors. The mission of the college includes a commitment to research in developmental education. Because of this commitment, the college programs are continuously evaluated and there is a great deal of information available about the college's effectiveness.

The College of Liberal Arts (CLA) is host to a minority retention program called the Martin Luther King (MLK) program. Through this program, students receive more intense and culturally sensitive advising as well as access to special sections of CLA courses. Students of color at Minnesota can also receive social support and tutoring at the African American, American Indian, Chicano Latino and Asian/Pacific American Learning Resource Centers. The LRCs are under the direction of the Office of the Associate Vice President for Multicultural and Academic Affairs.

Michigan State University

At Michigan State most freshman are admitted to the Undergraduate University Division (UUD). This division provides academic advising and academic support for students. Students must apply for admission to a degree granting college by their junior year. Student Academic Affairs in UUD has the responsibility for monitoring the academic progress of all UUD students, providing academic advising for undecided students, and maintaining close liaisons with college advising centers and other academic support units across campus. The goals of UUD include preparing students to be academically successful, increasing retention, and decreasing the length of time it takes students to declare a major. In addition, the staff assists students in making personal and career decisions. While the UUD does not describe itself as a developmental education unit, the mission of increasing preparation and retention is consistent with developmental education.

Underqualified students at MSU are admitted to the College Achievement Admission Program (CAAP). There are three components to the program. The first is the Summer University Program Encouraging Retention (SUPER), an eight-week summer bridge program for selected CAAP freshmen. Students live on campus, take class and become familiar with advisors, faculty and academic support staff. The second component is the freshman orientation seminar that includes topics such as university and community resources, multicultural issues, academic and life skills, time and stress management techniques, test and note taking strategies, careers, and postgraduate opportunities. The third component is the Office of Supportive Services (OSS). While OSS serves some underprepared students who are not in CAAP, CAAP students receive first priority for using this program. Major emphasis is given to providing instructional support to freshmen and sophomores, who are assigned to small-group sessions that meet twice each week. In addition to discussing course content, these instructional support sessions focus on developing problem solving techniques, learning interpersonal skills, and improving study habits. It also appears that seats are held for CAAP students in some courses to facilitate the delivery of academic support.

While no data about the effectiveness of the CAAP program has been published, administrators are confident enough in the program to expand its scope. Beginning in 2001, CAAP students will be identified in 10 local community colleges. These students will receive special advising and academic support to prepare them to transfer to MSU.

MSU also has programs for students of color who are not underprepared. These programs include a one-week summer bridge program for student of color freshmen called Magic. The Office of Minority student affairs (OMSA) supports a Multicultural Center where offices for student of color campus organizations are headquartered.

Ohio State

Most freshmen at Ohio State are admitted to the University College (UVC). UVC students must transfer to a degree granting college by the beginning of their junior year. The UVC is primarily an advising and academic support unit. Support services available include tutoring and reading and study skills workshops. Special academic support services are focused on students of color, who are recruited by the Office of Minority Affairs. These freshmen are advised through the Minority Advising Program (MAPS), and received tutoring support through the Office of Retention Services. There is also a program called the Freshman Foundation Program that provides scholarships and academic support for students of color and low-income students from Ohio Appalachia.

Indiana

At the University of Indiana most students are admitted to the University Division (UD) where they stay until they have met the requirements to enter a major or program. The UD provides advising and clusters of courses called FIGs (Freshman Interest Groups). Fifty clusters were available for fall 2001. Indiana also has a freshman seminar program.

Indiana has a TRIO Special Services grant that provides additional support for 200 new students each year. The students are selected to meet TRIO guidelines, and to also represent underserved communities in Indiana. Students must be in the top half of their high school class and complete a college preparatory curriculum to be eligible for the program. There are two scholarship and social support programs at Indiana designed to attract students of color. One, the Minority Achievement Program (MAP), serves about 85 new students each year. The program provides large scholarships to students who earn good grades and academic support for challenging courses. The second, Mathematics and Science Scholarships (MASS) attempts to attract students of color to those fields. A report on diversity programs completed in

1999 called 20/20: A Vision for Achieving Equity and Excellence at UI Bloomington, called for a reorganization of the delivery of services to students of color, and a campus wide change of climate. Since then, the college has established the Office of Academic Support and Diversity. This unit is assigned the task of implementing the 20/20 report's recommendations to expand programs that serve students of color and attract increased numbers to the Bloomington campus.

Penn State

Freshmen can be admitted directly to one of Penn State's degree granting colleges, or they can enter through the Division of Undergraduate Studies (DUS). DUS was established in 1973 as a place for students who were undecided about their major. The mission of DUS is to provide academic advising and support. With over 5,000 students, DUS is Penn State's largest unit of enrollment for entering freshmen. Students may transfer to a degree granting college at any time, or may stay in the DUS for two semesters after their freshman year.

The State of Pennsylvania has two programs for underprepared students. The first is a program for children of migratory workers called the College Assistance Migrant Programs (CAMP). The second is a program for low-income students called Pennsylvania's Educational Opportunity Program - Act 101. Students who are admitted to Penn State through these programs are served by the Comprehensive Studies Program. The Comprehensive Studies Program provides developmental coursework, advising and tutoring.

Purdue

Freshman students at Purdue can be admitted to degree granting colleges or the Undergraduate Studies Program. This program is designed for students who are undecided about their majors. The focus of the program is academic advising. Very little information about the program is available on the web, however, reports on retention published by the Purdue registrar suggest that between 500 and 600 students were admitted to the program in 2000.

In 1996 Purdue received a large grant from the Lilly foundation to establish retention programs. The three major initiatives were to establish a summer bridge program, establish residential and non-residential learning communities and increase the presence of supplemental instruction available in beginning courses. There are plans to evaluate the new programs. There is a Diversity Resource Office on campus, but no retention or student support activities are connected to it.

Michigan

At Michigan all freshman are admitted directly into degree granting colleges. About 500 freshmen are served by the Comprehensive Studies Program (CSP). CSP is primarily a freshmen-sophomore program, but it also provides advising to juniors and seniors. The program serves a total of about 2000 students each year. The program targets students of color who have high potential, and are leaders in their high schools but have lower test scores. It also serves some students who have high test scores and lower high school ranks from highly competitive high schools. Students are selected by the admissions officers, however students who are not selected for the program can sign on as affiliates and make use of the program's services. The components of the program include:

1. a seven week summer bridge program, which serves about 140 students,
2. a pro-active academic advising program,
3. intensive instruction in introductory courses such as biology, chemistry and English,
4. a tutoring program,
5. freshman seminar classes.

According to the Program web site, 96% of Comp students are in good academic standing.

Illinois

All freshman students at Illinois are admitted directly to degree granting colleges. A small number of students who

are considered by Illinois to be underprepared are admitted each year through the Equal Opportunities Program. This is an advising, academic support and financial aid program with services provided by the Office of Minority Student Affairs (OMSA). Some EOP students are placed in the Transition Program. This program admits about 100 students each year who have scores of 17 or less on at least one ACT test. Students are recruited by community leaders who look for individuals who have potential, but are educationally disadvantaged. About 350 students apply each year for the 100 spaces in the program. Students in the program are admitted on some kind of provisional status and must apply to a degree granting college before they are juniors.

There are three components to the Transition Program. The first is a summer bridge program that serves about 50 students with ACT scores of 16 or less. The program includes courses and cultural activities. The second component is intensive advising. The third component is special sections of courses. Additional academic support is provided by OMSA. OMSA also is the site of the Illinois TRIO grant, which provides individual assistance for students who qualify based on low income and first generation college student status.

Wisconsin

The University of Wisconsin admits all freshmen into degree granting colleges. Some underprepared students are admitted through the Academic Advancement Program (AAP). The purpose of AAP is to provide academic, social, and campus community support to students of color and other nontraditional students. The program offers a variety of services including individualized advising, writing and reading support, priority registration, tutorial support, focused workshops, and study groups. Madison also has an eight-week summer bridge program which emphasizes college course work and preparation in math, science, and writing to help ease the transition from high school to college. According to Wisconsin planning documents, increasing minority enrollment is a high priority and more programs to establish connections between the university and K-12 schools will be added. Wisconsin has a TRIO program that provides academic support for students who are eligible. The program is located in the School of Education, but serves all TRIO students on campus.

Iowa

All freshmen at Iowa are admitted either to the College of Liberal Arts or Engineering. Students with a high school rank above the 50th percentile are admitted automatically. Students with an AAR score of 90 are also usually accepted unconditionally. Iowa recently established a position of Associate Provost for Undergraduate Education. The purpose of this position is to bring more focus to issues related to undergraduate retention and graduation. One of the initiatives of the office has been to increase the number of courses in common, a program of linked courses available to freshmen.

Students who are considered underprepared are served through the IowaLink Program. Students admitted to the program generally have some outstanding talent in athletics or the arts. IowaLink is an extended academic transition between high school and college that spans two semesters and is delivered through regular University courses. It emphasizes the fundamentals of learning as well as college-level competency in the areas of reading, writing, and mathematics. The program provides diagnostic assessment in reading, writing, mathematics, foreign language, and study skills, as well as an educational program to develop the academic skills needed to earn a college degree within five years. In addition, the program offers workshops, tutorials, counseling sessions, and other activities designed to support success. IowaLink students begin their studies in the fall semester as regularly admitted students in the College of Liberal Arts. Generally, they enroll for 12 semester hours (the minimum full-time student load) during the first semester. A recent report found that, as of May 1998, the program has maintained at least an 80% retention rate for each of the first three student cohorts. Students in each cohort have completed enough credit hours per year to graduate in 4 1/2 to 5 years, an improvement on the 5- to 6-year graduation rate originally anticipated by the program.

Iowa also has a Trio Special Support Services program which offers academic, financial, and personal counseling and advocacy to TRIO eligible students. The program includes an orientation program at the beginning of each semester to provide information on University policies, address student concerns, and familiarize students with SSS services.

Northwestern

Northwestern admits all freshmen to degree granting colleges. Outside of tutoring for student athletes, which is provided by the Academic Services unit of the Athletic Department, and the writing center, there is not much evidence of academic support on campus. Two student organizations, the African American Student Affairs and Hispanic/ Latino Student

Services, focus on social and academic support for students of color.

Conclusions

While the Big Ten universities vary in many ways, all except Northwestern acknowledge that some students need additional assistance in order to be successful. The University of Minnesota is distinct from the other Big Ten universities in one major way. By supporting an undergraduate college whose mission is to serve underprepared students, Minnesota makes its commitment to access salient. Other Big Ten schools are less overt about their commitment to serving the underprepared. Locating both curriculum and services for underprepared students in a distinct college has both costs and benefits. One of the benefits has been research on the outcomes of the program. While academic support programs for underprepared students at other Big Ten schools have been in place for decades or longer, public information about their success is not readily available. It is impossible to judge the effectiveness of alternatives to the General College program without this information.

It is also important to note, that the success of programs for underprepared students must be viewed in the larger context of institutional patterns for retention and graduation rates. The variables that influence the rate at which well prepared students graduate probably also influence the graduation rates for less prepared students. The success of a program cannot be judged apart from the success of the larger institution.

References

Boylan, H. (1999). Harvard Symposium 2000: Developmental education: Demographics, outcomes, and activities. *Journal of Developmental Education*, 23(2), 2-4, 6, 8.

Fiske, E. B. (2001). The Fiske guide to colleges. US News. Retrieved August 2001 from the World Wide Web: <http://www.usnews.com/usnews/edu/college/cofiske.htm>

Improving our graduation rates: A report of the graduation and retention subcommittee of the Council of Undergraduate Deans. (2001). Minneapolis: University of Minnesota.

The Institute for Higher Education Policy (December, 1998). College remediation: What it is, what it costs, what's at stake. Washington: author.

Appendix A

Web addresses for institutional fact books for Big Ten universities as of August, 2001

Illinois: <http://www.pb.uiillinois.edu/Internet/html/publications.html> University of Illinois Board of Trustees Factbook

Indiana: <http://factbook.indiana.edu/fbook00/fbindx00.html> Indiana University Fact Book 2000

Iowa: <http://www.uiowa.edu/registrar/pro00.pdf> A Profile of Students Enrolled at the University of Iowa

Michigan: <http://www.umich.edu/%7Eoapainfo/> U of Michigan Campus Factbook

Michigan State: <http://opbweb.opb.msu.edu/>

Minnesota: <http://www.irr.umn.edu/> U of M Twin Cities Campus Factbook/Survey Response

Northwestern: <http://www.northwestern.edu/factbook/>

Ohio State: http://www-afa.adm.ohio-state.edu/OEM/docs/OSUcads9900_Contents.htm

Penn State: www.budget.psu.edu/cds/ Penn state

Purdue: www.adpc.purdue.edu/DataDigest and www.adpc.Purdue.edu/IDN/CDS

Wisconsin: http://wiscinfo.doit.wisc.edu/obpa/CDS_USNEWS/CDS2000-01.pdf University of Wisconsin