

#### INTRODUCTION

# A NEW ERA ON CAMPUS

### America's colleges and universities are about to enter an age of limits

n a thoughtful speech at a Harvard educational conference last June, Donald Stewart, president of the College Board-a consortium of more than 2,600 institutions that provides a range of college-admissions services-enumerated the major problems confronting his audience of college and university officials. Stewart cataloged a cross section of current campus ills, from minority recruitment to athletic eligibility to the quality of teaching. Yet, nowhere in his

compendium did Stewart touch on the single problem most troubling to those outside the Ivy Tower: The soaring cost of a college education.

That so prominent a member of the educational establishment would omit ballooning costs from his list of troubles was ironic. Shortly after Stewart's speech, his own College Board reported that the latest tuition increases---an average of 9 percent at the nation's private colleges-had outpaced the rise in the overall cost of living by

3.8 percentage points, the ninth consecutive year they had outrun inflation.

The nation's elite private colleges, which rarely lack for applicants whatever the tuition, responded with a familiar lament. They explained that the hefty increases in tuition and fees were caused by escalating energy and plant and equipment expenses. In addition, higher education, by its very nature, is a laborintensive enterprise. Unlike the assembly line, productivity gains are hard to

come by in the classroom. What's more, tuition payments cover only a fraction of overall college costs.

Yet, such explanations

and rationalizations do little to ease the resentment of those who write the tuition checks or are burdened for years repaying student loans. For many, the resentment turned to rancor last summer when the Justice Department announced it was launching a preliminary antitrust investigation into whether nearly 30 of America's most prominent educational institutions, including Harvard, Amherst, Williams and the University of Chicago, practiced collusion in



Student rite. All booked up

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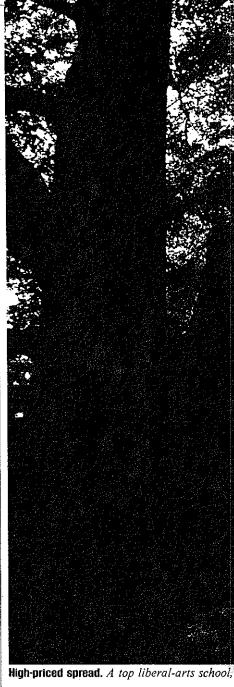
setting tuition and levels of student aid. The colleges denied the charges, but said they would cooperate with the probe. The panjandrums of

higher education may dismiss the investigation as simple mischief wrought by campus outsiders. But they cannot ignore the respected voices from within the campus asking whether colleges are mismanaging their financial resources and misconceiving their educational goals.

Few leaders in higher education have a better

perspective on this problem than does Harold Shapiro, who recently moved from the presidency of the University of Michigan, one of the nation's largest public universities, to Princeton, one of its most venerable private institutions. In an interview with U.S. News, Shapiro set the tone for what is certain to become a dominant educational issue for the '90s: "We all have to be much more selective about what we do and what we purport to do if we have any hope of keeping the

costs of education within the bounds that can reasonably be afforded by society." More pointedly, Arnold R. Weber, president of Northwestern



University, suggests that academic vanity may be at the root of surging campus costs. "There is," says Weber, "an irre-sistible tendency to develop a full line of offerings, often augmented by parallel research efforts, so that [the college] can gain an elusive prestige and stir the pride of alumni and local legislators.'

For their fellow college presidents, the message from Shapiro and Weber should be as clear as one of those legendary October afternoons on a New England campus. But if their warnings need concrete reinforcement, they could point to the example of Steven Muller, former president of Baltimore's illustrious Johns Hopkins University. Muller resigned after his overly ambitious ex-



Vassar College in Poughkeepsie, N.Y., offers students small classes, dedicated professors and tuition bills topping \$13,000 a year

pansion program landed Hopkins's School of Arts and Sciences deep in debt. As a result, the university must dip into its \$27 million reserve fund and postpone construction of a new chemistry building as well as long-needed campus renovations.

Clearly, an expansive—and expensive —era is slowly ending. Colleges that price services on a cost-plus basis may soon lose much of their freedom to set fees. Confronted by a burgeoning consumer revolt that threatens to limit tuition revenues, it is likely these schools will be forced to impose far more realistic cost controls. Deans and department heads will be required to set firmer priorities for proposed expenditures. In the end, bidding for limited resources will intensify, and colleges will have to make ever more-Draconian decisions about what is truly essential to their mission. As Weber and Shapiro suggest, higher education is entering an age of limits.

**Strictly business.** Inevitably, too, the cycle of diminishing faculty productivity that has contributed to rising costs during the past two decades will also come to a halt. Fewer colleges will be able to afford to lure professorial "stars" from other campuses by dangling offers of fatter paychecks and fewer classroomteaching hours. And the norm for faculty teaching time will likely creep upward. In short, the nation's colleges and universities, some of which have an

nual operating budgets in the hundreds of millions, will have to operate more like the business enterprises they really are than the scholarly societies most would like to remain.

Underscoring the commercial nature of today's academic institutions is a suit filed earlier this year by a disgruntled graduate of Goddard College, a small liberal-arts institution in Vermont. Contending that Goddard had failed to teach her the skills necessary for her to get a job in her chosen field of early-childhood development, she sued the college under the state's consumer-fraud statute. The case still is pending.

The refocusing of higher education's financial priorities comes at a time when

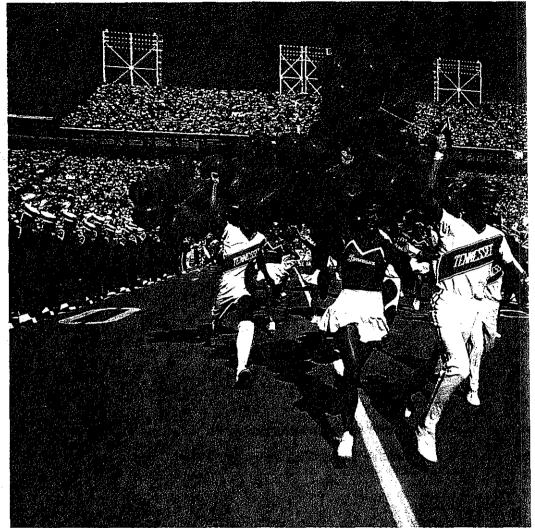
colleges are confronting other changes that are reshaping the curriculum, the student body and the very tempo of life on campus. Increasingly, students are older, attend school part time and have more obligations off campus—all characteristics that tend to diminish the sense of community that traditionally has distinguished American colleges and universities from their counterparts abroad.

So significant has been the change in the campus environment that the Carnegie Foundation for the Advancement of Teaching recently launched a study of the new campus environment. As Ernest L. Boyer, the Carnegie president and former U.S. Commissioner of Education, has pointed out: "There is a renewed urgency in the question of how, in our fragmented world, we can build trust and community."

**Campus crises.** The society within the campus is becoming ever more entwined with the problems of the larger society beyond its campus gates. Alcohol, drugs and racism, for example, are prime concerns for deans at almost every college across the country. The situation has grown so serious that when school began this fall, 27 of the nation's 59 national fraternities—tradi-

tionally the center of freewheeling campus social life—adopted a code of conduct strictly limiting the use of alcohol at fraternity functions. Skidmore College in Saratoga Springs, N.Y., went even further and established a "substance free" floor in one of its dormitories for students who pledge to say "No." The obvious question: What about Skidmore's other dorms?

Racial problems on campus are even more vexing. A case in point is the University of Massachusetts at Amherst, which in response to increasing racial unrest among its student body, this fall began mounted-police patrols on campus. Racial bigotry also has led schools such as Stanford, Emory and the universities of Michigan and Wisconsin to take steps toward banning overtly racist statements and other offensive expressions. But in trying to protect the sensitivities of some by limiting the free speech of others, these schools may be creating constitutional and ethical dilemmas that only the courts can resolve. Yet of all the troubling aspects of stu-



Troubled tradition. The University of Tennessee strikes up the band at a home game. Intercollegiate

dent life on America's major campuses, few are as nagging, widespread or involve as much money as the controversy over the proper role of intercollegiate sports. A recent federal study revealed that at a third of American colleges and universities with major men's basketball programs, not even 1 player in 5 ever graduates. For football players the results were only slightly better.

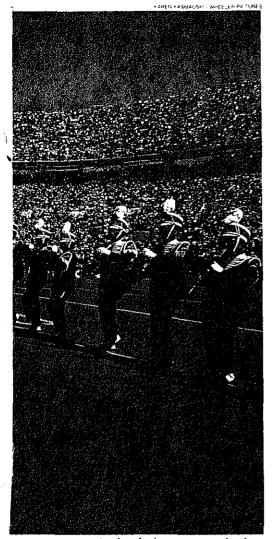
The news that so many athletes leave college without a degree does nothing to improve an image of college sports already tarnished by scandals ranging from allegations that University of Iowa professors smoothed the academic way for underachieving athletes to questionable recruiting practices at North Carolina State and to criminal acts by team members at the University of Oklahoma.

In a survey of 2,348 college presidents, deans and admissions officers conducted by U.S. News, 86 percent agreed that "the pressures for athletic success and for financial rewards in intercollegiate sports today have reached a level where they are interfering with the prime educational mission of America's colleges and universities." Although 95 percent of those surveyed said that athletic recruits should have to meet the same admissions standards as other students, 71 percent agreed that athletes were being channeled into less demanding courses. And almost 1 of every 4 respondents admitted "the issue of separate admission standards for athletes



■ Reprints of this Special Report (minimum order, five copies at 50 cents each) are available by writing to Best Colleges, U.S.News & Worla Report, 2400 N Street, N.W. Washington, D.C. 20037-1196. Special rates will apply to bulk orders.

■ For copies of the 1990 guide to *America's Best Colleges*, send \$7.95 (which includes postage and handling) to Sisk Fulfillment Services, P.O. Box 470, Federalsburg, Md. 21632. Along with all the



sports are a major headache at many schools

had created conflict or controversy" at their institutions. However, by large majorities the college officials rejected the notions that athletes were involved more than were other students with illicit drugs and campus crime and violence.

Perhaps Northwestern's Weber summed up the dangers posed by the potentially corrupting influences of high-pressure college sports when he

stories in this Special Report, the 232-page guidebook contains an easy-to-use directory that includes the latest data on SAT scores, the admissions process, tuition and financial aid, and other vital statistics for 1,373 colleges and universities. The book also includes advice on how to finance a college education, plus application forms for College Counsel, a personalized college-and-scholarship search service, which is offering its computerized advice at special discounts to readers of U.S. News. The applications may also be obtained by writing to College Counsel at 220 North Main Street, Natick, Mass. 01769.





The big day. Only half of freshmen make it this far

'We all have to be more selective about what we do . . . if we have any hope of keeping the costs of education within bounds'

Harold Shapiro president, Princeton University

said, "The troubles of intercollegiate athletics today are deeper than in the past and diminish the credibility and moral standing of higher education."

Cynics would say it's easy for the president of Northwestern to take a critical stand on big-time sports because his school does so poorly in most of them— Northwestern in this decade has never ranked higher than seventh in Big Ten football. Still, for the majority of the approximately 2.3 million new students who will enroll as freshmen this year, the value of a college diploma is measured by standards other than touchdowns. And as the story on page 66 demonstrates, by these standards Northwestern measures up very well, indeed.

All told, this year's U.S. News guide to America's best colleges measures the quality of 1,294 colleges and universities in five areas: Student selectivity, faculty quality, academic reputation, financial resources and retention. They are gauged by a formula (page 58) combining objective data and the subjective judgments of the 2,348 college presidents, deans and admissions officers who participated in this year's survey on academic excellence.

The right match. No guide, especially one dealing with the many complexities involved in attempting to identify the "best" schools, can provide more than a few significant indications of that elusive quality, academic excellence. Rankings are not absolute measures of one school's superiority over another; indeed, the statistical difference between schools several places apart often is small. Moreover, the schools ranked among the "best" are not necessarily the best for everyone, as shown by the growing popularity of

computerized college-search services that match a student's ambitions, talents and academic performance with colleges that fit his or her profile.

In a new feature, this Special Report lists 32 schools that survey respondents rated as "up-and-comers." Also for the first time, the reputational survey includes smaller and lesser-known schools as well as the nation's more selective institutions. This issue of U.S. News also spotlights the nation's 1,211 two-year colleges and focuses on some of the most innovative among them (page 82). Finally, a new section has been added dealing with the so-called specialized colleges, ranging from the Rhode Island School of Design and New York's Cooper Union to the New Mexico Institute of Mining and Technology and to the five U.S. service academies (page 80).

As the pool of high-school graduates continues to shrink each year, competition for top college-bound students is becoming so fierce that no college is exempt from Madison Avenue-style marketing. Even Williams, ranked third in the elite category of national liberal-arts colleges, and considered one of the most photogenic of all campuses, felt compelled to bring in truckloads of snow to provide what it considered the proper background for publicity photos. And if Williams is not immune from trying to snow prospective students, then what school is?

Still, some educators see a silver lining in all the hoopla that is a byproduct of the effort to recruit the best and the brightest. "The genius of our system of higher education," says Stanley O. Ikenberry, president of the University of Illinois, "is its diversity, its pluralism and, frankly, the strong competition within it." Ultimately, he adds, "it is a system designed to capture all the talent of the country."

### METHODOLOGY

## WHAT'S BEHIND THE RANKINGS

#### Top students, a first-class faculty and a sterling reputation are just a few of the things America's best colleges are made of

hat makes a good college? The question seems deceptively simple. However, for the millions of students and parents who each year hope to choose "the right school" from a seemingly endless list of colleges and universities, the answer rarely is simple.

Higher education in America comes in an infinite variety of styles, sizes and, in effect, prices. Yet, even the experts have trouble agreeing on a single formula to help consumers measure the value of what they're getting for their thousands—and tens of thousands—of tuition dollars. In interviews with dozens of authorities, from high school guidance counselors to Ivy League administrators, U.S. News learned that most experts do, in fact, agree on the key ingredients of academic excellence:

• A strong faculty that is both dedicated to classroom teaching and is readily accessible to students.

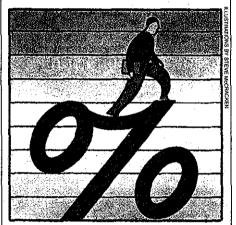
 A student body composed of bright, inquisitive and energetic scholars, who are genuinely interested in learning.
An administration that provides the necessary financial support and institutional leadership.

Based upon these fundamentals, U.S. News has developed, and refined, its system for ranking and categorizing the country's four-year schools in this, the third edition of America's Best Colleges. While U.S. News recognizes there is no definitive formula for determining what makes a good college, the rankings on the following pages can provide important and meaningful indicators of academic quality. The goal is not simply to construct listings of America's best colleges, but to offer students and parents useful clues for discovering which schools among the hundreds of highquality colleges and universities throughout the nation best suit their individual educational and financial needs.

To get maximum value from America's Best Colleges, it is important to understand how U.S. News devises its system of rankings and categories. First, the 1,373 four-year colleges and universities represented in this book were categorized by size, breadth of programs, types of degrees offered and, in the case of the numerous smaller schools, by region. Institutions with fewer than 200 students were not ranked at all. Then, based largely upon objective data provided by the colleges themselves, schools were ranked in five key academic areas: Quality of the student body as determined by the school's selectivity; strength of faculty; financial resources; ability to retain and graduate students, and reputation for academic excellence. With the exception of reputation, which was based on the exclu-

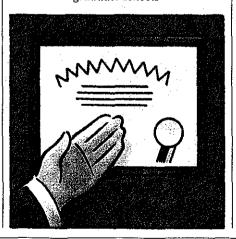
#### SELECTIVITY

The higher the caliber of the student body, the richer the educational experience in the classroom and on campus



#### REPUTATION

A well-respected name on a diploma can open doors in the working world and at graduate schools



sive U.S. News annual survey of college presidents and deans, each criterion was determined by two or more subattributes.

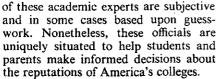
Student selectivity, for example, was based on rejection rates-the reciprocal of each school's acceptance rate-for applicants in the 1988-89 school year; average combined scores on the Scholastic Aptitude Test or American College Testing Assessment, and high-school class standings for entering freshmen who enrolled in the 1988-89 school year. For the top categories in the survey, the national universities and national liberalarts colleges, class standing was measured by the percentage of entering freshmen finishing in the top 10 percent of their high-school classes. For the regional colleges and liberal-arts schools, standing was determined by the percentage of freshmen graduating in the top 25 percent of their high-school classes.

To measure instructional quality, the most difficult of all the attributes to determine quantitatively, U.S. News used three subfactors: 1988-89 full-time-student to full-time-faculty ratios; percentage of 1988-89 full-time faculty with doctorates, and the per-student instructional budgets, which reflect faculty salaries during the 1987-88 academic year.

Financial resources were measured by a school's per-student endowment income during fiscal 1988, its per-student library budget and, where applicable, total per-student funding from state and local governments. In some cases, financial data from fiscal 1987 were used where 1988 figures were not available.

Retention rankings were based on the average percentage of freshmen in the classes of 1985-87 who became sophomores at that institution and the average percentage of freshmen in the entering classes of 1981, 1982 and 1983 who graduated with bachelor's degrees within five years. Data for less than a three-year period were used when schools did not supply complete information.

Academic reputation, an elusive but vital component of quality, was determined by the fifth U.S. News survey of 3,879 college presidents, academic deans and admissions officers at 1,294 schools. The response rate was a record 60 percent and in no category was lower than 54 percent. Clearly, the judgments even



Respondents were asked to place colleges in the same category as their own institutions into quartiles based on reputation for academic excellence. The results were tallied on the basis of four points for each vote in the top quartile, three for the second, two for the third and one for the fourth or lowest quartile. "Don't know's," where officials knew too little about a school to make a subjective judgment, were counted as zero.

To determine overall rankings, scores for each of the five key attributes-selectivity, reputation, faculty quality, retention and resources-were converted to percentiles. This was done by assigning the highest raw score a 100-percent value and determining all the other scores as a percentage of that top score. Each college was compared only with the other schools in its category. Because most experts believe student selectivity, instructional quality and academic reputation are the major components of what makes a good college, percentile scores for these attributes were weighted twice as heavily in the overall totals as were those for student retention rates and financial resources. Finally, the weighted percentage scores for each school were individually totaled and compared with the scores of all other colleges in a given category to get the ranking.

The tables listing the top schools in each category on pages 66 through 21 show a college's overall ranking. They also include a school's total score, converted into a percentile, with the highest total given 100 percent. The scores of the other schools in each category are shown as a percentage of the score of the top school. The tables also show each college's numbered rankings for each of the five key attributes as compared with all the other schools in its category. Note: A school's overall rank is not based upon the total of its numbered rankings in the five attributes.

In order to rank colleges of similar size and purpose, schools were divided into four broad categories, based largely on guidelines established by the Carnegie Foundation for the Advancement of Teaching. However, in an effort to simplify the groupings, U.S. News combined some categories and subdivided others into regional groupings. This year a new category of institutions specializing in education for business, engineering and the arts was added. Because of the changes both in methodology and in the categories, the rankings for 1989 should not be compared with those of past years.

U.S.NEWS & WORLD REPORT, Oct. 16, 1989

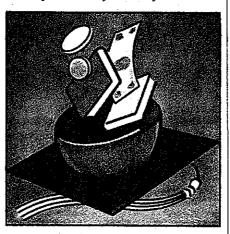
### FACULTY

Top-quality instruction depends on a low student-teacher ratio. a highly educated faculty and an ample budget



#### RESOURCES

Endowment income, library budgets and government funding are good measures of a school's financial fitness



**RETENTION** A school's ability to see freshmen through to graduation says a lot about its commitment to students



Here is how the categories were defined: • National universities: One of two top categories, this group is made up of 204 schools that offer a full range of baccalaureate programs, give a high priority to research and award the most Ph.D.'s each year.

• National liberal-arts colleges: The 141 schools in this other leading category are the most selective liberal-arts colleges in the country. They also award more than half their degrees in the liberal arts.

■ Regional colleges and universities: Each of these 562 institutions, which range in size from San Diego State with more than 35,000 students to tiny Ottawa University in Kansas with an enrollment of 528, generally awards more than half its bachelor's degrees in two or more occupational or professional disciplines, such as engineering and business. Many also offer graduate degrees. The schools have been divided into four geographical regions—North, South, Midwest and West—as illustrated on page 72.

Regional liberal-arts colleges: Typically less selective than their counterparts in the national liberal-arts category, and smaller than those in the regional college and university category, these 384 primarily undergraduate colleges typically award more than half their bachelor's degrees in the arts and sciences. The grouping, subdivided by region, also includes some vocational-oriented schools that were too small to be considered in the regional college and university category. Specialized Institutions: This category, appearing for the first time in the U.S. News study, consists of 82 accredited schools that award more than half their bachelor's degrees in business, engineering or the arts. Also included are the five national-service academies: Army, Navy, Air Force, Coast Guard and Merchant Marine. Engineering and business schools were rated on the basis of their scores in four of the five academic attributes but, because of their special nature, were not included in this year's reputation survey. Art schools and the national-service academies were not

The objective data used by U.S. News were supplied chiefly by College Counsel, Inc., of Natick, Mass., a college-advisory firm that maintains one of the most complete databases of statistics relating to higher education. The data were collected during the fall of 1988 and early 1989. U.S. News also obtained academic information from the colleges themselves and from the U. S. Department of Education.

ranked.

The reputational survey was conducted and compiled for U.S. News during the spring and summer of 1989 by the Washington, D. C., office of Market Facts, Inc., one of the nation's largest market and survey-research firms.

**NATIONAL UNIVERSITIES** 

# THE BEST BIG SCHOOLS

These giants are home to many of the nation's best and brightest students and faculty

They are true educational conglomerates, "multiversities" that school more students, house more books, perform more research, grant more degrees and influence the thinking of more people in more ways than virtually any of the nation's other institutions. From the venerable, ivy-twined campuses of the East to their richly endowed rivals in the West and South to the vibrant public institutions that have flowered in every corner of the academic landscape, the 204 schools classified as national universities constitute the leading edge of American higher education.

Certainly, Yale, tops in its class for the second year in a row in the U.S. News survey of "America's Best Colleges," is for many the very model of what a national university can offer its students. Long preeminent in the arts and humanities-its history, English and economics departments enjoy wide scholarly reputations-Yale last year unveiled a plan to bolster the science programs among the 60 majors offered to its 5,132 undergraduates. Beginning this year, for instance, freshmen are required to take two natural-science courses, regardless of their choice of future major. The aim, explains Joseph Gordon, Yale's dean of undergraduate studies, is not only to entice more students into eventually becoming science majors but to increase the science literacy of all Yale students. "They may not all be experts," says Gordon, "but they need to understand the scientific method and reasoning, whether it be applied to acid rain, abortion or space explorations."

Spreading the word. Even before students arrive on the historic campus in downtown New Haven, Conn., they are proselytized on behalf of Yale's science and engineering programs. Faculty members in these programs are encouraged to contact promising incoming students to extol the virtues of their disciplines. In addition, along with the catalogs and pictorial campus guides that go out to all applicants, prospective science students receive pamphlets promoting science and engineering as courses of study and outlining the diversity of potential careers that await graduates in those fields. As a result, enroll-

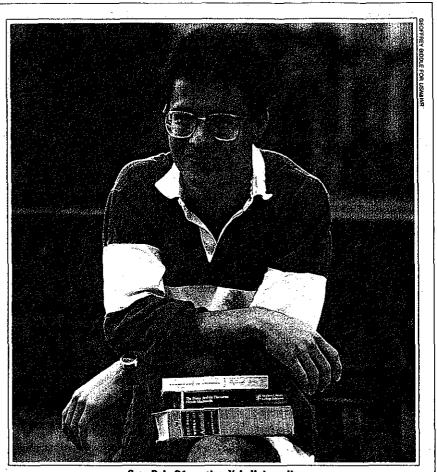
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How to head the lable, hank is based on a school's total percentile score when measured in two attribute areas: Student selectivity, reputation for academic excellence, faculty quality; resources and retention, with the first three attributes counting twice as heavily as the last two. Each attribute's percentile score is weighted, then totaled and finally ranked. "Overall score" represents a school's total score converted to a percentile, with the highest score equal to 100 percent. The values that appear for individual attributes represent a school's ranking in that attribute category relative to all other schools in the school's grouping. A national university with a selectivity ranking of 14, for example, is the 14th most selective school in its category of 204 national universities. For a more detailed explanation of individual attributes and methodology, please see page 58. Note: The 204 national universities offer a full range of baccalaureate programs, are the leading granters of doctoral degrees and perform extensive campus-based research.

ment in the programs has increased by about 4 percent since the fall of 1987.

To attract minority and women students into scientific research and keep them there once they have enrolled, Yale recently began a special "mentoring" program in which freshmen and sophomores who have expressed an interest in science are paired with faculty members who counsel them on everything from career plans to reaction. "Nationally, minority stude" are underrepresented in gradue wols, especially in science on explains. "Our hope is any of these people will go on to

ach science, rather than go directly into the medical profession or into private business."



Greg Pak, 21, senior, Yale University Hometown: Dallas, Tex.; Major: Political science Personal file: Freshman counselor; disc jockey at Yale's WYBC radio

Aspiration: I want to work in either politics or education, but I'm not sure in what capacity. I'll probably end up going to a public policy school.

Facuity: I've taken 10 classes each year and had only two professors I didn't like. Most of the professors are very accessible. Yale sponsors lots of visiting faculty, including judges, former congressmen and others, and that gives students an opportunity to be exposed

to different experiences and points of view.

Student body: Students at Yale are excited about their studies. They also are very diverse and very liberal. Of this year's freshman class, 25 percent identified themselves as minorities.

Adjustment: When I got here, seeing New Haven, Conn., marked the first time I had seen beggars in the streets. Crime is also an issue, and counselors emphasis the importance of safety. Yale is the ivory tower, but at the same time you're aware of a lot of things you would not be aware of elsewhere.

#### **College life:** The

residential system at Yale, where freshmen are divided into 12 colleges, gives students a feeling of support and belonging. It's one of the school's greatest strengths; you get a sense of community.

With similar goals in mind, Duke University, No. 5 in this year's U.S. News study, has just begun a \$70 million expansion of science classroom, laboratory and office space at its large and picturesque Gothic campus in Durham, North Carolina. Besides providing much-needed research space for the faculty, Duke hopes its new facilities will also help it attract student talent as well. Like Yale, Duke is concerned that so few students are selecting careers either as science teachers or researchers. Nationwide, only 15.3 percent of entering freshmen last year said they planned to major in the sciences, compared with 18.1 percent in 1980 and 21.3 percent in 1966, according to the American Council on Education. "There's a real concern that we will one day have the science machinery with no one to run it," says Richard White, dean of arts and sciences, who hopes that Duke's location at one of the vertices of North Carolina's Research Triangle will provide still another attraction for students oriented toward the sciences.

But among Duke's nearly 6,000 undergraduate students, even those majoring in the arts or humanities are given strong exposure to the sciences. For example, in a course in social science, when students delve into the problem of pollution, they are led through the rudiments of chemistry, biology and geology in order to better understand its impact on the environment. "Students with too narrowly focused degrees are not going to serve society, the world or themselves properly," says White.

Famed faculty. When it comes to science education, few institutions anywhere are the equal of the California Institute of Technology in Pasadena, fourth in the national university category. When Caltech boasts about its close student-faculty relations, it means "close." The school maintains a 7-1 ratio of students to faculty, a proportion virtually unheard of or unaffordable at most major national universities. And the Caltech faculty is no ordinary collection of newly minted Ph.D.'s but a starstudded group of world-famous researchers in chemistry, physics, engineering, astronomy and other fields. At last count, professors at Caltech had collected 21 Nobel prizes.

Even freshmen have opportunities to participate in major research projects at the institute's unsurpassed scientific facilities, including the renowned Jet Propulsion Laboratory, center for so many of NASA's unmanned space experiments. One Caltech undergrad, 19-yearold Celina Mikolajczak of San Diego, working at the Jet Propulsion Lab's Palomar Observatory, recently made a major astronomical discovery when she located a supernova in a galaxy 137 million light years from Earth. The giant star showed up in photographs taken through an 18-inch telescope. "My first thought was that it was a speck of dust," says Mikolajczak. But when it showed up on a backup film as well, "I began to think I'd really found something." Her discovery later was confirmed by senior scientists.

Some 90 percent of Caltech's entering freshmen ranked in the top 10 percent of their high-school class. Most seek degrees in electrical engineering, applied sciences or physics, though the school offers programs in a variety of fields, including history and literature. And a drive to recruit more female students

like Mikolajczak has begun to pay off. Among this fall's 218 freshmen were 63 women, the most since Cal Tech went coed in 1970.

With females making up 39 percent of its undergraduates, Princeton University, No. 2 in the U.S. News survey for the second year in a row, has had great success in attracting women who can meet its lofty entrance standards. Last year, Princeton accepted only 2,105 of the 12,606 men and women who applied for admission, a 1-in-6 ratio, low even for the Ivy League. And in the crucial area of financial resources, Princeton, with an endowment income of \$12,800 for each of its nearly 6,200 students, outranks all other national universities.

Offering fewer professional and graduate programs than most of its Ivy rivals—it has neither a law nor a medical school—Princeton retains much of the feeling of the traditional liberal-arts college. Yet it continues to innovate. This year, for instance, Princeton began social science seminars in which seniors from a variety of majors jointly examine issues—such as race relations and corporate leadership—that cross traditional boundaries. The aim: to prepare graduates for the broader questions they will face once they leave Princeton's gray, Gothic campus in New Jersey.

Harvard, the third-ranking national university, accepts about the same percentage of its applicants as Princeton. However, when it comes to what admissions officers call "yield," the share of accepted students who eventually enroll, Harvard's 73 percent is tops in its category. The other numbers for the university, which since a 1970 merger also includes Radcliffe College, are even more impressive. Harvard claims among its graduates six Presidents, 29 Nobel laureates and 27 Pulitzer Prize winners, statistics that add up to a worldwide reputation for America's oldest university.

But even Harvard is not immune to the problem nagging academic administrators everywhere: The underrepresentation of minorities on its faculty. Because fewer than 4 percent of the 11,229 teaching posts are now held by minorities, this year the university started a campaign to attract more black, Hispanic and American Indian faculty members to its Cambridge, Mass., campus. Faculty committees have called for a 10 percent increase in minority staffers by next fall, and Harvard hopes to meet that goal with the aid of a \$350,000 foundation grant to recruit minority undergraduates to college teaching careers. The hope is that the words inscribed over one of the entrances to the Harvard Yard, "Enter to grow in wisdom," will become an invitation to a rainbow of future scholars and teachers. 

## YALE'S MOST FAMOUS GRADUATE

The President discusses his college education and how he chose his alma mater

June, 1948, n George Herbert Walker Bush stood in Woolsey Hall at Yale University in New Haven and was awarded his bachelor's degree in economics. The young Navy veteran had become one of the stars of his class, winning a Phi Beta Kappa key, serving as captain of the baseball team and being tapped for Skull and Bones, Yale's venerable secret society. As it turned out, Yale, the topranked national university in this year's U.S. News survey, was the perfect choice for

the man who went on to become America's 41st President. In this interview Bush talks about how he picked his alma mater.

#### Choosing a college is one of the most critical decisions a young person can make. Looking back on your decision, why did you choose to go to Yale?

My family had a major Yale tradition, many of my uncles, an older brother and my dad having gone there. Many of my friends were attending, too.

### Did you think of going to any other colleges?

I had given some thought in my teens to trying for the U.S. Naval Academy.

#### How do you think you would do if you had to take an SAT to qualify for college today?

I'd worry about that. I'm a little rusty on algebra and that's just the start of it.

What experience, besides playing first base, did Yale give you that



First baseman. Bush

proved of greatest value to you in business, politics and now in the Oval Office?

Exposure to great professors. A post war climate, in which many of the students were vets, made for a serious side to college that might not always be in the equation. Learning to work hard, making friends that care, the joy of being married and sports all added up to a very special experience that has lasted me all my life. The bottom line: I learned teamwork through sports. made lasting friend-

ships and learned to work hard-to set a goal and achieve it.

### Of all the professors with whom you came in contact at Yale, whom do you remember most vividly and why?

I remember Dr. Northrop, who taught logic, and Dr. Saxon, who taught economics, most vividly because they were good teachers and I liked the discipline of their subjects. I remember Dr. Phillips, who taught the history of art, and Dr. Kennedy, who taught sociology, because they were challenging, they taught well and the subjects were very easy, though I still remember them. Sociology taught me to be more tolerant of others. And the history of art made me appreciate early American furniture and art—a joy even now.

#### When it came time for your own children to choose colleges, what advice did you give them?

Go to whatever college appeals to you. Work hard and you can learn wherever you go. Our five kids went to five different colleges.

68

# STALL AND SUPERB

World renowned, devoted to the arts and sciences and serving a diverse student body

n the vast array of American education, no group of institutions comes closer to matching the popular ideal of what higher learning should be than do the nation's 141 national liberal-arts colleges. Small in size, high in cost, rich in tradition and passionately devoted to what they call "the education of the whole man and woman," many of these colleges have achieved national and international distinction for educational quality. And measured by the objective data in the latest U.S. News edition of America's Best Colleges, these reputations are well-deserved.

Consider, for example, Swarthmore, Amherst and Williams, which finished 1-2-3 in the overall rankings for the national liberal-arts category in both this and last year's U.S. News studies. Not only were the three judged at the top of their class in the survey of academic reputation, but these judgments of their peers were supported by the objective data measuring excellence in such areas as student selectivity, faculty quality and institutional resources.

For those familiar with Swarthmore, another No. 1 ranking should come as no surprise. Woven into the fabric of both the academic curriculum and student life at Swarthmore is a guiding principle reflecting its Quaker heritage, that along with educational privilege comes inescapable social responsibility. For the 1,315 students at the suburban Philadelphia campus, the privilege of a Swarthmore education is readily apparent in its formidable teaching faculty, extensive financial resources and rich reputation as an innovator in liberal-arts education.

High honors. Typically, Swarthmore expanded its renowned honors program last year to permit more students to attend the intellectually intense, weekly seminars in their major fields of study. While there are no formal exams, students are tested on their comprehensive knowledge at the end of the senior year by outside examiners, including faculty from Yale, Princeton and Dartmouth.

But superior academic achievement is not the only emphasis at Swarthmore. With strong encouragement by the college, some 300 students work off campus each year as community volunteers in such activities as housing rehabilitation, voter registration and tutoring. Swarthmore even has set up a foundation to help pay the out-of-pocket expenses of these student volunteers. "We try to instill in our students a sense that one has a responsibility to use one's skills to better the situation of other people," says the college's president, David Fraser. Enrolling at Amherst, second on the U.S. News list, is somewhat like enrolling at five schools at once because the Massachusetts college is a member of one of the most successful of all the so-called academic consortia. Besides the rich facilities on their home campus, Amherst students also have access to those on the campuses of the other

South and the state of the stat							
ank	Overall score	Acad	ation	Student selectivity	Retention patterns	quality	Financial resources
1 Swarthmore College (Pa.)	100.0		3	<b>4</b> 5 M	in <b>, 4</b> ⊘	i≹. 1.8	1
2 Amherst College (Mass.)	99.0		1.	8/6) <b>1</b> 5		11	2
3 Williams College (Mass.)	96.5	7.7.7.7	2	2	Star 2 2	2	7
4 Pomona College (Calif.)	90,7	1	7	10	22	5	3
5 Bryn Mawr College (Pa.)	89.0	1	0	17	18	<u> </u>	9
5 Wellesley College (Mass.)	89.0	· .	5	11	10	12	11.5
7 Smith College (Mass.)	88.1		7	33	<u>.</u> 14 (	××, 7	<b>. 8</b>
8 Wesleyan University (Conn.)	87.6		8	<b>6</b> ⊘	<b>ं 5</b> े	10	24
9 Oberlin College (Ohio)	86.8		<b>4</b> -140	<b>8</b> 8	- 44	26	13
0 Grinnell College (Iowa)	85.6	1	<u>1</u>	28	52	21	4
1 Haverford College (Pa.)	85.3	. 1	3	5	<u> </u>	22	18
2 Middlebury College (Vt.)	84.9	1	4 980	20 <b>7</b> (6)	26	15	. 19
3 Bowdoin College (Me.)	84.5	1975	9	<b>3</b> '	9	24	72
4 Carleton College (Minn.)	82.7	de la composition de La composition de la c	6	14	27	41	26
5 Davidson College (N.C.)	80.5	ି 2	3	9	6	< <b>37</b>	22
6 Colgate University (N.Y.)	79.0	1	8	12	8	36	34
7 Mount Holyoke College (Mass.)	78.9	1	5 🔬	42	30	18	21
8 The Washington and Lee University (Va.)	78.2	3	3	16	39	9	27
9 Vassar College (N.Y.)	77.1	. 1	2 .	34	16	17	14
0 Trinity College (Conn.)	76.8	2	9 :: /	37 3	21	. 14	23
1 Bates College (Me.)	76.5	ं 1	<b>9</b> 2100	22	20 - 5 <b>7</b> .85	iii 63 🖄	28
11 Claremont McKenna College (Calif.)	76.5	3	<u> 4</u>	15	42	23	25
3 Colby College (Me.)	75.8	<u></u> 2	2	24	37	38	30
3 Hamilton College (N.Y.)	75.8	3	H :	31	A. 11	31.	20
5 Barnard Cotlege (N.Y.)	73.9	ें 2	<b>1</b> 20	18	18 3 <b>3</b> /	58	51

of 14, for example, is the 14th most selective school in its category of 141 national liberal-arts colleges. For a more detailed explanation of individual attributes and methodology, please see page 58.

Note: The 141 national liberal-arts colleges are the most selective liberal-arts schools in the country and award more than half their degrees in the arts and sciences.



Tammy Steinert, 19, sophomore, Swarthmore College Hometown: Hutchinson, Kans. Major: Political science Personal file: Debate team member; former Intern for Citizen Action in Washington

Aspiration: I'd like to go to graduate school, maybe to study political science or sociology, and eventually I want to go into public policy and

Finances: I'm on a full scholarship. The school is very generous; most students get some

work for a public-

advocacy group.

#### financial aid.

#### College life: It's

practically impossible to keep up with all the reading assigned, so you may as well enjoy yourself. There aren't really a lot of wild parties here, but there is plenty of socializing. This year, the school's alcohol policy will change: The Activities Fund will no longer supply beer at campus parties.

Faculty: The professors are very helpful. Since this is not a researchoriented school, the emphasis is on teaching. Sometimes it's hard to keep up, but that speaks well of the professors.

members of the group: Smith, Hampshire, Mount Holyoke and the University of Massachusetts at Amherst. As a result, Peter Pouncey, Amherst president for the past five years, can boast that his school offers "the intimacy of smallness and the opportunities of a larger system as well."

Like many other liberal-arts colleges, Amherst is engaged in an intensive review of its curriculum, reflecting a trend on American campuses toward broadening the cultural and geographic content of the course of study. Amherst, says Pouncey, has given its faculty carte blanche to review the gamut of curriculum issues, from faculty size to course

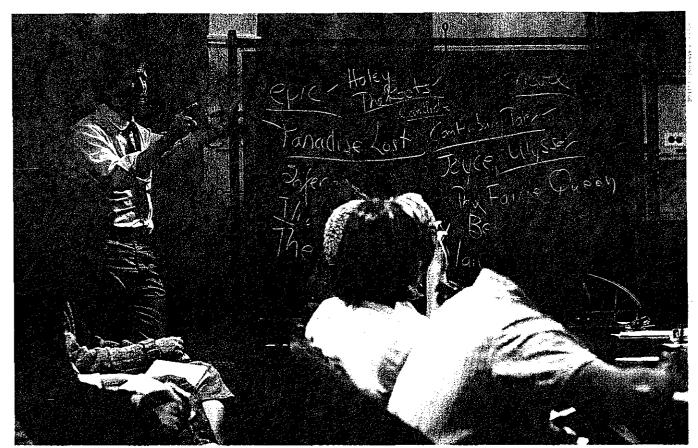
requirements, including whether there should be required subjects at all. Facing close scrutiny is the school's Introduction to Liberal Studies Program, which requires all freshmen to take one interdisciplinary course during the first semester, taught by two to five faculty members from different fields. In the past, for example, courses have included "Race and Sex," taught by professors of psychology, history and anthropology, and "Evolution and the Intellectual Revolution," taught by history, biology and chemistry faculties. The program has come under criticism because of the increasing difficulty in recruiting enough faculty to teach the courses.

Two other Massachusetts schools ranking in the top five in the U.S. News study, Williams (3) and Wellesley (tied for fifth), have already revamped their curricula to make "multicultural studies" a requirement. By 1993, the college's bicentennial year, Williams's 1,989 students, 19 percent of whom are minority-group members, will be required to take at least one course before they are seniors in either American-minority or non-Western studies. In making the change, the school noted a need to equip students "to function in a changing world," marked by rising independence movements in Third World countries and the growing prominence of those countries in the global arena, as well as by important demographic shifts in the population of the United States. Williams students should have no trouble finding a suitable course: Roughly 60 classes now offered in the college's catalog, from anthropology courses dealing with Asian, African or Latin American cultures to courses on Afro-American history, would satisfy the requirement.

In addition, Williams plans to establish a new multicultural center to provide facilities for programs promoting "appreciation" of the achievements and aspirations of America's racial, ethnic and cultural minorities. Finally, the college also is preparing to break ground for a Jewish Religious Center on its 450acre bucolic campus in the foothills of the Berkshire mountains.

With similar goals in mind, Wellesley College, one of five independent women's schools to make the list of America's 25 leading national liberal-arts colleges, began this fall to require all firstyear students to take two semester-long courses in non-Western or Native American studies. And recognizing the major role Japan plays in the world economy, the college recently expanded its Japanese language major into a full-scale program in Japanese studies. The school now offers students the opportunity to become fluent in Japanese art, literature, film and religion in addition to language.

Wellesley also is placing a major emphasis on science and computer-education courses for its 2,210 women students. It offers them the opportunity to sign up for courses at nearby Massachusetts Institute of Technology. In addition, construction will begin soon on a \$13.5 million expansion of the college's Science Center, which was opened only 12 years ago. At that time, the college offered only two introductory courses aimed at computer literacy. Today, the discipline of computer science has adwanced dramatically: Seven faculty members offer 18 courses ranging from "Artificial Intelligence" to "Computer Design." Further evidence of the popu-



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Class act. A gifted faculty is one reason Amherst College in Massachusetts has won the respect of college presidents and deans

larity of science at Wellesley: Almost a third of last year's 535 graduates were science majors.

Like Wellesley, a third of the students at Bryn Mawr (tied for fifth) are science or math majors. And to accommodate the growing numbers, a new science-lecture hall was recently opened on the Philadelphia-area campus.

But Bryn Mawr, also a women's college, is best known for producing scholars for the nation's graduate schools. The college ranks No. 1 in the nation in percentage of students who go on to earn doctoral degrees in the humanities and No. 4 in percentage of Ph.D. candidates in all subjects combined.

Another distinction for Bryn Mawr, founded by the Quakers more than a century ago, is its gray stone "collegiate Gothic" architecture. Ten of its 35 buildings are on the national historic register. "They have a very collegiate feel—just the right atmosphere for studying Victorian England," says Marguerite Beck, assistant director of public information.

Although Bryn Mawr has a relatively large minority enrollment for a private school of its size—some 26 percent of its students are Asian, black, Hispanic or American Indian—college officials are trying to heighten student appreciation for racial and ethnic diversity on the campus. To accomplish that, the school

is. To accomplish that, the school 1

this year began requiring freshmen to attend a series of "pluralism workshops," during which differences and similarities between racial and ethnic groups are highlighted. "We haven't had any major tension," says Beck, "but we want to help our students learn better ways to live in a diverse community."

Pomona College, established a century ago by Californians who hoped it would become a West Coast version of the traditional New England liberal-arts school, has fulfilled the aspirations of its founders. But Pomona, ranking fourth in the national liberal-arts category, also has developed its own traditions and ac-

> 'We offer the intimacy of smallness and the opportunities of a larger system as well'

Peter Pouncey president, Amherst College ademic innovations. It maintains an average class size of 14 and features the sort of student-faculty relationship that encourages students and professors to dine together in the campus cafeteria. And, as at Bryn Mawr, a relatively large minority enrollment—31 percent of Pomona's 1,365 students are members of minority groups—adds a healthy diversity to academic affairs and campus life.

Though it awards nearly half of its degrees in the social sciences, Pomona has instituted major changes in its curriculum to reflect a rising interest among its students in the life sciences. The college set up a concentrated program in molecular biology last year that combines elements of courses previously offered only to chemistry or biology majors. As at Amherst, Pomona's students benefit from the college's affiliation with nearby schools. The Claremont Colleges, a consortium of six neighboring schools, includes such highly regarded institutions as Scripps College and the Claremont Graduate School, enabling the combined student body of more than 4,500 to enjoy an impressive variety of facilities and resources without sacrificing their own college's special identity. The result, says Bruce Poch, Pomona's dean of admissions, is an "elasticity of size" that provides Pomona's students the best of both worlds. П

#### **REGIONAL COLLEGES AND UNIVERSITIES**

# VARIETY AND VITALITY

Mixing research and liberal arts, these schools cater to students seeking professional and occupational degrees

eyond the most-selective categories in the U.S. News study lies a vast middle ground filled with 562 public and private institutions that occupy a vital and expanding place in the complex structure of American higher education. These are the nation's regional colleges and universities, schools that offer more than 3 million students most of the wide array of liberal arts and professional programs found at the larger research institutions but often in the intimate settings of the traditional liberal-arts college. With students more likely to be drawn from a regional constituency, these colleges and universities come in all sizes, offer graduate as well as baccalaureate degrees and tend to gear their programs more toward education for specialized careers in science, technology, business and the arts. Here, by region, are those schools considered among the best in their categories:

#### North

Small in size but regarded by its peers as one of the finest undergraduate engineering schools in the nation, Worcester Polytechnic Institute in Worcester, Mass., is the top-ranking regional college among the 170 such schools in the North. Founded in 1865 as a private men's college-it began admitting women in 1968-WPI awards nearly 75 percent of its bachelor's degrees in engineering fields, ranging from traditional areas of civil and chemical engineering to high-tech majors in aerospace and nuclear studies. Worcester earned its highest marks in this year's U.S. News study for the quality of its 243-member faculty, more than 87 percent of whom hold doctorates. WPI also chooses its students wisely, as demonstrated by its high score in student selectivity: With an average freshman SAT score of 1,220, it has the highest entering test scores in the region. WPI students also benefit from the school's strong financial resources. Its per-student endow-ment income of \$1,457 is the secondhighest in the northern region.

While many colleges worry about declining enrollment in science and math, Worcester has managed to keep its enrollment of 2,600 full-time undergraduate students fairly stable, the result of energetic recruiting programs in New England and nearby states. To ensure the stability of future enrollment, WPI last year dispatched teams of students and faculty into Worcester-area public schools to help build math and science skills among elementary and secondaryschool students. The teams provided tutoring services, conducted teacher-training seminars and sponsored math and science fairs as well as computer training classes. "There has been a lot in the popular literature about the poor quality

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ank			Academic	Student	Petention	Faculty	Financial resources
1 Worcester Polytechnic Institute (Mass.)		100.0	16	12×	10.4	51F <b>2</b> 62	總計3個行
2 Villanova University (Pa.)		96.4	<u></u> 1	8	12	42	95
3 SUNY College at Geneseo (N.Y.)		95.7	30	2	5	37-	13
4 Simmons College (Mass.)		95.6	22	46	30	4	<u>. 14.</u>
5 Trenton State College (N.J.)		93.6	24	18 <b>1</b> 8	41	24	24
6 Fairfield University (Conn.)		92.6	5	3	9	22	104
7 Alfred University (N,Y.)		91.0	. 7:	<u>.</u> 28	×., 26. «	. 12 .	·> <b>28</b>
7 Providence College (R.I.)	· (.)	91.0	<b>8</b>	<u>, 6</u> , )	8		112
9 Russell Sage College (N.Y.)	d Rusha	88.7	40	67. sr	21	i)Edition	
10 Rochester Institute of Technology (N.Y.)		86.5	- 2 -	<b>70</b>	74	16	94
I1 Ithaca College (N.Y.)		86.3	- 3	61	43	28	32
12 Seton Hall University (N.J.)		85.5	4	69	39	15	59
13 University of Scranton (Pa.)		85.3	11	10	<u>118</u> 7, 1	76	81
14 Manhattan College (N.Y.)		83.6	15	38	<u>.</u> 3. (	16 <b>8</b> 00	167
15 Hood College (Md.)		83.0	9	75	36 /	29	36
<b>South</b>							
1 Wake Forest University (N.C.)		100.0	國際國家	ilian <b>1</b> 4	ં4]} <b>∃3</b> ∢	12121	<b></b> 2
2 University of Richmond (Va.)		73.5	继行 4	4	4447 <b>5</b> 4	16	30
3 Berea College (Ky.)		73.0	<b>8</b> **	6	37	15	ana <b>p</b> aist
4 James Madison University (Va.)		72.1	3	2	6	62	47
5 Rollins College (Fla.)		67.7	10		ः <b>।</b>	3	54
6 Florida International University		67.5	22	k(4): 5	663 ( <b>1</b> .)	5	27
7 The Citadel (S.C.)		65.7	《利2	32	() i 1 <b>3</b> (	9.	3 <b>5</b>
8 Stetson University (Fla.)		64.5	6	20	38	. 10	., 37
9 Appalachian State University (N.C.)		63.7	<b>11</b>	s 1 <b>3</b>	26	20	21
10 University of North Carolina at Charlotte		62.1	<b>福州</b> 7	<u>- 14</u>	42	: <b>31</b> -	33
11 University of Central Florida		61.6	思 (16)	8	34	25	42
12 Mary Washington College (Va.)	$\leq 0^{\circ} \leq 0^{\circ}$	61,1	<b>38</b>	(	12	65	41.6
13 George Mason University (Va.)		59.9	5	39	75	े <b>ं</b> 12	55
13 University of Alabama in Huntsville		59,9	13	15	78	6	40
15 East Carolina University (N.C.)	anstatu	58.2	17	62	52	8	4

of secondary education and about declining college enrollments," says John van Alstyne, a math professor who heads the program. "This is a way to deal simultaneously with both problems."

Although Pennsylvania's Villanova University came in second in the overall rankings in the region, it finished first in its category in the U.S. News survey of academic reputation. However, despite such esteem among its peers, Villanova, founded nearly 150 years ago by the Roman Catholic order of Augustinians, is not quite satisfied with its accomplishments. It would like to advance beyond its current status as a predominantly white, middle-class commuter school to create a more racially and geographically mixed residential environment on its suburban Philadelphia campus.

With those goals in mind, Villanova recently expanded recruiting beyond the six-state region from which it now draws almost 90 percent of its 6,800 full-time undergraduate students. Recruiters also are going into inner-city high schools in an effort to increase the minority enrollment, which now stands at 4.8 percent. As Charles Cherry, associate vice president for admissions, explains, "It is our feeling that there is a direct correlation between diversity on campus and the quality of an education." To make room for more residential students, Villanova is planning a \$50 million building program that will include the construction of garden-style apartments to house 1,000 students, a dining hall and other buildings on a 40-acre site adjacent to the existing campus.

	Overall	Academ		Retention	Faculty quality	Financi
1 Illinois Wesleyan University	100.0		··· 1	2	20	2
2 Creighton University (Nebr.)	96.6	4	52	· · · 14 //	<b>1</b> /	11
3 DePaul University (III.)	89.4	2	<b>B</b>	27	37	74
4 William Jewell College (Mo.)	89.2	13	3	35	45	3
5 Bradley University (III.)	89.0	20 <b>1</b>	38	5	17	72
6 Valparaiso University (Ind.)	86.6	<b>3</b>	25	13	32	27
7 St. Mary's College (Ind.)	86.2	27	13	<b>1</b>	18	. 8
8 Butler University (Ind.)	85.1	5	27	7	35	14
9 Michigan Technological University	82.9	54	17	9	12	5
10 John Carroll University (Ohio)	82.2	9	20	in mar . 3.		
11 St. Norbert College (Wis.)	80.4	10	57	12	15	23
12 University of Dayton (Ohio)	80.1	7	29 - <b>2</b> 9 -	8	41	58
13 Northeast Missouri State University	79.3	15	23	50	54	10
14 University of Detroit (Mich.)	78.5	45	35	34	G ← <b>7</b> .0	35
15 Capital University (Ohio)	78.4	80	12	创作 <b>11</b> %	(11)	32
WEST						
1 Trinity University (Tex.) 2 University of Redlands (Calif.)	100.		1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -	3.	1.	<b>.</b>
3 Santa Clara University (Calif.)	83.			6	3	14
4 Loyola Marymount University (Calif.)	82.			<b>1</b> ///	8	46
5 University of San Diego (Calif.)	77.			5	21	18
6 San Francisco State University (Calif.)	75.			11 45	9 34	90 30
7 Whittier College (Calif.)	74.		(4577)	45 10	34 6	- 30 78
7 University of Puget Sound (Wash.)	74.			14	11	27
9 California Polytechnic State University	74.			27	44	<u></u>
10 University of the Pacific (Calif.)	73.			- 27 9	- 44	
11 University of Portland (Oreg.)	71.			9 21	14	
12 Humboldt State University (Calif.)	71.			21	- 14	45
13 California State University at Fresno	71.			20 20	32	40
14 Pacific Lutheran University (Wash.)	70. 68.			13	<u>32</u> 16	74
15 California State University (Wash.)	67.			13 59	10	/4 13
we example a function of the control		•	1993 (S. 1917) 2017 (S. 1917)	<b>40</b> -2	43	10

Now To Read the Table. Rank is based on a school's total percentile score when measured in five attribute areas: Student selectivity; reputation for academic excellence; faculty quality; resources and retention, with the first three attributes counting twice as heaving as the last two. Each attribute's percentile score is weighted, then totaled and finally ranked. "Overall score," represents a school's total score converted to a percentile, with the highest score equal to 100 percent. The values that appear for individual attributes represent a school's ranking in that attribute category relative to all other schools in the school's grouping. A northern regional university with a selectivity ranking of 14, for example, is the 14th most selective school in its category of 170 northern regional colleges and universities. For a more detailed explanation of individual attributes generally award more than half their bachelor's degrees in two or more occupational or professional disciplines, such as engineering and business. Many also offer graduate degrees.

U.S.NEWS & WORLD REPORT, Oct. 16, 1989

#### South

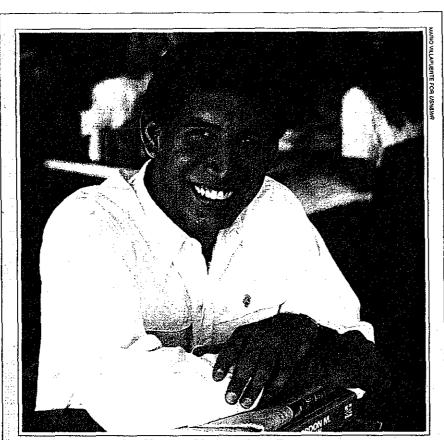
If there is a model institution in this vast "in-between" category of schools it is North Carolina's Wake Forest University. For many parents and students, "Wake," with a student body of 3,357, is the middle-ground ideal in size, range of programs and mix of tradition and innovation. Not surprisingly, no college in any of the categories or subcategories in this year's U.S. News study emerged more decisively at the top of its class than did Wake Forest. It ranked No. 1 in overall score among the 148 regional universities in the South, finishing at the top in three of the five measures of academic excellence: Academic reputation, student selectivity and faculty quality. And Wake also was second in the area of financial resources.

Wake's continuing ability to attract first-rate students and faculty as well as bountiful resources is evidenced by the construction boom now under way amid the magnolias and stately Georgian-style architecture on its 320-acre campus in suburban Winston-Salem. Nearing completion are a \$3.7 million building for the sciences that will house a physical laboratory, computer classroom, lecture halls and a research office; a massive new university student center, and a sports complex that will provide facilities for soccer, track and field, football and field hockey.

Although Wake, founded by and until recently affiliated with the Southern Baptist Convention, offers advanced degrees in medicine, law, management and the arts and sciences—a divinity school is soon to be added—the heart and soul of the university remains its rigorous liberal-arts college. Undergraduates may select majors from among 28 fields of study, ranging from accountancy and the classics to physics and theater arts, but only after a two-year program of vigorous study in the arts and sciences designed to expose students to a wide variety of disciplines. As the school tells its new students in a recruiting brochure: "You might discover a passion you hadn't expected."

As they are at Wake Forest, Baptist roots and gentle Southern tradition are hallmarks of the region's No. 2 college, the University of Richmond. Founded in 1830 as a men's seminary, the school continues to gain academic stature. largely the result of a \$50 million grant from local wealthy drug manufacturer E. Claiborne Robins. In the 20 years since the Robins gift, Richmond has used the income to upgrade its faculty-88 percent hold doctoral degrees-and its student body-median SAT scores have increased more than 150 points during the period. While the university

مصيفية كالأطهير والمصاد أتتوقر



Luis Martinez, 20, junior, Trinity University Hometown: El Paso, Tex. Major: Chemistry Personal file: President of Alpha Phi Omega, plays trombone in a jazz band

Aspiration: I'll likely pursue a Ph.D. in chemistry so I can do research, teach or both.

Student body: Students do serious studying during the week and then party hard on weekends. It's very controlled in that sense. I find my classmates bright and inquisitive. Adjustment: I had to get used to being a Mexican American in a school with about a 12% minority enrollment. My high school was 75% minority.

Faculty: Rather than feeling like a student being taught by a teacher, I feel the two of us are working together. **Concerns:** I think the students here would like the school to get more involved in the surrounding community. I also think they would like Trinity to more aggressively recruit minorities. I see some students seeking to redress these situations themselves, and would like the institution to follow suit.

once catered mainly to Virginia residents, it now attracts about 80 percent of its 2,820 undergraduates from out of state. And competition for admission has grown fierce. This year, 5,300 highschool seniors applied for 700 places in the freshman class.

With \$20 million in funding from Chicago business executive Robert S. Jepson, Jr. (Richmond '64), and his wife Alice, the university plans to open a School of Leadership Studies named in his honor. To be housed in a new, \$11million building on Richmond's 350acre wooded campus just outside the old Confederate capital, the Jepson School will have its own faculty drawn from such fields as history, psychology, political science, education and economics. They will teach not only the traditional social-science disciplines, but innovative courses such as "Values and Leadership," "Leadership in Crises" and "Entrepreneurial Leadership." Can "leadership" be taught? Jepson obviously thinks so. "Those who say it can't don't understand the world we live in," he says emphatically.

#### Midwest

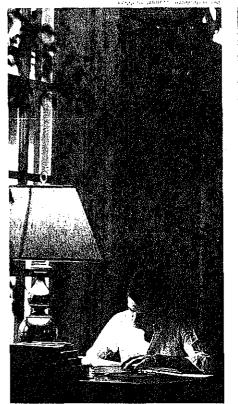
Illinois Wesleyan, the top-ranked institution among the 132 schools in this group of regional colleges and universities, has found its niche. The 139-yearold school, affiliated with the United Methodist Church, has long been noted for its wide selection of high-quality programs in business and the fine arts, and awards almost half of its bachelor's degrees in these areas. By emphasizing what it does best, Illinois Wesleyan, located in Bloomington, 130 miles southwest of Chicago, can be choosier in selecting students than can most other schools in its class. Last year, for example, 2,430 students applied for the 460 spots in the entering freshman class. And once they get there, students seem to like what they find. IWU graduates 73 percent of its entering freshmen, compared with an average of 48 percent for the other institutions in this category. To broaden the ethnic and geographic mix of its 1,700 students-minorities now make up 7 percent of the enrollment and foreign students only 2 percent-the college recently hired a full-time minority counselor and opened the International House, a student center designed to provide a living and learning experience for both American and foreign students.

Like Illinois Wesleyan, Omaha's Creighton University, ranked No. 2 in the region, is something of an academic specialist. Although the 111-year-old Jesuit school offers a large variety of undergraduate degrees in the liberal arts as well as more vocationally oriented fields such as chemistry and atmospheric science, its most popular and academically strongest programs are in health sciences and business. Together, they account for 47 percent of the 740 bachelor's degrees that the university awards each year.

Easily one of Creighton's most valuable assets is a 517-member faculty, 80 percent of whom hold doctorates, that is rated tops in the Midwest. Its professors also are among the highest paid, with salaries averaging \$55,900, compared with a national average of \$40,000 for other schools of its size.

#### West

Trinity University in San Antonio; Tex., ranked No. 1 among the West's 112 regional institutions, has made a dramatic turnaround in the past decade, evolving from what was once considered an educational country club for privileged, white suburbanites to one of the nation's most challenging and highly regarded regional universities. Since 1979, the 120-year-old Presbyterian-affiliated school has recruited more than 60 percent of its current faculty-93 percent of whom have doctorates-has raised its minority enrollment from 11.7 percent to 17.1 percent and has more than tripled its endowment from \$80 million to \$266 million, or nearly \$106,000 per student. Little wonder that Trinity attracts some of the highest caliber students in







**REGIONAL STANDOUTS** 

LOQLAND COCK FOR CSN485

Southern star. A student (top left) finds solitude in Reynolds Hall at Wake Forest, the best all-around university in its class. Midwestern winner. Highly regarded programs in business and the fine arts draw students to the Bloomington campus of first-place Illinois Wesleyan (top right). Northern leader. A student and professor put their heads together in a biology lab at top-ranking Worcester Polytechnic Institute. The school is highly regarded for its superb engineering department.

the region: Nearly 10 percent of its 2,502 students are National Merit Scholars, and more than half of the 631 entering freshmen this fall graduated in the top 10 percent of their high-school classes.

With this sort of scholastic background, Trinity graduates have little trouble getting into graduate school. Nearly 80 percent eventually enter advanced-degree programs at some of the nation's most prestigious research institutions, such as Harvard, UCLA, the University of Chicago and Vanderbilt. Among its 1989 graduates, seven won grants from the National Science Foundation and three received Young Scholar Awards from the National Endowment for the Humanities.

California's University of Redlands, No. 2 in the Western region, prides itself on what it describes as a "value-oriented curriculum," an innovative approach to the liberal arts and sciences that emphasizes individualism rather than more-traditional, standardized methods of instruction. The embodiment of the college's unique philosophy is the Johnston Center for Individualized Learning, a specialized school in which some 120 of the university's 1,340 undergraduates are encouraged to design and pursue academic programs that often cut across subject boundaries. For example, a student may wish to study the role of women in Third World cultures and design a program combining course work in history, psychology and anthropology with independent research. Students work with professors under contractual arrangements, with written evaluations but no grades. "By and large, these are students who are seeking more-creative pursuits, and they include some of our best and brightest," says Kip Rutty, director of university relations. Graduates of the program often enter "helping" professions such as teaching, social work or medical fields. They are just a fraction of the impressive 59 percent of Redlands alumni who go on to earn advanced degrees at major universities.

## **REGIONAL LIBERAL-ARTS COLLEGES MARKS OF DISTINCTION**

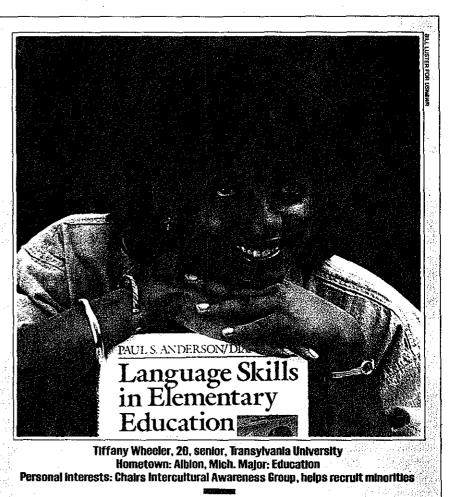
Low in cost and close to home, these small schools offer thousands of students a chance to study the arts and sciences

mall in size, largely local in reputation and generally less selective than their elite counterparts in the national liberal-arts category, the 384 schools designated as regional liberalarts colleges nevertheless fill an important role in American higher education. Because they are close to home and relatively low in cost, they often represent the door of opportunity for hundreds of thousands of middle-rung students who might otherwise never experience the intellectual challenges, and gain the benefits, of a liberal-arts education. Here, by region, are those counted among the best in this category:

#### North

By all outward appearances, one would think Maryland's St. Mary's College, first among the 74 northern schools in this category, is one of those small, private colleges that dot the East Coast. But while St. Mary's is small, with an enrollment of 1,310, it is a public college, Maryland's oldest, founded in 1840 in the state's first capital, St. Mary's City. By remaining small and devoting itself exclusively to the liberal arts, St. Mary's manages to achieve the look and feel of a more elite private institution. Classes are small, faculty members are accessible and admissions standards are relatively impressive. For example, its acceptance rate last year was 62 percent, compared with an average of 78 percent among the other northern regional liberal-arts colleges. And because it is a state school, St. Mary's does all of this at bargain prices. In-state tuition this year is \$2,100, compared with \$8,500 at some private schools of comparable size and reputation.

In many respects, second-ranked Gallaudet University in Washington, D.C., is a school of distinction. Its academic reputation is unsurpassed among colleges in its category and its faculty is rated highest in the region. Gallaudet also is the only accredited liberal-arts school in the world for the deaf. Nearly all of its 2,200 students and a third of its 279 full-time faculty members are hearing impaired. More than 80 percent of Gallaudet graduates enter managerial and professional careers and 60 percent go on to advanced degrees. Little wonder that college presi-



Aspiration: I hope to either get a job teaching next year or pursue an MA in educational administration. **College life:** There are lots of activities going on,

and many students juggle academics and outside activities. I've found a lot of opportunity to become a leader.

Adjustments: My biggest adjustment to Transy

this region; I grew up in Michigan, and the South has a different mentality. It was also an adjustment to be 400 miles from home and to be black in a school with few minorities.

Future: Transvlvania has a good reputation in this region, and it's becoming known nationwide, so I think that will help me in the future.

Faculty: The professors was coming from outside | here are accessible; they are willing to make time for students. They also join in student activities.

The decision: I wanted to attend a small school. I applied to Hope College, Albion College, Transy and University of Michigan. I liked Transy after visiting it. and when they offered me a full merit scholarship, that clinched it. I've grown a lot intellectually here. and I think I made the right choice.

	<b></b>	LLEG	E8			
NORTH	Qverall A		Student solectivity	Retention	Faculty quality	Financi
1 St. Mary's College of Maryland	100.0	6	38 <b>1</b> 80	43 🎭	12	1968 <b>-7</b> 56
2 Gallaudet University (D.C.)	98.1	1	67	37	新作品	8
3 St. Anselm College (N.H.)	97.2	3	5	4	_ 28	25
4 Westminster College (Pa.)	93.7	10	37	3	15	<u>4</u>
5 Wilson College (Pa.)	89.3	27	10	46	3	11
6 Albertus Magnus College (Conn.)	89.0 88.0	14 15	36 16	23	14 8	5 20
7 Rosemont College (Pa.) 8 St. Joseph College (Conn.)	86.7	29	9	8	9	20
9 Cedar Crest College (Pa.)	85.7	16	22	25	7	17
9 Colby Sawyer College (N.H.)	85.7	4	56	22	27	. 9
					20105	
SOUTH						
1 Transylvania University (Ky.)	100.0	3	3	19	12	8
2 Speiman College (Ga.)	98.2	11	- 1	2	7	42
3 Wofford College (S.C.)	98.1	<u></u> 1	5	(199 <b>7</b> ))	10	20
4 Converse College (S.C.)	94.7	9	20	<u>199</u> 91999	1.	14
6 Presbyterian College (S.C.)	93.2 91.4	5 16	10 	5	36 3	12
6 Wesleyan College (Ga.) 7 Berry College (Ga.)	91.4 89.7	10 2	20 47	50 48	- 5 15	5
8 Lenoir Rhyne College (N.C.)	88.6	с 7	8	40 11	27	38
9 Mary Baldwin College (Va.)	88.1	- 4	31/4	29	8	> 36
10 Kentucky Wesleyan College	84.6	27	12	3	19	16
		C C C C C C			19-16-19-2	e e gerre
MIDWEST						
1 Ohio Wesleyan University	100.0	4	12	12	2	9
2 Hillsdale College (Mich.)	95.5	<b>5</b> .,₂	27	5 <b>5</b>	10	(2; <b>7</b> );
3 Wittenberg University (Ohio)	93.7	. 1. 9	13	200884	24	
4 Hiram College (Ohio) 5 Monmouth College (III.)	93.0 86.6	12	6 24	9 57	8-2 3	18 <u>.</u> 20
6 School of the Ozarks (Mo.)	84.6	40	8	21	38	<u>جم</u> 5
7 Westminster College (Mo.)	84.2	21	18		31	15
8 University of Minnesota-Morris	83.7		4	44	33	2
9 Adrian College (Mich.)	82.1	3	40	36	40	32
10 North Park College (III.)	81.9	26	3	26	54	26
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WEST	1979)))), e (a.		(1.17),12(17)	ri(W)/ (Area	eon setrate	1996 B.
t Southwestern University (Tex.)	100.0	2	3		4	2
2 Evergreen State College (Wash.)	86.3	44.10	7	22	38	3
2 Pacific University (Oreg.) 4 Mount St. Mary's College (Calif.)	86.3 83.4	11 12	4. 	17	2	23
5 George Fox College (Oreg.)	75.3	12 3	15	2; 19	25 22	17 26
6 Texas Lutheran College	74.5	7	21	11	12 ···	27
7 Texas A&M University at Galveston	73.0	17	22	57	6	1
8 Hawaii Loa College	71.4	25	26	34	10	5
9 Phillips University (Okla.)	70.0	4	31	24	27	25
10 Holy Names College (Calif.)	69.8	42	20	29	3. A.	43
How to Read the Table. Bank is based on a school's i						
Student selectivity; reputation for academic excellence;		ity; resou	rces and		with the	first the

dents consistently rate Gallaudet among the best smaller educational institutions in the eastern United States.

Besides offering degrees in more than 40 academic programs in the arts and sciences, the 125-year-old university—its charter was signed by President Lincoln in 1864—serves tens of thousands of deaf adults and professionals in deafness-related fields nationwide through regional centers and via satellite.

Third-ranked St. Anselm College in Manchester, N.H., works hard to uphold its Benedictine tradition of equipping men and women to make "intelligent, value-centered, ethical judgments in all aspects of their lives." Rated third in the reputational survey by its academic peers, St. Anselm, like St. Mary's, accepted just 62 percent of last year's applicants. The 1,935 students at the century-old college can choose from a comparatively broad curriculum in the arts and sciences. St. Anselm prides itself on maintaining one of the leading nursing schools in northern New England at a time when more and more such institutions are closing their doors. Further demonstrating its educational vigor, the college recently raised more than \$10 million from private donors, a large amount of giving for a school so small. St. Anselm will use the money to renovate its library, increase student financial aid and provide research and study grants for its faculty.

#### South

Transylvania University, ranked No. 1 among the South's 110 regional liberal-arts schools, is as rich in history as it is in academic reputation. Founded in Kentucky's Bluegrass Region in 1780, the Christian Church-affiliated school was the first college in what was then the nation's West. Transylvania—the name means "across the woods" in Latin counts among its alumni the Confederacy's President, Jefferson Davis; Texas pioneer Stephen F. Austin and abolitionist Cassius Clay. During the Civil War, the 30-acre Lexington campus served as a hospital for Union soldiers.

Today, Transylvania is among the most selective of the smaller liberal-arts colleges in the South. Seventy-nine percent of last year's incoming freshman class finished in the top 25 percent of their graduating classes, while entering test scores were the highest in the region in this category. The school's 1,031 students may select from 22 degree programs, from anthropology to physics, and 35 percent of its graduates go on to earn advanced degrees.

Atlanta's Spelman College, No. 2 in the region, is the only predominantly black-women's school to rank among the nation's best colleges. Even though

it is primarily a regional institution. drawing 44 percent of its 1,742 students from the Southeast, its reputation for academic quality draws students from 38 states and six foreign countries. And from a record 3,334 applicants, Spel-man accepted just 833 new freshmen this fall, making it the most selective liberal-arts school in the South. Students at the 32-acre campus also have access to facilities of four other area. colleges-Morehouse, Clark Atlanta, Morris Brown and Atlanta Universityall members of a consortium. As further evidence of its rising stature, Spelman recently received a \$25-million grant from entertainer Bill Cosby, one of the largest gifts ever given to a traditionally black institution.

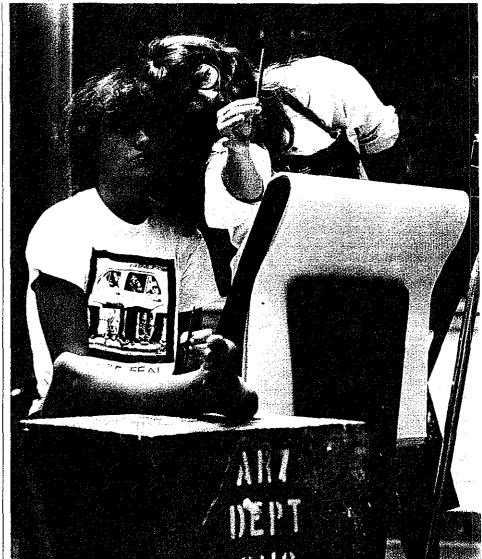
Ask Southern educators to name the region's leading school in the humanities, and chances are many would select Wofford College in Spartanburg, S.C., ranked third over all among Southern liberal-arts schools. Its strong humanities program, combining elements of traditional courses in English, history, fine arts, foreign language, religion and philosophy, was built during the 1970s. largely with funding from the National Endowment for the Humanities. One lasting innovation is a semester-long seminar, required of all freshmen, in which students sharpen their writing skills on interdisciplinary topics ranging from "Evolution and Darwinism" to "The Sixties Revisited."

#### Midwest

Ohio Wesleyan University in Delaware, Ohio, ranked No. 1 among the region's 136 liberal-arts colleges, prides itself in having found what it considers just the right blend of academic and non-academic programs. Besides offering 38 majors in the arts and sciences, the college provides its 1,842 undergraduates with an array of opportunities for community work, from tutoring disadvantaged high-school students to helping to provide medical care to homeless people in nearby Columbus. The aim, says Don Bishop, dean for enrollment management, is to help Wesleyan students "develop a set of values and ethics to live by."

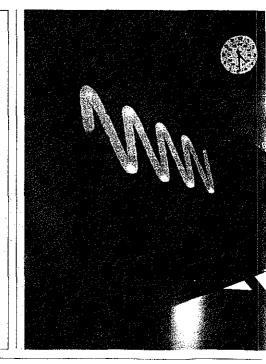
Yet, academic performance remains the prime priority at the 147-year-old United Methodist college. Thanks to tightened admissions standards in recent years, Ohio Wesleyan has significantly raised the quality of its students. "Half of our graduates last spring would not have been admitted to the 1989 freshman class," Bishop says.

Independent thinking has long been part of the liberal-arts mission at Michigan's Hillsdale College, ranked No. 2 in the Midwest. Founded in 1844, the pri-



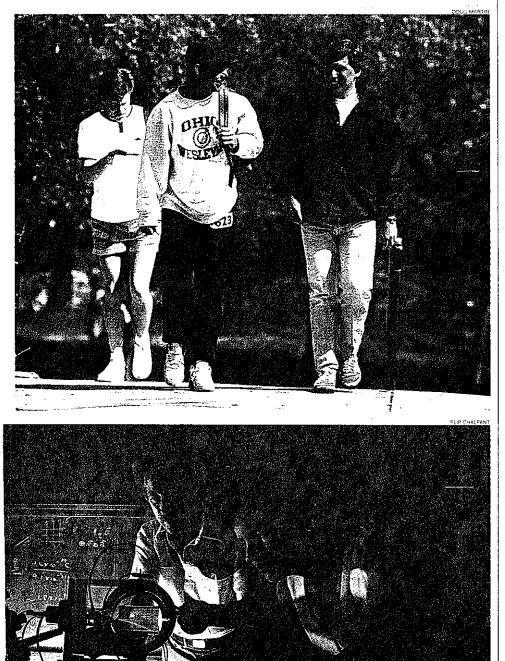
#### **LIBERAL** ARTS STARS

Northern achiever. Art students, above, get a little perspective during a drawing class at St. Mary's College of Maryland, the top-ranked regional liberal-arts college in the North. Midwestern model. By tightening its admissions standards and raising the quality of its student body, Ohio Wesleyan, above right, propelled itself to the top spot among its midwestern peers. Southern beliwether. Sophisticated computer and science labs, such as the modern-physics lab pictured are common fixtures on the campus of Southwestern University in Georgetown, Tex. The 149-yearold university, one of the most modern in its category, is the undisputed leader in the west



south of Detroit, relinquished all government support and since has relied solely on private funding. However, its strong academic reputation remains intact. Some 97 percent of Hillsdale's graduates go on to earn advanced degrees or to begin careers in business and industry.

tion pledge. Rather than yield to what it At third-ranked Wittenberg Universiviewed as federal intervention, the college, located in Hillsdale, 100 miles affairs have always been popular. And



they soon may become even more popular when the school's 2,200 undergraduates are offered the opportunity to apply for studies in the Soviet Union. The Lutheran-affiliated college is a member of a consortium of 30 institutions sponsoring an exchange with the Soviets. As part of the program, two Soviet students are attending Wittenberg this year.

A new emphasis at the 144-year-old school is volunteerism. Starting this year, Wittenberg sophomores will be required to perform 30 hours of community service such as tutoring, elderly care or environmental cleanup.

#### West

By a wide margin, Southwestern University in Georgetown, Tex., was rated tops among the 65 liberal-arts colleges in the West. It scored in the top five in all five academic attributes: Reputation, selectivity, retention, faculty quality and resources.

Founded by Methodists in 1840, it is the oldest university in Texas. Yet its 75acre campus north of Austin is among the most modern in the region: Its 1,139 full-time students, nearly a third of whom pursue degrees in business or science, have ready access to sophisticated science and computer labs throughout the campus. Even the college's seven dormitories are equipped with personal computers.

Washington State's Evergreen State College, ranked second, has always been free spirited. Founded in 1971 in a woods outside Olympia, its first students included a lot of "hippie types" who preferred a less structured-and ungraded-approach to studying the liberal arts. Little has changed. While the school now awards bachelor's degrees in everything from creative writing to marine biology, there are no formal majors and still no grades. Its faculty teamteaches a multidisciplinary core of subjects and gives written evaluations of students' work. Despite its nonconformity, Evergreen's academic reputation is rated tops in the region by college presidents and deans.

Third-ranked Pacific University tries to live up to its name. Although its enrollment is only 802, it has made the Pacific Rim its specialty. The 140-yearold college, founded and affiliated with the United Church of Christ, offers the only approved program in Oregon for training teachers of the Japanese language. Pacific is about to set up a similar course in Chinese. The language-education programs coincide with the establishment a year ago of an Intercultural Institute at the school that sponsors seminars, student and faculty exchanges and cultural studies focused on Pacific Rim nations.

U.S.NEWS & WORLD REPORT, Oct. 16, 1989

# COLLEGES FOR SPECIFIC NEEDS

#### Students of business, engineering, the arts and the military can call these schools their own

No othing better illustrates the richness of American higher education than do the nation's specialty schools, which award more than half their degrees in single, specialized fields such as business, engineering and the arts. By and large, students who enroll at these institutions already have decided on the careers they want to pursue and by and large feel no need for the broader range of courses available at less specialized schools.

Because they are relatively small in number, U.S. News did not include the specialized schools in this year's reputational survey. However, objective data was collected on the four other attributes used to measure academic quality: Student selectivity, faculty quality, student-retention rates and academic resources. Based on those measures, here are some of the ranking schools in each of four educational areas.

#### Engineering

Ranking either first, second or third in each of the four measures of academic quality gave Harvey Mudd College, a member of California's famous Claremont Colleges consortium, the top rating among 18 specialized engineering schools. In addition to engineering, the college offers baccalaureate degrees in biology, chemistry, mathematics and physics as well as a fifth-year Master of Engineering degree. A young school, founded in 1955, its 524 students are among the nation's brightest young technical and scientific scholars: The composite SAT score of last year's freshman class, 1,370, was second highest in the nation. And its 58-member full-time faculty, all of whom hold doctorates, is rated tops in its category.

#### **Business and management**

An exceptionally strong faculty, stringent admission standards and a high student-retention rate explain Babson College's standing. The Wellesley, Mass., school is ranked No. 1 among the nation's 24 specialized business schools that are not affiliated with larger colleges or universities. Ninety-five percent of Babson's 110-member full-time faculty earned doctorates or the equivalent. Half of the school's entering freshmenlast year graduated in the top 25 percent of their high-school classes. And, if past performance is an indication of the future, 84 percent will graduate within five years. Although virtually all of its 16 degree-granting programs are in business-related disciplines, the school requires students to take 40 percent of their course work in the liberal arts.

#### Art, music and design

Few schools in any category in the survey are as choosy about their students as is New York City's Juilliard School, a name that has become almost synonymous with music education. Located in the Lincoln Center arts complex, Juilliard admits only one out of every seven applicants, an acceptance rate equal to that of Harvard and Princeton. First-rate scholastic records is but one requirement. To become one of Juilliard's fortunate 490 full-time students, applicants also must perform at often intimidating auditions before a panel of faculty members. And probably no alumni association anywhere else includes as many famous names as Juilliard, whose graduates include such prominent musical talents as violinist Itzhak Perlman and opera diva Leontyne Price.

#### The service academies

They reject a higher percentage of applicants and graduate a higher proportion of those who enter their freshman classes than do any other group of schools in the nation. Because they are in a class by themselves in resources, faculty, curriculum, student life, physical rigors, rules and regulations, the five

service academies were not included among any of the categories in the overall U.S. News survey. But consider what sets them apart: A guaranteed backing by the federal government that will bring this year's overall budget for the five schools to about \$651 million; a first-rate and highly paid faculty-\$50,800 is the average annual salary for Naval Academy professors; good students-the average SAT score among entering plebes at the Naval Academy this year was 1,255, and 83 percent of the Air Force Academy's first-year students finished in the top 10 percent of their high-school classes. Indeed, the service academies easily outrank many of their civilian counterparts and clearly belong among America's best colleges. Π



U.S.NEWS & WORLD REPORT, Oct. 16, 1989

#### **BARGAINS AND BREAKTHROUGHS**

## SCHOOLS WORTH A CLOSER LOOK

Here are several top colleges and universities that don't cost a fortune, as well as some that may be better than you think

n the groves of academe, nothing grows more slowly than reputation or more quickly than tuition prices. The tables below take both factors into account, highlighting those up-andcoming schools whose images may not yet have caught up to their campus realities as well as those schools that already are ranked at the top of their classes for academic excellence but whose tuitions have remained well below Ivy League prices.

Although tuitions at many top-ranked private national universities have soared

beyond \$13,000 a year, many excellent public universities are still within reach of the average family. One year of tuition at Harvard or Yale, for example, buys two years at the University of California at Los Angeles, ranked 16th among national universities. And while the cost differences are less dramatic for top-ranked national liberal-arts schools, they are substantial just the same. Swarthmore and Amherst, for example, cost about one third more than Washington and Lee University, also rated among the best in its category. This year, for the first time, U.S.News asked college presidents, deans and administrators to identify those schools whose recent educational innovations and improvements made them "up-and-coming" in their categories. These rising stars of American higher education have been propelled upward by a mixture of grants, alumni contributions and the energies of enlightened leadership. For parents and students looking for the hidden gems of academe, the list below is an excellent place to start the search.

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	BEST BUYS	andara 1992 - State State State (1997) 1983 - State State State (1997)
top-ra	ges and universities have the lowest t nked schools in each category. For pu re figures reflect 1989-90 out-of-state	blic schools.
	NATIONAL UNIVERSITIES	
1 Universi 2 Universi 3 Rice Uni 4 Universi 5 Universi	ty of North Carolina at Chapel Hill ty of California at Los Angeles iversity (Tex.) ty of Virginia ty of California at Berkeley	\$4,930 \$5,799 \$6,100 \$7,060 \$7,470
1 Washing 2 Davidso 3 Grinnell 4 Wellesle 5 Claremo	NATIONAL LIBERAL-ARTS COLLEGE tion and Lee University (Va.) n College (N.C.) College (Nacs.) y College (Mass.) nt McKenna College (Calif.) REGIONAL COLLEGES AND UNIVERST	\$10,100 \$10,867 \$11,424 \$12,300 \$12,800
	REGIONAL COLLEGES AND UNIVERSIT	TIES .
NORTH		
1 Irenton 2 SUNY C SOUTH	State College (N.J.)	
1 Berea C 2 Universi	ollege (Ky.) ty of Alabama at Huntsville	
1 Northea 2 Michiga West	st Missouri State University n Technological University	\$2,658 \$5,447
1 Californi	ia State University at Sacramento dt State University (Calif.)	\$4,536 \$5,446
an Martin Statistics and a	REGIONAL LIBERAL-ARTS COLLEGE	
NORTH		60.00
2 St. Mary south	et University (D.C.) /'s College of Maryland	\$3,700
2 Spelmai		
1 Universi 2 Westmir	ty of Minnesota at Morris ister College (Mo.)	
WEST	en State College (Wash:) &M University at Galveston	

UP-AND	COMERS
were most often named as	vey, these colleges and universities "up-and-comers" by college and admissions officers.
NATIONAL I	UNIVERSITIES
Arizona State University Carnegie Mellon University (Pa.) Emory University (Ga.) Rutgers, State University of New University of Arizona University of California at San Di	
NATIONAL LIBER	AL-ARTS COLLEGES
Centre College (Ky.) Colorado College Drew University (N.J.)	Earlham College (Ind.) Macalester College (Minn.) Rhodes College (Tenn.)
REGIONAL COLLEGE	S AND UNIVERSITIES
NORTH Towson State University (Md.) University of Hartford (Conn.) SOUTH College of Charleston (S.C.) Georgia Southern College Kennesaw State College (Ga.) Samford University (Ala.) University of North Carolina at Asheville	MUNIEST Buena Vista College (Iowa) College of Saint Thomas (Minn.) WEST San Diego State University (Calif.) University of Nevada at Las Vegas Western Washington University
REGIONAL LIBER	AL-ARTS COLLEGES
NORTH Bradford College (Mass.) Trinity College (D.C.)	Manwest Alverno College (Wis.) Simpson College (Iowa)
sourn Huntingdon College (Ala.) Roanoke College (Va.)	west Grand Canyon University (Ariz.) Oklahoma Baptist University
1,294 four-year colleges. Respondents were as their own academic category, based on "recent	The share the second

AMERICA SILSI COLLERS

**JUNIOR COLLEGES** 

## ACADEMIA'S OTHER HALF

More than 2 out of 5 college students now attend two-year schools. Here are some of the best

he numbers are astonishing. In more than four decades since twoyear colleges became widely recognized as an essential element of American higher education, their enrollment has grown from some 500,000 to more than 5.3 million. Today, more than 40 percent of America's 13.1 million college students attend one of the nation's 1,211 two-year schools. By the end of the century, juniorcollege enrollment is expected to top 6 million students, or nearly half the college-going population. Little wonder then that educational philosopher and author John Gardner, has called the community college "the greatest educational invention of the 20th century.'

Indeed, community colleges, once shunned as little more than post-graduate vocational schools for those unable to make the grade at "real colleges," are becoming a global model for democratic higher education in the 21st century. Low in cost, rich in variety, close to home and accessible to almost all, the best community colleges provide unmatched opportunity for those in search of upgrading their skills and for societies desperately in need of such talents. Even as technologically advanced a society as Japan's is demonstrating increasing interest in the educational potential of these uniquely American institutions.

Focused neither on research nor on faculty, the community college gears itself almost entirely to the educational needs of students. These needs, says Dale Parnell, president of the Washingtonbased American Association of Community and Junior Colleges (AACJC), revolve around six key functions:

• Training in computer electronics, nursing, optometry, pharmacology and scores of other technical skills.

• Helping to equip workers for specific jobs in the local community through partnership programs with businesses.

Providing an academic foundation for students who want to transfer to fouryear colleges or universities.

• Recruiting those who might otherwise never think of going to college.

• Meeting the educational needs of the physically, socially or economically disadvantaged student.

Offering literacy education for adults.

With guidance from the AACJC, U.S. News consulted junior-college experts across the country who helped to identify those two-year schools with outstanding programs in one or more of the six crucial areas. Here are some of the schools the experts considered worthy of inclusion in America's Best Colleges:

#### **Technical education**

South Carolina's Greenville Technical College has won national acclaim for its "2-plus-2" program. The joint effort with area high schools guides 11th and 12th graders through courses that prepare them for technical jobs. Hundreds enter the high-school program each year and about 80 percent go on either to Greenville Tech, often with advanced standing, or directly into industry. "Everyone benefits," says 2-plus-2 program coordinator Ed Henderson. "Students are better prepared, employers get more highly skilled workers and the local economy is made stronger."

Concern over rising dropout rates at area high schools last year prompted Lord Fairfax Community College, in



**Storybook ending.** Kathy Howell (left), an instructor in the adult-literacy program at Bristol Community College in Fall River, Mass., helps Emily Smith (center) fulfill a longtime dream: To read to her five-year-old grandson. Maurice Quinones

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AMERICA S DEST COMMONS



**Corporate classroom.** Employes of Ethicon Inc., a medical-supply firm, get a lesson in dealing with change from instructor Mary Ann Lohmueller, of Raymond Walters College in Cincinnati

Middletown, Va., to begin its own 2plus-2 program in technical education. This fall the college enrolled the first 120 students who completed the high-school phases of the program and hopes that it will soon help bring down the dropout rate. "We felt we could prevent some of the dropping out if we could help students begin planning for careers earlier," says Marilyn Beck, president of the 19year-old school.

Michigan's Kalamazoo Valley Community College has taken 2-plus-2 a step further by beginning the program in the 9th grade. The idea is to help students planning to enter computer or other high-tech fields to get a stronger foundation in math and science.

#### College-employer partnerships

State Technical Institute at Memphis, Tennessee's largest public two-year college, administers a business-funded scholarship program that pays tuition and fees for technical students who enroll in courses leading to two-year degrees in such areas as business, computer technology and technical engineering. Although there are no firm commitments, State Tech grads usually land jobs with their business benefactors. State Tech also runs a computer center that last year provided training to some 3,000 employes of local firms, and it helps train auto-service technicians for area Ford and Nissan dealerships.

Raymond Walters College in Cincinnati offers classes to local employes of General Electric, Ford Motor Company and Ethicon, a medical-supply-manufacturing subsidiary of Johnson & Johnson. The companies pay employes' tuition for courses ranging from industrial and computer-related subjects to English, speech and the humanities. Many of the classes are conducted at the plants.

When recession and foreign competition began pummeling Detroit's auto industry, Macomb Community College, in suburban Warren, launched a training program in coordination with the area's car makers and parts suppliers. Workers who still had jobs were able to upgrade their skills, while workers without jobs were retrained.

Since then, the college has refined its program and now offers a wide assortment of highly technical courses, from "geometric dimensioning" to computerized quality control, as well as such academic subjects as math and reading, both on campus and at local factories. During the past four years, the college has trained or retrained more than 6,300 workers representing 65 companies.

#### **Recruitment and retention**

Faced with declining enrollment, including a 53 percent drop among blacks, Miami-Dade Community College last year began an intensive effort to recruit students, especially minorities, to its four Miami-area campuses. Faculty and staff began regular visits to area high schools, setting up information booths to answer questions about the college and to counsel students on the value of a college education. To raise its visibility in multi-ethnic Miami, the college sponsored a series of conferences on teen pregnancy, crime and drug abuse. The result was a 20 percent boost in total enrollment and an 18.2 percent enrollment increase among blacks. Today, Miami-Dade is the nation's largest community college, with more than 70,000 students, a third of whom graduated in the top 10 percent of their high-school class. To help keep students enrolled, Miami-Dade assigns one faculty adviser to every four students, an unusually low ratio, especially for a community college. If a student's grade average falls below a B, the faculty adviser is alerted. Explains Conchy Bretos, director of enrollment and retention: "We want to catch problems and tackle them early.'

At Maryland's Prince George's Community College in suburban Washington, officials have reduced the attrition rate from 40 percent to 22 percent by matching students with mentors and in-

structing incoming freshmen in college survival. To avoid anticipated enrollment declines, Illinois' Kankakee Community College began sponsoring conferences and holding. Career Days at area junior-high schools to make an early impression on younger students. Enrollment has grown slightly as a result.

#### Transfer programs

At a time when many two-year colleges report that fewer than a third of their students plan to go on to four-year schools, many institutions are beating the odds. At California's Santa Barbara City College, for example, preparing students to transfer to four-year schools is a top priority. The school works closely with the state's universities to design courses and schedules to help ensure that successful students will be accepted into the four-year schools. Minority students get additional counseling. As a result of these and other programs, SBCC two years ago transferred more students-493-to the University of California's campuses than did any other community college in the state. It also led in the number of minority transferees. "Transferring in Califor-nia is difficult," says Keith McLellan, acting dean of student development. "But the time has never been better to come to a community college for students going on to four-year degrees."

Three years ago, Colorado ordered its 15 two-year colleges and 11 four-year schools to establish formal transfer agreements. Typically, one of the twoyear-schools, Colorado Mountain College, in Glenwood Springs, has worked

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out arrangements with six four-year institutions. These include an innovative program in conjunction with Western State College of Colorado, a four-year school in Gunnison. It enables students who are interested in the ski business to earn a technical degree at CMC in resort management or fitness technology and, after a "bridge" semester of basic academic work, move to Western to earn a bachelor's degree in two years.

#### **Education for special populations**

Skagit Valley College in Mount Vernon, Wash., pioneered a program that helps displaced homemakers re-enter the work force. Women are taught how to identify their own skills, select careers, write résumés, interview for jobs and build self-confidence. "The need is tremendous, but so are the transformations," says Sharon Johnson, assistant dean for special populations. "They come in timid, with no self-worth, and end up blossoming, getting jobs and going on with their lives." Since 1987, more than 1,000 women have participated in the program. And of 225 graduates, 96 percent are now either in the work force or are getting additional training.

An award-winning program at John Wood Community College in Quincy, Ill., provides tuition grants, child care, tutoring and other special services to students with physical, emotional or 'The time has never been better to come to a community college for students going on to fouryear degrees'

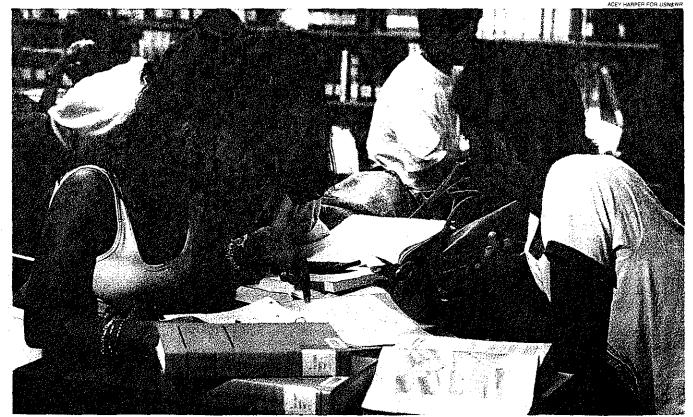
Keith McLellan, dean of students Santa Barbara City College

learning disabilities. Students are put through daily coaching and are allowed to enroll without charge in classes aimed at preparing them to hold down regular jobs. Often, college counselors even line up trial jobs for students.

#### Adult basic education

High rates of adult illiteracy in Mecklenburg County, N.C., five years ago prompted officials at Central Piedmont Community College in Charlotte to rethink their methods for teaching adults. "We concluded that even if we could reach every illiterate adult, traditional methods were too time-consuming and we would never have an impact," says Thomas Griffin, dean of basic studies. So Griffin and others developed a program using computers that lets students learn at their own pace. Adult learning facilities were established at a local shopping mall to ensure accessibility. "We found many adults advancing much faster than the 150 hours it normally takes to move up one grade level in reading or math," says Griffin. The program now is offered at five other sites and reaches more than 1,000 students a year. First Lady Barbara Bush has visited the school twice to honor adult-education volunteers.

In Fall River, Mass., where nearly 65 percent of adults have no high-school diploma and many are non-English-speaking immigrants, Bristol Community College is making similar inroads into adult illiteracy. The college offers instruction to some 1,700 adults a year in basic English, reading and math, using small groups and personal tutors both on and off campus. Emily Smith, a 38year-old grandmother who was unemployed and unable to read before she enrolled, is a typical BCC adult-education student. Smith, who now works at the tenants' association office in her public housing project, has studied for 11 months with a college tutor and can read well enough to help her neighbors understand their leases. "It's made a world of difference," says Smith. "I only regret I didn't start sooner."



Hitting the books. Richard McLean, Stella Castro (left) and Laura Young tackle a math assignment in the library of Miami-Dade Community College. The nation's largest community college, Miami-Dade is known for its efforts to recruit minorities