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America's system of higher education is the best in the world. That is because there is no system

IT IS all too easy to mock American academia. Every week produces a mind-boggling example of intolerance or wackiness. Consider the twin stories of Lawrence Summers, one of the world's most distinguished economists, and Ward Churchill, an obscure professor of ethnic studies, which unfolded in parallel earlier this year. Mr Summers was almost forced to resign as president of Harvard University because he had dared to engage in intellectual speculation by arguing, in an informal seminar, that discrimination might not be the only reason why women are under-represented in the higher reaches of science and mathematics. Mr Churchill managed to keep his job at the University of Boulder, Colorado, despite a charge sheet including plagiarism, physical intimidation and lying about his ethnicity.

With such colourful headlines, it is easy to lose sight of the real story: that America has the best system of higher education in the world. The Institute of Higher Education at Shanghai's Jiao Tong University ranks the world's universities on a series of objective criteria such as the number of Nobel prizes and articles in prestigious journals. Seventeen of the top 20 universities in that list are American (see table 1, previous page); indeed, so are 35 of the top 50. American universities currently employ 70% of the world's Nobel prize-winners. They produce about 30% of the world's output of articles on science and engineering, according to a survey conducted in 2001, and 44% of the most frequently cited articles.

At the same time, a larger proportion of the population goes on to higher education in America than almost anywhere else, with about a third of college-aged people getting first degrees and about a third of those continuing to get advanced degrees. Non-traditional students also do better than in most other countries. The majority of undergraduates are female; a third come from racial minorities; and more than 40% are aged 25 or over. About 20% come from families with incomes at or below the poverty line. Half attend part-time, and 80% of students work to help support themselves.

Why is America so successful? Wealth clearly has something to do with it.

America spends more than twice as much per student as the OECD average (about \$22,000 versus \$10,000 in 2001), and alumni and philanthropists routinely shower universities with gold. History also plays a part. Americans have always had a passion for higher education. The Puritans established Harvard College in 1636, just two decades after they first arrived in New England.

The main reason for America's success, however, lies in organisation. This is something other countries can copy. But they will not find it easy-particularly if they are developing countries that are bent on state-driven modernisation.

The first principle is that the federal government plays a limited part. America does not have a central plan for its universities. It does not treat its academics as civil servants, as do France and Germany. Instead, universities have a wide range of patrons, from state governments to religious bodies, from fee-paying students to generous philanthropists. The academic landscape has been shaped by rich benefactors such as Ezra Cornell, Cornelius Vanderbilt, Johns Hopkins and John D. Rockefeller. And the tradition of philanthropy survives to this day: in fiscal 2004, private donors gave \$24.4 billion to universities.

Limited government does not mean indifferent government. The federal government has repeatedly stepped in to turbocharge higher education. The Morrill Land Grant Act of 1862 created land-grant universities across the country. The states poured money into community colleges. The GI Bill of 1946 brought universities within the reach of everyone. The federal government continues to pour billions of dollars into science and research.

The second principle is competition. Universities compete for everything, from students to professors to basketball stars. Professors compete for federal research grants. Students compete for college bursaries or research fellowships. This means that successful institutions cannot rest on their laurels.

The third principle is that it is all right to be useful. Bertrand Russell once expressed astonishment at the worldly concerns he encountered at the University of Wisconsin: "When any farmer's turnips go wrong, they send a professor to investigate the failure scientifically." America has always regarded universities as more than ivory towers. Henry Steele Commager, a 20th-century American historian, noted of the average 19th-century American that "education was his religion"-provided that it "be practical and pay dividends".

This emphasis on "paying dividends" remains a prominent feature of academic culture. America has pioneered the art of forging links between academia and industry. American universities earn more than \$1 billion a year in royalties and licence fees. More than 170 universities have "business incubators" of some sort, and dozens operate their own venture funds.

There is no shortage of things to marvel at in America's higher-education

system, from its robustness in the face of external shocks to its overall excellence. No country but America explores such a wide range of subjects (including some dubious ones such as GBLT-gay, lesbian, bisexual and transgender studies). However, what particularly stands out is the system's flexibility and its sheer diversity.

For a demonstration of its flexibility, consider New York University. NYU used to be a commuter school with little money and even less prestige. In the mid-1970s, it was so close to bankruptcy that it had to sell off its largest campus, in the Bronx. But today it is flush with money from fund-raising, "hot" with would-be undergraduates across the country, and famous for recruiting academic superstars. The Shanghai world ranking puts it at number 32.

The academic superstars certainly helped, but two other things proved even more useful. The first was NYU's ability to turn its location in downtown Manhattan into an asset. Lots of universities have fine economics departments, but having the stock exchange nearby adds something extra. The second was the university's ability to spot market niches.

What made all this possible was the fact that power is concentrated in the hands of the central administration. Most universities in other countries distribute power among the professors; American universities have established a counterbalance to the power of the faculty in the person of a president, which allows some of them to act more like entrepreneurial firms than lethargic academic bodies.

The American system's diversity has allowed it to combine excellence with access by providing a wide range of different types of institutions. Only about 100 of America's 3,200 higher-education institutions are research universities. Many of the rest are community colleges that produce little research and offer only two-year courses. But able students can progress from a humble two-year college to a prestigious research university.

To be fair, one reason why America's best universities are so good is that they have borrowed liberally from abroad-particularly from the British residential universities that grew up in Oxford and Cambridge in the Middle Ages, and from Wilhelm von Humboldt's German research university in the early 19th century.

But America's academic paradise harbours plenty of serpents. The political correctness that has plagued Mr Summers is just one example of a deeper problem: America's growing inclination to abandon the very principles that have made it a world leader.

Ross Douhat has recently created a stir with his exposé of Ivy League education, "Privilege: Harvard and the Education of the Ruling Class".

High-school students compete furiously to get into Ivy League universities such as Harvard, but Mr Douthat, who graduated from there only three years ago, argues that they are seldom stretched when they arrive. A few professors try to provide overviews of big subjects, but many stick with their pet subjects regardless of what undergraduates need to learn. Mr Douthat wanted to pick a comprehensive list of classes in his chosen subjects, history and literature, but ended up with a weird mish-mash taught by "unengaged professors and overburdened teaching assistants". Looking back on his experience, he feels cheated.

He is not alone. In many ways, undergraduates are the stepchildren of American higher education. Most academics pay more attention to research than to teaching, and most universities continue to neglect their core curriculums in the name of academic choice.

From time to time, universities try to improve the lot of the undergraduate, as Mr Summers is currently doing at Harvard: reforming the core curriculum, taming grade inflation and asking professors to concentrate on teaching rather than self-promotion. But reformers are fighting in hostile territory. The biggest rewards in academic life are reserved for research rather than teaching, not least because research is easier to evaluate; and most students are willing to put up with indifferent teaching so long as they get those vital diplomas.

Complaints about the neglect of undergraduate education are as old as the research university, but the past few years have produced a host of new criticisms of American universities. The first is that universities are no longer as devoted to free inquiry as they ought to be. The persecution of Mr Summers for the sin of intellectual rumination is symptomatic of a wider problem. At a time when America's big political parties are deeply divided over profound questions, from the meaning of "life" to the ethics of pre-emptive war, university professors are overwhelmingly on the side of one political party. Only about 10% of tenured professors say they vote Republican. The liberal majority has repeatedly shown that it is willing to crush dissent on anything from speech codes to the choice of subjects worth studying.

There are signs that scientists, too, are turning against free and open inquiry, though for commercial rather than ideological reasons. Corporate sponsors are attaching strings to their donations in order to prevent competitors from free-riding on their research, such as forcing scientists to delay publication or even blank out crucial passages from published papers. When Novartis, a Swiss pharmaceutical giant, agreed to invest \$25m in Berkeley's College of Natural Resources, for example, it stipulated that it should get a first look at much of the research carried out by the plant and microbial biology department.

The second criticism is that America's universities are pricing themselves

out of the range of ordinary Americans. Between 1971-72 and 2002-03, annual tuition costs, in constant 2002 dollars, rose from \$840 to \$1,735 at public two-year colleges and from \$7,966 to \$18,273 at private four-year colleges. True, the federal government spends over \$100 billion a year on student aid, and elite universities make every effort to subsidise poorer students. One study of admissions to selective colleges shows that, in 2001-02, students with a median family income paid only 34% of the "sticker" price.

Still, the sheer relentlessness of academic inflation is worrisome. Elite colleges have little incentive to compete on price; indeed, they tend to compete by adding expensive accoutrements, such as star professors or state-of-the-art gyms, thus pushing up the cost of education still further. And the public universities that played such a valiant role in providing opportunities to underprivileged students are being forced to raise their prices, thanks to the continual squeeze on public funding. The average cost of tuition at public universities rose by 10.5% last year, four times the rate of inflation.

The dramatic rise in the price of American higher education puts a heavy burden on middle-class families who are too rich to qualify for special treatment. It also sends negative signals to poorer parents who may be unaware of all the subsidies available. Deborah Wadsworth, an opinion pollster, points out that universities may be courting a popular backlash. Americans increasingly regard universities as the gatekeepers to good jobs, but they also see them as prohibitively expensive. The result is a steady erosion of public admiration for these formerly much-esteemed institutions.

This points to a third criticism: that universities are becoming bastions of privilege rather than instruments of social mobility. From the 1930s onwards, America's great universities did much to realise the American creed of equality of opportunity. James Bryant Conant, Harvard's president from 1933 to 1953, opened up scholarships to academic merit, and the vast post-war expansion of higher education extended Conant's meritocratic principle to millions of students. "Flagship" public universities such as Michigan, Texas and Berkeley, California, provided world-class education for next to nothing.

But the march of academic meritocracy has now slowed to a crawl, and, on some fronts, has even turned into a retreat. William Bowen of Princeton University and two colleagues, in a study of admissions to elite universities, found that in the 11 universities for which they had the best data, students from the top income quartile increased their share of places from 39% in 1976 to 50% in 1995. Students from the bottom income quartile also increased their share very slightly: the squeeze came in the middle.

Mr Summers points out that Harvard now offers free tuition to students whose families earn less than \$40,000 a year, and greatly reduced fees to students from families earning \$40,000-60,000. Other elite universities have followed

suit. Yet at the same time those universities give priority to athletes, people applying early (who often come from privileged backgrounds) and the children of alumni ("legacies"). Duke University encourages the offspring of wealthy parents to apply early and considers their applications sympathetically.

The real threat to meritocracy, however, comes not from within the universities but from society at large. One consequence of the squeeze on funding for public universities, created by Americans' reluctance to pay taxes, has been an academic brain drain to the more socially exclusive private universities. In 1987, seven of the 26 top-rated universities in the US News & World Report rankings were public institutions; by 2002, the number had fallen to just four.

The biggest risk to American higher education is the erosion of the competitive principle. The man often cited as the architect of American academia's current success is Vannevar Bush, who was director of the office of scientific research and development during the second world war. After the war he insisted that research grants be allocated to universities on the basis of open competition and peer review. But in the 1980s universities began undermining this principle by lobbying their local congressmen for direct appropriations. In 2003, the amount of money from the federal research budget awarded on a non-competitive basis topped \$2 billion, up from \$1 billion in 2000.

American academia's merits still outweigh its faults. Many American undergraduates are savvy enough to get a first-class education. Many academics resist the temptation to censor ideological minorities. The vast bulk of research grants are allocated on the basis of merit. Yet American universities are acquiring a growing catalogue of bad habits that could one day leave them vulnerable to competitors from other parts of the world-though probably not from Europe, which has overwhelming academic problems of its own.