

Keeping up with the Joneses

Massive financial endowments allow the top US universities to offer the best salaries and conditions in the academic world. David Adam asks how their British counterparts can close the gap.

Rich heritage: but Cambridge (above) manages on a fraction of Harvard's (right) budget.

It was the sort of comment that any British university researcher could have made over a cup of coffee. But when Neil Rudenstine, the outgoing president of Harvard University, told a seminar at his university earlier this year that Britain's higher education system was going from "a disaster to a nightmare", his remarks did not go unnoticed. Unfortunately for Rudenstine, they found their way into the British press and provoked outraged complaints.

Rudenstine may not be thanked for pointing it out, but many within Britain's universities agree with his sentiments. Britain's top institutions produce high-quality research — the government's Office of Science and Technology estimates that British researchers publish 8% of the world's science papers with only 4.7% of the world's research investment —

but they lag behind their wealthy US rivals when it comes to salaries and research facilities. Universities in most other developed countries suffer from a similar wealth gap. But in Britain, used to trading on a tradition of excellence founded by Oxford and Cambridge, concerns about universities' ability to compete are particularly acute.

"We punch above our weight, but we hang on by a thread," says Richard Sykes, non-

executive chairman of the drugs company GlaxoSmithKline, who took over as rector of London's Imperial College earlier this year. Unless the gap is closed, many fear that British universities will lose out in the competition for the best students and researchers. And with the government unlikely to provide enough extra investment, a variety of different funding models are being mooted.

The difference between funding in Britain and the United States is significant. Private US universities such as Harvard get the bulk of their income from tuition fees and the return on their endowment funds. Harvard's \$19-billion endowment, the largest in the United States, yields \$500 million each year. Yale, Princeton and Stanford each have endowments of over \$6 billion. Top public institutions, such as the University of California, Berkeley, benefit from generous state and federal funding, which allows them to compete with their private rivals.

Poor relations

For the private US universities, much of this wealth comes from donations from former students, a trend almost unknown in Britain. Oxford and Cambridge — the wealthiest British universities by a considerable margin — have respective endowments of around £500 million (US\$723 million) and £650 million. Imperial College and University College London — two of the other universities that are most able to com-

pete on a world stage — both have endowments of less than £100 million.

Top British universities can still fight their corner in generating income from government, charities and industry to fund research projects. Oxford's external research income was about £130 million during the past year, which compares favourably with that of US giants such as Harvard, says David Holmes, the university's registrar.

But researchers at US institutions earn considerably more than their British counterparts, and have much better provision for research equipment. Differences in grading structures and funding arrangements make direct comparisons difficult, but this year, the top of the university-lecturer pay scale in Britain was about £40,000 — towards the low end of what someone in an equivalent position in the United States could expect.

British universities have also been stretched to breaking point by a rapid, but underfunded, expansion in student numbers over the past 15 years. And bringing the infrastructure back up to scratch, as well as making salaries internationally competitive, will not be cheap.



Neil Rudenstine had a nightmare vision for Britain.

AP



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A recent study by Universities UK, the London-based representative body for British universities, estimated that, in terms of teaching requirements, the higher education system is underfunded by around £900 million per year, and that a similar sum is needed on the research side. “We have managed to stay competitive so far, but the present situation is unsustainable and needs urgent review,” says Diana Warwick, the organization’s chief executive.

Over the next two years, the government is providing £1 billion to improve research infrastructure and around £280 million to improve pay and retain key researchers. But with even the most optimistic observers accepting that the government will not commit to a long-term increase in university funding, the search is on for alternatives.

Pay as you learn

Allowing market forces to dictate the price of places on different courses at different institutions is one suggestion. At present, the government forbids any university to charge more than £1,075 per year in tuition fees for full-time undergraduates. Deregulating the system could benefit the top universities, who could use the high demand for places to push up tuition fees.

But such a plan would be controversial. The introduction of tuition fees in 1998 increased concerns that the cost of higher education is deterring applicants from low-income families — the long-standing system of maintenance grants for students was already being phased out in favour of loans. The government currently helps poorer students with tuition fees, but it may be unwilling to meet the full cost of deregulated fees.

“There is evidence from the United States that the high cost of university education deters applicants from low-income and socially excluded groups,” says Claire Callender, a social-policy researcher at South Bank University in London. Worries over this issue have already led the Scottish parliament to scrap tuition fees for Scottish students attending the country’s universities.

One alternative is to make students pay for their courses once they graduate and start earning a salary above a certain level. By setting the contributions high enough, university income could be raised without increasing direct investment from the government. But payments could only be secured from new graduates. In the meantime, extra government money would be needed.

A third option — and the one favoured by

the opposition Conservative party — is to free universities from some state control by endowing them with the proceeds from future state-privatization programmes. Funding for research would still come from the government, but teaching grants, which currently stand at several tens of millions of pounds per year, would be replaced by the interest on a university’s endowment.

An independent source of income would appeal to many universities, but the funds required are huge. Universities UK estimates that £24 billion would be needed to create endowments to cover the current teaching income of the 12 universities with the largest government-funded research programmes.

Of these options, a mixture of deregulation and endowment schemes is likely to appeal to the top British institutions. And regardless of whatever changes the government may choose to make, reports suggest that some universities — including Oxford and Cambridge — are already making plans to abandon state funding and move towards a US model based on building up an endowment and setting their own tuition fees.

The subject is “on the agenda nationally”, Holmes admits, but the situation is a complicated one. “We would welcome as much financial independence as we can achieve without a doubt,” he says. “But we’re highly constrained by government policy at present and it’s a highly political question.”

Two-tier system

The threat of deregulation poses a problem for the British government, as any break-away group charging higher tuition fees would effectively create a two-tier system: a major headache for a government claiming to be committed to widening access to higher education for people from less privileged backgrounds. So far, the government looks unlikely to raise the tuition fees it imposed, publicly stating that they will remain capped for the duration of this parliament.

But a restructuring may be inevitable. There are 111 publicly funded universities in Britain, each competing for funds and students. According to Sykes, only a few should be expected to compete on an international stage. “There is no question you are going to see a dichotomy,” he says.

Such comments might be expected from the head of an elite institution, but some others outside the system agree that more diversification is needed. “Someone who is a world-class teacher of the most able students



Top UK universities such as Oxford (left) and Imperial need to find more money.

and a researcher working in a group with a global reputation can reasonably expect greater remuneration,” says Peter Cotgreave, director of pressure group Save British Science.

But not everyone thinks further diversification within the sector is a

good idea. According to Callender, deregulation of tuition fees could reinforce the social divisions within universities. “Students from low-income families are already less likely to apply to top British institutions,” she says. “This could make the system even more elitist.” Callender suggests that a better funded and more extensive version of the current bursary scheme, perhaps paid for by employers and industry as well as the government, could go some way to addressing the problem. The United States already has a well established bursary system, which allows many students from low-income families to attend private institutions such as Harvard.

Rob Copeland, education policy research officer for the Association of University Teachers, the trade union for British university lecturers, points out that there is already some flexibility in both funding and salaries. Links with business are rewarded financially and top universities can pay some staff higher salaries through localized pay scales.

Avoiding charges of elitism while allowing Britain’s universities to compete with their US rivals looks likely to prove a difficult juggling act for the British government. Unless other alternatives are pursued, the top institutions may take the matter into their own hands. The British system may not yet have turned from a disaster to a nightmare, but it does seem stuck between a rock and a hard place.

David Adam is a News and Features writer for Nature.



Diana Warwick believes an urgent review is needed.