

view from the top amanda goodall

Research universities flourish on scholarship not management

The share of Nobel prizes going to European universities compared with US institutions has declined considerably. Between 1960 and 2007 just fewer than 100 prizes in chemistry, biology, physics and economics were awarded to scholars from Germany, France and the UK—the main recipient nations in the first half of the 20th Century. During this time, 250 prizes went to researchers in the US. And the gap continues to widen.

This year, 11 scholars became Nobel laureates in medicine, physics, chemistry and economics. The majority, eight, are based in US institutions. Looking back to the first half of the 20th Century only 28 medicine, physics or chemistry Nobel prizes went to US universities. But since 1951, 260 have been awarded to scholars working in the US.

This all has little to do with a laureate's nationality. Credit should lie with the institutions that attract these brilliant thinkers. What is it that differentiates the top US research universities from their European counterparts?

I have become interested in the question of whether it matters to the performance of a research university if the president, vice-chancellor or rector has been a highly cited scholar. I began to answer the question by using the Shanghai Jiao Tong global ranking to identify the leaders of the world's top 100 universities. If the best institutions—arguably with the widest choice of candidates—appear to select more cited researchers as leaders, this could be evidence that good scholars make the most effective heads.

The data was persuasive. I found a strong positive correlation between the lifetime research citations of a university's president and the position of that university in the global ranking. The higher the university in the international league table, the higher the number of lifetime citations of its leader. Notably, this statistically significant pattern existed for the subset of 51 US institutions. However, for the 49 non-US universities, the pattern disappears. In other words, US research universities are selecting their leaders differently.

Next, I went beyond simple cross-section correlations to try to address questions of causality—to ask, do better scholars actually improve their universities? I looked at the performance of a university, and went back to examine the characteristics of its leader a number of years earlier. My performance measure was the UK Research Assessment Exercise. I uncovered evidence consistent with

the existence of a causal relationship between the research ability of a leader and the future performance of his or her university. Those universities that improved most in the RAE over a decade were, overwhelmingly, led by outstanding scholars. Universities led by weaker scholars declined relative to the average.

The attention paid in my research to a leader's technical ability is in contrast to recent emphasis on the managerial skills of university heads. Over the past two decades, politicians in a number of countries have sought to introduce a business or "managerialist" culture into the public sector. Often specialists have ceded power to generalists. In the UK, universities have been exposed to a range of management practices, and academics have experienced the pressures of external accountability and a continuous cycle of performance monitoring and quality audits.

Universities rely on expert workers to generate research, and disseminate it through teaching and publication. Leaders who are also experts are more likely to create the conditions under which such specialists will thrive.

America's top universities not only house Nobel prize winners, many are also led by them and other outstanding scholars. The Nobel prize winning biologist Paul Nurse left England for New York to become Rockefeller University's ninth president. David Baltimore, who stood down as president of the California Institute of Technology in 2006, is also a Nobel prize winner, as is J Michael Bishop, chancellor of the University of California, San Francisco—another recipient institution this year. The list goes on. It is undoubtedly beneficial for the US that so many outstanding scholars reside there. It may not, however, be so good for the rest of us.

My underlying assumption is that the world needs outstanding research universities. Apart from the unquantifiable good that comes from research, there appears to be a positive additional effect on economic growth from the overspill that universities generate. My research suggests that leaders matter to the performance of universities. It has also shown that the best research institutions in the world hire top scholars as leaders. This is because, to quote one UK vice-chancellor, "what matters is scholarship, not management".

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